

# APPENDIX E

Laboratory Certificate of Analysis on CD

Your Project #: 160900764  
 Site#: CLARINGTON TS-SURFACE WATER  
 Site Location: CLARINGTON TS-SURFACE WATER  
 Your C.O.C. #: 556057-02-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/21**  
 Report #: R3968421  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674089**

**Received: 2016/04/14, 11:30**

Sample Matrix: Water  
 # Samples Received: 1

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	1	N/A	2016/04/18	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	1	2016/04/15	2016/04/16	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	1	N/A	2016/04/21	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	1	N/A	2016/04/16	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2016/04/18	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	1	N/A	2016/04/19		EPA 8260C m
Chloride by Automated Colourimetry	1	N/A	2016/04/18	CAM SOP-00463	EPA 325.2 m
Conductivity	1	N/A	2016/04/16	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	1	N/A	2016/04/15	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	1	N/A	2016/04/15	CAM SOP-00457	OMOE E3015 m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2016/04/19	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (3)	1	2016/04/19	2016/04/19	CAM SOP-00316	CCME PHC-CWS m
Fluoride	1	2016/04/15	2016/04/16	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2016/04/18	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2016/04/16	2016/04/19	CAM SOP-00453	EPA 7470A m
Lab Filtered Metals Analysis by ICP	1	2016/04/15	2016/04/18	CAM SOP-00408	EPA 6010C m
Total Metals Analysis by ICPMS	1	N/A	2016/04/19	CAM SOP-00447	EPA 6020A m
Total Ammonia-N	1	N/A	2016/04/20	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (4)	1	N/A	2016/04/18	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl (PCB)	1	2016/04/19	2016/04/19	CAM SOP-00309	EPA 8082A m
pH	1	N/A	2016/04/16	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	1	N/A	2016/04/18	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	1	N/A	2016/04/18		
Sat. pH and Langelier Index (@ 4C)	1	N/A	2016/04/18		
Sulphate by Automated Colourimetry	1	N/A	2016/04/18	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids	1	N/A	2016/04/19	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (5)	1	N/A	2016/04/18	CAM SOP-00446	SM 22 5310B m
Total Phosphorus (Colourimetric)	1	2016/04/18	2016/04/18	CAM SOP-00407	SM 4500 P B H m
Total Suspended Solids	1	N/A	2016/04/18	CAM SOP-00428	SM 22 2540D m

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**MAXXAM JOB #: B674089**

**Received: 2016/04/14, 11:30**

Sample Matrix: Water  
 # Samples Received: 1

Analyses	Date		Laboratory Method	Reference
	Quantity	Extracted		
Turbidity	1	N/A	2016/04/14 CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	1	N/A	2016/04/18 CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (4) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (5) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
 Deepthi Shaji, Project Manager  
 Email: dshaji@maxxam.ca  
 Phone# (905)817-5700 Ext:5807

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**RCAP - SURFACE WATER (WATER)**

Maxxam ID		CEO697	CEO697		
Sampling Date		2016/04/13 15:10	2016/04/13 15:10		
COC Number		556057-02-01	556057-02-01		
	UNITS	WS-160900764- 20160413-AM01	WS-160900764- 20160413-AM01 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>					
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	260		1.0	4457008
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.6		1.0	4457008
Hardness (CaCO3)	mg/L	360		1.0	4456935
Langelier Index (@ 20C)	N/A	1.09			4457005
Langelier Index (@ 4C)	N/A	0.844			4457006
Saturation pH (@ 20C)	N/A	6.93			4457005
Saturation pH (@ 4C)	N/A	7.18			4457006
<b>Inorganics</b>					
Total Ammonia-N	mg/L	<0.050		0.050	4461862
Conductivity	umho/cm	700		1.0	4459165
Total Organic Carbon (TOC)	mg/L	3.2		0.20	4461636
Orthophosphate (P)	mg/L	<0.010		0.010	4460407
pH	pH	8.02			4459166
Total Phosphorus	mg/L	0.063		0.004	4461135
Dissolved Sulphate (SO4)	mg/L	39		1.0	4460408
Turbidity	NTU	13		0.2	4458482
Alkalinity (Total as CaCO3)	mg/L	260		1.0	4459164
Dissolved Chloride (Cl)	mg/L	41		1.0	4460405
Nitrite (N)	mg/L	<0.010		0.010	4459994
Nitrate (N)	mg/L	0.74		0.10	4459994
<b>Metals</b>					
Dissolved Calcium (Ca)	mg/L	120	120	0.05	4459669
Dissolved Magnesium (Mg)	mg/L	12	12	0.05	4459669
Dissolved Potassium (K)	mg/L	2	2	1	4459669
Dissolved Sodium (Na)	mg/L	18	18	0.5	4459669
Total Aluminum (Al)	mg/L	0.68		0.0050	4463250
Total Antimony (Sb)	mg/L	<0.00050		0.00050	4463250
Total Arsenic (As)	mg/L	<0.0010		0.0010	4463250
Total Barium (Ba)	mg/L	0.061		0.0020	4463250
Total Beryllium (Be)	mg/L	<0.00050		0.00050	4463250
Total Boron (B)	mg/L	0.028		0.010	4463250
Total Cadmium (Cd)	mg/L	<0.00010		0.00010	4463250
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					



**RCAP - SURFACE WATER (WATER)**

Maxxam ID		CEO697	CEO697		
Sampling Date		2016/04/13 15:10	2016/04/13 15:10		
COC Number		556057-02-01	556057-02-01		
	UNITS	WS-160900764- 20160413-AM01	WS-160900764- 20160413-AM01 Lab-Dup	RDL	QC Batch
Total Calcium (Ca)	mg/L	120		0.20	4463250
Total Chromium (Cr)	mg/L	<0.0050		0.0050	4463250
Total Cobalt (Co)	mg/L	<0.00050		0.00050	4463250
Total Copper (Cu)	mg/L	0.0013		0.0010	4463250
Total Iron (Fe)	mg/L	0.83		0.10	4463250
Total Lead (Pb)	mg/L	0.00092		0.00050	4463250
Total Magnesium (Mg)	mg/L	12		0.050	4463250
Total Manganese (Mn)	mg/L	0.053		0.0020	4463250
Total Molybdenum (Mo)	mg/L	<0.00050		0.00050	4463250
Total Nickel (Ni)	mg/L	<0.0010		0.0010	4463250
Total Phosphorus (P)	mg/L	<0.10		0.10	4463250
Total Potassium (K)	mg/L	2.0		0.20	4463250
Total Selenium (Se)	mg/L	<0.0020		0.0020	4463250
Total Silicon (Si)	mg/L	4.2		0.050	4463250
Total Silver (Ag)	mg/L	<0.00010		0.00010	4463250
Total Sodium (Na)	mg/L	16		0.10	4463250
Total Strontium (Sr)	mg/L	0.40		0.0010	4463250
Total Thallium (Tl)	mg/L	<0.000050		0.000050	4463250
Total Titanium (Ti)	mg/L	0.040		0.0050	4463250
Total Uranium (U)	mg/L	0.00061		0.00010	4463250
Total Vanadium (V)	mg/L	0.0016		0.00050	4463250
Total Zinc (Zn)	mg/L	0.011		0.0050	4463250
Total Zirconium (Zr)	mg/L	<0.0010		0.0010	4463250
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		CEO697	CEO697		
<b>Sampling Date</b>		2016/04/13 15:10	2016/04/13 15:10		
<b>COC Number</b>		556057-02-01	556057-02-01		
	<b>UNITS</b>	<b>WS-160900764- 20160413-AM01</b>	<b>WS-160900764- 20160413-AM01  Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>					
Acidity as CaCO <sub>3</sub>	mg/L	15		10	4459140
Total Dissolved Solids	mg/L	408	440	10	4461795
Fluoride (F <sup>-</sup> )	mg/L	<0.10		0.10	4459159
Free Cyanide	ug/L	<2		2	4458987
Total Suspended Solids	mg/L	29		10	4461792
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		CEO697		
<b>Sampling Date</b>		2016/04/13 15:10		
<b>COC Number</b>		556057-02-01		
	<b>UNITS</b>	<b>WS-160900764- 20160413-AM01</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>				
Chromium (VI)	ug/L	<0.50	0.50	4458279
Mercury (Hg)	mg/L	<0.0001	0.0001	4460416
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)**

<b>Maxxam ID</b>		CEO697		
<b>Sampling Date</b>		2016/04/13 15:10		
<b>COC Number</b>		556057-02-01		
	<b>UNITS</b>	<b>WS-160900764- 20160413-AM01</b>	<b>RDL</b>	<b>QC Batch</b>
<b>PCBs</b>				
Aroclor 1016	ug/L	<0.01	0.01	4463033
Aroclor 1221	ug/L	<0.01	0.01	4463033
Aroclor 1232	ug/L	<0.01	0.01	4463033
Aroclor 1262	ug/L	<0.01	0.01	4463033
Aroclor 1268	ug/L	<0.01	0.01	4463033
Aroclor 1242	ug/L	<0.01	0.01	4463033
Aroclor 1248	ug/L	<0.01	0.01	4463033
Aroclor 1254	ug/L	<0.01	0.01	4463033
Aroclor 1260	ug/L	<0.01	0.01	4463033
Total PCB	ug/L	<0.01	0.01	4463033
<b>Surrogate Recovery (%)</b>				
Decachlorobiphenyl	%	77		4463033
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

<b>Maxxam ID</b>		CEO697	CEO697		
<b>Sampling Date</b>		2016/04/13 15:10	2016/04/13 15:10		
<b>COC Number</b>		556057-02-01	556057-02-01		
	<b>UNITS</b>	<b>WS-160900764- 20160413-AM01</b>	<b>WS-160900764- 20160413-AM01  Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
<b>BTEX &amp; F1 Hydrocarbons</b>					
F1 (C6-C10)	ug/L	<25	<25	25	4463765
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	4463765
<b>F2-F4 Hydrocarbons</b>					
F2 (C10-C16 Hydrocarbons)	ug/L	<100		100	4463329
F3 (C16-C34 Hydrocarbons)	ug/L	<200		200	4463329
F4 (C34-C50 Hydrocarbons)	ug/L	<200		200	4463329
Reached Baseline at C50	ug/L	Yes			4463329
<b>Surrogate Recovery (%)</b>					
1,4-Difluorobenzene	%	100	100		4463765
4-Bromofluorobenzene	%	98	98		4463765
D10-Ethylbenzene	%	114	115		4463765
D4-1,2-Dichloroethane	%	97	98		4463765
o-Terphenyl	%	100			4463329
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

<b>Maxxam ID</b>		CEO697		
<b>Sampling Date</b>		2016/04/13 15:10		
<b>COC Number</b>		556057-02-01		
	<b>UNITS</b>	<b>WS-160900764- 20160413-AM01</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Semivolatile Organics</b>				
1,2,4-Trichlorobenzene	ug/L	<0.1	0.1	4459033
1-Methylnaphthalene	ug/L	<0.2	0.2	4459033
2,4,5-Trichlorophenol	ug/L	<0.2	0.2	4459033
2,4,6-Trichlorophenol	ug/L	<0.2	0.2	4459033
2,4-Dichlorophenol	ug/L	<0.1	0.1	4459033
2,4-Dimethylphenol	ug/L	<0.5	0.5	4459033
2,4-Dinitrophenol	ug/L	<2	2	4459033
2,4-Dinitrotoluene	ug/L	<0.3	0.3	4459033
2,6-Dinitrotoluene	ug/L	<0.3	0.3	4459033
2-Chlorophenol	ug/L	<0.1	0.1	4459033
2-Methylnaphthalene	ug/L	<0.2	0.2	4459033
3,3'-Dichlorobenzidine	ug/L	<0.5	0.5	4459033
Acenaphthene	ug/L	<0.2	0.2	4459033
Acenaphthylene	ug/L	<0.2	0.2	4459033
Anthracene	ug/L	<0.05	0.05	4459033
Benzo(a)anthracene	ug/L	<0.05	0.05	4459033
Benzo(a)pyrene	ug/L	0.01	0.01	4459033
Benzo(b,j)fluoranthene	ug/L	<0.05	0.05	4459033
Benzo(g,h,i)perylene	ug/L	<0.05	0.05	4459033
Benzo(k)fluoranthene	ug/L	<0.05	0.05	4459033
Biphenyl	ug/L	<0.1	0.1	4459033
Bis(2-chloroethyl)ether	ug/L	<0.5	0.5	4459033
Bis(2-chloroisopropyl)ether	ug/L	<0.5	0.5	4459033
Bis(2-ethylhexyl)phthalate	ug/L	<1	1	4459033
Chrysene	ug/L	<0.05	0.05	4459033
Dibenz(a,h)anthracene	ug/L	<0.1	0.1	4459033
Diethyl phthalate	ug/L	<0.1	0.1	4459033
Dimethyl phthalate	ug/L	<0.1	0.1	4459033
Fluoranthene	ug/L	<0.2	0.2	4459033
Fluorene	ug/L	<0.2	0.2	4459033
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	0.1	4459033
Naphthalene	ug/L	<0.2	0.2	4459033
p-Chloroaniline	ug/L	<1	1	4459033
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

<b>Maxxam ID</b>		CEO697		
<b>Sampling Date</b>		2016/04/13 15:10		
<b>COC Number</b>		556057-02-01		
	<b>UNITS</b>	<b>WS-160900764- 20160413-AM01</b>	<b>RDL</b>	<b>QC Batch</b>
Pentachlorophenol	ug/L	<0.1	0.1	4459033
Phenanthrene	ug/L	<0.1	0.1	4459033
Phenol	ug/L	<0.5	0.5	4459033
Pyrene	ug/L	<0.05	0.05	4459033
<b>Calculated Parameters</b>				
Methylnaphthalene, 2-(1-)	ug/L	<0.28	0.28	4457174
<b>Surrogate Recovery (%)</b>				
2,4,6-Tribromophenol	%	53		4459033
2-Fluorobiphenyl	%	71		4459033
D14-Terphenyl (FS)	%	94		4459033
D5-Nitrobenzene	%	84		4459033
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>		CEO697	CEO697		
<b>Sampling Date</b>		2016/04/13 15:10	2016/04/13 15:10		
<b>COC Number</b>		556057-02-01	556057-02-01		
	<b>UNITS</b>	<b>WS-160900764- 20160413-AM01</b>	<b>WS-160900764- 20160413-AM01  Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50		0.50	4457021
<b>Volatile Organics</b>					
Acetone (2-Propanone)	ug/L	<10	<10	10	4458853
Benzene	ug/L	<0.20	<0.20	0.20	4458853
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	4458853
Bromoform	ug/L	<1.0	<1.0	1.0	4458853
Bromomethane	ug/L	<0.50	<0.50	0.50	4458853
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	4458853
Chlorobenzene	ug/L	<0.20	<0.20	0.20	4458853
Chloroform	ug/L	<0.20	<0.20	0.20	4458853
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	4458853
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4458853
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4458853
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4458853
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	4458853
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	4458853
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	4458853
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	4458853
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4458853
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4458853
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	4458853
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	4458853
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	4458853
Ethylbenzene	ug/L	<0.20	<0.20	0.20	4458853
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	4458853
Hexane	ug/L	<1.0	<1.0	1.0	4458853
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	4458853
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	4458853
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	4458853
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	4458853
Styrene	ug/L	<0.50	<0.50	0.50	4458853
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4458853
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CEO697	CEO697		
Sampling Date		2016/04/13 15:10	2016/04/13 15:10		
COC Number		556057-02-01	556057-02-01		
	UNITS	WS-160900764- 20160413-AM01	WS-160900764- 20160413-AM01  Lab-Dup	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4458853
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	4458853
Toluene	ug/L	<0.20	<0.20	0.20	4458853
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	4458853
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	4458853
Trichloroethylene	ug/L	<0.20	<0.20	0.20	4458853
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	4458853
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	4458853
p+m-Xylene	ug/L	<0.20	<0.20	0.20	4458853
o-Xylene	ug/L	<0.20	<0.20	0.20	4458853
Total Xylenes	ug/L	<0.20	<0.20	0.20	4458853
<b>Surrogate Recovery (%)</b>					
4-Bromofluorobenzene	%	101	100		4458853
D4-1,2-Dichloroethane	%	100	97		4458853
D8-Toluene	%	99	100		4458853
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					

### TEST SUMMARY

**Maxxam ID:** CEO697  
**Sample ID:** WS-160900764-20160413-AM01  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/18	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4459033	2016/04/15	2016/04/16	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457021	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4458279	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463765	N/A	2016/04/19	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463329	2016/04/19	2016/04/19	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4456935	N/A	2016/04/18	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Lab Filtered Metals Analysis by ICP	ICP	4459669	2016/04/15	2016/04/18	Azita Fazaeli
Total Metals Analysis by ICPMS	ICP/MS	4463250	N/A	2016/04/19	Kevin Comerford
Total Ammonia-N	LACH/NH4	4461862	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459994	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl (PCB)	GC/ECD	4463033	2016/04/19	2016/04/19	Sarah Huang
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/18	Brad Newman
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/18	Brad Newman
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids	BAL	4461795	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Phosphorus (Colourimetric)	LACH/P	4461135	2016/04/18	2016/04/18	Sarabjit Raina
Total Suspended Solids	BAL	4461792	N/A	2016/04/18	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458853	N/A	2016/04/18	Xueming Jiang

**Maxxam ID:** CEO697 Dup  
**Sample ID:** WS-160900764-20160413-AM01  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463765	N/A	2016/04/19	Georgeta Rusu
Lab Filtered Metals Analysis by ICP	ICP	4459669	2016/04/15	2016/04/18	Azita Fazaeli
Total Dissolved Solids	BAL	4461795	N/A	2016/04/19	Gurpreet Kaur
Volatile Organic Compounds in Water	GC/MS	4458853	N/A	2016/04/18	Xueming Jiang

**GENERAL COMMENTS**

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

Package 1	0.0°C
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**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458853	4-Bromofluorobenzene	2016/04/18	101	70 - 130	101	70 - 130	101	%				
4458853	D4-1,2-Dichloroethane	2016/04/18	100	70 - 130	99	70 - 130	99	%				
4458853	D8-Toluene	2016/04/18	99	70 - 130	100	70 - 130	97	%				
4459033	2,4,6-Tribromophenol	2016/04/16	94	50 - 130	91	50 - 130	66	%				
4459033	2-Fluorobiphenyl	2016/04/16	65	50 - 130	63	50 - 130	71	%				
4459033	D14-Terphenyl (FS)	2016/04/16	94	50 - 130	89	50 - 130	91	%				
4459033	D5-Nitrobenzene	2016/04/16	75	50 - 130	83	50 - 130	91	%				
4463033	Decachlorobiphenyl	2016/04/19	82	60 - 130	69	60 - 130	73	%				
4463329	o-Terphenyl	2016/04/19	100	60 - 130	100	60 - 130	97	%				
4463765	1,4-Difluorobenzene	2016/04/19	100	70 - 130	100	70 - 130	101	%				
4463765	4-Bromofluorobenzene	2016/04/19	98	70 - 130	100	70 - 130	99	%				
4463765	D10-Ethylbenzene	2016/04/19	108	70 - 130	107	70 - 130	117	%				
4463765	D4-1,2-Dichloroethane	2016/04/19	96	70 - 130	98	70 - 130	99	%				
4458279	Chromium (VI)	2016/04/15	104	80 - 120	96	80 - 120	<0.50	ug/L	NC	20		
4458482	Turbidity	2016/04/14			99	85 - 115	<0.2	NTU	NC	20		
4458853	1,1,1,2-Tetrachloroethane	2016/04/18	92	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
4458853	1,1,1-Trichloroethane	2016/04/18	89	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458853	1,1,2,2-Tetrachloroethane	2016/04/18	93	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4458853	1,1,2-Trichloroethane	2016/04/18	89	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458853	1,1-Dichloroethane	2016/04/18	88	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458853	1,1-Dichloroethylene	2016/04/18	92	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4458853	1,2-Dichlorobenzene	2016/04/18	89	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458853	1,2-Dichloroethane	2016/04/18	91	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4458853	1,2-Dichloropropane	2016/04/18	88	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4458853	1,3-Dichlorobenzene	2016/04/18	88	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458853	1,4-Dichlorobenzene	2016/04/18	89	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4458853	Acetone (2-Propanone)	2016/04/18	99	60 - 140	106	60 - 140	<10	ug/L	NC	30		
4458853	Benzene	2016/04/18	88	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458853	Bromodichloromethane	2016/04/18	90	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4458853	Bromoform	2016/04/18	95	70 - 130	102	70 - 130	<1.0	ug/L	NC	30		
4458853	Bromomethane	2016/04/18	82	60 - 140	87	60 - 140	<0.50	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458853	Carbon Tetrachloride	2016/04/18	93	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4458853	Chlorobenzene	2016/04/18	92	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4458853	Chloroform	2016/04/18	90	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4458853	cis-1,2-Dichloroethylene	2016/04/18	89	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458853	cis-1,3-Dichloropropene	2016/04/18	96	70 - 130	99	70 - 130	<0.30	ug/L	NC	30		
4458853	Dibromochloromethane	2016/04/18	93	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
4458853	Dichlorodifluoromethane (FREON 12)	2016/04/18	101	60 - 140	110	60 - 140	<1.0	ug/L	NC	30		
4458853	Ethylbenzene	2016/04/18	89	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4458853	Ethylene Dibromide	2016/04/18	91	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458853	Hexane	2016/04/18	91	70 - 130	105	70 - 130	<1.0	ug/L	NC	30		
4458853	Methyl Ethyl Ketone (2-Butanone)	2016/04/18	103	60 - 140	109	60 - 140	<10	ug/L	NC	30		
4458853	Methyl Isobutyl Ketone	2016/04/18	95	70 - 130	101	70 - 130	<5.0	ug/L	NC	30		
4458853	Methyl t-butyl ether (MTBE)	2016/04/18	91	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4458853	Methylene Chloride(Dichloromethane)	2016/04/18	92	70 - 130	100	70 - 130	<2.0	ug/L	NC	30		
4458853	o-Xylene	2016/04/18	88	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458853	p+m-Xylene	2016/04/18	87	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458853	Styrene	2016/04/18	88	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458853	Tetrachloroethylene	2016/04/18	89	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4458853	Toluene	2016/04/18	87	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4458853	Total Xylenes	2016/04/18					<0.20	ug/L	NC	30		
4458853	trans-1,2-Dichloroethylene	2016/04/18	88	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458853	trans-1,3-Dichloropropene	2016/04/18	95	70 - 130	95	70 - 130	<0.40	ug/L	NC	30		
4458853	Trichloroethylene	2016/04/18	88	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458853	Trichlorofluoromethane (FREON 11)	2016/04/18	93	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4458853	Vinyl Chloride	2016/04/18	95	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4458987	Free Cyanide	2016/04/15	103	80 - 120	105	80 - 120	<2	ug/L	NC	20		
4459033	1,2,4-Trichlorobenzene	2016/04/16	55	40 - 130	55	40 - 130	<0.1	ug/L	NC	30		
4459033	1-Methylnaphthalene	2016/04/16	70	50 - 130	73	50 - 130	<0.2	ug/L	NC	30		
4459033	2,4,5-Trichlorophenol	2016/04/16	89	50 - 130	91	50 - 130	<0.2	ug/L	NC	30		
4459033	2,4,6-Trichlorophenol	2016/04/16	85	50 - 130	90	50 - 130	<0.2	ug/L	NC	30		
4459033	2,4-Dichlorophenol	2016/04/16	77	50 - 130	82	50 - 130	<0.1	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459033	2,4-Dimethylphenol	2016/04/16	40	30 - 130	39	30 - 130	<0.5	ug/L	NC	30		
4459033	2,4-Dinitrophenol	2016/04/16	107	30 - 130	93	30 - 130	<2	ug/L	NC	30		
4459033	2,4-Dinitrotoluene	2016/04/16	102	50 - 130	99	50 - 130	<0.3	ug/L	NC	30		
4459033	2,6-Dinitrotoluene	2016/04/16	95	50 - 130	93	50 - 130	<0.3	ug/L	NC	30		
4459033	2-Chlorophenol	2016/04/16	62	50 - 130	68	50 - 130	<0.1	ug/L	NC	30		
4459033	2-Methylnaphthalene	2016/04/16	67	50 - 130	71	50 - 130	<0.2	ug/L	NC	30		
4459033	3,3'-Dichlorobenzidine	2016/04/16	102	30 - 130	99	30 - 130	<0.5	ug/L	NC	30		
4459033	Acenaphthene	2016/04/16	75	50 - 130	78	50 - 130	<0.2	ug/L	NC	30		
4459033	Acenaphthylene	2016/04/16	73	50 - 130	76	50 - 130	<0.2	ug/L	NC	30		
4459033	Anthracene	2016/04/16	85	50 - 130	82	50 - 130	<0.05	ug/L	NC	30		
4459033	Benzo(a)anthracene	2016/04/16	99	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4459033	Benzo(a)pyrene	2016/04/16	94	50 - 130	100	50 - 130	<0.01	ug/L	NC	30		
4459033	Benzo(b,j)fluoranthene	2016/04/16	97	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4459033	Benzo(g,h,i)perylene	2016/04/16	105	50 - 130	109	50 - 130	<0.05	ug/L	NC	30		
4459033	Benzo(k)fluoranthene	2016/04/16	99	50 - 130	95	50 - 130	<0.05	ug/L	NC	30		
4459033	Biphenyl	2016/04/16	75	50 - 130	80	50 - 130	<0.1	ug/L	NC	30		
4459033	Bis(2-chloroethyl)ether	2016/04/16	57	50 - 130	64	50 - 130	<0.5	ug/L	NC	30		
4459033	Bis(2-chloroisopropyl)ether	2016/04/16	62	50 - 130	70	50 - 130	<0.5	ug/L	NC	30		
4459033	Bis(2-ethylhexyl)phthalate	2016/04/16	99	50 - 130	100	50 - 130	<1	ug/L	NC	30		
4459033	Chrysene	2016/04/16	92	50 - 130	90	50 - 130	<0.05	ug/L	NC	30		
4459033	Dibenz(a,h)anthracene	2016/04/16	107	50 - 130	110	50 - 130	<0.1	ug/L	NC	30		
4459033	Diethyl phthalate	2016/04/16	94	50 - 130	92	50 - 130	<0.1	ug/L	NC	30		
4459033	Dimethyl phthalate	2016/04/16	88	50 - 130	89	50 - 130	<0.1	ug/L	NC	30		
4459033	Fluoranthene	2016/04/16	90	50 - 130	88	50 - 130	<0.2	ug/L	NC	30		
4459033	Fluorene	2016/04/16	84	50 - 130	84	50 - 130	<0.2	ug/L	NC	30		
4459033	Indeno(1,2,3-cd)pyrene	2016/04/16	105	50 - 130	107	50 - 130	<0.1	ug/L	NC	30		
4459033	Naphthalene	2016/04/16	80	50 - 130	85	50 - 130	<0.2	ug/L	NC	30		
4459033	p-Chloroaniline	2016/04/16	66	30 - 130	66	30 - 130	<1	ug/L	NC	30		
4459033	Pentachlorophenol	2016/04/16	77	50 - 130	66	50 - 130	<0.1	ug/L	NC	30		
4459033	Phenanthrene	2016/04/16	87	50 - 130	85	50 - 130	<0.1	ug/L	NC	30		
4459033	Phenol	2016/04/16	26 (1)	30 - 130	30	30 - 130	<0.5	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459033	Pyrene	2016/04/16	88	50 - 130	83	50 - 130	<0.05	ug/L	NC	30		
4459140	Acidity as CaCO3						<10	mg/L	NC	25		
4459159	Fluoride (F-)	2016/04/16	106	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
4459164	Alkalinity (Total as CaCO3)	2016/04/16			99	85 - 115	<1.0	mg/L	0.52	25		
4459165	Conductivity	2016/04/16			100	85 - 115	<1.0	umho/cm	0	25		
4459166	pH	2016/04/16			101	98 - 103			1.5	N/A		
4459669	Dissolved Calcium (Ca)	2016/04/18	NC	80 - 120	101	80 - 120	<0.05	mg/L	1.1	25		
4459669	Dissolved Magnesium (Mg)	2016/04/18	NC	80 - 120	97	80 - 120	<0.05	mg/L	1.4	25		
4459669	Dissolved Potassium (K)	2016/04/18	102	80 - 120	100	80 - 120	<1	mg/L	NC	25		
4459669	Dissolved Sodium (Na)	2016/04/18	NC	80 - 120	101	80 - 120	<0.5	mg/L	0.72	25		
4459994	Nitrate (N)	2016/04/18	NC	80 - 120	95	80 - 120	<0.10	mg/L	0.10	25		
4459994	Nitrite (N)	2016/04/18	106	80 - 120	108	80 - 120	<0.010	mg/L	2.3	25		
4460405	Dissolved Chloride (Cl)	2016/04/18	NC	80 - 120	102	80 - 120	<1.0	mg/L	0.40	20		
4460407	Orthophosphate (P)	2016/04/18	111	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
4460408	Dissolved Sulphate (SO4)	2016/04/18	NC	75 - 125	100	80 - 120	<1.0	mg/L	0.24	20		
4460416	Mercury (Hg)	2016/04/19	111	75 - 125	97	80 - 120	<0.0001	mg/L	NC	20		
4461135	Total Phosphorus	2016/04/18	NC	80 - 120	99	80 - 120	<0.004	mg/L	2.0	20	103	80 - 120
4461636	Total Organic Carbon (TOC)	2016/04/18	98	80 - 120	101	80 - 120	0.20, RDL=0.20	mg/L	3.0	20		
4461792	Total Suspended Solids	2016/04/18					<10	mg/L	NC	25	98	85 - 115
4461795	Total Dissolved Solids	2016/04/19					<10	mg/L	7.5	25	97	90 - 110
4461862	Total Ammonia-N	2016/04/20	98	80 - 120	99	85 - 115	<0.050	mg/L	NC	20		
4463033	Aroclor 1016	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1221	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1232	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1242	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1248	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1254	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1260	2016/04/19	79	60 - 130	70	60 - 130	<0.01	ug/L	NC	40		
4463033	Aroclor 1262	2016/04/19					<0.01	ug/L	NC	40		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4463033	Aroclor 1268	2016/04/19					<0.01	ug/L	NC	40		
4463033	Total PCB	2016/04/19	79	60 - 130	70	60 - 130	<0.01	ug/L	NC	40		
4463250	Total Aluminum (Al)	2016/04/19	101	80 - 120	102	80 - 120	<0.0050	mg/L	NC	20		
4463250	Total Antimony (Sb)	2016/04/19	103	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20		
4463250	Total Arsenic (As)	2016/04/19	100	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
4463250	Total Barium (Ba)	2016/04/19	100	80 - 120	99	80 - 120	<0.0020	mg/L	NC	20		
4463250	Total Beryllium (Be)	2016/04/19	101	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20		
4463250	Total Boron (B)	2016/04/19	93	80 - 120	94	80 - 120	<0.010	mg/L				
4463250	Total Cadmium (Cd)	2016/04/19	102	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20		
4463250	Total Calcium (Ca)	2016/04/19	100	80 - 120	100	80 - 120	<0.20	mg/L	NC	20		
4463250	Total Chromium (Cr)	2016/04/19	97	80 - 120	99	80 - 120	<0.0050	mg/L	NC	20		
4463250	Total Cobalt (Co)	2016/04/19	102	80 - 120	102	80 - 120	<0.00050	mg/L				
4463250	Total Copper (Cu)	2016/04/19	102	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
4463250	Total Iron (Fe)	2016/04/19	100	80 - 120	101	80 - 120	<0.10	mg/L				
4463250	Total Lead (Pb)	2016/04/19	102	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20		
4463250	Total Magnesium (Mg)	2016/04/19	99	80 - 120	101	80 - 120	<0.050	mg/L	NC	20		
4463250	Total Manganese (Mn)	2016/04/19	93	80 - 120	94	80 - 120	<0.0020	mg/L				
4463250	Total Molybdenum (Mo)	2016/04/19	105	80 - 120	103	80 - 120	<0.00050	mg/L				
4463250	Total Nickel (Ni)	2016/04/19	98	80 - 120	99	80 - 120	<0.0010	mg/L				
4463250	Total Phosphorus (P)	2016/04/19	103	80 - 120	95	80 - 120	<0.10	mg/L				
4463250	Total Potassium (K)	2016/04/19	100	80 - 120	100	80 - 120	<0.20	mg/L	NC	20		
4463250	Total Selenium (Se)	2016/04/19	105	80 - 120	104	80 - 120	<0.0020	mg/L	NC	20		
4463250	Total Silicon (Si)	2016/04/19	97	80 - 120	96	80 - 120	<0.050	mg/L				
4463250	Total Silver (Ag)	2016/04/19	104	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20		
4463250	Total Sodium (Na)	2016/04/19	99	80 - 120	103	80 - 120	0.11, RDL=0.10	mg/L	0.75	20		
4463250	Total Strontium (Sr)	2016/04/19	93	80 - 120	97	80 - 120	<0.0010	mg/L				
4463250	Total Thallium (Tl)	2016/04/19	100	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20		
4463250	Total Titanium (Ti)	2016/04/19	95	80 - 120	96	80 - 120	<0.0050	mg/L				
4463250	Total Uranium (U)	2016/04/19	99	80 - 120	99	80 - 120	<0.00010	mg/L				
4463250	Total Vanadium (V)	2016/04/19	97	80 - 120	99	80 - 120	<0.00050	mg/L				



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4463250	Total Zinc (Zn)	2016/04/19	100	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
4463250	Total Zirconium (Zr)	2016/04/19	102	80 - 120	100	80 - 120	<0.0010	mg/L				
4463329	F2 (C10-C16 Hydrocarbons)	2016/04/19	101	50 - 130	99	60 - 130	<100	ug/L	NC	30		
4463329	F3 (C16-C34 Hydrocarbons)	2016/04/19	96	50 - 130	98	60 - 130	<200	ug/L	NC	30		
4463329	F4 (C34-C50 Hydrocarbons)	2016/04/19	96	50 - 130	93	60 - 130	<200	ug/L	NC	30		
4463765	F1 (C6-C10) - BTEX	2016/04/19					<25	ug/L	NC	30		
4463765	F1 (C6-C10)	2016/04/19	80	70 - 130	99	70 - 130	<25	ug/L	NC	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

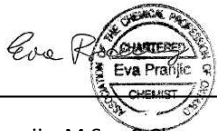
(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

### VALIDATION SIGNATURE PAGE

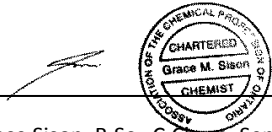
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Specialist



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



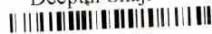
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

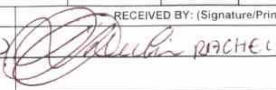
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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

<b>INVOICE INFORMATION:</b> Company Name: #9197 Stantec Consulting Ltd Contact Name: Accounts Payable Address: 49 Frederick St Kitchener ON N2H 6M7 Phone: (519) 579-4410 Fax: (519) 579-6733 Email: Stantec.Accounts.Payable.Invoices@Stantec.com		<b>REPORT INFORMATION (if differs from invoice):</b> Company Name: #18379 Stantec Consulting Ltd Contact Name: Report - 1609-00764 Address: ON Phone: EDD@Stantec.com Email: aaron.warkentin@stantec.com, brant.gill@stantec.com		<b>PROJECT INFORMATION:</b> Quotation #: B48218 Task #: 160900764 Project #: 160900764 Profit Centre: CLARINGTON TS-SURFACE WATE Site #: Angela Mason Sampled By:		<b>Laboratory Use Only:</b> Maxxam Job #: Bottle Order #: 556057 COC #: C#56057-02-01 Project Manager: Deepthi Shaji	
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MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required Please provide advance notice for rush projects				
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle): Metals (Hg / Cr / V)	Acidity, DM, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	RCMP - Surface Water (NO Fil TER- Total Metals)	SVOCs					Regular (Standard) TAT: (will be applied if Rush TAT is not specified) Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)
Table 1	Res/Park	Medium/Fine	CCME	Sanitary Sewer Bylaw		<input checked="" type="checkbox"/> Regular (Standard) TAT <input type="checkbox"/> Job Specific Rush TAT														
Table 2	Ind/Comm	Coarse	Reg 558	Storm Sewer Bylaw																
Table 3	Agri/Other	For RSC	MISA	Municipality																
Table			PWQG																	
Include Criteria on Certificate of Analysis (Y/N)?						N														
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix																
1	WS-160900764-20160413-AM01	2016/04/13	15:10	SW	Y	X	X	X	X	X	X	X	X	X	X	X	X	19		
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

14-Apr-16 11:30  
 Deepthi Shaji  
  
 B674089  
 SEL ENV-1099

* RELINQUISHED BY: (Signature/Print) Angela Mason A-Z		Date: (YY/MM/DD) 16/04/13	Time 19:00	RECEIVED BY: (Signature/Print) 		Date: (YY/MM/DD) 2016/04/14	Time 11:30	# jars used and not submitted	Laboratory Use Only			
								Time Sensitive	Temperature (°C) on Receipt c1010	Custody Seal	Yes	No
										Present		
										Intact		

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

Your Project #: 160900764  
 Site Location: CLARINGTON TS-SURFACE WATER  
 Your C.O.C. #: 556057-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/22**  
 Report #: R3969298  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674686**

**Received: 2016/04/14, 18:55**

Sample Matrix: Water  
 # Samples Received: 2

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	2	N/A	2016/04/22	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	2	2016/04/20	2016/04/21	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	2	N/A	2016/04/19	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	2	N/A	2016/04/16	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2016/04/18	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	2	N/A	2016/04/20		EPA 8260C m
Chloride by Automated Colourimetry	2	N/A	2016/04/19	CAM SOP-00463	EPA 325.2 m
Conductivity	2	N/A	2016/04/16	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	2	N/A	2016/04/18	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	2	N/A	2016/04/18	CAM SOP-00457	OMOE E3015 m
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2016/04/20	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (3)	2	2016/04/20	2016/04/21	CAM SOP-00316	CCME PHC-CWS m
Fluoride	2	2016/04/16	2016/04/16	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2016/04/19	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2016/04/19	2016/04/20	CAM SOP-00453	EPA 7470A m
Lab Filtered Metals Analysis by ICP	2	2016/04/18	2016/04/19	CAM SOP-00408	EPA 6010C m
Total Metals Analysis by ICPMS	2	N/A	2016/04/21	CAM SOP-00447	EPA 6020A m
Total Ammonia-N	1	N/A	2016/04/20	CAM SOP-00441	EPA GS I-2522-90 m
Total Ammonia-N	1	N/A	2016/04/21	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (4)	2	N/A	2016/04/19	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl (PCB)	1	2016/04/19	2016/04/19	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl (PCB)	1	2016/04/19	2016/04/20	CAM SOP-00309	EPA 8082A m
pH	2	N/A	2016/04/16	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	2	N/A	2016/04/19	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	2	N/A	2016/04/19		
Sat. pH and Langelier Index (@ 4C)	2	N/A	2016/04/19		
Sulphate by Automated Colourimetry	2	N/A	2016/04/19	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids	2	N/A	2016/04/20	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (5)	2	N/A	2016/04/19	CAM SOP-00446	SM 22 5310B m

Your Project #: 160900764  
 Site Location: CLARINGTON TS-SURFACE WATER  
 Your C.O.C. #: 556057-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/22**  
 Report #: R3969298  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674686**

**Received: 2016/04/14, 18:55**

Sample Matrix: Water  
 # Samples Received: 2

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Total Phosphorus (Colourimetric)	2	2016/04/20	2016/04/21	CAM SOP-00407	SM 4500 P B H m
Total Suspended Solids	2	N/A	2016/04/19	CAM SOP-00428	SM 22 2540D m
Turbidity	1	N/A	2016/04/15	CAM SOP-00417	SM 22 2130 B m
Turbidity	1	N/A	2016/04/16	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	2	N/A	2016/04/19	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (4) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (5) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Your Project #: 160900764  
Site Location: CLARINGTON TS-SURFACE WATER  
Your C.O.C. #: 556057-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/04/22**  
Report #: R3969298  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674686**  
**Received: 2016/04/14, 18:55**

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**RCAP - SURFACE WATER (WATER)**

Maxxam ID		CER845	CER845		CER846	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 10:55		2016/04/14 15:30	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01		556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM02 Lab-Dup	QC Batch	WS-160900764- 20160414-AM03	WS-160900764- 20160414-AM03 Lab-Dup	RDL	QC Batch

Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	220		4459556	250		1.0	4459556
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3		4459556	1.8		1.0	4459556
Hardness (CaCO3)	mg/L	320		4459551	320		1.0	4459551
Langelier Index (@ 20C)	N/A	1.01		4459379	0.916			4459379
Langelier Index (@ 4C)	N/A	0.760		4459380	0.667			4459380
Saturation pH (@ 20C)	N/A	7.03		4459379	6.98			4459379
Saturation pH (@ 4C)	N/A	7.28		4459380	7.22			4459380

Inorganics								
Total Ammonia-N	mg/L	<0.050		4463788	0.13		0.050	4462869
Conductivity	umho/cm	640		4460567	600		1.0	4460567
Total Organic Carbon (TOC)	mg/L	3.4		4463828	4.1		0.20	4462947
Orthophosphate (P)	mg/L	<0.010	<0.010	4461448	<0.010		0.010	4461448
pH	pH	8.04		4460570	7.89			4460570
Total Phosphorus	mg/L	0.022		4464417	0.020		0.004	4464417
Dissolved Sulphate (SO4)	mg/L	41	41	4461451	36		1.0	4461451
Turbidity	NTU	8.6		4460156	1.7	1.7	0.2	4460156
Alkalinity (Total as CaCO3)	mg/L	230		4460560	250		1.0	4460560
Dissolved Chloride (Cl)	mg/L	32	32	4461443	21		1.0	4461443
Nitrite (N)	mg/L	<0.010		4460541	<0.010		0.010	4460541
Nitrate (N)	mg/L	4.58		4460541	1.07		0.10	4460541

Metals								
Dissolved Calcium (Ca)	mg/L	110		4462046	110	110	0.05	4462046
Dissolved Magnesium (Mg)	mg/L	8.8		4462046	8.1	8.0	0.05	4462046
Dissolved Potassium (K)	mg/L	2		4462046	3	3	1	4462046
Dissolved Sodium (Na)	mg/L	16		4462046	8.9	8.8	0.5	4462046
Total Aluminum (Al)	mg/L	0.19		4465253	0.20		0.0050	4465253
Total Antimony (Sb)	mg/L	<0.00050		4465253	<0.00050		0.00050	4465253
Total Arsenic (As)	mg/L	<0.0010		4465253	<0.0010		0.0010	4465253
Total Barium (Ba)	mg/L	0.037		4465253	0.050		0.0020	4465253
Total Beryllium (Be)	mg/L	<0.00050		4465253	<0.00050		0.00050	4465253
Total Boron (B)	mg/L	0.035		4465253	0.024		0.010	4465253
Total Cadmium (Cd)	mg/L	<0.00010		4465253	<0.00010		0.00010	4465253

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - SURFACE WATER (WATER)**

Maxxam ID		CER845	CER845		CER846	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 10:55		2016/04/14 15:30	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01		556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM02 Lab-Dup	QC Batch	WS-160900764- 20160414-AM03	WS-160900764- 20160414-AM03 Lab-Dup	RDL	QC Batch
Total Calcium (Ca)	mg/L	110		4465253	110		0.20	4465253
Total Chromium (Cr)	mg/L	<0.0050		4465253	<0.0050		0.0050	4465253
Total Cobalt (Co)	mg/L	<0.00050		4465253	<0.00050		0.00050	4465253
Total Copper (Cu)	mg/L	<0.0010		4465253	0.0010		0.0010	4465253
Total Iron (Fe)	mg/L	0.25		4465253	0.25		0.10	4465253
Total Lead (Pb)	mg/L	<0.00050		4465253	<0.00050		0.00050	4465253
Total Magnesium (Mg)	mg/L	8.8		4465253	8.2		0.050	4465253
Total Manganese (Mn)	mg/L	0.044		4465253	0.022		0.0020	4465253
Total Molybdenum (Mo)	mg/L	0.00052		4465253	<0.00050		0.00050	4465253
Total Nickel (Ni)	mg/L	<0.0010		4465253	<0.0010		0.0010	4465253
Total Phosphorus (P)	mg/L	<0.10		4465253	<0.10		0.10	4465253
Total Potassium (K)	mg/L	1.5		4465253	2.5		0.20	4465253
Total Selenium (Se)	mg/L	<0.0020		4465253	<0.0020		0.0020	4465253
Total Silicon (Si)	mg/L	3.3		4465253	2.4		0.050	4465253
Total Silver (Ag)	mg/L	<0.00010		4465253	<0.00010		0.00010	4465253
Total Sodium (Na)	mg/L	15		4465253	8.4		0.10	4465253
Total Strontium (Sr)	mg/L	0.27		4465253	0.31		0.0010	4465253
Total Thallium (Tl)	mg/L	<0.000050		4465253	<0.000050		0.000050	4465253
Total Titanium (Ti)	mg/L	0.0095		4465253	0.010		0.0050	4465253
Total Uranium (U)	mg/L	0.00064		4465253	0.00088		0.00010	4465253
Total Vanadium (V)	mg/L	0.00076		4465253	0.00080		0.00050	4465253
Total Zinc (Zn)	mg/L	<0.0050		4465253	<0.0050		0.0050	4465253
Total Zirconium (Zr)	mg/L	<0.0010		4465253	<0.0010		0.0010	4465253
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								



**RESULTS OF ANALYSES OF WATER**

Maxxam ID		CER845	CER846	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 15:30	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM03	WS-160900764- 20160414-AM03  Lab-Dup	RDL	QC Batch
<b>Inorganics</b>						
Acidity as CaCO3	mg/L	10	16	14	10	4461762
Total Dissolved Solids	mg/L	344	350		10	4463350
Fluoride (F-)	mg/L	0.12	0.10		0.10	4460569
Free Cyanide	ug/L	<2	<2		2	4460681
Total Suspended Solids	mg/L	13	13		10	4463340
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate						

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		CER845	CER846		
<b>Sampling Date</b>		2016/04/14 10:55	2016/04/14 15:30		
<b>COC Number</b>		556057-03-01	556057-03-01		
	<b>UNITS</b>	<b>WS-160900764- 20160414-AM02</b>	<b>WS-160900764- 20160414-AM03</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>					
Chromium (VI)	ug/L	0.68	<0.50	0.50	4460579
Mercury (Hg)	mg/L	<0.0001	<0.0001	0.0001	4463054
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

**POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)**

Maxxam ID		CER845	CER845	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 10:55	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM02 Lab-Dup	WS-160900764- 20160414-AM03	RDL	QC Batch
<b>PCBs</b>						
Aroclor 1016	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Aroclor 1221	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Aroclor 1232	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Aroclor 1262	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Aroclor 1268	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Aroclor 1242	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Aroclor 1248	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Aroclor 1254	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Aroclor 1260	ug/L	<0.01	<0.01	<0.01	0.01	4463033
Total PCB	ug/L	<0.01	<0.01	<0.01	0.01	4463033
<b>Surrogate Recovery (%)</b>						
Decachlorobiphenyl	%	79	90	82		4463033
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate						

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		CER845	CER845	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 10:55	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM02 Lab-Dup	WS-160900764- 20160414-AM03	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>						
F1 (C6-C10)	ug/L	<25	<25	<25	25	4464609
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	4464609
<b>F2-F4 Hydrocarbons</b>						
F2 (C10-C16 Hydrocarbons)	ug/L	<100		<100	100	4465825
F3 (C16-C34 Hydrocarbons)	ug/L	<200		<200	200	4465825
F4 (C34-C50 Hydrocarbons)	ug/L	<200		<200	200	4465825
Reached Baseline at C50	ug/L	Yes		Yes		4465825
<b>Surrogate Recovery (%)</b>						
1,4-Difluorobenzene	%	101	101	100		4464609
4-Bromofluorobenzene	%	97	98	99		4464609
D10-Ethylbenzene	%	128	127	121		4464609
D4-1,2-Dichloroethane	%	97	98	101		4464609
o-Terphenyl	%	97		98		4465825
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate						

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER845	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM03	RDL	QC Batch
<b>Semivolatile Organics</b>					
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	0.1	4464463
1-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	4464463
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	0.2	4464463
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	0.2	4464463
2,4-Dichlorophenol	ug/L	<0.1	<0.1	0.1	4464463
2,4-Dimethylphenol	ug/L	<0.5	<0.5	0.5	4464463
2,4-Dinitrophenol	ug/L	<2	<2	2	4464463
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	4464463
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	4464463
2-Chlorophenol	ug/L	<0.1	<0.1	0.1	4464463
2-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	4464463
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	0.5	4464463
Acenaphthene	ug/L	<0.2	<0.2	0.2	4464463
Acenaphthylene	ug/L	<0.2	<0.2	0.2	4464463
Anthracene	ug/L	<0.05	<0.05	0.05	4464463
Benzo(a)anthracene	ug/L	<0.05	<0.05	0.05	4464463
Benzo(a)pyrene	ug/L	<0.01	<0.01	0.01	4464463
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	0.05	4464463
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	0.05	4464463
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	0.05	4464463
Biphenyl	ug/L	<0.1	<0.1	0.1	4464463
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	0.5	4464463
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	0.5	4464463
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	1	4464463
Chrysene	ug/L	<0.05	<0.05	0.05	4464463
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	0.1	4464463
Diethyl phthalate	ug/L	<0.1	<0.1	0.1	4464463
Dimethyl phthalate	ug/L	<0.1	<0.1	0.1	4464463
Fluoranthene	ug/L	<0.2	<0.2	0.2	4464463
Fluorene	ug/L	<0.2	<0.2	0.2	4464463
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	0.1	4464463
Naphthalene	ug/L	<0.2	<0.2	0.2	4464463
p-Chloroaniline	ug/L	<1	<1	1	4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER845	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM03	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	0.1	4464463
Phenanthrene	ug/L	<0.1	<0.1	0.1	4464463
Phenol	ug/L	<0.5	<0.5	0.5	4464463
Pyrene	ug/L	<0.05	<0.05	0.05	4464463
<b>Calculated Parameters</b>					
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	0.28	4459103
<b>Surrogate Recovery (%)</b>					
2,4,6-Tribromophenol	%	40 (1)	50		4464463
2-Fluorobiphenyl	%	68	59		4464463
D14-Terphenyl (FS)	%	104	103		4464463
D5-Nitrobenzene	%	59	48 (1)		4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.					

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CER845	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM03	RDL	QC Batch
<b>Calculated Parameters</b>					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	4458992
<b>Volatile Organics</b>					
Acetone (2-Propanone)	ug/L	<10	<10	10	4461364
Benzene	ug/L	<0.20	<0.20	0.20	4461364
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	4461364
Bromoform	ug/L	<1.0	<1.0	1.0	4461364
Bromomethane	ug/L	<0.50	<0.50	0.50	4461364
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	4461364
Chlorobenzene	ug/L	<0.20	<0.20	0.20	4461364
Chloroform	ug/L	<0.20	<0.20	0.20	4461364
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	4461364
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4461364
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4461364
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4461364
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	4461364
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	4461364
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	4461364
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	4461364
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4461364
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4461364
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	4461364
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	4461364
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	4461364
Ethylbenzene	ug/L	<0.20	<0.20	0.20	4461364
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	4461364
Hexane	ug/L	<1.0	<1.0	1.0	4461364
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	4461364
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	4461364
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	4461364
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	4461364
Styrene	ug/L	<0.50	<0.50	0.50	4461364
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4461364
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4461364
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CER845	CER846		
Sampling Date		2016/04/14 10:55	2016/04/14 15:30		
COC Number		556057-03-01	556057-03-01		
	UNITS	WS-160900764- 20160414-AM02	WS-160900764- 20160414-AM03	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	4461364
Toluene	ug/L	<0.20	<0.20	0.20	4461364
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	4461364
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	4461364
Trichloroethylene	ug/L	<0.20	<0.20	0.20	4461364
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	4461364
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	4461364
p+m-Xylene	ug/L	<0.20	<0.20	0.20	4461364
o-Xylene	ug/L	<0.20	<0.20	0.20	4461364
Total Xylenes	ug/L	<0.20	<0.20	0.20	4461364
<b>Surrogate Recovery (%)</b>					
4-Bromofluorobenzene	%	98	98		4461364
D4-1,2-Dichloroethane	%	99	101		4461364
D8-Toluene	%	100	98		4461364
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					



### TEST SUMMARY

**Maxxam ID:** CER845  
**Sample ID:** WS-160900764-20160414-AM02  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4459103	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4461762	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4460560	N/A	2016/04/16	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4459556	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4458992	N/A	2016/04/20	Automated Statchk
Chloride by Automated Colourimetry	KONE	4461443	N/A	2016/04/19	Deonarine Ramnarine
Conductivity	AT	4460567	N/A	2016/04/16	Yogesh Patel
Chromium (VI) in Water	IC	4460579	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4460681	N/A	2016/04/18	Xuanhong Qiu
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464609	N/A	2016/04/20	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Fluoride	ISE	4460569	2016/04/16	2016/04/16	Yogesh Patel
Hardness (calculated as CaCO3)		4459551	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4463054	2016/04/19	2016/04/20	Magdalena Carlos
Lab Filtered Metals Analysis by ICP	ICP	4462046	2016/04/18	2016/04/19	Azita Fazaeli
Total Metals Analysis by ICPMS	ICP/MS	4465253	N/A	2016/04/21	Arefa Dabhad
Total Ammonia-N	LACH/NH4	4463788	N/A	2016/04/21	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4460541	N/A	2016/04/19	Chandra Nandlal
Polychlorinated Biphenyl (PCB)	GC/ECD	4463033	2016/04/19	2016/04/19	Sarah Huang
pH	AT	4460570	N/A	2016/04/16	Yogesh Patel
Orthophosphate	KONE	4461448	N/A	2016/04/19	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4459379	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4459380	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4461451	N/A	2016/04/19	Alina Dobreanu
Total Dissolved Solids	BAL	4463350	N/A	2016/04/20	Fang Wang
Total Organic Carbon (TOC)	TOCV/NDIR	4463828	N/A	2016/04/19	Anastasia Hamanov
Total Phosphorus (Colourimetric)	LACH/P	4464417	2016/04/20	2016/04/21	Sarabjit Raina
Total Suspended Solids	BAL	4463340	N/A	2016/04/19	Fang Wang
Turbidity	AT	4460156	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4461364	N/A	2016/04/19	Karen Hughes

**Maxxam ID:** CER845 Dup  
**Sample ID:** WS-160900764-20160414-AM02  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	4461443	N/A	2016/04/19	Deonarine Ramnarine
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464609	N/A	2016/04/20	Lincoln Ramdahin
Polychlorinated Biphenyl (PCB)	GC/ECD	4463033	2016/04/19	2016/04/19	Sarah Huang
Orthophosphate	KONE	4461448	N/A	2016/04/19	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	4461451	N/A	2016/04/19	Alina Dobreanu

### TEST SUMMARY

**Maxxam ID:** CER846  
**Sample ID:** WS-160900764-20160414-AM03  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4459103	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4461762	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4460560	N/A	2016/04/16	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4459556	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4458992	N/A	2016/04/20	Automated Statchk
Chloride by Automated Colourimetry	KONE	4461443	N/A	2016/04/19	Deonarine Ramnarine
Conductivity	AT	4460567	N/A	2016/04/16	Yogesh Patel
Chromium (VI) in Water	IC	4460579	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4460681	N/A	2016/04/18	Xuanhong Qiu
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464609	N/A	2016/04/20	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Fluoride	ISE	4460569	2016/04/16	2016/04/16	Yogesh Patel
Hardness (calculated as CaCO3)		4459551	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAAs	CV/AA	4463054	2016/04/19	2016/04/20	Magdalena Carlos
Lab Filtered Metals Analysis by ICP	ICP	4462046	2016/04/18	2016/04/19	Azita Fazaali
Total Metals Analysis by ICPMS	ICP/MS	4465253	N/A	2016/04/21	Arefa Dabhad
Total Ammonia-N	LACH/NH4	4462869	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4460541	N/A	2016/04/19	Chandra Nandlal
Polychlorinated Biphenyl (PCB)	GC/ECD	4463033	2016/04/19	2016/04/20	Sarah Huang
pH	AT	4460570	N/A	2016/04/16	Yogesh Patel
Orthophosphate	KONE	4461448	N/A	2016/04/19	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4459379	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4459380	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4461451	N/A	2016/04/19	Alina Dobreanu
Total Dissolved Solids	BAL	4463350	N/A	2016/04/20	Fang Wang
Total Organic Carbon (TOC)	TOCV/NDIR	4462947	N/A	2016/04/19	Elsamma Alex
Total Phosphorus (Colourimetric)	LACH/P	4464417	2016/04/20	2016/04/21	Sarabjit Raina
Total Suspended Solids	BAL	4463340	N/A	2016/04/19	Fang Wang
Turbidity	AT	4460156	N/A	2016/04/16	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4461364	N/A	2016/04/19	Karen Hughes

**Maxxam ID:** CER846 Dup  
**Sample ID:** WS-160900764-20160414-AM03  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4461762	N/A		Grace Sison
Lab Filtered Metals Analysis by ICP	ICP	4462046	2016/04/18	2016/04/19	Azita Fazaali
Turbidity	AT	4460156	N/A	2016/04/16	Lemeneh Addis

### GENERAL COMMENTS

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

Package 1	3.0°C
Package 2	4.7°C

Sample containers submitted for Acidity received with headspace.

Sample CER845-01 : Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4461364	4-Bromofluorobenzene	2016/04/19	100	70 - 130	99	70 - 130	87	%				
4461364	D4-1,2-Dichloroethane	2016/04/19	99	70 - 130	97	70 - 130	109	%				
4461364	D8-Toluene	2016/04/19	100	70 - 130	101	70 - 130	109	%				
4463033	Decachlorobiphenyl	2016/04/19	82	60 - 130	69	60 - 130	73	%				
4464463	2,4,6-Tribromophenol	2016/04/21	75	50 - 130	77	50 - 130	54	%				
4464463	2-Fluorobiphenyl	2016/04/21	42 (1)	50 - 130	55	50 - 130	67	%				
4464463	D14-Terphenyl (FS)	2016/04/21	99	50 - 130	101	50 - 130	99	%				
4464463	D5-Nitrobenzene	2016/04/21	43 (1)	50 - 130	56	50 - 130	60	%				
4464609	1,4-Difluorobenzene	2016/04/20	100	70 - 130	83	70 - 130	99	%				
4464609	4-Bromofluorobenzene	2016/04/20	100	70 - 130	84	70 - 130	100	%				
4464609	D10-Ethylbenzene	2016/04/20	113	70 - 130	96	70 - 130	113	%				
4464609	D4-1,2-Dichloroethane	2016/04/20	97	70 - 130	84	70 - 130	99	%				
4465825	o-Terphenyl	2016/04/21	101	60 - 130	98	60 - 130	96	%				
4460156	Turbidity	2016/04/16			99	85 - 115	<0.2	NTU	0.17	20		
4460541	Nitrate (N)	2016/04/19	107	80 - 120	105	80 - 120	<0.10	mg/L	NC	25		
4460541	Nitrite (N)	2016/04/19	107	80 - 120	106	80 - 120	<0.010	mg/L	NC	25		
4460560	Alkalinity (Total as CaCO3)	2016/04/16			96	85 - 115	<1.0	mg/L	0.79	25		
4460567	Conductivity	2016/04/16			101	85 - 115	<1.0	umho/cm	3.3	25		
4460569	Fluoride (F-)	2016/04/16	94	80 - 120	102	80 - 120	<0.10	mg/L	1.4	20		
4460570	pH	2016/04/16			102	98 - 103			0.34	N/A		
4460579	Chromium (VI)	2016/04/18	NC	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4460681	Free Cyanide	2016/04/18	104	80 - 120	102	80 - 120	<2	ug/L	NC	20		
4461364	1,1,1,2-Tetrachloroethane	2016/04/19	97	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4461364	1,1,1-Trichloroethane	2016/04/19	100	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4461364	1,1,2,2-Tetrachloroethane	2016/04/19	96	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4461364	1,1,2-Trichloroethane	2016/04/19	97	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4461364	1,1-Dichloroethane	2016/04/19	102	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4461364	1,1-Dichloroethylene	2016/04/19	106	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4461364	1,2-Dichlorobenzene	2016/04/19	94	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4461364	1,2-Dichloroethane	2016/04/19	101	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4461364	1,2-Dichloropropane	2016/04/19	101	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4461364	1,3-Dichlorobenzene	2016/04/19	96	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4461364	1,4-Dichlorobenzene	2016/04/19	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4461364	Acetone (2-Propanone)	2016/04/19	97	60 - 140	91	60 - 140	<10	ug/L	NC	30		
4461364	Benzene	2016/04/19	103	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4461364	Bromodichloromethane	2016/04/19	100	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4461364	Bromoform	2016/04/19	91	70 - 130	87	70 - 130	<1.0	ug/L	NC	30		
4461364	Bromomethane	2016/04/19	92	60 - 140	87	60 - 140	<0.50	ug/L	NC	30		
4461364	Carbon Tetrachloride	2016/04/19	105	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4461364	Chlorobenzene	2016/04/19	103	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4461364	Chloroform	2016/04/19	101	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4461364	cis-1,2-Dichloroethylene	2016/04/19	103	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4461364	cis-1,3-Dichloropropene	2016/04/19	105	70 - 130	96	70 - 130	<0.30	ug/L	NC	30		
4461364	Dibromochloromethane	2016/04/19	98	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4461364	Dichlorodifluoromethane (FREON 12)	2016/04/19	96	60 - 140	90	60 - 140	<1.0	ug/L	NC	30		
4461364	Ethylbenzene	2016/04/19	102	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4461364	Ethylene Dibromide	2016/04/19	98	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4461364	Hexane	2016/04/19	110	70 - 130	106	70 - 130	<1.0	ug/L	NC	30		
4461364	Methyl Ethyl Ketone (2-Butanone)	2016/04/19	97	60 - 140	92	60 - 140	<10	ug/L	NC	30		
4461364	Methyl Isobutyl Ketone	2016/04/19	92	70 - 130	87	70 - 130	<5.0	ug/L	NC	30		
4461364	Methyl t-butyl ether (MTBE)	2016/04/19	101	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4461364	Methylene Chloride(Dichloromethane)	2016/04/19	96	70 - 130	92	70 - 130	<2.0	ug/L	NC	30		
4461364	o-Xylene	2016/04/19	101	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4461364	p+m-Xylene	2016/04/19	99	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4461364	Styrene	2016/04/19	99	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4461364	Tetrachloroethylene	2016/04/19	102	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4461364	Toluene	2016/04/19	99	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4461364	Total Xylenes	2016/04/19					<0.20	ug/L	NC	30		
4461364	trans-1,2-Dichloroethylene	2016/04/19	104	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
4461364	trans-1,3-Dichloropropene	2016/04/19	100	70 - 130	89	70 - 130	<0.40	ug/L	NC	30		
4461364	Trichloroethylene	2016/04/19	97	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4461364	Trichlorofluoromethane (FREON 11)	2016/04/19	107	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4461364	Vinyl Chloride	2016/04/19	107	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
4461443	Dissolved Chloride (Cl)	2016/04/19	NC	80 - 120	101	80 - 120	<1.0	mg/L	0.020	20		
4461448	Orthophosphate (P)	2016/04/19	97	75 - 125	98	80 - 120	<0.010	mg/L	NC	25		
4461451	Dissolved Sulphate (SO4)	2016/04/19	NC	75 - 125	106	80 - 120	<1.0	mg/L	0.55	20		
4461762	Acidity as CaCO3						<10	mg/L	NC	25		
4462046	Dissolved Calcium (Ca)	2016/04/19	NC	80 - 120	105	80 - 120	<0.05	mg/L	0.98	25		
4462046	Dissolved Magnesium (Mg)	2016/04/19	NC	80 - 120	103	80 - 120	<0.05	mg/L	1.5	25		
4462046	Dissolved Potassium (K)	2016/04/19	102	80 - 120	104	80 - 120	<1	mg/L	NC	25		
4462046	Dissolved Sodium (Na)	2016/04/19	NC	80 - 120	105	80 - 120	<0.5	mg/L	0.78	25		
4462869	Total Ammonia-N	2016/04/20	NC	80 - 120	99	85 - 115	<0.050	mg/L	0.24	20		
4462947	Total Organic Carbon (TOC)	2016/04/19	97	80 - 120	100	80 - 120	<0.20	mg/L	NC	20		
4463033	Aroclor 1016	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1221	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1232	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1242	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1248	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1254	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1260	2016/04/19	79	60 - 130	70	60 - 130	<0.01	ug/L	NC	40		
4463033	Aroclor 1262	2016/04/19					<0.01	ug/L	NC	40		
4463033	Aroclor 1268	2016/04/19					<0.01	ug/L	NC	40		
4463033	Total PCB	2016/04/19	79	60 - 130	70	60 - 130	<0.01	ug/L	NC	40		
4463054	Mercury (Hg)	2016/04/20	103	75 - 125	100	80 - 120	<0.0001	mg/L	NC	20		
4463340	Total Suspended Solids	2016/04/19					<10	mg/L	NC	25	100	85 - 115
4463350	Total Dissolved Solids	2016/04/20					<10	mg/L	14	25	95	90 - 110
4463788	Total Ammonia-N	2016/04/21	94	80 - 120	96	85 - 115	<0.050	mg/L	NC	20		
4463828	Total Organic Carbon (TOC)	2016/04/19	NC	80 - 120	98	80 - 120	<0.20	mg/L	0.29	20		
4464417	Total Phosphorus	2016/04/21	88	80 - 120	97	80 - 120	<0.004	mg/L	NC	20	85	80 - 120
4464463	1,2,4-Trichlorobenzene	2016/04/21	38 (2)	40 - 130	53	40 - 130	<0.1	ug/L	NC	30		
4464463	1-Methylnaphthalene	2016/04/21	51	50 - 130	67	50 - 130	<0.2	ug/L	NC	30		
4464463	2,4,5-Trichlorophenol	2016/04/21	87	50 - 130	96	50 - 130	<0.2	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4464463	2,4,6-Trichlorophenol	2016/04/21	70	50 - 130	90	50 - 130	<0.2	ug/L	NC	30		
4464463	2,4-Dichlorophenol	2016/04/21	52	50 - 130	70	50 - 130	<0.1	ug/L	NC	30		
4464463	2,4-Dimethylphenol	2016/04/21	52	30 - 130	58	30 - 130	<0.5	ug/L	NC	30		
4464463	2,4-Dinitrophenol	2016/04/21	91	30 - 130	126	30 - 130	<2	ug/L	NC	30		
4464463	2,4-Dinitrotoluene	2016/04/21	92	50 - 130	101	50 - 130	<0.3	ug/L	NC	30		
4464463	2,6-Dinitrotoluene	2016/04/21	80	50 - 130	93	50 - 130	<0.3	ug/L	NC	30		
4464463	2-Chlorophenol	2016/04/21	47 (3)	50 - 130	62	50 - 130	<0.1	ug/L	NC	30		
4464463	2-Methylnaphthalene	2016/04/21	49 (3)	50 - 130	65	50 - 130	<0.2	ug/L	NC	30		
4464463	3,3'-Dichlorobenzidine	2016/04/21	76	30 - 130	86	30 - 130	<0.5	ug/L	NC	30		
4464463	Acenaphthene	2016/04/21	62	50 - 130	77	50 - 130	<0.2	ug/L	NC	30		
4464463	Acenaphthylene	2016/04/21	62	50 - 130	76	50 - 130	<0.2	ug/L	NC	30		
4464463	Anthracene	2016/04/21	86	50 - 130	87	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(a)anthracene	2016/04/21	96	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(a)pyrene	2016/04/21	90	50 - 130	94	50 - 130	<0.01	ug/L	NC	30		
4464463	Benzo(b/j)fluoranthene	2016/04/21	90	50 - 130	95	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(g,h,i)perylene	2016/04/21	74	50 - 130	104	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(k)fluoranthene	2016/04/21	88	50 - 130	89	50 - 130	<0.05	ug/L	NC	30		
4464463	Biphenyl	2016/04/21	54	50 - 130	71	50 - 130	<0.1	ug/L	NC	30		
4464463	Bis(2-chloroethyl)ether	2016/04/21	45 (3)	50 - 130	53	50 - 130	<0.5	ug/L	NC	30		
4464463	Bis(2-chloroisopropyl)ether	2016/04/21	43 (3)	50 - 130	57	50 - 130	<0.5	ug/L	NC	30		
4464463	Bis(2-ethylhexyl)phthalate	2016/04/21	101	50 - 130	101	50 - 130	<1	ug/L	NC	30		
4464463	Chrysene	2016/04/21	93	50 - 130	97	50 - 130	<0.05	ug/L	NC	30		
4464463	Dibenz(a,h)anthracene	2016/04/21	82	50 - 130	106	50 - 130	<0.1	ug/L	NC	30		
4464463	Diethyl phthalate	2016/04/21	77	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4464463	Dimethyl phthalate	2016/04/21	78	50 - 130	94	50 - 130	<0.1	ug/L	NC	30		
4464463	Fluoranthene	2016/04/21	97	50 - 130	102	50 - 130	<0.2	ug/L	NC	30		
4464463	Fluorene	2016/04/21	74	50 - 130	84	50 - 130	<0.2	ug/L	NC	30		
4464463	Indeno(1,2,3-cd)pyrene	2016/04/21	77	50 - 130	102	50 - 130	<0.1	ug/L	NC	30		
4464463	Naphthalene	2016/04/21	54	50 - 130	53	50 - 130	<0.2	ug/L	NC	30		
4464463	p-Chloroaniline	2016/04/21	40	30 - 130	61	30 - 130	<1	ug/L	NC	30		
4464463	Pentachlorophenol	2016/04/21	106	50 - 130	102	50 - 130	<0.1	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4464463	Phenanthrene	2016/04/21	83	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4464463	Phenol	2016/04/21	21 (3)	30 - 130	31	30 - 130	<0.5	ug/L	NC	30		
4464463	Pyrene	2016/04/21	95	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4464609	F1 (C6-C10) - BTEX	2016/04/20					<100	ug/L	NC	30		
4464609	F1 (C6-C10)	2016/04/20	92	70 - 130	90	70 - 130	<25	ug/L	NC	30		
4465253	Total Aluminum (Al)	2016/04/21	NC	80 - 120	105	80 - 120	<0.0050	mg/L				
4465253	Total Antimony (Sb)	2016/04/21	105	80 - 120	104	80 - 120	<0.00050	mg/L				
4465253	Total Arsenic (As)	2016/04/21	102	80 - 120	103	80 - 120	<0.0010	mg/L				
4465253	Total Barium (Ba)	2016/04/21	99	80 - 120	102	80 - 120	<0.0020	mg/L				
4465253	Total Beryllium (Be)	2016/04/21	107	80 - 120	104	80 - 120	<0.00050	mg/L				
4465253	Total Boron (B)	2016/04/21	99	80 - 120	96	80 - 120	<0.010	mg/L				
4465253	Total Cadmium (Cd)	2016/04/21	101	80 - 120	101	80 - 120	<0.00010	mg/L				
4465253	Total Calcium (Ca)	2016/04/21	NC	80 - 120	104	80 - 120	<0.20	mg/L				
4465253	Total Chromium (Cr)	2016/04/21	101	80 - 120	103	80 - 120	<0.0050	mg/L				
4465253	Total Cobalt (Co)	2016/04/21	101	80 - 120	103	80 - 120	<0.00050	mg/L				
4465253	Total Copper (Cu)	2016/04/21	103	80 - 120	102	80 - 120	<0.0010	mg/L				
4465253	Total Iron (Fe)	2016/04/21	101	80 - 120	104	80 - 120	<0.10	mg/L				
4465253	Total Lead (Pb)	2016/04/21	100	80 - 120	100	80 - 120	<0.00050	mg/L				
4465253	Total Magnesium (Mg)	2016/04/21	NC	80 - 120	105	80 - 120	<0.050	mg/L				
4465253	Total Manganese (Mn)	2016/04/21	99	80 - 120	102	80 - 120	<0.0020	mg/L	2.5	20		
4465253	Total Molybdenum (Mo)	2016/04/21	107	80 - 120	104	80 - 120	<0.00050	mg/L				
4465253	Total Nickel (Ni)	2016/04/21	97	80 - 120	101	80 - 120	<0.0010	mg/L				
4465253	Total Phosphorus (P)	2016/04/21	112	80 - 120	105	80 - 120	<0.10	mg/L				
4465253	Total Potassium (K)	2016/04/21	100	80 - 120	105	80 - 120	<0.20	mg/L				
4465253	Total Selenium (Se)	2016/04/21	101	80 - 120	104	80 - 120	<0.0020	mg/L				
4465253	Total Silicon (Si)	2016/04/21	104	80 - 120	104	80 - 120	<0.050	mg/L				
4465253	Total Silver (Ag)	2016/04/21	100	80 - 120	101	80 - 120	<0.00010	mg/L				
4465253	Total Sodium (Na)	2016/04/21	NC	80 - 120	105	80 - 120	<0.10	mg/L				
4465253	Total Strontium (Sr)	2016/04/21	NC	80 - 120	98	80 - 120	<0.0010	mg/L				
4465253	Total Thallium (Tl)	2016/04/21	99	80 - 120	100	80 - 120	<0.000050	mg/L				
4465253	Total Titanium (Ti)	2016/04/21	103	80 - 120	104	80 - 120	<0.0050	mg/L				



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4465253	Total Uranium (U)	2016/04/21	101	80 - 120	103	80 - 120	<0.00010	mg/L				
4465253	Total Vanadium (V)	2016/04/21	100	80 - 120	101	80 - 120	<0.00050	mg/L				
4465253	Total Zinc (Zn)	2016/04/21	100	80 - 120	105	80 - 120	<0.0050	mg/L				
4465253	Total Zirconium (Zr)	2016/04/21	105	80 - 120	102	80 - 120	<0.0010	mg/L				
4465825	F2 (C10-C16 Hydrocarbons)	2016/04/21	109	50 - 130	97	60 - 130	<100	ug/L	NC	30		
4465825	F3 (C16-C34 Hydrocarbons)	2016/04/21	NC	50 - 130	103	60 - 130	<200	ug/L	NC	30		
4465825	F4 (C34-C50 Hydrocarbons)	2016/04/21	111	50 - 130	99	60 - 130	<200	ug/L	NC	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.

(2) Some of the recoveries were below the lower control limits. This may represent a low bias in some results for these flagged analytes.

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

### VALIDATION SIGNATURE PAGE

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

*Cristina Carriere*

\_\_\_\_\_  
Cristina Carriere, Scientific Services



*[Signature]*  
\_\_\_\_\_  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



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STANTEC CHAIN OF CUSTODY RECORD

Page 1 of 1

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Company Name: #18379 Stantec Consulting Ltd	Quotation #: B48218	Maxxam Job #:	Bottle Order #:	Barcode: 556057		
Contact Name: Accounts Payable	Contact Name: Report - 1609-00764	Task #:	COC #:		Project Manager: Deepthi Shaji		
Address: 49 Frederick St Kitchener ON N2H 6M7	Address: ON	Project #: 160900764	Site #:		Barcode: G#556057-03-01		
Phone: (519) 579-4410 Fax: (519) 579-6733	Phone: EPP@stantec.com Fax: aaron.warkentin@stantec.com, brant.gill@stantec.com	Profit Centre:	Sampled By: Angela Mason				
Email: Stantec.Accounts.Payable.Invoices@stantec.com							

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY				ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required		
Regulation 153 (2011)		Other Regulations		Special Instructions										Please provide advance notice for rush projects		
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw											<b>Regular (Standard) TAT:</b>	
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw											(will be applied if Rush TAT is not specified)	
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality											Standard TAT = 5-7 Working days for most tests.	
<input type="checkbox"/> Table			<input checked="" type="checkbox"/> PWQO												Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
			<input type="checkbox"/> Other												<b>Job Specific Rush TAT (if applies to entire submission)</b>	
Include Criteria on Certificate of Analysis (Y/N)?														Date Required: _____ Time Required: _____		
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals (Fig Cr VI)	Acidity/CVI/Cyanide/Fluoride/Mercury	TDS/TOC/TSS/Turbidity	Reg 153 (PHC - F1 F4)	Reg 153 PCBs	Reg 153 VOCs	RCAP - Surface Water (NO FILTER Total Metals)	SVOCS	# of Bottles	Comments		
1	WS-160900764-20160414-AM02	2016/04/14	10:55	SW	Y	X	X	X	X	X	X	X	19			
2	" -AM03	"	15:30	SW	Y	X	X	X	X	X	X	X	19			
3																
4																
5																
6																
7																
8																
9																
10																

14-Apr-16 18:55  
Deepthi Shaji  
Barcode: B674686  
HGR ENV-902

* RELINQUISHED BY: (Signature/Print) Angela Mason		Date: (YY/MM/DD) 16/04/14	Time 18:40	RECEIVED BY: (Signature/Print) GURPREET	Date: (YY/MM/DD) 2016/04/14	Time 18:55	# jars used and not submitted	Laboratory Use Only		
Time Sensitive	Temperature (°C) on Receipt 4/14 6/5/3	Custody Seal Present	Yes	No						
		Intact	Yes	No						

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White (Maxxam) Yellow: Client

Your Project #: 160900764  
 Site Location: CLARINGTON TS - MONITORING WELL  
 Your C.O.C. #: 556035-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/22**  
 Report #: R3969166  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674114**

**Received: 2016/04/14, 11:30**

Sample Matrix: Water  
 # Samples Received: 12

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	12	N/A	2016/04/21	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	10	2016/04/19	2016/04/20	CAM SOP-00301	EPA 8270 m
ABN Compounds in Water by SIM GC/MS	2	2016/04/19	2016/04/21	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	5	N/A	2016/04/21	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	5	N/A	2016/04/16	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	5	N/A	2016/04/18	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	5	N/A	2016/04/19		EPA 8260C m
Chloride by Automated Colourimetry	5	N/A	2016/04/18	CAM SOP-00463	EPA 325.2 m
Conductivity	5	N/A	2016/04/16	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	5	N/A	2016/04/15	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	5	N/A	2016/04/15	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2016/04/16	CAM SOP-00446	SM 22 5310 B m
Dissolved Organic Carbon (DOC) (3)	4	N/A	2016/04/17	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	4	N/A	2016/04/18	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2016/04/19	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	5	2016/04/19	2016/04/20	CAM SOP-00316	CCME PHC-CWS m
Fluoride	5	2016/04/15	2016/04/16	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	5	N/A	2016/04/20	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2016/04/16	2016/04/19	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	3	2016/04/16	2016/04/20	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	5	N/A	2016/04/19	CAM SOP-00447	EPA 6020A m
Ion Balance (% Difference)	5	N/A	2016/04/20		
Anion and Cation Sum	5	N/A	2016/04/20		
Total Ammonia-N	5	N/A	2016/04/19	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (5)	5	N/A	2016/04/18	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	5	2016/04/18	2016/04/19	CAM SOP-00309	EPA 8082A m
pH	5	N/A	2016/04/16	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	5	N/A	2016/04/18	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	5	N/A	2016/04/20		

Your Project #: 160900764  
 Site Location: CLARINGTON TS - MONITORING WELL  
 Your C.O.C. #: 556035-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/22**  
 Report #: R3969166  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674114**

**Received: 2016/04/14, 11:30**

Sample Matrix: Water  
 # Samples Received: 12

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Sat. pH and Langelier Index (@ 4C)	5	N/A	2016/04/20		
Sulphate by Automated Colourimetry	5	N/A	2016/04/18	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	5	N/A	2016/04/20		
Total Dissolved Solids	5	N/A	2016/04/19	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (6)	4	N/A	2016/04/18	CAM SOP-00446	SM 22 5310B m
Total Organic Carbon (TOC) (6)	1	N/A	2016/04/19	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	5	N/A	2016/04/15	CAM SOP-00428	SM 22 2540D m
Turbidity	5	N/A	2016/04/14	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	5	N/A	2016/04/18	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CVS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (6) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Your Project #: 160900764  
Site Location: CLARINGTON TS - MONITORING WELL  
Your C.O.C. #: 556035-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/04/22**  
Report #: R3969166  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674114**  
**Received: 2016/04/14, 11:30**

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		CEO882	CEO882			CEO884		
<b>Sampling Date</b>		2016/04/13 10:45	2016/04/13 10:45			2016/04/13 09:30		
<b>COC Number</b>		556035-03-01	556035-03-01			556035-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20160413-AM0 7</b>	<b>WG-160900764- 20160413-AM0 7 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>	<b>WG-160900764- 20160413-AM0 8</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>								
Anion Sum	me/L	4.83		N/A	4457010	8.20	N/A	4457010
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	190		1.0	4457008	220	1.0	4457008
Calculated TDS	mg/L	260		1.0	4457007	470	1.0	4457007
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.0		1.0	4457008	1.8	1.0	4457008
Cation Sum	me/L	4.70		N/A	4457010	7.69	N/A	4457010
Hardness (CaCO3)	mg/L	210		1.0	4457645	370	1.0	4457645
Ion Balance (% Difference)	%	1.41		N/A	4457009	3.17	N/A	4457009
Langelier Index (@ 20C)	N/A	0.386			4457005	0.795		4457005
Langelier Index (@ 4C)	N/A	0.136			4457006	0.547		4457006
Saturation pH (@ 20C)	N/A	7.67			4457005	7.14		4457005
Saturation pH (@ 4C)	N/A	7.92			4457006	7.38		4457006

<b>Inorganics</b>								
Total Ammonia-N	mg/L	0.077		0.050	4461457	<0.050	0.050	4461457
Conductivity	umho/cm	430		1.0	4459165	780	1.0	4459165
Dissolved Organic Carbon	mg/L	0.74	0.72	0.20	4459442	1.2	0.20	4459442
Orthophosphate (P)	mg/L	0.010		0.010	4460407	<0.010	0.010	4460407
pH	pH	8.05			4459166	7.93		4459166
Dissolved Sulphate (SO4)	mg/L	26		1.0	4460408	86	1.0	4460408
Alkalinity (Total as CaCO3)	mg/L	190		1.0	4459164	230	1.0	4459164
Dissolved Chloride (Cl)	mg/L	16		1.0	4460405	25	1.0	4460405
Nitrite (N)	mg/L	<0.010		0.010	4459998	<0.010	0.010	4459994
Nitrate (N)	mg/L	<0.10		0.10	4459998	16.7	0.50	4459994
Nitrate + Nitrite (N)	mg/L	<0.10		0.10	4459998	16.7	0.50	4459994

<b>Metals</b>								
Dissolved Aluminum (Al)	mg/L	0.0056		0.0050	4458898	<0.0050	0.0050	4458898
Dissolved Antimony (Sb)	mg/L	<0.00050		0.00050	4458898	<0.00050	0.00050	4458898
Dissolved Arsenic (As)	mg/L	0.0014		0.0010	4458898	<0.0010	0.0010	4458898
Dissolved Barium (Ba)	mg/L	0.11		0.0020	4458898	0.061	0.0020	4458898
Dissolved Beryllium (Be)	mg/L	<0.00050		0.00050	4458898	<0.00050	0.00050	4458898
Dissolved Boron (B)	mg/L	0.036		0.010	4458898	0.011	0.010	4458898
Dissolved Cadmium (Cd)	mg/L	<0.00010		0.00010	4458898	<0.00010	0.00010	4458898

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CEO882	CEO882			CEO884		
Sampling Date		2016/04/13 10:45	2016/04/13 10:45			2016/04/13 09:30		
COC Number		556035-03-01	556035-03-01			556035-03-01		
	UNITS	WG-160900764- 20160413-AM0 7	WG-160900764- 20160413-AM0 7 Lab-Dup	RDL	QC Batch	WG-160900764- 20160413-AM0 8	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L	27		0.20	4458898	95	0.20	4458898
Dissolved Chromium (Cr)	mg/L	<0.0050		0.0050	4458898	<0.0050	0.0050	4458898
Dissolved Cobalt (Co)	mg/L	<0.00050		0.00050	4458898	<0.00050	0.00050	4458898
Dissolved Copper (Cu)	mg/L	<0.0010		0.0010	4458898	<0.0010	0.0010	4458898
Dissolved Iron (Fe)	mg/L	0.17		0.10	4458898	<0.10	0.10	4458898
Dissolved Lead (Pb)	mg/L	<0.00050		0.00050	4458898	<0.00050	0.00050	4458898
Dissolved Magnesium (Mg)	mg/L	34		0.050	4458898	33	0.050	4458898
Dissolved Manganese (Mn)	mg/L	0.0063		0.0020	4458898	0.0034	0.0020	4458898
Dissolved Molybdenum (Mo)	mg/L	0.0019		0.00050	4458898	0.0017	0.00050	4458898
Dissolved Nickel (Ni)	mg/L	<0.0010		0.0010	4458898	<0.0010	0.0010	4458898
Dissolved Phosphorus (P)	mg/L	<0.10		0.10	4458898	<0.10	0.10	4458898
Dissolved Potassium (K)	mg/L	2.6		0.20	4458898	2.3	0.20	4458898
Dissolved Selenium (Se)	mg/L	<0.0020		0.0020	4458898	<0.0020	0.0020	4458898
Dissolved Silicon (Si)	mg/L	10		0.050	4458898	6.9	0.050	4458898
Dissolved Silver (Ag)	mg/L	<0.00010		0.00010	4458898	<0.00010	0.00010	4458898
Dissolved Sodium (Na)	mg/L	12		0.10	4458898	5.0	0.10	4458898
Dissolved Strontium (Sr)	mg/L	0.57		0.0010	4458898	0.31	0.0010	4458898
Dissolved Thallium (Tl)	mg/L	<0.000050		0.000050	4458898	<0.000050	0.000050	4458898
Dissolved Titanium (Ti)	mg/L	<0.0050		0.0050	4458898	<0.0050	0.0050	4458898
Dissolved Uranium (U)	mg/L	<0.00010		0.00010	4458898	0.0017	0.00010	4458898
Dissolved Vanadium (V)	mg/L	0.00067		0.00050	4458898	0.00083	0.00050	4458898
Dissolved Zinc (Zn)	mg/L	<0.0050		0.0050	4458898	<0.0050	0.0050	4458898
Dissolved Zirconium (Zr)	mg/L	<0.0010		0.0010	4458898	<0.0010	0.0010	4458898
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate								



**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		CEO886	CEO886	CEO888		CEO890		
<b>Sampling Date</b>		2016/04/13 12:20	2016/04/13 12:20	2016/04/13 12:50		2016/04/13 15:00		
<b>COC Number</b>		556035-03-01	556035-03-01	556035-03-01		556035-03-01		
	<b>UNITS</b>	<b>WG-160900764-20160413-AM09</b>	<b>WG-160900764-20160413-AM09 Lab-Dup</b>	<b>WG-160900764-20160413-AM10</b>	<b>QC Batch</b>	<b>WG-160900764-20160413-AM11</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>								
Anion Sum	me/L	5.60		5.47	4457010	10.3	N/A	4457010
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	200		180	4457008	280	1.0	4457008
Calculated TDS	mg/L	290		290	4457007	550	1.0	4457007
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.7		1.7	4457008	1.4	1.0	4457008
Cation Sum	me/L	5.32		5.26	4457010	9.49	N/A	4457010
Hardness (CaCO3)	mg/L	240		240	4457645	400	1.0	4457645
Ion Balance (% Difference)	%	2.55		1.97	4457009	4.11	N/A	4457009
Langelier Index (@ 20C)	N/A	0.444		0.487	4457005	0.813		4457005
Langelier Index (@ 4C)	N/A	0.195		0.238	4457006	0.566		4457006
Saturation pH (@ 20C)	N/A	7.52		7.51	4457005	6.91		4457005
Saturation pH (@ 4C)	N/A	7.77		7.76	4457006	7.15		4457006

<b>Inorganics</b>								
Total Ammonia-N	mg/L	<0.050		<0.050	4461457	<0.050	0.050	4461533
Conductivity	umho/cm	520		520	4459165	1000	1.0	4459165
Dissolved Organic Carbon	mg/L	1.4		0.92	4459442	2.3	0.20	4459177
Orthophosphate (P)	mg/L	<0.010		0.010	4460407	<0.010	0.010	4460407
pH	pH	7.97		8.00	4459166	7.72		4459166
Dissolved Sulphate (SO4)	mg/L	40		44	4460408	90	1.0	4460408
Alkalinity (Total as CaCO3)	mg/L	200		190	4459164	280	1.0	4459164
Dissolved Chloride (Cl)	mg/L	28		29	4460405	100	1.0	4460405
Nitrite (N)	mg/L	<0.010	<0.010	<0.010	4459998	<0.010	0.010	4459998
Nitrate (N)	mg/L	<0.10	<0.10	0.20	4459998	<0.10	0.10	4459998
Nitrate + Nitrite (N)	mg/L	<0.10	<0.10	0.20	4459998	<0.10	0.10	4459998

<b>Metals</b>								
Dissolved Aluminum (Al)	mg/L	0.0080		0.011	4458898	<0.0050	0.0050	4458898
Dissolved Antimony (Sb)	mg/L	<0.00050		<0.00050	4458898	<0.00050	0.00050	4458898
Dissolved Arsenic (As)	mg/L	<0.0010		<0.0010	4458898	<0.0010	0.0010	4458898
Dissolved Barium (Ba)	mg/L	0.076		0.087	4458898	0.064	0.0020	4458898
Dissolved Beryllium (Be)	mg/L	<0.00050		<0.00050	4458898	<0.00050	0.00050	4458898
Dissolved Boron (B)	mg/L	0.029		0.017	4458898	0.033	0.010	4458898
Dissolved Cadmium (Cd)	mg/L	<0.00010		<0.00010	4458898	<0.00010	0.00010	4458898

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate  
N/A = Not Applicable

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CEO886	CEO886	CEO888		CEO890		
Sampling Date		2016/04/13 12:20	2016/04/13 12:20	2016/04/13 12:50		2016/04/13 15:00		
COC Number		556035-03-01	556035-03-01	556035-03-01		556035-03-01		
	UNITS	WG-160900764- 20160413-AM0 9	WG-160900764- 20160413-AM0 9 Lab-Dup	WG-160900764- 20160413-AM1 0	QC Batch	WG-160900764- 20160413-AM1 1	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L	40		44	4458898	140	0.20	4458898
Dissolved Chromium (Cr)	mg/L	<0.0050		<0.0050	4458898	<0.0050	0.0050	4458898
Dissolved Cobalt (Co)	mg/L	<0.00050		<0.00050	4458898	<0.00050	0.00050	4458898
Dissolved Copper (Cu)	mg/L	<0.0010		<0.0010	4458898	<0.0010	0.0010	4458898
Dissolved Iron (Fe)	mg/L	<0.10		<0.10	4458898	<0.10	0.10	4458898
Dissolved Lead (Pb)	mg/L	<0.00050		<0.00050	4458898	<0.00050	0.00050	4458898
Dissolved Magnesium (Mg)	mg/L	34		32	4458898	14	0.050	4458898
Dissolved Manganese (Mn)	mg/L	0.035		0.016	4458898	0.0025	0.0020	4458898
Dissolved Molybdenum (Mo)	mg/L	0.0042		0.0023	4458898	<0.00050	0.00050	4458898
Dissolved Nickel (Ni)	mg/L	<0.0010		<0.0010	4458898	<0.0010	0.0010	4458898
Dissolved Phosphorus (P)	mg/L	<0.10		<0.10	4458898	<0.10	0.10	4458898
Dissolved Potassium (K)	mg/L	3.3		2.7	4458898	0.80	0.20	4458898
Dissolved Selenium (Se)	mg/L	<0.0020		<0.0020	4458898	<0.0020	0.0020	4458898
Dissolved Silicon (Si)	mg/L	8.3		10	4458898	3.4	0.050	4458898
Dissolved Silver (Ag)	mg/L	<0.00010		<0.00010	4458898	<0.00010	0.00010	4458898
Dissolved Sodium (Na)	mg/L	9.5		8.5	4458898	35	0.10	4458898
Dissolved Strontium (Sr)	mg/L	0.51		0.40	4458898	0.41	0.0010	4458898
Dissolved Thallium (Tl)	mg/L	<0.000050		<0.000050	4458898	<0.000050	0.000050	4458898
Dissolved Titanium (Ti)	mg/L	<0.0050		<0.0050	4458898	<0.0050	0.0050	4458898
Dissolved Uranium (U)	mg/L	0.0021		0.00097	4458898	0.00076	0.00010	4458898
Dissolved Vanadium (V)	mg/L	0.00097		0.00076	4458898	0.00060	0.00050	4458898
Dissolved Zinc (Zn)	mg/L	<0.0050		<0.0050	4458898	<0.0050	0.0050	4458898
Dissolved Zirconium (Zr)	mg/L	<0.0010		<0.0010	4458898	<0.0010	0.0010	4458898
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		CEO882	CEO884	CEO884	CEO886	CEO888		
<b>Sampling Date</b>		2016/04/13 10:45	2016/04/13 09:30	2016/04/13 09:30	2016/04/13 12:20	2016/04/13 12:50		
<b>COC Number</b>		556035-03-01	556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20160413-AM0 7</b>	<b>WG-160900764- 20160413-AM0 8</b>	<b>WG-160900764- 20160413-AM0 8 Lab-Dup</b>	<b>WG-160900764- 20160413-AM0 9</b>	<b>WG-160900764- 20160413-AM1 0</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>								
Acidity as CaCO3	mg/L	<10	18		12	<10	10	4459140
Total Dissolved Solids	mg/L	188	496	464	316	318	10	4458998
Fluoride (F-)	mg/L	0.28	0.10		0.26	0.21	0.10	4459159
Free Cyanide	ug/L	<2	<2		<2	<2	2	4459018
Total Organic Carbon (TOC)	mg/L	0.77	1.3		1.7	0.99	0.20	4461296
Total Suspended Solids	mg/L	<10	<10		<10	<10	10	4459003
Turbidity	NTU	4.7	6.3		18	2.2	0.2	4458482

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

<b>Maxxam ID</b>		CEO890		
<b>Sampling Date</b>		2016/04/13 15:00		
<b>COC Number</b>		556035-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20160413-AM1 1</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>				
Acidity as CaCO3	mg/L	38	10	4459140
Total Dissolved Solids	mg/L	594	10	4458998
Fluoride (F-)	mg/L	<0.10	0.10	4459159
Free Cyanide	ug/L	<2	2	4458987
Total Organic Carbon (TOC)	mg/L	2.4	0.20	4462947
Total Suspended Solids	mg/L	<10	10	4459003
Turbidity	NTU	3.9	0.2	4458482

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		CEO882	CEO882	CEO884		CEO886		
<b>Sampling Date</b>		2016/04/13 10:45	2016/04/13 10:45	2016/04/13 09:30		2016/04/13 12:20		
<b>COC Number</b>		556035-03-01	556035-03-01	556035-03-01		556035-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20160413-AM0 7</b>	<b>WG-160900764- 20160413-AM0 7 Lab-Dup</b>	<b>WG-160900764- 20160413-AM0 8</b>	<b>QC Batch</b>	<b>WG-160900764- 20160413-AM0 9</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>								
Chromium (VI)	ug/L	<0.50	<0.50	0.83	4458279	<0.50	0.50	4458279
Mercury (Hg)	mg/L	<0.0001		<0.0001	4460416	<0.0001	0.0001	4460512

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

<b>Maxxam ID</b>		CEO888	CEO890		
<b>Sampling Date</b>		2016/04/13 12:50	2016/04/13 15:00		
<b>COC Number</b>		556035-03-01	556035-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20160413-AM1 0</b>	<b>WG-160900764- 20160413-AM1 1</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>					
Chromium (VI)	ug/L	<0.50	<0.50	0.50	4458279
Mercury (Hg)	mg/L	<0.0001	<0.0001	0.0001	4460512

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 PCBS (WATER)**

Maxxam ID		CEO882	CEO884	CEO886	CEO888	CEO890		
Sampling Date		2016/04/13 10:45	2016/04/13 09:30	2016/04/13 12:20	2016/04/13 12:50	2016/04/13 15:00		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764- 20160413-AM0 7	WG-160900764- 20160413-AM0 8	WG-160900764- 20160413-AM0 9	WG-160900764- 20160413-AM1 0	WG-160900764- 20160413-AM1 1	RDL	QC Batch
<b>PCBs</b>								
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4461845
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4461845
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4461845
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4461845
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4461845
<b>Surrogate Recovery (%)</b>								
Decachlorobiphenyl	%	84	103	94	93	92		4461845
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		CEO882	CEO882	CEO884	CEO886	CEO888		
Sampling Date		2016/04/13 10:45	2016/04/13 10:45	2016/04/13 09:30	2016/04/13 12:20	2016/04/13 12:50		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764- 20160413-AM0 7	WG-160900764- 20160413-AM0 7 Lab-Dup	WG-160900764- 20160413-AM0 8	WG-160900764- 20160413-AM0 9	WG-160900764- 20160413-AM1 0	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>								
F1 (C6-C10)	ug/L	<25		<25	<25	<25	25	4461996
F1 (C6-C10) - BTEX	ug/L	<25		<25	<25	<25	25	4461996
<b>F2-F4 Hydrocarbons</b>								
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	<100	100	4463272
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	4463272
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	4463272
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes	Yes		4463272
<b>Surrogate Recovery (%)</b>								
1,4-Difluorobenzene	%	105		104	104	105		4461996
4-Bromofluorobenzene	%	100		102	99	102		4461996
D10-Ethylbenzene	%	123		124	119	121		4461996
D4-1,2-Dichloroethane	%	102		105	104	105		4461996
o-Terphenyl	%	96	96	100	100	98		4463272
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate								

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

<b>Maxxam ID</b>		CEO890		
<b>Sampling Date</b>		2016/04/13 15:00		
<b>COC Number</b>		556035-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20160413-AM1 1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>BTEX &amp; F1 Hydrocarbons</b>				
F1 (C6-C10)	ug/L	<25	25	4463765
F1 (C6-C10) - BTEX	ug/L	<25	25	4463765
<b>F2-F4 Hydrocarbons</b>				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	4463272
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	4463272
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	4463272
Reached Baseline at C50	ug/L	Yes		4463272
<b>Surrogate Recovery (%)</b>				
1,4-Difluorobenzene	%	99		4463765
4-Bromofluorobenzene	%	97		4463765
D10-Ethylbenzene	%	115		4463765
D4-1,2-Dichloroethane	%	98		4463765
o-Terphenyl	%	100		4463272
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEO882	CEO883	CEO884	CEO884		
Sampling Date		2016/04/13 10:45	2016/04/13 10:45	2016/04/13 09:30	2016/04/13 09:30		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764- 20160413-AM0 7	WG-160900764-20160413- AM07A	WG-160900764- 20160413-AM0 8	WG-160900764- 20160413-AM0 8 Lab-Dup	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4462963
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4462963
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4462963
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4462963
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4462963
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate



**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEO882	CEO883	CEO884	CEO884		
Sampling Date		2016/04/13 10:45	2016/04/13 10:45	2016/04/13 09:30	2016/04/13 09:30		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764- 20160413-AM0 7	WG-160900764-20160413- AM07A	WG-160900764- 20160413-AM0 8	WG-160900764- 20160413-AM0 8 Lab-Dup	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4462963
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28		0.28	4457174
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	46 (1)	54	39 (1)	43 (1)		4462963
2-Fluorobiphenyl	%	70	64	71	69		4462963
D14-Terphenyl (FS)	%	97	23 (1)	98	97		4462963
D5-Nitrobenzene	%	56	57	61	59		4462963
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEO885	CEO886	CEO887	CEO888		
Sampling Date		2016/04/13 09:30	2016/04/13 12:20	2016/04/13 12:20	2016/04/13 12:50		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764-20160413-AM08A	WG-160900764-20160413-AM09	WG-160900764-20160413-AM09A	WG-160900764-20160413-AM10	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4462963
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4462963
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4462963
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4462963
Benzo(b,j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4462963
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEO885	CEO886	CEO887	CEO888		
Sampling Date		2016/04/13 09:30	2016/04/13 12:20	2016/04/13 12:20	2016/04/13 12:50		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764-20160413-AM08A	WG-160900764-20160413-AM09	WG-160900764-20160413-AM09A	WG-160900764-20160413-AM10	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4462963
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4457174
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	45 (1)	41 (1)	39 (1)	42 (1)		4462963
2-Fluorobiphenyl	%	65	53	63	70		4462963
D14-Terphenyl (FS)	%	17 (1)	97	24 (1)	98		4462963
D5-Nitrobenzene	%	59	44 (1)	58	60		4462963
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEO889	CEO890	CEO891	CER911		
Sampling Date		2016/04/13 12:50	2016/04/13 15:00	2016/04/13 15:00	2016/04/13 15:00		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764-20160413-AM10A	WG-160900764-20160413-AM1 1	WG-160900764-20160413-AM11A	FILTERED BLANK	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4462963
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4462963
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4462963
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4462963
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4462963
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4462963

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEO889	CEO890	CEO891	CER911		
Sampling Date		2016/04/13 12:50	2016/04/13 15:00	2016/04/13 15:00	2016/04/13 15:00		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764-20160413-AM10A	WG-160900764-20160413-AM11	WG-160900764-20160413-AM11A	FILTERED BLANK	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4462963
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4462963
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4457174
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	53	43 (1)	46 (1)	34 (1)		4462963
2-Fluorobiphenyl	%	56	69	57	63		4462963
D14-Terphenyl (FS)	%	12 (1)	98	15 (1)	30 (1)		4462963
D5-Nitrobenzene	%	56	58	51	61		4462963
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER912		
Sampling Date		2016/04/13		
COC Number		556035-03-01		
	UNITS	FILTERED SPIKE	RDL	QC Batch
<b>Semivolatile Organics</b>				
1,2,4-Trichlorobenzene	ug/L	37 (1)	1	4462963
1-Methylnaphthalene	ug/L	58	1	4462963
2,4,5-Trichlorophenol	ug/L	94	1	4462963
2,4,6-Trichlorophenol	ug/L	88	1	4462963
2,4-Dichlorophenol	ug/L	68	1	4462963
2,4-Dimethylphenol	ug/L	38	1	4462963
2,4-Dinitrophenol	ug/L	100	1	4462963
2,4-Dinitrotoluene	ug/L	95	1	4462963
2,6-Dinitrotoluene	ug/L	89	1	4462963
2-Chlorophenol	ug/L	63	1	4462963
2-Methylnaphthalene	ug/L	54	1	4462963
3,3'-Dichlorobenzidine	ug/L	89	1	4462963
Acenaphthene	ug/L	68	1	4462963
Acenaphthylene	ug/L	70	1	4462963
Anthracene	ug/L	41 (1)	1	4462963
Benzo(a)anthracene	ug/L	33 (1)	1	4462963
Benzo(a)pyrene	ug/L	29 (1)	1	4462963
Benzo(b/j)fluoranthene	ug/L	29 (1)	1	4462963
Benzo(g,h,i)perylene	ug/L	32 (1)	1	4462963
Benzo(k)fluoranthene	ug/L	30 (1)	1	4462963
Biphenyl	ug/L	62	1	4462963
Bis(2-chloroethyl)ether	ug/L	54	1	4462963
Bis(2-chloroisopropyl)ether	ug/L	56	1	4462963
Bis(2-ethylhexyl)phthalate	ug/L	44 (1)	1	4462963
Chrysene	ug/L	30 (1)	1	4462963
Dibenz(a,h)anthracene	ug/L	32 (1)	1	4462963
Diethyl phthalate	ug/L	81	1	4462963
Dimethyl phthalate	ug/L	90	1	4462963
Fluoranthene	ug/L	50	1	4462963
Fluorene	ug/L	67	1	4462963
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.				

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER912		
Sampling Date		2016/04/13		
COC Number		556035-03-01		
	UNITS	FILTERED SPIKE	RDL	QC Batch
Indeno(1,2,3-cd)pyrene	ug/L	31 (1)	1	4462963
Naphthalene	ug/L	45 (1)	1	4462963
p-Chloroaniline	ug/L	68	1	4462963
Pentachlorophenol	ug/L	91	1	4462963
Phenanthrene	ug/L	56	1	4462963
Phenol	ug/L	28 (1)	1	4462963
Pyrene	ug/L	44 (1)	1	4462963
<b>Calculated Parameters</b>				
Methylnaphthalene, 2-(1-)	ug/L	110	1.4	4457174
<b>Surrogate Recovery (%)</b>				
2,4,6-Tribromophenol	%	74		4462963
2-Fluorobiphenyl	%	47 (2)		4462963
D14-Terphenyl (FS)	%	69		4462963
D5-Nitrobenzene	%	55		4462963
<p>RDL = Reportable Detection Limit            QC Batch = Quality Control Batch            (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.            (2) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.</p>				

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CEO882	CEO884	CEO886	CEO888	CEO890		
Sampling Date		2016/04/13 10:45	2016/04/13 09:30	2016/04/13 12:20	2016/04/13 12:50	2016/04/13 15:00		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764- 20160413-AM0 7	WG-160900764- 20160413-AM0 8	WG-160900764- 20160413-AM0 9	WG-160900764- 20160413-AM1 0	WG-160900764- 20160413-AM1 1	RDL	QC Batch

Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4457630
Volatile Organics								
Acetone (2-Propanone)	ug/L	<10	<10	<10	<10	<10	10	4458999
Benzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4458999
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4458999
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	4458999
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	4458999
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4458999
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	4458999
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	<10	10	4458999
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	4458999
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CEO882	CEO884	CEO886	CEO888	CEO890		
Sampling Date		2016/04/13 10:45	2016/04/13 09:30	2016/04/13 12:20	2016/04/13 12:50	2016/04/13 15:00		
COC Number		556035-03-01	556035-03-01	556035-03-01	556035-03-01	556035-03-01		
	UNITS	WG-160900764- 20160413-AM0 7	WG-160900764- 20160413-AM0 8	WG-160900764- 20160413-AM0 9	WG-160900764- 20160413-AM1 0	WG-160900764- 20160413-AM1 1	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458999
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458999
<b>Surrogate Recovery (%)</b>								
4-Bromofluorobenzene	%	102	103	102	102	103		4458999
D4-1,2-Dichloroethane	%	98	99	100	96	99		4458999
D8-Toluene	%	94	94	95	95	93		4458999
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

### TEST SUMMARY

**Maxxam ID:** CEO882  
**Sample ID:** WG-160900764-20160413-AM07  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4458279	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459442	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4461996	N/A	2016/04/18	Wenhui (Susie) Shi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463272	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458898	N/A	2016/04/19	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH4	4461457	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459998	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4461845	2016/04/18	2016/04/19	Sarah Huang
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk
Total Dissolved Solids	BAL	4458998	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4459003	N/A	2016/04/15	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458999	N/A	2016/04/18	Karen Hughes

**Maxxam ID:** CEO882 Dup  
**Sample ID:** WG-160900764-20160413-AM07  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	4458279	N/A	2016/04/15	Lang Le
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459442	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463272	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu

### TEST SUMMARY

**Maxxam ID:** CEO883  
**Sample ID:** WG-160900764-20160413-AM07A  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic

**Maxxam ID:** CEO884  
**Sample ID:** WG-160900764-20160413-AM08  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4458279	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459442	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4461996	N/A	2016/04/18	Wenhui (Susie) Shi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463272	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458898	N/A	2016/04/19	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH4	4461457	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459994	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4461845	2016/04/18	2016/04/19	Sarah Huang
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk
Total Dissolved Solids	BAL	4458998	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4459003	N/A	2016/04/15	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458999	N/A	2016/04/18	Karen Hughes

### TEST SUMMARY

**Maxxam ID:** CEO884 Dup  
**Sample ID:** WG-160900764-20160413-AM08  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Total Dissolved Solids	BAL	4458998	N/A	2016/04/19	Gurpreet Kaur

**Maxxam ID:** CEO885  
**Sample ID:** WG-160900764-20160413-AM08A  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic

**Maxxam ID:** CEO886  
**Sample ID:** WG-160900764-20160413-AM09  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4458279	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459442	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4461996	N/A	2016/04/18	Wenhui (Susie) Shi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463272	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460512	2016/04/16	2016/04/20	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458898	N/A	2016/04/19	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH4	4461457	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459998	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4461845	2016/04/18	2016/04/19	Sarah Huang
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** CEO886  
**Sample ID:** WG-160900764-20160413-AM09  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	4458998	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4459003	N/A	2016/04/15	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458999	N/A	2016/04/18	Karen Hughes

**Maxxam ID:** CEO886 Dup  
**Sample ID:** WG-160900764-20160413-AM09  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459998	N/A	2016/04/18	Chandra Nandlal

**Maxxam ID:** CEO887  
**Sample ID:** WG-160900764-20160413-AM09A  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic

**Maxxam ID:** CEO888  
**Sample ID:** WG-160900764-20160413-AM10  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4458279	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459442	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4461996	N/A	2016/04/18	Wenhui (Susie) Shi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463272	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460512	2016/04/16	2016/04/20	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458898	N/A	2016/04/19	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** CEO888  
**Sample ID:** WG-160900764-20160413-AM10  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH4	4461457	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459998	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4461845	2016/04/18	2016/04/19	Sarah Huang
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Doboreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Doboreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk
Total Dissolved Solids	BAL	4458998	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4459003	N/A	2016/04/15	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458999	N/A	2016/04/18	Karen Hughes

**Maxxam ID:** CEO889  
**Sample ID:** WG-160900764-20160413-AM10A  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic

**Maxxam ID:** CEO890  
**Sample ID:** WG-160900764-20160413-AM11  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4458279	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459177	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463765	N/A	2016/04/19	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463272	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/20	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** CEO890  
**Sample ID:** WG-160900764-20160413-AM11  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	4460512	2016/04/16	2016/04/20	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458898	N/A	2016/04/19	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH4	4461533	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459998	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4461845	2016/04/18	2016/04/19	Sarah Huang
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk
Total Dissolved Solids	BAL	4458998	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4462947	N/A	2016/04/19	Elsamma Alex
Total Suspended Solids	BAL	4459003	N/A	2016/04/15	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458999	N/A	2016/04/18	Karen Hughes

**Maxxam ID:** CEO891  
**Sample ID:** WG-160900764-20160413-AM11A  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic

**Maxxam ID:** CER911  
**Sample ID:** FILTERED BLANK  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/21	Milijana Avramovic

**Maxxam ID:** CER912  
**Sample ID:** FILTERED SPIKE  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/21	Milijana Avramovic



### GENERAL COMMENTS

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

Package 1	1.3°C
Package 2	2.7°C
Package 3	0.3°C
Package 4	2.0°C
Package 5	-0.7°C
Package 6	2.7°C
Package 7	1.7°C
Package 8	0.3°C

Sample CER912-01 : ABN Analysis: The sample was reported as percentage recoveries. The recoveries were below the lower control limits representing a low bias for this sample.

**Results relate only to the items tested.**



**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458999	4-Bromofluorobenzene	2016/04/18	104	70 - 130	104	70 - 130	104	%				
4458999	D4-1,2-Dichloroethane	2016/04/18	98	70 - 130	100	70 - 130	98	%				
4458999	D8-Toluene	2016/04/18	99	70 - 130	98	70 - 130	94	%				
4461845	Decachlorobiphenyl	2016/04/19	82	60 - 130	79	60 - 130	86	%				
4461996	1,4-Difluorobenzene	2016/04/18	105	70 - 130	107	70 - 130	105	%				
4461996	4-Bromofluorobenzene	2016/04/18	101	70 - 130	99	70 - 130	100	%				
4461996	D10-Ethylbenzene	2016/04/18	105	70 - 130	101	70 - 130	107	%				
4461996	D4-1,2-Dichloroethane	2016/04/18	104	70 - 130	106	70 - 130	102	%				
4462963	2,4,6-Tribromophenol	2016/04/20	74	50 - 130	80	50 - 130	40 (3)					
4462963	2-Fluorobiphenyl	2016/04/20	53	50 - 130	54	50 - 130	62	%				
4462963	D14-Terphenyl (FS)	2016/04/20	99	50 - 130	100	50 - 130	96	%				
4462963	D5-Nitrobenzene	2016/04/20	51	50 - 130	56	50 - 130	57	%				
4463272	o-Terphenyl	2016/04/20	100	60 - 130	100	60 - 130	96	%				
4463765	1,4-Difluorobenzene	2016/04/19	100	70 - 130	100	70 - 130	101	%				
4463765	4-Bromofluorobenzene	2016/04/19	98	70 - 130	100	70 - 130	99	%				
4463765	D10-Ethylbenzene	2016/04/19	108	70 - 130	107	70 - 130	117	%				
4463765	D4-1,2-Dichloroethane	2016/04/19	96	70 - 130	98	70 - 130	99	%				
4458279	Chromium (VI)	2016/04/15	104	80 - 120	96	80 - 120	<0.50	ug/L	NC	20		
4458482	Turbidity	2016/04/14			99	85 - 115	<0.2	NTU	NC	20		
4458898	Dissolved Aluminum (Al)	2016/04/19	107	80 - 120	99	80 - 120	<0.0050	mg/L				
4458898	Dissolved Antimony (Sb)	2016/04/19	105	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20		
4458898	Dissolved Arsenic (As)	2016/04/19	99	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
4458898	Dissolved Barium (Ba)	2016/04/19	98	80 - 120	94	80 - 120	<0.0020	mg/L	4.8	20		
4458898	Dissolved Beryllium (Be)	2016/04/19	106	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20		
4458898	Dissolved Boron (B)	2016/04/19	106	80 - 120	97	80 - 120	<0.010	mg/L	NC	20		
4458898	Dissolved Cadmium (Cd)	2016/04/19	101	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20		
4458898	Dissolved Calcium (Ca)	2016/04/19	NC	80 - 120	95	80 - 120	<0.20	mg/L				
4458898	Dissolved Chromium (Cr)	2016/04/19	102	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20		
4458898	Dissolved Cobalt (Co)	2016/04/19	102	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4458898	Dissolved Copper (Cu)	2016/04/19	97	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
4458898	Dissolved Iron (Fe)	2016/04/19	91	80 - 120	89	80 - 120	<0.10	mg/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458898	Dissolved Lead (Pb)	2016/04/19	96	80 - 120	94	80 - 120	<0.00050	mg/L	NC	20		
4458898	Dissolved Magnesium (Mg)	2016/04/19	NC	80 - 120	91	80 - 120	<0.050	mg/L				
4458898	Dissolved Manganese (Mn)	2016/04/19	NC	80 - 120	94	80 - 120	<0.0020	mg/L				
4458898	Dissolved Molybdenum (Mo)	2016/04/19	105	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
4458898	Dissolved Nickel (Ni)	2016/04/19	100	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
4458898	Dissolved Phosphorus (P)	2016/04/19	102	80 - 120	98	80 - 120	<0.10	mg/L				
4458898	Dissolved Potassium (K)	2016/04/19	99	80 - 120	93	80 - 120	<0.20	mg/L				
4458898	Dissolved Selenium (Se)	2016/04/19	104	80 - 120	101	80 - 120	<0.0020	mg/L	NC	20		
4458898	Dissolved Silicon (Si)	2016/04/19	101	80 - 120	93	80 - 120	<0.050	mg/L				
4458898	Dissolved Silver (Ag)	2016/04/19	78 (1)	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20		
4458898	Dissolved Sodium (Na)	2016/04/19	NC	80 - 120	92	80 - 120	0.12, RDL=0.10	mg/L	4.8	20		
4458898	Dissolved Strontium (Sr)	2016/04/19	NC	80 - 120	95	80 - 120	<0.0010	mg/L				
4458898	Dissolved Thallium (Tl)	2016/04/19	96	80 - 120	94	80 - 120	<0.000050	mg/L	NC	20		
4458898	Dissolved Titanium (Ti)	2016/04/19	95	80 - 120	90	80 - 120	<0.0050	mg/L				
4458898	Dissolved Uranium (U)	2016/04/19	94	80 - 120	89	80 - 120	<0.00010	mg/L	1.7	20		
4458898	Dissolved Vanadium (V)	2016/04/19	104	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4458898	Dissolved Zinc (Zn)	2016/04/19	95	80 - 120	94	80 - 120	<0.0050	mg/L	NC	20		
4458898	Dissolved Zirconium (Zr)	2016/04/19	102	80 - 120	97	80 - 120	<0.0010	mg/L				
4458987	Free Cyanide	2016/04/15	103	80 - 120	105	80 - 120	<2	ug/L	NC	20		
4458998	Total Dissolved Solids	2016/04/19					<10	mg/L	6.7	25	99	90 - 110
4458999	1,1,1,2-Tetrachloroethane	2016/04/18	96	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4458999	1,1,1-Trichloroethane	2016/04/18	94	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
4458999	1,1,2,2-Tetrachloroethane	2016/04/18	96	70 - 130	104	70 - 130	<0.50	ug/L	NC	30		
4458999	1,1,2-Trichloroethane	2016/04/18	102	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458999	1,1-Dichloroethane	2016/04/18	89	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458999	1,1-Dichloroethylene	2016/04/18	92	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4458999	1,2-Dichlorobenzene	2016/04/18	91	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4458999	1,2-Dichloroethane	2016/04/18	93	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
4458999	1,2-Dichloropropane	2016/04/18	89	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458999	1,3-Dichlorobenzene	2016/04/18	92	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458999	1,4-Dichlorobenzene	2016/04/18	92	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
4458999	Acetone (2-Propanone)	2016/04/18	89	60 - 140	96	60 - 140	<10	ug/L	NC	30		
4458999	Benzene	2016/04/18	93	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4458999	Bromodichloromethane	2016/04/18	95	70 - 130	104	70 - 130	<0.50	ug/L	NC	30		
4458999	Bromoform	2016/04/18	97	70 - 130	106	70 - 130	<1.0	ug/L	NC	30		
4458999	Bromomethane	2016/04/18	82	60 - 140	90	60 - 140	<0.50	ug/L	NC	30		
4458999	Carbon Tetrachloride	2016/04/18	97	70 - 130	106	70 - 130	<0.20	ug/L	NC	30		
4458999	Chlorobenzene	2016/04/18	95	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4458999	Chloroform	2016/04/18	94	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
4458999	cis-1,2-Dichloroethylene	2016/04/18	90	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4458999	cis-1,3-Dichloropropene	2016/04/18	90	70 - 130	101	70 - 130	<0.30	ug/L	NC	30		
4458999	Dibromochloromethane	2016/04/18	96	70 - 130	104	70 - 130	<0.50	ug/L	NC	30		
4458999	Dichlorodifluoromethane (FREON 12)	2016/04/18	94	60 - 140	101	60 - 140	<1.0	ug/L	NC	30		
4458999	Ethylbenzene	2016/04/18	92	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458999	Ethylene Dibromide	2016/04/18	95	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4458999	Hexane	2016/04/18	92	70 - 130	99	70 - 130	<1.0	ug/L	NC	30		
4458999	Methyl Ethyl Ketone (2-Butanone)	2016/04/18	86	60 - 140	94	60 - 140	<10	ug/L	NC	30		
4458999	Methyl Isobutyl Ketone	2016/04/18	87	70 - 130	97	70 - 130	<5.0	ug/L	NC	30		
4458999	Methyl t-butyl ether (MTBE)	2016/04/18	92	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
4458999	Methylene Chloride(Dichloromethane)	2016/04/18	93	70 - 130	101	70 - 130	<2.0	ug/L	NC	30		
4458999	o-Xylene	2016/04/18	90	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458999	p+m-Xylene	2016/04/18	90	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458999	Styrene	2016/04/18	92	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
4458999	Tetrachloroethylene	2016/04/18	97	70 - 130	104	70 - 130	<0.20	ug/L	NC	30		
4458999	Toluene	2016/04/18	89	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458999	Total Xylenes	2016/04/18					<0.20	ug/L	NC	30		
4458999	trans-1,2-Dichloroethylene	2016/04/18	90	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4458999	trans-1,3-Dichloropropene	2016/04/18	84	70 - 130	95	70 - 130	<0.40	ug/L	NC	30		
4458999	Trichloroethylene	2016/04/18	93	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
4458999	Trichlorofluoromethane (FREON 11)	2016/04/18	96	70 - 130	104	70 - 130	<0.50	ug/L	NC	30		
4458999	Vinyl Chloride	2016/04/18	91	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459003	Total Suspended Solids	2016/04/15					<10	mg/L	NC	25	100	85 - 115
4459018	Free Cyanide	2016/04/15	102	80 - 120	104	80 - 120	<2	ug/L	NC	20		
4459140	Acidity as CaCO3						<10	mg/L	NC	25		
4459159	Fluoride (F-)	2016/04/16	106	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
4459164	Alkalinity (Total as CaCO3)	2016/04/16			99	85 - 115	<1.0	mg/L	0.52	25		
4459165	Conductivity	2016/04/16			100	85 - 115	<1.0	umho/cm	0	25		
4459166	pH	2016/04/16			101	98 - 103			1.5	N/A		
4459177	Dissolved Organic Carbon	2016/04/16	94	80 - 120	99	80 - 120	0.28, RDL=0.20	mg/L	6.2	20		
4459442	Dissolved Organic Carbon	2016/04/17	102	80 - 120	106	80 - 120	<0.20	mg/L	NC	20		
4459994	Nitrate (N)	2016/04/18	NC	80 - 120	95	80 - 120	<0.10	mg/L	0.10	25		
4459994	Nitrite (N)	2016/04/18	106	80 - 120	108	80 - 120	<0.010	mg/L	2.3	25		
4459998	Nitrate (N)	2016/04/18	95	80 - 120	95	80 - 120	<0.10	mg/L	NC	25		
4459998	Nitrite (N)	2016/04/18	105	80 - 120	105	80 - 120	<0.010	mg/L	NC	25		
4460405	Dissolved Chloride (Cl)	2016/04/18	NC	80 - 120	102	80 - 120	<1.0	mg/L	0.40	20		
4460407	Orthophosphate (P)	2016/04/18	111	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
4460408	Dissolved Sulphate (SO4)	2016/04/18	NC	75 - 125	100	80 - 120	<1.0	mg/L	0.24	20		
4460416	Mercury (Hg)	2016/04/19	111	75 - 125	97	80 - 120	<0.0001	mg/L	NC	20		
4460512	Mercury (Hg)	2016/04/20	102	75 - 125	100	80 - 120	<0.0001	mg/L	NC	20		
4461296	Total Organic Carbon (TOC)	2016/04/18	96	80 - 120	99	80 - 120	0.22, RDL=0.20	mg/L	1.5	20		
4461457	Total Ammonia-N	2016/04/19	107	80 - 120	99	85 - 115	<0.050	mg/L	1.5	20		
4461533	Total Ammonia-N	2016/04/19	98	80 - 120	98	85 - 115	<0.050	mg/L	NC	20		
4461845	Aroclor 1242	2016/04/19					<0.05	ug/L	NC	30		
4461845	Aroclor 1248	2016/04/19					<0.05	ug/L	NC	30		
4461845	Aroclor 1254	2016/04/19					<0.05	ug/L	NC	30		
4461845	Aroclor 1260	2016/04/19	81	60 - 130	78	60 - 130	<0.05	ug/L	NC	30		
4461845	Total PCB	2016/04/19	81	60 - 130	78	60 - 130	<0.05	ug/L	NC	40		
4461996	F1 (C6-C10) - BTEX	2016/04/18					<25	ug/L	NC	30		
4461996	F1 (C6-C10)	2016/04/18	84	70 - 130	115	70 - 130	<25	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4462947	Total Organic Carbon (TOC)	2016/04/19	97	80 - 120	100	80 - 120	<0.20	mg/L	NC	20		
4462963	1,2,4-Trichlorobenzene	2016/04/20	47	40 - 130	44	40 - 130	<0.1	ug/L	NC	30		
4462963	1-Methylnaphthalene	2016/04/20	61	50 - 130	66	50 - 130	<0.2	ug/L	NC	30		
4462963	2,4,5-Trichlorophenol	2016/04/20	93	50 - 130	100	50 - 130	<0.2	ug/L	NC	30		
4462963	2,4,6-Trichlorophenol	2016/04/20	84	50 - 130	93	50 - 130	<0.2	ug/L	NC	30		
4462963	2,4-Dichlorophenol	2016/04/20	62	50 - 130	70	50 - 130	<0.1	ug/L	NC	30		
4462963	2,4-Dimethylphenol	2016/04/20	33	30 - 130	67	30 - 130	<0.5	ug/L	NC	30		
4462963	2,4-Dinitrophenol	2016/04/20	86	30 - 130	82	30 - 130	<2	ug/L	NC	30		
4462963	2,4-Dinitrotoluene	2016/04/20	100	50 - 130	100	50 - 130	<0.3	ug/L	NC	30		
4462963	2,6-Dinitrotoluene	2016/04/20	92	50 - 130	93	50 - 130	<0.3	ug/L	NC	30		
4462963	2-Chlorophenol	2016/04/20	56	50 - 130	63	50 - 130	<0.1	ug/L	NC	30		
4462963	2-Methylnaphthalene	2016/04/20	59	50 - 130	64	50 - 130	<0.2	ug/L	NC	30		
4462963	3,3'-Dichlorobenzidine	2016/04/20	102	30 - 130	101	30 - 130	<0.5	ug/L	NC	30		
4462963	Acenaphthene	2016/04/20	73	50 - 130	78	50 - 130	<0.2	ug/L	NC	30		
4462963	Acenaphthylene	2016/04/20	73	50 - 130	77	50 - 130	<0.2	ug/L	NC	30		
4462963	Anthracene	2016/04/20	87	50 - 130	88	50 - 130	<0.05	ug/L	NC	30		
4462963	Benzo(a)anthracene	2016/04/20	100	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		
4462963	Benzo(a)pyrene	2016/04/20	91	50 - 130	94	50 - 130	<0.01	ug/L	NC	30		
4462963	Benzo(b/j)fluoranthene	2016/04/20	90	50 - 130	88	50 - 130	<0.05	ug/L	NC	30		
4462963	Benzo(g,h,i)perylene	2016/04/20	110	50 - 130	110	50 - 130	<0.05	ug/L	NC	30		
4462963	Benzo(k)fluoranthene	2016/04/20	87	50 - 130	85	50 - 130	<0.05	ug/L	NC	30		
4462963	Biphenyl	2016/04/20	66	50 - 130	71	50 - 130	<0.1	ug/L	NC	30		
4462963	Bis(2-chloroethyl)ether	2016/04/20	51	50 - 130	55	50 - 130	<0.5	ug/L	NC	30		
4462963	Bis(2-chloroisopropyl)ether	2016/04/20	54	50 - 130	58	50 - 130	<0.5	ug/L	NC	30		
4462963	Bis(2-ethylhexyl)phthalate	2016/04/20	96	50 - 130	96	50 - 130	<1	ug/L	NC	30		
4462963	Chrysene	2016/04/20	96	50 - 130	95	50 - 130	<0.05	ug/L	NC	30		
4462963	Dibenz(a,h)anthracene	2016/04/20	111	50 - 130	111	50 - 130	<0.1	ug/L	NC	30		
4462963	Diethyl phthalate	2016/04/20	82	50 - 130	83	50 - 130	<0.1	ug/L	NC	30		
4462963	Dimethyl phthalate	2016/04/20	91	50 - 130	92	50 - 130	<0.1	ug/L	NC	30		
4462963	Fluoranthene	2016/04/20	102	50 - 130	101	50 - 130	<0.2	ug/L	NC	30		
4462963	Fluorene	2016/04/20	83	50 - 130	86	50 - 130	<0.2	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4462963	Indeno(1,2,3-cd)pyrene	2016/04/20	107	50 - 130	106	50 - 130	<0.1	ug/L	NC	30		
4462963	Naphthalene	2016/04/20	48 (2)	50 - 130	67	50 - 130	<0.2	ug/L	NC	30		
4462963	p-Chloroaniline	2016/04/20	58	30 - 130	59	30 - 130	<1	ug/L	NC	30		
4462963	Pentachlorophenol	2016/04/20	91	50 - 130	100	50 - 130	<0.1	ug/L	NC	30		
4462963	Phenanthrene	2016/04/20	85	50 - 130	87	50 - 130	<0.1	ug/L	NC	30		
4462963	Phenol	2016/04/20	25 (2)	30 - 130	31	30 - 130	<0.5	ug/L	NC	30		
4462963	Pyrene	2016/04/20	95	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4463272	F2 (C10-C16 Hydrocarbons)	2016/04/20	96	50 - 130	95	60 - 130	<100	ug/L	NC	30		
4463272	F3 (C16-C34 Hydrocarbons)	2016/04/20	95	50 - 130	99	60 - 130	<200	ug/L	NC	30		
4463272	F4 (C34-C50 Hydrocarbons)	2016/04/20	92	50 - 130	92	60 - 130	<200	ug/L	NC	30		
4463765	F1 (C6-C10) - BTEX	2016/04/19					<25	ug/L	NC	30		
4463765	F1 (C6-C10)	2016/04/19	80	70 - 130	99	70 - 130	<25	ug/L	NC	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

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

(2) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

(3) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.

### VALIDATION SIGNATURE PAGE

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

*Cristina Carriere*

\_\_\_\_\_  
Cristina Carriere, Scientific Services

*Eva Pranjic*



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

*Grace M. Sison*



\_\_\_\_\_  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**IMMEDIATE TEST**



Maxxam Analytics International Corporation o/a Maxxam Analytics  
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-Free: (800) 563-6266 Fax: (905) 817-5777 www.maxxam.ca

**STANTEC CHAIN OF CUSTODY RECORD**

1 of 1  
Page 1 of 1

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Company Name: #18379 Stantec Consulting Ltd	Quotation #: B48218	Maxxam Job #:	Task #: 160900764	Bottle Order #:	556035	
Contact Name: Accounts Payable	Contact Name: Report - 1609-00764	Project #:	COC #:	Profit Centre: Clarington TS - Monitoring Wel	Project Manager:	Deepthi Shaji	
Address: 49 Frederick St Kitchener ON N2H 6M7	Address: ON	Site #:	Sampled By: Angela Mason		C#556035-03-01		
Phone: (519) 579-4410 Fax: (519) 579-6733	Phone: EPP@stantec.com Fax:						
Email: Stantec.Accounts.Payable.Invoices@Stantec.com	Email: aaron.warkentin@stantec.com, brant.gill@stantec.com						

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects	
Regulation 153 (2011)			Other Regulations			Special Instructions										Regular (Standard) TAT: (will be applied if Rush TAT is not specified). Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
<input checked="" type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw	Special Instructions	Field Filtered (please circle): Metals (Pb, Cr, VI)	Acidity, CrVI, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1, F4	Reg 153 PCBs	Reg 153 VOCs	P/Cs - Comprehensive (field filtered metals)	SVOC	Lab Filtered SVOCs	Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)		
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw											Regular (Standard) TAT: <input checked="" type="checkbox"/>		
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality: _____											Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)		
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO	<input type="checkbox"/> Other _____											Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)		
Include Criteria on Certificate of Analysis (Y/N)?																# of Bottles	Comments
1	WG-160900764-20160413 - AM07	2016/04/13	10:45	GW	Y	X	X	X	X	X	X	X	X	X	20		
2	WG-160900764-20151013 - AM07A		10:45												2		
3	WG-160900764-20151013 - AM08		9:30		Y	X	X	X	X	X	X	X	X	X	20		
4	WG-160900764-20151013 - AM08A		9:30												2		
5	WG-160900764-20151013 - AM09		12:20		Y	X	X	X	X	X	X	X	X	X	20	14-Apr-16 11:30	
6	WG-160900764-20151013 - AM09A		12:20												2	Deepthi Shaji B674114	
7	WG-160900764-20151013 - AM10		12:50		Y	X	X	X	X	X	X	X	X	X	20	RGN ENV-1074	
8	WG-160900764-20151013 - AM10A		12:50												2		
9	WG-160900764-20151013 - AM11		15:00		Y	X	X	X	X	X	X	X	X	X	20		
10	WG-160900764-20151013 - AM11A		15:00												2		

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only						
Angela Mason		16/04/13	19:00	AARON BRANTON		2016/04/14	11:30		Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No		
Janie Koch		16/04/14	11:30	AARON BRANTON		2016/04/14	11:30			REFER TO ACTR	Present	<input checked="" type="checkbox"/>			
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS												SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM		White: Maxxam Yellow: Client	



Your Project #: 160900764  
 Site Location: Clarington TS – Monitoring Well  
 Your C.O.C. #: 556035-01-01, 556035-02-01

**Attention: Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/22**  
 Report #: R3969934  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B673021**

**Received: 2016/04/13, 08:30**

Sample Matrix: Water  
 # Samples Received: 14

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	14	N/A	2016/04/22	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	14	2016/04/20	2016/04/21	CAM SOP-00301	EPA 8270 m
Acidity as CaCO <sub>3</sub> in liquid (1, 2)	6	N/A	2016/04/18	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	5	N/A	2016/04/14	CAM SOP-00448	SM 22 2320 B m
Alkalinity	1	N/A	2016/04/22	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	6	N/A	2016/04/15	CAM SOP-00102	APHA 4500-CO <sub>2</sub> D
1,3-Dichloropropene Sum	6	N/A	2016/04/18		EPA 8260C m
Chloride by Automated Colourimetry	5	N/A	2016/04/15	CAM SOP-00463	EPA 325.2 m
Chloride by Automated Colourimetry	1	N/A	2016/04/21	CAM SOP-00463	EPA 325.2 m
Conductivity	6	N/A	2016/04/14	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	6	N/A	2016/04/18	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	6	N/A	2016/04/15	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	6	N/A	2016/04/16	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	6	N/A	2016/04/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	6	2016/04/18	2016/04/19	CAM SOP-00316	CCME PHC-CWS m
Fluoride	6	2016/04/14	2016/04/14	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO <sub>3</sub> )	6	N/A	2016/04/19	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	6	2016/04/16	2016/04/19	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	6	N/A	2016/04/18	CAM SOP-00447	EPA 6020A m
Ion Balance (% Difference)	6	N/A	2016/04/19		
Anion and Cation Sum	6	N/A	2016/04/19		
Total Ammonia-N	4	N/A	2016/04/19	CAM SOP-00441	EPA GS I-2522-90 m
Total Ammonia-N	2	N/A	2016/04/20	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water (5)	6	N/A	2016/04/15	CAM SOP-00440	SM 22 4500-NO <sub>3</sub> /NO <sub>2</sub> B
Polychlorinated Biphenyl in Water	6	2016/04/16	2016/04/16	CAM SOP-00309	EPA 8082A m
pH	6	N/A	2016/04/14	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	6	N/A	2016/04/15	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	6	N/A	2016/04/19		
Sat. pH and Langelier Index (@ 4C)	6	N/A	2016/04/19		

Your Project #: 160900764  
 Site Location: Clarington TS – Monitoring Well  
 Your C.O.C. #: 556035-01-01, 556035-02-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/22**  
 Report #: R3969934  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B673021**

**Received: 2016/04/13, 08:30**

Sample Matrix: Water  
 # Samples Received: 14

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Sulphate by Automated Colourimetry	5	N/A	2016/04/15	CAM SOP-00464	EPA 375.4 m
Sulphate by Automated Colourimetry	1	N/A	2016/04/21	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	6	N/A	2016/04/19		
Total Dissolved Solids	6	N/A	2016/04/18	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (6)	6	N/A	2016/04/18	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	6	N/A	2016/04/15	CAM SOP-00428	SM 22 2540D m
Turbidity	4	N/A	2016/04/13	CAM SOP-00417	SM 22 2130 B m
Turbidity	2	N/A	2016/04/14	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	6	N/A	2016/04/16	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (6) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Your Project #: 160900764  
Site Location: Clarington TS – Monitoring Well  
Your C.O.C. #: 556035-01-01, 556035-02-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/04/22**  
Report #: R3969934  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B673021**  
**Received: 2016/04/13, 08:30**

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CEK201	CEK201	CEK203		CEK205		
Sampling Date		2016/04/12 09:00	2016/04/12 09:00	2016/04/12 11:15		2016/04/12 11:50		
COC Number		556035-01-01	556035-01-01	556035-01-01		556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 1	WG-160900764- 20160412-AM0 1 Lab-Dup	WG-160900764- 20160412-AM0 2	QC Batch	WG-160900764- 20160412-AM0 3	RDL	QC Batch

Calculated Parameters								
Anion Sum	me/L	4.85		6.46	4455678	7.32	N/A	4455678
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	140		260	4455801	280	1.0	4455801
Calculated TDS	mg/L	290		360	4455128	400	1.0	4455128
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0		1.5	4455801	1.4	1.0	4455801
Cation Sum	me/L	4.66		6.52	4455678	7.63	N/A	4455678
Hardness (CaCO3)	mg/L	69		280	4455799	370	1.0	4455799
Ion Balance (% Difference)	%	2.00		0.480	4455438	2.08	N/A	4455438
Langelier Index (@ 20C)	N/A	-0.334		0.773	4455679	0.822		4455679
Langelier Index (@ 4C)	N/A	-0.584		0.524	4455680	0.573		4455680
Saturation pH (@ 20C)	N/A	8.05		7.02	4455679	6.89		4455679
Saturation pH (@ 4C)	N/A	8.30		7.27	4455680	7.14		4455680

Inorganics								
Total Ammonia-N	mg/L	<0.050		<0.050	4461508	<0.050	0.050	4461856
Conductivity	umho/cm	480		620	4457402	700	1.0	4457402
Dissolved Organic Carbon	mg/L	2.8		0.93	4459042	1.1	0.20	4460238
Orthophosphate (P)	mg/L	0.010		<0.010	4458003	<0.010	0.010	4458003
pH	pH	7.72		7.79	4457401	7.71		4457401
Dissolved Sulphate (SO4)	mg/L	86		16	4458005	24	1.0	4458005
Alkalinity (Total as CaCO3)	mg/L	140		260	4457396	290	1.0	4457396
Dissolved Chloride (Cl)	mg/L	6.6		15	4458001	23	1.0	4458001
Nitrite (N)	mg/L	<0.010		<0.010	4457930	<0.010	0.010	4457198
Nitrate (N)	mg/L	<0.10		6.25	4457930	6.41	0.10	4457198
Nitrate + Nitrite (N)	mg/L	<0.10		6.25	4457930	6.41	0.10	4457198

Metals								
Dissolved Aluminum (Al)	mg/L	0.010	0.010	<0.0050	4458834	<0.0050	0.0050	4458834
Dissolved Antimony (Sb)	mg/L	0.00091	0.00083	<0.00050	4458834	<0.00050	0.00050	4458834
Dissolved Arsenic (As)	mg/L	0.0021	0.0020	<0.0010	4458834	<0.0010	0.0010	4458834
Dissolved Barium (Ba)	mg/L	0.037	0.035	0.029	4458834	0.051	0.0020	4458834
Dissolved Beryllium (Be)	mg/L	<0.00050	<0.00050	<0.00050	4458834	<0.00050	0.00050	4458834
Dissolved Boron (B)	mg/L	0.21	0.21	<0.010	4458834	<0.010	0.010	4458834
Dissolved Cadmium (Cd)	mg/L	<0.00010	<0.00010	<0.00010	4458834	<0.00010	0.00010	4458834

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate  
N/A = Not Applicable

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CEK201	CEK201	CEK203		CEK205		
Sampling Date		2016/04/12 09:00	2016/04/12 09:00	2016/04/12 11:15		2016/04/12 11:50		
COC Number		556035-01-01	556035-01-01	556035-01-01		556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 1	WG-160900764- 20160412-AM0 1 Lab-Dup	WG-160900764- 20160412-AM0 2	QC Batch	WG-160900764- 20160412-AM0 3	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L	17	16	100	4458834	130	0.20	4458834
Dissolved Chromium (Cr)	mg/L	<0.0050	<0.0050	<0.0050	4458834	<0.0050	0.0050	4458834
Dissolved Cobalt (Co)	mg/L	<0.00050	<0.00050	<0.00050	4458834	<0.00050	0.00050	4458834
Dissolved Copper (Cu)	mg/L	<0.0010	<0.0010	<0.0010	4458834	<0.0010	0.0010	4458834
Dissolved Iron (Fe)	mg/L	<0.10	<0.10	<0.10	4458834	<0.10	0.10	4458834
Dissolved Lead (Pb)	mg/L	<0.00050	<0.00050	<0.00050	4458834	<0.00050	0.00050	4458834
Dissolved Magnesium (Mg)	mg/L	6.7	6.5	7.9	4458834	12	0.050	4458834
Dissolved Manganese (Mn)	mg/L	<0.0020	<0.0020	<0.0020	4458834	<0.0020	0.0020	4458834
Dissolved Molybdenum (Mo)	mg/L	0.064	0.062	0.0019	4458834	<0.00050	0.00050	4458834
Dissolved Nickel (Ni)	mg/L	<0.0010	<0.0010	<0.0010	4458834	<0.0010	0.0010	4458834
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	<0.10	4458834	<0.10	0.10	4458834
Dissolved Potassium (K)	mg/L	1.5	1.4	1.4	4458834	1.4	0.20	4458834
Dissolved Selenium (Se)	mg/L	<0.0020	<0.0020	<0.0020	4458834	<0.0020	0.0020	4458834
Dissolved Silicon (Si)	mg/L	3.7	3.6	4.6	4458834	4.9	0.050	4458834
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	4458834	<0.00010	0.00010	4458834
Dissolved Sodium (Na)	mg/L	74	74	20	4458834	5.9	0.10	4458834
Dissolved Strontium (Sr)	mg/L	0.44	0.42	0.19	4458834	0.25	0.0010	4458834
Dissolved Thallium (Tl)	mg/L	<0.000050	<0.000050	<0.000050	4458834	<0.000050	0.000050	4458834
Dissolved Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	4458834	<0.0050	0.0050	4458834
Dissolved Uranium (U)	mg/L	0.0020	0.0020	0.0013	4458834	0.00046	0.00010	4458834
Dissolved Vanadium (V)	mg/L	0.00093	0.00091	<0.00050	4458834	<0.00050	0.00050	4458834
Dissolved Zinc (Zn)	mg/L	<0.0050	<0.0050	0.037	4458834	<0.0050	0.0050	4458834
Dissolved Zirconium (Zr)	mg/L	<0.0010	<0.0010	<0.0010	4458834	<0.0010	0.0010	4458834
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								

**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		CEK207	CEK207		CEK209		
<b>Sampling Date</b>		2016/04/12 12:10	2016/04/12 12:10		2016/04/12 17:00		
<b>COC Number</b>		556035-01-01	556035-01-01		556035-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 4</b>	<b>WG-160900764- 20160412-AM0 4 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20160412-AM0 5</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>							
Anion Sum	me/L	7.25		4455678	2.69	N/A	4455678
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	280		4455801	100	1.0	4455801
Calculated TDS	mg/L	400		4455128	150	1.0	4455128
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.5		4455801	1.4	1.0	4455801
Cation Sum	me/L	7.57		4455678	2.57	N/A	4455678
Hardness (CaCO3)	mg/L	360		4455799	18	1.0	4455799
Ion Balance (% Difference)	%	2.12		4455438	NC	N/A	4455438
Langelier Index (@ 20C)	N/A	0.850		4455679	-0.447		4455679
Langelier Index (@ 4C)	N/A	0.601		4455680	-0.697		4455680
Saturation pH (@ 20C)	N/A	6.89		4455679	8.62		4455679
Saturation pH (@ 4C)	N/A	7.14		4455680	8.87		4455680
<b>Inorganics</b>							
Total Ammonia-N	mg/L	<0.050		4461856	<0.050	0.050	4461856
Conductivity	umho/cm	700		4457402	240	1.0	4457402
Dissolved Organic Carbon	mg/L	1.0		4460238	1.0	0.20	4460238
Orthophosphate (P)	mg/L	<0.010	<0.010	4458003	0.012	0.010	4458003
pH	pH	7.74		4457401	8.17		4457401
Dissolved Sulphate (SO4)	mg/L	24	24	4458005	20	1.0	4458005
Alkalinity (Total as CaCO3)	mg/L	280		4457396	100	1.0	4457396
Dissolved Chloride (Cl)	mg/L	22	22	4458001	3.3	1.0	4458001
Nitrite (N)	mg/L	<0.010		4457204	<0.010	0.010	4457198
Nitrate (N)	mg/L	6.56		4457204	<0.10	0.10	4457198
Nitrate + Nitrite (N)	mg/L	6.56		4457204	<0.10	0.10	4457198
<b>Metals</b>							
Dissolved Aluminum (Al)	mg/L	<0.0050		4458834	0.086	0.0050	4458834
Dissolved Antimony (Sb)	mg/L	<0.00050		4458834	<0.00050	0.00050	4458834
Dissolved Arsenic (As)	mg/L	<0.0010		4458834	0.0022	0.0010	4458834
Dissolved Barium (Ba)	mg/L	0.052		4458834	0.0074	0.0020	4458834
Dissolved Beryllium (Be)	mg/L	<0.00050		4458834	<0.00050	0.00050	4458834
Dissolved Boron (B)	mg/L	<0.010		4458834	0.22	0.010	4458834
Dissolved Cadmium (Cd)	mg/L	<0.00010		4458834	<0.00010	0.00010	4458834
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate N/A = Not Applicable							

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CEK207	CEK207		CEK209		
Sampling Date		2016/04/12 12:10	2016/04/12 12:10		2016/04/12 17:00		
COC Number		556035-01-01	556035-01-01		556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 4	WG-160900764- 20160412-AM0 4 Lab-Dup	QC Batch	WG-160900764- 20160412-AM0 5	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L	130		4458834	5.4	0.20	4458834
Dissolved Chromium (Cr)	mg/L	<0.0050		4458834	<0.0050	0.0050	4458834
Dissolved Cobalt (Co)	mg/L	<0.00050		4458834	<0.00050	0.00050	4458834
Dissolved Copper (Cu)	mg/L	<0.0010		4458834	<0.0010	0.0010	4458834
Dissolved Iron (Fe)	mg/L	<0.10		4458834	<0.10	0.10	4458834
Dissolved Lead (Pb)	mg/L	<0.00050		4458834	<0.00050	0.00050	4458834
Dissolved Magnesium (Mg)	mg/L	12		4458834	1.2	0.050	4458834
Dissolved Manganese (Mn)	mg/L	<0.0020		4458834	<0.0020	0.0020	4458834
Dissolved Molybdenum (Mo)	mg/L	<0.00050		4458834	0.010	0.00050	4458834
Dissolved Nickel (Ni)	mg/L	<0.0010		4458834	<0.0010	0.0010	4458834
Dissolved Phosphorus (P)	mg/L	<0.10		4458834	<0.10	0.10	4458834
Dissolved Potassium (K)	mg/L	1.3		4458834	0.70	0.20	4458834
Dissolved Selenium (Se)	mg/L	<0.0020		4458834	<0.0020	0.0020	4458834
Dissolved Silicon (Si)	mg/L	4.8		4458834	2.8	0.050	4458834
Dissolved Silver (Ag)	mg/L	<0.00010		4458834	<0.00010	0.00010	4458834
Dissolved Sodium (Na)	mg/L	5.8		4458834	50	0.10	4458834
Dissolved Strontium (Sr)	mg/L	0.25		4458834	0.078	0.0010	4458834
Dissolved Thallium (Tl)	mg/L	<0.000050		4458834	<0.000050	0.000050	4458834
Dissolved Titanium (Ti)	mg/L	<0.0050		4458834	<0.0050	0.0050	4458834
Dissolved Uranium (U)	mg/L	0.00045		4458834	0.0017	0.00010	4458834
Dissolved Vanadium (V)	mg/L	<0.00050		4458834	0.0018	0.00050	4458834
Dissolved Zinc (Zn)	mg/L	0.0083		4458834	<0.0050	0.0050	4458834
Dissolved Zirconium (Zr)	mg/L	<0.0010		4458834	<0.0010	0.0010	4458834
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							

**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		CEK211		
<b>Sampling Date</b>		2016/04/12 17:30		
<b>COC Number</b>		556035-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 6</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Anion Sum	me/L	3.55	N/A	4455678
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	140	1.0	4455801
Calculated TDS	mg/L	190	1.0	4455128
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	1.7	1.0	4455801
Cation Sum	me/L	2.74	N/A	4455678
Hardness (CaCO <sub>3</sub> )	mg/L	28	1.0	4455799
Ion Balance (% Difference)	%	12.9	N/A	4455438
Langelier Index (@ 20C)	N/A	-0.341		4455679
Langelier Index (@ 4C)	N/A	-0.589		4455680
Saturation pH (@ 20C)	N/A	8.46		4455679
Saturation pH (@ 4C)	N/A	8.71		4455680
<b>Inorganics</b>				
Total Ammonia-N	mg/L	<0.050	0.050	4461856
Conductivity	umho/cm	260	1.0	4457402
Dissolved Organic Carbon	mg/L	4.1	0.20	4460238
Orthophosphate (P)	mg/L	<0.10 (1)	0.10	4458003
pH	pH	8.12		4457401
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	31	1.0	4465772
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	140	1.0	4467712
Dissolved Chloride (Cl)	mg/L	4.0	1.0	4465768
Nitrite (N)	mg/L	<0.010	0.010	4457204
Nitrate (N)	mg/L	<0.10	0.10	4457204
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	4457204
<b>Metals</b>				
Dissolved Aluminum (Al)	mg/L	0.048	0.0050	4458834
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	4458834
Dissolved Arsenic (As)	mg/L	0.0025	0.0010	4458834
Dissolved Barium (Ba)	mg/L	0.0079	0.0020	4458834
Dissolved Beryllium (Be)	mg/L	<0.00050	0.00050	4458834
Dissolved Boron (B)	mg/L	0.20	0.010	4458834
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.				



**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CEK211		
Sampling Date		2016/04/12 17:30		
COC Number		556035-02-01		
	UNITS	WG-160900764- 20160412-AM0 6	RDL	QC Batch
Dissolved Cadmium (Cd)	mg/L	<0.00010	0.00010	4458834
Dissolved Calcium (Ca)	mg/L	7.6	0.20	4458834
Dissolved Chromium (Cr)	mg/L	<0.0050	0.0050	4458834
Dissolved Cobalt (Co)	mg/L	<0.00050	0.00050	4458834
Dissolved Copper (Cu)	mg/L	<0.0010	0.0010	4458834
Dissolved Iron (Fe)	mg/L	<0.10	0.10	4458834
Dissolved Lead (Pb)	mg/L	<0.00050	0.00050	4458834
Dissolved Magnesium (Mg)	mg/L	2.3	0.050	4458834
Dissolved Manganese (Mn)	mg/L	0.0037	0.0020	4458834
Dissolved Molybdenum (Mo)	mg/L	0.0079	0.00050	4458834
Dissolved Nickel (Ni)	mg/L	<0.0010	0.0010	4458834
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	4458834
Dissolved Potassium (K)	mg/L	0.60	0.20	4458834
Dissolved Selenium (Se)	mg/L	<0.0020	0.0020	4458834
Dissolved Silicon (Si)	mg/L	3.6	0.050	4458834
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	4458834
Dissolved Sodium (Na)	mg/L	50	0.10	4458834
Dissolved Strontium (Sr)	mg/L	0.12	0.0010	4458834
Dissolved Thallium (Tl)	mg/L	<0.000050	0.000050	4458834
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	4458834
Dissolved Uranium (U)	mg/L	0.00050	0.00010	4458834
Dissolved Vanadium (V)	mg/L	<0.00050	0.00050	4458834
Dissolved Zinc (Zn)	mg/L	0.038	0.0050	4458834
Dissolved Zirconium (Zr)	mg/L	<0.0010	0.0010	4458834
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		CEK201	CEK201		CEK203		CEK205		
<b>Sampling Date</b>		2016/04/12 09:00	2016/04/12 09:00		2016/04/12 11:15		2016/04/12 11:50		
<b>COC Number</b>		556035-01-01	556035-01-01		556035-01-01		556035-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 1</b>	<b>WG-160900764- 20160412-AM0 1 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20160412-AM0 2</b>	<b>QC Batch</b>	<b>WG-160900764- 20160412-AM0 3</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>									
Acidity as CaCO3	mg/L	<10		4457677	29	4457677	37	10	4457677
Total Dissolved Solids	mg/L	314		4458991	350	4458991	402	10	4458991
Fluoride (F-)	mg/L	0.89		4457403	<0.10	4457403	<0.10	0.10	4457403
Free Cyanide	ug/L	<2	<2	4459018	<2	4458987	<2	2	4459018
Total Organic Carbon (TOC)	mg/L	4.3		4461636	1.1	4461636	1.1	0.20	4461636
Total Suspended Solids	mg/L	18		4458994	<10	4458994	<10	10	4458994
Turbidity	NTU	56		4456480	11	4456467	2.9	0.2	4456467

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

<b>Maxxam ID</b>		CEK207	CEK207		CEK209		CEK211		
<b>Sampling Date</b>		2016/04/12 12:10	2016/04/12 12:10		2016/04/12 17:00		2016/04/12 17:30		
<b>COC Number</b>		556035-01-01	556035-01-01		556035-01-01		556035-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 4</b>	<b>WG-160900764- 20160412-AM0 4 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20160412-AM0 5</b>	<b>RDL</b>	<b>WG-160900764- 20160412-AM0 6</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>									
Acidity as CaCO3	mg/L	42		4457677	<10	10	<10	10	4457677
Total Dissolved Solids	mg/L	396		4458991	160	10	532	10	4458991
Fluoride (F-)	mg/L	<0.10		4457403	1.6	0.10	1.3	0.10	4457403
Free Cyanide	ug/L	<2		4459018	<2	2	<2	2	4459018
Total Organic Carbon (TOC)	mg/L	1.1		4461636	1.5	0.20	6.4	0.20	4461636
Total Suspended Solids	mg/L	<10		4458994	<10	10	40	10	4458994
Turbidity	NTU	3.0	2.8	4456983	29	0.2	1300	1	4456467

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		CEK211		
<b>Sampling Date</b>		2016/04/12 17:30		
<b>COC Number</b>		556035-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 6 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>				
Acidity as CaCO3	mg/L	<10	10	4457677
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate				

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		CEK201		CEK203		CEK205	CEK207		
<b>Sampling Date</b>		2016/04/12 09:00		2016/04/12 11:15		2016/04/12 11:50	2016/04/12 12:10		
<b>COC Number</b>		556035-01-01		556035-01-01		556035-01-01	556035-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 1</b>	<b>QC Batch</b>	<b>WG-160900764- 20160412-AM0 2</b>	<b>QC Batch</b>	<b>WG-160900764- 20160412-AM0 3</b>	<b>WG-160900764- 20160412-AM0 4</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Chromium (VI)	ug/L	<0.50	4457839	0.64	4457839	<0.50	<0.50	0.50	4459423
Mercury (Hg)	mg/L	<0.0001	4460412	<0.0001	4460416	<0.0001	<0.0001	0.0001	4460416
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

<b>Maxxam ID</b>		CEK209	CEK211		
<b>Sampling Date</b>		2016/04/12 17:00	2016/04/12 17:30		
<b>COC Number</b>		556035-01-01	556035-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 5</b>	<b>WG-160900764- 20160412-AM0 6</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>					
Chromium (VI)	ug/L	<0.50	<0.50	0.50	4459423
Mercury (Hg)	mg/L	<0.0001	<0.0001	0.0001	4460416
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 PCBS (WATER)**

Maxxam ID		CEK201	CEK203	CEK203	CEK205	CEK207		
Sampling Date		2016/04/12 09:00	2016/04/12 11:15	2016/04/12 11:15	2016/04/12 11:50	2016/04/12 12:10		
COC Number		556035-01-01	556035-01-01	556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 1	WG-160900764- 20160412-AM0 2	WG-160900764- 20160412-AM0 2 Lab-Dup	WG-160900764- 20160412-AM0 3	WG-160900764- 20160412-AM0 4	RDL	QC Batch
<b>PCBs</b>								
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
<b>Surrogate Recovery (%)</b>								
Decachlorobiphenyl	%	81	84	89	85	88		4460390
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate								

Maxxam ID		CEK209	CEK211		
Sampling Date		2016/04/12 17:00	2016/04/12 17:30		
COC Number		556035-01-01	556035-02-01		
	UNITS	WG-160900764- 20160412-AM0 5	WG-160900764- 20160412-AM0 6	RDL	QC Batch
<b>PCBs</b>					
Aroclor 1242	ug/L	<0.05	<0.05	0.05	4460390
Aroclor 1248	ug/L	<0.05	<0.05	0.05	4460390
Aroclor 1254	ug/L	<0.05	<0.05	0.05	4460390
Aroclor 1260	ug/L	<0.05	<0.05	0.05	4460390
Total PCB	ug/L	<0.05	<0.05	0.05	4460390
<b>Surrogate Recovery (%)</b>					
Decachlorobiphenyl	%	90	93		4460390
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		CEK201	CEK201	CEK203	CEK205	CEK207		
Sampling Date		2016/04/12 09:00	2016/04/12 09:00	2016/04/12 11:15	2016/04/12 11:50	2016/04/12 12:10		
COC Number		556035-01-01	556035-01-01	556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 1	WG-160900764- 20160412-AM0 1 Lab-Dup	WG-160900764- 20160412-AM0 2	WG-160900764- 20160412-AM0 3	WG-160900764- 20160412-AM0 4	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>								
F1 (C6-C10)	ug/L	<25	<25	<25	<25	<25	25	4460556
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	<25	25	4460556
<b>F2-F4 Hydrocarbons</b>								
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	<100	100	4461914
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	4461914
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	4461914
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes	Yes		4461914
<b>Surrogate Recovery (%)</b>								
1,4-Difluorobenzene	%	103	104	106	104	105		4460556
4-Bromofluorobenzene	%	88	91	90	87	88		4460556
D10-Ethylbenzene	%	104	102	104	104	104		4460556
D4-1,2-Dichloroethane	%	98	101	99	97	98		4460556
o-Terphenyl	%	94	95	94	95	95		4461914
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate								

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

<b>Maxxam ID</b>		CEK209	CEK211		
<b>Sampling Date</b>		2016/04/12 17:00	2016/04/12 17:30		
<b>COC Number</b>		556035-01-01	556035-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 5</b>	<b>WG-160900764- 20160412-AM0 6</b>	<b>RDL</b>	<b>QC Batch</b>
<b>BTEX &amp; F1 Hydrocarbons</b>					
F1 (C6-C10)	ug/L	<25	<25	25	4460556
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	4460556
<b>F2-F4 Hydrocarbons</b>					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	4461914
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	4461914
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	4461914
Reached Baseline at C50	ug/L	Yes	Yes		4461914
<b>Surrogate Recovery (%)</b>					
1,4-Difluorobenzene	%	104	104		4460556
4-Bromofluorobenzene	%	89	89		4460556
D10-Ethylbenzene	%	107	104		4460556
D4-1,2-Dichloroethane	%	100	100		4460556
o-Terphenyl	%	95	95		4461914
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEK201	CEK202	CEK203	CEK203		
Sampling Date		2016/04/12 09:00	2016/04/12 09:00	2016/04/12 11:15	2016/04/12 11:15		
COC Number		556035-01-01	556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 1	WG-160900764-20160412- AM01A	WG-160900764- 20160412-AM0 2	WG-160900764- 20160412-AM0 2 Lab-Dup	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4464463
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4464463
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4464463
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Benzo(a)pyrene	ug/L	0.02	<0.01	<0.01	<0.01	0.01	4464463
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
Bis(2-ethylhexyl)phthalate	ug/L	3	<1	<1	<1	1	4464463
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate



**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEK201	CEK202	CEK203	CEK203		
Sampling Date		2016/04/12 09:00	2016/04/12 09:00	2016/04/12 11:15	2016/04/12 11:15		
COC Number		556035-01-01	556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 1	WG-160900764-20160412- AM01A	WG-160900764- 20160412-AM0 2	WG-160900764- 20160412-AM0 2 Lab-Dup	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4464463
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
Pyrene	ug/L	0.09	<0.05	<0.05	<0.05	0.05	4464463
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28		0.28	4455044
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	71	50	43 (1)	41 (1)		4464463
2-Fluorobiphenyl	%	61	38 (1)	62	64		4464463
D14-Terphenyl (FS)	%	95	8.0 (1)	100	99		4464463
D5-Nitrobenzene	%	44 (1)	52	51	52		4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEK204	CEK205	CEK206	CEK207		
Sampling Date		2016/04/12 11:15	2016/04/12 11:50	2016/04/12 11:50	2016/04/12 12:10		
COC Number		556035-01-01	556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764-20160412-AM02A	WG-160900764-20160412-AM03	WG-160900764-20160412-AM03A	WG-160900764-20160412-AM04	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4464463
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4464463
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4464463
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4464463
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4464463
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4464463

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEK204	CEK205	CEK206	CEK207		
Sampling Date		2016/04/12 11:15	2016/04/12 11:50	2016/04/12 11:50	2016/04/12 12:10		
COC Number		556035-01-01	556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764-20160412-AM02A	WG-160900764-20160412-AM03	WG-160900764-20160412-AM03A	WG-160900764-20160412-AM04	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4464463
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4464463
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4464463
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4464463
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4455044
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	42 (1)	44 (1)	44 (1)	52		4464463
2-Fluorobiphenyl	%	61	68	61	69		4464463
D14-Terphenyl (FS)	%	16 (1)	103	15 (1)	105		4464463
D5-Nitrobenzene	%	56	55	54	58		4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEK208	CEK209	CEK210		
Sampling Date		2016/04/12 12:10	2016/04/12 17:00	2016/04/12 17:00		
COC Number		556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764-20160412-AM04A	WG-160900764-20160412-AM05	WG-160900764-20160412-AM05A	RDL	QC Batch
<b>Semivolatile Organics</b>						
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	0.1	4464463
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	0.2	4464463
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	0.2	4464463
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	0.2	4464463
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	0.1	4464463
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	0.5	4464463
2,4-Dinitrophenol	ug/L	<2	<2	<2	2	4464463
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	0.3	4464463
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	0.3	4464463
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	0.1	4464463
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	0.2	4464463
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	0.5	4464463
Acenaphthene	ug/L	<0.2	<0.2	<0.2	0.2	4464463
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	0.2	4464463
Anthracene	ug/L	<0.05	<0.05	<0.05	0.05	4464463
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	0.05	4464463
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	0.01	4464463
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	0.05	4464463
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	0.05	4464463
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	0.05	4464463
Biphenyl	ug/L	<0.1	<0.1	<0.1	0.1	4464463
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	0.5	4464463
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	0.5	4464463
Bis(2-ethylhexyl)phthalate	ug/L	<1	6	<1	1	4464463
Chrysene	ug/L	<0.05	<0.05	<0.05	0.05	4464463
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	0.1	4464463
Diethyl phthalate	ug/L	0.7	0.4	0.5	0.1	4464463
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	0.1	4464463
Fluoranthene	ug/L	<0.2	<0.2	<0.2	0.2	4464463
Fluorene	ug/L	<0.2	<0.2	<0.2	0.2	4464463
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	0.1	4464463
Naphthalene	ug/L	<0.2	<0.2	<0.2	0.2	4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEK208	CEK209	CEK210		
Sampling Date		2016/04/12 12:10	2016/04/12 17:00	2016/04/12 17:00		
COC Number		556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764-20160412-AM04A	WG-160900764-20160412-AM05	WG-160900764-20160412-AM05A	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	1	4464463
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	0.1	4464463
Phenanthrene	ug/L	<0.1	<0.1	<0.1	0.1	4464463
Phenol	ug/L	<0.5	<0.5	<0.5	0.5	4464463
Pyrene	ug/L	<0.05	<0.05	<0.05	0.05	4464463
<b>Calculated Parameters</b>						
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	0.28	4455044
<b>Surrogate Recovery (%)</b>						
2,4,6-Tribromophenol	%	36 (1)	45 (1)	41 (1)		4464463
2-Fluorobiphenyl	%	63	54	59		4464463
D14-Terphenyl (FS)	%	18 (1)	103	26 (1)		4464463
D5-Nitrobenzene	%	55	41 (1)	54		4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.						

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEK211	CEK212	CEK889	CEK893		
Sampling Date		2016/04/12 17:30	2016/04/12 17:30	2016/04/12 17:30	2016/04/12 17:30		
COC Number		556035-02-01	556035-02-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 6	WG-160900764-20160412- AM06A	FILTERED BLANK	FILTERED SPIKE	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	36 (1)	0.1	4464463
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	54	0.2	4464463
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	88	0.2	4464463
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	81	0.2	4464463
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	62	0.1	4464463
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	30 (1)	0.5	4464463
2,4-Dinitrophenol	ug/L	<2	<2	<2	67	2	4464463
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	95	0.3	4464463
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	86	0.3	4464463
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	56	0.1	4464463
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	52	0.2	4464463
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	93	0.5	4464463
Acenaphthene	ug/L	<0.2	<0.2	<0.2	65	0.2	4464463
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	66	0.2	4464463
Anthracene	ug/L	<0.05	<0.05	<0.05	55	0.05	4464463
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	42 (1)	0.05	4464463
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	34 (1)	0.01	4464463
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	38 (1)	0.05	4464463
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	33 (1)	0.05	4464463
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	37 (1)	0.05	4464463
Biphenyl	ug/L	<0.1	<0.1	<0.1	58	0.1	4464463
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	48 (1)	0.5	4464463
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5			0.5	4464463
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	53	1	4464463
Chrysene	ug/L	<0.05	<0.05	<0.05	38 (1)	0.05	4464463
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	31 (1)	0.1	4464463
Diethyl phthalate	ug/L	0.1	0.3	<0.1	82	0.1	4464463
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	89	0.1	4464463
Fluoranthene	ug/L	<0.2	<0.2	<0.2	69	0.2	4464463
Fluorene	ug/L	<0.2	<0.2	<0.2	71	0.2	4464463
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	31 (1)	0.1	4464463

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

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

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CEK211	CEK212	CEK889	CEK893		
Sampling Date		2016/04/12 17:30	2016/04/12 17:30	2016/04/12 17:30	2016/04/12 17:30		
COC Number		556035-02-01	556035-02-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 6	WG-160900764-20160412- AM06A	FILTERED BLANK	FILTERED SPIKE	RDL	QC Batch
Naphthalene	ug/L	<0.2	<0.2	<0.2	47 (1)	0.2	4464463
p-Chloroaniline	ug/L	<1	<1	<1	65	1	4464463
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	86	0.1	4464463
Phenanthrene	ug/L	<0.1	<0.1	<0.1	69	0.1	4464463
Phenol	ug/L	<0.5	<0.5	<0.5	25 (1)	0.5	4464463
Pyrene	ug/L	<0.05	<0.05	<0.05	63	0.05	4464463
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	110	0.28	4455989
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	70	65	56	71		4464463
2-Fluorobiphenyl	%	72	40 (2)	69	41 (2)		4464463
D14-Terphenyl (FS)	%	101	24 (2)	26 (2)	65		4464463
D5-Nitrobenzene	%	53	43 (2)	68	49 (2)		4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria. (2) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.							

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CEK201	CEK203	CEK205	CEK207	CEK209		
Sampling Date		2016/04/12 09:00	2016/04/12 11:15	2016/04/12 11:50	2016/04/12 12:10	2016/04/12 17:00		
COC Number		556035-01-01	556035-01-01	556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 1	WG-160900764- 20160412-AM0 2	WG-160900764- 20160412-AM0 3	WG-160900764- 20160412-AM0 4	WG-160900764- 20160412-AM0 5	RDL	QC Batch

Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458862
Volatile Organics								
Acetone (2-Propanone)	ug/L	<10	<10	<10	<10	<10	10	4458849
Benzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4458849
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4458849
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	4458849
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	4458849
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4458849
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	4458849
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	<10	10	4458849
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	4458849
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CEK201	CEK203	CEK205	CEK207	CEK209		
Sampling Date		2016/04/12 09:00	2016/04/12 11:15	2016/04/12 11:50	2016/04/12 12:10	2016/04/12 17:00		
COC Number		556035-01-01	556035-01-01	556035-01-01	556035-01-01	556035-01-01		
	UNITS	WG-160900764- 20160412-AM0 1	WG-160900764- 20160412-AM0 2	WG-160900764- 20160412-AM0 3	WG-160900764- 20160412-AM0 4	WG-160900764- 20160412-AM0 5	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4458849
<b>Surrogate Recovery (%)</b>								
4-Bromofluorobenzene	%	95	96	96	95	96		4458849
D4-1,2-Dichloroethane	%	98	100	101	98	99		4458849
D8-Toluene	%	97	96	96	97	97		4458849
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>		CEK211		
<b>Sampling Date</b>		2016/04/12 17:30		
<b>COC Number</b>		556035-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 6</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	4458862
<b>Volatile Organics</b>				
Acetone (2-Propanone)	ug/L	<10	10	4458849
Benzene	ug/L	<0.20	0.20	4458849
Bromodichloromethane	ug/L	<0.50	0.50	4458849
Bromoform	ug/L	<1.0	1.0	4458849
Bromomethane	ug/L	<0.50	0.50	4458849
Carbon Tetrachloride	ug/L	<0.20	0.20	4458849
Chlorobenzene	ug/L	<0.20	0.20	4458849
Chloroform	ug/L	<0.20	0.20	4458849
Dibromochloromethane	ug/L	<0.50	0.50	4458849
1,2-Dichlorobenzene	ug/L	<0.50	0.50	4458849
1,3-Dichlorobenzene	ug/L	<0.50	0.50	4458849
1,4-Dichlorobenzene	ug/L	<0.50	0.50	4458849
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	4458849
1,1-Dichloroethane	ug/L	<0.20	0.20	4458849
1,2-Dichloroethane	ug/L	<0.50	0.50	4458849
1,1-Dichloroethylene	ug/L	<0.20	0.20	4458849
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	4458849
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	4458849
1,2-Dichloropropane	ug/L	<0.20	0.20	4458849
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	4458849
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	4458849
Ethylbenzene	ug/L	<0.20	0.20	4458849
Ethylene Dibromide	ug/L	<0.20	0.20	4458849
Hexane	ug/L	<1.0	1.0	4458849
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	4458849
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	4458849
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	4458849
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	4458849
Styrene	ug/L	<0.50	0.50	4458849
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	4458849
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>		CEK211		
<b>Sampling Date</b>		2016/04/12 17:30		
<b>COC Number</b>		556035-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20160412-AM0 6</b>	<b>RDL</b>	<b>QC Batch</b>
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	4458849
Tetrachloroethylene	ug/L	<0.20	0.20	4458849
Toluene	ug/L	<0.20	0.20	4458849
1,1,1-Trichloroethane	ug/L	<0.20	0.20	4458849
1,1,2-Trichloroethane	ug/L	<0.50	0.50	4458849
Trichloroethylene	ug/L	<0.20	0.20	4458849
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	4458849
Vinyl Chloride	ug/L	<0.20	0.20	4458849
p+m-Xylene	ug/L	<0.20	0.20	4458849
o-Xylene	ug/L	<0.20	0.20	4458849
Total Xylenes	ug/L	<0.20	0.20	4458849
<b>Surrogate Recovery (%)</b>				
4-Bromofluorobenzene	%	95		4458849
D4-1,2-Dichloroethane	%	100		4458849
D8-Toluene	%	96		4458849
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

### TEST SUMMARY

**Maxxam ID:** CEK201  
**Sample ID:** WG-160900764-20160412-AM01  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4457677	N/A	2016/04/18	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459042	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4461914	2016/04/18	2016/04/19	Zhiyue (Frank) Zhu
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460412	2016/04/16	2016/04/19	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458834	N/A	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/19	Automated Statchk
Total Ammonia-N	LACH/NH4	4461508	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457930	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456480	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK201 Dup  
**Sample ID:** WG-160900764-20160412-AM01  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4461914	2016/04/18	2016/04/19	Zhiyue (Frank) Zhu
Dissolved Metals by ICPMS	ICP/MS	4458834	N/A	2016/04/18	Prempal Bhatti

### TEST SUMMARY

**Maxxam ID:** CEK202  
**Sample ID:** WG-160900764-20160412-AM01A  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic

**Maxxam ID:** CEK203  
**Sample ID:** WG-160900764-20160412-AM02  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4457677	N/A	2016/04/18	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459042	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4461914	2016/04/18	2016/04/19	Zhiyue (Frank) Zhu
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458834	N/A	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/19	Automated Statchk
Total Ammonia-N	LACH/NH4	4461508	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457930	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

### TEST SUMMARY

**Maxxam ID:** CEK203 Dup  
**Sample ID:** WG-160900764-20160412-AM02  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang

**Maxxam ID:** CEK204  
**Sample ID:** WG-160900764-20160412-AM02A  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic

**Maxxam ID:** CEK205  
**Sample ID:** WG-160900764-20160412-AM03  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4457677	N/A	2016/04/18	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4459423	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4461914	2016/04/18	2016/04/19	Zhiyue (Frank) Zhu
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458834	N/A	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/19	Automated Statchk
Total Ammonia-N	LACH/NH4	4461856	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/19	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** CEK205  
**Sample ID:** WG-160900764-20160412-AM03  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK206  
**Sample ID:** WG-160900764-20160412-AM03A  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic

**Maxxam ID:** CEK207  
**Sample ID:** WG-160900764-20160412-AM04  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4457677	N/A	2016/04/18	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4459423	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4461914	2016/04/18	2016/04/19	Zhiyue (Frank) Zhu
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458834	N/A	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/19	Automated Statchk
Total Ammonia-N	LACH/NH4	4461856	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457204	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/19	Automated Statchk



**TEST SUMMARY**

**Maxxam ID:** CEK207  
**Sample ID:** WG-160900764-20160412-AM04  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456983	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK207 Dup  
**Sample ID:** WG-160900764-20160412-AM04  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Turbidity	AT	4456983	N/A	2016/04/14	Lemeneh Addis

**Maxxam ID:** CEK208  
**Sample ID:** WG-160900764-20160412-AM04A  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic

**Maxxam ID:** CEK209  
**Sample ID:** WG-160900764-20160412-AM05  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4457677	N/A	2016/04/18	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4459423	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali



### TEST SUMMARY

**Maxxam ID:** CEK209  
**Sample ID:** WG-160900764-20160412-AM05  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4461914	2016/04/18	2016/04/19	Zhiyue (Frank) Zhu
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO <sub>3</sub> )		4455799	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458834	N/A	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/19	Automated Statchk
Total Ammonia-N	LACH/NH <sub>4</sub>	4461856	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK210  
**Sample ID:** WG-160900764-20160412-AM05A  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic

**Maxxam ID:** CEK211  
**Sample ID:** WG-160900764-20160412-AM06  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455989	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4457677	N/A	2016/04/18	Grace Sison
Alkalinity	AT	4467712	N/A	2016/04/22	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4465768	N/A	2016/04/21	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4459423	N/A	2016/04/18	Sally Coughlin

### TEST SUMMARY

**Maxxam ID:** CEK211  
**Sample ID:** WG-160900764-20160412-AM06  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4461914	2016/04/18	2016/04/19	Zhiyue (Frank) Zhu
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO <sub>3</sub> )		4455799	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4458834	N/A	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/19	Automated Statchk
Total Ammonia-N	LACH/NH <sub>4</sub>	4461856	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4457204	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4465772	N/A	2016/04/21	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK211 Dup  
**Sample ID:** WG-160900764-20160412-AM06  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO <sub>3</sub> in liquid		4457677	N/A		Grace Sison

**Maxxam ID:** CEK212  
**Sample ID:** WG-160900764-20160412-AM06A  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455989	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic

**TEST SUMMARY**

**Maxxam ID:** CEK889  
**Sample ID:** FILTERED BLANK  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455989	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic

**Maxxam ID:** CEK893  
**Sample ID:** FILTERED SPIKE  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455989	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic

### GENERAL COMMENTS

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

Package 1	6.7°C
Package 2	6.3°C
Package 3	6.3°C
Package 4	5.3°C
Package 5	4.0°C
Package 6	2.3°C
Package 7	1.3°C
Package 8	3.0°C
Package 9	6.0°C
Package 10	1.3°C
Package 11	5.3°C
Package 12	7.0°C
Package 13	7.0°C

Sample CEK203-01 : Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CEK205-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CEK209-01 : Acidity Test: Sample initial pH was (>8.3), therefore acidity was not detected (ND).

Sample CEK211-01 : Acidity Test: Sample initial pH was 8.3, therefore acidity was not detected (ND).  
Elevated ion balance result was confirmed by re-analysis.

Sample CEK893-01 : ABN Analysis: The sample was reported as percentage recoveries. The recoveries were below the lower control limits representing a low bias for this sample.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458849	4-Bromofluorobenzene	2016/04/16	102	70 - 130	100	70 - 130	98	%				
4458849	D4-1,2-Dichloroethane	2016/04/16	99	70 - 130	98	70 - 130	102	%				
4458849	D8-Toluene	2016/04/16	100	70 - 130	102	70 - 130	96	%				
4460390	Decachlorobiphenyl	2016/04/16	84	60 - 130	88	60 - 130	83	%				
4460556	1,4-Difluorobenzene	2016/04/17	103	70 - 130	103	70 - 130	103	%				
4460556	4-Bromofluorobenzene	2016/04/17	97	70 - 130	98	70 - 130	90	%				
4460556	D10-Ethylbenzene	2016/04/17	106	70 - 130	101	70 - 130	100	%				
4460556	D4-1,2-Dichloroethane	2016/04/17	97	70 - 130	100	70 - 130	102	%				
4461914	o-Terphenyl	2016/04/18	98	60 - 130	98	60 - 130	95	%				
4464463	2,4,6-Tribromophenol	2016/04/21	75	50 - 130	77	50 - 130	54	%				
4464463	2-Fluorobiphenyl	2016/04/21	42 (2)	50 - 130	55	50 - 130	67	%				
4464463	D14-Terphenyl (FS)	2016/04/21	99	50 - 130	101	50 - 130	99	%				
4464463	D5-Nitrobenzene	2016/04/21	43 (2)	50 - 130	56	50 - 130	60	%				
4456467	Turbidity	2016/04/13			100	85 - 115	<0.2	NTU	7.1	20		
4456480	Turbidity	2016/04/13			99	85 - 115	<0.2	NTU	NC	20		
4456983	Turbidity	2016/04/14			101	85 - 115	<0.1	NTU	6.3	20		
4457198	Nitrate (N)	2016/04/15	NC	80 - 120	100	80 - 120	<0.10	mg/L	1.1	25		
4457198	Nitrite (N)	2016/04/15	107	80 - 120	107	80 - 120	<0.010	mg/L	NC	25		
4457204	Nitrate (N)	2016/04/15	101	80 - 120	104	80 - 120	<0.10	mg/L	NC	25		
4457204	Nitrite (N)	2016/04/15	108	80 - 120	107	80 - 120	<0.010	mg/L	NC	25		
4457396	Alkalinity (Total as CaCO3)	2016/04/14			94	85 - 115	<1.0	mg/L	1.3	25		
4457401	pH	2016/04/14			101	98 - 103			0.63	N/A		
4457402	Conductivity	2016/04/14			102	85 - 115	<1.0	umho/cm	0.76	25		
4457403	Fluoride (F-)	2016/04/14	99	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
4457677	Acidity as CaCO3						<10	mg/L	NC	25		
4457839	Chromium (VI)	2016/04/18	118	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4457930	Nitrate (N)	2016/04/15	92	80 - 120	97	80 - 120	<0.10	mg/L	3.3	25		
4457930	Nitrite (N)	2016/04/15	108	80 - 120	109	80 - 120	<0.010	mg/L	NC	25		
4458001	Dissolved Chloride (Cl)	2016/04/15	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.37	20		
4458003	Orthophosphate (P)	2016/04/15	103	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458005	Dissolved Sulphate (SO4)	2016/04/15	NC	75 - 125	101	80 - 120	<1.0	mg/L	0.33	20		
4458834	Dissolved Aluminum (Al)	2016/04/18	98	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
4458834	Dissolved Antimony (Sb)	2016/04/18	107	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4458834	Dissolved Arsenic (As)	2016/04/18	107	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
4458834	Dissolved Barium (Ba)	2016/04/18	104	80 - 120	100	80 - 120	<0.0020	mg/L	4.2	20		
4458834	Dissolved Beryllium (Be)	2016/04/18	103	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20		
4458834	Dissolved Boron (B)	2016/04/18	100	80 - 120	92	80 - 120	<0.010	mg/L	1.7	20		
4458834	Dissolved Cadmium (Cd)	2016/04/18	105	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20		
4458834	Dissolved Calcium (Ca)	2016/04/18	NC	80 - 120	102	80 - 120	0.22, RDL=0.20	mg/L	4.6	20		
4458834	Dissolved Chromium (Cr)	2016/04/18	107	80 - 120	102	80 - 120	<0.0050	mg/L	NC	20		
4458834	Dissolved Cobalt (Co)	2016/04/18	107	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20		
4458834	Dissolved Copper (Cu)	2016/04/18	101	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
4458834	Dissolved Iron (Fe)	2016/04/18	109	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
4458834	Dissolved Lead (Pb)	2016/04/18	104	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20		
4458834	Dissolved Magnesium (Mg)	2016/04/18	105	80 - 120	110	80 - 120	<0.050	mg/L	2.5	20		
4458834	Dissolved Manganese (Mn)	2016/04/18	107	80 - 120	102	80 - 120	<0.0020	mg/L	NC	20		
4458834	Dissolved Molybdenum (Mo)	2016/04/18	109	80 - 120	100	80 - 120	<0.00050	mg/L	2.1	20		
4458834	Dissolved Nickel (Ni)	2016/04/18	102	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
4458834	Dissolved Phosphorus (P)	2016/04/18	126 (1)	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
4458834	Dissolved Potassium (K)	2016/04/18	112	80 - 120	106	80 - 120	<0.20	mg/L	6.5	20		
4458834	Dissolved Selenium (Se)	2016/04/18	105	80 - 120	98	80 - 120	<0.0020	mg/L	NC	20		
4458834	Dissolved Silicon (Si)	2016/04/18	110	80 - 120	110	80 - 120	<0.050	mg/L	3.4	20		
4458834	Dissolved Silver (Ag)	2016/04/18	104	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20		
4458834	Dissolved Sodium (Na)	2016/04/18	NC	80 - 120	102	80 - 120	<0.10	mg/L	0.49	20		
4458834	Dissolved Strontium (Sr)	2016/04/18	NC	80 - 120	101	80 - 120	<0.0010	mg/L	5.3	20		
4458834	Dissolved Thallium (Tl)	2016/04/18	104	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20		
4458834	Dissolved Titanium (Ti)	2016/04/18	109	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
4458834	Dissolved Uranium (U)	2016/04/18	100	80 - 120	96	80 - 120	<0.00010	mg/L	1.6	20		
4458834	Dissolved Vanadium (V)	2016/04/18	107	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20		
4458834	Dissolved Zinc (Zn)	2016/04/18	101	80 - 120	96	80 - 120	<0.0050	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458834	Dissolved Zirconium (Zr)	2016/04/18	109	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
4458849	1,1,1,2-Tetrachloroethane	2016/04/16	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458849	1,1,1-Trichloroethane	2016/04/16	92	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4458849	1,1,2,2-Tetrachloroethane	2016/04/16	97	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458849	1,1,2-Trichloroethane	2016/04/16	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	1,1-Dichloroethane	2016/04/16	94	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
4458849	1,1-Dichloroethylene	2016/04/16	97	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458849	1,2-Dichlorobenzene	2016/04/16	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	1,2-Dichloroethane	2016/04/16	96	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4458849	1,2-Dichloropropane	2016/04/16	95	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4458849	1,3-Dichlorobenzene	2016/04/16	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	1,4-Dichlorobenzene	2016/04/16	94	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458849	Acetone (2-Propanone)	2016/04/16	102	60 - 140	98	60 - 140	<10	ug/L	NC	30		
4458849	Benzene	2016/04/16	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4458849	Bromodichloromethane	2016/04/16	96	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	Bromoform	2016/04/16	97	70 - 130	96	70 - 130	<1.0	ug/L	NC	30		
4458849	Bromomethane	2016/04/16	90	60 - 140	87	60 - 140	<0.50	ug/L	NC	30		
4458849	Carbon Tetrachloride	2016/04/16	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4458849	Chlorobenzene	2016/04/16	96	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458849	Chloroform	2016/04/16	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4458849	cis-1,2-Dichloroethylene	2016/04/16	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4458849	cis-1,3-Dichloropropene	2016/04/16	100	70 - 130	97	70 - 130	<0.30	ug/L	NC	30		
4458849	Dibromochloromethane	2016/04/16	97	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458849	Dichlorodifluoromethane (FREON 12)	2016/04/16	110	60 - 140	109	60 - 140	<1.0	ug/L	NC	30		
4458849	Ethylbenzene	2016/04/16	96	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458849	Ethylene Dibromide	2016/04/16	98	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458849	Hexane	2016/04/16	95	70 - 130	106	70 - 130	<1.0	ug/L	NC	30		
4458849	Methyl Ethyl Ketone (2-Butanone)	2016/04/16	106	60 - 140	103	60 - 140	<10	ug/L	NC	30		
4458849	Methyl Isobutyl Ketone	2016/04/16	101	70 - 130	100	70 - 130	<5.0	ug/L	NC	30		
4458849	Methyl t-butyl ether (MTBE)	2016/04/16	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	Methylene Chloride(Dichloromethane)	2016/04/16	93	70 - 130	90	70 - 130	<2.0	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458849	o-Xylene	2016/04/16	93	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458849	p+m-Xylene	2016/04/16	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4458849	Styrene	2016/04/16	96	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458849	Tetrachloroethylene	2016/04/16	93	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4458849	Toluene	2016/04/16	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4458849	Total Xylenes	2016/04/16					<0.20	ug/L	NC	30		
4458849	trans-1,2-Dichloroethylene	2016/04/16	93	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4458849	trans-1,3-Dichloropropene	2016/04/16	99	70 - 130	95	70 - 130	<0.40	ug/L	NC	30		
4458849	Trichloroethylene	2016/04/16	92	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4458849	Trichlorofluoromethane (FREON 11)	2016/04/16	97	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458849	Vinyl Chloride	2016/04/16	102	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4458987	Free Cyanide	2016/04/15	103	80 - 120	105	80 - 120	<2	ug/L	NC	20		
4458991	Total Dissolved Solids	2016/04/18					<10	mg/L	2.7	25	97	90 - 110
4458994	Total Suspended Solids	2016/04/15					<10	mg/L	NC	25	98	85 - 115
4459018	Free Cyanide	2016/04/15	102	80 - 120	104	80 - 120	<2	ug/L	NC	20		
4459042	Dissolved Organic Carbon	2016/04/16	96	80 - 120	98	80 - 120	0.22, RDL=0.20	mg/L	1.6	20		
4459423	Chromium (VI)	2016/04/18	119	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4460238	Dissolved Organic Carbon	2016/04/16	97	80 - 120	99	80 - 120	0.23, RDL=0.20	mg/L	9.0	20		
4460390	Aroclor 1242	2016/04/16					<0.05	ug/L	NC	30		
4460390	Aroclor 1248	2016/04/16					<0.05	ug/L	NC	30		
4460390	Aroclor 1254	2016/04/16					<0.05	ug/L	NC	30		
4460390	Aroclor 1260	2016/04/16	69	60 - 130	77	60 - 130	<0.05	ug/L	NC	30		
4460390	Total PCB	2016/04/16	69	60 - 130	77	60 - 130	<0.05	ug/L	NC	40		
4460412	Mercury (Hg)	2016/04/19	102	75 - 125	108	80 - 120	<0.0001	mg/L	NC	20		
4460416	Mercury (Hg)	2016/04/19	111	75 - 125	97	80 - 120	<0.0001	mg/L	NC	20		
4460556	F1 (C6-C10) - BTEX	2016/04/17					<25	ug/L	NC	30		
4460556	F1 (C6-C10)	2016/04/17	99	70 - 130	107	70 - 130	<25	ug/L	NC	30		
4461508	Total Ammonia-N	2016/04/20	100	80 - 120	97	85 - 115	<0.050	mg/L	NC	20		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4461636	Total Organic Carbon (TOC)	2016/04/18	98	80 - 120	101	80 - 120	0.20, RDL=0.20	mg/L	3.0	20		
4461856	Total Ammonia-N	2016/04/19	95	80 - 120	99	85 - 115	<0.050	mg/L	NC	20		
4461914	F2 (C10-C16 Hydrocarbons)	2016/04/19	113	50 - 130	98	60 - 130	<100	ug/L	NC	30		
4461914	F3 (C16-C34 Hydrocarbons)	2016/04/19	NC	50 - 130	109	60 - 130	<200	ug/L	NC	30		
4461914	F4 (C34-C50 Hydrocarbons)	2016/04/19	105	50 - 130	100	60 - 130	<200	ug/L	NC	30		
4464463	1,2,4-Trichlorobenzene	2016/04/21	38 (3)	40 - 130	53	40 - 130	<0.1	ug/L	NC	30		
4464463	1-Methylnaphthalene	2016/04/21	51	50 - 130	67	50 - 130	<0.2	ug/L	NC	30		
4464463	2,4,5-Trichlorophenol	2016/04/21	87	50 - 130	96	50 - 130	<0.2	ug/L	NC	30		
4464463	2,4,6-Trichlorophenol	2016/04/21	70	50 - 130	90	50 - 130	<0.2	ug/L	NC	30		
4464463	2,4-Dichlorophenol	2016/04/21	52	50 - 130	70	50 - 130	<0.1	ug/L	NC	30		
4464463	2,4-Dimethylphenol	2016/04/21	52	30 - 130	58	30 - 130	<0.5	ug/L	NC	30		
4464463	2,4-Dinitrophenol	2016/04/21	91	30 - 130	126	30 - 130	<2	ug/L	NC	30		
4464463	2,4-Dinitrotoluene	2016/04/21	92	50 - 130	101	50 - 130	<0.3	ug/L	NC	30		
4464463	2,6-Dinitrotoluene	2016/04/21	80	50 - 130	93	50 - 130	<0.3	ug/L	NC	30		
4464463	2-Chlorophenol	2016/04/21	47 (1)	50 - 130	62	50 - 130	<0.1	ug/L	NC	30		
4464463	2-Methylnaphthalene	2016/04/21	49 (1)	50 - 130	65	50 - 130	<0.2	ug/L	NC	30		
4464463	3,3'-Dichlorobenzidine	2016/04/21	76	30 - 130	86	30 - 130	<0.5	ug/L	NC	30		
4464463	Acenaphthene	2016/04/21	62	50 - 130	77	50 - 130	<0.2	ug/L	NC	30		
4464463	Acenaphthylene	2016/04/21	62	50 - 130	76	50 - 130	<0.2	ug/L	NC	30		
4464463	Anthracene	2016/04/21	86	50 - 130	87	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(a)anthracene	2016/04/21	96	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(a)pyrene	2016/04/21	90	50 - 130	94	50 - 130	<0.01	ug/L	NC	30		
4464463	Benzo(b/j)fluoranthene	2016/04/21	90	50 - 130	95	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(g,h,i)perylene	2016/04/21	74	50 - 130	104	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(k)fluoranthene	2016/04/21	88	50 - 130	89	50 - 130	<0.05	ug/L	NC	30		
4464463	Biphenyl	2016/04/21	54	50 - 130	71	50 - 130	<0.1	ug/L	NC	30		
4464463	Bis(2-chloroethyl)ether	2016/04/21	45 (1)	50 - 130	53	50 - 130	<0.5	ug/L	NC	30		
4464463	Bis(2-chloroisopropyl)ether	2016/04/21	43 (1)	50 - 130	57	50 - 130	<0.5	ug/L	NC	30		
4464463	Bis(2-ethylhexyl)phthalate	2016/04/21	101	50 - 130	101	50 - 130	<1	ug/L	NC	30		
4464463	Chrysene	2016/04/21	93	50 - 130	97	50 - 130	<0.05	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4464463	Dibenz(a,h)anthracene	2016/04/21	82	50 - 130	106	50 - 130	<0.1	ug/L	NC	30		
4464463	Diethyl phthalate	2016/04/21	77	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4464463	Dimethyl phthalate	2016/04/21	78	50 - 130	94	50 - 130	<0.1	ug/L	NC	30		
4464463	Fluoranthene	2016/04/21	97	50 - 130	102	50 - 130	<0.2	ug/L	NC	30		
4464463	Fluorene	2016/04/21	74	50 - 130	84	50 - 130	<0.2	ug/L	NC	30		
4464463	Indeno(1,2,3-cd)pyrene	2016/04/21	77	50 - 130	102	50 - 130	<0.1	ug/L	NC	30		
4464463	Naphthalene	2016/04/21	54	50 - 130	53	50 - 130	<0.2	ug/L	NC	30		
4464463	p-Chloroaniline	2016/04/21	40	30 - 130	61	30 - 130	<1	ug/L	NC	30		
4464463	Pentachlorophenol	2016/04/21	106	50 - 130	102	50 - 130	<0.1	ug/L	NC	30		
4464463	Phenanthrene	2016/04/21	83	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4464463	Phenol	2016/04/21	21 (1)	30 - 130	31	30 - 130	<0.5	ug/L	NC	30		
4464463	Pyrene	2016/04/21	95	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4465768	Dissolved Chloride (Cl)	2016/04/21	110	80 - 120	102	80 - 120	<1.0	mg/L	NC	20		
4465772	Dissolved Sulphate (SO4)	2016/04/21	105	75 - 125	106	80 - 120	<1.0	mg/L	NC	20		
4467712	Alkalinity (Total as CaCO3)	2016/04/22			95	85 - 115	<1.0	mg/L	0.71	25		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

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

(2) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.

(3) Some of the recoveries were below the lower control limits. This may represent a low bias in some results for these flagged analytes.

### VALIDATION SIGNATURE PAGE

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

*Cristina Carriere*

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Cristina Carriere, Scientific Services



*[Signature]*  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.









Maxxam Analytics International Corporation or/a Maxxam Analytics  
 740 Campbell Rd, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-Free: (800) 563-6256 Fax: (905) 817-5777 www.maxxam.com

**IMMEDIATE TEST**

STANTEC CHAIN OF CUSTODY RECORD

Page 1 of 2

<b>INVOICE INFORMATION:</b> Company Name: #9197 Stantec Consulting Ltd Contact Name: Accounts Payable Address: 49 Frederick St, Kitchener ON N2H 6M7 Phone: (519) 579-4410 Fax: (519) 579-6733 Email: Stantec.Accounts.Payable.Invoices@Stantec.com		<b>REPORT INFORMATION (if differs from invoice):</b> Company Name: #18379 Stantec Consulting Ltd Contact Name: Report - 1609-00764 Address: ON Phone: Fax: Email: aaron.warkentin@stantec.com, brant.gill@stantec.com		<b>PROJECT INFORMATION:</b> Quotation #: B48218 Task #: 160900764 Project #: 160900764 Profit Centre: Site #: Clarington TS - Monitoring Wel Sampled By: Angela Masin		<b>Laboratory Use Only:</b> Maxxam Job #: Bottle Order #: 556035 COC #: Project Manager: Deepthi Shaji C#556035-01-01	
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MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required				
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle):	Acidity, Cr(VI), Cyanide, Fluoride, Mercury	TDS	TOC	TSS	Turbidity	Reg 153 PNC - F1, F4	Reg 153 PCBs	Reg 153 VOCS	RCAs - Comprehensive (field filtered metals)	SVOC	Lab Filtered SVOCs	Regular (Standard) TAT:	Job Specific Rush TAT (if applies to entire submission)
<input checked="" type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw														Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw														Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)	<input type="checkbox"/>	
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality: _____																
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO																	
Include Criteria on Certificate of Analysis (Y/N)?																				
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	Acidity, Cr(VI), Cyanide, Fluoride, Mercury	TDS	TOC	TSS	Turbidity	Reg 153 PNC - F1, F4	Reg 153 PCBs	Reg 153 VOCS	RCAs - Comprehensive (field filtered metals)	SVOC	Lab Filtered SVOCs	# of Bottles	Comments		
1	WG-160900764-20160412 - AM01	2016/04/12	9:00	GW	Y	X	X	X	X	X	X	X	X	X	X	X	20			
2	WG-160900764-20160412 - AM01A		9:00													X	2			
3	WG-160900764-20160412 - AM02		11:15		Y	X	X	X	X	X	X	X	X	X	X	X	20	13-Apr-16 08:30		
4	WG-160900764-20160412 - AM02A		11:15													X	2	Deepthi Shaji B673021		
5	WG-160900764-20160412 - AM03		11:50		Y	X	X	X	X	X	X	X	X	X	X	X	20	AKP ENV-021		
6	WG-160900764-20160412 - AM03A		11:50													X	2			
7	WG-160900764-20160412 - AM04		12:10		Y	X	X	X	X	X	X	X	X	X	X	X	20			
8	WG-160900764-20160412 - AM04A		12:10													X	2			
9	WG-160900764-20160412 - AM05		17:00		Y	X	X	X	X	X	X	X	X	X	X	X	20	REC'D IN PORT HOPE		
10	WG-160900764-20160412 - AM05A		17:00													X	2			

RELINQUISHED BY: (Signature/Print) Angela Masin	Date: (YY/MM/DD) 16/04/12	Time 19:20	RECEIVED BY: (Signature/Print) RACHEL DEVLIN	Date: (YY/MM/DD) 2016/04/13	Time 08:30	# jars used and not submitted	Laboratory Use Only			Custody Seal	Yes	No
							Time Sensitive	Temperature (°C) on Receipt	Present			
								SEE ACTR	Intact			

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Company Name: #18379 Stantec Consulting Ltd	Quotation #: B48218	Maxxam Job #: 0673021	Bottle Order #: 556035	COC #: [Barcode]		
Contact Name: Accounts Payable	Contact Name: Report - 1609-00764	Task #: 160900764	Project #: Clarington TS - Monitoring Wel	Project Manager: Deepthi Shaji	Turnaround Time (TAT) Required: [ ]		
Address: 49 Frederick St, Kitchener ON N2H 6M7	Address: ON	Profit Centre: [ ]	Site #: [ ]	Please provide advance notice for rush projects			
Phone: (519) 579-4410 Fax: (519) 579-6733	Phone: [ ] Fax: [ ]	Sampled By: Angela Mason	Regular (Standard) TAT: [X] (will be applied if Rush TAT is not specified)				
Email: Stantec.Accounts.Payable.Invoices@Stantec.com	Email: aaron.warkentin@stantec.com, brant.gill@stantec.com	Standard TAT = 5-7 Working days for most tests.					

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required	
Regulation 153 (2011)		Other Regulations		Special Instructions		Field Filtered (please circle)	Acidity, GV, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	RCAp - Comprehensive (field filtered metals)	SVOC	Lab-Filtered SVOCs	# of Bottles	Comments	
<input checked="" type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw		Y	X	X	X	X	X	X	X	20			
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 598	<input type="checkbox"/> Storm Sewer Bylaw										2			
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	<input type="checkbox"/> Municipality													
<input type="checkbox"/> Table	<input type="checkbox"/> PWQO		<input type="checkbox"/> Other														

RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only		
Angela Mason AZ		16/04/12	19:20	[Signature]		2016/04/13	08:30		Time Sensitive	Temperature (°C) on Receipt	Custody Seal
				[Signature]		2016/04/13	13:10		SEE ACTR		Present
				[Signature]							Intact

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

**REC'D IN PORT HOPE**

# 351166 REFER TO ACTR

Your Project #: 160900764  
 Site Location: CLARINGTON TS-MONITORING WELL  
 Your C.O.C. #: 556035-06-01, 556035-07-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/28**  
 Report #: R3975887  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674631**

**Received: 2016/04/14, 18:55**

Sample Matrix: Water  
 # Samples Received: 14

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	2	N/A	2016/04/22	CAM SOP-00301	EPA 8270D m
Methylnaphthalene Sum	11	N/A	2016/04/26	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	13	2016/04/25	2016/04/26	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	5	N/A	2016/04/21	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	5	N/A	2016/04/19	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	5	N/A	2016/04/18	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	7	N/A	2016/04/20		EPA 8260C m
Chloride by Automated Colourimetry	5	N/A	2016/04/18	CAM SOP-00463	EPA 325.2 m
Conductivity	5	N/A	2016/04/15	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	3	N/A	2016/04/18	CAM SOP-00436	EPA 7199 m
Chromium (VI) in Water	2	N/A	2016/04/19	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	4	N/A	2016/04/15	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	1	N/A	2016/04/18	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	4	N/A	2016/04/16	CAM SOP-00446	SM 22 5310 B m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2016/04/17	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	5	N/A	2016/04/20	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2016/04/21	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	6	2016/04/20	2016/04/21	CAM SOP-00316	CCME PHC-CWS m
Fluoride	5	2016/04/15	2016/04/15	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2016/04/19	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	4	N/A	2016/04/20	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	5	2016/04/16	2016/04/20	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	1	N/A	2016/04/19	CAM SOP-00447	EPA 6020A m
Dissolved Metals by ICPMS	4	N/A	2016/04/20	CAM SOP-00447	EPA 6020A m
Ion Balance (% Difference)	1	N/A	2016/04/19		
Ion Balance (% Difference)	4	N/A	2016/04/20		
Anion and Cation Sum	1	N/A	2016/04/19		
Anion and Cation Sum	4	N/A	2016/04/20		
Total Ammonia-N	3	N/A	2016/04/20	CAM SOP-00441	EPA GS I-2522-90 m



Your Project #: 160900764  
 Site Location: CLARINGTON TS-MONITORING WELL  
 Your C.O.C. #: 556035-06-01, 556035-07-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/28**  
 Report #: R3975887  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674631**

**Received: 2016/04/14, 18:55**

Sample Matrix: Water  
 # Samples Received: 14

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Total Ammonia-N	2	N/A	2016/04/21	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (5)	5	N/A	2016/04/15	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	5	2016/04/19	2016/04/20	CAM SOP-00309	EPA 8082A m
pH	5	N/A	2016/04/15	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	5	N/A	2016/04/18	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	1	N/A	2016/04/19		
Sat. pH and Langelier Index (@ 20C)	4	N/A	2016/04/20		
Sat. pH and Langelier Index (@ 4C)	1	N/A	2016/04/19		
Sat. pH and Langelier Index (@ 4C)	4	N/A	2016/04/20		
Sulphate by Automated Colourimetry	5	N/A	2016/04/18	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	1	N/A	2016/04/19		
Total Dissolved Solids (TDS calc)	4	N/A	2016/04/20		
Total Dissolved Solids	5	N/A	2016/04/20	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (6)	4	N/A	2016/04/19	CAM SOP-00446	SM 22 5310B m
Total Organic Carbon (TOC) (6)	1	N/A	2016/04/20	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	5	N/A	2016/04/15	CAM SOP-00428	SM 22 2540D m
Turbidity	5	N/A	2016/04/15	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	1	N/A	2016/04/19	CAM SOP-00228	EPA 8260C m
Volatile Organic Compounds in Water	6	N/A	2016/04/20	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

Your Project #: 160900764  
Site Location: CLARINGTON TS-MONITORING WELL  
Your C.O.C. #: 556035-06-01, 556035-07-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/04/28**  
Report #: R3975887  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674631**

**Received: 2016/04/14, 18:55**

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (6) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		CER537	CER537			CER539		
<b>Sampling Date</b>		2016/04/14 09:30	2016/04/14 09:30			2016/04/14 09:40		
<b>COC Number</b>		556035-06-01	556035-06-01			556035-06-01		
	<b>UNITS</b>	<b>WG-160900764- 20160414-AM1 2</b>	<b>WG-160900764- 20160414-AM1 2 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>	<b>WG-160900764- 20160414-AM1 3</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>								
Anion Sum	me/L	18.2		N/A	4457010	7.13	N/A	4457010
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	170		1.0	4457008	230	1.0	4457008
Calculated TDS	mg/L	1200		1.0	4457007	390	1.0	4457007
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0		1.0	4457008	1.7	1.0	4457008
Cation Sum	me/L	18.5		N/A	4457010	7.02	N/A	4457010
Hardness (CaCO3)	mg/L	510		1.0	4457645	300	1.0	4457645
Ion Balance (% Difference)	%	1.08		N/A	4457009	0.820	N/A	4457009
Langelier Index (@ 20C)	N/A	0.325			4457005	0.576		4457005
Langelier Index (@ 4C)	N/A	0.0800			4457006	0.327		4457006
Saturation pH (@ 20C)	N/A	7.27			4457005	7.32		4457005
Saturation pH (@ 4C)	N/A	7.52			4457006	7.57		4457006

<b>Inorganics</b>								
Total Ammonia-N	mg/L	<0.050		0.050	4464476	<0.050	0.050	4462847
Conductivity	umho/cm	1700	1700	1.0	4459054	660	1.0	4459054
Dissolved Organic Carbon	mg/L	2.0		0.20	4459546	1.8	0.20	4459174
Orthophosphate (P)	mg/L	0.019		0.010	4460407	<0.010	0.010	4460407
pH	pH	7.60	7.66		4459056	7.90		4459056
Dissolved Sulphate (SO4)	mg/L	680		5.0	4460408	98	1.0	4460408
Alkalinity (Total as CaCO3)	mg/L	170	170	1.0	4459050	230	1.0	4459050
Dissolved Chloride (Cl)	mg/L	24		1.0	4460405	13	1.0	4460405
Nitrite (N)	mg/L	<0.010		0.010	4459024	<0.010	0.010	4459024
Nitrate (N)	mg/L	0.49		0.10	4459024	1.52	0.10	4459024
Nitrate + Nitrite (N)	mg/L	0.49		0.10	4459024	1.52	0.10	4459024

<b>Metals</b>								
Dissolved Aluminum (Al)	mg/L	<0.0050	<0.0050	0.0050	4459238	<0.0050	0.0050	4459238
Dissolved Antimony (Sb)	mg/L	0.00054	<0.00050	0.00050	4459238	<0.00050	0.00050	4459238
Dissolved Arsenic (As)	mg/L	<0.0010	<0.0010	0.0010	4459238	<0.0010	0.0010	4459238
Dissolved Barium (Ba)	mg/L	0.030	0.030	0.0020	4459238	0.049	0.0020	4459238
Dissolved Beryllium (Be)	mg/L	<0.00050	<0.00050	0.00050	4459238	<0.00050	0.00050	4459238
Dissolved Boron (B)	mg/L	0.32	0.31	0.010	4459238	0.083	0.010	4459238
Dissolved Cadmium (Cd)	mg/L	<0.00010	<0.00010	0.00010	4459238	<0.00010	0.00010	4459238

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CER537	CER537			CER539		
Sampling Date		2016/04/14 09:30	2016/04/14 09:30			2016/04/14 09:40		
COC Number		556035-06-01	556035-06-01			556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 2	WG-160900764- 20160414-AM1 2 Lab-Dup	RDL	QC Batch	WG-160900764- 20160414-AM1 3	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L	120	130	0.20	4459238	58	0.20	4459238
Dissolved Chromium (Cr)	mg/L	<0.0050	<0.0050	0.0050	4459238	<0.0050	0.0050	4459238
Dissolved Cobalt (Co)	mg/L	<0.00050	<0.00050	0.00050	4459238	<0.00050	0.00050	4459238
Dissolved Copper (Cu)	mg/L	0.0035	0.0036	0.0010	4459238	<0.0010	0.0010	4459238
Dissolved Iron (Fe)	mg/L	<0.10	<0.10	0.10	4459238	<0.10	0.10	4459238
Dissolved Lead (Pb)	mg/L	<0.00050	<0.00050	0.00050	4459238	<0.00050	0.00050	4459238
Dissolved Magnesium (Mg)	mg/L	47	48	0.050	4459238	36	0.050	4459238
Dissolved Manganese (Mn)	mg/L	0.027	0.027	0.0020	4459238	0.0043	0.0020	4459238
Dissolved Molybdenum (Mo)	mg/L	0.067	0.069	0.00050	4459238	0.0096	0.00050	4459238
Dissolved Nickel (Ni)	mg/L	0.0019	0.0020	0.0010	4459238	<0.0010	0.0010	4459238
Dissolved Phosphorus (P)	mg/L	0.53	0.54	0.10	4459238	<0.10	0.10	4459238
Dissolved Potassium (K)	mg/L	6.2	6.3	0.20	4459238	5.4	0.20	4459238
Dissolved Selenium (Se)	mg/L	<0.0020	<0.0020	0.0020	4459238	<0.0020	0.0020	4459238
Dissolved Silicon (Si)	mg/L	3.8	3.8	0.050	4459238	5.4	0.050	4459238
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	4459238	<0.00010	0.00010	4459238
Dissolved Sodium (Na)	mg/L	190	190	0.10	4459238	23	0.10	4459238
Dissolved Strontium (Sr)	mg/L	1.9	2.0	0.0010	4459238	0.78	0.0010	4459238
Dissolved Thallium (Tl)	mg/L	<0.000050	<0.000050	0.000050	4459238	<0.000050	0.000050	4459238
Dissolved Titanium (Ti)	mg/L	<0.0050	<0.0050	0.0050	4459238	<0.0050	0.0050	4459238
Dissolved Uranium (U)	mg/L	0.0061	0.0062	0.00010	4459238	0.0035	0.00010	4459238
Dissolved Vanadium (V)	mg/L	0.00066	0.00066	0.00050	4459238	0.00085	0.00050	4459238
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0053	0.0050	4459238	<0.0050	0.0050	4459238
Dissolved Zirconium (Zr)	mg/L	<0.0010	<0.0010	0.0010	4459238	<0.0010	0.0010	4459238
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate								

**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		CER539		CER541		CER543		
<b>Sampling Date</b>		2016/04/14 09:40		2016/04/14 14:10		2016/04/14 14:20		
<b>COC Number</b>		556035-06-01		556035-06-01		556035-06-01		
	<b>UNITS</b>	<b>WG-160900764- 20160414-AM1 3 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20160414-AM1 4</b>	<b>QC Batch</b>	<b>WG-160900764- 20160414-AM1 5</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>								
Anion Sum	me/L		4457010	4.41	4457010	2.10	N/A	4457010
Bicarb. Alkalinity (calc. as CaCO3)	mg/L		4457008	190	4457008	93	1.0	4457008
Calculated TDS	mg/L		4457007	230	4457007	120	1.0	4457007
Carb. Alkalinity (calc. as CaCO3)	mg/L		4457008	1.5	4457008	<1.0	1.0	4457008
Cation Sum	me/L		4457010	4.30	4457010	2.16	N/A	4457010
Hardness (CaCO3)	mg/L		4457645	190	4457645	47	1.0	4457645
Ion Balance (% Difference)	%		4457009	1.29	4457009	NC	N/A	4457009
Langelier Index (@ 20C)	N/A		4457005	0.318	4457005	-0.623		4457005
Langelier Index (@ 4C)	N/A		4457006	0.0690	4457006	-0.874		4457006
Saturation pH (@ 20C)	N/A		4457005	7.61	4457005	8.40		4457005
Saturation pH (@ 4C)	N/A		4457006	7.86	4457006	8.65		4457006

<b>Inorganics</b>								
Total Ammonia-N	mg/L		4462847	<0.050	4462847	<0.050	0.050	4462847
Conductivity	umho/cm		4459054	380	4459054	190	1.0	4459054
Dissolved Organic Carbon	mg/L		4459174	0.75	4459546	1.0	0.20	4459546
Orthophosphate (P)	mg/L	<0.010	4460407	<0.010	4460407	<0.010	0.010	4460407
pH	pH		4459056	7.93	4459056	7.77		4459056
Dissolved Sulphate (SO4)	mg/L	98	4460408	23	4460408	9.2	1.0	4460408
Alkalinity (Total as CaCO3)	mg/L		4459050	190	4459050	93	1.0	4459050
Dissolved Chloride (Cl)	mg/L	14	4460405	5.1	4460405	<1.0	1.0	4460405
Nitrite (N)	mg/L		4459024	<0.010	4459024	<0.010	0.010	4459024
Nitrate (N)	mg/L		4459024	<0.10	4459024	<0.10	0.10	4459024
Nitrate + Nitrite (N)	mg/L		4459024	<0.10	4459024	<0.10	0.10	4459024

<b>Metals</b>								
Dissolved Aluminum (Al)	mg/L		4459238	<0.0050	4459238	<0.0050	0.0050	4459644
Dissolved Antimony (Sb)	mg/L		4459238	<0.00050	4459238	<0.00050	0.00050	4459644
Dissolved Arsenic (As)	mg/L		4459238	<0.0010	4459238	<0.0010	0.0010	4459644
Dissolved Barium (Ba)	mg/L		4459238	0.059	4459238	0.020	0.0020	4459644
Dissolved Beryllium (Be)	mg/L		4459238	<0.00050	4459238	<0.00050	0.00050	4459644
Dissolved Boron (B)	mg/L		4459238	0.038	4459238	0.10	0.010	4459644
Dissolved Cadmium (Cd)	mg/L		4459238	<0.00010	4459238	<0.00010	0.00010	4459644

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CER539		CER541		CER543		
Sampling Date		2016/04/14 09:40		2016/04/14 14:10		2016/04/14 14:20		
COC Number		556035-06-01		556035-06-01		556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 3 Lab-Dup	QC Batch	WG-160900764- 20160414-AM1 4	QC Batch	WG-160900764- 20160414-AM1 5	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L		4459238	32	4459238	9.9	0.20	4459644
Dissolved Chromium (Cr)	mg/L		4459238	<0.0050	4459238	<0.0050	0.0050	4459644
Dissolved Cobalt (Co)	mg/L		4459238	<0.00050	4459238	<0.00050	0.00050	4459644
Dissolved Copper (Cu)	mg/L		4459238	<0.0010	4459238	<0.0010	0.0010	4459644
Dissolved Iron (Fe)	mg/L		4459238	<0.10	4459238	<0.10	0.10	4459644
Dissolved Lead (Pb)	mg/L		4459238	<0.00050	4459238	<0.00050	0.00050	4459644
Dissolved Magnesium (Mg)	mg/L		4459238	27	4459238	5.4	0.050	4459644
Dissolved Manganese (Mn)	mg/L		4459238	0.021	4459238	0.0036	0.0020	4459644
Dissolved Molybdenum (Mo)	mg/L		4459238	0.0025	4459238	0.0034	0.00050	4459644
Dissolved Nickel (Ni)	mg/L		4459238	<0.0010	4459238	<0.0010	0.0010	4459644
Dissolved Phosphorus (P)	mg/L		4459238	<0.10	4459238	<0.10	0.10	4459644
Dissolved Potassium (K)	mg/L		4459238	2.2	4459238	1.8	0.20	4459644
Dissolved Selenium (Se)	mg/L		4459238	<0.0020	4459238	<0.0020	0.0020	4459644
Dissolved Silicon (Si)	mg/L		4459238	6.8	4459238	4.6	0.050	4459644
Dissolved Silver (Ag)	mg/L		4459238	<0.00010	4459238	<0.00010	0.00010	4459644
Dissolved Sodium (Na)	mg/L		4459238	10	4459238	27	0.10	4459644
Dissolved Strontium (Sr)	mg/L		4459238	0.52	4459238	0.26	0.0010	4459644
Dissolved Thallium (Tl)	mg/L		4459238	<0.000050	4459238	<0.000050	0.000050	4459644
Dissolved Titanium (Ti)	mg/L		4459238	<0.0050	4459238	<0.0050	0.0050	4459644
Dissolved Uranium (U)	mg/L		4459238	0.00049	4459238	0.00011	0.00010	4459644
Dissolved Vanadium (V)	mg/L		4459238	0.00073	4459238	<0.00050	0.00050	4459644
Dissolved Zinc (Zn)	mg/L		4459238	<0.0050	4459238	<0.0050	0.0050	4459644
Dissolved Zirconium (Zr)	mg/L		4459238	<0.0010	4459238	<0.0010	0.0010	4459644
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								

**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		CER545		
<b>Sampling Date</b>		2016/04/14 14:30		
<b>COC Number</b>		556035-06-01		
	<b>UNITS</b>	<b>WG-160900764- 20160414-AM1 6</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Anion Sum	me/L	4.38	N/A	4457010
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	190	1.0	4457008
Calculated TDS	mg/L	220	1.0	4457007
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	1.6	1.0	4457008
Cation Sum	me/L	4.17	N/A	4457010
Hardness (CaCO <sub>3</sub> )	mg/L	180	1.0	4457645
Ion Balance (% Difference)	%	2.49	N/A	4457009
Langelier Index (@ 20C)	N/A	0.324		4457005
Langelier Index (@ 4C)	N/A	0.0740		4457006
Saturation pH (@ 20C)	N/A	7.64		4457005
Saturation pH (@ 4C)	N/A	7.89		4457006
<b>Inorganics</b>				
Total Ammonia-N	mg/L	<0.050	0.050	4463274
Conductivity	umho/cm	380	1.0	4459054
Dissolved Organic Carbon	mg/L	0.81	0.20	4460243
Orthophosphate (P)	mg/L	0.010	0.010	4460407
pH	pH	7.96		4459056
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	23	1.0	4460408
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	190	1.0	4459050
Dissolved Chloride (Cl)	mg/L	5.2	1.0	4460405
Nitrite (N)	mg/L	<0.010	0.010	4459024
Nitrate (N)	mg/L	<0.10	0.10	4459024
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	4459024
<b>Metals</b>				
Dissolved Aluminum (Al)	mg/L	<0.0050	0.0050	4460429
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	4460429
Dissolved Arsenic (As)	mg/L	<0.0010	0.0010	4460429
Dissolved Barium (Ba)	mg/L	0.058	0.0020	4460429
Dissolved Beryllium (Be)	mg/L	<0.00050	0.00050	4460429
Dissolved Boron (B)	mg/L	0.035	0.010	4460429
Dissolved Cadmium (Cd)	mg/L	<0.00010	0.00010	4460429
Dissolved Calcium (Ca)	mg/L	31	0.20	4460429
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable				

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		CER545		
Sampling Date		2016/04/14 14:30		
COC Number		556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 6	RDL	QC Batch
Dissolved Chromium (Cr)	mg/L	<0.0050	0.0050	4460429
Dissolved Cobalt (Co)	mg/L	<0.00050	0.00050	4460429
Dissolved Copper (Cu)	mg/L	<0.0010	0.0010	4460429
Dissolved Iron (Fe)	mg/L	<0.10	0.10	4460429
Dissolved Lead (Pb)	mg/L	<0.00050	0.00050	4460429
Dissolved Magnesium (Mg)	mg/L	26	0.050	4460429
Dissolved Manganese (Mn)	mg/L	0.020	0.0020	4460429
Dissolved Molybdenum (Mo)	mg/L	0.0023	0.00050	4460429
Dissolved Nickel (Ni)	mg/L	<0.0010	0.0010	4460429
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	4460429
Dissolved Potassium (K)	mg/L	2.1	0.20	4460429
Dissolved Selenium (Se)	mg/L	<0.0020	0.0020	4460429
Dissolved Silicon (Si)	mg/L	6.6	0.050	4460429
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	4460429
Dissolved Sodium (Na)	mg/L	9.7	0.10	4460429
Dissolved Strontium (Sr)	mg/L	0.52	0.0010	4460429
Dissolved Thallium (Tl)	mg/L	<0.000050	0.000050	4460429
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	4460429
Dissolved Uranium (U)	mg/L	0.00056	0.00010	4460429
Dissolved Vanadium (V)	mg/L	<0.00050	0.00050	4460429
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0050	4460429
Dissolved Zirconium (Zr)	mg/L	<0.0010	0.0010	4460429
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		CER537	CER537		CER539		CER541		
<b>Sampling Date</b>		2016/04/14 09:30	2016/04/14 09:30		2016/04/14 09:40		2016/04/14 14:10		
<b>COC Number</b>		556035-06-01	556035-06-01		556035-06-01		556035-06-01		
	<b>UNITS</b>	<b>WG-160900764- 20160414-AM1 2</b>	<b>WG-160900764- 20160414-AM1 2 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20160414-AM1 3</b>	<b>QC Batch</b>	<b>WG-160900764- 20160414-AM1 4</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>									
Acidity as CaCO3	mg/L	18		4459151	15	4459151	<10	10	4459151
Total Dissolved Solids	mg/L	1340	1330	4461649	410	4461649	234	10	4463215
Fluoride (F-)	mg/L	0.32	0.31	4459055	0.31	4459055	0.28	0.10	4459055
Free Cyanide	ug/L	<2		4459730	<2	4459730	<2	2	4459730
Total Organic Carbon (TOC)	mg/L	2.9		4464795	1.8	4462947	1.1	0.20	4462947
Total Suspended Solids	mg/L	120		4459813	10	4459813	10	10	4459813
Turbidity	NTU	87		4458806	7.4	4458806	9.9	0.2	4458806

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

<b>Maxxam ID</b>		CER543		CER545	CER545		
<b>Sampling Date</b>		2016/04/14 14:20		2016/04/14 14:30	2016/04/14 14:30		
<b>COC Number</b>		556035-06-01		556035-06-01	556035-06-01		
	<b>UNITS</b>	<b>WG-160900764- 20160414-AM1 5</b>	<b>QC Batch</b>	<b>WG-160900764- 20160414-AM1 6</b>	<b>WG-160900764- 20160414-AM1 6 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L	<10	4459151	<10	<10	10	4459151
Total Dissolved Solids	mg/L	136	4463215	234		10	4463215
Fluoride (F-)	mg/L	0.84	4459055	0.28		0.10	4459055
Free Cyanide	ug/L	<2	4459730	<2	<2	2	4460681
Total Organic Carbon (TOC)	mg/L	1.3	4462947	1.0		0.20	4462947
Total Suspended Solids	mg/L	<10	4459813	13		10	4459813
Turbidity	NTU	1.0	4458806	7.5	7.6	0.2	4458806

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		CER537		CER539	CER541		CER543		
<b>Sampling Date</b>		2016/04/14 09:30		2016/04/14 09:40	2016/04/14 14:10		2016/04/14 14:20		
<b>COC Number</b>		556035-06-01		556035-06-01	556035-06-01		556035-06-01		
	<b>UNITS</b>	<b>WG-160900764- 20160414-AM1 2</b>	<b>QC Batch</b>	<b>WG-160900764- 20160414-AM1 3</b>	<b>WG-160900764- 20160414-AM1 4</b>	<b>QC Batch</b>	<b>WG-160900764- 20160414-AM1 5</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Chromium (VI)	ug/L	<0.50	4459423	<0.50	<0.50	4459176	<0.50	0.50	4460579
Mercury (Hg)	mg/L	<0.0001	4460508	<0.0001	<0.0001	4460508	<0.0001	0.0001	4460508

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

<b>Maxxam ID</b>		CER545		
<b>Sampling Date</b>		2016/04/14 14:30		
<b>COC Number</b>		556035-06-01		
	<b>UNITS</b>	<b>WG-160900764- 20160414-AM1 6</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>				
Chromium (VI)	ug/L	<0.50	0.50	4460675
Mercury (Hg)	mg/L	<0.0001	0.0001	4460508

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 PCBS (WATER)**

Maxxam ID		CER537	CER539	CER541	CER543	CER545		
Sampling Date		2016/04/14 09:30	2016/04/14 09:40	2016/04/14 14:10	2016/04/14 14:20	2016/04/14 14:30		
COC Number		556035-06-01	556035-06-01	556035-06-01	556035-06-01	556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 2	WG-160900764- 20160414-AM1 3	WG-160900764- 20160414-AM1 4	WG-160900764- 20160414-AM1 5	WG-160900764- 20160414-AM1 6	RDL	QC Batch
<b>PCBs</b>								
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4463603
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4463603
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4463603
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4463603
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4463603
<b>Surrogate Recovery (%)</b>								
Decachlorobiphenyl	%	100	95	104	104	101		4463603
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		CER537	CER537		CER539	CER539		
Sampling Date		2016/04/14 09:30	2016/04/14 09:30		2016/04/14 09:40	2016/04/14 09:40		
COC Number		556035-06-01	556035-06-01		556035-06-01	556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 2	WG-160900764- 20160414-AM1 2 Lab-Dup	QC Batch	WG-160900764- 20160414-AM1 3	WG-160900764- 20160414-AM1 3 Lab-Dup	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>								
F1 (C6-C10)	ug/L	<25	<25	4464992	<25	<25	25	4466730
F1 (C6-C10) - BTEX	ug/L	<25	<25	4464992	<25	<25	25	4466730
<b>F2-F4 Hydrocarbons</b>								
F2 (C10-C16 Hydrocarbons)	ug/L	<100		4465825	<100	<100	100	4465825
F3 (C16-C34 Hydrocarbons)	ug/L	<200		4465825	<200	<200	200	4465825
F4 (C34-C50 Hydrocarbons)	ug/L	<200		4465825	<200	<200	200	4465825
Reached Baseline at C50	ug/L	Yes		4465825	Yes	Yes		4465825
<b>Surrogate Recovery (%)</b>								
1,4-Difluorobenzene	%	99	97	4464992	95	101		4466730
4-Bromofluorobenzene	%	100	101	4464992	92	104		4466730
D10-Ethylbenzene	%	94	90	4464992	101	96		4466730
D4-1,2-Dichloroethane	%	101	106	4464992	99	103		4466730
o-Terphenyl	%	95		4465825	96	96		4465825
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate								

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		CER541	CER543	CER545	CER550	CER551		
Sampling Date		2016/04/14 14:10	2016/04/14 14:20	2016/04/14 14:30	2016/04/14 15:00	2016/04/14		
COC Number		556035-06-01	556035-06-01	556035-06-01	556035-07-01	556035-07-01		
	UNITS	WG-160900764- 20160414-AM1 4	WG-160900764- 20160414-AM1 5	WG-160900764- 20160414-AM1 6	FIELD BLANK-1	TRIP BLANK	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>								
F1 (C6-C10)	ug/L	<25	<25	<25	<25	<25	25	4464992
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	<25	25	4464992
<b>F2-F4 Hydrocarbons</b>								
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100		100	4465825
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200		200	4465825
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200		200	4465825
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes			4465825
<b>Surrogate Recovery (%)</b>								
1,4-Difluorobenzene	%	101	101	100	100	100		4464992
4-Bromofluorobenzene	%	100	102	101	101	101		4464992
D10-Ethylbenzene	%	126	126	126	126	128		4464992
D4-1,2-Dichloroethane	%	103	103	105	103	104		4464992
o-Terphenyl	%	95	96	97	95			4465825
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER537	CER538	CER539	CER540		
Sampling Date		2016/04/14 09:30	2016/04/14 09:30	2016/04/14 09:40	2016/04/14 09:40		
COC Number		556035-06-01	556035-06-01	556035-06-01	556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 2	WG-160900764-20160414- AM12A	WG-160900764- 20160414-AM1 3	WG-160900764-20160414- AM13A	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4471350
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4471350
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4471350
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4471350
Benzo(b,j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4471350
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER537	CER538	CER539	CER540		
Sampling Date		2016/04/14 09:30	2016/04/14 09:30	2016/04/14 09:40	2016/04/14 09:40		
COC Number		556035-06-01	556035-06-01	556035-06-01	556035-06-01		
	UNITS	WG-160900764-20160414-AM1 2	WG-160900764-20160414-AM12A	WG-160900764-20160414-AM1 3	WG-160900764-20160414-AM13A	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4471350
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4457174
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	68	73	46 (1)	62		4471350
2-Fluorobiphenyl	%	67	55	49 (1)	71		4471350
D14-Terphenyl (FS)	%	10 (1)	18 (1)	97	27 (1)		4471350
D5-Nitrobenzene	%	64	64	64	63		4471350
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit .This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER541		CER542	CER543		
Sampling Date		2016/04/14 14:10		2016/04/14 14:10	2016/04/14 14:20		
COC Number		556035-06-01		556035-06-01	556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 4	QC Batch	WG-160900764-20160414- AM14A	WG-160900764- 20160414-AM1 5	RDL	QC Batch
<b>Semivolatile Organics</b>							
1,2,4-Trichlorobenzene	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
1-Methylnaphthalene	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
2,4,5-Trichlorophenol	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
2,4,6-Trichlorophenol	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
2,4-Dichlorophenol	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
2,4-Dimethylphenol	ug/L	<0.5	4471350	<0.5	<0.5	0.5	4471350
2,4-Dinitrophenol	ug/L	<2	4471350	<2	<2	2	4471350
2,4-Dinitrotoluene	ug/L	<0.3	4471350	<0.3	<0.3	0.3	4471350
2,6-Dinitrotoluene	ug/L	<0.3	4471350	<0.3	<0.3	0.3	4471350
2-Chlorophenol	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
2-Methylnaphthalene	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
3,3'-Dichlorobenzidine	ug/L	<0.5	4471350	<0.5	<0.5	0.5	4471350
Acenaphthene	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
Acenaphthylene	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
Anthracene	ug/L	<0.05	4471350	<0.05	<0.05	0.05	4471350
Benzo(a)anthracene	ug/L	<0.05	4471350	<0.05	<0.05	0.05	4471350
Benzo(a)pyrene	ug/L	<0.01	4471350	<0.01	<0.01	0.01	4471350
Benzo(b/j)fluoranthene	ug/L	<0.05	4471350	<0.05	<0.05	0.05	4471350
Benzo(g,h,i)perylene	ug/L	<0.05	4471350	<0.05	<0.05	0.05	4471350
Benzo(k)fluoranthene	ug/L	<0.05	4471350	<0.05	<0.05	0.05	4471350
Biphenyl	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
Bis(2-chloroethyl)ether	ug/L	<0.5	4471350	<0.5	<0.5	0.5	4471350
Bis(2-chloroisopropyl)ether	ug/L	<0.5	4471350	<0.5	<0.5	0.5	4471350
Bis(2-ethylhexyl)phthalate	ug/L	<1	4471350	<1	<1	1	4471350
Chrysene	ug/L	<0.05	4471350	<0.05	<0.05	0.05	4471350
Dibenz(a,h)anthracene	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
Diethyl phthalate	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
Dimethyl phthalate	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
Fluoranthene	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
Fluorene	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
Naphthalene	ug/L	<0.2	4471350	<0.2	<0.2	0.2	4471350
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							



**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER541		CER542	CER543		
Sampling Date		2016/04/14 14:10		2016/04/14 14:10	2016/04/14 14:20		
COC Number		556035-06-01		556035-06-01	556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 4	QC Batch	WG-160900764-20160414- AM14A	WG-160900764- 20160414-AM1 5	RDL	QC Batch
p-Chloroaniline	ug/L	<1	4471350	<1	<1	1	4471350
Pentachlorophenol	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
Phenanthrene	ug/L	<0.1	4471350	<0.1	<0.1	0.1	4471350
Phenol	ug/L	<0.5	4471350	<0.5	<0.5	0.5	4471350
Pyrene	ug/L	<0.05	4471350	<0.05	<0.05	0.05	4471350
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	4457174	<0.28	<0.28	0.28	4458545
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	63	4471350	60	61		4471350
2-Fluorobiphenyl	%	58	4471350	56	60		4471350
D14-Terphenyl (FS)	%	101	4471350	22 (1)	103		4471350
D5-Nitrobenzene	%	65	4471350	67	65		4471350
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit .This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER544	CER545	CER546	CER550		
Sampling Date		2016/04/14 14:20	2016/04/14 14:30	2016/04/14 14:30	2016/04/14 15:00		
COC Number		556035-06-01	556035-06-01	556035-06-01	556035-07-01		
	UNITS	WG-160900764-20160414-AM15A	WG-160900764-20160414-AM16	WG-160900764-20160414-AM16A	FIELD BLANK-1	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4471350
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4471350
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4471350
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4471350
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4471350
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4471350

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER544	CER545	CER546	CER550		
Sampling Date		2016/04/14 14:20	2016/04/14 14:30	2016/04/14 14:30	2016/04/14 15:00		
COC Number		556035-06-01	556035-06-01	556035-06-01	556035-07-01		
	UNITS	WG-160900764-20160414-AM15A	WG-160900764-20160414-AM16	WG-160900764-20160414-AM16A	FIELD BLANK-1	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4471350
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4471350
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4471350
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4471350
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4458545
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	61	55	58	57		4471350
2-Fluorobiphenyl	%	54	59	52	55		4471350
D14-Terphenyl (FS)	%	21 (1)	103	13 (1)	103		4471350
D5-Nitrobenzene	%	63	63	61	62		4471350
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit .This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER927	CER928		
Sampling Date		2016/04/14	2016/04/14		
COC Number		556035-06-01	556035-06-01		
	UNITS	FILTERED BLANK	FILTERED SPIKE	RDL	QC Batch
<b>Semivolatile Organics</b>					
1,2,4-Trichlorobenzene	ug/L	<0.1	46	0.1	4471350
1-Methylnaphthalene	ug/L	<0.2	71	0.2	4471350
2,4,5-Trichlorophenol	ug/L	<0.2	100	0.2	4471350
2,4,6-Trichlorophenol	ug/L	<0.2	100	0.2	4471350
2,4-Dichlorophenol	ug/L	<0.1	81	0.1	4471350
2,4-Dimethylphenol	ug/L	<0.5	61	0.5	4471350
2,4-Dinitrophenol	ug/L	<2	66	2	4471350
2,4-Dinitrotoluene	ug/L	<0.3	94	0.3	4471350
2,6-Dinitrotoluene	ug/L	<0.3	91	0.3	4471350
2-Chlorophenol	ug/L	<0.1	74	0.1	4471350
2-Methylnaphthalene	ug/L	<0.2	68	0.2	4471350
3,3'-Dichlorobenzidine	ug/L	<0.5	93	0.5	4471350
Acenaphthene	ug/L	<0.2	81	0.2	4471350
Acenaphthylene	ug/L	<0.2	83	0.2	4471350
Anthracene	ug/L	<0.05	42 (1)	0.05	4471350
Benzo(a)anthracene	ug/L	<0.05	20 (1)	0.05	4471350
Benzo(a)pyrene	ug/L	<0.01	16 (1)	0.01	4471350
Benzo(b/j)fluoranthene	ug/L	<0.05	17 (1)	0.05	4471350
Benzo(g,h,i)perylene	ug/L	<0.05	14 (1)	0.05	4471350
Benzo(k)fluoranthene	ug/L	<0.05	17 (1)	0.05	4471350
Biphenyl	ug/L	<0.1	75	0.1	4471350
Bis(2-chloroethyl)ether	ug/L	<0.5	65	0.5	4471350
Bis(2-chloroisopropyl)ether	ug/L	<0.5	69	0.5	4471350
Bis(2-ethylhexyl)phthalate	ug/L	<1	26 (1)	1	4471350
Chrysene	ug/L	<0.05	17 (1)	0.05	4471350
Dibenz(a,h)anthracene	ug/L	<0.1	14 (1)	0.1	4471350
Diethyl phthalate	ug/L	<0.1	83	0.1	4471350
Dimethyl phthalate	ug/L	<0.1	93	0.1	4471350
Fluoranthene	ug/L	<0.2	50	0.2	4471350
Fluorene	ug/L	<0.2	79	0.2	4471350
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	13 (1)	0.1	4471350
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CER927	CER928		
Sampling Date		2016/04/14	2016/04/14		
COC Number		556035-06-01	556035-06-01		
	UNITS	FILTERED BLANK	FILTERED SPIKE	RDL	QC Batch
Naphthalene	ug/L	<0.2	54	0.2	4471350
p-Chloroaniline	ug/L	<1	66	1	4471350
Pentachlorophenol	ug/L	<0.1	98	0.1	4471350
Phenanthrene	ug/L	<0.1	64	0.1	4471350
Phenol	ug/L	<0.5	31	0.5	4471350
Pyrene	ug/L	<0.05	42 (1)	0.05	4471350
<b>Calculated Parameters</b>					
Methylnaphthalene, 2-(1-)	ug/L	<0.28	140	0.28	4458545
<b>Surrogate Recovery (%)</b>					
2,4,6-Tribromophenol	%	61	77		4471350
2-Fluorobiphenyl	%	59	57		4471350
D14-Terphenyl (FS)	%	27 (2)	33 (2)		4471350
D5-Nitrobenzene	%	62	64		4471350
<p>RDL = Reportable Detection Limit            QC Batch = Quality Control Batch            (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.            (2) Surrogate recovery was below the lower control limit .This may represent a low bias in some results.</p>					

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CER537	CER539	CER541	CER543	CER545		
Sampling Date		2016/04/14 09:30	2016/04/14 09:40	2016/04/14 14:10	2016/04/14 14:20	2016/04/14 14:30		
COC Number		556035-06-01	556035-06-01	556035-06-01	556035-06-01	556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 2	WG-160900764- 20160414-AM1 3	WG-160900764- 20160414-AM1 4	WG-160900764- 20160414-AM1 5	WG-160900764- 20160414-AM1 6	RDL	QC Batch

Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4458143
Volatile Organics								
Acetone (2-Propanone)	ug/L	<10	<10	<10	<10	<10	10	4446355
Benzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4446355
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4446355
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	4446355
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	4446355
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	4446355
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	4446355
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	<10	10	4446355
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	4446355
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CER537	CER539	CER541	CER543	CER545		
Sampling Date		2016/04/14 09:30	2016/04/14 09:40	2016/04/14 14:10	2016/04/14 14:20	2016/04/14 14:30		
COC Number		556035-06-01	556035-06-01	556035-06-01	556035-06-01	556035-06-01		
	UNITS	WG-160900764- 20160414-AM1 2	WG-160900764- 20160414-AM1 3	WG-160900764- 20160414-AM1 4	WG-160900764- 20160414-AM1 5	WG-160900764- 20160414-AM1 6	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4446355
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4446355
<b>Surrogate Recovery (%)</b>								
4-Bromofluorobenzene	%	100	98	98	98	97		4446355
D4-1,2-Dichloroethane	%	100	101	100	100	101		4446355
D8-Toluene	%	98	100	99	98	99		4446355
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CER550	CER551		
Sampling Date		2016/04/14 15:00	2016/04/14		
COC Number		556035-07-01	556035-07-01		
	<b>UNITS</b>	<b>FIELD BLANK-1</b>	<b>TRIP BLANK</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	4458143
<b>Volatile Organics</b>					
Acetone (2-Propanone)	ug/L	<10	<10	10	4446355
Benzene	ug/L	<0.20	<0.20	0.20	4446355
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	4446355
Bromoform	ug/L	<1.0	<1.0	1.0	4446355
Bromomethane	ug/L	<0.50	<0.50	0.50	4446355
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	4446355
Chlorobenzene	ug/L	<0.20	<0.20	0.20	4446355
Chloroform	ug/L	<0.20	<0.20	0.20	4446355
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	4446355
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4446355
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4446355
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4446355
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	4446355
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	4446355
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	4446355
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	4446355
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4446355
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4446355
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	4446355
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	4446355
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	4446355
Ethylbenzene	ug/L	<0.20	<0.20	0.20	4446355
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	4446355
Hexane	ug/L	<1.0	<1.0	1.0	4446355
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	4446355
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	4446355
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	4446355
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	4446355
Styrene	ug/L	<0.50	<0.50	0.50	4446355
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4446355
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CER550	CER551		
Sampling Date		2016/04/14 15:00	2016/04/14		
COC Number		556035-07-01	556035-07-01		
	UNITS	FIELD BLANK-1	TRIP BLANK	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4446355
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	4446355
Toluene	ug/L	<0.20	<0.20	0.20	4446355
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	4446355
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	4446355
Trichloroethylene	ug/L	<0.20	<0.20	0.20	4446355
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	4446355
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	4446355
p+m-Xylene	ug/L	<0.20	<0.20	0.20	4446355
o-Xylene	ug/L	<0.20	<0.20	0.20	4446355
Total Xylenes	ug/L	<0.20	<0.20	0.20	4446355
<b>Surrogate Recovery (%)</b>					
4-Bromofluorobenzene	%	97	99		4446355
D4-1,2-Dichloroethane	%	101	100		4446355
D8-Toluene	%	99	99		4446355
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

### TEST SUMMARY

**Maxxam ID:** CER537  
**Sample ID:** WG-160900764-20160414-AM12  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic
Acidity as CaCO3 in liquid		4459151	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459050	N/A	2016/04/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4458143	N/A	2016/04/20	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459054	N/A	2016/04/15	Surinder Rai
Chromium (VI) in Water	IC	4459423	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459730	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459546	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464992	N/A	2016/04/21	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Fluoride	ISE	4459055	2016/04/15	2016/04/15	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460508	2016/04/16	2016/04/20	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4459238	N/A	2016/04/20	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH4	4464476	N/A	2016/04/21	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459024	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4463603	2016/04/19	2016/04/20	Li Peng
pH	AT	4459056	N/A	2016/04/15	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk
Total Dissolved Solids	BAL	4461649	N/A	2016/04/20	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4464795	N/A	2016/04/20	Elsamma Alex
Total Suspended Solids	BAL	4459813	N/A	2016/04/15	Gurpreet Kaur
Turbidity	AT	4458806	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4446355	N/A	2016/04/19	Xueming Jiang

**Maxxam ID:** CER537 Dup  
**Sample ID:** WG-160900764-20160414-AM12  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	4459050	N/A	2016/04/19	Surinder Rai
Conductivity	AT	4459054	N/A	2016/04/15	Surinder Rai
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464992	N/A	2016/04/21	Jiaxuan (Simon) Xi
Fluoride	ISE	4459055	2016/04/15	2016/04/15	Surinder Rai
Dissolved Metals by ICPMS	ICP/MS	4459238	N/A	2016/04/20	Prempal Bhatti

### TEST SUMMARY

**Maxxam ID:** CER537 Dup  
**Sample ID:** WG-160900764-20160414-AM12  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	4459056	N/A	2016/04/15	Surinder Rai
Total Dissolved Solids	BAL	4461649	N/A	2016/04/20	Niki Shah

**Maxxam ID:** CER538  
**Sample ID:** WG-160900764-20160414-AM12A  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic

**Maxxam ID:** CER539  
**Sample ID:** WG-160900764-20160414-AM13  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic
Acidity as CaCO3 in liquid		4459151	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459050	N/A	2016/04/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4458143	N/A	2016/04/20	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459054	N/A	2016/04/15	Surinder Rai
Chromium (VI) in Water	IC	4459176	N/A	2016/04/19	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459730	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459174	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4466730	N/A	2016/04/21	Anca Ganea
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Fluoride	ISE	4459055	2016/04/15	2016/04/15	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460508	2016/04/16	2016/04/20	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4459238	N/A	2016/04/20	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH4	4462847	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459024	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4463603	2016/04/19	2016/04/20	Li Peng
pH	AT	4459056	N/A	2016/04/15	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** CER539  
**Sample ID:** WG-160900764-20160414-AM13  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	4461649	N/A	2016/04/20	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4462947	N/A	2016/04/19	Elsamma Alex
Total Suspended Solids	BAL	4459813	N/A	2016/04/15	Gurpreet Kaur
Turbidity	AT	4458806	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4446355	N/A	2016/04/20	Xueming Jiang

**Maxxam ID:** CER539 Dup  
**Sample ID:** WG-160900764-20160414-AM13  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4466730	N/A	2016/04/21	Anca Ganea
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu

**Maxxam ID:** CER540  
**Sample ID:** WG-160900764-20160414-AM13A  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic

**Maxxam ID:** CER541  
**Sample ID:** WG-160900764-20160414-AM14  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic
Acidity as CaCO3 in liquid		4459151	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459050	N/A	2016/04/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4458143	N/A	2016/04/20	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459054	N/A	2016/04/15	Surinder Rai
Chromium (VI) in Water	IC	4459176	N/A	2016/04/19	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459730	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459546	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464992	N/A	2016/04/20	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Fluoride	ISE	4459055	2016/04/15	2016/04/15	Surinder Rai

### TEST SUMMARY

**Maxxam ID:** CER541  
**Sample ID:** WG-160900764-20160414-AM14  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hardness (calculated as CaCO <sub>3</sub> )		4457645	N/A	2016/04/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460508	2016/04/16	2016/04/20	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4459238	N/A	2016/04/20	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH <sub>4</sub>	4462847	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4459024	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4463603	2016/04/19	2016/04/20	Li Peng
pH	AT	4459056	N/A	2016/04/15	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk
Total Dissolved Solids	BAL	4463215	N/A	2016/04/20	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4462947	N/A	2016/04/19	Elsamma Alex
Total Suspended Solids	BAL	4459813	N/A	2016/04/15	Gurpreet Kaur
Turbidity	AT	4458806	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4446355	N/A	2016/04/20	Xueming Jiang

**Maxxam ID:** CER542  
**Sample ID:** WG-160900764-20160414-AM14A  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4458545	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic

**Maxxam ID:** CER543  
**Sample ID:** WG-160900764-20160414-AM15  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4458545	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4459151	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459050	N/A	2016/04/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4458143	N/A	2016/04/20	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459054	N/A	2016/04/15	Surinder Rai
Chromium (VI) in Water	IC	4460579	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459730	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459546	N/A	2016/04/16	Anastasia Hamanov

### TEST SUMMARY

**Maxxam ID:** CER543  
**Sample ID:** WG-160900764-20160414-AM15  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464992	N/A	2016/04/20	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Fluoride	ISE	4459055	2016/04/15	2016/04/15	Surinder Rai
Hardness (calculated as CaCO <sub>3</sub> )		4457645	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460508	2016/04/16	2016/04/20	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4459644	N/A	2016/04/19	Arefa Dabhad
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/19	Automated Statchk
Total Ammonia-N	LACH/NH <sub>4</sub>	4462847	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4459024	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4463603	2016/04/19	2016/04/20	Li Peng
pH	AT	4459056	N/A	2016/04/15	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4463215	N/A	2016/04/20	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4462947	N/A	2016/04/19	Elsamma Alex
Total Suspended Solids	BAL	4459813	N/A	2016/04/15	Gurpreet Kaur
Turbidity	AT	4458806	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4446355	N/A	2016/04/20	Xueming Jiang

**Maxxam ID:** CER544  
**Sample ID:** WG-160900764-20160414-AM15A  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4458545	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic

**Maxxam ID:** CER545  
**Sample ID:** WG-160900764-20160414-AM16  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4458545	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4459151	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459050	N/A	2016/04/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4458143	N/A	2016/04/20	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459054	N/A	2016/04/15	Surinder Rai

### TEST SUMMARY

**Maxxam ID:** CER545  
**Sample ID:** WG-160900764-20160414-AM16  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	4460675	N/A	2016/04/18	Lang Le
Free (WAD) Cyanide	TECH/CN	4460681	N/A	2016/04/18	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460243	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464992	N/A	2016/04/20	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Fluoride	ISE	4459055	2016/04/15	2016/04/15	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460508	2016/04/16	2016/04/20	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4460429	N/A	2016/04/20	Arefa Dabhad
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/20	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/20	Automated Statchk
Total Ammonia-N	LACH/NH4	4463274	N/A	2016/04/21	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459024	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4463603	2016/04/19	2016/04/20	Li Peng
pH	AT	4459056	N/A	2016/04/15	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/20	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/20	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/20	Automated Statchk
Total Dissolved Solids	BAL	4463215	N/A	2016/04/20	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4462947	N/A	2016/04/19	Elsamma Alex
Total Suspended Solids	BAL	4459813	N/A	2016/04/15	Gurpreet Kaur
Turbidity	AT	4458806	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4446355	N/A	2016/04/20	Xueming Jiang

**Maxxam ID:** CER545 Dup  
**Sample ID:** WG-160900764-20160414-AM16  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4459151	N/A		Grace Sison
Free (WAD) Cyanide	TECH/CN	4460681	N/A	2016/04/18	Xuanhong Qiu
Turbidity	AT	4458806	N/A	2016/04/15	Lemeneh Addis

**Maxxam ID:** CER546  
**Sample ID:** WG-160900764-20160414-AM16A  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4458545	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic



**TEST SUMMARY**

**Maxxam ID:** CER550  
**Sample ID:** FIELD BLANK-1  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4458545	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic
1,3-Dichloropropene Sum	CALC	4458143	N/A	2016/04/20	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464992	N/A	2016/04/20	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4465825	2016/04/20	2016/04/21	Zhiyue (Frank) Zhu
Volatile Organic Compounds in Water	GC/MS	4446355	N/A	2016/04/20	Xueming Jiang

**Maxxam ID:** CER551  
**Sample ID:** TRIP BLANK  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	4458143	N/A	2016/04/20	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4464992	N/A	2016/04/20	Jiaxuan (Simon) Xi
Volatile Organic Compounds in Water	GC/MS	4446355	N/A	2016/04/20	Xueming Jiang

**Maxxam ID:** CER927  
**Sample ID:** FILTERED BLANK  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4458545	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic

**Maxxam ID:** CER928  
**Sample ID:** FILTERED SPIKE  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4458545	N/A	2016/04/26	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4471350	2016/04/25	2016/04/26	Milijana Avramovic



### GENERAL COMMENTS

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

Package 1	5.0°C
Package 2	6.3°C
Package 3	6.3°C
Package 4	6.0°C
Package 5	4.3°C
Package 6	6.3°C

Sample CER539-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CER543-01 : Acidity Test: Sample initial pH was 8.3, therefore acidity was not detected (ND).

Sample CER928-01 : ABN Analysis: The results were reported as percentage recoveries. The recoveries for the flagged analytes were below the lower control limits representing a low bias for this sample.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4446355	4-Bromofluorobenzene	2016/04/19	102	70 - 130	100	70 - 130	101	%				
4446355	D4-1,2-Dichloroethane	2016/04/19	101	70 - 130	99	70 - 130	99	%				
4446355	D8-Toluene	2016/04/19	100	70 - 130	100	70 - 130	98	%				
4463603	Decachlorobiphenyl	2016/04/20	101	60 - 130	103	60 - 130	97	%				
4464992	1,4-Difluorobenzene	2016/04/20	102	70 - 130	102	70 - 130	100	%				
4464992	4-Bromofluorobenzene	2016/04/20	102	70 - 130	102	70 - 130	100	%				
4464992	D10-Ethylbenzene	2016/04/20	107	70 - 130	108	70 - 130	112	%				
4464992	D4-1,2-Dichloroethane	2016/04/20	101	70 - 130	108	70 - 130	102	%				
4465825	o-Terphenyl	2016/04/21	101	60 - 130	98	60 - 130	96	%				
4466730	1,4-Difluorobenzene	2016/04/21	106	70 - 130	106	70 - 130	101	%				
4466730	4-Bromofluorobenzene	2016/04/21	107	70 - 130	99	70 - 130	110	%				
4466730	D10-Ethylbenzene	2016/04/21	96	70 - 130	96	70 - 130	97	%				
4466730	D4-1,2-Dichloroethane	2016/04/21	111	70 - 130	129	70 - 130	107	%				
4471350	2,4,6-Tribromophenol	2016/04/26			74	50 - 130	68	%				
4471350	2-Fluorobiphenyl	2016/04/26			67	50 - 130	51	%				
4471350	D14-Terphenyl (FS)	2016/04/26			100	50 - 130	103	%				
4471350	D5-Nitrobenzene	2016/04/26			63	50 - 130	62	%				
4446355	1,1,1,2-Tetrachloroethane	2016/04/19	97	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4446355	1,1,1-Trichloroethane	2016/04/19	94	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
4446355	1,1,2,2-Tetrachloroethane	2016/04/19	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4446355	1,1,2-Trichloroethane	2016/04/19	93	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4446355	1,1-Dichloroethane	2016/04/19	92	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4446355	1,1-Dichloroethylene	2016/04/19	98	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4446355	1,2-Dichlorobenzene	2016/04/19	92	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4446355	1,2-Dichloroethane	2016/04/19	94	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4446355	1,2-Dichloropropane	2016/04/19	92	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
4446355	1,3-Dichlorobenzene	2016/04/19	91	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4446355	1,4-Dichlorobenzene	2016/04/19	92	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4446355	Acetone (2-Propanone)	2016/04/19	100	60 - 140	88	60 - 140	<10	ug/L	NC	30		
4446355	Benzene	2016/04/19	93	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4446355	Bromodichloromethane	2016/04/19	94	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4446355	Bromoform	2016/04/19	97	70 - 130	96	70 - 130	<1.0	ug/L	NC	30		
4446355	Bromomethane	2016/04/19	85	60 - 140	82	60 - 140	<0.50	ug/L	NC	30		
4446355	Carbon Tetrachloride	2016/04/19	99	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4446355	Chlorobenzene	2016/04/19	96	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4446355	Chloroform	2016/04/19	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4446355	cis-1,2-Dichloroethylene	2016/04/19	93	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4446355	cis-1,3-Dichloropropene	2016/04/19	94	70 - 130	92	70 - 130	<0.30	ug/L	NC	30		
4446355	Dibromochloromethane	2016/04/19	96	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4446355	Dichlorodifluoromethane (FREON 12)	2016/04/19	115	60 - 140	95	60 - 140	<1.0	ug/L	NC	30		
4446355	Ethylbenzene	2016/04/19	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4446355	Ethylene Dibromide	2016/04/19	93	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4446355	Hexane	2016/04/19	102	70 - 130	99	70 - 130	<1.0	ug/L	NC	30		
4446355	Methyl Ethyl Ketone (2-Butanone)	2016/04/19	103	60 - 140	94	60 - 140	<10	ug/L	NC	30		
4446355	Methyl Isobutyl Ketone	2016/04/19	95	70 - 130	91	70 - 130	<5.0	ug/L	NC	30		
4446355	Methyl t-butyl ether (MTBE)	2016/04/19	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4446355	Methylene Chloride(Dichloromethane)	2016/04/19	96	70 - 130	94	70 - 130	<2.0	ug/L	NC	30		
4446355	o-Xylene	2016/04/19	93	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
4446355	p+m-Xylene	2016/04/19	92	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
4446355	Styrene	2016/04/19	92	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4446355	Tetrachloroethylene	2016/04/19	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4446355	Toluene	2016/04/19	91	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
4446355	Total Xylenes	2016/04/19					<0.20	ug/L	NC	30		
4446355	trans-1,2-Dichloroethylene	2016/04/19	93	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4446355	trans-1,3-Dichloropropene	2016/04/19	91	70 - 130	89	70 - 130	<0.40	ug/L	NC	30		
4446355	Trichloroethylene	2016/04/19	92	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4446355	Trichlorofluoromethane (FREON 11)	2016/04/19	100	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4446355	Vinyl Chloride	2016/04/19	102	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458806	Turbidity	2016/04/15			101	85 - 115	<0.1	NTU	2.0	20		
4459024	Nitrate (N)	2016/04/15	94	80 - 120	97	80 - 120	<0.10	mg/L	0.47	25		
4459024	Nitrite (N)	2016/04/15	109	80 - 120	107	80 - 120	<0.010	mg/L				
4459050	Alkalinity (Total as CaCO3)	2016/04/19			97	85 - 115	<1.0	mg/L	0.19	25		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459054	Conductivity	2016/04/15			101	85 - 115	<1.0	umho/cm	0.24	25		
4459055	Fluoride (F-)	2016/04/15	101	80 - 120	104	80 - 120	<0.10	mg/L	NC	20		
4459056	pH	2016/04/15			101	98 - 103			0.87	N/A		
4459151	Acidity as CaCO3						<10	mg/L	NC	25		
4459174	Dissolved Organic Carbon	2016/04/16	91	80 - 120	100	80 - 120	0.23, RDL=0.20	mg/L	15	20		
4459176	Chromium (VI)	2016/04/19	114	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4459238	Dissolved Aluminum (Al)	2016/04/20	104	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
4459238	Dissolved Antimony (Sb)	2016/04/20	109	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20		
4459238	Dissolved Arsenic (As)	2016/04/20	105	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
4459238	Dissolved Barium (Ba)	2016/04/20	103	80 - 120	100	80 - 120	<0.0020	mg/L	0.64	20		
4459238	Dissolved Beryllium (Be)	2016/04/20	110	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20		
4459238	Dissolved Boron (B)	2016/04/20	NC	80 - 120	99	80 - 120	<0.010	mg/L	3.0	20		
4459238	Dissolved Cadmium (Cd)	2016/04/20	107	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20		
4459238	Dissolved Calcium (Ca)	2016/04/20	NC	80 - 120	102	80 - 120	<0.20	mg/L	0.94	20		
4459238	Dissolved Chromium (Cr)	2016/04/20	104	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20		
4459238	Dissolved Cobalt (Co)	2016/04/20	105	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20		
4459238	Dissolved Copper (Cu)	2016/04/20	100	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
4459238	Dissolved Iron (Fe)	2016/04/20	97	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
4459238	Dissolved Lead (Pb)	2016/04/20	100	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4459238	Dissolved Magnesium (Mg)	2016/04/20	NC	80 - 120	99	80 - 120	<0.050	mg/L	1.6	20		
4459238	Dissolved Manganese (Mn)	2016/04/20	98	80 - 120	97	80 - 120	<0.0020	mg/L	0.26	20		
4459238	Dissolved Molybdenum (Mo)	2016/04/20	111	80 - 120	104	80 - 120	<0.00050	mg/L	4.3	20		
4459238	Dissolved Nickel (Ni)	2016/04/20	102	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20		
4459238	Dissolved Phosphorus (P)	2016/04/20	NC	80 - 120	98	80 - 120	<0.10	mg/L	1.8	20		
4459238	Dissolved Potassium (K)	2016/04/20	107	80 - 120	101	80 - 120	<0.20	mg/L	1.5	20		
4459238	Dissolved Selenium (Se)	2016/04/20	106	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20		
4459238	Dissolved Silicon (Si)	2016/04/20	104	80 - 120	97	80 - 120	<0.050	mg/L	0.16	20		
4459238	Dissolved Silver (Ag)	2016/04/20	88	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20		
4459238	Dissolved Sodium (Na)	2016/04/20	NC	80 - 120	100	80 - 120	<0.10	mg/L	1.6	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459238	Dissolved Strontium (Sr)	2016/04/20	NC	80 - 120	96	80 - 120	<0.0010	mg/L	4.3	20		
4459238	Dissolved Thallium (Tl)	2016/04/20	101	80 - 120	99	80 - 120	<0.000050	mg/L	NC	20		
4459238	Dissolved Titanium (Ti)	2016/04/20	105	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20		
4459238	Dissolved Uranium (U)	2016/04/20	97	80 - 120	94	80 - 120	<0.00010	mg/L	0.95	20		
4459238	Dissolved Vanadium (V)	2016/04/20	109	80 - 120	107	80 - 120	<0.00050	mg/L	NC	20		
4459238	Dissolved Zinc (Zn)	2016/04/20	100	80 - 120	99	80 - 120	<0.0050	mg/L	NC	20		
4459238	Dissolved Zirconium (Zr)	2016/04/20	110	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20		
4459423	Chromium (VI)	2016/04/18	119	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4459546	Dissolved Organic Carbon	2016/04/16	100	80 - 120	102	80 - 120	<0.20	mg/L	NC	20		
4459644	Dissolved Aluminum (Al)	2016/04/19	103	80 - 120	101	80 - 120	<0.0050	mg/L				
4459644	Dissolved Antimony (Sb)	2016/04/19	107	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20		
4459644	Dissolved Arsenic (As)	2016/04/19	103	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
4459644	Dissolved Barium (Ba)	2016/04/19	105	80 - 120	102	80 - 120	<0.0020	mg/L	3.1	20		
4459644	Dissolved Beryllium (Be)	2016/04/19	101	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20		
4459644	Dissolved Boron (B)	2016/04/19	96	80 - 120	92	80 - 120	<0.010	mg/L	NC	20		
4459644	Dissolved Cadmium (Cd)	2016/04/19	105	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20		
4459644	Dissolved Calcium (Ca)	2016/04/19	NC	80 - 120	100	80 - 120	<0.20	mg/L				
4459644	Dissolved Chromium (Cr)	2016/04/19	100	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		
4459644	Dissolved Cobalt (Co)	2016/04/19	101	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20		
4459644	Dissolved Copper (Cu)	2016/04/19	108	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
4459644	Dissolved Iron (Fe)	2016/04/19	99	80 - 120	102	80 - 120	<0.10	mg/L				
4459644	Dissolved Lead (Pb)	2016/04/19	99	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20		
4459644	Dissolved Magnesium (Mg)	2016/04/19	103	80 - 120	101	80 - 120	<0.050	mg/L				
4459644	Dissolved Manganese (Mn)	2016/04/19	NC	80 - 120	96	80 - 120	<0.0020	mg/L				
4459644	Dissolved Molybdenum (Mo)	2016/04/19	112	80 - 120	107	80 - 120	<0.00050	mg/L	6.8	20		
4459644	Dissolved Nickel (Ni)	2016/04/19	97	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
4459644	Dissolved Phosphorus (P)	2016/04/19	110	80 - 120	104	80 - 120	<0.10	mg/L				
4459644	Dissolved Potassium (K)	2016/04/19	102	80 - 120	102	80 - 120	<0.20	mg/L				
4459644	Dissolved Selenium (Se)	2016/04/19	104	80 - 120	104	80 - 120	<0.0020	mg/L	NC	20		
4459644	Dissolved Silicon (Si)	2016/04/19	99	80 - 120	97	80 - 120	<0.050	mg/L				
4459644	Dissolved Silver (Ag)	2016/04/19	86	80 - 120	104	80 - 120	<0.00010	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459644	Dissolved Sodium (Na)	2016/04/19	NC	80 - 120	102	80 - 120	<0.10	mg/L	1.7	20		
4459644	Dissolved Strontium (Sr)	2016/04/19	99	80 - 120	97	80 - 120	<0.0010	mg/L				
4459644	Dissolved Thallium (Tl)	2016/04/19	99	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20		
4459644	Dissolved Titanium (Ti)	2016/04/19	103	80 - 120	98	80 - 120	<0.0050	mg/L				
4459644	Dissolved Uranium (U)	2016/04/19	101	80 - 120	102	80 - 120	<0.00010	mg/L	3.4	20		
4459644	Dissolved Vanadium (V)	2016/04/19	101	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
4459644	Dissolved Zinc (Zn)	2016/04/19	100	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
4459644	Dissolved Zirconium (Zr)	2016/04/19	112	80 - 120	104	80 - 120	<0.0010	mg/L				
4459730	Free Cyanide	2016/04/15	103	80 - 120	104	80 - 120	<2	ug/L	NC	20		
4459813	Total Suspended Solids	2016/04/15					<10	mg/L	NC	25	100	85 - 115
4460243	Dissolved Organic Carbon	2016/04/17	101	80 - 120	102	80 - 120	<0.20	mg/L	2.5	20		
4460405	Dissolved Chloride (Cl)	2016/04/18	NC	80 - 120	102	80 - 120	<1.0	mg/L	0.40	20		
4460407	Orthophosphate (P)	2016/04/18	111	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
4460408	Dissolved Sulphate (SO4)	2016/04/18	NC	75 - 125	100	80 - 120	<1.0	mg/L	0.24	20		
4460429	Dissolved Aluminum (Al)	2016/04/20	NC	80 - 120	104	80 - 120	<0.0050	mg/L				
4460429	Dissolved Antimony (Sb)	2016/04/20	93	80 - 120	102	80 - 120	<0.00050	mg/L				
4460429	Dissolved Arsenic (As)	2016/04/20	92	80 - 120	100	80 - 120	<0.0010	mg/L				
4460429	Dissolved Barium (Ba)	2016/04/20	91	80 - 120	100	80 - 120	<0.0020	mg/L				
4460429	Dissolved Beryllium (Be)	2016/04/20	93	80 - 120	105	80 - 120	<0.00050	mg/L				
4460429	Dissolved Boron (B)	2016/04/20	88	80 - 120	100	80 - 120	<0.010	mg/L				
4460429	Dissolved Cadmium (Cd)	2016/04/20	91	80 - 120	101	80 - 120	<0.00010	mg/L				
4460429	Dissolved Calcium (Ca)	2016/04/20	NC	80 - 120	98	80 - 120	<0.20	mg/L	0.95	20		
4460429	Dissolved Chromium (Cr)	2016/04/20	93	80 - 120	100	80 - 120	<0.0050	mg/L				
4460429	Dissolved Cobalt (Co)	2016/04/20	91	80 - 120	101	80 - 120	<0.00050	mg/L				
4460429	Dissolved Copper (Cu)	2016/04/20	91	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
4460429	Dissolved Iron (Fe)	2016/04/20	93	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
4460429	Dissolved Lead (Pb)	2016/04/20	92	80 - 120	99	80 - 120	<0.00050	mg/L				
4460429	Dissolved Magnesium (Mg)	2016/04/20	92	80 - 120	104	80 - 120	<0.050	mg/L	4.5	20		
4460429	Dissolved Manganese (Mn)	2016/04/20	90	80 - 120	99	80 - 120	<0.0020	mg/L	NC	20		
4460429	Dissolved Molybdenum (Mo)	2016/04/20	96	80 - 120	106	80 - 120	<0.00050	mg/L				
4460429	Dissolved Nickel (Ni)	2016/04/20	89	80 - 120	99	80 - 120	<0.0010	mg/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4460429	Dissolved Phosphorus (P)	2016/04/20	95	80 - 120	108	80 - 120	<0.10	mg/L				
4460429	Dissolved Potassium (K)	2016/04/20	95	80 - 120	103	80 - 120	<0.20	mg/L	NC	20		
4460429	Dissolved Selenium (Se)	2016/04/20	91	80 - 120	100	80 - 120	<0.0020	mg/L				
4460429	Dissolved Silicon (Si)	2016/04/20	90	80 - 120	99	80 - 120	<0.050	mg/L				
4460429	Dissolved Silver (Ag)	2016/04/20	91	80 - 120	102	80 - 120	<0.00010	mg/L				
4460429	Dissolved Sodium (Na)	2016/04/20	93	80 - 120	103	80 - 120	<0.10	mg/L	2.6	20		
4460429	Dissolved Strontium (Sr)	2016/04/20	88	80 - 120	97	80 - 120	<0.0010	mg/L				
4460429	Dissolved Thallium (Tl)	2016/04/20	93	80 - 120	99	80 - 120	<0.000050	mg/L				
4460429	Dissolved Titanium (Ti)	2016/04/20	92	80 - 120	98	80 - 120	<0.0050	mg/L				
4460429	Dissolved Uranium (U)	2016/04/20	94	80 - 120	101	80 - 120	<0.00010	mg/L				
4460429	Dissolved Vanadium (V)	2016/04/20	91	80 - 120	98	80 - 120	<0.00050	mg/L				
4460429	Dissolved Zinc (Zn)	2016/04/20	93	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
4460429	Dissolved Zirconium (Zr)	2016/04/20	95	80 - 120	104	80 - 120	<0.0010	mg/L				
4460508	Mercury (Hg)	2016/04/20	103	75 - 125	100	80 - 120	<0.0001	mg/L	NC	20		
4460579	Chromium (VI)	2016/04/18	NC	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4460675	Chromium (VI)	2016/04/18	104	80 - 120	104	80 - 120	<0.50	ug/L	NC	20		
4460681	Free Cyanide	2016/04/18	104	80 - 120	102	80 - 120	<2	ug/L	NC	20		
4461649	Total Dissolved Solids	2016/04/20					<10	mg/L	0.60	25	101	90 - 110
4462847	Total Ammonia-N	2016/04/20	NC	80 - 120	98	85 - 115	<0.050	mg/L	1.6	20		
4462947	Total Organic Carbon (TOC)	2016/04/19	97	80 - 120	100	80 - 120	<0.20	mg/L	NC	20		
4463215	Total Dissolved Solids	2016/04/20					<10	mg/L	6.9	25	99	90 - 110
4463274	Total Ammonia-N	2016/04/21	98	80 - 120	98	85 - 115	<0.050	mg/L	NC	20		
4463603	Aroclor 1242	2016/04/20					<0.05	ug/L	NC	30		
4463603	Aroclor 1248	2016/04/20					<0.05	ug/L	NC	30		
4463603	Aroclor 1254	2016/04/20					<0.05	ug/L	NC	30		
4463603	Aroclor 1260	2016/04/20	100	60 - 130	95	60 - 130	<0.05	ug/L	NC	30		
4463603	Total PCB	2016/04/20	100	60 - 130	95	60 - 130	<0.05	ug/L	NC	40		
4464476	Total Ammonia-N	2016/04/21	96	80 - 120	98	85 - 115	<0.050	mg/L	NC	20		
4464795	Total Organic Carbon (TOC)	2016/04/20	NC	80 - 120	100	80 - 120	0.23, RDL=0.20	mg/L	1.1	20		
4464992	F1 (C6-C10) - BTEX	2016/04/21					<25	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4464992	F1 (C6-C10)	2016/04/21	101	70 - 130	100	70 - 130	<25	ug/L	NC	30		
4465825	F2 (C10-C16 Hydrocarbons)	2016/04/21	109	50 - 130	97	60 - 130	<100	ug/L	NC	30		
4465825	F3 (C16-C34 Hydrocarbons)	2016/04/21	NC	50 - 130	103	60 - 130	<200	ug/L	NC	30		
4465825	F4 (C34-C50 Hydrocarbons)	2016/04/21	111	50 - 130	99	60 - 130	<200	ug/L	NC	30		
4466730	F1 (C6-C10) - BTEX	2016/04/21					<25	ug/L	NC	30		
4466730	F1 (C6-C10)	2016/04/21	108	70 - 130	100	70 - 130	<25	ug/L	NC	30		
4471350	1,2,4-Trichlorobenzene	2016/04/26			58	40 - 130	<0.1	ug/L	7.5	30		
4471350	1-Methylnaphthalene	2016/04/26			75	50 - 130	<0.2	ug/L	4.2	30		
4471350	2,4,5-Trichlorophenol	2016/04/26			98	50 - 130	<0.2	ug/L	3.0	30		
4471350	2,4,6-Trichlorophenol	2016/04/26			96	50 - 130	<0.2	ug/L	3.4	30		
4471350	2,4-Dichlorophenol	2016/04/26			78	50 - 130	<0.1	ug/L	2.5	30		
4471350	2,4-Dimethylphenol	2016/04/26			62	30 - 130	<0.5	ug/L	4.8	30		
4471350	2,4-Dinitrophenol	2016/04/26			100	30 - 130	<2	ug/L	4.4	30		
4471350	2,4-Dinitrotoluene	2016/04/26			96	50 - 130	<0.3	ug/L	1.1	30		
4471350	2,6-Dinitrotoluene	2016/04/26			91	50 - 130	<0.3	ug/L	1.8	30		
4471350	2-Chlorophenol	2016/04/26			73	50 - 130	<0.1	ug/L	2.4	30		
4471350	2-Methylnaphthalene	2016/04/26			73	50 - 130	<0.2	ug/L	4.5	30		
4471350	3,3'-Dichlorobenzidine	2016/04/26			95	30 - 130	<0.5	ug/L	3.2	30		
4471350	Acenaphthene	2016/04/26			85	50 - 130	<0.2	ug/L	3.2	30		
4471350	Acenaphthylene	2016/04/26			84	50 - 130	<0.2	ug/L	3.5	30		
4471350	Anthracene	2016/04/26			91	50 - 130	<0.05	ug/L	1.8	30		
4471350	Benzo(a)anthracene	2016/04/26			104	50 - 130	<0.05	ug/L	1.9	30		
4471350	Benzo(a)pyrene	2016/04/26			98	50 - 130	<0.01	ug/L	0.42	30		
4471350	Benzo(b/j)fluoranthene	2016/04/26			100	50 - 130	<0.05	ug/L	1.0	30		
4471350	Benzo(g,h,i)perylene	2016/04/26			92	50 - 130	<0.05	ug/L	2.2	30		
4471350	Benzo(k)fluoranthene	2016/04/26			97	50 - 130	<0.05	ug/L	2.2	30		
4471350	Biphenyl	2016/04/26			80	50 - 130	<0.1	ug/L	3.2	30		
4471350	Bis(2-chloroethyl)ether	2016/04/26			65	50 - 130	<0.5	ug/L	1.7	30		
4471350	Bis(2-chloroisopropyl)ether	2016/04/26			70	50 - 130	<0.5	ug/L	3.5	30		
4471350	Bis(2-ethylhexyl)phthalate	2016/04/26			97	50 - 130	<1	ug/L	0.80	30		
4471350	Chrysene	2016/04/26			101	50 - 130	<0.05	ug/L	1.7	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4471350	Dibenz(a,h)anthracene	2016/04/26			93	50 - 130	<0.1	ug/L	2.7	30		
4471350	Diethyl phthalate	2016/04/26			84	50 - 130	<0.1	ug/L	1.1	30		
4471350	Dimethyl phthalate	2016/04/26			93	50 - 130	<0.1	ug/L	1.6	30		
4471350	Fluoranthene	2016/04/26			107	50 - 130	<0.2	ug/L	1.7	30		
4471350	Fluorene	2016/04/26			90	50 - 130	<0.2	ug/L	2.9	30		
4471350	Indeno(1,2,3-cd)pyrene	2016/04/26			90	50 - 130	<0.1	ug/L	2.3	30		
4471350	Naphthalene	2016/04/26			59	50 - 130	<0.2	ug/L	4.3	30		
4471350	p-Chloroaniline	2016/04/26			66	30 - 130	<1	ug/L	4.5	30		
4471350	Pentachlorophenol	2016/04/26			98	50 - 130	<0.1	ug/L	3.0	30		
4471350	Phenanthrene	2016/04/26			90	50 - 130	<0.1	ug/L	1.6	30		
4471350	Phenol	2016/04/26			33	30 - 130	<0.5	ug/L	1.2	30		
4471350	Pyrene	2016/04/26			101	50 - 130	<0.05	ug/L	0.97	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

### VALIDATION SIGNATURE PAGE



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



Brad Newman, Scientific Specialist



Cristina Carriere, Scientific Services



Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division


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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Company Name: #18379 Stantec Consulting Ltd	Quotation #: B48218	Maxxam Job #:	Bottle Order #:	556035		
Contact Name: Accounts Payable	Contact Name: Report - 1609-00764	Task #:	COC #:	Project Manager:	556035		
Address: 49 Frederick St Kitchener ON N2H 6M7	Address: ON	Project #: 160900764	COC #:	Project Manager:	556035		
Phone: (519) 579-4410 Fax: (519) 579-6733	Phone: EDD@stantec.com Fax:	Profit Centre:	Site #:	Project Manager:	556035		
Email: Stantec.Accounts.Payable.Invoices@stantec.com	Email: aaron.warkentin@stantec.com, brant.gill@stantec.com	Site #:	Sampled By:	Project Manager:	556035		
		Clarington TS - Monitoring Wel		Project Manager:	556035		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required		
Regulation 153 (2011)			Other Regulations			Special Instructions											Regular (Standard) TAT:	
<input checked="" type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw		Field Filtered (please circle): Details (Fig. 17.1)	Acidity, CIVI, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1, F4	Reg 153 PCBs	Reg 153 VOCs	RCAP - Comprehensive (field filtered) (metal)	SWOC	Lab Filtered SVOCs	Regular (Standard) TAT:			
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw											(will be applied if Rush TAT is not specified).			
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	<input type="checkbox"/> Municipality											Standard TAT = 5-7 Working days for most tests.			
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO	<input type="checkbox"/> Other											Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.			
Include Criteria on Certificate of Analysis (Y/N)? <u>N</u>																Job Specific Rush TAT (if applies to entire submission)		
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix											# of Bottles	Comments		
1	WG-160900764-20160414-AM12	2016/04/14	9:30	GW	Y	X	X	X	X	X	X	X	X	X	20			
2	" -AM12A		9:30												2			
3	" -AM13		9:40		Y	X	X	X	X	X	X	X	X	20				
4	" -AM13A		9:40											2				
5	" -AM14		14:10		Y	X	X	X	X	X	X	X	X	20				
6	" -AM14A		14:10											2				
7	" -AM15		14:20		Y	X	X	X	X	X	X	X	X	20				
8	" -AM15A		14:20											2				
9	" -AM16		14:30		Y	X	X	X	X	X	X	X	X	20				
10	" -AM16A		14:30											2				

14-Apr-16 18:55  
 Deepthi Shaji  
  
 B674631  
 MK3 ENV-021

* RELINQUISHED BY: (Signature/Print) Angela Mason / R		Date: (YY/MM/DD) 16/04/14	Time 18:40	* RECEIVED BY: (Signature/Print) GURPREET KAUR		Date: (YY/MM/DD) 2016/04/14	Time 18:55	# jars used and not submitted	Laboratory Use Only		
Time Sensitive	Temperature (°C) on Receipt REFCETO ACIR	Custody Seal	Yes	No							
		Present									
		Intact									

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client



Maxxam Analytics International Corporation o/a Maxxam Analytics  
 6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-Free: (800) 563-6266 Fax: (905) 817-5777 www.maxxam.ca

STANTEC CHAIN OF CUSTODY RECORD

Page 2 of 2

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Contact Name: Accounts Payable	Company Name: #18379 Stantec Consulting Ltd	Contact Name: Report - 1609-00764	Quotation #: B48218	Task #: 160900764	Maxxam Job #:	Bottle Order #:
Address: 49 Frederick St Kitchener ON N2H 6M7	Phone: (519) 579-4410 Fax: (519) 579-6733	Address: ON	Phone: <u>519-579-6733</u> Fax: <u>519-579-6733</u>	Project #: 160900764	Profit Centre:	COC #:	Project Manager:
Email: Stantec.Accounts.Payable.Invoices@Stantec.com	Email: <u>ap@stantec.com</u>	Email: <u>aaron.warkentin@stantec.com</u> , <u>brant.gill@stantec.com</u>	Email: <u>aaron.warkentin@stantec.com</u> , <u>brant.gill@stantec.com</u>	Site #: Clarington TS - Monitoring Wel	Sampled By: <u>Angela Mason</u>		Deepthi Shaji

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

<b>Regulation 153 (2011)</b> <input checked="" type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC <input type="checkbox"/> Table _____		<b>Other Regulations</b> <input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> MISA Municipality _____ <input type="checkbox"/> PWOO <input type="checkbox"/> Other _____		<b>Special Instructions</b>  	
Include Criteria on Certificate of Analysis (Y/N)? <u>N</u>				<b>ANALYSIS REQUESTED (PLEASE BE SPECIFIC):</b>	

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr / V	Asinity, CrVI, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - FI, FA (incl. BTEX)	Reg 153 PCBs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 SVOCs	Lab Filtered SVOCs	# of Bottles	Comments
1	FIELD BLANK - 1	2016/04/14	15:00	lab water				X	X	X	X	X	9		
2	TRIP BLANK	-	-	-				X	X	X	X	X	6		
3															
4															
5															
6															
7															
8															
9															
10															

* RELINQUISHED BY: (Signature/Print) <u>Angela Mason</u>		Date: (YY/MM/DD) <u>16/04/14</u>	Time: <u>18:40</u>	RECEIVED BY: (Signature/Print) <u>GP GURPREET</u>	Date: (YY/MM/DD) <u>16/04/14</u>	Time: <u>18:55</u>	# Jars used and not submitted	Laboratory Use Only				
								Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
									<u>REFER TO 47E</u>	Present		
										Intact		

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client



Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 556092-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/18**  
 Report #: R3965132  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B671945**

**Received: 2016/04/12, 08:30**

Sample Matrix: Water  
 # Samples Received: 6

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	6	N/A	2016/04/18	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	6	2016/04/15	2016/04/16	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	6	N/A	2016/04/15	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	6	N/A	2016/04/13	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	6	N/A	2016/04/14	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	6	N/A	2016/04/18		EPA 8260C m
Chloride by Automated Colourimetry	6	N/A	2016/04/13	CAM SOP-00463	EPA 325.2 m
Conductivity	6	N/A	2016/04/13	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	6	N/A	2016/04/15	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	6	N/A	2016/04/13	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	6	N/A	2016/04/13	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	5	N/A	2016/04/15	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2016/04/18	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	6	2016/04/15	2016/04/15	CAM SOP-00316	CCME PHC-CWS m
Fluoride	6	2016/04/13	2016/04/13	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	6	N/A	2016/04/15	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	6	2016/04/15	2016/04/18	CAM SOP-00453	EPA 7470A m
Metals Analysis by ICPMS (as received) (5)	6	2016/04/14	2016/04/14	CAM SOP-00447	EPA 6020A m
Ion Balance (% Difference)	6	N/A	2016/04/15		
Anion and Cation Sum	6	N/A	2016/04/15		
Total Coliforms/ E. coli, CFU/100mL	6	N/A	2016/04/12	CAM SOP-00551	MOE E3407
Total Ammonia-N	6	N/A	2016/04/15	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (6)	6	N/A	2016/04/13	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	6	2016/04/14	2016/04/15	CAM SOP-00309	EPA 8082A m
pH	6	N/A	2016/04/13	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	6	N/A	2016/04/13	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	6	N/A	2016/04/15		
Sat. pH and Langelier Index (@ 4C)	6	N/A	2016/04/15		
Sulphate by Automated Colourimetry	6	N/A	2016/04/13	CAM SOP-00464	EPA 375.4 m

Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 556092-01-01

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Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/18**  
 Report #: R3965132  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B671945**

**Received: 2016/04/12, 08:30**

Sample Matrix: Water  
 # Samples Received: 6

Analyses	Date		Laboratory Method	Reference
	Quantity	Date Analyzed		
Total Dissolved Solids (TDS calc)	6	N/A	2016/04/15	
Total Dissolved Solids	3	N/A	2016/04/14 CAM SOP-00428	SM 22 2540C m
Total Dissolved Solids	3	N/A	2016/04/15 CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (7)	6	N/A	2016/04/14 CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	6	N/A	2016/04/13 CAM SOP-00428	SM 22 2540D m
Turbidity	6	N/A	2016/04/12 CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	6	N/A	2016/04/15 CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Metals analysis was performed on the sample 'as received'.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Your Project #: 160900764  
Site Location: CLARINGTON TS-PRIVATE WELLS  
Your C.O.C. #: 556092-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/04/18**  
Report #: R3965132  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B671945**  
**Received: 2016/04/12, 08:30**

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEE706	CEE707	CEE707		
Sampling Date					2016/04/11 11:00	2016/04/11 12:25	2016/04/11 12:25		
COC Number					556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK1	WG-160900764- 20160411-JK2	WG-160900764- 20160411-JK2 Lab-Dup	RDL	QC Batch

Calculated Parameters									
Anion Sum	me/L	-	-	-	8.80	8.55		N/A	4453652
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	360	330		1.0	4453656
Calculated TDS	mg/L	-	-	500	510	480		1.0	4453655
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	1.4	1.4		1.0	4453656
Cation Sum	me/L	-	-	-	8.85	8.84		N/A	4453652
Hardness (CaCO3)	mg/L	-	-	80:100	7.4	410		1.0	4453182
Ion Balance (% Difference)	%	-	-	-	0.290	1.66		N/A	4453651
Langelier Index (@ 20C)	N/A	-	-	-	-0.903	0.807			4453653
Langelier Index (@ 4C)	N/A	-	-	-	-1.15	0.559			4453654
Saturation pH (@ 20C)	N/A	-	-	-	8.54	6.85			4453653
Saturation pH (@ 4C)	N/A	-	-	-	8.78	7.10			4453654

Inorganics									
Total Ammonia-N	mg/L	-	-	-	<0.050	<0.050		0.050	4456807
Conductivity	umho/cm	-	-	-	820	790		1.0	4455569
Dissolved Organic Carbon	mg/L	-	-	5	1.4	1.2	1.2	0.20	4455473
Orthophosphate (P)	mg/L	-	-	-	<0.010	<0.010		0.010	4454447
pH	pH	-	-	6.5:8.5	7.63	7.66			4455575
Dissolved Sulphate (SO4)	mg/L	-	-	500	19	42		1.0	4454442
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	360	340		1.0	4455574
Dissolved Chloride (Cl)	mg/L	-	-	250	29	17		1.0	4454437
Nitrite (N)	mg/L	1	-	-	<0.010	<0.010		0.010	4454472
Nitrate (N)	mg/L	10	-	-	6.07	6.62		0.10	4454472

Metals									
. Aluminum (Al)	mg/L	-	-	0.1	0.0063	<0.0050		0.0050	4457332
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050	<0.00050		0.00050	4457332
. Arsenic (As)	mg/L	-	0.025	-	<0.0010	<0.0010		0.0010	4457332
. Barium (Ba)	mg/L	1	-	-	<0.0020	0.12		0.0020	4457332
. Beryllium (Be)	mg/L	-	-	-	<0.00050	<0.00050		0.00050	4457332
. Boron (B)	mg/L	-	5	-	0.031	0.018		0.010	4457332
. Cadmium (Cd)	mg/L	0.005	-	-	<0.00010	<0.00010		0.00010	4457332

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEE706	CEE707	CEE707		
Sampling Date					2016/04/11 11:00	2016/04/11 12:25	2016/04/11 12:25		
COC Number					556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK1	WG-160900764- 20160411-JK2	WG-160900764- 20160411-JK2 Lab-Dup	RDL	QC Batch
. Calcium (Ca)	mg/L	-	-	-	2.4	120		0.20	4457332
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050	<0.0050		0.0050	4457332
. Cobalt (Co)	mg/L	-	-	-	<0.00050	<0.00050		0.00050	4457332
. Copper (Cu)	mg/L	-	-	1	0.020	0.013		0.0010	4457332
. Iron (Fe)	mg/L	-	-	0.3	<0.10	<0.10		0.10	4457332
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	<0.00050	0.00092		0.00050	4457332
. Magnesium (Mg)	mg/L	-	-	-	0.34	24		0.050	4457332
. Manganese (Mn)	mg/L	-	-	0.05	<0.0020	0.0030		0.0020	4457332
. Molybdenum (Mo)	mg/L	-	-	-	<0.00050	<0.00050		0.00050	4457332
. Nickel (Ni)	mg/L	-	-	-	<0.0010	<0.0010		0.0010	4457332
. Phosphorus (P)	mg/L	-	-	-	<0.10	<0.10		0.10	4457332
. Potassium (K)	mg/L	-	-	-	<0.20	9.4		0.20	4457332
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020	<0.0020		0.0020	4457332
. Silicon (Si)	mg/L	-	-	-	8.6	8.1		0.050	4457332
. Silver (Ag)	mg/L	-	-	-	<0.00010	<0.00010		0.00010	4457332
. Sodium (Na)	mg/L	<b>20</b>	-	200	<b>200</b>	11		0.10	4457332
. Strontium (Sr)	mg/L	-	-	-	0.0060	0.32		0.0010	4457332
. Thallium (Tl)	mg/L	-	-	-	<0.000050	<0.000050		0.000050	4457332
. Titanium (Ti)	mg/L	-	-	-	<0.0050	<0.0050		0.0050	4457332
. Uranium (U)	mg/L	<b>0.02</b>	-	-	0.00058	0.0012		0.00010	4457332
. Vanadium (V)	mg/L	-	-	-	0.00066	<0.00050		0.00050	4457332
. Zinc (Zn)	mg/L	-	-	5	<0.0050	0.066		0.0050	4457332
. Zirconium (Zr)	mg/L	-	-	-	<0.0010	<0.0010		0.0010	4457332

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively

(Made under the Ontario Safe Drinking Water Act, 2002)

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEE708	CEE708	CEE709		
Sampling Date					2016/04/11 14:09	2016/04/11 14:09	2016/04/11 14:53		
COC Number					556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK3	WG-160900764- 20160411-JK3 Lab-Dup	WG-160900764- 20160411-JK4	RDL	QC Batch

Calculated Parameters									
Anion Sum	me/L	-	-	-	3.39		3.27	N/A	4453652
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	160		150	1.0	4453656
Calculated TDS	mg/L	-	-	500	190		180	1.0	4453655
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	<1.0		<1.0	1.0	4453656
Cation Sum	me/L	-	-	-	3.27		3.20	N/A	4453652
Hardness (CaCO3)	mg/L	-	-	80:100	130		120	1.0	4453182
Ion Balance (% Difference)	%	-	-	-	1.82		1.13	N/A	4453651
Langelier Index (@ 20C)	N/A	-	-	-	0.112		-0.128		4453653
Langelier Index (@ 4C)	N/A	-	-	-	-0.138		-0.378		4453654
Saturation pH (@ 20C)	N/A	-	-	-	7.68		7.86		4453653
Saturation pH (@ 4C)	N/A	-	-	-	7.93		8.11		4453654

Inorganics									
Total Ammonia-N	mg/L	-	-	-	0.12		0.22	0.050	4456807
Conductivity	umho/cm	-	-	-	300		280	1.0	4455569
Dissolved Organic Carbon	mg/L	-	-	5	0.66		0.75	0.20	4455473
Orthophosphate (P)	mg/L	-	-	-	0.012	0.011	0.012	0.010	4454447
pH	pH	-	-	6.5:8.5	7.79		7.73		4455575
Dissolved Sulphate (SO4)	mg/L	-	-	500	9.6	9.4	10	1.0	4454442
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	160		150	1.0	4455574
Dissolved Chloride (Cl)	mg/L	-	-	250	<1.0	<1.0	2.0	1.0	4454437
Nitrite (N)	mg/L	1	-	-	<0.010		<0.010	0.010	4454472
Nitrate (N)	mg/L	10	-	-	<0.10		<0.10	0.10	4454472

Metals									
. Aluminum (Al)	mg/L	-	-	0.1	<0.0050		0.0081	0.0050	4457332
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050		<0.00050	0.00050	4457332
. Arsenic (As)	mg/L	-	0.025	-	0.0016		<0.0010	0.0010	4457332
. Barium (Ba)	mg/L	1	-	-	0.13		0.10	0.0020	4457332
. Beryllium (Be)	mg/L	-	-	-	<0.00050		<0.00050	0.00050	4457332
. Boron (B)	mg/L	-	5	-	0.044		0.048	0.010	4457332

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEE708	CEE708	CEE709		
Sampling Date					2016/04/11 14:09	2016/04/11 14:09	2016/04/11 14:53		
COC Number					556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK3	WG-160900764- 20160411-JK3 Lab-Dup	WG-160900764- 20160411-JK4	RDL	QC Batch
. Cadmium (Cd)	mg/L	<b>0.005</b>	-	-	<0.00010		<0.00010	0.00010	4457332
. Calcium (Ca)	mg/L	-	-	-	31		22	0.20	4457332
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050		<0.0050	0.0050	4457332
. Cobalt (Co)	mg/L	-	-	-	<0.00050		<0.00050	0.00050	4457332
. Copper (Cu)	mg/L	-	-	1	<0.0010		0.010	0.0010	4457332
. Iron (Fe)	mg/L	-	-	0.3	0.16		1.5	0.10	4457332
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	<0.00050		0.0035	0.00050	4457332
. Magnesium (Mg)	mg/L	-	-	-	14		17	0.050	4457332
. Manganese (Mn)	mg/L	-	-	0.05	0.036		0.015	0.0020	4457332
. Molybdenum (Mo)	mg/L	-	-	-	0.0014		0.00052	0.00050	4457332
. Nickel (Ni)	mg/L	-	-	-	<0.0010		<0.0010	0.0010	4457332
. Phosphorus (P)	mg/L	-	-	-	<0.10		<0.10	0.10	4457332
. Potassium (K)	mg/L	-	-	-	0.86		0.43	0.20	4457332
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020		<0.0020	0.0020	4457332
. Silicon (Si)	mg/L	-	-	-	11		7.9	0.050	4457332
. Silver (Ag)	mg/L	-	-	-	<0.00010		<0.00010	0.00010	4457332
. Sodium (Na)	mg/L	<b>20</b>	-	200	13		15	0.10	4457332
. Strontium (Sr)	mg/L	-	-	-	0.33		0.38	0.0010	4457332
. Thallium (Tl)	mg/L	-	-	-	<0.000050		<0.000050	0.000050	4457332
. Titanium (Ti)	mg/L	-	-	-	<0.0050		<0.0050	0.0050	4457332
. Uranium (U)	mg/L	<b>0.02</b>	-	-	<0.00010		<0.00010	0.00010	4457332
. Vanadium (V)	mg/L	-	-	-	<0.00050		<0.00050	0.00050	4457332
. Zinc (Zn)	mg/L	-	-	5	<0.0050		0.13	0.0050	4457332
. Zirconium (Zr)	mg/L	-	-	-	<0.0010		<0.0010	0.0010	4457332

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively

(Made under the Ontario Safe Drinking Water Act, 2002)

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEE710	CEE711		
Sampling Date					2016/04/11 15:48	2016/04/11 16:45		
COC Number					556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK5	WG-160900764- 20160411-JK6	RDL	QC Batch
<b>Calculated Parameters</b>								
Anion Sum	me/L	-	-	-	5.67	3.43	N/A	4453652
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	210	130	1.0	4453656
Calculated TDS	mg/L	-	-	500	310	190	1.0	4453655
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	1.2	<1.0	1.0	4453656
Cation Sum	me/L	-	-	-	5.74	3.09	N/A	4453652
Hardness (CaCO3)	mg/L	-	-	80:100	270	87	1.0	4453182
Ion Balance (% Difference)	%	-	-	-	0.670	5.18	N/A	4453651
Langelier Index (@ 20C)	N/A	-	-	-	0.551	-0.347		4453653
Langelier Index (@ 4C)	N/A	-	-	-	0.302	-0.597		4453654
Saturation pH (@ 20C)	N/A	-	-	-	7.22	8.01		4453653
Saturation pH (@ 4C)	N/A	-	-	-	7.47	8.26		4453654
<b>Inorganics</b>								
Total Ammonia-N	mg/L	-	-	-	<0.050	0.099	0.050	4456807
Conductivity	umho/cm	-	-	-	530	300	1.0	4455569
Dissolved Organic Carbon	mg/L	-	-	5	0.61	0.64	0.20	4455473
Orthophosphate (P)	mg/L	-	-	-	<0.010	<0.010	0.010	4454447
pH	pH	-	-	6.5:8.5	7.77	7.66		4455575
Dissolved Sulphate (SO4)	mg/L	-	-	500	54	34	1.0	4454442
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	210	130	1.0	4455574
Dissolved Chloride (Cl)	mg/L	-	-	250	13	1.9	1.0	4454437
Nitrite (N)	mg/L	1	-	-	<0.010	<0.010	0.010	4454472
Nitrate (N)	mg/L	10	-	-	<0.10	<0.10	0.10	4454472
<b>Metals</b>								
. Aluminum (Al)	mg/L	-	-	0.1	<0.0050	<0.0050	0.0050	4457332
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050	<0.00050	0.00050	4457332
. Arsenic (As)	mg/L	-	0.025	-	<0.0010	0.0027	0.0010	4457332
. Barium (Ba)	mg/L	1	-	-	0.090	0.035	0.0020	4457332
. Beryllium (Be)	mg/L	-	-	-	<0.00050	<0.00050	0.00050	4457332
. Boron (B)	mg/L	-	5	-	0.012	0.076	0.010	4457332
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002) N/A = Not Applicable								

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEE710	CEE711		
Sampling Date					2016/04/11 15:48	2016/04/11 16:45		
COC Number					556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK5	WG-160900764- 20160411-JK6	RDL	QC Batch
. Cadmium (Cd)	mg/L	<b>0.005</b>	-	-	<0.00010	<0.00010	0.00010	4457332
. Calcium (Ca)	mg/L	-	-	-	76	17	0.20	4457332
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050	<0.0050	0.0050	4457332
. Cobalt (Co)	mg/L	-	-	-	<0.00050	<0.00050	0.00050	4457332
. Copper (Cu)	mg/L	-	-	1	0.019	<0.0010	0.0010	4457332
. Iron (Fe)	mg/L	-	-	0.3	2.2	<0.10	0.10	4457332
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	0.00099	<0.00050	0.00050	4457332
. Magnesium (Mg)	mg/L	-	-	-	20	11	0.050	4457332
. Manganese (Mn)	mg/L	-	-	0.05	0.044	0.0091	0.0020	4457332
. Molybdenum (Mo)	mg/L	-	-	-	0.0013	0.0054	0.00050	4457332
. Nickel (Ni)	mg/L	-	-	-	<0.0010	<0.0010	0.0010	4457332
. Phosphorus (P)	mg/L	-	-	-	<0.10	<0.10	0.10	4457332
. Potassium (K)	mg/L	-	-	-	1.1	0.71	0.20	4457332
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020	<0.0020	0.0020	4457332
. Silicon (Si)	mg/L	-	-	-	5.0	6.2	0.050	4457332
. Silver (Ag)	mg/L	-	-	-	<0.00010	<0.00010	0.00010	4457332
. Sodium (Na)	mg/L	<b>20</b>	-	200	5.0	<b>30</b>	0.10	4457332
. Strontium (Sr)	mg/L	-	-	-	0.25	0.39	0.0010	4457332
. Thallium (Tl)	mg/L	-	-	-	<0.000050	<0.000050	0.000050	4457332
. Titanium (Ti)	mg/L	-	-	-	<0.0050	<0.0050	0.0050	4457332
. Uranium (U)	mg/L	<b>0.02</b>	-	-	<0.00010	0.00045	0.00010	4457332
. Vanadium (V)	mg/L	-	-	-	<0.00050	<0.00050	0.00050	4457332
. Zinc (Zn)	mg/L	-	-	5	0.013	<0.0050	0.0050	4457332
. Zirconium (Zr)	mg/L	-	-	-	<0.0010	<0.0010	0.0010	4457332
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)								

**RESULTS OF ANALYSES OF WATER**

Maxxam ID				CEE706	CEE707		CEE708	CEE708		
Sampling Date				2016/04/11 11:00	2016/04/11 12:25		2016/04/11 14:09	2016/04/11 14:09		
COC Number				556092-01-01	556092-01-01		556092-01-01	556092-01-01		
	UNITS	MAC	A/O	WG-160900764- 20160411-JK1	WG-160900764- 20160411-JK2	QC Batch	WG-160900764- 20160411-JK3	WG-160900764- 20160411-JK3 Lab-Dup	RDL	QC Batch

Inorganics										
Acidity as CaCO3	mg/L	-	-	26	56	4455880	<10		10	4455880
Total Dissolved Solids	mg/L	-	500	508	472	4455632	146		10	4453428
Fluoride (F-)	mg/L	1.5	-	<0.10	<0.10	4455576	0.26		0.10	4455576
Free Cyanide	ug/L	200	-	<2	<2	4455709	<2		2	4455709
Total Organic Carbon (TOC)	mg/L	-	-	1.2	1.2	4456884	0.71		0.20	4456884
Total Suspended Solids	mg/L	-	-	<10	<10	4454974	<10		10	4454974
Turbidity	NTU	-	5	<0.2	<0.2	4454424	0.6	0.5	0.2	4454424

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

Maxxam ID				CEE709	CEE710		CEE711	CEE711		
Sampling Date				2016/04/11 14:53	2016/04/11 15:48		2016/04/11 16:45	2016/04/11 16:45		
COC Number				556092-01-01	556092-01-01		556092-01-01	556092-01-01		
	UNITS	MAC	A/O	WG-160900764- 20160411-JK4	WG-160900764- 20160411-JK5	QC Batch	WG-160900764- 20160411-JK6	WG-160900764- 20160411-JK6 Lab-Dup	RDL	QC Batch

Inorganics										
Acidity as CaCO3	mg/L	-	-	<10	16	4455880	<10	<10	10	4455880
Total Dissolved Solids	mg/L	-	500	190	302	4453428	176		10	4455632
Fluoride (F-)	mg/L	1.5	-	0.23	<0.10	4455576	0.39		0.10	4455576
Free Cyanide	ug/L	200	-	<2	<2	4455709	<2		2	4455709
Total Organic Carbon (TOC)	mg/L	-	-	0.87	0.69	4456884	0.69		0.20	4456884
Total Suspended Solids	mg/L	-	-	<10	<10	4454974	<10		10	4454974
Turbidity	NTU	-	5	11	21	4454424	0.3		0.2	4454424

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>			CEE706		CEE707	CEE708	CEE709		
<b>Sampling Date</b>			2016/04/11 11:00		2016/04/11 12:25	2016/04/11 14:09	2016/04/11 14:53		
<b>COC Number</b>			556092-01-01		556092-01-01	556092-01-01	556092-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160411-JK1</b>	<b>QC Batch</b>	<b>WG-160900764-20160411-JK2</b>	<b>WG-160900764-20160411-JK3</b>	<b>WG-160900764-20160411-JK4</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Chromium (VI)	ug/L	-	0.85	4457819	1.7	<0.50	<0.50	0.50	4455861
Mercury (Hg)	mg/L	<b>0.001</b>	<0.0001	4458934	<0.0001	<0.0001	<0.0001	0.0001	4458934

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

<b>Maxxam ID</b>			CEE710	CEE711		
<b>Sampling Date</b>			2016/04/11 15:48	2016/04/11 16:45		
<b>COC Number</b>			556092-01-01	556092-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160411-JK5</b>	<b>WG-160900764-20160411-JK6</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>						
Chromium (VI)	ug/L	-	<0.50	<0.50	0.50	4455861
Mercury (Hg)	mg/L	<b>0.001</b>	<0.0001	<0.0001	0.0001	4458934

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)



**MICROBIOLOGY (WATER)**

<b>Maxxam ID</b>			CEE706	CEE707	CEE708	CEE709	CEE710	
<b>Sampling Date</b>			2016/04/11 11:00	2016/04/11 12:25	2016/04/11 14:09	2016/04/11 14:53	2016/04/11 15:48	
<b>COC Number</b>			556092-01-01	556092-01-01	556092-01-01	556092-01-01	556092-01-01	
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160411-JK1</b>	<b>WG-160900764-20160411-JK2</b>	<b>WG-160900764-20160411-JK3</b>	<b>WG-160900764-20160411-JK4</b>	<b>WG-160900764-20160411-JK5</b>	<b>QC Batch</b>

<b>Microbiological</b>								
Background	CFU/100mL	-	5	0	12	5	0	4453876
Total Coliforms	CFU/100mL	<b>0</b>	<b>1</b>	0	0	0	0	4453876
Escherichia coli	CFU/100mL	<b>0</b>	0	0	0	0	0	4453876

QC Batch = Quality Control Batch  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

<b>Maxxam ID</b>			CEE711	
<b>Sampling Date</b>			2016/04/11 16:45	
<b>COC Number</b>			556092-01-01	
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160411-JK6</b>	<b>QC Batch</b>

<b>Microbiological</b>				
Background	CFU/100mL	-	0	4453876
Total Coliforms	CFU/100mL	<b>0</b>	0	4453876
Escherichia coli	CFU/100mL	<b>0</b>	0	4453876

QC Batch = Quality Control Batch  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 PCBs (WATER)**

<b>Maxxam ID</b>			CEE706	CEE707	CEE708	CEE709	CEE710		
<b>Sampling Date</b>			2016/04/11 11:00	2016/04/11 12:25	2016/04/11 14:09	2016/04/11 14:53	2016/04/11 15:48		
<b>COC Number</b>			556092-01-01	556092-01-01	556092-01-01	556092-01-01	556092-01-01		
	<b>UNITS</b>	<b>IMC</b>	<b>WG-160900764-20160411-JK1</b>	<b>WG-160900764-20160411-JK2</b>	<b>WG-160900764-20160411-JK3</b>	<b>WG-160900764-20160411-JK4</b>	<b>WG-160900764-20160411-JK5</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>									
Aroclor 1242	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4457018
Aroclor 1248	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4457018
Aroclor 1254	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4457018
Aroclor 1260	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4457018
Total PCB	ug/L	3	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4457018

<b>Surrogate Recovery (%)</b>									
Decachlorobiphenyl	%	-	87	78	85	98	83		4457018

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 IMC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

<b>Maxxam ID</b>			CEE711		
<b>Sampling Date</b>			2016/04/11 16:45		
<b>COC Number</b>			556092-01-01		
	<b>UNITS</b>	<b>IMC</b>	<b>WG-160900764-20160411-JK6</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>					
Aroclor 1242	ug/L	-	<0.05	0.05	4457018
Aroclor 1248	ug/L	-	<0.05	0.05	4457018
Aroclor 1254	ug/L	-	<0.05	0.05	4457018
Aroclor 1260	ug/L	-	<0.05	0.05	4457018
Total PCB	ug/L	3	<0.05	0.05	4457018

<b>Surrogate Recovery (%)</b>					
Decachlorobiphenyl	%	-	92		4457018

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 IMC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID				CEE706	CEE707	CEE707	CEE708	CEE709		
Sampling Date				2016/04/11 11:00	2016/04/11 12:25	2016/04/11 12:25	2016/04/11 14:09	2016/04/11 14:53		
COC Number				556092-01-01	556092-01-01	556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	A/O	WG-160900764- 20160411-JK1	WG-160900764- 20160411-JK2	WG-160900764- 20160411-JK2 Lab-Dup	WG-160900764- 20160411-JK3	WG-160900764- 20160411-JK4	RDL	QC Batch

BTEX & F1 Hydrocarbons										
Benzene	ug/L	5	-	<0.20	<0.20		<0.20	<0.20	0.20	4459435
Toluene	ug/L	-	24	<0.20	<0.20		<0.20	<0.20	0.20	4459435
Ethylbenzene	ug/L	-	2.4	<0.20	<0.20		<0.20	<0.20	0.20	4459435
o-Xylene	ug/L	-	-	<0.20	<0.20		<0.20	<0.20	0.20	4459435
p+m-Xylene	ug/L	-	-	<0.40	<0.40		<0.40	<0.40	0.40	4459435
Total Xylenes	ug/L	-	300	<0.40	<0.40		<0.40	<0.40	0.40	4459435
F1 (C6-C10)	ug/L	-	-	<25	<25		<25	<25	25	4459435
F1 (C6-C10) - BTEX	ug/L	-	-	<25	<25		<25	<25	25	4459435

F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/L	-	-	<100	<100	<100	<100	<100	100	4459175
F3 (C16-C34 Hydrocarbons)	ug/L	-	-	<200	<200	<200	<200	<200	200	4459175
F4 (C34-C50 Hydrocarbons)	ug/L	-	-	<200	<200	<200	<200	<200	200	4459175
Reached Baseline at C50	ug/L	-	-	Yes	Yes	Yes	Yes	Yes		4459175

Surrogate Recovery (%)										
1,4-Difluorobenzene	%	-	-	98	106		96	99		4459435
4-Bromofluorobenzene	%	-	-	106	100		103	104		4459435
D10-Ethylbenzene	%	-	-	105	115		99	101		4459435
D4-1,2-Dichloroethane	%	-	-	101	91		100	100		4459435
o-Terphenyl	%	-	-	100	100	100	100	100		4459175

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID				CEE710	CEE711		
Sampling Date				2016/04/11 15:48	2016/04/11 16:45		
COC Number				556092-01-01	556092-01-01		
	UNITS	MAC	A/O	WG-160900764- 20160411-JK5	WG-160900764- 20160411-JK6	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>							
Benzene	ug/L	5	-	<0.20	<0.20	0.20	4459435
Toluene	ug/L	-	24	<0.20	<0.20	0.20	4459435
Ethylbenzene	ug/L	-	2.4	<0.20	<0.20	0.20	4459435
o-Xylene	ug/L	-	-	<0.20	<0.20	0.20	4459435
p+m-Xylene	ug/L	-	-	<0.40	<0.40	0.40	4459435
Total Xylenes	ug/L	-	300	<0.40	<0.40	0.40	4459435
F1 (C6-C10)	ug/L	-	-	<25	<25	25	4459435
F1 (C6-C10) - BTEX	ug/L	-	-	<25	<25	25	4459435
<b>F2-F4 Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	ug/L	-	-	<100	<100	100	4459175
F3 (C16-C34 Hydrocarbons)	ug/L	-	-	<200	<200	200	4459175
F4 (C34-C50 Hydrocarbons)	ug/L	-	-	<200	<200	200	4459175
Reached Baseline at C50	ug/L	-	-	Yes	Yes		4459175
<b>Surrogate Recovery (%)</b>							
1,4-Difluorobenzene	%	-	-	101	100		4459435
4-Bromofluorobenzene	%	-	-	104	103		4459435
D10-Ethylbenzene	%	-	-	102	101		4459435
D4-1,2-Dichloroethane	%	-	-	102	101		4459435
o-Terphenyl	%	-	-	99	101		4459175
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEE706	CEE707	CEE708	CEE709	CEE710		
Sampling Date			2016/04/11 11:00	2016/04/11 12:25	2016/04/11 14:09	2016/04/11 14:53	2016/04/11 15:48		
COC Number			556092-01-01	556092-01-01	556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	WG-160900764- 20160411-JK1	WG-160900764- 20160411-JK2	WG-160900764- 20160411-JK3	WG-160900764- 20160411-JK4	WG-160900764- 20160411-JK5	RDL	QC Batch

Semivolatile Organics									
1,2,4-Trichlorobenzene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
1-Methylnaphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
2,4,5-Trichlorophenol	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
2,4,6-Trichlorophenol	ug/L	5	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
2,4-Dichlorophenol	ug/L	900	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
2,4-Dimethylphenol	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4459033
2,4-Dinitrophenol	ug/L	-	<2	<2	<2	<2	<2	2	4459033
2,4-Dinitrotoluene	ug/L	-	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	4459033
2,6-Dinitrotoluene	ug/L	-	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	4459033
2-Chlorophenol	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
2-Methylnaphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
3,3'-Dichlorobenzidine	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4459033
Acenaphthene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
Acenaphthylene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
Anthracene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4459033
Benzo(a)anthracene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4459033
Benzo(a)pyrene	ug/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	4459033
Benzo(b,j)fluoranthene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4459033
Benzo(g,h,i)perylene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4459033
Benzo(k)fluoranthene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4459033
Biphenyl	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
Bis(2-chloroethyl)ether	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4459033
Bis(2-chloroisopropyl)ether	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4459033
Bis(2-ethylhexyl)phthalate	ug/L	-	<1	<1	<1	1	<1	1	4459033
Chrysene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4459033
Dibenz(a,h)anthracene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
Diethyl phthalate	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
Dimethyl phthalate	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
Fluoranthene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
Fluorene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
Indeno(1,2,3-cd)pyrene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEE706	CEE707	CEE708	CEE709	CEE710		
Sampling Date			2016/04/11 11:00	2016/04/11 12:25	2016/04/11 14:09	2016/04/11 14:53	2016/04/11 15:48		
COC Number			556092-01-01	556092-01-01	556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	WG-160900764- 20160411-JK1	WG-160900764- 20160411-JK2	WG-160900764- 20160411-JK3	WG-160900764- 20160411-JK4	WG-160900764- 20160411-JK5	RDL	QC Batch
Naphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4459033
p-Chloroaniline	ug/L	-	<1	<1	<1	<1	<1	1	4459033
Pentachlorophenol	ug/L	<b>60</b>	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
Phenanthrene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4459033
Phenol	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4459033
Pyrene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4459033
<b>Calculated Parameters</b>									
Methylnaphthalene, 2-(1-)	ug/L	-	<0.28	<0.28	<0.28	<0.28	<0.28	0.28	4453709
<b>Surrogate Recovery (%)</b>									
2,4,6-Tribromophenol	%	-	81	45 (1)	77	65	74		4459033
2-Fluorobiphenyl	%	-	61	50	64	62	51		4459033
D14-Terphenyl (FS)	%	-	94	97	94	96	95		4459033
D5-Nitrobenzene	%	-	86	64	87	83	73		4459033
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002) (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.									

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEE711	CEE711		
Sampling Date			2016/04/11 16:45	2016/04/11 16:45		
COC Number			556092-01-01	556092-01-01		
	UNITS	MAC	WG-160900764- 20160411-JK6	WG-160900764- 20160411-JK6 Lab-Dup	RDL	QC Batch
<b>Semivolatile Organics</b>						
1,2,4-Trichlorobenzene	ug/L	-	<0.1	<0.1	0.1	4459033
1-Methylnaphthalene	ug/L	-	<0.2	<0.2	0.2	4459033
2,4,5-Trichlorophenol	ug/L	-	<0.2	<0.2	0.2	4459033
2,4,6-Trichlorophenol	ug/L	5	<0.2	<0.2	0.2	4459033
2,4-Dichlorophenol	ug/L	900	<0.1	<0.1	0.1	4459033
2,4-Dimethylphenol	ug/L	-	<0.5	<0.5	0.5	4459033
2,4-Dinitrophenol	ug/L	-	<2	<2	2	4459033
2,4-Dinitrotoluene	ug/L	-	<0.3	<0.3	0.3	4459033
2,6-Dinitrotoluene	ug/L	-	<0.3	<0.3	0.3	4459033
2-Chlorophenol	ug/L	-	<0.1	<0.1	0.1	4459033
2-Methylnaphthalene	ug/L	-	<0.2	<0.2	0.2	4459033
3,3'-Dichlorobenzidine	ug/L	-	<0.5	<0.5	0.5	4459033
Acenaphthene	ug/L	-	<0.2	<0.2	0.2	4459033
Acenaphthylene	ug/L	-	<0.2	<0.2	0.2	4459033
Anthracene	ug/L	-	<0.05	<0.05	0.05	4459033
Benzo(a)anthracene	ug/L	-	<0.05	<0.05	0.05	4459033
Benzo(a)pyrene	ug/L	0.01	<0.01	<0.01	0.01	4459033
Benzo(b/j)fluoranthene	ug/L	-	<0.05	<0.05	0.05	4459033
Benzo(g,h,i)perylene	ug/L	-	<0.05	<0.05	0.05	4459033
Benzo(k)fluoranthene	ug/L	-	<0.05	<0.05	0.05	4459033
Biphenyl	ug/L	-	<0.1	<0.1	0.1	4459033
Bis(2-chloroethyl)ether	ug/L	-	<0.5	<0.5	0.5	4459033
Bis(2-chloroisopropyl)ether	ug/L	-	<0.5	<0.5	0.5	4459033
Bis(2-ethylhexyl)phthalate	ug/L	-	<1	<1	1	4459033
Chrysene	ug/L	-	<0.05	<0.05	0.05	4459033
Dibenz(a,h)anthracene	ug/L	-	<0.1	<0.1	0.1	4459033
Diethyl phthalate	ug/L	-	<0.1	<0.1	0.1	4459033
Dimethyl phthalate	ug/L	-	<0.1	<0.1	0.1	4459033
Fluoranthene	ug/L	-	<0.2	<0.2	0.2	4459033
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)						

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEE711	CEE711		
Sampling Date			2016/04/11 16:45	2016/04/11 16:45		
COC Number			556092-01-01	556092-01-01		
	UNITS	MAC	WG-160900764- 20160411-JK6	WG-160900764- 20160411-JK6 Lab-Dup	RDL	QC Batch
Fluorene	ug/L	-	<0.2	<0.2	0.2	4459033
Indeno(1,2,3-cd)pyrene	ug/L	-	<0.1	<0.1	0.1	4459033
Naphthalene	ug/L	-	<0.2	<0.2	0.2	4459033
p-Chloroaniline	ug/L	-	<1	<1	1	4459033
Pentachlorophenol	ug/L	<b>60</b>	<0.1	<0.1	0.1	4459033
Phenanthrene	ug/L	-	<0.1	<0.1	0.1	4459033
Phenol	ug/L	-	<0.5	<0.5	0.5	4459033
Pyrene	ug/L	-	<0.05	<0.05	0.05	4459033
<b>Calculated Parameters</b>						
Methylnaphthalene, 2-(1-)	ug/L	-	<0.28		0.28	4453709
<b>Surrogate Recovery (%)</b>						
2,4,6-Tribromophenol	%	-	78	88		4459033
2-Fluorobiphenyl	%	-	47 (1)	70		4459033
D14-Terphenyl (FS)	%	-	92	95		4459033
D5-Nitrobenzene	%	-	68	82		4459033
<p>RDL = Reportable Detection Limit            QC Batch = Quality Control Batch            Lab-Dup = Laboratory Initiated Duplicate            MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] &amp; Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively            (Made under the Ontario Safe Drinking Water Act, 2002)            (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.</p>						



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEE706	CEE707	CEE708	CEE709		
Sampling Date					2016/04/11 11:00	2016/04/11 12:25	2016/04/11 14:09	2016/04/11 14:53		
COC Number					556092-01-01	556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK1	WG-160900764- 20160411-JK2	WG-160900764- 20160411-JK3	WG-160900764- 20160411-JK4	RDL	QC Batch

**Calculated Parameters**

1,3-Dichloropropene (cis+trans)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4453391
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**Volatile Organics**

Acetone (2-Propanone)	ug/L	-	-	-	<10	<10	<10	<10	10	4456808
Benzene	ug/L	5	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
Bromodichloromethane	ug/L	-	-	-	<0.50	3.0	<0.50	<0.50	0.50	4456808
Bromoform	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4456808
Bromomethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
Carbon Tetrachloride	ug/L	5	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
Chlorobenzene	ug/L	80	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
Chloroform	ug/L	-	-	-	0.25	6.6	<0.20	<0.20	0.20	4456808
Dibromochloromethane	ug/L	-	-	-	<0.50	1.3	<0.50	<0.50	0.50	4456808
1,2-Dichlorobenzene	ug/L	200	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
1,3-Dichlorobenzene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
1,4-Dichlorobenzene	ug/L	5	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
Dichlorodifluoromethane (FREON 12)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4456808
1,1-Dichloroethane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
1,2-Dichloroethane	ug/L	-	5	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
1,1-Dichloroethylene	ug/L	14	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
cis-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
trans-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
1,2-Dichloropropane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
cis-1,3-Dichloropropene	ug/L	-	-	-	<0.30	<0.30	<0.30	<0.30	0.30	4456808
trans-1,3-Dichloropropene	ug/L	-	-	-	<0.40	<0.40	<0.40	<0.40	0.40	4456808
Ethylbenzene	ug/L	-	-	2.4	<0.20	<0.20	<0.20	<0.20	0.20	4456808
Ethylene Dibromide	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
Hexane	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4456808
Methylene Chloride(Dichloromethane)	ug/L	50	-	-	<2.0	<2.0	<2.0	<2.0	2.0	4456808
Methyl Ethyl Ketone (2-Butanone)	ug/L	-	-	-	<10	<10	<10	<10	10	4456808
Methyl Isobutyl Ketone	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	4456808
Methyl t-butyl ether (MTBE)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
Styrene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEE706	CEE707	CEE708	CEE709		
Sampling Date					2016/04/11 11:00	2016/04/11 12:25	2016/04/11 14:09	2016/04/11 14:53		
COC Number					556092-01-01	556092-01-01	556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK1	WG-160900764- 20160411-JK2	WG-160900764- 20160411-JK3	WG-160900764- 20160411-JK4	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
Tetrachloroethylene	ug/L	<b>30</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
Toluene	ug/L	-	-	<b>24</b>	<0.20	<0.20	<0.20	<0.20	0.20	4456808
1,1,1-Trichloroethane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
1,1,2-Trichloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
Trichloroethylene	ug/L	<b>5</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
Trichlorofluoromethane (FREON 11)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4456808
Vinyl Chloride	ug/L	<b>2</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
p+m-Xylene	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
o-Xylene	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4456808
Total Xylenes	ug/L	-	-	<b>300</b>	<0.20	<0.20	<0.20	<0.20	0.20	4456808
<b>Surrogate Recovery (%)</b>										
4-Bromofluorobenzene	%	-	-	-	99	99	99	99		4456808
D4-1,2-Dichloroethane	%	-	-	-	99	99	98	96		4456808
D8-Toluene	%	-	-	-	99	96	99	100		4456808
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)										

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>					CEE710	CEE711		
<b>Sampling Date</b>					2016/04/11 15:48	2016/04/11 16:45		
<b>COC Number</b>					556092-01-01	556092-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>IMC</b>	<b>A/O</b>	<b>WG-160900764-20160411-JK5</b>	<b>WG-160900764-20160411-JK6</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>								
1,3-Dichloropropene (cis+trans)	ug/L	-	-	-	<0.50	<0.50	0.50	4453391
<b>Volatile Organics</b>								
Acetone (2-Propanone)	ug/L	-	-	-	<10	<10	10	4456808
Benzene	ug/L	5	-	-	<0.20	<0.20	0.20	4456808
Bromodichloromethane	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
Bromoform	ug/L	-	-	-	<1.0	<1.0	1.0	4456808
Bromomethane	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
Carbon Tetrachloride	ug/L	5	-	-	<0.20	<0.20	0.20	4456808
Chlorobenzene	ug/L	80	-	-	<0.20	<0.20	0.20	4456808
Chloroform	ug/L	-	-	-	<0.20	<0.20	0.20	4456808
Dibromochloromethane	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
1,2-Dichlorobenzene	ug/L	200	-	-	<0.50	<0.50	0.50	4456808
1,3-Dichlorobenzene	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
1,4-Dichlorobenzene	ug/L	5	-	-	<0.50	<0.50	0.50	4456808
Dichlorodifluoromethane (FREON 12)	ug/L	-	-	-	<1.0	<1.0	1.0	4456808
1,1-Dichloroethane	ug/L	-	-	-	<0.20	<0.20	0.20	4456808
1,2-Dichloroethane	ug/L	-	5	-	<0.50	<0.50	0.50	4456808
1,1-Dichloroethylene	ug/L	14	-	-	<0.20	<0.20	0.20	4456808
cis-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
trans-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
1,2-Dichloropropane	ug/L	-	-	-	<0.20	<0.20	0.20	4456808
cis-1,3-Dichloropropene	ug/L	-	-	-	<0.30	<0.30	0.30	4456808
trans-1,3-Dichloropropene	ug/L	-	-	-	<0.40	<0.40	0.40	4456808
Ethylbenzene	ug/L	-	-	2.4	<0.20	<0.20	0.20	4456808
Ethylene Dibromide	ug/L	-	-	-	<0.20	<0.20	0.20	4456808
Hexane	ug/L	-	-	-	<1.0	<1.0	1.0	4456808
Methylene Chloride(Dichloromethane)	ug/L	50	-	-	<2.0	<2.0	2.0	4456808
Methyl Ethyl Ketone (2-Butanone)	ug/L	-	-	-	<10	<10	10	4456808
Methyl Isobutyl Ketone	ug/L	-	-	-	<5.0	<5.0	5.0	4456808
Methyl t-butyl ether (MTBE)	ug/L	-	-	-	<0.50	<0.50	0.50	4456808

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEE710	CEE711		
Sampling Date					2016/04/11 15:48	2016/04/11 16:45		
COC Number					556092-01-01	556092-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160411-JK5	WG-160900764- 20160411-JK6	RDL	QC Batch
Styrene	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
1,1,1,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
Tetrachloroethylene	ug/L	<b>30</b>	-	-	<0.20	<0.20	0.20	4456808
Toluene	ug/L	-	-	<b>24</b>	<0.20	<0.20	0.20	4456808
1,1,1-Trichloroethane	ug/L	-	-	-	<0.20	<0.20	0.20	4456808
1,1,2-Trichloroethane	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
Trichloroethylene	ug/L	<b>5</b>	-	-	<0.20	<0.20	0.20	4456808
Trichlorofluoromethane (FREON 11)	ug/L	-	-	-	<0.50	<0.50	0.50	4456808
Vinyl Chloride	ug/L	<b>2</b>	-	-	<0.20	<0.20	0.20	4456808
p+m-Xylene	ug/L	-	-	-	<0.20	<0.20	0.20	4456808
o-Xylene	ug/L	-	-	-	<0.20	<0.20	0.20	4456808
Total Xylenes	ug/L	-	-	<b>300</b>	<0.20	<0.20	0.20	4456808
<b>Surrogate Recovery (%)</b>								
4-Bromofluorobenzene	%	-	-	-	99	99		4456808
D4-1,2-Dichloroethane	%	-	-	-	98	94		4456808
D8-Toluene	%	-	-	-	100	100		4456808
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)								

### TEST SUMMARY

**Maxxam ID:** CEE706  
**Sample ID:** WG-160900764-20160411-JK1  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4453709	N/A	2016/04/18	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4459033	2016/04/15	2016/04/16	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4455880	N/A	2016/04/15	Grace Sison
Alkalinity	AT	4455574	N/A	2016/04/13	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4453656	N/A	2016/04/14	Automated Statchk
1,3-Dichloropropene Sum	CALC	4453391	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4454437	N/A	2016/04/13	Deonarine Ramnarine
Conductivity	AT	4455569	N/A	2016/04/13	Surinder Rai
Chromium (VI) in Water	IC	4457819	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4455709	N/A	2016/04/13	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4455473	N/A	2016/04/13	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4459435	N/A	2016/04/15	Jolanta Kawzowicz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4459175	2016/04/15	2016/04/15	Dorina Popa
Fluoride	ISE	4455576	2016/04/13	2016/04/13	Surinder Rai
Hardness (calculated as CaCO <sub>3</sub> )		4453182	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4458934	2016/04/15	2016/04/18	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457332	2016/04/14	2016/04/14	Prempal Bhatti
Ion Balance (% Difference)	CALC	4453651	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4453652	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4453876	N/A	2016/04/12	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4456807	N/A	2016/04/15	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4454472	N/A	2016/04/13	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4457018	2016/04/14	2016/04/15	Li Peng
pH	AT	4455575	N/A	2016/04/13	Surinder Rai
Orthophosphate	KONE	4454447	N/A	2016/04/13	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4453653	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4453654	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4454442	N/A	2016/04/13	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4453655	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4455632	N/A	2016/04/14	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4456884	N/A	2016/04/14	Elsamma Alex
Total Suspended Solids	BAL	4454974	N/A	2016/04/13	Bansari Ray
Turbidity	AT	4454424	N/A	2016/04/12	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4456808	N/A	2016/04/15	Xueming Jiang

**Maxxam ID:** CEE707  
**Sample ID:** WG-160900764-20160411-JK2  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4453709	N/A	2016/04/18	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4459033	2016/04/15	2016/04/16	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4455880	N/A	2016/04/15	Grace Sison
Alkalinity	AT	4455574	N/A	2016/04/13	Surinder Rai

### TEST SUMMARY

**Maxxam ID:** CEE707  
**Sample ID:** WG-160900764-20160411-JK2  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4453656	N/A	2016/04/14	Automated Statchk
1,3-Dichloropropene Sum	CALC	4453391	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4454437	N/A	2016/04/13	Deonarine Ramnarine
Conductivity	AT	4455569	N/A	2016/04/13	Surinder Rai
Chromium (VI) in Water	IC	4455861	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4455709	N/A	2016/04/13	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4455473	N/A	2016/04/13	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4459435	N/A	2016/04/18	Jolanta Kawzowicz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4459175	2016/04/15	2016/04/15	Dorina Popa
Fluoride	ISE	4455576	2016/04/13	2016/04/13	Surinder Rai
Hardness (calculated as CaCO3)		4453182	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAAs	CV/AA	4458934	2016/04/15	2016/04/18	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457332	2016/04/14	2016/04/14	Prempal Bhatti
Ion Balance (% Difference)	CALC	4453651	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4453652	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4453876	N/A	2016/04/12	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4456807	N/A	2016/04/15	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4454472	N/A	2016/04/13	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4457018	2016/04/14	2016/04/15	Li Peng
pH	AT	4455575	N/A	2016/04/13	Surinder Rai
Orthophosphate	KONE	4454447	N/A	2016/04/13	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4453653	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4453654	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4454442	N/A	2016/04/13	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4453655	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4455632	N/A	2016/04/14	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4456884	N/A	2016/04/14	Elsamma Alex
Total Suspended Solids	BAL	4454974	N/A	2016/04/13	Bansari Ray
Turbidity	AT	4454424	N/A	2016/04/12	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4456808	N/A	2016/04/15	Xueming Jiang

**Maxxam ID:** CEE707 Dup  
**Sample ID:** WG-160900764-20160411-JK2  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4455473	N/A	2016/04/13	Elsamma Alex
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4459175	2016/04/15	2016/04/15	Dorina Popa

### TEST SUMMARY

**Maxxam ID:** CEE708  
**Sample ID:** WG-160900764-20160411-JK3  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4453709	N/A	2016/04/18	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4459033	2016/04/15	2016/04/16	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4455880	N/A	2016/04/15	Grace Sison
Alkalinity	AT	4455574	N/A	2016/04/13	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4453656	N/A	2016/04/14	Automated Statchk
1,3-Dichloropropene Sum	CALC	4453391	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4454437	N/A	2016/04/13	Deonarine Ramnarine
Conductivity	AT	4455569	N/A	2016/04/13	Surinder Rai
Chromium (VI) in Water	IC	4455861	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4455709	N/A	2016/04/13	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4455473	N/A	2016/04/13	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4459435	N/A	2016/04/15	Jolanta Kawzowicz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4459175	2016/04/15	2016/04/15	Dorina Popa
Fluoride	ISE	4455576	2016/04/13	2016/04/13	Surinder Rai
Hardness (calculated as CaCO <sub>3</sub> )		4453182	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4458934	2016/04/15	2016/04/18	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457332	2016/04/14	2016/04/14	Prempal Bhatti
Ion Balance (% Difference)	CALC	4453651	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4453652	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4453876	N/A	2016/04/12	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4456807	N/A	2016/04/15	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4454472	N/A	2016/04/13	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4457018	2016/04/14	2016/04/15	Li Peng
pH	AT	4455575	N/A	2016/04/13	Surinder Rai
Orthophosphate	KONE	4454447	N/A	2016/04/13	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4453653	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4453654	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4454442	N/A	2016/04/13	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4453655	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4453428	N/A	2016/04/15	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4456884	N/A	2016/04/14	Elsamma Alex
Total Suspended Solids	BAL	4454974	N/A	2016/04/13	Bansari Ray
Turbidity	AT	4454424	N/A	2016/04/12	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4456808	N/A	2016/04/15	Xueming Jiang

**Maxxam ID:** CEE708 Dup  
**Sample ID:** WG-160900764-20160411-JK3  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	4454437	N/A	2016/04/13	Deonarine Ramnarine
Orthophosphate	KONE	4454447	N/A	2016/04/13	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	4454442	N/A	2016/04/13	Deonarine Ramnarine
Turbidity	AT	4454424	N/A	2016/04/12	Lemeneh Addis



### TEST SUMMARY

**Maxxam ID:** CEE709  
**Sample ID:** WG-160900764-20160411-JK4  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4453709	N/A	2016/04/18	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4459033	2016/04/15	2016/04/16	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4455880	N/A	2016/04/15	Grace Sison
Alkalinity	AT	4455574	N/A	2016/04/13	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4453656	N/A	2016/04/14	Automated Statchk
1,3-Dichloropropene Sum	CALC	4453391	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4454437	N/A	2016/04/13	Deonarine Ramnarine
Conductivity	AT	4455569	N/A	2016/04/13	Surinder Rai
Chromium (VI) in Water	IC	4455861	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4455709	N/A	2016/04/13	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4455473	N/A	2016/04/13	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4459435	N/A	2016/04/15	Jolanta Kawzowicz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4459175	2016/04/15	2016/04/15	Dorina Popa
Fluoride	ISE	4455576	2016/04/13	2016/04/13	Surinder Rai
Hardness (calculated as CaCO <sub>3</sub> )		4453182	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4458934	2016/04/15	2016/04/18	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457332	2016/04/14	2016/04/14	Prempal Bhatti
Ion Balance (% Difference)	CALC	4453651	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4453652	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4453876	N/A	2016/04/12	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4456807	N/A	2016/04/15	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4454472	N/A	2016/04/13	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4457018	2016/04/14	2016/04/15	Li Peng
pH	AT	4455575	N/A	2016/04/13	Surinder Rai
Orthophosphate	KONE	4454447	N/A	2016/04/13	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4453653	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4453654	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4454442	N/A	2016/04/13	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4453655	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4453428	N/A	2016/04/15	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4456884	N/A	2016/04/14	Elsamma Alex
Total Suspended Solids	BAL	4454974	N/A	2016/04/13	Bansari Ray
Turbidity	AT	4454424	N/A	2016/04/12	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4456808	N/A	2016/04/15	Xueming Jiang

**Maxxam ID:** CEE710  
**Sample ID:** WG-160900764-20160411-JK5  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4453709	N/A	2016/04/18	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4459033	2016/04/15	2016/04/16	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4455880	N/A	2016/04/15	Grace Sison
Alkalinity	AT	4455574	N/A	2016/04/13	Surinder Rai



### TEST SUMMARY

**Maxxam ID:** CEE710  
**Sample ID:** WG-160900764-20160411-JK5  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4453656	N/A	2016/04/14	Automated Statchk
1,3-Dichloropropene Sum	CALC	4453391	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4454437	N/A	2016/04/13	Deonarine Ramnarine
Conductivity	AT	4455569	N/A	2016/04/13	Surinder Rai
Chromium (VI) in Water	IC	4455861	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4455709	N/A	2016/04/13	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4455473	N/A	2016/04/13	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4459435	N/A	2016/04/15	Jolanta Kawzowicz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4459175	2016/04/15	2016/04/15	Dorina Popa
Fluoride	ISE	4455576	2016/04/13	2016/04/13	Surinder Rai
Hardness (calculated as CaCO3)		4453182	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4458934	2016/04/15	2016/04/18	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457332	2016/04/14	2016/04/14	Prempal Bhatti
Ion Balance (% Difference)	CALC	4453651	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4453652	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4453876	N/A	2016/04/12	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4456807	N/A	2016/04/15	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4454472	N/A	2016/04/13	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4457018	2016/04/14	2016/04/15	Li Peng
pH	AT	4455575	N/A	2016/04/13	Surinder Rai
Orthophosphate	KONE	4454447	N/A	2016/04/13	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4453653	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4453654	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4454442	N/A	2016/04/13	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4453655	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4453428	N/A	2016/04/15	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4456884	N/A	2016/04/14	Elsamma Alex
Total Suspended Solids	BAL	4454974	N/A	2016/04/13	Bansari Ray
Turbidity	AT	4454424	N/A	2016/04/12	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4456808	N/A	2016/04/15	Xueming Jiang

**Maxxam ID:** CEE711  
**Sample ID:** WG-160900764-20160411-JK6  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4453709	N/A	2016/04/18	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4459033	2016/04/15	2016/04/16	Milijana Avramovic
Acidity as CaCO3 in liquid		4455880	N/A	2016/04/15	Grace Sison
Alkalinity	AT	4455574	N/A	2016/04/13	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4453656	N/A	2016/04/14	Automated Statchk
1,3-Dichloropropene Sum	CALC	4453391	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4454437	N/A	2016/04/13	Deonarine Ramnarine
Conductivity	AT	4455569	N/A	2016/04/13	Surinder Rai

### TEST SUMMARY

**Maxxam ID:** CEE711  
**Sample ID:** WG-160900764-20160411-JK6  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	4455861	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4455709	N/A	2016/04/13	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4455473	N/A	2016/04/13	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4459435	N/A	2016/04/15	Jolanta Kawzowicz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4459175	2016/04/15	2016/04/15	Dorina Popa
Fluoride	ISE	4455576	2016/04/13	2016/04/13	Surinder Rai
Hardness (calculated as CaCO3)		4453182	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4458934	2016/04/15	2016/04/18	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457332	2016/04/14	2016/04/14	Prempal Bhatti
Ion Balance (% Difference)	CALC	4453651	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4453652	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4453876	N/A	2016/04/12	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4456807	N/A	2016/04/15	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4454472	N/A	2016/04/13	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4457018	2016/04/14	2016/04/15	Li Peng
pH	AT	4455575	N/A	2016/04/13	Surinder Rai
Orthophosphate	KONE	4454447	N/A	2016/04/13	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4453653	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4453654	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4454442	N/A	2016/04/13	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4453655	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4455632	N/A	2016/04/14	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4456884	N/A	2016/04/14	Elsamma Alex
Total Suspended Solids	BAL	4454974	N/A	2016/04/13	Bansari Ray
Turbidity	AT	4454424	N/A	2016/04/12	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4456808	N/A	2016/04/15	Xueming Jiang

**Maxxam ID:** CEE711 Dup  
**Sample ID:** WG-160900764-20160411-JK6  
**Matrix:** Water

**Collected:** 2016/04/11  
**Shipped:**  
**Received:** 2016/04/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4459033	2016/04/15	2016/04/16	Milijana Avramovic
Acidity as CaCO3 in liquid		4455880	N/A		Grace Sison

### GENERAL COMMENTS

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

Package 1	4.0°C
Package 2	3.7°C
Package 3	3.7°C
Package 4	1.3°C
Package 5	2.0°C
Package 6	1.3°C

Sample CEE706-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4456808	4-Bromofluorobenzene	2016/04/15	100	70 - 130	101	70 - 130	98	%				
4456808	D4-1,2-Dichloroethane	2016/04/15	99	70 - 130	97	70 - 130	100	%				
4456808	D8-Toluene	2016/04/15	101	70 - 130	100	70 - 130	100	%				
4457018	Decachlorobiphenyl	2016/04/15	98	60 - 130	97	60 - 130	82	%				
4459033	2,4,6-Tribromophenol	2016/04/16	94	50 - 130	91	50 - 130	66	%				
4459033	2-Fluorobiphenyl	2016/04/16	65	50 - 130	63	50 - 130	71	%				
4459033	D14-Terphenyl (FS)	2016/04/16	94	50 - 130	89	50 - 130	91	%				
4459033	D5-Nitrobenzene	2016/04/16	75	50 - 130	83	50 - 130	91	%				
4459175	o-Terphenyl	2016/04/15	103	60 - 130	102	60 - 130	101	%				
4459435	1,4-Difluorobenzene	2016/04/15	99	70 - 130	98	70 - 130	98	%				
4459435	4-Bromofluorobenzene	2016/04/15	106	70 - 130	106	70 - 130	107	%				
4459435	D10-Ethylbenzene	2016/04/15	95	70 - 130	95	70 - 130	102	%				
4459435	D4-1,2-Dichloroethane	2016/04/15	100	70 - 130	101	70 - 130	100	%				
4453428	Total Dissolved Solids	2016/04/15					<10	mg/L	0.23	25	100	90 - 110
4454424	Turbidity	2016/04/12			104	85 - 115	<0.2	NTU	NC	20		
4454437	Dissolved Chloride (Cl)	2016/04/13	113	80 - 120	103	80 - 120	<1.0	mg/L	NC	20		
4454442	Dissolved Sulphate (SO4)	2016/04/13	114	75 - 125	101	80 - 120	<1.0	mg/L	1.4	20		
4454447	Orthophosphate (P)	2016/04/13	105	75 - 125	98	80 - 120	<0.010	mg/L	NC	25		
4454472	Nitrate (N)	2016/04/13	99	80 - 120	101	80 - 120	<0.10	mg/L	NC	25		
4454472	Nitrite (N)	2016/04/13	107	80 - 120	106	80 - 120	<0.010	mg/L	NC	25		
4454974	Total Suspended Solids	2016/04/13					<10	mg/L	NC	25	98	85 - 115
4455473	Dissolved Organic Carbon	2016/04/13	98	80 - 120	103	80 - 120	<0.20	mg/L	2.9	20		
4455569	Conductivity	2016/04/13			100	85 - 115	<1.0	umho/cm	0.68	25		
4455574	Alkalinity (Total as CaCO3)	2016/04/13			97	85 - 115	<1.0	mg/L	17	25		
4455575	pH	2016/04/14			101	98 - 103			1.0	N/A		
4455576	Fluoride (F-)	2016/04/13	100	80 - 120	104	80 - 120	<0.10	mg/L	NC	20		
4455632	Total Dissolved Solids	2016/04/14					<10	mg/L	1.5	25	97	90 - 110
4455709	Free Cyanide	2016/04/13	101	80 - 120	105	80 - 120	<2	ug/L	NC	20		
4455861	Chromium (VI)	2016/04/15	99	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
4455880	Acidity as CaCO3						<10	mg/L	NC	25		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4456807	Total Ammonia-N	2016/04/15	95	80 - 120	99	85 - 115	<0.050	mg/L	NC	20		
4456808	1,1,1,2-Tetrachloroethane	2016/04/15	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4456808	1,1,1-Trichloroethane	2016/04/15	91	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4456808	1,1,2,2-Tetrachloroethane	2016/04/15	94	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4456808	1,1,2-Trichloroethane	2016/04/15	92	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4456808	1,1-Dichloroethane	2016/04/15	92	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4456808	1,1-Dichloroethylene	2016/04/15	98	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4456808	1,2-Dichlorobenzene	2016/04/15	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4456808	1,2-Dichloroethane	2016/04/15	94	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4456808	1,2-Dichloropropane	2016/04/15	91	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4456808	1,3-Dichlorobenzene	2016/04/15	92	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4456808	1,4-Dichlorobenzene	2016/04/15	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4456808	Acetone (2-Propanone)	2016/04/15	101	60 - 140	69	60 - 140	<10	ug/L	NC	30		
4456808	Benzene	2016/04/15	92	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4456808	Bromodichloromethane	2016/04/15	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4456808	Bromoform	2016/04/15	94	70 - 130	93	70 - 130	<1.0	ug/L	NC	30		
4456808	Bromomethane	2016/04/15	86	60 - 140	86	60 - 140	<0.50	ug/L	NC	30		
4456808	Carbon Tetrachloride	2016/04/15	96	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4456808	Chlorobenzene	2016/04/15	95	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4456808	Chloroform	2016/04/15	93	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4456808	cis-1,2-Dichloroethylene	2016/04/15	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4456808	cis-1,3-Dichloropropene	2016/04/15	96	70 - 130	95	70 - 130	<0.30	ug/L	NC	30		
4456808	Dibromochloromethane	2016/04/15	94	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4456808	Dichlorodifluoromethane (FREON 12)	2016/04/15	113	60 - 140	115	60 - 140	<1.0	ug/L	NC	30		
4456808	Ethylbenzene	2016/04/15	93	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4456808	Ethylene Dibromide	2016/04/15	92	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4456808	Hexane	2016/04/15	103	70 - 130	105	70 - 130	<1.0	ug/L	NC	30		
4456808	Methyl Ethyl Ketone (2-Butanone)	2016/04/15	104	60 - 140	80	60 - 140	<10	ug/L	NC	30		
4456808	Methyl Isobutyl Ketone	2016/04/15	96	70 - 130	89	70 - 130	<5.0	ug/L	NC	30		
4456808	Methyl t-butyl ether (MTBE)	2016/04/15	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4456808	Methylene Chloride(Dichloromethane)	2016/04/15	96	70 - 130	97	70 - 130	<2.0	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4456808	o-Xylene	2016/04/15	92	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4456808	p+m-Xylene	2016/04/15	91	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4456808	Styrene	2016/04/15	91	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4456808	Tetrachloroethylene	2016/04/15	92	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4456808	Toluene	2016/04/15	90	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
4456808	Total Xylenes	2016/04/15					<0.20	ug/L	NC	30		
4456808	trans-1,2-Dichloroethylene	2016/04/15	93	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4456808	trans-1,3-Dichloropropene	2016/04/15	95	70 - 130	90	70 - 130	<0.40	ug/L	NC	30		
4456808	Trichloroethylene	2016/04/15	90	70 - 130	93	70 - 130	<0.20	ug/L	5.8	30		
4456808	Trichlorofluoromethane (FREON 11)	2016/04/15	98	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
4456808	Vinyl Chloride	2016/04/15	101	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4456884	Total Organic Carbon (TOC)	2016/04/14	98	80 - 120	99	80 - 120	0.29, RDL=0.20	mg/L	7.6	20		
4457018	Aroclor 1242	2016/04/15					<0.05	ug/L	NC	30		
4457018	Aroclor 1248	2016/04/15					<0.05	ug/L	NC	30		
4457018	Aroclor 1254	2016/04/15					<0.05	ug/L	NC	30		
4457018	Aroclor 1260	2016/04/15	103	60 - 130	99	60 - 130	<0.05	ug/L	NC	30		
4457018	Total PCB	2016/04/15	103	60 - 130	99	60 - 130	<0.05	ug/L	NC	40		
4457332	. Aluminum (Al)	2016/04/14	103	80 - 120	100	80 - 120	<0.0050	mg/L				
4457332	. Antimony (Sb)	2016/04/14	112	80 - 120	105	80 - 120	<0.00050	mg/L	NC	20		
4457332	. Arsenic (As)	2016/04/14	106	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20		
4457332	. Barium (Ba)	2016/04/14	110	80 - 120	107	80 - 120	<0.0020	mg/L	0.79	20		
4457332	. Beryllium (Be)	2016/04/14	108	80 - 120	106	80 - 120	<0.00050	mg/L				
4457332	. Boron (B)	2016/04/14	106	80 - 120	107	80 - 120	<0.010	mg/L	NC	20		
4457332	. Cadmium (Cd)	2016/04/14	107	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20		
4457332	. Calcium (Ca)	2016/04/14	NC	80 - 120	103	80 - 120	<0.20	mg/L				
4457332	. Chromium (Cr)	2016/04/14	106	80 - 120	102	80 - 120	<0.0050	mg/L	NC	20		
4457332	. Cobalt (Co)	2016/04/14	106	80 - 120	106	80 - 120	<0.00050	mg/L				
4457332	. Copper (Cu)	2016/04/14	104	80 - 120	104	80 - 120	<0.0010	mg/L				
4457332	. Iron (Fe)	2016/04/14	107	80 - 120	106	80 - 120	<0.10	mg/L				
4457332	. Lead (Pb)	2016/04/14	107	80 - 120	104	80 - 120	<0.00050	mg/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4457332	. Magnesium (Mg)	2016/04/14	109	80 - 120	101	80 - 120	<0.050	mg/L				
4457332	. Manganese (Mn)	2016/04/14	103	80 - 120	101	80 - 120	<0.0020	mg/L				
4457332	. Molybdenum (Mo)	2016/04/14	110	80 - 120	107	80 - 120	<0.00050	mg/L				
4457332	. Nickel (Ni)	2016/04/14	105	80 - 120	106	80 - 120	<0.0010	mg/L				
4457332	. Phosphorus (P)	2016/04/14	104	80 - 120	98	80 - 120	<0.10	mg/L				
4457332	. Potassium (K)	2016/04/14	107	80 - 120	104	80 - 120	<0.20	mg/L				
4457332	. Selenium (Se)	2016/04/14	104	80 - 120	101	80 - 120	<0.0020	mg/L	NC	20		
4457332	. Silicon (Si)	2016/04/14	105	80 - 120	100	80 - 120	<0.050	mg/L				
4457332	. Silver (Ag)	2016/04/14	106	80 - 120	103	80 - 120	<0.00010	mg/L				
4457332	. Sodium (Na)	2016/04/14	104	80 - 120	100	80 - 120	<0.10	mg/L	1.9	20		
4457332	. Strontium (Sr)	2016/04/14	NC	80 - 120	103	80 - 120	<0.0010	mg/L				
4457332	. Thallium (Tl)	2016/04/14	107	80 - 120	104	80 - 120	<0.000050	mg/L				
4457332	. Titanium (Ti)	2016/04/14	107	80 - 120	105	80 - 120	<0.0050	mg/L				
4457332	. Uranium (U)	2016/04/14	105	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20		
4457332	. Vanadium (V)	2016/04/14	108	80 - 120	105	80 - 120	<0.00050	mg/L				
4457332	. Zinc (Zn)	2016/04/14	99	80 - 120	96	80 - 120	<0.0050	mg/L				
4457332	. Zirconium (Zr)	2016/04/14	108	80 - 120	106	80 - 120	<0.0010	mg/L				
4457819	Chromium (VI)	2016/04/15	NC	80 - 120	96	80 - 120	<0.50	ug/L	0.44	20		
4458934	Mercury (Hg)	2016/04/18	98	75 - 125	93	80 - 120	<0.0001	mg/L	NC	20		
4459033	1,2,4-Trichlorobenzene	2016/04/16	55	40 - 130	55	40 - 130	<0.1	ug/L	NC	30		
4459033	1-Methylnaphthalene	2016/04/16	70	50 - 130	73	50 - 130	<0.2	ug/L	NC	30		
4459033	2,4,5-Trichlorophenol	2016/04/16	89	50 - 130	91	50 - 130	<0.2	ug/L	NC	30		
4459033	2,4,6-Trichlorophenol	2016/04/16	85	50 - 130	90	50 - 130	<0.2	ug/L	NC	30		
4459033	2,4-Dichlorophenol	2016/04/16	77	50 - 130	82	50 - 130	<0.1	ug/L	NC	30		
4459033	2,4-Dimethylphenol	2016/04/16	40	30 - 130	39	30 - 130	<0.5	ug/L	NC	30		
4459033	2,4-Dinitrophenol	2016/04/16	107	30 - 130	93	30 - 130	<2	ug/L	NC	30		
4459033	2,4-Dinitrotoluene	2016/04/16	102	50 - 130	99	50 - 130	<0.3	ug/L	NC	30		
4459033	2,6-Dinitrotoluene	2016/04/16	95	50 - 130	93	50 - 130	<0.3	ug/L	NC	30		
4459033	2-Chlorophenol	2016/04/16	62	50 - 130	68	50 - 130	<0.1	ug/L	NC	30		
4459033	2-Methylnaphthalene	2016/04/16	67	50 - 130	71	50 - 130	<0.2	ug/L	NC	30		
4459033	3,3'-Dichlorobenzidine	2016/04/16	102	30 - 130	99	30 - 130	<0.5	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459033	Acenaphthene	2016/04/16	75	50 - 130	78	50 - 130	<0.2	ug/L	NC	30		
4459033	Acenaphthylene	2016/04/16	73	50 - 130	76	50 - 130	<0.2	ug/L	NC	30		
4459033	Anthracene	2016/04/16	85	50 - 130	82	50 - 130	<0.05	ug/L	NC	30		
4459033	Benzo(a)anthracene	2016/04/16	99	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4459033	Benzo(a)pyrene	2016/04/16	94	50 - 130	100	50 - 130	<0.01	ug/L	NC	30		
4459033	Benzo(b,j)fluoranthene	2016/04/16	97	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4459033	Benzo(g,h,i)perylene	2016/04/16	105	50 - 130	109	50 - 130	<0.05	ug/L	NC	30		
4459033	Benzo(k)fluoranthene	2016/04/16	99	50 - 130	95	50 - 130	<0.05	ug/L	NC	30		
4459033	Biphenyl	2016/04/16	75	50 - 130	80	50 - 130	<0.1	ug/L	NC	30		
4459033	Bis(2-chloroethyl)ether	2016/04/16	57	50 - 130	64	50 - 130	<0.5	ug/L	NC	30		
4459033	Bis(2-chloroisopropyl)ether	2016/04/16	62	50 - 130	70	50 - 130	<0.5	ug/L	NC	30		
4459033	Bis(2-ethylhexyl)phthalate	2016/04/16	99	50 - 130	100	50 - 130	<1	ug/L	NC	30		
4459033	Chrysene	2016/04/16	92	50 - 130	90	50 - 130	<0.05	ug/L	NC	30		
4459033	Dibenz(a,h)anthracene	2016/04/16	107	50 - 130	110	50 - 130	<0.1	ug/L	NC	30		
4459033	Diethyl phthalate	2016/04/16	94	50 - 130	92	50 - 130	<0.1	ug/L	NC	30		
4459033	Dimethyl phthalate	2016/04/16	88	50 - 130	89	50 - 130	<0.1	ug/L	NC	30		
4459033	Fluoranthene	2016/04/16	90	50 - 130	88	50 - 130	<0.2	ug/L	NC	30		
4459033	Fluorene	2016/04/16	84	50 - 130	84	50 - 130	<0.2	ug/L	NC	30		
4459033	Indeno(1,2,3-cd)pyrene	2016/04/16	105	50 - 130	107	50 - 130	<0.1	ug/L	NC	30		
4459033	Naphthalene	2016/04/16	80	50 - 130	85	50 - 130	<0.2	ug/L	NC	30		
4459033	p-Chloroaniline	2016/04/16	66	30 - 130	66	30 - 130	<1	ug/L	NC	30		
4459033	Pentachlorophenol	2016/04/16	77	50 - 130	66	50 - 130	<0.1	ug/L	NC	30		
4459033	Phenanthrene	2016/04/16	87	50 - 130	85	50 - 130	<0.1	ug/L	NC	30		
4459033	Phenol	2016/04/16	26 (1)	30 - 130	30	30 - 130	<0.5	ug/L	NC	30		
4459033	Pyrene	2016/04/16	88	50 - 130	83	50 - 130	<0.05	ug/L	NC	30		
4459175	F2 (C10-C16 Hydrocarbons)	2016/04/15	103	50 - 130	89	60 - 130	<100	ug/L	NC	30		
4459175	F3 (C16-C34 Hydrocarbons)	2016/04/15	102	50 - 130	96	60 - 130	<200	ug/L	NC	30		
4459175	F4 (C34-C50 Hydrocarbons)	2016/04/15	103	50 - 130	99	60 - 130	<200	ug/L	NC	30		
4459435	Benzene	2016/04/15	96	70 - 130	94	70 - 130	<0.20	ug/L				
4459435	Ethylbenzene	2016/04/15	107	70 - 130	105	70 - 130	<0.20	ug/L				
4459435	F1 (C6-C10) - BTEX	2016/04/15					<25	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459435	F1 (C6-C10)	2016/04/15	84	70 - 130	89	70 - 130	<25	ug/L	NC	30		
4459435	o-Xylene	2016/04/15	107	70 - 130	106	70 - 130	<0.20	ug/L				
4459435	p+m-Xylene	2016/04/15	101	70 - 130	99	70 - 130	<0.40	ug/L				
4459435	Toluene	2016/04/15	96	70 - 130	94	70 - 130	<0.20	ug/L				
4459435	Total Xylenes	2016/04/15					<0.40	ug/L				

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

### VALIDATION SIGNATURE PAGE

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

*Cristina Carriere*

\_\_\_\_\_  
Cristina Carriere, Scientific Services

*Eva Pranjic*



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

*Grace M. Sison*



\_\_\_\_\_  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

*Ranju Chaudhari*

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Ranju Chaudhari

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.







Maxxam Analytics International Corporation o/a Maxxam Analytics  
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CHAIN OF CUSTODY RECORD

**MICRO**

<b>INVOICE TO:</b> Company Name: #9197 Stantec Consulting Ltd Attention: Accounts Payable Address: 49 Frederick St Kitchener ON N2H 6M7 Tel: (519) 579-4410 Fax: (519) 579-6733 Email: Stantec.Accounts.Payable.Invoices@Stantec.com		<b>REPORT TO:</b> Company Name: #18379 Stantec Consulting Ltd Attention: Report - 1609-00764 Address: ON Tel: Fax: Email: aaron.warkentin@stantec.com, brant.gill@stantec.com		<b>PROJECT INFORMATION:</b> Quotation #: B48218 P.O. #: Project: #0900764 Project Name: CLARINGTON TS-PRIVATE WELLS Site #: JK Sampled By: JK		<b>Laboratory Use Only:</b> Maxxam Job #: Bottle Order #: 556092 COC #: Project Manager: Deepthi Shaji C#556092-01-01	
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MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)											Turnaround Time (TAT) Required: Please provide advance notice for rush projects	
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle): Metals / Hg / Cr-VI	Acidity, CVI, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	RCAP - Comp (Drinking Water) - No Filter	SVOCs	E.coli, Total Coliform, Background	Regular (Standard) TAT: <small>(will be applied if Rush TAT is not specified). Standard TAT = 5-7 Working days for most tests.</small>		
Job Specific Rush TAT (if applies to entire submission)		Date Required:	Time Required:															
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw														
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw														
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality														
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO															
			<input type="checkbox"/> Other	ODWS														
Include Criteria on Certificate of Analysis (Y/N)?																		
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix												# of Bottles	Comments	
1	WG-160900764-20160411	JK1 Apr 11 2016	1100	WG	None	✓	✓	-	✓	-	-	-	-	-	-	21	non-reportable	
2	WG-160900764-20160411	JK2	1225			✓	✓	-	✓	-	-	-	-	-	-		metals not filtered, don't need to be (total metals)	
3	WG-160900764-20160411	JK3	1409			✓	✓	-	✓	-	-	-	-	-	-			
4		JK4	1453			✓	✓	-	✓	-	-	-	-	-	-			
5		JK5	1548			✓	✓	-	✓	-	-	-	-	-	-			
6		JK6	1645			✓	✓	-	✓	-	-	-	-	-	-			
7																		
8																		
9																		
10																		

12-Apr-16 08:30  
Deepthi Shaji  
B671945  
RGN ENV-581

REC'D IN PORT-HOPE

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Janie Koch		16/04/11	1945	Brenda Woodward		16/04/12	08:30		Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
Brenda Woodward		2016/04/12	10:00	Janie Koch		2016/04/12	13:55			SEE ACTR	Present	✓	
											Intact	✓	

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client



Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 556061-02-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/22**  
 Report #: R3969284  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674120**

**Received: 2016/04/14, 11:30**

Sample Matrix: Water  
 # Samples Received: 6

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	6	N/A	2016/04/21	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	5	2016/04/19	2016/04/20	CAM SOP-00301	EPA 8270 m
ABN Compounds in Water by SIM GC/MS	1	2016/04/19	2016/04/21	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	6	N/A	2016/04/21	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	6	N/A	2016/04/16	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	6	N/A	2016/04/18	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	6	N/A	2016/04/19		EPA 8260C m
Chloride by Automated Colourimetry	5	N/A	2016/04/18	CAM SOP-00463	EPA 325.2 m
Chloride by Automated Colourimetry	1	N/A	2016/04/19	CAM SOP-00463	EPA 325.2 m
Conductivity	6	N/A	2016/04/16	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	1	N/A	2016/04/18	CAM SOP-00436	EPA 7199 m
Chromium (VI) in Water	5	N/A	2016/04/19	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	6	N/A	2016/04/15	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	5	N/A	2016/04/17	CAM SOP-00446	SM 22 5310 B m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2016/04/21	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	6	N/A	2016/04/19	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	6	2016/04/19	2016/04/20	CAM SOP-00316	CCME PHC-CWS m
Fluoride	6	2016/04/15	2016/04/16	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	6	N/A	2016/04/19	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	6	2016/04/16	2016/04/20	CAM SOP-00453	EPA 7470A m
Metals Analysis by ICPMS (as received) (5)	6	2016/04/15	2016/04/18	CAM SOP-00447	EPA 6020A m
Ion Balance (% Difference)	6	N/A	2016/04/19		
Anion and Cation Sum	6	N/A	2016/04/19		
Total Coliforms/ E. coli, CFU/100mL	6	N/A	2016/04/14	CAM SOP-00551	MOE E3407
Total Ammonia-N	6	N/A	2016/04/20	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (6)	6	N/A	2016/04/18	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	6	2016/04/19	2016/04/20	CAM SOP-00309	EPA 8082A m
pH	6	N/A	2016/04/16	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	5	N/A	2016/04/18	CAM SOP-00461	EPA 365.1 m

Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 556061-02-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/22**  
 Report #: R3969284  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674120**

**Received: 2016/04/14, 11:30**

Sample Matrix: Water  
 # Samples Received: 6

Analyses	Date		Laboratory Method	Reference
	Quantity	Date Extracted		
Orthophosphate	1	N/A	2016/04/19 CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	6	N/A	2016/04/19	
Sat. pH and Langelier Index (@ 4C)	6	N/A	2016/04/19	
Sulphate by Automated Colourimetry	5	N/A	2016/04/18 CAM SOP-00464	EPA 375.4 m
Sulphate by Automated Colourimetry	1	N/A	2016/04/19 CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	6	N/A	2016/04/19	
Total Dissolved Solids	6	N/A	2016/04/19 CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (7)	5	N/A	2016/04/18 CAM SOP-00446	SM 22 5310B m
Total Organic Carbon (TOC) (7)	1	N/A	2016/04/20 CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	6	N/A	2016/04/18 CAM SOP-00428	SM 22 2540D m
Turbidity	6	N/A	2016/04/15 CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	6	N/A	2016/04/18 CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

Your Project #: 160900764  
Site Location: CLARINGTON TS-PRIVATE WELLS  
Your C.O.C. #: 556061-02-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/04/22**  
Report #: R3969284  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B674120**

**Received: 2016/04/14, 11:30**

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Metals analysis was performed on the sample 'as received'.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RCAP - COMPREHENSIVE (DRINKING WATER)**

<b>Maxxam ID</b>					CEO959		CEO960	CEO961		
<b>Sampling Date</b>					2016/04/13 09:30		2016/04/13 10:20	2016/04/13 11:04		
<b>COC Number</b>					556061-02-01		556061-02-01	556061-02-01		
	<b>UNITS</b>	<b>MAC</b>	<b>IMC</b>	<b>A/O</b>	<b>WG-160900764-20160413-JK16</b>	<b>QC Batch</b>	<b>WG-160900764-20160413-JK17</b>	<b>WG-160900764-20160413-JK18</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>										
Anion Sum	me/L	-	-	-	4.44	4457010	7.56	10.2	N/A	4457010
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	200	4457008	360	350	1.0	4457008
Calculated TDS	mg/L	-	-	500	240	4457007	420	540	1.0	4457007
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	1.9	4457008	2.5	2.4	1.0	4457008
Cation Sum	me/L	-	-	-	4.41	4457010	7.77	10.2	N/A	4457010
Hardness (CaCO3)	mg/L	-	-	80:100	210	4456935	2.0	390	1.0	4456935
Ion Balance (% Difference)	%	-	-	-	0.260	4457009	1.42	0.0500	N/A	4457009
Langelier Index (@ 20C)	N/A	-	-	-	0.672	4457005	-1.27	1.04		4457005
Langelier Index (@ 4C)	N/A	-	-	-	0.423	4457006	-1.52	0.791		4457006
Saturation pH (@ 20C)	N/A	-	-	-	7.32	4457005	9.14	6.83		4457005
Saturation pH (@ 4C)	N/A	-	-	-	7.57	4457006	9.39	7.08		4457006

<b>Inorganics</b>										
Total Ammonia-N	mg/L	-	-	-	0.10	4461508	<0.050	<0.050	0.050	4461508
Conductivity	umho/cm	-	-	-	390	4459165	680	960	1.0	4459165
Dissolved Organic Carbon	mg/L	-	-	5	1.2	4460238	1.3	1.8	0.20	4460238
Orthophosphate (P)	mg/L	-	-	-	<0.010	4460407	<0.010	<0.010	0.010	4460407
pH	pH	-	-	6.5:8.5	7.99	4459166	7.87	7.87		4459166
Dissolved Sulphate (SO4)	mg/L	-	-	500	13	4460408	10	28	1.0	4460408
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	210	4459164	360	350	1.0	4459164
Dissolved Chloride (Cl)	mg/L	-	-	250	1.7	4460405	2.1	89	1.0	4460405
Nitrite (N)	mg/L	1	-	-	<0.010	4459994	<0.010	<0.010	0.010	4459998
Nitrate (N)	mg/L	10	-	-	<0.10	4459994	0.10	1.37	0.10	4459998

<b>Metals</b>										
. Aluminum (Al)	mg/L	-	-	0.1	<0.0050	4459285	<0.0050	<0.0050	0.0050	4459285
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050	4459285	<0.00050	<0.00050	0.00050	4459285
. Arsenic (As)	mg/L	-	0.025	-	<0.0010	4459285	<0.0010	<0.0010	0.0010	4459285
. Barium (Ba)	mg/L	1	-	-	0.17	4459285	<0.0020	0.068	0.0020	4459285
. Beryllium (Be)	mg/L	-	-	-	<0.00050	4459285	<0.00050	<0.00050	0.00050	4459285
. Boron (B)	mg/L	-	5	-	0.015	4459285	<0.010	0.013	0.010	4459285
. Cadmium (Cd)	mg/L	0.005	-	-	<0.00010	4459285	<0.00010	<0.00010	0.00010	4459285

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEO959		CEO960	CEO961		
Sampling Date					2016/04/13 09:30		2016/04/13 10:20	2016/04/13 11:04		
COC Number					556061-02-01		556061-02-01	556061-02-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160413-JK16	QC Batch	WG-160900764- 20160413-JK17	WG-160900764- 20160413-JK18	RDL	QC Batch
. Calcium (Ca)	mg/L	-	-	-	59	4459285	0.55	130	0.20	4459285
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050	4459285	<0.0050	<0.0050	0.0050	4459285
. Cobalt (Co)	mg/L	-	-	-	<0.00050	4459285	<0.00050	<0.00050	0.00050	4459285
. Copper (Cu)	mg/L	-	-	1	0.0050	4459285	0.020	0.011	0.0010	4459285
. Iron (Fe)	mg/L	-	-	0.3	1.6	4459285	<0.10	<0.10	0.10	4459285
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	<0.00050	4459285	<0.00050	<0.00050	0.00050	4459285
. Magnesium (Mg)	mg/L	-	-	-	15	4459285	0.15	20	0.050	4459285
. Manganese (Mn)	mg/L	-	-	0.05	0.020	4459285	<0.0020	<0.0020	0.0020	4459285
. Molybdenum (Mo)	mg/L	-	-	-	0.00060	4459285	<0.00050	<0.00050	0.00050	4459285
. Nickel (Ni)	mg/L	-	-	-	<0.0010	4459285	<0.0010	<0.0010	0.0010	4459285
. Phosphorus (P)	mg/L	-	-	-	<0.10	4459285	<0.10	<0.10	0.10	4459285
. Potassium (K)	mg/L	-	-	-	0.91	4459285	<0.20	1.4	0.20	4459285
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020	4459285	<0.0020	<0.0020	0.0020	4459285
. Silicon (Si)	mg/L	-	-	-	11	4459285	4.7	5.9	0.050	4459285
. Silver (Ag)	mg/L	-	-	-	<0.00010	4459285	<0.00010	<0.00010	0.00010	4459285
. Sodium (Na)	mg/L	<b>20</b>	-	200	4.7	4459285	<b>180</b>	<b>52</b>	0.10	4459285
. Strontium (Sr)	mg/L	-	-	-	0.24	4459285	<0.0010	0.31	0.0010	4459285
. Thallium (Tl)	mg/L	-	-	-	<0.000050	4459285	<0.000050	<0.000050	0.000050	4459285
. Titanium (Ti)	mg/L	-	-	-	<0.0050	4459285	<0.0050	<0.0050	0.0050	4459285
. Uranium (U)	mg/L	<b>0.02</b>	-	-	<0.00010	4459285	0.00025	0.00089	0.00010	4459285
. Vanadium (V)	mg/L	-	-	-	<0.00050	4459285	<0.00050	<0.00050	0.00050	4459285
. Zinc (Zn)	mg/L	-	-	5	0.0063	4459285	<0.0050	0.013	0.0050	4459285
. Zirconium (Zr)	mg/L	-	-	-	<0.0010	4459285	<0.0010	<0.0010	0.0010	4459285

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively

(Made under the Ontario Safe Drinking Water Act, 2002)

**RCAP - COMPREHENSIVE (DRINKING WATER)**

<b>Maxxam ID</b>					CEO962	CEO962		CEO963		
<b>Sampling Date</b>					2016/04/13 13:40	2016/04/13 13:40		2016/04/13 14:12		
<b>COC Number</b>					556061-02-01	556061-02-01		556061-02-01		
	<b>UNITS</b>	<b>MAC</b>	<b>IMC</b>	<b>A/O</b>	<b>WG-160900764-20160413-JK19</b>	<b>WG-160900764-20160413-JK19 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764-20160413-JK20</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>										
Anion Sum	me/L	-	-	-	9.37		4457010	9.17	N/A	4457010
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	330		4457008	300	1.0	4457008
Calculated TDS	mg/L	-	-	500	520		4457007	480	1.0	4457007
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	2.1		4457008	2.4	1.0	4457008
Cation Sum	me/L	-	-	-	9.69		4457010	8.82	N/A	4457010
Hardness (CaCO3)	mg/L	-	-	80:100	400		4456935	400	1.0	4457645
Ion Balance (% Difference)	%	-	-	-	1.67		4457009	1.94	N/A	4457009
Langelier Index (@ 20C)	N/A	-	-	-	1.02		4457005	1.01		4457005
Langelier Index (@ 4C)	N/A	-	-	-	0.772		4457006	0.757		4457006
Saturation pH (@ 20C)	N/A	-	-	-	6.81		4457005	6.93		4457005
Saturation pH (@ 4C)	N/A	-	-	-	7.05		4457006	7.17		4457006

<b>Inorganics</b>										
Total Ammonia-N	mg/L	-	-	-	<0.050		4461508	<0.050	0.050	4461508
Conductivity	umho/cm	-	-	-	890	890	4459872	880	1.0	4459165
Dissolved Organic Carbon	mg/L	-	-	5	2.2		4466388	0.80	0.20	4460238
Orthophosphate (P)	mg/L	-	-	-	<0.010		4461448	<0.010	0.010	4460407
pH	pH	-	-	6.5:8.5	7.83	7.81	4459874	7.93		4459166
Dissolved Sulphate (SO4)	mg/L	-	-	500	30		4461451	39	1.0	4460408
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	330	330	4459871	310	1.0	4459164
Dissolved Chloride (Cl)	mg/L	-	-	250	64		4461443	76	1.0	4460405
Nitrite (N)	mg/L	1	-	-	<0.010		4459994	<0.010	0.010	4459994
Nitrate (N)	mg/L	10	-	-	3.99		4459994	0.89	0.10	4459994

<b>Metals</b>										
. Aluminum (Al)	mg/L	-	-	0.1	0.016		4459285	<0.0050	0.0050	4459285
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050		4459285	<0.00050	0.00050	4459285
. Arsenic (As)	mg/L	-	0.025	-	<0.0010		4459285	<0.0010	0.0010	4459285
. Barium (Ba)	mg/L	1	-	-	0.056		4459285	0.065	0.0020	4459285
. Beryllium (Be)	mg/L	-	-	-	<0.00050		4459285	<0.00050	0.00050	4459285
. Boron (B)	mg/L	-	5	-	0.020		4459285	<0.010	0.010	4459285

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEO962	CEO962		CEO963		
Sampling Date					2016/04/13 13:40	2016/04/13 13:40		2016/04/13 14:12		
COC Number					556061-02-01	556061-02-01		556061-02-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160413-JK19	WG-160900764- 20160413-JK19 Lab-Dup	QC Batch	WG-160900764- 20160413-JK20	RDL	QC Batch
. Cadmium (Cd)	mg/L	0.005	-	-	<0.00010		4459285	<0.00010	0.00010	4459285
. Calcium (Ca)	mg/L	-	-	-	140		4459285	110	0.20	4459285
. Chromium (Cr)	mg/L	0.05	-	-	<0.0050		4459285	<0.0050	0.0050	4459285
. Cobalt (Co)	mg/L	-	-	-	<0.00050		4459285	<0.00050	0.00050	4459285
. Copper (Cu)	mg/L	-	-	1	<0.0010		4459285	0.0048	0.0010	4459285
. Iron (Fe)	mg/L	-	-	0.3	<0.10		4459285	<0.10	0.10	4459285
. Lead (Pb)	mg/L	0.01	-	-	<0.00050		4459285	<0.00050	0.00050	4459285
. Magnesium (Mg)	mg/L	-	-	-	13		4459285	28	0.050	4459285
. Manganese (Mn)	mg/L	-	-	0.05	<0.0020		4459285	0.0029	0.0020	4459285
. Molybdenum (Mo)	mg/L	-	-	-	<0.00050		4459285	<0.00050	0.00050	4459285
. Nickel (Ni)	mg/L	-	-	-	<0.0010		4459285	<0.0010	0.0010	4459285
. Phosphorus (P)	mg/L	-	-	-	<0.10		4459285	<0.10	0.10	4459285
. Potassium (K)	mg/L	-	-	-	1.5		4459285	1.9	0.20	4459285
. Selenium (Se)	mg/L	0.01	-	-	<0.0020		4459285	<0.0020	0.0020	4459285
. Silicon (Si)	mg/L	-	-	-	5.8		4459285	6.3	0.050	4459285
. Silver (Ag)	mg/L	-	-	-	<0.00010		4459285	<0.00010	0.00010	4459285
. Sodium (Na)	mg/L	20	-	200	38		4459285	19	0.10	4459285
. Strontium (Sr)	mg/L	-	-	-	0.29		4459285	0.28	0.0010	4459285
. Thallium (Tl)	mg/L	-	-	-	<0.000050		4459285	<0.000050	0.000050	4459285
. Titanium (Ti)	mg/L	-	-	-	<0.0050		4459285	<0.0050	0.0050	4459285
. Uranium (U)	mg/L	0.02	-	-	0.00098		4459285	0.015	0.00010	4459285
. Vanadium (V)	mg/L	-	-	-	<0.00050		4459285	<0.00050	0.00050	4459285
. Zinc (Zn)	mg/L	-	-	5	<0.0050		4459285	0.018	0.0050	4459285
. Zirconium (Zr)	mg/L	-	-	-	<0.0010		4459285	<0.0010	0.0010	4459285

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively

(Made under the Ontario Safe Drinking Water Act, 2002)

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEO964		
Sampling Date					2016/04/14 09:10		
COC Number					556061-02-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160414-JK21	RDL	QC Batch
<b>Calculated Parameters</b>							
Anion Sum	me/L	-	-	-	7.81	N/A	4457010
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	310	1.0	4457008
Calculated TDS	mg/L	-	-	500	430	1.0	4457007
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	2.7	1.0	4457008
Cation Sum	me/L	-	-	-	8.17	N/A	4457010
Hardness (CaCO3)	mg/L	-	-	80:100	360	1.0	4457645
Ion Balance (% Difference)	%	-	-	-	2.25	N/A	4457009
Langelier Index (@ 20C)	N/A	-	-	-	1.11		4457005
Langelier Index (@ 4C)	N/A	-	-	-	0.856		4457006
Saturation pH (@ 20C)	N/A	-	-	-	6.87		4457005
Saturation pH (@ 4C)	N/A	-	-	-	7.12		4457006
<b>Inorganics</b>							
Total Ammonia-N	mg/L	-	-	-	<0.050	0.050	4461508
Conductivity	umho/cm	-	-	-	720	1.0	4459165
Dissolved Organic Carbon	mg/L	-	-	5	1.9	0.20	4460238
Orthophosphate (P)	mg/L	-	-	-	<0.010	0.010	4460407
pH	pH	-	-	6.5:8.5	7.97		4459166
Dissolved Sulphate (SO4)	mg/L	-	-	500	18	1.0	4460408
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	310	1.0	4459164
Dissolved Chloride (Cl)	mg/L	-	-	250	30	1.0	4460405
Nitrite (N)	mg/L	1	-	-	<0.010	0.010	4459998
Nitrate (N)	mg/L	10	-	-	5.09	0.10	4459998
<b>Metals</b>							
. Aluminum (Al)	mg/L	-	-	0.1	<0.0050	0.0050	4459285
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050	0.00050	4459285
. Arsenic (As)	mg/L	-	0.025	-	<0.0010	0.0010	4459285
. Barium (Ba)	mg/L	1	-	-	0.027	0.0020	4459285
. Beryllium (Be)	mg/L	-	-	-	<0.00050	0.00050	4459285
. Boron (B)	mg/L	-	5	-	0.025	0.010	4459285
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002) N/A = Not Applicable							

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEO964		
Sampling Date					2016/04/14 09:10		
COC Number					556061-02-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160414-JK21	RDL	QC Batch
. Cadmium (Cd)	mg/L	<b>0.005</b>	-	-	<0.00010	0.00010	4459285
. Calcium (Ca)	mg/L	-	-	-	120	0.20	4459285
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050	0.0050	4459285
. Cobalt (Co)	mg/L	-	-	-	<0.00050	0.00050	4459285
. Copper (Cu)	mg/L	-	-	1	0.072	0.0010	4459285
. Iron (Fe)	mg/L	-	-	0.3	<0.10	0.10	4459285
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	<0.00050	0.00050	4459285
. Magnesium (Mg)	mg/L	-	-	-	13	0.050	4459285
. Manganese (Mn)	mg/L	-	-	0.05	0.0092	0.0020	4459285
. Molybdenum (Mo)	mg/L	-	-	-	<0.00050	0.00050	4459285
. Nickel (Ni)	mg/L	-	-	-	<0.0010	0.0010	4459285
. Phosphorus (P)	mg/L	-	-	-	<0.10	0.10	4459285
. Potassium (K)	mg/L	-	-	-	2.3	0.20	4459285
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020	0.0020	4459285
. Silicon (Si)	mg/L	-	-	-	5.8	0.050	4459285
. Silver (Ag)	mg/L	-	-	-	<0.00010	0.00010	4459285
. Sodium (Na)	mg/L	<b>20</b>	-	200	<b>22</b>	0.10	4459285
. Strontium (Sr)	mg/L	-	-	-	0.23	0.0010	4459285
. Thallium (Tl)	mg/L	-	-	-	<0.000050	0.000050	4459285
. Titanium (Ti)	mg/L	-	-	-	<0.0050	0.0050	4459285
. Uranium (U)	mg/L	<b>0.02</b>	-	-	0.00034	0.00010	4459285
. Vanadium (V)	mg/L	-	-	-	<0.00050	0.00050	4459285
. Zinc (Zn)	mg/L	-	-	5	0.081	0.0050	4459285
. Zirconium (Zr)	mg/L	-	-	-	<0.0010	0.0010	4459285
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively							
(Made under the Ontario Safe Drinking Water Act, 2002)							

**RESULTS OF ANALYSES OF WATER**

Maxxam ID				CEO959	CEO960	CEO960	CEO961		
Sampling Date				2016/04/13 09:30	2016/04/13 10:20	2016/04/13 10:20	2016/04/13 11:04		
COC Number				556061-02-01	556061-02-01	556061-02-01	556061-02-01		
	UNITS	MAC	A/O	WG-160900764- 20160413-JK16	WG-160900764- 20160413-JK17	WG-160900764- 20160413-JK17 Lab-Dup	WG-160900764- 20160413-JK18	RDL	QC Batch

Inorganics									
Acidity as CaCO3	mg/L	-	-	10	27		31	10	4459140
Total Dissolved Solids	mg/L	-	500	236	394		528	10	4461795
Fluoride (F-)	mg/L	1.5	-	0.13	<0.10		<0.10	0.10	4459159
Free Cyanide	ug/L	200	-	<2	<2		<2	2	4459018
Total Organic Carbon (TOC)	mg/L	-	-	1.2	1.3	1.3	1.7	0.20	4461636
Total Suspended Solids	mg/L	-	-	<10	<10		<10	10	4461792
Turbidity	NTU	-	5	8.0	0.3		<0.2	0.2	4458482

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

Maxxam ID				CEO962	CEO962		CEO963		
Sampling Date				2016/04/13 13:40	2016/04/13 13:40		2016/04/13 14:12		
COC Number				556061-02-01	556061-02-01		556061-02-01		
	UNITS	MAC	A/O	WG-160900764- 20160413-JK19	WG-160900764- 20160413-JK19 Lab-Dup	QC Batch	WG-160900764- 20160413-JK20	RDL	QC Batch

Inorganics									
Acidity as CaCO3	mg/L	-	-	44	44	4459140	36	10	4459140
Total Dissolved Solids	mg/L	-	500	502		4461795	490	10	4461795
Fluoride (F-)	mg/L	1.5	-	<0.10	<0.10	4459873	<0.10	0.10	4459159
Free Cyanide	ug/L	200	-	<2		4459730	<2	2	4459730
Total Organic Carbon (TOC)	mg/L	-	-	1.7		4464795	0.78	0.20	4461636
Total Suspended Solids	mg/L	-	-	<10		4461792	<10	10	4461792
Turbidity	NTU	-	5	2.5		4458482	0.3	0.2	4458482

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>				CEO964		
<b>Sampling Date</b>				2016/04/14 09:10		
<b>COC Number</b>				556061-02-01		
	<b>UNITS</b>	<b>MAC</b>	<b>A/O</b>	<b>WG-160900764- 20160414-JK21</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>						
Acidity as CaCO3	mg/L	-	-	38	10	4459140
Total Dissolved Solids	mg/L	-	500	414	10	4461795
Fluoride (F-)	mg/L	1.5	-	<0.10	0.10	4459159
Free Cyanide	ug/L	200	-	<2	2	4459018
Total Organic Carbon (TOC)	mg/L	-	-	1.9	0.20	4461636
Total Suspended Solids	mg/L	-	-	<10	10	4461792
Turbidity	NTU	-	5	<0.2	0.2	4458482
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively						
(Made under the Ontario Safe Drinking Water Act, 2002)						



**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>			CEO959	CEO960	CEO960		CEO961		
<b>Sampling Date</b>			2016/04/13 09:30	2016/04/13 10:20	2016/04/13 10:20		2016/04/13 11:04		
<b>COC Number</b>			556061-02-01	556061-02-01	556061-02-01		556061-02-01		
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160413-JK16</b>	<b>WG-160900764-20160413-JK17</b>	<b>WG-160900764-20160413-JK17 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764-20160413-JK18</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Chromium (VI)	ug/L	-	<0.50	<0.50		4459176	<0.50	0.50	4459176
Mercury (Hg)	mg/L	<b>0.001</b>	<0.0001	<0.0001	<0.0001	4460512	<0.0001	0.0001	4460508

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

<b>Maxxam ID</b>			CEO961		CEO962	CEO962			
<b>Sampling Date</b>			2016/04/13 11:04		2016/04/13 13:40	2016/04/13 13:40			
<b>COC Number</b>			556061-02-01		556061-02-01	556061-02-01			
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160413-JK18 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764-20160413-JK19</b>	<b>WG-160900764-20160413-JK19 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>	

<b>Metals</b>									
Chromium (VI)	ug/L	-		4459176	<0.50	<0.50	0.50	4459423	
Mercury (Hg)	mg/L	<b>0.001</b>	<0.0001	4460508	<0.0001		0.0001	4460508	

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>			CEO963		CEO964		
<b>Sampling Date</b>			2016/04/13 14:12		2016/04/14 09:10		
<b>COC Number</b>			556061-02-01		556061-02-01		
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160413-JK20</b>	<b>QC Batch</b>	<b>WG-160900764-20160414-JK21</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>							
Chromium (VI)	ug/L	-	<0.50	4459176	<0.50	0.50	4459176
Mercury (Hg)	mg/L	<b>0.001</b>	<0.0001	4460512	<0.0001	0.0001	4460513
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)							

**MICROBIOLOGY (WATER)**

<b>Maxxam ID</b>			CEO959	CEO960	CEO961	CEO962	CEO963	
<b>Sampling Date</b>			2016/04/13 09:30	2016/04/13 10:20	2016/04/13 11:04	2016/04/13 13:40	2016/04/13 14:12	
<b>COC Number</b>			556061-02-01	556061-02-01	556061-02-01	556061-02-01	556061-02-01	
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160413-JK16</b>	<b>WG-160900764-20160413-JK17</b>	<b>WG-160900764-20160413-JK18</b>	<b>WG-160900764-20160413-JK19</b>	<b>WG-160900764-20160413-JK20</b>	<b>QC Batch</b>

<b>Microbiological</b>								
Background	CFU/100mL	-	230	0	47	64	0	4457719
Total Coliforms	CFU/100mL	<b>0</b>	0	0	<b>2</b>	<b>12</b>	0	4457719
Escherichia coli	CFU/100mL	<b>0</b>	0	0	0	<b>3</b>	0	4457719

QC Batch = Quality Control Batch

MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

<b>Maxxam ID</b>			CEO964	
<b>Sampling Date</b>			2016/04/14 09:10	
<b>COC Number</b>			556061-02-01	
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160414-JK21</b>	<b>QC Batch</b>

<b>Microbiological</b>				
Background	CFU/100mL	-	100	4457719
Total Coliforms	CFU/100mL	<b>0</b>	<b>3</b>	4457719
Escherichia coli	CFU/100mL	<b>0</b>	0	4457719

QC Batch = Quality Control Batch

MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 PCBs (WATER)**

<b>Maxxam ID</b>			CEO959	CEO960	CEO961	CEO962	CEO963		
<b>Sampling Date</b>			2016/04/13 09:30	2016/04/13 10:20	2016/04/13 11:04	2016/04/13 13:40	2016/04/13 14:12		
<b>COC Number</b>			556061-02-01	556061-02-01	556061-02-01	556061-02-01	556061-02-01		
	<b>UNITS</b>	<b>IMC</b>	<b>WG-160900764-20160413-JK16</b>	<b>WG-160900764-20160413-JK17</b>	<b>WG-160900764-20160413-JK18</b>	<b>WG-160900764-20160413-JK19</b>	<b>WG-160900764-20160413-JK20</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>									
Aroclor 1242	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462796
Aroclor 1248	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462796
Aroclor 1254	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462796
Aroclor 1260	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462796
Total PCB	ug/L	3	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462796

<b>Surrogate Recovery (%)</b>									
Decachlorobiphenyl	%	-	89	94	98	92	92		4462796

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 IMC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

<b>Maxxam ID</b>			CEO964		
<b>Sampling Date</b>			2016/04/14 09:10		
<b>COC Number</b>			556061-02-01		
	<b>UNITS</b>	<b>IMC</b>	<b>WG-160900764-20160414-JK21</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>					
Aroclor 1242	ug/L	-	<0.05	0.05	4462796
Aroclor 1248	ug/L	-	<0.05	0.05	4462796
Aroclor 1254	ug/L	-	<0.05	0.05	4462796
Aroclor 1260	ug/L	-	<0.05	0.05	4462796
Total PCB	ug/L	3	<0.05	0.05	4462796
<b>Surrogate Recovery (%)</b>					
Decachlorobiphenyl	%	-	94		4462796

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 IMC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		CEO959	CEO959	CEO960	CEO960	CEO961		
Sampling Date		2016/04/13 09:30	2016/04/13 09:30	2016/04/13 10:20	2016/04/13 10:20	2016/04/13 11:04		
COC Number		556061-02-01	556061-02-01	556061-02-01	556061-02-01	556061-02-01		
	UNITS	WG-160900764- 20160413-JK16	WG-160900764- 20160413-JK16 Lab-Dup	WG-160900764- 20160413-JK17	WG-160900764- 20160413-JK17 Lab-Dup	WG-160900764- 20160413-JK18	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>								
F1 (C6-C10)	ug/L	<25	<25	<25		<25	25	4463263
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25		<25	25	4463263
<b>F2-F4 Hydrocarbons</b>								
F2 (C10-C16 Hydrocarbons)	ug/L	<100		<100	<100	<100	100	4463631
F3 (C16-C34 Hydrocarbons)	ug/L	<200		<200	<200	<200	200	4463631
F4 (C34-C50 Hydrocarbons)	ug/L	<200		<200	<200	<200	200	4463631
Reached Baseline at C50	ug/L	Yes		Yes	Yes	Yes		4463631
<b>Surrogate Recovery (%)</b>								
1,4-Difluorobenzene	%	98	98	98		97		4463263
4-Bromofluorobenzene	%	98	99	98		99		4463263
D10-Ethylbenzene	%	107	110	109		116		4463263
D4-1,2-Dichloroethane	%	104	105	106		107		4463263
o-Terphenyl	%	104		104	103	104		4463631
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate								

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		CEO962	CEO963	CEO964		
Sampling Date		2016/04/13 13:40	2016/04/13 14:12	2016/04/14 09:10		
COC Number		556061-02-01	556061-02-01	556061-02-01		
	UNITS	WG-160900764- 20160413-JK19	WG-160900764- 20160413-JK20	WG-160900764- 20160414-JK21	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>						
F1 (C6-C10)	ug/L	<25	<25	<25	25	4463263
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	4463263
<b>F2-F4 Hydrocarbons</b>						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	4463631
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	4463631
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	4463631
Reached Baseline at C50	ug/L	Yes	Yes	Yes		4463631
<b>Surrogate Recovery (%)</b>						
1,4-Difluorobenzene	%	99	98	99		4463263
4-Bromofluorobenzene	%	98	98	98		4463263
D10-Ethylbenzene	%	106	112	108		4463263
D4-1,2-Dichloroethane	%	105	106	106		4463263
o-Terphenyl	%	104	105	104		4463631
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEO959	CEO960	CEO961	CEO962	CEO963		
Sampling Date			2016/04/13 09:30	2016/04/13 10:20	2016/04/13 11:04	2016/04/13 13:40	2016/04/13 14:12		
COC Number			556061-02-01	556061-02-01	556061-02-01	556061-02-01	556061-02-01		
	UNITS	MAC	WG-160900764- 20160413-JK16	WG-160900764- 20160413-JK17	WG-160900764- 20160413-JK18	WG-160900764- 20160413-JK19	WG-160900764- 20160413-JK20	RDL	QC Batch

Semivolatile Organics									
1,2,4-Trichlorobenzene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
1-Methylnaphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4,5-Trichlorophenol	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4,6-Trichlorophenol	ug/L	5	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
2,4-Dichlorophenol	ug/L	900	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
2,4-Dimethylphenol	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4462963
2,4-Dinitrophenol	ug/L	-	<2	<2	<2	<2	<2	2	4462963
2,4-Dinitrotoluene	ug/L	-	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	4462963
2,6-Dinitrotoluene	ug/L	-	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	4462963
2-Chlorophenol	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
2-Methylnaphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
3,3'-Dichlorobenzidine	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Acenaphthene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Acenaphthylene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Anthracene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(a)anthracene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(a)pyrene	ug/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	4462963
Benzo(b/j)fluoranthene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(g,h,i)perylene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Benzo(k)fluoranthene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Biphenyl	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Bis(2-chloroethyl)ether	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Bis(2-chloroisopropyl)ether	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Bis(2-ethylhexyl)phthalate	ug/L	-	<1	<1	<1	<1	<1	1	4462963
Chrysene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462963
Dibenz(a,h)anthracene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Diethyl phthalate	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Dimethyl phthalate	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Fluoranthene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Fluorene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
Indeno(1,2,3-cd)pyrene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEO959	CEO960	CEO961	CEO962	CEO963		
Sampling Date			2016/04/13 09:30	2016/04/13 10:20	2016/04/13 11:04	2016/04/13 13:40	2016/04/13 14:12		
COC Number			556061-02-01	556061-02-01	556061-02-01	556061-02-01	556061-02-01		
	UNITS	MAC	WG-160900764- 20160413-JK16	WG-160900764- 20160413-JK17	WG-160900764- 20160413-JK18	WG-160900764- 20160413-JK19	WG-160900764- 20160413-JK20	RDL	QC Batch
Naphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4462963
p-Chloroaniline	ug/L	-	<1	<1	<1	<1	<1	1	4462963
Pentachlorophenol	ug/L	<b>60</b>	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Phenanthrene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4462963
Phenol	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4462963
Pyrene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4462963
<b>Calculated Parameters</b>									
Methylnaphthalene, 2-(1-)	ug/L	-	<0.28	<0.28	<0.28	<0.28	<0.28	0.28	4457174
<b>Surrogate Recovery (%)</b>									
2,4,6-Tribromophenol	%	-	53	56	48 (1)	31 (1)	49 (1)		4462963
2-Fluorobiphenyl	%	-	73	67	73	62	54		4462963
D14-Terphenyl (FS)	%	-	98	98	99	98	99		4462963
D5-Nitrobenzene	%	-	63	56	63	50	44 (1)		4462963
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002) (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.									



**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

<b>Maxxam ID</b>			CEO964		
<b>Sampling Date</b>			2016/04/14 09:10		
<b>COC Number</b>			556061-02-01		
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764- 20160414-JK21</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Semivolatile Organics</b>					
1,2,4-Trichlorobenzene	ug/L	-	<0.1	0.1	4462963
1-Methylnaphthalene	ug/L	-	<0.2	0.2	4462963
2,4,5-Trichlorophenol	ug/L	-	<0.2	0.2	4462963
2,4,6-Trichlorophenol	ug/L	<b>5</b>	<0.2	0.2	4462963
2,4-Dichlorophenol	ug/L	<b>900</b>	<0.1	0.1	4462963
2,4-Dimethylphenol	ug/L	-	<0.5	0.5	4462963
2,4-Dinitrophenol	ug/L	-	<2	2	4462963
2,4-Dinitrotoluene	ug/L	-	<0.3	0.3	4462963
2,6-Dinitrotoluene	ug/L	-	<0.3	0.3	4462963
2-Chlorophenol	ug/L	-	<0.1	0.1	4462963
2-Methylnaphthalene	ug/L	-	<0.2	0.2	4462963
3,3'-Dichlorobenzidine	ug/L	-	<0.5	0.5	4462963
Acenaphthene	ug/L	-	<0.2	0.2	4462963
Acenaphthylene	ug/L	-	<0.2	0.2	4462963
Anthracene	ug/L	-	<0.05	0.05	4462963
Benzo(a)anthracene	ug/L	-	<0.05	0.05	4462963
Benzo(a)pyrene	ug/L	<b>0.01</b>	<0.01	0.01	4462963
Benzo(b/j)fluoranthene	ug/L	-	<0.05	0.05	4462963
Benzo(g,h,i)perylene	ug/L	-	<0.05	0.05	4462963
Benzo(k)fluoranthene	ug/L	-	<0.05	0.05	4462963
Biphenyl	ug/L	-	<0.1	0.1	4462963
Bis(2-chloroethyl)ether	ug/L	-	<0.5	0.5	4462963
Bis(2-chloroisopropyl)ether	ug/L	-	<0.5	0.5	4462963
Bis(2-ethylhexyl)phthalate	ug/L	-	<1	1	4462963
Chrysene	ug/L	-	<0.05	0.05	4462963
Dibenz(a,h)anthracene	ug/L	-	<0.1	0.1	4462963
Diethyl phthalate	ug/L	-	<0.1	0.1	4462963
Dimethyl phthalate	ug/L	-	<0.1	0.1	4462963
Fluoranthene	ug/L	-	<0.2	0.2	4462963
<p>RDL = Reportable Detection Limit            QC Batch = Quality Control Batch            MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] &amp; Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively            (Made under the Ontario Safe Drinking Water Act, 2002)</p>					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

<b>Maxxam ID</b>			CEO964		
<b>Sampling Date</b>			2016/04/14 09:10		
<b>COC Number</b>			556061-02-01		
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764- 20160414-JK21</b>	<b>RDL</b>	<b>QC Batch</b>
Fluorene	ug/L	-	<0.2	0.2	4462963
Indeno(1,2,3-cd)pyrene	ug/L	-	<0.1	0.1	4462963
Naphthalene	ug/L	-	<0.2	0.2	4462963
p-Chloroaniline	ug/L	-	<1	1	4462963
Pentachlorophenol	ug/L	<b>60</b>	<0.1	0.1	4462963
Phenanthrene	ug/L	-	<0.1	0.1	4462963
Phenol	ug/L	-	<0.5	0.5	4462963
Pyrene	ug/L	-	<0.05	0.05	4462963
<b>Calculated Parameters</b>					
Methylnaphthalene, 2-(1-)	ug/L	-	<0.28	0.28	4457174
<b>Surrogate Recovery (%)</b>					
2,4,6-Tribromophenol	%	-	49 (1)		4462963
2-Fluorobiphenyl	%	-	62		4462963
D14-Terphenyl (FS)	%	-	99		4462963
D5-Nitrobenzene	%	-	53		4462963
<p>RDL = Reportable Detection Limit            QC Batch = Quality Control Batch            MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] &amp; Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively            (Made under the Ontario Safe Drinking Water Act, 2002)            (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.</p>					

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEO959	CEO960	CEO961	CEO962		
Sampling Date					2016/04/13 09:30	2016/04/13 10:20	2016/04/13 11:04	2016/04/13 13:40		
COC Number					556061-02-01	556061-02-01	556061-02-01	556061-02-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160413-JK16	WG-160900764- 20160413-JK17	WG-160900764- 20160413-JK18	WG-160900764- 20160413-JK19	RDL	QC Batch

Calculated Parameters										
1,3-Dichloropropene (cis+trans)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457630
Volatile Organics										
Acetone (2-Propanone)	ug/L	-	-	-	<10	<10	<10	<10	10	4459600
Benzene	ug/L	5	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Bromodichloromethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
Bromoform	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4459600
Bromomethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
Carbon Tetrachloride	ug/L	5	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Chlorobenzene	ug/L	80	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Chloroform	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Dibromochloromethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
1,2-Dichlorobenzene	ug/L	200	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
1,3-Dichlorobenzene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
1,4-Dichlorobenzene	ug/L	5	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
Dichlorodifluoromethane (FREON 12)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4459600
1,1-Dichloroethane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
1,2-Dichloroethane	ug/L	-	5	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
1,1-Dichloroethylene	ug/L	14	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
cis-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
trans-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
1,2-Dichloropropane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
cis-1,3-Dichloropropene	ug/L	-	-	-	<0.30	<0.30	<0.30	<0.30	0.30	4459600
trans-1,3-Dichloropropene	ug/L	-	-	-	<0.40	<0.40	<0.40	<0.40	0.40	4459600
Ethylbenzene	ug/L	-	-	2.4	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Ethylene Dibromide	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Hexane	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4459600
Methylene Chloride(Dichloromethane)	ug/L	50	-	-	<2.0	<2.0	<2.0	<2.0	2.0	4459600
Methyl Ethyl Ketone (2-Butanone)	ug/L	-	-	-	<10	<10	<10	<10	10	4459600
Methyl Isobutyl Ketone	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	4459600
Methyl t-butyl ether (MTBE)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
Styrene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEO959	CEO960	CEO961	CEO962		
Sampling Date					2016/04/13 09:30	2016/04/13 10:20	2016/04/13 11:04	2016/04/13 13:40		
COC Number					556061-02-01	556061-02-01	556061-02-01	556061-02-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160413-JK16	WG-160900764- 20160413-JK17	WG-160900764- 20160413-JK18	WG-160900764- 20160413-JK19	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
Tetrachloroethylene	ug/L	<b>30</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Toluene	ug/L	-	-	<b>24</b>	<0.20	<0.20	<0.20	<0.20	0.20	4459600
1,1,1-Trichloroethane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
1,1,2-Trichloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
Trichloroethylene	ug/L	<b>5</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Trichlorofluoromethane (FREON 11)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4459600
Vinyl Chloride	ug/L	<b>2</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
p+m-Xylene	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
o-Xylene	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4459600
Total Xylenes	ug/L	-	-	<b>300</b>	<0.20	<0.20	<0.20	<0.20	0.20	4459600
<b>Surrogate Recovery (%)</b>										
4-Bromofluorobenzene	%	-	-	-	96	97	96	97		4459600
D4-1,2-Dichloroethane	%	-	-	-	101	101	101	99		4459600
D8-Toluene	%	-	-	-	96	95	96	95		4459600
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)										

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>					CEO963	CEO964		
<b>Sampling Date</b>					2016/04/13 14:12	2016/04/14 09:10		
<b>COC Number</b>					556061-02-01	556061-02-01		
	<b>UNITS</b>	<b>MAC</b>	<b>IMC</b>	<b>A/O</b>	<b>WG-160900764- 20160413-JK20</b>	<b>WG-160900764- 20160414-JK21</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>								
1,3-Dichloropropene (cis+trans)	ug/L	-	-	-	<0.50	<0.50	0.50	4457630
<b>Volatile Organics</b>								
Acetone (2-Propanone)	ug/L	-	-	-	<10	<10	10	4459600
Benzene	ug/L	5	-	-	<0.20	<0.20	0.20	4459600
Bromodichloromethane	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
Bromoform	ug/L	-	-	-	<1.0	<1.0	1.0	4459600
Bromomethane	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
Carbon Tetrachloride	ug/L	5	-	-	<0.20	<0.20	0.20	4459600
Chlorobenzene	ug/L	80	-	-	<0.20	<0.20	0.20	4459600
Chloroform	ug/L	-	-	-	<0.20	<0.20	0.20	4459600
Dibromochloromethane	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
1,2-Dichlorobenzene	ug/L	200	-	-	<0.50	<0.50	0.50	4459600
1,3-Dichlorobenzene	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
1,4-Dichlorobenzene	ug/L	5	-	-	<0.50	<0.50	0.50	4459600
Dichlorodifluoromethane (FREON 12)	ug/L	-	-	-	<1.0	<1.0	1.0	4459600
1,1-Dichloroethane	ug/L	-	-	-	<0.20	<0.20	0.20	4459600
1,2-Dichloroethane	ug/L	-	5	-	<0.50	<0.50	0.50	4459600
1,1-Dichloroethylene	ug/L	14	-	-	<0.20	<0.20	0.20	4459600
cis-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
trans-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
1,2-Dichloropropane	ug/L	-	-	-	<0.20	<0.20	0.20	4459600
cis-1,3-Dichloropropene	ug/L	-	-	-	<0.30	<0.30	0.30	4459600
trans-1,3-Dichloropropene	ug/L	-	-	-	<0.40	<0.40	0.40	4459600
Ethylbenzene	ug/L	-	-	2.4	<0.20	<0.20	0.20	4459600
Ethylene Dibromide	ug/L	-	-	-	<0.20	<0.20	0.20	4459600
Hexane	ug/L	-	-	-	<1.0	<1.0	1.0	4459600
Methylene Chloride(Dichloromethane)	ug/L	50	-	-	<2.0	<2.0	2.0	4459600
Methyl Ethyl Ketone (2-Butanone)	ug/L	-	-	-	<10	<10	10	4459600
Methyl Isobutyl Ketone	ug/L	-	-	-	<5.0	<5.0	5.0	4459600
Methyl t-butyl ether (MTBE)	ug/L	-	-	-	<0.50	<0.50	0.50	4459600

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEO963	CEO964		
Sampling Date					2016/04/13 14:12	2016/04/14 09:10		
COC Number					556061-02-01	556061-02-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160413-JK20	WG-160900764- 20160414-JK21	RDL	QC Batch
Styrene	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
1,1,1,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
Tetrachloroethylene	ug/L	<b>30</b>	-	-	<0.20	<0.20	0.20	4459600
Toluene	ug/L	-	-	<b>24</b>	<0.20	<0.20	0.20	4459600
1,1,1-Trichloroethane	ug/L	-	-	-	<0.20	<0.20	0.20	4459600
1,1,2-Trichloroethane	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
Trichloroethylene	ug/L	<b>5</b>	-	-	<0.20	<0.20	0.20	4459600
Trichlorofluoromethane (FREON 11)	ug/L	-	-	-	<0.50	<0.50	0.50	4459600
Vinyl Chloride	ug/L	<b>2</b>	-	-	<0.20	<0.20	0.20	4459600
p+m-Xylene	ug/L	-	-	-	<0.20	<0.20	0.20	4459600
o-Xylene	ug/L	-	-	-	<0.20	<0.20	0.20	4459600
Total Xylenes	ug/L	-	-	<b>300</b>	<0.20	<0.20	0.20	4459600
<b>Surrogate Recovery (%)</b>								
4-Bromofluorobenzene	%	-	-	-	96	96		4459600
D4-1,2-Dichloroethane	%	-	-	-	101	104		4459600
D8-Toluene	%	-	-	-	95	95		4459600
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)								

### TEST SUMMARY

**Maxxam ID:** CEO959  
**Sample ID:** WG-160900764-20160413-JK16  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4459176	N/A	2016/04/19	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463263	N/A	2016/04/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463631	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4456935	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460512	2016/04/16	2016/04/20	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4459285	2016/04/15	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/19	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4457719	N/A	2016/04/14	Jigar Shah
Total Ammonia-N	LACH/NH4	4461508	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459994	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4462796	2016/04/19	2016/04/20	Li Peng
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4461795	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4461792	N/A	2016/04/18	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4459600	N/A	2016/04/18	Manpreet Sarao

**Maxxam ID:** CEO959 Dup  
**Sample ID:** WG-160900764-20160413-JK16  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463263	N/A	2016/04/19	Ravinder Gaidhu

**TEST SUMMARY**

**Maxxam ID:** CEO960  
**Sample ID:** WG-160900764-20160413-JK17  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4459176	N/A	2016/04/19	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463263	N/A	2016/04/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463631	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4456935	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460512	2016/04/16	2016/04/20	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4459285	2016/04/15	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/19	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4457719	N/A	2016/04/14	Jigar Shah
Total Ammonia-N	LACH/NH4	4461508	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459998	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4462796	2016/04/19	2016/04/20	Li Peng
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4461795	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4461792	N/A	2016/04/18	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4459600	N/A	2016/04/18	Manpreet Sarao

**Maxxam ID:** CEO960 Dup  
**Sample ID:** WG-160900764-20160413-JK17  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463631	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Mercury in Water by CVAA	CV/AA	4460512	2016/04/16	2016/04/20	Magdalena Carlos
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex



### TEST SUMMARY

**Maxxam ID:** CEO961  
**Sample ID:** WG-160900764-20160413-JK18  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4459176	N/A	2016/04/19	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463263	N/A	2016/04/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463631	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4456935	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460508	2016/04/16	2016/04/20	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4459285	2016/04/15	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/19	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4457719	N/A	2016/04/14	Jigar Shah
Total Ammonia-N	LACH/NH4	4461508	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459998	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4462796	2016/04/19	2016/04/20	Li Peng
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4461795	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4461792	N/A	2016/04/18	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4459600	N/A	2016/04/18	Manpreet Sarao

**Maxxam ID:** CEO961 Dup  
**Sample ID:** WG-160900764-20160413-JK18  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	4460508	2016/04/16	2016/04/20	Magdalena Carlos

### TEST SUMMARY

**Maxxam ID:** CEO962  
**Sample ID:** WG-160900764-20160413-JK19  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459871	N/A	2016/04/16	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4461443	N/A	2016/04/19	Deonarine Ramnarine
Conductivity	AT	4459872	N/A	2016/04/16	Yogesh Patel
Chromium (VI) in Water	IC	4459423	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459730	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4466388	N/A	2016/04/21	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463263	N/A	2016/04/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463631	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459873	2016/04/15	2016/04/16	Yogesh Patel
Hardness (calculated as CaCO3)		4456935	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460508	2016/04/16	2016/04/20	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4459285	2016/04/15	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/19	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4457719	N/A	2016/04/14	Jigar Shah
Total Ammonia-N	LACH/NH4	4461508	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459994	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4462796	2016/04/19	2016/04/20	Li Peng
pH	AT	4459874	N/A	2016/04/16	Yogesh Patel
Orthophosphate	KONE	4461448	N/A	2016/04/19	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4461451	N/A	2016/04/19	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4461795	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4464795	N/A	2016/04/20	Elsamma Alex
Total Suspended Solids	BAL	4461792	N/A	2016/04/18	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4459600	N/A	2016/04/18	Manpreet Sarao

**Maxxam ID:** CEO962 Dup  
**Sample ID:** WG-160900764-20160413-JK19  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4459140	N/A		Grace Sison
Alkalinity	AT	4459871	N/A	2016/04/16	Yogesh Patel
Conductivity	AT	4459872	N/A	2016/04/16	Yogesh Patel
Chromium (VI) in Water	IC	4459423	N/A	2016/04/18	Sally Coughlin

### TEST SUMMARY

**Maxxam ID:** CEO962 Dup  
**Sample ID:** WG-160900764-20160413-JK19  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	4459873	2016/04/15	2016/04/16	Yogesh Patel
pH	AT	4459874	N/A	2016/04/16	Yogesh Patel

**Maxxam ID:** CEO963  
**Sample ID:** WG-160900764-20160413-JK20  
**Matrix:** Water

**Collected:** 2016/04/13  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/20	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4459176	N/A	2016/04/19	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459730	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463263	N/A	2016/04/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463631	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460512	2016/04/16	2016/04/20	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4459285	2016/04/15	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/19	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4457719	N/A	2016/04/14	Jigar Shah
Total Ammonia-N	LACH/NH4	4461508	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459994	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4462796	2016/04/19	2016/04/20	Li Peng
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4461795	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4461792	N/A	2016/04/18	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4459600	N/A	2016/04/18	Manpreet Sarao

### TEST SUMMARY

**Maxxam ID:** CEO964  
**Sample ID:** WG-160900764-20160414-JK21  
**Matrix:** Water

**Collected:** 2016/04/14  
**Shipped:**  
**Received:** 2016/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4457174	N/A	2016/04/21	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4462963	2016/04/19	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4459140	N/A	2016/04/21	Grace Sison
Alkalinity	AT	4459164	N/A	2016/04/16	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4457008	N/A	2016/04/18	Automated Statchk
1,3-Dichloropropene Sum	CALC	4457630	N/A	2016/04/19	Automated Statchk
Chloride by Automated Colourimetry	KONE	4460405	N/A	2016/04/18	Deonarine Ramnarine
Conductivity	AT	4459165	N/A	2016/04/16	Surinder Rai
Chromium (VI) in Water	IC	4459176	N/A	2016/04/19	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4459018	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4460238	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4463263	N/A	2016/04/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4463631	2016/04/19	2016/04/20	Zhiyue (Frank) Zhu
Fluoride	ISE	4459159	2016/04/15	2016/04/16	Surinder Rai
Hardness (calculated as CaCO3)		4457645	N/A	2016/04/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460513	2016/04/16	2016/04/20	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4459285	2016/04/15	2016/04/18	Prempal Bhatti
Ion Balance (% Difference)	CALC	4457009	N/A	2016/04/19	Automated Statchk
Anion and Cation Sum	CALC	4457010	N/A	2016/04/19	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4457719	N/A	2016/04/14	Jigar Shah
Total Ammonia-N	LACH/NH4	4461508	N/A	2016/04/20	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4459998	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4462796	2016/04/19	2016/04/20	Li Peng
pH	AT	4459166	N/A	2016/04/16	Surinder Rai
Orthophosphate	KONE	4460407	N/A	2016/04/18	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4457005	N/A	2016/04/19	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4457006	N/A	2016/04/19	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4460408	N/A	2016/04/18	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4457007	N/A	2016/04/19	Automated Statchk
Total Dissolved Solids	BAL	4461795	N/A	2016/04/19	Gurpreet Kaur
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4461792	N/A	2016/04/18	Fang Wang
Turbidity	AT	4458482	N/A	2016/04/15	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4459600	N/A	2016/04/18	Manpreet Sarao

### GENERAL COMMENTS

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

Package 1	1.3°C
Package 2	2.7°C
Package 3	0.3°C
Package 4	2.0°C
Package 5	-0.7°C
Package 6	2.7°C
Package 7	1.7°C
Package 8	0.3°C

Sample CEO959-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CEO961-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CEO962-01 : The result for dissolved organic carbon was greater than the total organic carbon. This was confirmed by re-analysis.

Sample CEO963-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CEO964-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459600	4-Bromofluorobenzene	2016/04/18	102	70 - 130	101	70 - 130	99	%				
4459600	D4-1,2-Dichloroethane	2016/04/18	98	70 - 130	99	70 - 130	100	%				
4459600	D8-Toluene	2016/04/18	100	70 - 130	102	70 - 130	96	%				
4462796	Decachlorobiphenyl	2016/04/19	95	60 - 130	101	60 - 130	98	%				
4462963	2,4,6-Tribromophenol	2016/04/20	74	50 - 130	80	50 - 130	40 (2)					
4462963	2-Fluorobiphenyl	2016/04/20	53	50 - 130	54	50 - 130	62	%				
4462963	D14-Terphenyl (FS)	2016/04/20	99	50 - 130	100	50 - 130	96	%				
4462963	D5-Nitrobenzene	2016/04/20	51	50 - 130	56	50 - 130	57	%				
4463263	1,4-Difluorobenzene	2016/04/19	99	70 - 130	100	70 - 130	99	%				
4463263	4-Bromofluorobenzene	2016/04/19	98	70 - 130	98	70 - 130	98	%				
4463263	D10-Ethylbenzene	2016/04/19	101	70 - 130	99	70 - 130	110	%				
4463263	D4-1,2-Dichloroethane	2016/04/19	103	70 - 130	103	70 - 130	105	%				
4463631	o-Terphenyl	2016/04/20	106	60 - 130	104	60 - 130	104	%				
4458482	Turbidity	2016/04/14			99	85 - 115	<0.2	NTU	NC	20		
4459018	Free Cyanide	2016/04/15	102	80 - 120	104	80 - 120	<2	ug/L	NC	20		
4459140	Acidity as CaCO3						<10	mg/L	NC	25		
4459159	Fluoride (F-)	2016/04/16	106	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
4459164	Alkalinity (Total as CaCO3)	2016/04/16			99	85 - 115	<1.0	mg/L	0.52	25		
4459165	Conductivity	2016/04/16			100	85 - 115	<1.0	umho/cm	0	25		
4459166	pH	2016/04/16			101	98 - 103			1.5	N/A		
4459176	Chromium (VI)	2016/04/19	114	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4459285	. Aluminum (Al)	2016/04/18	103	80 - 120	101	80 - 120	<0.0050	mg/L	2.1	20		
4459285	. Antimony (Sb)	2016/04/18	108	80 - 120	106	80 - 120	<0.00050	mg/L				
4459285	. Arsenic (As)	2016/04/18	110	80 - 120	109	80 - 120	<0.0010	mg/L	NC	20		
4459285	. Barium (Ba)	2016/04/18	106	80 - 120	102	80 - 120	<0.0020	mg/L	3.1	20		
4459285	. Beryllium (Be)	2016/04/18	110	80 - 120	106	80 - 120	<0.00050	mg/L				
4459285	. Boron (B)	2016/04/18	106	80 - 120	104	80 - 120	<0.010	mg/L	NC	20		
4459285	. Cadmium (Cd)	2016/04/18	107	80 - 120	104	80 - 120	<0.00010	mg/L	NC	20		
4459285	. Calcium (Ca)	2016/04/18	NC	80 - 120	108	80 - 120	<0.20	mg/L				
4459285	. Chromium (Cr)	2016/04/18	110	80 - 120	109	80 - 120	<0.0050	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459285	. Cobalt (Co)	2016/04/18	109	80 - 120	109	80 - 120	<0.00050	mg/L				
4459285	. Copper (Cu)	2016/04/18	105	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20		
4459285	. Iron (Fe)	2016/04/18	112	80 - 120	112	80 - 120	<0.10	mg/L	NC	20		
4459285	. Lead (Pb)	2016/04/18	103	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20		
4459285	. Magnesium (Mg)	2016/04/18	112	80 - 120	107	80 - 120	<0.050	mg/L				
4459285	. Manganese (Mn)	2016/04/18	113	80 - 120	111	80 - 120	<0.0020	mg/L	NC	20		
4459285	. Molybdenum (Mo)	2016/04/18	111	80 - 120	109	80 - 120	<0.00050	mg/L				
4459285	. Nickel (Ni)	2016/04/18	108	80 - 120	109	80 - 120	<0.0010	mg/L				
4459285	. Phosphorus (P)	2016/04/18	NC	80 - 120	102	80 - 120	<0.10	mg/L				
4459285	. Potassium (K)	2016/04/18	111	80 - 120	109	80 - 120	<0.20	mg/L				
4459285	. Selenium (Se)	2016/04/18	110	80 - 120	111	80 - 120	<0.0020	mg/L	NC	20		
4459285	. Silicon (Si)	2016/04/18	108	80 - 120	106	80 - 120	<0.050	mg/L				
4459285	. Silver (Ag)	2016/04/18	106	80 - 120	105	80 - 120	<0.00010	mg/L				
4459285	. Sodium (Na)	2016/04/18	NC	80 - 120	104	80 - 120	<0.10	mg/L	0.61	20		
4459285	. Strontium (Sr)	2016/04/18	107	80 - 120	110	80 - 120	<0.0010	mg/L				
4459285	. Thallium (Tl)	2016/04/18	104	80 - 120	101	80 - 120	<0.000050	mg/L				
4459285	. Titanium (Ti)	2016/04/18	108	80 - 120	111	80 - 120	<0.0050	mg/L				
4459285	. Uranium (U)	2016/04/18	98	80 - 120	95	80 - 120	<0.00010	mg/L	NC	20		
4459285	. Vanadium (V)	2016/04/18	111	80 - 120	111	80 - 120	<0.00050	mg/L				
4459285	. Zinc (Zn)	2016/04/18	103	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
4459285	. Zirconium (Zr)	2016/04/18	111	80 - 120	110	80 - 120	<0.0010	mg/L				
4459423	Chromium (VI)	2016/04/18	119	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4459600	1,1,1,2-Tetrachloroethane	2016/04/18	102	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4459600	1,1,1-Trichloroethane	2016/04/18	92	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4459600	1,1,2,2-Tetrachloroethane	2016/04/18	107	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4459600	1,1,2-Trichloroethane	2016/04/18	102	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4459600	1,1-Dichloroethane	2016/04/18	93	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4459600	1,1-Dichloroethylene	2016/04/18	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4459600	1,2-Dichlorobenzene	2016/04/18	99	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4459600	1,2-Dichloroethane	2016/04/18	98	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4459600	1,2-Dichloropropane	2016/04/18	95	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459600	1,3-Dichlorobenzene	2016/04/18	97	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4459600	1,4-Dichlorobenzene	2016/04/18	99	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4459600	Acetone (2-Propanone)	2016/04/18	106	60 - 140	97	60 - 140	<10	ug/L	NC	30		
4459600	Benzene	2016/04/18	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4459600	Bromodichloromethane	2016/04/18	98	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4459600	Bromoform	2016/04/18	106	70 - 130	98	70 - 130	<1.0	ug/L	NC	30		
4459600	Bromomethane	2016/04/18	91	60 - 140	81	60 - 140	<0.50	ug/L	NC	30		
4459600	Carbon Tetrachloride	2016/04/18	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4459600	Chlorobenzene	2016/04/18	102	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4459600	Chloroform	2016/04/18	95	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4459600	cis-1,2-Dichloroethylene	2016/04/18	95	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4459600	cis-1,3-Dichloropropene	2016/04/18	104	70 - 130	90	70 - 130	<0.30	ug/L	NC	30		
4459600	Dibromochloromethane	2016/04/18	105	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4459600	Dichlorodifluoromethane (FREON 12)	2016/04/18	107	60 - 140	107	60 - 140	<1.0	ug/L	NC	30		
4459600	Ethylbenzene	2016/04/18	99	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4459600	Ethylene Dibromide	2016/04/18	107	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4459600	Hexane	2016/04/18	104	70 - 130	94	70 - 130	<1.0	ug/L	NC	30		
4459600	Methyl Ethyl Ketone (2-Butanone)	2016/04/18	112	60 - 140	104	60 - 140	<10	ug/L	NC	30		
4459600	Methyl Isobutyl Ketone	2016/04/18	107	70 - 130	103	70 - 130	<5.0	ug/L	NC	30		
4459600	Methyl t-butyl ether (MTBE)	2016/04/18	97	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4459600	Methylene Chloride(Dichloromethane)	2016/04/18	94	70 - 130	92	70 - 130	<2.0	ug/L	NC	30		
4459600	o-Xylene	2016/04/18	96	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4459600	p+m-Xylene	2016/04/18	97	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4459600	Styrene	2016/04/18	100	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4459600	Tetrachloroethylene	2016/04/18	97	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4459600	Toluene	2016/04/18	98	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4459600	Total Xylenes	2016/04/18					<0.20	ug/L	NC	30		
4459600	trans-1,2-Dichloroethylene	2016/04/18	92	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4459600	trans-1,3-Dichloropropene	2016/04/18	111	70 - 130	83	70 - 130	<0.40	ug/L	NC	30		
4459600	Trichloroethylene	2016/04/18	92	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4459600	Trichlorofluoromethane (FREON 11)	2016/04/18	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459600	Vinyl Chloride	2016/04/18	100	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4459730	Free Cyanide	2016/04/15	103	80 - 120	104	80 - 120	<2	ug/L	NC	20		
4459871	Alkalinity (Total as CaCO3)	2016/04/16			97	85 - 115	<1.0	mg/L	0.14	25		
4459872	Conductivity	2016/04/16			101	85 - 115	<1.0	umho/cm	0.45	25		
4459873	Fluoride (F-)	2016/04/16	102	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
4459874	pH	2016/04/16			102	98 - 103			0.22	N/A		
4459994	Nitrate (N)	2016/04/18	NC	80 - 120	95	80 - 120	<0.10	mg/L	0.10	25		
4459994	Nitrite (N)	2016/04/18	106	80 - 120	108	80 - 120	<0.010	mg/L	2.3	25		
4459998	Nitrate (N)	2016/04/18	95	80 - 120	95	80 - 120	<0.10	mg/L	NC	25		
4459998	Nitrite (N)	2016/04/18	105	80 - 120	105	80 - 120	<0.010	mg/L	NC	25		
4460238	Dissolved Organic Carbon	2016/04/16	97	80 - 120	99	80 - 120	0.23, RDL=0.20	mg/L	9.0	20		
4460405	Dissolved Chloride (Cl)	2016/04/18	NC	80 - 120	102	80 - 120	<1.0	mg/L	0.40	20		
4460407	Orthophosphate (P)	2016/04/18	111	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
4460408	Dissolved Sulphate (SO4)	2016/04/18	NC	75 - 125	100	80 - 120	<1.0	mg/L	0.24	20		
4460508	Mercury (Hg)	2016/04/20	103	75 - 125	100	80 - 120	<0.0001	mg/L	NC	20		
4460512	Mercury (Hg)	2016/04/20	102	75 - 125	100	80 - 120	<0.0001	mg/L	NC	20		
4460513	Mercury (Hg)	2016/04/20	102	75 - 125	101	80 - 120	<0.0001	mg/L				
4461443	Dissolved Chloride (Cl)	2016/04/19	NC	80 - 120	101	80 - 120	<1.0	mg/L	0.020	20		
4461448	Orthophosphate (P)	2016/04/19	97	75 - 125	98	80 - 120	<0.010	mg/L	NC	25		
4461451	Dissolved Sulphate (SO4)	2016/04/19	NC	75 - 125	106	80 - 120	<1.0	mg/L	0.55	20		
4461508	Total Ammonia-N	2016/04/20	100	80 - 120	97	85 - 115	<0.050	mg/L	NC	20		
4461636	Total Organic Carbon (TOC)	2016/04/18	98	80 - 120	101	80 - 120	0.20, RDL=0.20	mg/L	3.0	20		
4461792	Total Suspended Solids	2016/04/18					<10	mg/L	NC	25	98	85 - 115
4461795	Total Dissolved Solids	2016/04/19					<10	mg/L	7.5	25	97	90 - 110
4462796	Aroclor 1242	2016/04/19					<0.05	ug/L				
4462796	Aroclor 1248	2016/04/19					<0.05	ug/L				
4462796	Aroclor 1254	2016/04/19					<0.05	ug/L				
4462796	Aroclor 1260	2016/04/19	90	60 - 130	94	60 - 130	<0.05	ug/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4462796	Total PCB	2016/04/19	90	60 - 130	94	60 - 130	<0.05	ug/L	NC	40		
4462963	1,2,4-Trichlorobenzene	2016/04/20	47	40 - 130	44	40 - 130	<0.1	ug/L	NC	30		
4462963	1-Methylnaphthalene	2016/04/20	61	50 - 130	66	50 - 130	<0.2	ug/L	NC	30		
4462963	2,4,5-Trichlorophenol	2016/04/20	93	50 - 130	100	50 - 130	<0.2	ug/L	NC	30		
4462963	2,4,6-Trichlorophenol	2016/04/20	84	50 - 130	93	50 - 130	<0.2	ug/L	NC	30		
4462963	2,4-Dichlorophenol	2016/04/20	62	50 - 130	70	50 - 130	<0.1	ug/L	NC	30		
4462963	2,4-Dimethylphenol	2016/04/20	33	30 - 130	67	30 - 130	<0.5	ug/L	NC	30		
4462963	2,4-Dinitrophenol	2016/04/20	86	30 - 130	82	30 - 130	<2	ug/L	NC	30		
4462963	2,4-Dinitrotoluene	2016/04/20	100	50 - 130	100	50 - 130	<0.3	ug/L	NC	30		
4462963	2,6-Dinitrotoluene	2016/04/20	92	50 - 130	93	50 - 130	<0.3	ug/L	NC	30		
4462963	2-Chlorophenol	2016/04/20	56	50 - 130	63	50 - 130	<0.1	ug/L	NC	30		
4462963	2-Methylnaphthalene	2016/04/20	59	50 - 130	64	50 - 130	<0.2	ug/L	NC	30		
4462963	3,3'-Dichlorobenzidine	2016/04/20	102	30 - 130	101	30 - 130	<0.5	ug/L	NC	30		
4462963	Acenaphthene	2016/04/20	73	50 - 130	78	50 - 130	<0.2	ug/L	NC	30		
4462963	Acenaphthylene	2016/04/20	73	50 - 130	77	50 - 130	<0.2	ug/L	NC	30		
4462963	Anthracene	2016/04/20	87	50 - 130	88	50 - 130	<0.05	ug/L	NC	30		
4462963	Benzo(a)anthracene	2016/04/20	100	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		
4462963	Benzo(a)pyrene	2016/04/20	91	50 - 130	94	50 - 130	<0.01	ug/L	NC	30		
4462963	Benzo(b/j)fluoranthene	2016/04/20	90	50 - 130	88	50 - 130	<0.05	ug/L	NC	30		
4462963	Benzo(g,h,i)perylene	2016/04/20	110	50 - 130	110	50 - 130	<0.05	ug/L	NC	30		
4462963	Benzo(k)fluoranthene	2016/04/20	87	50 - 130	85	50 - 130	<0.05	ug/L	NC	30		
4462963	Biphenyl	2016/04/20	66	50 - 130	71	50 - 130	<0.1	ug/L	NC	30		
4462963	Bis(2-chloroethyl)ether	2016/04/20	51	50 - 130	55	50 - 130	<0.5	ug/L	NC	30		
4462963	Bis(2-chloroisopropyl)ether	2016/04/20	54	50 - 130	58	50 - 130	<0.5	ug/L	NC	30		
4462963	Bis(2-ethylhexyl)phthalate	2016/04/20	96	50 - 130	96	50 - 130	<1	ug/L	NC	30		
4462963	Chrysene	2016/04/20	96	50 - 130	95	50 - 130	<0.05	ug/L	NC	30		
4462963	Dibenz(a,h)anthracene	2016/04/20	111	50 - 130	111	50 - 130	<0.1	ug/L	NC	30		
4462963	Diethyl phthalate	2016/04/20	82	50 - 130	83	50 - 130	<0.1	ug/L	NC	30		
4462963	Dimethyl phthalate	2016/04/20	91	50 - 130	92	50 - 130	<0.1	ug/L	NC	30		
4462963	Fluoranthene	2016/04/20	102	50 - 130	101	50 - 130	<0.2	ug/L	NC	30		
4462963	Fluorene	2016/04/20	83	50 - 130	86	50 - 130	<0.2	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4462963	Indeno(1,2,3-cd)pyrene	2016/04/20	107	50 - 130	106	50 - 130	<0.1	ug/L	NC	30		
4462963	Naphthalene	2016/04/20	48 (1)	50 - 130	67	50 - 130	<0.2	ug/L	NC	30		
4462963	p-Chloroaniline	2016/04/20	58	30 - 130	59	30 - 130	<1	ug/L	NC	30		
4462963	Pentachlorophenol	2016/04/20	91	50 - 130	100	50 - 130	<0.1	ug/L	NC	30		
4462963	Phenanthrene	2016/04/20	85	50 - 130	87	50 - 130	<0.1	ug/L	NC	30		
4462963	Phenol	2016/04/20	25 (1)	30 - 130	31	30 - 130	<0.5	ug/L	NC	30		
4462963	Pyrene	2016/04/20	95	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4463263	F1 (C6-C10) - BTEX	2016/04/19					<25	ug/L	NC	30		
4463263	F1 (C6-C10)	2016/04/19	88	70 - 130	95	70 - 130	<25	ug/L	NC	30		
4463631	F2 (C10-C16 Hydrocarbons)	2016/04/20	110	50 - 130	109	60 - 130	<100	ug/L	NC	30		
4463631	F3 (C16-C34 Hydrocarbons)	2016/04/20	105	50 - 130	104	60 - 130	<200	ug/L	NC	30		
4463631	F4 (C34-C50 Hydrocarbons)	2016/04/20	103	50 - 130	100	60 - 130	<200	ug/L	NC	30		
4464795	Total Organic Carbon (TOC)	2016/04/20	NC	80 - 120	100	80 - 120	0.23, RDL=0.20	mg/L	1.1	20		
4466388	Dissolved Organic Carbon	2016/04/21	97	80 - 120	102	80 - 120	0.27, RDL=0.20	mg/L	0.91	20		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

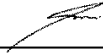

(2) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.

### VALIDATION SIGNATURE PAGE

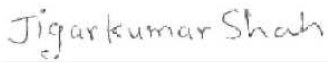
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).


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

\_\_\_\_\_  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division



\_\_\_\_\_  
Jigar Shah, Microbiology Analyst

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

STA

14-Apr-16 11:30

**INVOICE INFORMATION:**

Company Name: #9197 Stantec Consulting Ltd  
 Contact Name: Accounts Payable  
 Address: 49 Frederick St  
 Kitchener ON N2H 6M7  
 Phone: (519) 579-4410 Fax: (519) 579-6733  
 Email: Stantec.Accounts.Payable.Invoices@Stantec.com

**REPORT INFORMATION (if differs from invoice):**

Company Name: #18379 Stantec Consulting Ltd  
 Contact Name: Report - 1609-00764  
 Address: ON  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: aaron.warkentin@stantec.com, brant.gill@stantec.com

**PROJECT INFORMATION:**

Quotation #: B48218  
 Task #: \_\_\_\_\_  
 Project #: 160900764  
 Profit Centre: \_\_\_\_\_  
 Site #: CLARINGTON TS-PRIVATE WELLS  
 Sampled By: JK

Deepthi Shaji  
 Only: \_\_\_\_\_  
 Bottle Order #: \_\_\_\_\_  
 Barcode: 559061  
 Project Manager: Deepthi Shaji  
 Barcode: C#556061-02-01

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

**Regulation 153 (2011)**

Table 1  Res/ParK  Medium/Fine  
 Table 2  Ind/Comm  Coarse  
 Table 3  Agri/Other  For RSC  
 Table

**Other Regulations**

CCME  Sanitary Sewer Bylaw  
 Reg 558  Storm Sewer Bylaw  
 MISA  Municipality \_\_\_\_\_  
 PWOOD   
 Other OPWS

**Special Instructions**

Include Criteria on Certificate of Analysis (COA)?

**ANALYSIS REQUESTED (PLEASE BE SPECIFIC)**

Field Filtered (please circle): Metals / Hg / Cr / VI	As (ppb)	Cyanide (ppm)	Fluoride (ppm)	Mercury (ppb)	TDS (ppm)	TSS (ppm)	Turbidity (NTU)	Reg 153 PNC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	Reg 153 Comp (Drinking Water) - No Filter	SVOCS	E. coli	Total Coliform Background
--	----------	---------------	----------------	---------------	-----------	-----------	-----------------	---------------------	--------------	--------------	---	-------	---------	---------------------------

**Turnaround Time (TAT) Required:**  
 Please provide advance notice for rush projects

**Regular (Standard) TAT:**  
 (will be applied if Rush TAT is not specified)  
 Standard TAT = 5-7 Working days for most tests.  
 Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

**Job Specific Rush TAT (if applies to entire submission)**  
 Date Required: \_\_\_\_\_ Time Required:   
 Rush Confirmation Number: \_\_\_\_\_ (call lab for #)

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr / VI	As (ppb)	Cyanide (ppm)	Fluoride (ppm)	Mercury (ppb)	TDS (ppm)	TSS (ppm)	Turbidity (NTU)	Reg 153 PNC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	Reg 153 Comp (Drinking Water) - No Filter	SVOCS	E. coli	Total Coliform Background	# of Bottles	Comments
1	WG-160900764-20160413 JK16	Apr 13/16	0930	WG	None	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	21	total metals →
2	WG-160900764-20160413 JK17		1020			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		nobottles are filtered.
3	WG-160900764-20160413 JK18		1104			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		not reportable
4	WG-160900764-20160413 JK19		1340			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		samples
5	WG-160900764-20160413 JK20		1412			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
6	WG-160900764-20160414 JK21	Apr 14/16	0910		None	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	21	
7	WG-160900764-201604																				
8	WG-160900764-201604																				
9	WG-160900764-201604																				
10	WG-160900764-201604																				

**RELINQUISHED BY: (Signature/Print)** Paula Tam & Keh **Date: (YY/MM/DD)** 16/04/14 **Time** 1126

**RECEIVED BY: (Signature/Print)** AARON SHARAV **Date: (YY/MM/DD)** 2016/04/14 **Time** 11:30

**# jars used and not submitted** \_\_\_\_\_

**Laboratory Use Only**

Time Sensitive \_\_\_\_\_ Temperature (°C) on Receipt REFER TO ACT

Custody Seal: Present  Intact

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 556061-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/25**  
 Report #: R3971808  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B673025**

**Received: 2016/04/13, 08:30**

Sample Matrix: Water  
 # Samples Received: 9

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	9	N/A	2016/04/25	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	4	2016/04/22	2016/04/22	CAM SOP-00301	EPA 8270 m
ABN Compounds in Water by SIM GC/MS	5	2016/04/22	2016/04/23	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	9	N/A	2016/04/19	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	9	N/A	2016/04/14	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	9	N/A	2016/04/15	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	9	N/A	2016/04/18		EPA 8260C m
Chloride by Automated Colourimetry	9	N/A	2016/04/15	CAM SOP-00463	EPA 325.2 m
Conductivity	9	N/A	2016/04/14	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	2	N/A	2016/04/15	CAM SOP-00436	EPA 7199 m
Chromium (VI) in Water	7	N/A	2016/04/18	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	9	N/A	2016/04/15	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	4	N/A	2016/04/15	CAM SOP-00446	SM 22 5310 B m
Dissolved Organic Carbon (DOC) (3)	2	N/A	2016/04/16	CAM SOP-00446	SM 22 5310 B m
Dissolved Organic Carbon (DOC) (3)	3	N/A	2016/04/17	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	9	N/A	2016/04/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	9	2016/04/18	2016/04/19	CAM SOP-00316	CCME PHC-CWS m
Fluoride	9	2016/04/14	2016/04/14	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2016/04/15	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	5	N/A	2016/04/18	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	9	2016/04/16	2016/04/19	CAM SOP-00453	EPA 7470A m
Metals Analysis by ICPMS (as received) (5)	4	2016/04/14	2016/04/15	CAM SOP-00447	EPA 6020A m
Metals Analysis by ICPMS (as received) (5)	5	2016/04/15	2016/04/15	CAM SOP-00447	EPA 6020A m
Ion Balance (% Difference)	4	N/A	2016/04/15		
Ion Balance (% Difference)	5	N/A	2016/04/18		
Anion and Cation Sum	4	N/A	2016/04/15		
Anion and Cation Sum	5	N/A	2016/04/18		
Total Coliforms/ E. coli, CFU/100mL	9	N/A	2016/04/13	CAM SOP-00551	MOE E3407
Total Ammonia-N	5	N/A	2016/04/18	CAM SOP-00441	EPA GS I-2522-90 m

Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 556061-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/25**  
 Report #: R3971808  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B673025**

**Received: 2016/04/13, 08:30**

Sample Matrix: Water  
 # Samples Received: 9

Analyses	Quantity	Date		Laboratory Method	Reference
		Extracted	Analyzed		
Total Ammonia-N	4	N/A	2016/04/19	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (6)	8	N/A	2016/04/15	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (6)	1	N/A	2016/04/18	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	9	2016/04/16	2016/04/16	CAM SOP-00309	EPA 8082A m
pH	9	N/A	2016/04/14	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	9	N/A	2016/04/15	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	4	N/A	2016/04/15		
Sat. pH and Langelier Index (@ 20C)	5	N/A	2016/04/18		
Sat. pH and Langelier Index (@ 4C)	4	N/A	2016/04/15		
Sat. pH and Langelier Index (@ 4C)	5	N/A	2016/04/18		
Sulphate by Automated Colourimetry	9	N/A	2016/04/15	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	4	N/A	2016/04/15		
Total Dissolved Solids (TDS calc)	5	N/A	2016/04/18		
Total Dissolved Solids	9	N/A	2016/04/18	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (7)	9	N/A	2016/04/18	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	4	N/A	2016/04/14	CAM SOP-00428	SM 22 2540D m
Total Suspended Solids	4	N/A	2016/04/15	CAM SOP-00428	SM 22 2540D m
Total Suspended Solids	1	N/A	2016/04/18	CAM SOP-00428	SM 22 2540D m
Turbidity	8	N/A	2016/04/13	CAM SOP-00417	SM 22 2130 B m
Turbidity	1	N/A	2016/04/14	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	9	N/A	2016/04/16	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.



Your Project #: 160900764  
Site Location: CLARINGTON TS-PRIVATE WELLS  
Your C.O.C. #: 556061-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/04/25**  
Report #: R3971808  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B673025**

**Received: 2016/04/13, 08:30**

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Metals analysis was performed on the sample 'as received'.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEK230	CEK230		
Sampling Date					2016/04/12 08:57	2016/04/12 08:57		
COC Number					556061-01-01	556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK7 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>								
Anion Sum	me/L	-	-	-	4.47		N/A	4455678
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	200		1.0	4455801
Calculated TDS	mg/L	-	-	500	240		1.0	4455128
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	1.4		1.0	4455801
Cation Sum	me/L	-	-	-	4.36		N/A	4455678
Hardness (CaCO3)	mg/L	-	-	80:100	200		1.0	4455799
Ion Balance (% Difference)	%	-	-	-	1.14		N/A	4455438
Langelier Index (@ 20C)	N/A	-	-	-	0.532			4455679
Langelier Index (@ 4C)	N/A	-	-	-	0.283			4455680
Saturation pH (@ 20C)	N/A	-	-	-	7.34			4455679
Saturation pH (@ 4C)	N/A	-	-	-	7.59			4455680
<b>Inorganics</b>								
Total Ammonia-N	mg/L	-	-	-	1.2		0.050	4459360
Conductivity	umho/cm	-	-	-	400	400	1.0	4457402
Dissolved Organic Carbon	mg/L	-	-	5	1.4		0.20	4458135
Orthophosphate (P)	mg/L	-	-	-	<0.010		0.010	4458003
pH	pH	-	-	6.5:8.5	7.87	7.92		4457401
Dissolved Sulphate (SO4)	mg/L	-	-	500	15		1.0	4458005
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	200	210	1.0	4457396
Dissolved Chloride (Cl)	mg/L	-	-	250	2.4		1.0	4458001
Nitrite (N)	mg/L	1	-	-	<0.010		0.010	4457198
Nitrate (N)	mg/L	10	-	-	<0.10		0.10	4457198
<b>Metals</b>								
. Aluminum (Al)	mg/L	-	-	0.1	<0.0050		0.0050	4457544
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050		0.00050	4457544
. Arsenic (As)	mg/L	-	0.025	-	<0.0010		0.0010	4457544
. Barium (Ba)	mg/L	1	-	-	0.15		0.0020	4457544
. Beryllium (Be)	mg/L	-	-	-	<0.00050		0.00050	4457544
. Boron (B)	mg/L	-	5	-	0.012		0.010	4457544
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)								

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEK230	CEK230		
Sampling Date					2016/04/12 08:57	2016/04/12 08:57		
COC Number					556061-01-01	556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK7 Lab-Dup	RDL	QC Batch
. Cadmium (Cd)	mg/L	<b>0.005</b>	-	-	<0.00010		0.00010	4457544
. Calcium (Ca)	mg/L	-	-	-	57		0.20	4457544
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050		0.0050	4457544
. Cobalt (Co)	mg/L	-	-	-	<0.00050		0.00050	4457544
. Copper (Cu)	mg/L	-	-	1	0.0023		0.0010	4457544
. Iron (Fe)	mg/L	-	-	0.3	1.5		0.10	4457544
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	<0.00050		0.00050	4457544
. Magnesium (Mg)	mg/L	-	-	-	14		0.050	4457544
. Manganese (Mn)	mg/L	-	-	0.05	0.040		0.0020	4457544
. Molybdenum (Mo)	mg/L	-	-	-	0.00077		0.00050	4457544
. Nickel (Ni)	mg/L	-	-	-	<0.0010		0.0010	4457544
. Phosphorus (P)	mg/L	-	-	-	<0.10		0.10	4457544
. Potassium (K)	mg/L	-	-	-	0.88		0.20	4457544
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020		0.0020	4457544
. Silicon (Si)	mg/L	-	-	-	9.1		0.050	4457544
. Silver (Ag)	mg/L	-	-	-	<0.00010		0.00010	4457544
. Sodium (Na)	mg/L	<b>20</b>	-	200	4.4		0.10	4457544
. Strontium (Sr)	mg/L	-	-	-	0.24		0.0010	4457544
. Thallium (Tl)	mg/L	-	-	-	<0.000050		0.000050	4457544
. Titanium (Ti)	mg/L	-	-	-	<0.0050		0.0050	4457544
. Uranium (U)	mg/L	<b>0.02</b>	-	-	<0.00010		0.00010	4457544
. Vanadium (V)	mg/L	-	-	-	<0.00050		0.00050	4457544
. Zinc (Zn)	mg/L	-	-	5	0.017		0.0050	4457544
. Zirconium (Zr)	mg/L	-	-	-	<0.0010		0.0010	4457544
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)								

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEK231		CEK232		
Sampling Date					2016/04/12 10:00		2016/04/12 10:50		
COC Number					556061-01-01		556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK8	QC Batch	WG-160900764- 20160412-JK9	RDL	QC Batch
<b>Calculated Parameters</b>									
Anion Sum	me/L	-	-	-	16.1	4455678	16.5	N/A	4455678
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	250	4455801	270	1.0	4455801
Calculated TDS	mg/L	-	-	500	910	4455128	930	1.0	4455128
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	1.4	4455801	1.5	1.0	4455801
Cation Sum	me/L	-	-	-	16.5	4455678	16.7	N/A	4455678
Hardness (CaCO3)	mg/L	-	-	80:100	340	4455799	400	1.0	4455799
Ion Balance (% Difference)	%	-	-	-	1.27	4455438	0.650	N/A	4455438
Langelier Index (@ 20C)	N/A	-	-	-	0.544	4455679	0.799		4455679
Langelier Index (@ 4C)	N/A	-	-	-	0.298	4455680	0.554		4455680
Saturation pH (@ 20C)	N/A	-	-	-	7.21	4455679	6.97		4455679
Saturation pH (@ 4C)	N/A	-	-	-	7.46	4455680	7.21		4455680
<b>Inorganics</b>									
Total Ammonia-N	mg/L	-	-	-	0.16	4459360	<0.050	0.050	4459360
Conductivity	umho/cm	-	-	-	1700	4457402	1800	1.0	4457402
Dissolved Organic Carbon	mg/L	-	-	5	0.84	4459042	3.8	0.20	4458135
Orthophosphate (P)	mg/L	-	-	-	<0.010	4458003	0.012	0.010	4458003
pH	pH	-	-	6.5:8.5	7.76	4457401	7.76		4457401
Dissolved Sulphate (SO4)	mg/L	-	-	500	35	4458005	31	1.0	4458005
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	260	4457396	270	1.0	4457396
Dissolved Chloride (Cl)	mg/L	-	-	250	360	4458001	370	4.0	4458001
Nitrite (N)	mg/L	1	-	-	<0.010	4457198	<0.010	0.010	4457198
Nitrate (N)	mg/L	10	-	-	0.46	4457198	1.89	0.10	4457198
<b>Metals</b>									
. Aluminum (Al)	mg/L	-	-	0.1	<0.0050	4457544	<0.0050	0.0050	4457544
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050	4457544	<0.00050	0.00050	4457544
. Arsenic (As)	mg/L	-	0.025	-	<0.0010	4457544	<0.0010	0.0010	4457544
. Barium (Ba)	mg/L	1	-	-	0.093	4457544	0.079	0.0020	4457544
. Beryllium (Be)	mg/L	-	-	-	<0.00050	4457544	<0.00050	0.00050	4457544
. Boron (B)	mg/L	-	5	-	0.022	4457544	<0.010	0.010	4457544
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									
MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)									
N/A = Not Applicable									

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEK231		CEK232		
Sampling Date					2016/04/12 10:00		2016/04/12 10:50		
COC Number					556061-01-01		556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK8	QC Batch	WG-160900764- 20160412-JK9	RDL	QC Batch
. Cadmium (Cd)	mg/L	<b>0.005</b>	-	-	<0.00010	4457544	<0.00010	0.00010	4457544
. Calcium (Ca)	mg/L	-	-	-	82	4457544	150	0.20	4457544
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050	4457544	<0.0050	0.0050	4457544
. Cobalt (Co)	mg/L	-	-	-	<0.00050	4457544	<0.00050	0.00050	4457544
. Copper (Cu)	mg/L	-	-	1	0.042	4457544	0.012	0.0010	4457544
. Iron (Fe)	mg/L	-	-	0.3	<0.10	4457544	<0.10	0.10	4457544
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	0.0017	4457544	0.00099	0.00050	4457544
. Magnesium (Mg)	mg/L	-	-	-	33	4457544	8.8	0.050	4457544
. Manganese (Mn)	mg/L	-	-	0.05	0.030	4457544	<0.0020	0.0020	4457544
. Molybdenum (Mo)	mg/L	-	-	-	0.00066	4457544	<0.00050	0.00050	4457544
. Nickel (Ni)	mg/L	-	-	-	<0.0010	4457544	<0.0010	0.0010	4457544
. Phosphorus (P)	mg/L	-	-	-	<0.10	4457544	<0.10	0.10	4457544
. Potassium (K)	mg/L	-	-	-	2.5	4457544	0.73	0.20	4457544
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020	4457544	<0.0020	0.0020	4457544
. Silicon (Si)	mg/L	-	-	-	8.0	4457544	3.1	0.050	4457544
. Silver (Ag)	mg/L	-	-	-	<0.00010	4457544	<0.00010	0.00010	4457544
. Sodium (Na)	mg/L	<b>20</b>	-	200	220	4457544	<b>200</b>	0.10	4457544
. Strontium (Sr)	mg/L	-	-	-	0.36	4457544	0.31	0.0010	4457544
. Thallium (Tl)	mg/L	-	-	-	<0.000050	4457544	<0.000050	0.000050	4457544
. Titanium (Ti)	mg/L	-	-	-	<0.0050	4457544	<0.0050	0.0050	4457544
. Uranium (U)	mg/L	<b>0.02</b>	-	-	0.00021	4457544	0.00051	0.00010	4457544
. Vanadium (V)	mg/L	-	-	-	<0.00050	4457544	<0.00050	0.00050	4457544
. Zinc (Zn)	mg/L	-	-	5	0.046	4457544	0.0050	0.0050	4457544
. Zirconium (Zr)	mg/L	-	-	-	<0.0010	4457544	<0.0010	0.0010	4457544

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)

**RCAP - COMPREHENSIVE (DRINKING WATER)**

<b>Maxxam ID</b>					CEK233			CEK235		
<b>Sampling Date</b>					2016/04/12 11:32			2016/04/12 13:20		
<b>COC Number</b>					556061-01-01			556061-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>IMC</b>	<b>A/O</b>	<b>WG-160900764-20160412-JK10</b>	<b>RDL</b>	<b>QC Batch</b>	<b>WG-160900764-20160412-JK11</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>										
Anion Sum	me/L	-	-	-	13.0	N/A	4455678	7.06	N/A	4455678
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	340	1.0	4455801	280	1.0	4455801
Calculated TDS	mg/L	-	-	500	720	1.0	4455128	390	1.0	4455128
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	1.6	1.0	4455801	1.4	1.0	4455801
Cation Sum	me/L	-	-	-	13.3	N/A	4455678	7.14	N/A	4455678
Hardness (CaCO3)	mg/L	-	-	80:100	490	1.0	4455799	340	1.0	4455799
Ion Balance (% Difference)	%	-	-	-	1.14	N/A	4455438	0.610	N/A	4455438
Langelier Index (@ 20C)	N/A	-	-	-	0.953		4455679	0.802		4455679
Langelier Index (@ 4C)	N/A	-	-	-	0.706		4455680	0.554		4455680
Saturation pH (@ 20C)	N/A	-	-	-	6.75		4455679	6.92		4455679
Saturation pH (@ 4C)	N/A	-	-	-	7.00		4455680	7.17		4455680

<b>Inorganics</b>										
Total Ammonia-N	mg/L	-	-	-	<0.050	0.050	4459360	<0.050	0.050	4461286
Conductivity	umho/cm	-	-	-	1400	1.0	4457402	670	1.0	4457402
Dissolved Organic Carbon	mg/L	-	-	5	1.5	0.20	4459042	1.2	0.20	4458135
Orthophosphate (P)	mg/L	-	-	-	<0.010	0.010	4458003	<0.010	0.010	4458003
pH	pH	-	-	6.5:8.5	7.70		4457401	7.72		4457401
Dissolved Sulphate (SO4)	mg/L	-	-	500	33	1.0	4458005	21	1.0	4458005
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	340	1.0	4457396	290	1.0	4457396
Dissolved Chloride (Cl)	mg/L	-	-	250	190	2.0	4458001	16	1.0	4458001
Nitrite (N)	mg/L	<b>1</b>	-	-	<0.010	0.010	4457198	<0.010	0.010	4457198
Nitrate (N)	mg/L	<b>10</b>	-	-	1.11	0.10	4457198	6.22	0.10	4457198

<b>Metals</b>										
. Aluminum (Al)	mg/L	-	-	0.1	0.0055	0.0050	4457544	<0.0050	0.0050	4458910
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050	0.00050	4457544	<0.00050	0.00050	4458910
. Arsenic (As)	mg/L	-	0.025	-	<0.0010	0.0010	4457544	<0.0010	0.0010	4458910
. Barium (Ba)	mg/L	<b>1</b>	-	-	0.059	0.0020	4457544	0.046	0.0020	4458910
. Beryllium (Be)	mg/L	-	-	-	<0.00050	0.00050	4457544	<0.00050	0.00050	4458910
. Boron (B)	mg/L	-	5	-	0.010	0.010	4457544	<0.010	0.010	4458910
. Cadmium (Cd)	mg/L	<b>0.005</b>	-	-	<0.00010	0.00010	4457544	<0.00010	0.00010	4458910

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEK233			CEK235		
Sampling Date					2016/04/12 11:32			2016/04/12 13:20		
COC Number					556061-01-01			556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK10	RDL	QC Batch	WG-160900764- 20160412-JK11	RDL	QC Batch
. Calcium (Ca)	mg/L	-	-	-	180	0.20	4457544	120	0.20	4458910
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050	0.0050	4457544	<0.0050	0.0050	4458910
. Cobalt (Co)	mg/L	-	-	-	<0.00050	0.00050	4457544	<0.00050	0.00050	4458910
. Copper (Cu)	mg/L	-	-	1	0.031	0.0010	4457544	0.0074	0.0010	4458910
. Iron (Fe)	mg/L	-	-	0.3	<0.10	0.10	4457544	<0.10	0.10	4458910
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	<0.00050	0.00050	4457544	<0.00050	0.00050	4458910
. Magnesium (Mg)	mg/L	-	-	-	13	0.050	4457544	13	0.050	4458910
. Manganese (Mn)	mg/L	-	-	0.05	0.0040	0.0020	4457544	<0.0020	0.0020	4458910
. Molybdenum (Mo)	mg/L	-	-	-	<0.00050	0.00050	4457544	<0.00050	0.00050	4458910
. Nickel (Ni)	mg/L	-	-	-	<0.0010	0.0010	4457544	<0.0010	0.0010	4458910
. Phosphorus (P)	mg/L	-	-	-	<0.10	0.10	4457544	<0.10	0.10	4458910
. Potassium (K)	mg/L	-	-	-	0.47	0.20	4457544	0.96	0.20	4458910
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020	0.0020	4457544	<0.0020	0.0020	4458910
. Silicon (Si)	mg/L	-	-	-	5.6	0.050	4457544	6.0	0.050	4458910
. Silver (Ag)	mg/L	-	-	-	<0.00010	0.00010	4457544	<0.00010	0.00010	4458910
. Sodium (Na)	mg/L	<b>20</b>	-	200	<b>79</b>	0.10	4457544	7.1	0.10	4458910
. Strontium (Sr)	mg/L	-	-	-	0.43	0.0010	4457544	0.22	0.0010	4458910
. Thallium (Tl)	mg/L	-	-	-	<0.000050	0.000050	4457544	<0.000050	0.000050	4458910
. Titanium (Ti)	mg/L	-	-	-	<0.0050	0.0050	4457544	<0.0050	0.0050	4458910
. Uranium (U)	mg/L	<b>0.02</b>	-	-	0.00065	0.00010	4457544	0.00065	0.00010	4458910
. Vanadium (V)	mg/L	-	-	-	<0.00050	0.00050	4457544	<0.00050	0.00050	4458910
. Zinc (Zn)	mg/L	-	-	5	0.0095	0.0050	4457544	0.0085	0.0050	4458910
. Zirconium (Zr)	mg/L	-	-	-	<0.0010	0.0010	4457544	<0.0010	0.0010	4458910

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

**RCAP - COMPREHENSIVE (DRINKING WATER)**

<b>Maxxam ID</b>					CEK235		CEK236		
<b>Sampling Date</b>					2016/04/12 13:20		2016/04/12 14:05		
<b>COC Number</b>					556061-01-01		556061-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>IMC</b>	<b>A/O</b>	<b>WG-160900764- 20160412-JK11 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20160412-JK12</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Anion Sum	me/L	-	-	-		4455678	5.96	N/A	4455678
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-		4455801	270	1.0	4455801
Calculated TDS	mg/L	-	-	500		4455128	320	1.0	4455128
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-		4455801	1.5	1.0	4455801
Cation Sum	me/L	-	-	-		4455678	6.26	N/A	4455678
Hardness (CaCO3)	mg/L	-	-	80:100		4455799	300	1.0	4455799
Ion Balance (% Difference)	%	-	-	-		4455438	2.47	N/A	4455438
Langelier Index (@ 20C)	N/A	-	-	-		4455679	0.812		4455679
Langelier Index (@ 4C)	N/A	-	-	-		4455680	0.563		4455680
Saturation pH (@ 20C)	N/A	-	-	-		4455679	6.96		4455679
Saturation pH (@ 4C)	N/A	-	-	-		4455680	7.21		4455680

**Inorganics**

Total Ammonia-N	mg/L	-	-	-		4461286	<0.050	0.050	4461856
Conductivity	umho/cm	-	-	-		4457402	560	1.0	4457402
Dissolved Organic Carbon	mg/L	-	-	5		4458135	1.1	0.20	4459442
Orthophosphate (P)	mg/L	-	-	-		4458003	<0.010	0.010	4458003
pH	pH	-	-	6.5:8.5		4457401	7.77		4457401
Dissolved Sulphate (SO4)	mg/L	-	-	500		4458005	9.2	1.0	4458005
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500		4457396	270	1.0	4457396
Dissolved Chloride (Cl)	mg/L	-	-	250		4458001	9.3	1.0	4458001
Nitrite (N)	mg/L	1	-	-	<0.010	4457198	<0.010	0.010	4457380
Nitrate (N)	mg/L	10	-	-	6.16	4457198	0.83	0.10	4457380

**Metals**

. Aluminum (Al)	mg/L	-	-	0.1		4458910	0.0052	0.0050	4458910
. Antimony (Sb)	mg/L	-	0.006	-		4458910	<0.00050	0.00050	4458910
. Arsenic (As)	mg/L	-	0.025	-		4458910	<0.0010	0.0010	4458910
. Barium (Ba)	mg/L	1	-	-		4458910	0.032	0.0020	4458910
. Beryllium (Be)	mg/L	-	-	-		4458910	<0.00050	0.00050	4458910

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEK235		CEK236		
Sampling Date					2016/04/12 13:20		2016/04/12 14:05		
COC Number					556061-01-01		556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK11 Lab-Dup	QC Batch	WG-160900764- 20160412-JK12	RDL	QC Batch
. Boron (B)	mg/L	-	5	-		4458910	<0.010	0.010	4458910
. Cadmium (Cd)	mg/L	<b>0.005</b>	-	-		4458910	<0.00010	0.00010	4458910
. Calcium (Ca)	mg/L	-	-	-		4458910	110	0.20	4458910
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-		4458910	<0.0050	0.0050	4458910
. Cobalt (Co)	mg/L	-	-	-		4458910	<0.00050	0.00050	4458910
. Copper (Cu)	mg/L	-	-	1		4458910	0.0089	0.0010	4458910
. Iron (Fe)	mg/L	-	-	0.3		4458910	<0.10	0.10	4458910
. Lead (Pb)	mg/L	<b>0.01</b>	-	-		4458910	<0.00050	0.00050	4458910
. Magnesium (Mg)	mg/L	-	-	-		4458910	7.2	0.050	4458910
. Manganese (Mn)	mg/L	-	-	0.05		4458910	<0.0020	0.0020	4458910
. Molybdenum (Mo)	mg/L	-	-	-		4458910	<0.00050	0.00050	4458910
. Nickel (Ni)	mg/L	-	-	-		4458910	<0.0010	0.0010	4458910
. Phosphorus (P)	mg/L	-	-	-		4458910	<0.10	0.10	4458910
. Potassium (K)	mg/L	-	-	-		4458910	0.53	0.20	4458910
. Selenium (Se)	mg/L	<b>0.01</b>	-	-		4458910	<0.0020	0.0020	4458910
. Silicon (Si)	mg/L	-	-	-		4458910	4.9	0.050	4458910
. Silver (Ag)	mg/L	-	-	-		4458910	<0.00010	0.00010	4458910
. Sodium (Na)	mg/L	<b>20</b>	-	200		4458910	6.8	0.10	4458910
. Strontium (Sr)	mg/L	-	-	-		4458910	0.19	0.0010	4458910
. Thallium (Tl)	mg/L	-	-	-		4458910	<0.000050	0.000050	4458910
. Titanium (Ti)	mg/L	-	-	-		4458910	<0.0050	0.0050	4458910
. Uranium (U)	mg/L	<b>0.02</b>	-	-		4458910	0.00023	0.00010	4458910
. Vanadium (V)	mg/L	-	-	-		4458910	<0.00050	0.00050	4458910
. Zinc (Zn)	mg/L	-	-	5		4458910	0.0079	0.0050	4458910
. Zirconium (Zr)	mg/L	-	-	-		4458910	<0.0010	0.0010	4458910

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)



**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEK238	CEK239		CEK241		
Sampling Date					2016/04/12 14:38	2016/04/12 15:20		2016/04/12 16:12		
COC Number					556061-01-01	556061-01-01		556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	QC Batch	WG-160900764- 20160412-JK15	RDL	QC Batch

Calculated Parameters										
Anion Sum	me/L	-	-	-	9.91	6.37	4455678	5.88	N/A	4455678
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	300	280	4455801	220	1.0	4455801
Calculated TDS	mg/L	-	-	500	540	340	4455128	320	1.0	4455128
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	-	-	1.9	1.7	4455801	1.4	1.0	4455801
Cation Sum	me/L	-	-	-	10.4	6.74	4455678	6.12	N/A	4455678
Hardness (CaCO3)	mg/L	-	-	80:100	370	330	4455799	290	1.0	4455799
Ion Balance (% Difference)	%	-	-	-	2.30	2.84	4455438	1.95	N/A	4455438
Langelier Index (@ 20C)	N/A	-	-	-	0.965	0.894	4455679	0.664		4455679
Langelier Index (@ 4C)	N/A	-	-	-	0.718	0.645	4455680	0.415		4455680
Saturation pH (@ 20C)	N/A	-	-	-	6.87	6.91	4455679	7.19		4455679
Saturation pH (@ 4C)	N/A	-	-	-	7.11	7.16	4455680	7.43		4455680

Inorganics										
Total Ammonia-N	mg/L	-	-	-	<0.050	<0.050	4461856	<0.050	0.050	4459360
Conductivity	umho/cm	-	-	-	970	600	4457402	570	1.0	4457402
Dissolved Organic Carbon	mg/L	-	-	5	1.4	1.9	4459442	0.71	0.20	4458135
Orthophosphate (P)	mg/L	-	-	-	<0.010	<0.010	4458003	<0.010	0.010	4458003
pH	pH	-	-	6.5:8.5	7.83	7.81	4457401	7.85		4457401
Dissolved Sulphate (SO4)	mg/L	-	-	500	14	15	4458005	54	1.0	4458005
Alkalinity (Total as CaCO3)	mg/L	-	-	30:500	300	280	4457396	220	1.0	4457396
Dissolved Chloride (Cl)	mg/L	-	-	250	130	12	4458001	14	1.0	4458001
Nitrite (N)	mg/L	1	-	-	<0.010	<0.010	4457204	<0.010	0.010	4457198
Nitrate (N)	mg/L	10	-	-	0.24	0.95	4457204	<0.10	0.10	4457198

Metals										
. Aluminum (Al)	mg/L	-	-	0.1	<0.0050	0.0063	4458910	<0.0050	0.0050	4458910
. Antimony (Sb)	mg/L	-	0.006	-	<0.00050	<0.00050	4458910	<0.00050	0.00050	4458910
. Arsenic (As)	mg/L	-	0.025	-	<0.0010	<0.0010	4458910	<0.0010	0.0010	4458910
. Barium (Ba)	mg/L	1	-	-	0.032	0.029	4458910	0.044	0.0020	4458910
. Beryllium (Be)	mg/L	-	-	-	<0.00050	<0.00050	4458910	<0.00050	0.00050	4458910
. Boron (B)	mg/L	-	5	-	0.011	<0.010	4458910	<0.010	0.010	4458910
. Cadmium (Cd)	mg/L	0.005	-	-	<0.00010	<0.00010	4458910	<0.00010	0.00010	4458910

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)  
 N/A = Not Applicable

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID					CEK238	CEK239		CEK241		
Sampling Date					2016/04/12 14:38	2016/04/12 15:20		2016/04/12 16:12		
COC Number					556061-01-01	556061-01-01		556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	QC Batch	WG-160900764- 20160412-JK15	RDL	QC Batch
. Calcium (Ca)	mg/L	-	-	-	140	120	4458910	80	0.20	4458910
. Chromium (Cr)	mg/L	<b>0.05</b>	-	-	<0.0050	<0.0050	4458910	<0.0050	0.0050	4458910
. Cobalt (Co)	mg/L	-	-	-	<0.00050	<0.00050	4458910	<0.00050	0.00050	4458910
. Copper (Cu)	mg/L	-	-	1	0.0073	0.037	4458910	<0.0010	0.0010	4458910
. Iron (Fe)	mg/L	-	-	0.3	<0.10	<0.10	4458910	<b>1.8</b>	0.10	4458910
. Lead (Pb)	mg/L	<b>0.01</b>	-	-	<0.00050	0.00091	4458910	<0.00050	0.00050	4458910
. Magnesium (Mg)	mg/L	-	-	-	7.6	9.0	4458910	22	0.050	4458910
. Manganese (Mn)	mg/L	-	-	0.05	<0.0020	<0.0020	4458910	0.026	0.0020	4458910
. Molybdenum (Mo)	mg/L	-	-	-	<0.00050	<0.00050	4458910	0.0033	0.00050	4458910
. Nickel (Ni)	mg/L	-	-	-	<0.0010	<0.0010	4458910	<0.0010	0.0010	4458910
. Phosphorus (P)	mg/L	-	-	-	<0.10	<0.10	4458910	<0.10	0.10	4458910
. Potassium (K)	mg/L	-	-	-	0.25	0.38	4458910	1.1	0.20	4458910
. Selenium (Se)	mg/L	<b>0.01</b>	-	-	<0.0020	<0.0020	4458910	<0.0020	0.0020	4458910
. Silicon (Si)	mg/L	-	-	-	3.8	3.6	4458910	5.7	0.050	4458910
. Silver (Ag)	mg/L	-	-	-	<0.00010	<0.00010	4458910	<0.00010	0.00010	4458910
. Sodium (Na)	mg/L	<b>20</b>	-	200	<b>69</b>	4.1	4458910	4.5	0.10	4458910
. Strontium (Sr)	mg/L	-	-	-	0.26	0.18	4458910	0.28	0.0010	4458910
. Thallium (Tl)	mg/L	-	-	-	<0.000050	<0.000050	4458910	<0.000050	0.000050	4458910
. Titanium (Ti)	mg/L	-	-	-	<0.0050	<0.0050	4458910	<0.0050	0.0050	4458910
. Uranium (U)	mg/L	<b>0.02</b>	-	-	0.00029	0.0011	4458910	0.00087	0.00010	4458910
. Vanadium (V)	mg/L	-	-	-	<0.00050	<0.00050	4458910	<0.00050	0.00050	4458910
. Zinc (Zn)	mg/L	-	-	5	0.0068	0.0076	4458910	<0.0050	0.0050	4458910
. Zirconium (Zr)	mg/L	-	-	-	<0.0010	<0.0010	4458910	<0.0010	0.0010	4458910

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively

(Made under the Ontario Safe Drinking Water Act, 2002)

**RESULTS OF ANALYSES OF WATER**

Maxxam ID				CEK230	CEK230	CEK231	CEK232	CEK233		
Sampling Date				2016/04/12 08:57	2016/04/12 08:57	2016/04/12 10:00	2016/04/12 10:50	2016/04/12 11:32		
COC Number				556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	A/O	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK7 Lab-Dup	WG-160900764- 20160412-JK8	WG-160900764- 20160412-JK9	WG-160900764- 20160412-JK10	RDL	QC Batch

Inorganics										
Acidity as CaCO3	mg/L	-	-	<10		23	24	47	10	4457680
Total Dissolved Solids	mg/L	-	500	240		910	1020	840	10	4457415
Fluoride (F-)	mg/L	1.5	-	0.12	0.11	<0.10	<0.10	<0.10	0.10	4457403
Free Cyanide	ug/L	200	-	<2		<2	<2	<2	2	4458987
Total Organic Carbon (TOC)	mg/L	-	-	1.4		0.84	3.8	1.5	0.20	4461296
Total Suspended Solids	mg/L	-	-	<10		<10	<10	<10	10	4457407
Turbidity	NTU	-	5	5.9	6.3	<0.2	<0.2	<0.2	0.2	4456467

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

Maxxam ID				CEK235	CEK235		CEK236	CEK236		
Sampling Date				2016/04/12 13:20	2016/04/12 13:20		2016/04/12 14:05	2016/04/12 14:05		
COC Number				556061-01-01	556061-01-01		556061-01-01	556061-01-01		
	UNITS	MAC	A/O	WG-160900764- 20160412-JK11	WG-160900764- 20160412-JK11 Lab-Dup	QC Batch	WG-160900764- 20160412-JK12	WG-160900764- 20160412-JK12 Lab-Dup	RDL	QC Batch

Inorganics										
Acidity as CaCO3	mg/L	-	-	30		4457680	26		10	4457680
Total Dissolved Solids	mg/L	-	500	370	380	4458991	322		10	4458991
Fluoride (F-)	mg/L	1.5	-	<0.10		4457403	<0.10		0.10	4457403
Free Cyanide	ug/L	200	-	<2		4458987	<2		2	4458987
Total Organic Carbon (TOC)	mg/L	-	-	1.2		4461296	1.0		0.20	4461636
Total Suspended Solids	mg/L	-	-	<10		4458994	<10	<10	10	4458994
Turbidity	NTU	-	5	<0.2		4456467	<0.2		0.2	4456467

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>				CEK238	CEK239	CEK239		CEK241		
<b>Sampling Date</b>				2016/04/12 14:38	2016/04/12 15:20	2016/04/12 15:20		2016/04/12 16:12		
<b>COC Number</b>				556061-01-01	556061-01-01	556061-01-01		556061-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>A/O</b>	<b>WG-160900764-20160412-JK13</b>	<b>WG-160900764-20160412-JK14</b>	<b>WG-160900764-20160412-JK14 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764-20160412-JK15</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>										
Acidity as CaCO3	mg/L	-	-	27	27		4457680	14	10	4457680
Total Dissolved Solids	mg/L	-	500	548	330		4458991	334	10	4462005
Fluoride (F-)	mg/L	1.5	-	<0.10	<0.10		4457403	<0.10	0.10	4457403
Free Cyanide	ug/L	200	-	<2	<2		4458987	<2	2	4458987
Total Organic Carbon (TOC)	mg/L	-	-	1.4	1.9		4461636	0.74	0.20	4461296
Total Suspended Solids	mg/L	-	-	<10	<10		4458994	<10	10	4461606
Turbidity	NTU	-	5	<0.2	0.2	0.3	4456480	18	0.2	4456467

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

<b>Maxxam ID</b>				CEK241		
<b>Sampling Date</b>				2016/04/12 16:12		
<b>COC Number</b>				556061-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>A/O</b>	<b>WG-160900764-20160412-JK15 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>						
Acidity as CaCO3	mg/L	-	-	15	10	4457680

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>			CEK230	CEK231		CEK232	CEK233		
<b>Sampling Date</b>			2016/04/12 08:57	2016/04/12 10:00		2016/04/12 10:50	2016/04/12 11:32		
<b>COC Number</b>			556061-01-01	556061-01-01		556061-01-01	556061-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160412-JK7</b>	<b>WG-160900764-20160412-JK8</b>	<b>QC Batch</b>	<b>WG-160900764-20160412-JK9</b>	<b>WG-160900764-20160412-JK10</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Chromium (VI)	ug/L	-	<0.50	<0.50	4457839	<0.50	<0.50	0.50	4457819
Mercury (Hg)	mg/L	<b>0.001</b>	<0.0001	<0.0001	4460406	<0.0001	<0.0001	0.0001	4460406

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

<b>Maxxam ID</b>			CEK235		CEK236	CEK236		
<b>Sampling Date</b>			2016/04/12 13:20		2016/04/12 14:05	2016/04/12 14:05		
<b>COC Number</b>			556061-01-01		556061-01-01	556061-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>WG-160900764-20160412-JK11</b>	<b>QC Batch</b>	<b>WG-160900764-20160412-JK12</b>	<b>WG-160900764-20160412-JK12 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Chromium (VI)	ug/L	-	0.53	4457839	<0.50		0.50	4457839	
Mercury (Hg)	mg/L	<b>0.001</b>	<0.0001	4460412	<0.0001	<0.0001	0.0001	4460416	

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID			CEK238	CEK239	CEK239	CEK241	CEK241		
Sampling Date			2016/04/12 14:38	2016/04/12 15:20	2016/04/12 15:20	2016/04/12 16:12	2016/04/12 16:12		
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	WG-160900764- 20160412-JK14 Lab-Dup	WG-160900764- 20160412-JK15	WG-160900764- 20160412-JK15 Lab-Dup	RDL	QC Batch
<b>Metals</b>									
Chromium (VI)	ug/L	-	<0.50	<0.50		<0.50	<0.50	0.50	4457839
Mercury (Hg)	mg/L	<b>0.001</b>	<0.0001	<0.0001	<0.0001	<0.0001		0.0001	4460412
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)									

**MICROBIOLOGY (WATER)**

Maxxam ID			CEK230	CEK231	CEK232	CEK233	CEK235	
Sampling Date			2016/04/12 08:57	2016/04/12 10:00	2016/04/12 10:50	2016/04/12 11:32	2016/04/12 13:20	
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01	
	UNITS	MAC	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK8	WG-160900764- 20160412-JK9	WG-160900764- 20160412-JK10	WG-160900764- 20160412-JK11	QC Batch

Microbiological								
Background	CFU/100mL	-	3	0	200	11	0	4455957
Total Coliforms	CFU/100mL	0	0	2	43	0	0	4455957
Escherichia coli	CFU/100mL	0	0	0	0	0	0	4455957

QC Batch = Quality Control Batch

MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

Maxxam ID			CEK236	CEK238	CEK239	CEK241	
Sampling Date			2016/04/12 14:05	2016/04/12 14:38	2016/04/12 15:20	2016/04/12 16:12	
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01	
	UNITS	MAC	WG-160900764- 20160412-JK12	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	WG-160900764- 20160412-JK15	QC Batch

Microbiological							
Background	CFU/100mL	-	50	92	NDOGT (1)	0	4455957
Total Coliforms	CFU/100mL	0	30	5	NDOGT (1)	0	4455957
Escherichia coli	CFU/100mL	0	0	0	NDOGT (1)	0	4455957

QC Batch = Quality Control Batch

MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

(1) NDOGT: No data due to overgrowth. Total coliforms and / or E.coli detected

**O.REG 153 PCBs (WATER)**

Maxxam ID			CEK230	CEK231	CEK232	CEK233	CEK235		
Sampling Date			2016/04/12 08:57	2016/04/12 10:00	2016/04/12 10:50	2016/04/12 11:32	2016/04/12 13:20		
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	IMC	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK8	WG-160900764- 20160412-JK9	WG-160900764- 20160412-JK10	WG-160900764- 20160412-JK11	RDL	QC Batch

PCBs									
Aroclor 1242	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
Aroclor 1248	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
Aroclor 1254	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
Aroclor 1260	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390
Total PCB	ug/L	3	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4460390

Surrogate Recovery (%)									
Decachlorobiphenyl	%	-	94	97	94	94	89		4460390

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
IMC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

Maxxam ID			CEK236	CEK238	CEK239	CEK241		
Sampling Date			2016/04/12 14:05	2016/04/12 14:38	2016/04/12 15:20	2016/04/12 16:12		
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	IMC	WG-160900764- 20160412-JK12	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	WG-160900764- 20160412-JK15	RDL	QC Batch

PCBs									
Aroclor 1242	ug/L	-	<0.05	<0.05	<0.05	<0.05	0.05	4460390	
Aroclor 1248	ug/L	-	<0.05	<0.05	<0.05	<0.05	0.05	4460390	
Aroclor 1254	ug/L	-	<0.05	<0.05	<0.05	<0.05	0.05	4460390	
Aroclor 1260	ug/L	-	<0.05	<0.05	<0.05	<0.05	0.05	4460390	
Total PCB	ug/L	3	<0.05	<0.05	<0.05	<0.05	0.05	4460390	

Surrogate Recovery (%)									
Decachlorobiphenyl	%	-	90	86	97	89		4460390	

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
IMC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)



**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID				CEK230	CEK231	CEK231	CEK232	CEK233		
Sampling Date				2016/04/12 08:57	2016/04/12 10:00	2016/04/12 10:00	2016/04/12 10:50	2016/04/12 11:32		
COC Number				556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	A/O	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK8	WG-160900764- 20160412-JK8 Lab-Dup	WG-160900764- 20160412-JK9	WG-160900764- 20160412-JK10	RDL	QC Batch

BTEX & F1 Hydrocarbons										
Benzene	ug/L	5	-	<0.20	<0.20		<0.20	<0.20	0.20	4460556
Toluene	ug/L	-	24	<0.20	<0.20		<0.20	<0.20	0.20	4460556
Ethylbenzene	ug/L	-	2.4	<0.20	<0.20		<0.20	<0.20	0.20	4460556
o-Xylene	ug/L	-	-	<0.20	<0.20		<0.20	<0.20	0.20	4460556
p+m-Xylene	ug/L	-	-	<0.40	<0.40		<0.40	<0.40	0.40	4460556
Total Xylenes	ug/L	-	300	<0.40	<0.40		<0.40	<0.40	0.40	4460556
F1 (C6-C10)	ug/L	-	-	<25	<25		<25	<25	25	4460556
F1 (C6-C10) - BTEX	ug/L	-	-	<25	<25		<25	<25	25	4460556

F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/L	-	-	<100	<100	<100	<100	<100	100	4462122
F3 (C16-C34 Hydrocarbons)	ug/L	-	-	<200	<200	<200	<200	<200	200	4462122
F4 (C34-C50 Hydrocarbons)	ug/L	-	-	<200	<200	<200	<200	<200	200	4462122
Reached Baseline at C50	ug/L	-	-	Yes	Yes	Yes	Yes	Yes		4462122

Surrogate Recovery (%)										
1,4-Difluorobenzene	%	-	-	104	105		105	104		4460556
4-Bromofluorobenzene	%	-	-	90	89		90	88		4460556
D10-Ethylbenzene	%	-	-	106	107		106	103		4460556
D4-1,2-Dichloroethane	%	-	-	100	99		100	100		4460556
o-Terphenyl	%	-	-	89	90	91	90	94		4462122

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID				CEK235	CEK236	CEK238	CEK239	CEK241		
Sampling Date				2016/04/12 13:20	2016/04/12 14:05	2016/04/12 14:38	2016/04/12 15:20	2016/04/12 16:12		
COC Number				556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	A/O	WG-160900764- 20160412-JK11	WG-160900764- 20160412-JK12	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	WG-160900764- 20160412-JK15	RDL	QC Batch

BTEX & F1 Hydrocarbons										
Benzene	ug/L	5	-	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4460556
Toluene	ug/L	-	24	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4460556
Ethylbenzene	ug/L	-	2.4	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4460556
o-Xylene	ug/L	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4460556
p+m-Xylene	ug/L	-	-	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	4460556
Total Xylenes	ug/L	-	300	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	4460556
F1 (C6-C10)	ug/L	-	-	<25	<25	<25	<25	<25	25	4460556
F1 (C6-C10) - BTEX	ug/L	-	-	<25	<25	<25	<25	<25	25	4460556

F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/L	-	-	<100	<100	<100	<100	<100	100	4462122
F3 (C16-C34 Hydrocarbons)	ug/L	-	-	<200	<200	<200	<200	<200	200	4462122
F4 (C34-C50 Hydrocarbons)	ug/L	-	-	<200	<200	<200	<200	<200	200	4462122
Reached Baseline at C50	ug/L	-	-	Yes	Yes	Yes	Yes	Yes		4462122

Surrogate Recovery (%)										
1,4-Difluorobenzene	%	-	-	105	107	105	106	106		4460556
4-Bromofluorobenzene	%	-	-	89	88	89	87	91		4460556
D10-Ethylbenzene	%	-	-	105	104	103	106	104		4460556
D4-1,2-Dichloroethane	%	-	-	99	99	98	100	101		4460556
o-Terphenyl	%	-	-	91	91	95	94	93		4462122

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEK230	CEK231	CEK231	CEK232	CEK233		
Sampling Date			2016/04/12 08:57	2016/04/12 10:00	2016/04/12 10:00	2016/04/12 10:50	2016/04/12 11:32		
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK8	WG-160900764- 20160412-JK8 Lab-Dup	WG-160900764- 20160412-JK9	WG-160900764- 20160412-JK10	RDL	QC Batch

Semivolatile Organics									
1,2,4-Trichlorobenzene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
1-Methylnaphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
2,4,5-Trichlorophenol	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
2,4,6-Trichlorophenol	ug/L	5	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
2,4-Dichlorophenol	ug/L	900	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
2,4-Dimethylphenol	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
2,4-Dinitrophenol	ug/L	-	<2	<2	<2	<2	<2	2	4468419
2,4-Dinitrotoluene	ug/L	-	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	4468419
2,6-Dinitrotoluene	ug/L	-	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	4468419
2-Chlorophenol	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
2-Methylnaphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
3,3'-Dichlorobenzidine	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
Acenaphthene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
Acenaphthylene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
Anthracene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Benzo(a)anthracene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Benzo(a)pyrene	ug/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	4468419
Benzo(b/j)fluoranthene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Benzo(g,h,i)perylene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Benzo(k)fluoranthene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Biphenyl	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Bis(2-chloroethyl)ether	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
Bis(2-chloroisopropyl)ether	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
Bis(2-ethylhexyl)phthalate	ug/L	-	<1	<1	<1	<1	<1	1	4468419
Chrysene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Dibenz(a,h)anthracene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Diethyl phthalate	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Dimethyl phthalate	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Fluoranthene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
Fluorene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEK230	CEK231	CEK231	CEK232	CEK233		
Sampling Date			2016/04/12 08:57	2016/04/12 10:00	2016/04/12 10:00	2016/04/12 10:50	2016/04/12 11:32		
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK8	WG-160900764- 20160412-JK8 Lab-Dup	WG-160900764- 20160412-JK9	WG-160900764- 20160412-JK10	RDL	QC Batch
Indeno(1,2,3-cd)pyrene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Naphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
p-Chloroaniline	ug/L	-	<1	<1	<1	<1	<1	1	4468419
Pentachlorophenol	ug/L	<b>60</b>	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Phenanthrene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Phenol	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
Pyrene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
<b>Calculated Parameters</b>									
Methylnaphthalene, 2-(1-)	ug/L	-	<0.28	<0.28		<0.28	<0.28	0.28	4455044
<b>Surrogate Recovery (%)</b>									
2,4,6-Tribromophenol	%	-	58	60	61	53	59		4468419
2-Fluorobiphenyl	%	-	63	73	72	41 (1)	71		4468419
D14-Terphenyl (FS)	%	-	96	97	97	95	94		4468419
D5-Nitrobenzene	%	-	55	67	66	35 (1)	65		4468419
<p>RDL = Reportable Detection Limit            QC Batch = Quality Control Batch            Lab-Dup = Laboratory Initiated Duplicate            MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] &amp; Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively            (Made under the Ontario Safe Drinking Water Act, 2002)            (1) Surrogate recovery was below the lower control limit . This may represent a low bias in some results.</p>									

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEK235	CEK236	CEK238	CEK239	CEK241		
Sampling Date			2016/04/12 13:20	2016/04/12 14:05	2016/04/12 14:38	2016/04/12 15:20	2016/04/12 16:12		
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	WG-160900764- 20160412-JK11	WG-160900764- 20160412-JK12	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	WG-160900764- 20160412-JK15	RDL	QC Batch

Semivolatile Organics									
1,2,4-Trichlorobenzene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
1-Methylnaphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
2,4,5-Trichlorophenol	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
2,4,6-Trichlorophenol	ug/L	5	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
2,4-Dichlorophenol	ug/L	900	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
2,4-Dimethylphenol	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
2,4-Dinitrophenol	ug/L	-	<2	<2	<2	<2	<2	2	4468419
2,4-Dinitrotoluene	ug/L	-	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	4468419
2,6-Dinitrotoluene	ug/L	-	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	4468419
2-Chlorophenol	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
2-Methylnaphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
3,3'-Dichlorobenzidine	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
Acenaphthene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
Acenaphthylene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
Anthracene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Benzo(a)anthracene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Benzo(a)pyrene	ug/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	4468419
Benzo(b/j)fluoranthene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Benzo(g,h,i)perylene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Benzo(k)fluoranthene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Biphenyl	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Bis(2-chloroethyl)ether	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
Bis(2-chloroisopropyl)ether	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
Bis(2-ethylhexyl)phthalate	ug/L	-	<1	<1	<1	<1	<1	1	4468419
Chrysene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
Dibenz(a,h)anthracene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Diethyl phthalate	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Dimethyl phthalate	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Fluoranthene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
Fluorene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
Indeno(1,2,3-cd)pyrene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID			CEK235	CEK236	CEK238	CEK239	CEK241		
Sampling Date			2016/04/12 13:20	2016/04/12 14:05	2016/04/12 14:38	2016/04/12 15:20	2016/04/12 16:12		
COC Number			556061-01-01	556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	WG-160900764- 20160412-JK11	WG-160900764- 20160412-JK12	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	WG-160900764- 20160412-JK15	RDL	QC Batch
Naphthalene	ug/L	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4468419
p-Chloroaniline	ug/L	-	<1	<1	<1	<1	<1	1	4468419
Pentachlorophenol	ug/L	<b>60</b>	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Phenanthrene	ug/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	4468419
Phenol	ug/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	4468419
Pyrene	ug/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	4468419
<b>Calculated Parameters</b>									
Methylnaphthalene, 2-(1-)	ug/L	-	<0.28	<0.28	<0.28	<0.28	<0.28	0.28	4455044
<b>Surrogate Recovery (%)</b>									
2,4,6-Tribromophenol	%	-	68	61	56	60	49 (1)		4468419
2-Fluorobiphenyl	%	-	73	71	71	74	70		4468419
D14-Terphenyl (FS)	%	-	98	97	95	97	97		4468419
D5-Nitrobenzene	%	-	66	66	62	65	59		4468419
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002) (1) Surrogate recovery was below the lower control limit . This may represent a low bias in some results.									

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEK230	CEK231	CEK232	CEK233		
Sampling Date					2016/04/12 08:57	2016/04/12 10:00	2016/04/12 10:50	2016/04/12 11:32		
COC Number					556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK8	WG-160900764- 20160412-JK9	WG-160900764- 20160412-JK10	RDL	QC Batch

Calculated Parameters										
1,3-Dichloropropene (cis+trans)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4454945
Volatile Organics										
Acetone (2-Propanone)	ug/L	-	-	-	<10	<10	<10	<10	10	4457459
Benzene	ug/L	5	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
Bromodichloromethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
Bromoform	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4457459
Bromomethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
Carbon Tetrachloride	ug/L	5	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
Chlorobenzene	ug/L	80	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
Chloroform	ug/L	-	-	-	<0.20	2.6	<0.20	<0.20	0.20	4457459
Dibromochloromethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
1,2-Dichlorobenzene	ug/L	200	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
1,3-Dichlorobenzene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
1,4-Dichlorobenzene	ug/L	5	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
Dichlorodifluoromethane (FREON 12)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4457459
1,1-Dichloroethane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
1,2-Dichloroethane	ug/L	-	5	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
1,1-Dichloroethylene	ug/L	14	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
cis-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
trans-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
1,2-Dichloropropane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
cis-1,3-Dichloropropene	ug/L	-	-	-	<0.30	<0.30	<0.30	<0.30	0.30	4457459
trans-1,3-Dichloropropene	ug/L	-	-	-	<0.40	<0.40	<0.40	<0.40	0.40	4457459
Ethylbenzene	ug/L	-	-	2.4	<0.20	<0.20	<0.20	<0.20	0.20	4457459
Ethylene Dibromide	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
Hexane	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4457459
Methylene Chloride(Dichloromethane)	ug/L	50	-	-	<2.0	<2.0	<2.0	<2.0	2.0	4457459
Methyl Ethyl Ketone (2-Butanone)	ug/L	-	-	-	<10	<10	<10	<10	10	4457459
Methyl Isobutyl Ketone	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	4457459
Methyl t-butyl ether (MTBE)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
Styrene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
(Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEK230	CEK231	CEK232	CEK233		
Sampling Date					2016/04/12 08:57	2016/04/12 10:00	2016/04/12 10:50	2016/04/12 11:32		
COC Number					556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK7	WG-160900764- 20160412-JK8	WG-160900764- 20160412-JK9	WG-160900764- 20160412-JK10	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
Tetrachloroethylene	ug/L	<b>30</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
Toluene	ug/L	-	-	<b>24</b>	<0.20	<0.20	<0.20	<0.20	0.20	4457459
1,1,1-Trichloroethane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
1,1,2-Trichloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
Trichloroethylene	ug/L	<b>5</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
Trichlorofluoromethane (FREON 11)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4457459
Vinyl Chloride	ug/L	<b>2</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
p+m-Xylene	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
o-Xylene	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4457459
Total Xylenes	ug/L	-	-	<b>300</b>	<0.20	<0.20	<0.20	<0.20	0.20	4457459
<b>Surrogate Recovery (%)</b>										
4-Bromofluorobenzene	%	-	-	-	94	93	95	94		4457459
D4-1,2-Dichloroethane	%	-	-	-	102	101	104	102		4457459
D8-Toluene	%	-	-	-	99	100	99	99		4457459
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)										



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEK235	CEK236	CEK238	CEK239		
Sampling Date					2016/04/12 13:20	2016/04/12 14:05	2016/04/12 14:38	2016/04/12 15:20		
COC Number					556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK11	WG-160900764- 20160412-JK12	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	RDL	QC Batch

Calculated Parameters										
1,3-Dichloropropene (cis+trans)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458862
Volatile Organics										
Acetone (2-Propanone)	ug/L	-	-	-	<10	<10	<10	<10	10	4458849
Benzene	ug/L	5	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Bromodichloromethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Bromoform	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4458849
Bromomethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Carbon Tetrachloride	ug/L	5	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Chlorobenzene	ug/L	80	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Chloroform	ug/L	-	-	-	<0.20	<0.20	<0.20	0.29	0.20	4458849
Dibromochloromethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,2-Dichlorobenzene	ug/L	200	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,3-Dichlorobenzene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,4-Dichlorobenzene	ug/L	5	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Dichlorodifluoromethane (FREON 12)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4458849
1,1-Dichloroethane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
1,2-Dichloroethane	ug/L	-	5	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,1-Dichloroethylene	ug/L	14	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
cis-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
trans-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,2-Dichloropropane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
cis-1,3-Dichloropropene	ug/L	-	-	-	<0.30	<0.30	<0.30	<0.30	0.30	4458849
trans-1,3-Dichloropropene	ug/L	-	-	-	<0.40	<0.40	<0.40	<0.40	0.40	4458849
Ethylbenzene	ug/L	-	-	2.4	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Ethylene Dibromide	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Hexane	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	4458849
Methylene Chloride(Dichloromethane)	ug/L	50	-	-	<2.0	<2.0	<2.0	<2.0	2.0	4458849
Methyl Ethyl Ketone (2-Butanone)	ug/L	-	-	-	<10	<10	<10	<10	10	4458849
Methyl Isobutyl Ketone	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	4458849
Methyl t-butyl ether (MTBE)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Styrene	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEK235	CEK236	CEK238	CEK239		
Sampling Date					2016/04/12 13:20	2016/04/12 14:05	2016/04/12 14:38	2016/04/12 15:20		
COC Number					556061-01-01	556061-01-01	556061-01-01	556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK11	WG-160900764- 20160412-JK12	WG-160900764- 20160412-JK13	WG-160900764- 20160412-JK14	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Tetrachloroethylene	ug/L	<b>30</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Toluene	ug/L	-	-	<b>24</b>	<0.20	<0.20	<0.20	<0.20	0.20	4458849
1,1,1-Trichloroethane	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
1,1,2-Trichloroethane	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Trichloroethylene	ug/L	<b>5</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Trichlorofluoromethane (FREON 11)	ug/L	-	-	-	<0.50	<0.50	<0.50	<0.50	0.50	4458849
Vinyl Chloride	ug/L	<b>2</b>	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
p+m-Xylene	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
o-Xylene	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	4458849
Total Xylenes	ug/L	-	-	<b>300</b>	<0.20	<0.20	<0.20	<0.20	0.20	4458849
<b>Surrogate Recovery (%)</b>										
4-Bromofluorobenzene	%	-	-	-	94	95	95	93		4458849
D4-1,2-Dichloroethane	%	-	-	-	101	101	100	102		4458849
D8-Toluene	%	-	-	-	97	96	96	96		4458849
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)										

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>					CEK241		
<b>Sampling Date</b>					2016/04/12 16:12		
<b>COC Number</b>					556061-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>IMC</b>	<b>A/O</b>	<b>WG-160900764- 20160412-JK15</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>							
1,3-Dichloropropene (cis+trans)	ug/L	-	-	-	<0.50	0.50	4458862
<b>Volatile Organics</b>							
Acetone (2-Propanone)	ug/L	-	-	-	<10	10	4458849
Benzene	ug/L	5	-	-	<0.20	0.20	4458849
Bromodichloromethane	ug/L	-	-	-	<0.50	0.50	4458849
Bromoform	ug/L	-	-	-	<1.0	1.0	4458849
Bromomethane	ug/L	-	-	-	<0.50	0.50	4458849
Carbon Tetrachloride	ug/L	5	-	-	<0.20	0.20	4458849
Chlorobenzene	ug/L	80	-	-	<0.20	0.20	4458849
Chloroform	ug/L	-	-	-	<0.20	0.20	4458849
Dibromochloromethane	ug/L	-	-	-	<0.50	0.50	4458849
1,2-Dichlorobenzene	ug/L	200	-	-	<0.50	0.50	4458849
1,3-Dichlorobenzene	ug/L	-	-	-	<0.50	0.50	4458849
1,4-Dichlorobenzene	ug/L	5	-	-	<0.50	0.50	4458849
Dichlorodifluoromethane (FREON 12)	ug/L	-	-	-	<1.0	1.0	4458849
1,1-Dichloroethane	ug/L	-	-	-	<0.20	0.20	4458849
1,2-Dichloroethane	ug/L	-	5	-	<0.50	0.50	4458849
1,1-Dichloroethylene	ug/L	14	-	-	<0.20	0.20	4458849
cis-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	0.50	4458849
trans-1,2-Dichloroethylene	ug/L	-	-	-	<0.50	0.50	4458849
1,2-Dichloropropane	ug/L	-	-	-	<0.20	0.20	4458849
cis-1,3-Dichloropropene	ug/L	-	-	-	<0.30	0.30	4458849
trans-1,3-Dichloropropene	ug/L	-	-	-	<0.40	0.40	4458849
Ethylbenzene	ug/L	-	-	2.4	<0.20	0.20	4458849
Ethylene Dibromide	ug/L	-	-	-	<0.20	0.20	4458849
Hexane	ug/L	-	-	-	<1.0	1.0	4458849
Methylene Chloride(Dichloromethane)	ug/L	50	-	-	<2.0	2.0	4458849
Methyl Ethyl Ketone (2-Butanone)	ug/L	-	-	-	<10	10	4458849
Methyl Isobutyl Ketone	ug/L	-	-	-	<5.0	5.0	4458849
Methyl t-butyl ether (MTBE)	ug/L	-	-	-	<0.50	0.50	4458849

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively  
 (Made under the Ontario Safe Drinking Water Act, 2002)

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID					CEK241		
Sampling Date					2016/04/12 16:12		
COC Number					556061-01-01		
	UNITS	MAC	IMC	A/O	WG-160900764- 20160412-JK15	RDL	QC Batch
Styrene	ug/L	-	-	-	<0.50	0.50	4458849
1,1,1,2-Tetrachloroethane	ug/L	-	-	-	<0.50	0.50	4458849
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	<0.50	0.50	4458849
Tetrachloroethylene	ug/L	<b>30</b>	-	-	<0.20	0.20	4458849
Toluene	ug/L	-	-	<b>24</b>	<0.20	0.20	4458849
1,1,1-Trichloroethane	ug/L	-	-	-	<0.20	0.20	4458849
1,1,2-Trichloroethane	ug/L	-	-	-	<0.50	0.50	4458849
Trichloroethylene	ug/L	<b>5</b>	-	-	<0.20	0.20	4458849
Trichlorofluoromethane (FREON 11)	ug/L	-	-	-	<0.50	0.50	4458849
Vinyl Chloride	ug/L	<b>2</b>	-	-	<0.20	0.20	4458849
p+m-Xylene	ug/L	-	-	-	<0.20	0.20	4458849
o-Xylene	ug/L	-	-	-	<0.20	0.20	4458849
Total Xylenes	ug/L	-	-	<b>300</b>	<0.20	0.20	4458849
<b>Surrogate Recovery (%)</b>							
4-Bromofluorobenzene	%	-	-	-	92		4458849
D4-1,2-Dichloroethane	%	-	-	-	101		4458849
D8-Toluene	%	-	-	-	98		4458849
RDL = Reportable Detection Limit QC Batch = Quality Control Batch MAC,IMC,A/O: Ontario Drinking Water Standards - Maximum Acceptable Concentration [Criteria A / MAC], Interim Maximum Acceptable Concentration [IMC] & Table 4-Chemical/Physical Objectives [A/O] - Not Health Related, respectively (Made under the Ontario Safe Drinking Water Act, 2002)							

### TEST SUMMARY

**Maxxam ID:** CEK230  
**Sample ID:** WG-160900764-20160412-JK7  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/22	Milijana Avramovic
Acidity as CaCO3 in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4454945	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4458135	N/A	2016/04/15	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460406	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457544	2016/04/14	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH4	4459360	N/A	2016/04/18	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4457415	N/A	2016/04/18	Lu Wang(Alice)
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4457407	N/A	2016/04/14	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4457459	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK230 Dup  
**Sample ID:** WG-160900764-20160412-JK7  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
pH	AT	4457401	N/A	2016/04/14	Surinder Rai

### TEST SUMMARY

**Maxxam ID:** CEK230 Dup  
**Sample ID:** WG-160900764-20160412-JK7  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis

**Maxxam ID:** CEK231  
**Sample ID:** WG-160900764-20160412-JK8  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/22	Milijana Avramovic
Acidity as CaCO3 in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4454945	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459042	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460406	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457544	2016/04/14	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH4	4459360	N/A	2016/04/18	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4457415	N/A	2016/04/18	Lu Wang(Alice)
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4457407	N/A	2016/04/14	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4457459	N/A	2016/04/16	Manpreet Sarao

### TEST SUMMARY

**Maxxam ID:** CEK231 Dup  
**Sample ID:** WG-160900764-20160412-JK8  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/22	Milijana Avramovic
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk

**Maxxam ID:** CEK232  
**Sample ID:** WG-160900764-20160412-JK9  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/22	Milijana Avramovic
Acidity as CaCO3 in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4454945	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457819	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4458135	N/A	2016/04/15	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460406	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457544	2016/04/14	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH4	4459360	N/A	2016/04/18	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4457415	N/A	2016/04/18	Lu Wang(Alice)
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4457407	N/A	2016/04/14	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4457459	N/A	2016/04/16	Manpreet Sarao



### TEST SUMMARY

**Maxxam ID:** CEK233  
**Sample ID:** WG-160900764-20160412-JK10  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/22	Milijana Avramovic
Acidity as CaCO3 in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4454945	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457819	N/A	2016/04/15	Lang Le
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459042	N/A	2016/04/16	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460406	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4457544	2016/04/14	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/15	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/15	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH4	4459360	N/A	2016/04/18	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/15	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/15	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/15	Automated Statchk
Total Dissolved Solids	BAL	4457415	N/A	2016/04/18	Lu Wang(Alice)
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4457407	N/A	2016/04/14	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4457459	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK235  
**Sample ID:** WG-160900764-20160412-JK11  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/23	Milijana Avramovic
Acidity as CaCO3 in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai



### TEST SUMMARY

**Maxxam ID:** CEK235  
**Sample ID:** WG-160900764-20160412-JK11  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4458135	N/A	2016/04/15	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/18	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460412	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4458910	2016/04/15	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/18	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/18	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH4	4461286	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/18	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/18	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/18	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK235 Dup  
**Sample ID:** WG-160900764-20160412-JK11  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah

### TEST SUMMARY

**Maxxam ID:** CEK236  
**Sample ID:** WG-160900764-20160412-JK12  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/23	Milijana Avramovic
Acidity as CaCO3 in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459442	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/18	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4458910	2016/04/15	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/18	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/18	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH4	4461856	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457380	N/A	2016/04/18	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/18	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/18	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/18	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK236 Dup  
**Sample ID:** WG-160900764-20160412-JK12  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	4460416	2016/04/16	2016/04/19	Magdalena Carlos
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang

### TEST SUMMARY

**Maxxam ID:** CEK238  
**Sample ID:** WG-160900764-20160412-JK13  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/23	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459442	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO <sub>3</sub> )		4455799	N/A	2016/04/18	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460412	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4458910	2016/04/15	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/18	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/18	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH <sub>4</sub>	4461856	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4457204	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/18	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/18	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/18	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456480	N/A	2016/04/14	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK239  
**Sample ID:** WG-160900764-20160412-JK14  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/23	Milijana Avramovic
Acidity as CaCO <sub>3</sub> in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai

### TEST SUMMARY

**Maxxam ID:** CEK239  
**Sample ID:** WG-160900764-20160412-JK14  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4459442	N/A	2016/04/17	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/18	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460412	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4458910	2016/04/15	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/18	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/18	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH4	4461856	N/A	2016/04/19	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457204	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/18	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/18	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/18	Automated Statchk
Total Dissolved Solids	BAL	4458991	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461636	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4458994	N/A	2016/04/15	Fang Wang
Turbidity	AT	4456480	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK239 Dup  
**Sample ID:** WG-160900764-20160412-JK14  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	4460412	2016/04/16	2016/04/19	Magdalena Carlos
Turbidity	AT	4456480	N/A	2016/04/13	Lemeneh Addis

### TEST SUMMARY

**Maxxam ID:** CEK241  
**Sample ID:** WG-160900764-20160412-JK15  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4455044	N/A	2016/04/25	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4468419	2016/04/22	2016/04/23	Milijana Avramovic
Acidity as CaCO3 in liquid		4457680	N/A	2016/04/19	Grace Sison
Alkalinity	AT	4457396	N/A	2016/04/14	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4455801	N/A	2016/04/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	4455862	N/A	2016/04/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	4458001	N/A	2016/04/15	Deonarine Ramnarine
Conductivity	AT	4457402	N/A	2016/04/14	Surinder Rai
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4458987	N/A	2016/04/15	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4458135	N/A	2016/04/15	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4460556	N/A	2016/04/17	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4462122	2016/04/18	2016/04/19	Barbara Wowk
Fluoride	ISE	4457403	2016/04/14	2016/04/14	Surinder Rai
Hardness (calculated as CaCO3)		4455799	N/A	2016/04/18	Automated Statchk
Mercury in Water by CVAA	CV/AA	4460412	2016/04/16	2016/04/19	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4458910	2016/04/15	2016/04/15	Prempal Bhatti
Ion Balance (% Difference)	CALC	4455438	N/A	2016/04/18	Automated Statchk
Anion and Cation Sum	CALC	4455678	N/A	2016/04/18	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4455957	N/A	2016/04/13	Vimukthi Gunawardhan
Total Ammonia-N	LACH/NH4	4459360	N/A	2016/04/18	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4457198	N/A	2016/04/15	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4460390	2016/04/16	2016/04/16	Sarah Huang
pH	AT	4457401	N/A	2016/04/14	Surinder Rai
Orthophosphate	KONE	4458003	N/A	2016/04/15	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4455679	N/A	2016/04/18	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4455680	N/A	2016/04/18	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4458005	N/A	2016/04/15	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4455128	N/A	2016/04/18	Automated Statchk
Total Dissolved Solids	BAL	4462005	N/A	2016/04/18	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4461296	N/A	2016/04/18	Elsamma Alex
Total Suspended Solids	BAL	4461606	N/A	2016/04/18	Niki Shah
Turbidity	AT	4456467	N/A	2016/04/13	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4458849	N/A	2016/04/16	Manpreet Sarao

**Maxxam ID:** CEK241 Dup  
**Sample ID:** WG-160900764-20160412-JK15  
**Matrix:** Water

**Collected:** 2016/04/12  
**Shipped:**  
**Received:** 2016/04/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4457680	N/A		Grace Sison
Chromium (VI) in Water	IC	4457839	N/A	2016/04/18	Sally Coughlin

### GENERAL COMMENTS

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

Package 1	6.7°C
Package 2	6.3°C
Package 3	6.3°C
Package 4	5.3°C
Package 5	4.0°C
Package 6	2.3°C
Package 7	1.3°C
Package 8	3.0°C
Package 9	6.0°C
Package 10	1.3°C
Package 11	5.3°C
Package 12	7.0°C
Package 13	7.0°C

Sample CEK235-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent. Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CEK236-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CEK238-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CEK239-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4457459	4-Bromofluorobenzene	2016/04/16	100	70 - 130	100	70 - 130	95	%				
4457459	D4-1,2-Dichloroethane	2016/04/16	101	70 - 130	103	70 - 130	102	%				
4457459	D8-Toluene	2016/04/16	100	70 - 130	100	70 - 130	99	%				
4458849	4-Bromofluorobenzene	2016/04/16	102	70 - 130	100	70 - 130	98	%				
4458849	D4-1,2-Dichloroethane	2016/04/16	99	70 - 130	98	70 - 130	102	%				
4458849	D8-Toluene	2016/04/16	100	70 - 130	102	70 - 130	96	%				
4460390	Decachlorobiphenyl	2016/04/16	84	60 - 130	88	60 - 130	83	%				
4460556	1,4-Difluorobenzene	2016/04/17	103	70 - 130	103	70 - 130	103	%				
4460556	4-Bromofluorobenzene	2016/04/17	97	70 - 130	98	70 - 130	90	%				
4460556	D10-Ethylbenzene	2016/04/17	106	70 - 130	101	70 - 130	100	%				
4460556	D4-1,2-Dichloroethane	2016/04/17	97	70 - 130	100	70 - 130	102	%				
4462122	o-Terphenyl	2016/04/18	93	60 - 130	94	60 - 130	90	%				
4468419	2,4,6-Tribromophenol	2016/04/22	77	50 - 130	77	50 - 130	59	%				
4468419	2-Fluorobiphenyl	2016/04/22	64	50 - 130	75	50 - 130	71	%				
4468419	D14-Terphenyl (FS)	2016/04/22	99	50 - 130	99	50 - 130	96	%				
4468419	D5-Nitrobenzene	2016/04/22	58	50 - 130	73	50 - 130	69	%				
4456467	Turbidity	2016/04/13			100	85 - 115	<0.2	NTU	7.1	20		
4456480	Turbidity	2016/04/13			99	85 - 115	<0.2	NTU	NC	20		
4457198	Nitrate (N)	2016/04/15	NC	80 - 120	100	80 - 120	<0.10	mg/L	1.1	25		
4457198	Nitrite (N)	2016/04/15	107	80 - 120	107	80 - 120	<0.010	mg/L	NC	25		
4457204	Nitrate (N)	2016/04/15	101	80 - 120	104	80 - 120	<0.10	mg/L	NC	25		
4457204	Nitrite (N)	2016/04/15	108	80 - 120	107	80 - 120	<0.010	mg/L	NC	25		
4457380	Nitrate (N)	2016/04/18	86	80 - 120	95	80 - 120	<0.10	mg/L	NC	25		
4457380	Nitrite (N)	2016/04/18	104	80 - 120	107	80 - 120	<0.010	mg/L	NC	25		
4457396	Alkalinity (Total as CaCO3)	2016/04/14			94	85 - 115	<1.0	mg/L	1.3	25		
4457401	pH	2016/04/14			101	98 - 103			0.63	N/A		
4457402	Conductivity	2016/04/14			102	85 - 115	<1.0	umho/cm	0.76	25		
4457403	Fluoride (F-)	2016/04/14	99	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
4457407	Total Suspended Solids	2016/04/14					<10	mg/L	NC	25	97	85 - 115
4457415	Total Dissolved Solids	2016/04/18					<10	mg/L	5.7	25	98	90 - 110



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4457459	1,1,1,2-Tetrachloroethane	2016/04/16	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4457459	1,1,1-Trichloroethane	2016/04/16	92	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4457459	1,1,2,2-Tetrachloroethane	2016/04/16	90	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4457459	1,1,2-Trichloroethane	2016/04/16	100	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
4457459	1,1-Dichloroethane	2016/04/16	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4457459	1,1-Dichloroethylene	2016/04/16	100	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4457459	1,2-Dichlorobenzene	2016/04/16	99	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
4457459	1,2-Dichloroethane	2016/04/16	99	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
4457459	1,2-Dichloropropane	2016/04/16	97	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4457459	1,3-Dichlorobenzene	2016/04/16	100	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4457459	1,4-Dichlorobenzene	2016/04/16	104	70 - 130	104	70 - 130	<0.50	ug/L	NC	30		
4457459	Acetone (2-Propanone)	2016/04/16	105	60 - 140	121	60 - 140	<10	ug/L	7.4	30		
4457459	Benzene	2016/04/16	99	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4457459	Bromodichloromethane	2016/04/16	94	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4457459	Bromoform	2016/04/16	90	70 - 130	93	70 - 130	<1.0	ug/L	NC	30		
4457459	Bromomethane	2016/04/16	86	60 - 140	84	60 - 140	<0.50	ug/L	NC	30		
4457459	Carbon Tetrachloride	2016/04/16	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4457459	Chlorobenzene	2016/04/16	99	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4457459	Chloroform	2016/04/16	96	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4457459	cis-1,2-Dichloroethylene	2016/04/16	NC	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4457459	cis-1,3-Dichloropropene	2016/04/16	96	70 - 130	94	70 - 130	<0.30	ug/L	NC	30		
4457459	Dibromochloromethane	2016/04/16	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4457459	Dichlorodifluoromethane (FREON 12)	2016/04/16	96	60 - 140	96	60 - 140	<1.0	ug/L	NC	30		
4457459	Ethylbenzene	2016/04/16	99	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4457459	Ethylene Dibromide	2016/04/16	97	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4457459	Hexane	2016/04/16	102	70 - 130	102	70 - 130	<1.0	ug/L	NC	30		
4457459	Methyl Ethyl Ketone (2-Butanone)	2016/04/16	109	60 - 140	120	60 - 140	<10	ug/L	NC	30		
4457459	Methyl Isobutyl Ketone	2016/04/16	99	70 - 130	107	70 - 130	<5.0	ug/L	NC	30		
4457459	Methyl t-butyl ether (MTBE)	2016/04/16	94	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4457459	Methylene Chloride(Dichloromethane)	2016/04/16	93	70 - 130	94	70 - 130	<2.0	ug/L	NC	30		
4457459	o-Xylene	2016/04/16	97	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4457459	p+m-Xylene	2016/04/16	93	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4457459	Styrene	2016/04/16	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4457459	Tetrachloroethylene	2016/04/16	96	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4457459	Toluene	2016/04/16	94	70 - 130	95	70 - 130	<0.20	ug/L	1.2	30		
4457459	Total Xylenes	2016/04/16					<0.20	ug/L	NC	30		
4457459	trans-1,2-Dichloroethylene	2016/04/16	NC	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4457459	trans-1,3-Dichloropropene	2016/04/16	96	70 - 130	90	70 - 130	<0.40	ug/L	NC	30		
4457459	Trichloroethylene	2016/04/16	NC	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4457459	Trichlorofluoromethane (FREON 11)	2016/04/16	98	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4457459	Vinyl Chloride	2016/04/16	98	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4457544	. Aluminum (Al)	2016/04/15	101	80 - 120	96	80 - 120	<0.0050	mg/L				
4457544	. Antimony (Sb)	2016/04/15	112	80 - 120	108	80 - 120	<0.00050	mg/L				
4457544	. Arsenic (As)	2016/04/15	109	80 - 120	104	80 - 120	<0.0010	mg/L				
4457544	. Barium (Ba)	2016/04/15	111	80 - 120	106	80 - 120	<0.0020	mg/L				
4457544	. Beryllium (Be)	2016/04/15	113	80 - 120	107	80 - 120	<0.00050	mg/L				
4457544	. Boron (B)	2016/04/15	110	80 - 120	102	80 - 120	<0.010	mg/L				
4457544	. Cadmium (Cd)	2016/04/15	114	80 - 120	107	80 - 120	<0.00010	mg/L				
4457544	. Calcium (Ca)	2016/04/15	104	80 - 120	97	80 - 120	<0.20	mg/L				
4457544	. Chromium (Cr)	2016/04/15	108	80 - 120	102	80 - 120	<0.0050	mg/L				
4457544	. Cobalt (Co)	2016/04/15	109	80 - 120	103	80 - 120	<0.00050	mg/L				
4457544	. Copper (Cu)	2016/04/15	106	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
4457544	. Iron (Fe)	2016/04/15	107	80 - 120	101	80 - 120	<0.10	mg/L	NC	20		
4457544	. Lead (Pb)	2016/04/15	107	80 - 120	105	80 - 120	<0.00050	mg/L	NC	20		
4457544	. Magnesium (Mg)	2016/04/15	102	80 - 120	95	80 - 120	<0.050	mg/L				
4457544	. Manganese (Mn)	2016/04/15	105	80 - 120	101	80 - 120	<0.0020	mg/L				
4457544	. Molybdenum (Mo)	2016/04/15	111	80 - 120	105	80 - 120	<0.00050	mg/L				
4457544	. Nickel (Ni)	2016/04/15	108	80 - 120	103	80 - 120	<0.0010	mg/L				
4457544	. Phosphorus (P)	2016/04/15	102	80 - 120	101	80 - 120	<0.10	mg/L				
4457544	. Potassium (K)	2016/04/15	103	80 - 120	96	80 - 120	<0.20	mg/L				
4457544	. Selenium (Se)	2016/04/15	117	80 - 120	107	80 - 120	<0.0020	mg/L				
4457544	. Silicon (Si)	2016/04/15	99	80 - 120	95	80 - 120	<0.050	mg/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4457544	. Silver (Ag)	2016/04/15	109	80 - 120	104	80 - 120	<0.00010	mg/L				
4457544	. Sodium (Na)	2016/04/15	100	80 - 120	95	80 - 120	<0.10	mg/L				
4457544	. Strontium (Sr)	2016/04/15	108	80 - 120	103	80 - 120	<0.0010	mg/L				
4457544	. Thallium (Tl)	2016/04/15	110	80 - 120	104	80 - 120	<0.000050	mg/L				
4457544	. Titanium (Ti)	2016/04/15	104	80 - 120	100	80 - 120	<0.0050	mg/L				
4457544	. Uranium (U)	2016/04/15	106	80 - 120	100	80 - 120	<0.00010	mg/L				
4457544	. Vanadium (V)	2016/04/15	110	80 - 120	103	80 - 120	<0.00050	mg/L				
4457544	. Zinc (Zn)	2016/04/15	109	80 - 120	101	80 - 120	<0.0050	mg/L				
4457544	. Zirconium (Zr)	2016/04/15	110	80 - 120	104	80 - 120	<0.0010	mg/L				
4457680	Acidity as CaCO3						<10	mg/L	NC	25		
4457819	Chromium (VI)	2016/04/15	NC	80 - 120	96	80 - 120	<0.50	ug/L	0.44	20		
4457839	Chromium (VI)	2016/04/18	118	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
4458001	Dissolved Chloride (Cl)	2016/04/15	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.37	20		
4458003	Orthophosphate (P)	2016/04/15	103	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		
4458005	Dissolved Sulphate (SO4)	2016/04/15	NC	75 - 125	101	80 - 120	<1.0	mg/L	0.33	20		
4458135	Dissolved Organic Carbon	2016/04/15	100	80 - 120	103	80 - 120	<0.20	mg/L	0.080	20		
4458849	1,1,1,2-Tetrachloroethane	2016/04/16	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458849	1,1,1-Trichloroethane	2016/04/16	92	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4458849	1,1,2,2-Tetrachloroethane	2016/04/16	97	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458849	1,1,2-Trichloroethane	2016/04/16	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	1,1-Dichloroethane	2016/04/16	94	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
4458849	1,1-Dichloroethylene	2016/04/16	97	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458849	1,2-Dichlorobenzene	2016/04/16	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	1,2-Dichloroethane	2016/04/16	96	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4458849	1,2-Dichloropropane	2016/04/16	95	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4458849	1,3-Dichlorobenzene	2016/04/16	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	1,4-Dichlorobenzene	2016/04/16	94	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458849	Acetone (2-Propanone)	2016/04/16	102	60 - 140	98	60 - 140	<10	ug/L	NC	30		
4458849	Benzene	2016/04/16	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4458849	Bromodichloromethane	2016/04/16	96	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	Bromoform	2016/04/16	97	70 - 130	96	70 - 130	<1.0	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458849	Bromomethane	2016/04/16	90	60 - 140	87	60 - 140	<0.50	ug/L	NC	30		
4458849	Carbon Tetrachloride	2016/04/16	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4458849	Chlorobenzene	2016/04/16	96	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458849	Chloroform	2016/04/16	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4458849	cis-1,2-Dichloroethylene	2016/04/16	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4458849	cis-1,3-Dichloropropene	2016/04/16	100	70 - 130	97	70 - 130	<0.30	ug/L	NC	30		
4458849	Dibromochloromethane	2016/04/16	97	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458849	Dichlorodifluoromethane (FREON 12)	2016/04/16	110	60 - 140	109	60 - 140	<1.0	ug/L	NC	30		
4458849	Ethylbenzene	2016/04/16	96	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4458849	Ethylene Dibromide	2016/04/16	98	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458849	Hexane	2016/04/16	95	70 - 130	106	70 - 130	<1.0	ug/L	NC	30		
4458849	Methyl Ethyl Ketone (2-Butanone)	2016/04/16	106	60 - 140	103	60 - 140	<10	ug/L	NC	30		
4458849	Methyl Isobutyl Ketone	2016/04/16	101	70 - 130	100	70 - 130	<5.0	ug/L	NC	30		
4458849	Methyl t-butyl ether (MTBE)	2016/04/16	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4458849	Methylene Chloride(Dichloromethane)	2016/04/16	93	70 - 130	90	70 - 130	<2.0	ug/L	NC	30		
4458849	o-Xylene	2016/04/16	93	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4458849	p+m-Xylene	2016/04/16	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4458849	Styrene	2016/04/16	96	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4458849	Tetrachloroethylene	2016/04/16	93	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4458849	Toluene	2016/04/16	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4458849	Total Xylenes	2016/04/16					<0.20	ug/L	NC	30		
4458849	trans-1,2-Dichloroethylene	2016/04/16	93	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4458849	trans-1,3-Dichloropropene	2016/04/16	99	70 - 130	95	70 - 130	<0.40	ug/L	NC	30		
4458849	Trichloroethylene	2016/04/16	92	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4458849	Trichlorofluoromethane (FREON 11)	2016/04/16	97	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4458849	Vinyl Chloride	2016/04/16	102	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4458910	. Aluminum (Al)	2016/04/15	105	80 - 120	108	80 - 120	<0.0050	mg/L				
4458910	. Antimony (Sb)	2016/04/15	113	80 - 120	109	80 - 120	<0.00050	mg/L	NC	20		
4458910	. Arsenic (As)	2016/04/15	106	80 - 120	108	80 - 120	<0.0010	mg/L	NC	20		
4458910	. Barium (Ba)	2016/04/15	105	80 - 120	106	80 - 120	<0.0020	mg/L	0.050	20		
4458910	. Beryllium (Be)	2016/04/15	109	80 - 120	108	80 - 120	<0.00050	mg/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4458910	. Boron (B)	2016/04/15	106	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
4458910	. Cadmium (Cd)	2016/04/15	110	80 - 120	107	80 - 120	<0.00010	mg/L	NC	20		
4458910	. Calcium (Ca)	2016/04/15	NC	80 - 120	109	80 - 120	<0.20	mg/L				
4458910	. Chromium (Cr)	2016/04/15	103	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20		
4458910	. Cobalt (Co)	2016/04/15	103	80 - 120	107	80 - 120	<0.00050	mg/L				
4458910	. Copper (Cu)	2016/04/15	100	80 - 120	105	80 - 120	<0.0010	mg/L				
4458910	. Iron (Fe)	2016/04/15	106	80 - 120	110	80 - 120	<0.10	mg/L				
4458910	. Lead (Pb)	2016/04/15	104	80 - 120	103	80 - 120	<0.00050	mg/L				
4458910	. Magnesium (Mg)	2016/04/15	NC	80 - 120	108	80 - 120	<0.050	mg/L				
4458910	. Manganese (Mn)	2016/04/15	104	80 - 120	108	80 - 120	<0.0020	mg/L				
4458910	. Molybdenum (Mo)	2016/04/15	111	80 - 120	108	80 - 120	<0.00050	mg/L				
4458910	. Nickel (Ni)	2016/04/15	103	80 - 120	108	80 - 120	<0.0010	mg/L				
4458910	. Phosphorus (P)	2016/04/15	104	80 - 120	110	80 - 120	<0.10	mg/L				
4458910	. Potassium (K)	2016/04/15	102	80 - 120	107	80 - 120	<0.20	mg/L				
4458910	. Selenium (Se)	2016/04/15	107	80 - 120	109	80 - 120	<0.0020	mg/L	NC	20		
4458910	. Silicon (Si)	2016/04/15	104	80 - 120	107	80 - 120	<0.050	mg/L				
4458910	. Silver (Ag)	2016/04/15	105	80 - 120	105	80 - 120	<0.00010	mg/L				
4458910	. Sodium (Na)	2016/04/15	NC	80 - 120	109	80 - 120	<0.10	mg/L				
4458910	. Strontium (Sr)	2016/04/15	NC	80 - 120	109	80 - 120	<0.0010	mg/L				
4458910	. Thallium (Tl)	2016/04/15	104	80 - 120	104	80 - 120	<0.000050	mg/L				
4458910	. Titanium (Ti)	2016/04/15	105	80 - 120	108	80 - 120	<0.0050	mg/L				
4458910	. Uranium (U)	2016/04/15	103	80 - 120	99	80 - 120	<0.00010	mg/L	1.5	20		
4458910	. Vanadium (V)	2016/04/15	106	80 - 120	108	80 - 120	<0.00050	mg/L				
4458910	. Zinc (Zn)	2016/04/15	107	80 - 120	108	80 - 120	<0.0050	mg/L				
4458910	. Zirconium (Zr)	2016/04/15	111	80 - 120	109	80 - 120	<0.0010	mg/L				
4458987	Free Cyanide	2016/04/15	103	80 - 120	105	80 - 120	<2	ug/L	NC	20		
4458991	Total Dissolved Solids	2016/04/18					<10	mg/L	2.7	25	97	90 - 110
4458994	Total Suspended Solids	2016/04/15					<10	mg/L	NC	25	98	85 - 115
4459042	Dissolved Organic Carbon	2016/04/16	96	80 - 120	98	80 - 120	0.22, RDL=0.20	mg/L	1.6	20		
4459360	Total Ammonia-N	2016/04/18	93	80 - 120	95	85 - 115	<0.050	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4459442	Dissolved Organic Carbon	2016/04/17	102	80 - 120	106	80 - 120	<0.20	mg/L	NC	20		
4460390	Aroclor 1242	2016/04/16					<0.05	ug/L	NC	30		
4460390	Aroclor 1248	2016/04/16					<0.05	ug/L	NC	30		
4460390	Aroclor 1254	2016/04/16					<0.05	ug/L	NC	30		
4460390	Aroclor 1260	2016/04/16	69	60 - 130	77	60 - 130	<0.05	ug/L	NC	30		
4460390	Total PCB	2016/04/16	69	60 - 130	77	60 - 130	<0.05	ug/L	NC	40		
4460406	Mercury (Hg)	2016/04/19	98	75 - 125	96	80 - 120	<0.0001	mg/L	NC	20		
4460412	Mercury (Hg)	2016/04/19	102	75 - 125	108	80 - 120	<0.0001	mg/L	NC	20		
4460416	Mercury (Hg)	2016/04/19	111	75 - 125	97	80 - 120	<0.0001	mg/L	NC	20		
4460556	Benzene	2016/04/17	116	70 - 130	116	70 - 130	<0.20	ug/L				
4460556	Ethylbenzene	2016/04/17	127	70 - 130	125	70 - 130	<0.20	ug/L				
4460556	F1 (C6-C10) - BTEX	2016/04/17					<25	ug/L	NC	30		
4460556	F1 (C6-C10)	2016/04/17	99	70 - 130	107	70 - 130	<25	ug/L	NC	30		
4460556	o-Xylene	2016/04/17	121	70 - 130	121	70 - 130	<0.20	ug/L				
4460556	p+m-Xylene	2016/04/17	113	70 - 130	111	70 - 130	<0.40	ug/L				
4460556	Toluene	2016/04/17	120	70 - 130	119	70 - 130	<0.20	ug/L				
4460556	Total Xylenes	2016/04/17					<0.40	ug/L				
4461286	Total Ammonia-N	2016/04/19	113	80 - 120	100	85 - 115	<0.050	mg/L	NC	20		
4461296	Total Organic Carbon (TOC)	2016/04/18	96	80 - 120	99	80 - 120	0.22, RDL=0.20	mg/L	1.5	20		
4461606	Total Suspended Solids	2016/04/18					<10	mg/L	11	25	100	85 - 115
4461636	Total Organic Carbon (TOC)	2016/04/18	98	80 - 120	101	80 - 120	0.20, RDL=0.20	mg/L	3.0	20		
4461856	Total Ammonia-N	2016/04/19	95	80 - 120	99	85 - 115	<0.050	mg/L	NC	20		
4462005	Total Dissolved Solids	2016/04/18					<10	mg/L	NC	25	96	90 - 110
4462122	F2 (C10-C16 Hydrocarbons)	2016/04/19	98	50 - 130	101	60 - 130	<100	ug/L	NC	30		
4462122	F3 (C16-C34 Hydrocarbons)	2016/04/19	94	50 - 130	97	60 - 130	<50	ug/L	NC	30		
4462122	F4 (C34-C50 Hydrocarbons)	2016/04/19	93	50 - 130	94	60 - 130	<200	ug/L	NC	30		
4468419	1,2,4-Trichlorobenzene	2016/04/22	63	40 - 130	78	40 - 130	<0.1	ug/L	NC	30		
4468419	1-Methylnaphthalene	2016/04/22	70	50 - 130	84	50 - 130	<0.2	ug/L	NC	30		
4468419	2,4,5-Trichlorophenol	2016/04/22	94	50 - 130	102	50 - 130	<0.2	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4468419	2,4,6-Trichlorophenol	2016/04/22	88	50 - 130	101	50 - 130	<0.2	ug/L	NC	30		
4468419	2,4-Dichlorophenol	2016/04/22	76	50 - 130	88	50 - 130	<0.1	ug/L	NC	30		
4468419	2,4-Dimethylphenol	2016/04/22	70	30 - 130	69	30 - 130	<0.5	ug/L	NC	30		
4468419	2,4-Dinitrophenol	2016/04/22	88	30 - 130	89	30 - 130	<2	ug/L	NC	30		
4468419	2,4-Dinitrotoluene	2016/04/22	90	50 - 130	93	50 - 130	<0.3	ug/L	NC	30		
4468419	2,6-Dinitrotoluene	2016/04/22	83	50 - 130	89	50 - 130	<0.3	ug/L	NC	30		
4468419	2-Chlorophenol	2016/04/22	66	50 - 130	84	50 - 130	<0.1	ug/L	NC	30		
4468419	2-Methylnaphthalene	2016/04/22	69	50 - 130	83	50 - 130	<0.2	ug/L	NC	30		
4468419	3,3'-Dichlorobenzidine	2016/04/22	101	30 - 130	106	30 - 130	<0.5	ug/L	NC	30		
4468419	Acenaphthene	2016/04/22	78	50 - 130	89	50 - 130	<0.2	ug/L	NC	30		
4468419	Acenaphthylene	2016/04/22	78	50 - 130	89	50 - 130	<0.2	ug/L	NC	30		
4468419	Anthracene	2016/04/22	87	50 - 130	89	50 - 130	<0.05	ug/L	NC	30		
4468419	Benzo(a)anthracene	2016/04/22	100	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		
4468419	Benzo(a)pyrene	2016/04/22	93	50 - 130	95	50 - 130	<0.01	ug/L	NC	30		
4468419	Benzo(b/j)fluoranthene	2016/04/22	91	50 - 130	90	50 - 130	<0.05	ug/L	NC	30		
4468419	Benzo(g,h,i)perylene	2016/04/22	115	50 - 130	117	50 - 130	<0.05	ug/L	NC	30		
4468419	Benzo(k)fluoranthene	2016/04/22	90	50 - 130	92	50 - 130	<0.05	ug/L	NC	30		
4468419	Biphenyl	2016/04/22	73	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4468419	Bis(2-chloroethyl)ether	2016/04/22	57	50 - 130	73	50 - 130	<0.5	ug/L	NC	30		
4468419	Bis(2-chloroisopropyl)ether	2016/04/22	62	50 - 130	78	50 - 130	<0.5	ug/L	NC	30		
4468419	Bis(2-ethylhexyl)phthalate	2016/04/22	94	50 - 130	93	50 - 130	<1	ug/L	NC	30		
4468419	Chrysene	2016/04/22	97	50 - 130	97	50 - 130	<0.05	ug/L	NC	30		
4468419	Dibenz(a,h)anthracene	2016/04/22	115	50 - 130	117	50 - 130	<0.1	ug/L	NC	30		
4468419	Diethyl phthalate	2016/04/22	79	50 - 130	80	50 - 130	<0.1	ug/L	NC	30		
4468419	Dimethyl phthalate	2016/04/22	87	50 - 130	91	50 - 130	<0.1	ug/L	NC	30		
4468419	Fluoranthene	2016/04/22	102	50 - 130	102	50 - 130	<0.2	ug/L	NC	30		
4468419	Fluorene	2016/04/22	84	50 - 130	91	50 - 130	<0.2	ug/L	NC	30		
4468419	Indeno(1,2,3-cd)pyrene	2016/04/22	109	50 - 130	111	50 - 130	<0.1	ug/L	NC	30		
4468419	Naphthalene	2016/04/22	59	50 - 130	73	50 - 130	<0.2	ug/L	NC	30		
4468419	p-Chloroaniline	2016/04/22	73	30 - 130	89	30 - 130	<1	ug/L	NC	30		
4468419	Pentachlorophenol	2016/04/22	100	50 - 130	81	50 - 130	<0.1	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4468419	Phenanthrene	2016/04/22	85	50 - 130	87	50 - 130	<0.1	ug/L	NC	30		
4468419	Phenol	2016/04/22	32	30 - 130	37	30 - 130	<0.5	ug/L	NC	30		
4468419	Pyrene	2016/04/22	96	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

### VALIDATION SIGNATURE PAGE


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

*Cristina Carriere*

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Cristina Carriere, Scientific Services


*Eva Pranjic*



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

*Grace M. Sison*



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Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

*Vimukthi Gunawardhan*

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Vimukthi Gunawardhan

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.







**MICRO**

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Contact Name: Accounts Payable	Address: 49 Frederick St Kitchener ON N2H 6M7	Phone: (519) 579-4410 Fax: (519) 579-6733	Company Name: #18379 Stantec Consulting Ltd	Contact Name: Report - 1609-00764	Address: ON	Phone: Fax:
Email: Stantec.Accounts.Payable.Invoices@Stantec.com		Email: aaron.warkentin@stantec.com, brant.gill@stantec.com		Quotation #: B48218	Task #: 160900764	Project #: 1609	Profit Centre: CLARINGTON TS-PRIVATE WELLS
				Site #: CLARINGTON TS-PRIVATE WELLS	Sampled By: JK	Maxxam Job #: 556061	Bottle Order #: 556061
						COC #: C#556061-01-01	Project Manager: Deepthi Shaji

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required:		
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle):	Metals / Hg / Cr / VI	Acidity / CVI / Cyanide / Fluoride / Mercury	TDS / TOC / TSS / Turbidity	Reg 153 PHC - F1/F4	Reg 153 PCBs	Reg 153 VOCs	RCAp - Comp (Drinking Water) - No Filter	SVOCs	E.coli / Total Coliform Background	Regular (Standard) TAT:	Job Specific Rush TAT (if applies to entire submission)
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw												<input checked="" type="checkbox"/> (will be applied if Rush TAT is not specified):	<input type="checkbox"/>	
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												Standard TAT = 5-7 Working days for most tests.		
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality: _____												Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.		
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO													Date Required: _____ Time Required: _____		
Include Criteria on Certificate of Analysis (C/N)?																Rush Confirmation Number: _____ (call lab for #)		
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix												# of Bottles	Comments	
1	WG-160900764-20160412	JK7 Apr 12 2016	0857	WG	none	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	21	none filtered, total metals	
2	WG-160900764-20160412	JK8	1000			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		not reportable samples	
3	WG-160900764-20160412	JK9	1050			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
4	WG-160900764-20160412	JK10	1132			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
5	WG-160900764-20160412	JK11	1320			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
6	WG-160900764-20160412	JK12	1405			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
7	WG-160900764-20160412	JK13	1438			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
8	WG-160900764-20160412	JK14	1520			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
9	WG-160900764-20160412	JK15	1612			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
10	WG-160900764-201604																	

13-Apr-16 08:30  
Deepthi Shaji  
B673025  
SEL ENV-645

**REC'D IN PORT HOPE**

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Janie Koch		16/04/12	0811	Rachel Denry		2016/04/13	08:30		Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
										SEE ACTR	Present	✓	
											Intact	✓	

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

REFER TO ACTR

Your Project #: 160900764  
 Site Location: CLARINGTON TS- PRIVATE WELLS  
 Your C.O.C. #: 57362

**Attention: Aaron Warkentin, Brant Gill**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/27**  
 Report #: R3974203  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B676726**

**Received: 2016/04/18, 16:10**

Sample Matrix: Water  
 # Samples Received: 2

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	2	N/A	2016/04/22	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	2	2016/04/20	2016/04/21	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	2	N/A	2016/04/22	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	2	N/A	2016/04/21	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2016/04/21	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	2	N/A	2016/04/22		EPA 8260C m
Chloride by Automated Colourimetry	2	N/A	2016/04/22	CAM SOP-00463	EPA 325.2 m
Conductivity	2	N/A	2016/04/21	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	2	N/A	2016/04/20	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	2	N/A	2016/04/21	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	2	N/A	2016/04/20	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2016/04/22	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	2	2016/04/22	2016/04/22	CAM SOP-00316	CCME PHC-CWS m
Fluoride	2	2016/04/20	2016/04/21	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2016/04/21	CAM SOP 00102/00408/00447	SM 2340 B
Mercury	2	2016/04/20	2016/04/20	CAM SOP-00453	EPA 7470A m
Metals Analysis by ICPMS (as received) (5)	2	2016/04/20	2016/04/20	CAM SOP-00447	EPA 6020A m
Ion Balance (% Difference)	2	N/A	2016/04/22		
Anion and Cation Sum	2	N/A	2016/04/21		
Total Coliforms/ E. coli, CFU/100mL	2	N/A	2016/04/18	CAM SOP-00551	MOE E3407
Total Ammonia-N	2	N/A	2016/04/22	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (6)	2	N/A	2016/04/22	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	2	2016/04/21	2016/04/21	CAM SOP-00309	EPA 8082A m
pH	2	N/A	2016/04/21	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	2	N/A	2016/04/22	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	2	N/A	2016/04/22		
Sat. pH and Langelier Index (@ 4C)	2	N/A	2016/04/22		
Sulphate by Automated Colourimetry	2	N/A	2016/04/22	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	2	N/A	2016/04/22		

Your Project #: 160900764  
 Site Location: CLARINGTON TS- PRIVATE WELLS  
 Your C.O.C. #: 57362

**Attention: Aaron Warkentin, Brant Gill**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/04/27**  
 Report #: R3974203  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B676726**

**Received: 2016/04/18, 16:10**

Sample Matrix: Water  
 # Samples Received: 2

Analyses	Date		Laboratory Method	Reference
	Quantity	Extracted		
Total Dissolved Solids	2	N/A	2016/04/26 CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (7)	2	N/A	2016/04/24 CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	2	N/A	2016/04/25 CAM SOP-00428	SM 22 2540D m
Turbidity	2	N/A	2016/04/23 CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	2	N/A	2016/04/21 CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Metals analysis was performed on the sample 'as received'.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.



Your Project #: 160900764  
Site Location: CLARINGTON TS- PRIVATE WELLS  
Your C.O.C. #: 57362

**Attention: Aaron Warkentin, Brant Gill**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/04/27**  
Report #: R3974203  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B676726**  
**Received: 2016/04/18, 16:10**

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**RCAP - COMPREHENSIVE (DRINKING WATER)**

<b>Maxxam ID</b>		CFC036	CFC036	CFC037	CFC037		
<b>Sampling Date</b>		2016/04/18 12:55	2016/04/18 12:55	2016/04/18 13:28	2016/04/18 13:28		
<b>COC Number</b>		57362	57362	57362	57362		
	<b>UNITS</b>	<b>WG-160900764- 20160418-JK22</b>	<b>WG-160900764- 20160418-JK22 Lab-Dup</b>	<b>WG-160900764- 20160418-JK23</b>	<b>WG-160900764- 20160418-JK23 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Anion Sum	me/L	7.17		4.01		N/A	4461327
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	300		180		1.0	4461331
Calculated TDS	mg/L	390		220		1.0	4461330
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.4		1.9		1.0	4461331
Cation Sum	me/L	7.30		4.09		N/A	4461327
Hardness (CaCO3)	mg/L	350		190		1.0	4461333
Ion Balance (% Difference)	%	0.930		1.05		N/A	4461326
Langelier Index (@ 20C)	N/A	1.05		0.595			4461328
Langelier Index (@ 4C)	N/A	0.801		0.345			4461329
Saturation pH (@ 20C)	N/A	6.87		7.43			4461328
Saturation pH (@ 4C)	N/A	7.12		7.68			4461329

**Inorganics**

Total Ammonia-N	mg/L	<0.050		0.079		0.050	4466447
Conductivity	umho/cm	680		360		1.0	4465148
Dissolved Organic Carbon	mg/L	1.0		0.84	0.81	0.20	4464935
Orthophosphate (P)	mg/L	<0.010	<0.010	<0.010		0.010	4467312
pH	pH	7.92		8.03			4465147
Dissolved Sulphate (SO4)	mg/L	18	18	11		1.0	4467313
Alkalinity (Total as CaCO3)	mg/L	310		190		1.0	4465146
Dissolved Chloride (Cl)	mg/L	14	14	1.9		1.0	4467308
Nitrite (N)	mg/L	<0.010		<0.010		0.010	4464851
Nitrate (N)	mg/L	3.59		<0.10		0.10	4464851

**Metals**

. Aluminum (Al)	mg/L	0.0057		<0.0050		0.0050	4463829
. Antimony (Sb)	mg/L	<0.00050		<0.00050		0.00050	4463829
. Arsenic (As)	mg/L	<0.0010		<0.0010		0.0010	4463829
. Barium (Ba)	mg/L	0.042		0.18		0.0020	4463829
. Beryllium (Be)	mg/L	<0.00050		<0.00050		0.00050	4463829
. Boron (B)	mg/L	0.014		0.023		0.010	4463829
. Cadmium (Cd)	mg/L	<0.00010		<0.00010		0.00010	4463829
. Calcium (Ca)	mg/L	120		48		0.20	4463829
. Chromium (Cr)	mg/L	<0.0050		<0.0050		0.0050	4463829

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		CFC036	CFC036	CFC037	CFC037		
Sampling Date		2016/04/18 12:55	2016/04/18 12:55	2016/04/18 13:28	2016/04/18 13:28		
COC Number		57362	57362	57362	57362		
	UNITS	WG-160900764- 20160418-JK22	WG-160900764- 20160418-JK22 Lab-Dup	WG-160900764- 20160418-JK23	WG-160900764- 20160418-JK23 Lab-Dup	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050		<0.00050		0.00050	4463829
. Copper (Cu)	mg/L	0.0036		0.0054		0.0010	4463829
. Iron (Fe)	mg/L	<0.10		0.79		0.10	4463829
. Lead (Pb)	mg/L	<0.00050		<0.00050		0.00050	4463829
. Magnesium (Mg)	mg/L	11		16		0.050	4463829
. Manganese (Mn)	mg/L	<0.0020		0.016		0.0020	4463829
. Molybdenum (Mo)	mg/L	<0.00050		0.00075		0.00050	4463829
. Nickel (Ni)	mg/L	<0.0010		<0.0010		0.0010	4463829
. Phosphorus (P)	mg/L	<0.10		<0.10		0.10	4463829
. Potassium (K)	mg/L	0.84		1.0		0.20	4463829
. Selenium (Se)	mg/L	<0.0020		<0.0020		0.0020	4463829
. Silicon (Si)	mg/L	6.2		12		0.050	4463829
. Silver (Ag)	mg/L	<0.00010		<0.00010		0.00010	4463829
. Sodium (Na)	mg/L	7.2		7.4		0.10	4463829
. Strontium (Sr)	mg/L	0.21		0.25		0.0010	4463829
. Thallium (Tl)	mg/L	<0.000050		<0.000050		0.000050	4463829
. Titanium (Ti)	mg/L	<0.0050		<0.0050		0.0050	4463829
. Uranium (U)	mg/L	0.00063		<0.00010		0.00010	4463829
. Vanadium (V)	mg/L	<0.00050		<0.00050		0.00050	4463829
. Zinc (Zn)	mg/L	<0.0050		<0.0050		0.0050	4463829

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate



**RESULTS OF ANALYSES OF WATER**

Maxxam ID		CFC036	CFC036	CFC037	CFC037		
Sampling Date		2016/04/18 12:55	2016/04/18 12:55	2016/04/18 13:28	2016/04/18 13:28		
COC Number		57362	57362	57362	57362		
	UNITS	WG-160900764- 20160418-JK22	WG-160900764- 20160418-JK22 Lab-Dup	WG-160900764- 20160418-JK23	WG-160900764- 20160418-JK23 Lab-Dup	RDL	QC Batch
<b>Inorganics</b>							
Acidity as CaCO3	mg/L	28		12	12	10	4463438
Total Dissolved Solids	mg/L	374		204		10	4471429
Fluoride (F-)	mg/L	<0.10		0.16		0.10	4465129
Free Cyanide	ug/L	<2	<2	<2		2	4466414
Total Organic Carbon (TOC)	mg/L	0.97		0.76		0.20	4470306
Total Suspended Solids	mg/L	<10		<10		10	4471426
Turbidity	NTU	0.4		3.5		0.1	4469784
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Lab-Dup = Laboratory Initiated Duplicate							

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		CFC036	CFC037		
<b>Sampling Date</b>		2016/04/18 12:55	2016/04/18 13:28		
<b>COC Number</b>		57362	57362		
	<b>UNITS</b>	<b>WG-160900764- 20160418-JK22</b>	<b>WG-160900764- 20160418-JK23</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>					
Chromium (VI)	ug/L	<0.50	<0.50	0.50	4463646
Mercury (Hg)	ug/L	<0.1	<0.1	0.1	4464296
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

**MICROBIOLOGY (WATER)**

<b>Maxxam ID</b>		CFC036	CFC037	
<b>Sampling Date</b>		2016/04/18 12:55	2016/04/18 13:28	
<b>COC Number</b>		57362	57362	
	<b>UNITS</b>	<b>WG-160900764- 20160418-JK22</b>	<b>WG-160900764- 20160418-JK23</b>	<b>QC Batch</b>
<b>Microbiological</b>				
Background	CFU/100mL	13	4	4462601
Total Coliforms	CFU/100mL	8	0	4462601
Escherichia coli	CFU/100mL	0	0	4462601
QC Batch = Quality Control Batch				

**O.REG 153 PCBS (WATER)**

<b>Maxxam ID</b>		CFC036	CFC037		
<b>Sampling Date</b>		2016/04/18 12:55	2016/04/18 13:28		
<b>COC Number</b>		57362	57362		
	<b>UNITS</b>	<b>WG-160900764- 20160418-JK22</b>	<b>WG-160900764- 20160418-JK23</b>	<b>RDL</b>	<b>QC Batch</b>
<b>PCBs</b>					
Aroclor 1242	ug/L	<0.05	<0.05	0.05	4466924
Aroclor 1248	ug/L	<0.05	<0.05	0.05	4466924
Aroclor 1254	ug/L	<0.05	<0.05	0.05	4466924
Aroclor 1260	ug/L	<0.05	<0.05	0.05	4466924
Total PCB	ug/L	<0.05	<0.05	0.05	4466924
<b>Surrogate Recovery (%)</b>					
Decachlorobiphenyl	%	86	98		4466924
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		CFC036	CFC037		
Sampling Date		2016/04/18 12:55	2016/04/18 13:28		
COC Number		57362	57362		
	UNITS	WG-160900764- 20160418-JK22	WG-160900764- 20160418-JK23	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>					
F1 (C6-C10)	ug/L	<25	<25	25	4467175
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	4467175
<b>F2-F4 Hydrocarbons</b>					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	4468402
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	4468402
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	4468402
Reached Baseline at C50	ug/L	Yes	Yes		4468402
<b>Surrogate Recovery (%)</b>					
1,4-Difluorobenzene	%	101	100		4467175
4-Bromofluorobenzene	%	103	103		4467175
D10-Ethylbenzene	%	102	100		4467175
D4-1,2-Dichloroethane	%	92	92		4467175
o-Terphenyl	%	101	99		4468402
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CFC036	CFC037		
Sampling Date		2016/04/18 12:55	2016/04/18 13:28		
COC Number		57362	57362		
	UNITS	WG-160900764- 20160418-JK22	WG-160900764- 20160418-JK23	RDL	QC Batch
<b>Semivolatile Organics</b>					
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	0.1	4464463
1-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	4464463
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	0.2	4464463
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	0.2	4464463
2,4-Dichlorophenol	ug/L	<0.1	<0.1	0.1	4464463
2,4-Dimethylphenol	ug/L	<0.5	<0.5	0.5	4464463
2,4-Dinitrophenol	ug/L	<2	<2	2	4464463
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	4464463
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	4464463
2-Chlorophenol	ug/L	<0.1	<0.1	0.1	4464463
2-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	4464463
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	0.5	4464463
Acenaphthene	ug/L	<0.2	<0.2	0.2	4464463
Acenaphthylene	ug/L	<0.2	<0.2	0.2	4464463
Anthracene	ug/L	<0.05	<0.05	0.05	4464463
Benzo(a)anthracene	ug/L	<0.05	<0.05	0.05	4464463
Benzo(a)pyrene	ug/L	<0.01	<0.01	0.01	4464463
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	0.05	4464463
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	0.05	4464463
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	0.05	4464463
Biphenyl	ug/L	<0.1	<0.1	0.1	4464463
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	0.5	4464463
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	0.5	4464463
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	1	4464463
Chrysene	ug/L	<0.05	<0.05	0.05	4464463
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	0.1	4464463
Diethyl phthalate	ug/L	<0.1	<0.1	0.1	4464463
Dimethyl phthalate	ug/L	<0.1	<0.1	0.1	4464463
Fluoranthene	ug/L	<0.2	<0.2	0.2	4464463
Fluorene	ug/L	<0.2	<0.2	0.2	4464463
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	0.1	4464463
Naphthalene	ug/L	<0.2	<0.2	0.2	4464463
p-Chloroaniline	ug/L	<1	<1	1	4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		CFC036	CFC037		
Sampling Date		2016/04/18 12:55	2016/04/18 13:28		
COC Number		57362	57362		
	UNITS	WG-160900764- 20160418-JK22	WG-160900764- 20160418-JK23	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	0.1	4464463
Phenanthrene	ug/L	<0.1	<0.1	0.1	4464463
Phenol	ug/L	<0.5	<0.5	0.5	4464463
Pyrene	ug/L	<0.05	<0.05	0.05	4464463
<b>Calculated Parameters</b>					
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	0.28	4461440
<b>Surrogate Recovery (%)</b>					
2,4,6-Tribromophenol	%	46 (1)	44 (1)		4464463
2-Fluorobiphenyl	%	70	62		4464463
D14-Terphenyl (FS)	%	106	106		4464463
D5-Nitrobenzene	%	57	50		4464463
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.					

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CFC036	CFC037		
Sampling Date		2016/04/18 12:55	2016/04/18 13:28		
COC Number		57362	57362		
	UNITS	WG-160900764- 20160418-JK22	WG-160900764- 20160418-JK23	RDL	QC Batch
<b>Calculated Parameters</b>					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	4461441
<b>Volatile Organics</b>					
Acetone (2-Propanone)	ug/L	<10	<10	10	4465301
Benzene	ug/L	<0.20	<0.20	0.20	4465301
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	4465301
Bromoform	ug/L	<1.0	<1.0	1.0	4465301
Bromomethane	ug/L	<0.50	<0.50	0.50	4465301
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	4465301
Chlorobenzene	ug/L	<0.20	<0.20	0.20	4465301
Chloroform	ug/L	<0.20	<0.20	0.20	4465301
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	4465301
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4465301
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4465301
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4465301
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	4465301
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	4465301
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	4465301
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	4465301
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4465301
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4465301
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	4465301
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	4465301
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	4465301
Ethylbenzene	ug/L	<0.20	<0.20	0.20	4465301
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	4465301
Hexane	ug/L	<1.0	<1.0	1.0	4465301
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	4465301
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	4465301
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	4465301
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	4465301
Styrene	ug/L	<0.50	<0.50	0.50	4465301
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4465301
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4465301
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		CFC036	CFC037		
Sampling Date		2016/04/18 12:55	2016/04/18 13:28		
COC Number		57362	57362		
	UNITS	WG-160900764- 20160418-JK22	WG-160900764- 20160418-JK23	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	4465301
Toluene	ug/L	<0.20	<0.20	0.20	4465301
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	4465301
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	4465301
Trichloroethylene	ug/L	<0.20	<0.20	0.20	4465301
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	4465301
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	4465301
p+m-Xylene	ug/L	<0.20	<0.20	0.20	4465301
o-Xylene	ug/L	<0.20	<0.20	0.20	4465301
Total Xylenes	ug/L	<0.20	<0.20	0.20	4465301
<b>Surrogate Recovery (%)</b>					
4-Bromofluorobenzene	%	98	96		4465301
D4-1,2-Dichloroethane	%	108	108		4465301
D8-Toluene	%	96	96		4465301
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**TEST SUMMARY**

**Maxxam ID:** CFC036  
**Sample ID:** WG-160900764-20160418-JK22  
**Matrix:** Water

**Collected:** 2016/04/18  
**Shipped:**  
**Received:** 2016/04/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4461440	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4463438	N/A	2016/04/22	Grace Sison
Alkalinity	AT	4465146	N/A	2016/04/21	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4461331	N/A	2016/04/21	Automated Statchk
1,3-Dichloropropene Sum	CALC	4461441	N/A	2016/04/22	Automated Statchk
Chloride by Automated Colourimetry	KONE	4467308	N/A	2016/04/22	Alina Dobreanu
Conductivity	AT	4465148	N/A	2016/04/21	Surinder Rai
Chromium (VI) in Water	IC	4463646	N/A	2016/04/20	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4466414	N/A	2016/04/21	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4464935	N/A	2016/04/20	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4467175	N/A	2016/04/22	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4468402	2016/04/22	2016/04/22	Margaret Kulczyk-Stanko
Fluoride	ISE	4465129	2016/04/20	2016/04/21	Surinder Rai
Hardness (calculated as CaCO3)		4461333	N/A	2016/04/21	Automated Statchk
Mercury	CV/AA	4464296	2016/04/20	2016/04/20	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4463829	2016/04/20	2016/04/20	Prempal Bhatti
Ion Balance (% Difference)	CALC	4461326	N/A	2016/04/22	Cristina Carriere
Anion and Cation Sum	CALC	4461327	N/A	2016/04/21	Cristina Carriere
Total Coliforms/ E. coli, CFU/100mL	PL	4462601	N/A	2016/04/18	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4466447	N/A	2016/04/22	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4464851	N/A	2016/04/22	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4466924	2016/04/21	2016/04/21	Li Peng
pH	AT	4465147	N/A	2016/04/21	Surinder Rai
Orthophosphate	KONE	4467312	N/A	2016/04/22	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4461328	N/A	2016/04/22	Cristina Carriere
Sat. pH and Langelier Index (@ 4C)	CALC	4461329	N/A	2016/04/22	Cristina Carriere
Sulphate by Automated Colourimetry	KONE	4467313	N/A	2016/04/22	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4461330	N/A	2016/04/22	Cristina Carriere
Total Dissolved Solids	BAL	4471429	N/A	2016/04/26	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4470306	N/A	2016/04/24	Elsamma Alex
Total Suspended Solids	BAL	4471426	N/A	2016/04/25	Lu Wang(Alice)
Turbidity	AT	4469784	N/A	2016/04/23	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4465301	N/A	2016/04/21	Karen Hughes

**Maxxam ID:** CFC036 Dup  
**Sample ID:** WG-160900764-20160418-JK22  
**Matrix:** Water

**Collected:** 2016/04/18  
**Shipped:**  
**Received:** 2016/04/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	4467308	N/A	2016/04/22	Alina Dobreanu
Free (WAD) Cyanide	TECH/CN	4466414	N/A	2016/04/21	Christine Pham
Orthophosphate	KONE	4467312	N/A	2016/04/22	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	4467313	N/A	2016/04/22	Alina Dobreanu

### TEST SUMMARY

**Maxxam ID:** CFC037  
**Sample ID:** WG-160900764-20160418-JK23  
**Matrix:** Water

**Collected:** 2016/04/18  
**Shipped:**  
**Received:** 2016/04/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4461440	N/A	2016/04/22	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4464463	2016/04/20	2016/04/21	Milijana Avramovic
Acidity as CaCO3 in liquid		4463438	N/A	2016/04/22	Grace Sison
Alkalinity	AT	4465146	N/A	2016/04/21	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4461331	N/A	2016/04/21	Automated Statchk
1,3-Dichloropropene Sum	CALC	4461441	N/A	2016/04/22	Automated Statchk
Chloride by Automated Colourimetry	KONE	4467308	N/A	2016/04/22	Alina Dobreanu
Conductivity	AT	4465148	N/A	2016/04/21	Surinder Rai
Chromium (VI) in Water	IC	4463646	N/A	2016/04/20	Sally Coughlin
Free (WAD) Cyanide	TECH/CN	4466414	N/A	2016/04/21	Christine Pham
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4464935	N/A	2016/04/20	Elsamma Alex
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4467175	N/A	2016/04/22	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4468402	2016/04/22	2016/04/22	Margaret Kulczyk-Stanko
Fluoride	ISE	4465129	2016/04/20	2016/04/21	Surinder Rai
Hardness (calculated as CaCO3)		4461333	N/A	2016/04/21	Automated Statchk
Mercury	CV/AA	4464296	2016/04/20	2016/04/20	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4463829	2016/04/20	2016/04/20	Prempal Bhatti
Ion Balance (% Difference)	CALC	4461326	N/A	2016/04/22	Cristina Carriere
Anion and Cation Sum	CALC	4461327	N/A	2016/04/21	Cristina Carriere
Total Coliforms/ E. coli, CFU/100mL	PL	4462601	N/A	2016/04/18	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4466447	N/A	2016/04/22	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4464851	N/A	2016/04/22	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4466924	2016/04/21	2016/04/21	Li Peng
pH	AT	4465147	N/A	2016/04/21	Surinder Rai
Orthophosphate	KONE	4467312	N/A	2016/04/22	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4461328	N/A	2016/04/22	Cristina Carriere
Sat. pH and Langelier Index (@ 4C)	CALC	4461329	N/A	2016/04/22	Cristina Carriere
Sulphate by Automated Colourimetry	KONE	4467313	N/A	2016/04/22	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4461330	N/A	2016/04/22	Automated Statchk
Total Dissolved Solids	BAL	4471429	N/A	2016/04/26	Niki Shah
Total Organic Carbon (TOC)	TOCV/NDIR	4470306	N/A	2016/04/24	Elsamma Alex
Total Suspended Solids	BAL	4471426	N/A	2016/04/25	Lu Wang(Alice)
Turbidity	AT	4469784	N/A	2016/04/23	Lemeneh Addis
Volatile Organic Compounds in Water	GC/MS	4465301	N/A	2016/04/21	Karen Hughes

**Maxxam ID:** CFC037 Dup  
**Sample ID:** WG-160900764-20160418-JK23  
**Matrix:** Water

**Collected:** 2016/04/18  
**Shipped:**  
**Received:** 2016/04/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4463438	N/A		Grace Sison
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4464935	N/A	2016/04/20	Elsamma Alex

### GENERAL COMMENTS

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

Package 1	15.3°C
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Sample CFC036-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample CFC037-01 : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4464463	2,4,6-Tribromophenol	2016/04/21	75	50 - 130	77	50 - 130	54	%				
4464463	2-Fluorobiphenyl	2016/04/21	42 (1)	50 - 130	55	50 - 130	67	%				
4464463	D14-Terphenyl (FS)	2016/04/21	99	50 - 130	101	50 - 130	99	%				
4464463	D5-Nitrobenzene	2016/04/21	43 (1)	50 - 130	56	50 - 130	60	%				
4465301	4-Bromofluorobenzene	2016/04/21	102	70 - 130	101	70 - 130	96	%				
4465301	D4-1,2-Dichloroethane	2016/04/21	107	70 - 130	104	70 - 130	103	%				
4465301	D8-Toluene	2016/04/21	98	70 - 130	100	70 - 130	98	%				
4466924	Decachlorobiphenyl	2016/04/21	91	60 - 130	88	60 - 130	75	%				
4467175	1,4-Difluorobenzene	2016/04/22	104	70 - 130	105	70 - 130	101	%				
4467175	4-Bromofluorobenzene	2016/04/22	102	70 - 130	100	70 - 130	101	%				
4467175	D10-Ethylbenzene	2016/04/22	99	70 - 130	96	70 - 130	102	%				
4467175	D4-1,2-Dichloroethane	2016/04/22	97	70 - 130	96	70 - 130	91	%				
4468402	o-Terphenyl	2016/04/22	105	60 - 130	104	60 - 130	104	%				
4463438	Acidity as CaCO3						<10	mg/L	NC	25		
4463646	Chromium (VI)	2016/04/20	120	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
4463829	. Aluminum (Al)	2016/04/20	116	80 - 120	114	80 - 120	<0.0050	mg/L				
4463829	. Antimony (Sb)	2016/04/20	106	80 - 120	102	80 - 120	<0.00050	mg/L				
4463829	. Arsenic (As)	2016/04/20	104	80 - 120	100	80 - 120	<0.0010	mg/L				
4463829	. Barium (Ba)	2016/04/20	100	80 - 120	98	80 - 120	<0.0020	mg/L				
4463829	. Beryllium (Be)	2016/04/20	103	80 - 120	100	80 - 120	<0.00050	mg/L				
4463829	. Boron (B)	2016/04/20	102	80 - 120	103	80 - 120	<0.010	mg/L				
4463829	. Cadmium (Cd)	2016/04/20	103	80 - 120	101	80 - 120	<0.00010	mg/L				
4463829	. Calcium (Ca)	2016/04/20	NC	80 - 120	108	80 - 120	<0.20	mg/L				
4463829	. Chromium (Cr)	2016/04/20	105	80 - 120	104	80 - 120	<0.0050	mg/L				
4463829	. Cobalt (Co)	2016/04/20	106	80 - 120	105	80 - 120	<0.00050	mg/L				
4463829	. Copper (Cu)	2016/04/20	102	80 - 120	102	80 - 120	<0.0010	mg/L				
4463829	. Iron (Fe)	2016/04/20	97	80 - 120	96	80 - 120	<0.10	mg/L				
4463829	. Lead (Pb)	2016/04/20	101	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
4463829	. Magnesium (Mg)	2016/04/20	NC	80 - 120	115	80 - 120	<0.050	mg/L				
4463829	. Manganese (Mn)	2016/04/20	102	80 - 120	101	80 - 120	<0.0020	mg/L				
4463829	. Molybdenum (Mo)	2016/04/20	106	80 - 120	101	80 - 120	<0.00050	mg/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4463829	. Nickel (Ni)	2016/04/20	106	80 - 120	105	80 - 120	<0.0010	mg/L				
4463829	. Phosphorus (P)	2016/04/20	110	80 - 120	107	80 - 120	<0.10	mg/L				
4463829	. Potassium (K)	2016/04/20	110	80 - 120	108	80 - 120	<0.20	mg/L				
4463829	. Selenium (Se)	2016/04/20	106	80 - 120	102	80 - 120	<0.0020	mg/L				
4463829	. Silicon (Si)	2016/04/20	NC	80 - 120	110	80 - 120	<0.050	mg/L				
4463829	. Silver (Ag)	2016/04/20	99	80 - 120	95	80 - 120	<0.00010	mg/L				
4463829	. Sodium (Na)	2016/04/20	115	80 - 120	115	80 - 120	<0.10	mg/L				
4463829	. Strontium (Sr)	2016/04/20	100	80 - 120	96	80 - 120	<0.0010	mg/L				
4463829	. Thallium (Tl)	2016/04/20	100	80 - 120	100	80 - 120	<0.000050	mg/L				
4463829	. Titanium (Ti)	2016/04/20	105	80 - 120	103	80 - 120	<0.0050	mg/L				
4463829	. Uranium (U)	2016/04/20	104	80 - 120	102	80 - 120	<0.00010	mg/L				
4463829	. Vanadium (V)	2016/04/20	107	80 - 120	105	80 - 120	<0.00050	mg/L				
4463829	. Zinc (Zn)	2016/04/20	103	80 - 120	101	80 - 120	<0.0050	mg/L				
4464296	Mercury (Hg)	2016/04/20	100	75 - 125	97	80 - 120	<0.1	ug/L	NC	20		
4464463	1,2,4-Trichlorobenzene	2016/04/21	38 (2)	40 - 130	53	40 - 130	<0.1	ug/L	NC	30		
4464463	1-Methylnaphthalene	2016/04/21	51	50 - 130	67	50 - 130	<0.2	ug/L	NC	30		
4464463	2,4,5-Trichlorophenol	2016/04/21	87	50 - 130	96	50 - 130	<0.2	ug/L	NC	30		
4464463	2,4,6-Trichlorophenol	2016/04/21	70	50 - 130	90	50 - 130	<0.2	ug/L	NC	30		
4464463	2,4-Dichlorophenol	2016/04/21	52	50 - 130	70	50 - 130	<0.1	ug/L	NC	30		
4464463	2,4-Dimethylphenol	2016/04/21	52	30 - 130	58	30 - 130	<0.5	ug/L	NC	30		
4464463	2,4-Dinitrophenol	2016/04/21	91	30 - 130	126	30 - 130	<2	ug/L	NC	30		
4464463	2,4-Dinitrotoluene	2016/04/21	92	50 - 130	101	50 - 130	<0.3	ug/L	NC	30		
4464463	2,6-Dinitrotoluene	2016/04/21	80	50 - 130	93	50 - 130	<0.3	ug/L	NC	30		
4464463	2-Chlorophenol	2016/04/21	47 (3)	50 - 130	62	50 - 130	<0.1	ug/L	NC	30		
4464463	2-Methylnaphthalene	2016/04/21	49 (3)	50 - 130	65	50 - 130	<0.2	ug/L	NC	30		
4464463	3,3'-Dichlorobenzidine	2016/04/21	76	30 - 130	86	30 - 130	<0.5	ug/L	NC	30		
4464463	Acenaphthene	2016/04/21	62	50 - 130	77	50 - 130	<0.2	ug/L	NC	30		
4464463	Acenaphthylene	2016/04/21	62	50 - 130	76	50 - 130	<0.2	ug/L	NC	30		
4464463	Anthracene	2016/04/21	86	50 - 130	87	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(a)anthracene	2016/04/21	96	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(a)pyrene	2016/04/21	90	50 - 130	94	50 - 130	<0.01	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4464463	Benzo(b/j)fluoranthene	2016/04/21	90	50 - 130	95	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(g,h,i)perylene	2016/04/21	74	50 - 130	104	50 - 130	<0.05	ug/L	NC	30		
4464463	Benzo(k)fluoranthene	2016/04/21	88	50 - 130	89	50 - 130	<0.05	ug/L	NC	30		
4464463	Biphenyl	2016/04/21	54	50 - 130	71	50 - 130	<0.1	ug/L	NC	30		
4464463	Bis(2-chloroethyl)ether	2016/04/21	45 (3)	50 - 130	53	50 - 130	<0.5	ug/L	NC	30		
4464463	Bis(2-chloroisopropyl)ether	2016/04/21	43 (3)	50 - 130	57	50 - 130	<0.5	ug/L	NC	30		
4464463	Bis(2-ethylhexyl)phthalate	2016/04/21	101	50 - 130	101	50 - 130	<1	ug/L	NC	30		
4464463	Chrysene	2016/04/21	93	50 - 130	97	50 - 130	<0.05	ug/L	NC	30		
4464463	Dibenz(a,h)anthracene	2016/04/21	82	50 - 130	106	50 - 130	<0.1	ug/L	NC	30		
4464463	Diethyl phthalate	2016/04/21	77	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4464463	Dimethyl phthalate	2016/04/21	78	50 - 130	94	50 - 130	<0.1	ug/L	NC	30		
4464463	Fluoranthene	2016/04/21	97	50 - 130	102	50 - 130	<0.2	ug/L	NC	30		
4464463	Fluorene	2016/04/21	74	50 - 130	84	50 - 130	<0.2	ug/L	NC	30		
4464463	Indeno(1,2,3-cd)pyrene	2016/04/21	77	50 - 130	102	50 - 130	<0.1	ug/L	NC	30		
4464463	Naphthalene	2016/04/21	54	50 - 130	53	50 - 130	<0.2	ug/L	NC	30		
4464463	p-Chloroaniline	2016/04/21	40	30 - 130	61	30 - 130	<1	ug/L	NC	30		
4464463	Pentachlorophenol	2016/04/21	106	50 - 130	102	50 - 130	<0.1	ug/L	NC	30		
4464463	Phenanthrene	2016/04/21	83	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4464463	Phenol	2016/04/21	21 (3)	30 - 130	31	30 - 130	<0.5	ug/L	NC	30		
4464463	Pyrene	2016/04/21	95	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4464851	Nitrate (N)	2016/04/22	NC	80 - 120	98	80 - 120	<0.10	mg/L	0.58	25		
4464851	Nitrite (N)	2016/04/22	100	80 - 120	103	80 - 120	<0.010	mg/L	1.5	25		
4464935	Dissolved Organic Carbon	2016/04/20	97	80 - 120	100	80 - 120	0.32, RDL=0.20	mg/L	NC	20		
4465129	Fluoride (F-)	2016/04/21	104	80 - 120	103	80 - 120	<0.10	mg/L	1.9	20		
4465146	Alkalinity (Total as CaCO3)	2016/04/21			96	85 - 115	<1.0	mg/L	0.86	25		
4465147	pH	2016/04/21			102	98 - 103			0.42	N/A		
4465148	Conductivity	2016/04/21			102	85 - 115	<1.0	umho/cm	0.78	25		
4465301	1,1,1,2-Tetrachloroethane	2016/04/21	100	70 - 130	105	70 - 130	<0.50	ug/L	NC	30		
4465301	1,1,1-Trichloroethane	2016/04/21	92	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4465301	1,1,2,2-Tetrachloroethane	2016/04/21	110	70 - 130	114	70 - 130	<0.50	ug/L	NC	30		
4465301	1,1,2-Trichloroethane	2016/04/21	108	70 - 130	110	70 - 130	<0.50	ug/L	NC	30		
4465301	1,1-Dichloroethane	2016/04/21	98	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4465301	1,1-Dichloroethylene	2016/04/21	99	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4465301	1,2-Dichlorobenzene	2016/04/21	101	70 - 130	106	70 - 130	<0.50	ug/L	NC	30		
4465301	1,2-Dichloroethane	2016/04/21	107	70 - 130	107	70 - 130	<0.50	ug/L	NC	30		
4465301	1,2-Dichloropropane	2016/04/21	101	70 - 130	105	70 - 130	<0.20	ug/L	NC	30		
4465301	1,3-Dichlorobenzene	2016/04/21	100	70 - 130	107	70 - 130	<0.50	ug/L	NC	30		
4465301	1,4-Dichlorobenzene	2016/04/21	105	70 - 130	112	70 - 130	<0.50	ug/L	NC	30		
4465301	Acetone (2-Propanone)	2016/04/21	112	60 - 140	113	60 - 140	<10	ug/L	NC	30		
4465301	Benzene	2016/04/21	97	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4465301	Bromodichloromethane	2016/04/21	102	70 - 130	106	70 - 130	<0.50	ug/L	NC	30		
4465301	Bromoform	2016/04/21	107	70 - 130	109	70 - 130	<1.0	ug/L	NC	30		
4465301	Bromomethane	2016/04/21	91	60 - 140	91	60 - 140	<0.50	ug/L	NC	30		
4465301	Carbon Tetrachloride	2016/04/21	95	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4465301	Chlorobenzene	2016/04/21	102	70 - 130	107	70 - 130	<0.20	ug/L	NC	30		
4465301	Chloroform	2016/04/21	99	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
4465301	cis-1,2-Dichloroethylene	2016/04/21	99	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
4465301	cis-1,3-Dichloropropene	2016/04/21	109	70 - 130	109	70 - 130	<0.30	ug/L	NC	30		
4465301	Dibromochloromethane	2016/04/21	105	70 - 130	109	70 - 130	<0.50	ug/L	NC	30		
4465301	Dichlorodifluoromethane (FREON 12)	2016/04/21	95	60 - 140	98	60 - 140	<1.0	ug/L	NC	30		
4465301	Ethylbenzene	2016/04/21	98	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4465301	Ethylene Dibromide	2016/04/21	108	70 - 130	109	70 - 130	<0.20	ug/L	NC	30		
4465301	Hexane	2016/04/21	100	70 - 130	103	70 - 130	<1.0	ug/L	NC	30		
4465301	Methyl Ethyl Ketone (2-Butanone)	2016/04/21	126	60 - 140	128	60 - 140	<10	ug/L	NC	30		
4465301	Methyl Isobutyl Ketone	2016/04/21	120	70 - 130	122	70 - 130	<5.0	ug/L	NC	30		
4465301	Methyl t-butyl ether (MTBE)	2016/04/21	100	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4465301	Methylene Chloride(Dichloromethane)	2016/04/21	98	70 - 130	98	70 - 130	<2.0	ug/L	NC	30		
4465301	o-Xylene	2016/04/21	97	70 - 130	104	70 - 130	<0.20	ug/L	NC	30		
4465301	p+m-Xylene	2016/04/21	96	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4465301	Styrene	2016/04/21	100	70 - 130	107	70 - 130	<0.50	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4465301	Tetrachloroethylene	2016/04/21	93	70 - 130	99	70 - 130	<0.20	ug/L	4.0	30		
4465301	Toluene	2016/04/21	94	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4465301	Total Xylenes	2016/04/21					<0.20	ug/L	NC	30		
4465301	trans-1,2-Dichloroethylene	2016/04/21	96	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4465301	trans-1,3-Dichloropropene	2016/04/21	111	70 - 130	110	70 - 130	<0.40	ug/L	NC	30		
4465301	Trichloroethylene	2016/04/21	98	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4465301	Trichlorofluoromethane (FREON 11)	2016/04/21	97	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
4465301	Vinyl Chloride	2016/04/21	100	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4466414	Free Cyanide	2016/04/21	97	80 - 120	98	80 - 120	<2	ug/L	NC	20		
4466447	Total Ammonia-N	2016/04/22	92	80 - 120	96	85 - 115	<0.050	mg/L	NC	20		
4466924	Aroclor 1242	2016/04/21					<0.05	ug/L	NC	30		
4466924	Aroclor 1248	2016/04/21					<0.05	ug/L	NC	30		
4466924	Aroclor 1254	2016/04/21					<0.05	ug/L	NC	30		
4466924	Aroclor 1260	2016/04/21	82	60 - 130	82	60 - 130	<0.05	ug/L	NC	30		
4466924	Total PCB	2016/04/21	82	60 - 130	82	60 - 130	<0.05	ug/L	NC	40		
4467175	F1 (C6-C10) - BTEX	2016/04/22					<25	ug/L	NC	30		
4467175	F1 (C6-C10)	2016/04/22	80	70 - 130	83	70 - 130	<25	ug/L	NC	30		
4467308	Dissolved Chloride (Cl)	2016/04/22	NC	80 - 120	103	80 - 120	<1.0	mg/L	2.5	20		
4467312	Orthophosphate (P)	2016/04/22	112	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		
4467313	Dissolved Sulphate (SO4)	2016/04/22	NC	75 - 125	105	80 - 120	<1.0	mg/L	0.52	20		
4468402	F2 (C10-C16 Hydrocarbons)	2016/04/22	104	50 - 130	86	60 - 130	<100	ug/L	NC	30		
4468402	F3 (C16-C34 Hydrocarbons)	2016/04/22	103	50 - 130	89	60 - 130	<200	ug/L	NC	30		
4468402	F4 (C34-C50 Hydrocarbons)	2016/04/22	102	50 - 130	93	60 - 130	<200	ug/L	NC	30		
4469784	Turbidity	2016/04/23			102	85 - 115	<0.1	NTU	NC	20		
4470306	Total Organic Carbon (TOC)	2016/04/24	96	80 - 120	100	80 - 120	0.21, RDL=0.20	mg/L	0.70	20		
4471426	Total Suspended Solids	2016/04/25					<10	mg/L	NC	25	97	85 - 115

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4471429	Total Dissolved Solids	2016/04/26					<10	mg/L	1.5	25	98	90 - 110

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) Surrogate recovery was below the lower control limit. This may represent a low bias in some results.

(2) Some of the recoveries were below the lower control limits. This may represent a low bias in some results for these flagged analytes.

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

### VALIDATION SIGNATURE PAGE

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

*Cristina Carriere*

\_\_\_\_\_  
Cristina Carriere, Scientific Services



*[Signature]*  
\_\_\_\_\_  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

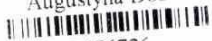
*Ranju*

\_\_\_\_\_  
Ranju Chaudhari

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Invoice Information		Report Information (if differs from invoice)		Project Information (where applicable)		Turnaround Time (TAT) Required														
Company Name: <u>Starter Consulting</u>		Company Name:		Quotation #: <u>1548218</u>		<input checked="" type="checkbox"/> Regular TAT (5-7 days) Most analyses														
Contact Name: <u>Brian G. Li</u>		Contact Name:		P.O. #/ A/E #:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS														
Address: <u>Markham ON</u>		Address:		Project #: <u>160900764</u>		Rush TAT (Surcharges will be applied)														
Phone: <u>905 415 6330</u>		Phone:		Site Location: <u>Clarington TS - Private Wells</u>		<input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3-4 Days														
Email: <u>brian.g.li@starter.com, aaron.wurke@starter.com</u>		Email: <u>wurke@starter.com</u>		Site #:		Date Required:														
Sampled By: <u>JK</u>		Sampled By:		Rush Confirmation #:																
MDE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY																				
Regulation 153		Other Regulations		Analysis Requested		LABORATORY USE ONLY														
<input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Med/ Fine <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/ Other <input type="checkbox"/> Table <input type="checkbox"/> FOR RSC (PLEASE CIRCLE) Y / N		<input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> MISA <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> PWQO <input type="checkbox"/> Region <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> REG 558 (MIN. 3 DAY TAT REQUIRED)		REFER TO BACK OF COC REG 153 METALS & INORGANICS REG 153 ICP/MAS METALS REG 153 METALS (Pb, Cr, V, ICP/MAS Metals, HWS - B) REG 153 PHL REG 153 PCBs REG 153 VOCs REG 153 Comp (GW) NO PAH ECOCOL / Total Col. Form SVOCs		CUSTODY SEAL <input checked="" type="checkbox"/> Present <input type="checkbox"/> Intact COOLER TEMPERATURES <u>15.5/16</u> COOLING MEDIA PRESENT: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> COC														
Include Criteria on Certificate of Analysis: Y / N																				
SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM																				
SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Ig / CVI	BITEX / PHC 11	PHCS 12 - 14	VOCs	REG 153 METALS & INORGANICS	REG 153 ICP/MAS METALS	REG 153 METALS (Pb, Cr, V, ICP/MAS Metals, HWS - B)	REG 153 PHL	REG 153 PCBs	REG 153 VOCs	REG 153 Comp (GW) NO PAH	ECOCOL / Total Col. Form	SVOCs	HOLD - DO NOT ANALYZE	COMMENTS	
1	WG-160900764-20160418-JK22	2016/04/18	1255	WG	21	NA														none filtered, none required - Total metals not regulated for the samples
2	" " " JK23	"	1328	WG	21	NA														
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

18-Apr-16 16:10  
Augustyna Dobosz  
  
 B676726  
 TIGR ENV.061

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	MAXXAM JOB #
<u>Janice Koch</u>	<u>2016/04/18</u>	<u>1610</u>	<u>Augustyna Dobosz</u>	<u>2016/04/18</u>	<u>16:10</u>	
			<u>Adrian Bhargava</u>	<u>2016/04/18</u>	<u>18:00</u>	

Your Project #: 160900764  
 Site Location: CLARINGTON TS-SURFACE WATER  
 Your C.O.C. #: 584466-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/15**  
 Report #: R4247594  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N9272**

**Received: 2016/11/03, 15:20**

Sample Matrix: Water  
 # Samples Received: 2

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	2	N/A	2016/11/10	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	2	2016/11/09	2016/11/10	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	2	N/A	2016/11/09	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	2	N/A	2016/11/08	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2016/11/09	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	2	N/A	2016/11/09		EPA 8260C m
Chloride by Automated Colourimetry	2	N/A	2016/11/08	CAM SOP-00463	EPA 325.2 m
Conductivity	2	N/A	2016/11/08	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	2	N/A	2016/11/08	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	1	N/A	2016/11/08	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	1	N/A	2016/11/10	CAM SOP-00457	OMOE E3015 m
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2016/11/08	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (3)	2	2016/11/06	2016/11/07	CAM SOP-00316	CCME PHC-CWS m
Fluoride	2	2016/11/08	2016/11/08	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2016/11/09	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2016/11/09	2016/11/09	CAM SOP-00453	EPA 7470A m
Lab Filtered Metals Analysis by ICP	2	2016/11/08	2016/11/09	CAM SOP-00408	EPA 6010C m
Total Metals Analysis by ICPMS	2	N/A	2016/11/09	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	2	N/A	2016/11/11	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (4)	2	N/A	2016/11/10	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	2	2016/11/07	2016/11/08	CAM SOP-00309	EPA 8082A m
pH	2	N/A	2016/11/08	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	2	N/A	2016/11/08	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	2	N/A	2016/11/09		
Sat. pH and Langelier Index (@ 4C)	2	N/A	2016/11/09		
Sulphate by Automated Colourimetry	2	N/A	2016/11/08	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids	2	2016/11/10	2016/11/10	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (5)	2	N/A	2016/11/08	CAM SOP-00446	SM 22 5310B m
Total Phosphorus (Colourimetric)	2	2016/11/09	2016/11/09	CAM SOP-00407	SM 22 4500 P B H m

Your Project #: 160900764  
 Site Location: CLARINGTON TS-SURFACE WATER  
 Your C.O.C. #: 584466-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/15**  
 Report #: R4247594  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N9272**

**Received: 2016/11/03, 15:20**

Sample Matrix: Water  
 # Samples Received: 2

Analyses	Quantity	Date		Laboratory Method	Reference
		Extracted	Analyzed		
Total Suspended Solids	2	2016/11/09	2016/11/09	CAM SOP-00428	SM 22 2540D m
Turbidity	1	N/A	2016/11/09	CAM SOP-00417	SM 22 2130 B m
Turbidity	1	N/A	2016/11/10	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	2	N/A	2016/11/08	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (4) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (5) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Your Project #: 160900764  
Site Location: CLARINGTON TS-SURFACE WATER  
Your C.O.C. #: 584466-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/11/15**  
Report #: R4247594  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N9272**  
**Received: 2016/11/03, 15:20**

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RCAP - SURFACE WATER (WATER)**

Maxxam ID		DJQ261	DJQ261	DJQ262		
Sampling Date		2016/11/03 11:30	2016/11/03 11:30	2016/11/03 12:00		
COC Number		584466-01-01	584466-01-01	584466-01-01		
	UNITS	WS-160900764- 20161103-AM001	WS-160900764- 20161103-AM001 Lab-Dup	WS-160900764- 20161103-AM002	RDL	QC Batch

Calculated Parameters						
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	120		120	1.0	4735718
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0		<1.0	1.0	4735718
Hardness (CaCO3)	mg/L	590		580	1.0	4735472
Langelier Index (@ 20C)	N/A	0.611		0.603		4735720
Langelier Index (@ 4C)	N/A	0.365		0.357		4735721
Saturation pH (@ 20C)	N/A	7.18		7.19		4735720
Saturation pH (@ 4C)	N/A	7.43		7.44		4735721

Inorganics						
Total Ammonia-N	mg/L	<0.050		<0.050	0.050	4740801
Conductivity	umho/cm	1400		1400	1.0	4738651
Orthophosphate (P)	mg/L	<0.010	<0.010	<0.010	0.010	4736775
pH	pH	7.79		7.80		4738654
Total Phosphorus	mg/L	0.033		0.033	0.004	4740166
Dissolved Sulphate (SO4)	mg/L	470	460	460	5.0	4736774
Alkalinity (Total as CaCO3)	mg/L	120		120	1.0	4738616
Dissolved Chloride (Cl)	mg/L	46	46	46	1.0	4736769
Nitrite (N)	mg/L	<0.010		0.011	0.010	4737170
Nitrate (N)	mg/L	2.67		2.63	0.10	4737170

Metals						
Dissolved Calcium (Ca)	mg/L	190	180	180	0.05	4738908
Dissolved Magnesium (Mg)	mg/L	32	31	31	0.05	4738908
Dissolved Potassium (K)	mg/L	12	12	12	1	4738908
Dissolved Sodium (Na)	mg/L	95	94	94	0.5	4738908
Total Aluminum (Al)	mg/L	0.44		0.41	0.0050	4740155
Total Antimony (Sb)	mg/L	<0.00050		<0.00050	0.00050	4740155
Total Arsenic (As)	mg/L	<0.0010		<0.0010	0.0010	4740155
Total Barium (Ba)	mg/L	0.079		0.072	0.0020	4740155
Total Beryllium (Be)	mg/L	<0.00050		<0.00050	0.00050	4740155
Total Boron (B)	mg/L	0.71		0.68	0.010	4740155
Total Cadmium (Cd)	mg/L	<0.00010		<0.00010	0.00010	4740155
Total Calcium (Ca)	mg/L	170		170	0.20	4740155
Total Chromium (Cr)	mg/L	<0.0050		<0.0050	0.0050	4740155

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate



**RCAP - SURFACE WATER (WATER)**

Maxxam ID		DJQ261	DJQ261	DJQ262		
Sampling Date		2016/11/03 11:30	2016/11/03 11:30	2016/11/03 12:00		
COC Number		584466-01-01	584466-01-01	584466-01-01		
	UNITS	WS-160900764- 20161103-AM001	WS-160900764- 20161103-AM001 Lab-Dup	WS-160900764- 20161103-AM002	RDL	QC Batch
Total Cobalt (Co)	mg/L	<0.00050		<0.00050	0.00050	4740155
Total Copper (Cu)	mg/L	<0.0010		0.0010	0.0010	4740155
Total Iron (Fe)	mg/L	0.49		0.48	0.10	4740155
Total Lead (Pb)	mg/L	<0.00050		<0.00050	0.00050	4740155
Total Magnesium (Mg)	mg/L	31		30	0.050	4740155
Total Manganese (Mn)	mg/L	0.073		0.070	0.0020	4740155
Total Molybdenum (Mo)	mg/L	0.0037		0.0036	0.00050	4740155
Total Nickel (Ni)	mg/L	0.0011		0.0012	0.0010	4740155
Total Phosphorus (P)	mg/L	<0.10		<0.10	0.10	4740155
Total Potassium (K)	mg/L	11		11	0.20	4740155
Total Selenium (Se)	mg/L	<0.0020		<0.0020	0.0020	4740155
Total Silicon (Si)	mg/L	3.0		2.9	0.050	4740155
Total Silver (Ag)	mg/L	<0.00010		<0.00010	0.00010	4740155
Total Sodium (Na)	mg/L	86		83	0.10	4740155
Total Strontium (Sr)	mg/L	3.0		2.9	0.0010	4740155
Total Thallium (Tl)	mg/L	<0.000050		<0.000050	0.000050	4740155
Total Titanium (Ti)	mg/L	0.018		0.020	0.0050	4740155
Total Uranium (U)	mg/L	0.00075		0.00072	0.00010	4740155
Total Vanadium (V)	mg/L	0.0012		0.0012	0.00050	4740155
Total Zinc (Zn)	mg/L	0.011		0.013	0.0050	4740155
Total Zirconium (Zr)	mg/L	<0.0010		<0.0010	0.0010	4740155

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - SURFACE WATER (WATER)**

<b>Maxxam ID</b>		DJQ262		
<b>Sampling Date</b>		2016/11/03 12:00		
<b>COC Number</b>		584466-01-01		
	<b>UNITS</b>	<b>WS-160900764- 20161103-AM002 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>				
Nitrite (N)	mg/L	<0.010	0.010	4737170
Nitrate (N)	mg/L	2.67	0.10	4737170
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate				

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJQ261	DJQ261		DJQ262		
<b>Sampling Date</b>		2016/11/03 11:30	2016/11/03 11:30		2016/11/03 12:00		
<b>COC Number</b>		584466-01-01	584466-01-01		584466-01-01		
	<b>UNITS</b>	<b>WS-160900764- 20161103-AM001</b>	<b>WS-160900764- 20161103-AM001 Lab-Dup</b>	<b>QC Batch</b>	<b>WS-160900764- 20161103-AM002</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L	10	10	4737259	12	10	4737259
Total Dissolved Solids	mg/L	956		4743274	982	10	4743274
Fluoride (F-)	mg/L	0.61		4738653	0.60	0.10	4738653
Free Cyanide	ug/L	<1		4738194	<1	1	4741130
Total Organic Carbon (TOC)	mg/L	3.8		4738251	3.8	0.20	4738251
Total Suspended Solids	mg/L	21		4740837	18	10	4740837
Turbidity	NTU	10		4736850	5.2	0.1	4736850

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		DJQ261	DJQ262		
<b>Sampling Date</b>		2016/11/03 11:30	2016/11/03 12:00		
<b>COC Number</b>		584466-01-01	584466-01-01		
	<b>UNITS</b>	<b>WS-160900764- 20161103-AM001</b>	<b>WS-160900764- 20161103-AM002</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>					
Chromium (VI)	ug/L	<0.50	<0.50	0.50	4738533
Mercury (Hg)	mg/L	<0.0001	<0.0001	0.0001	4740246
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

**O.REG 153 PCBS (WATER)**

Maxxam ID		DJQ261	DJQ262		
Sampling Date		2016/11/03 11:30	2016/11/03 12:00		
COC Number		584466-01-01	584466-01-01		
	UNITS	WS-160900764- 20161103-AM001	WS-160900764- 20161103-AM002	RDL	QC Batch
<b>PCBs</b>					
Aroclor 1242	ug/L	<0.05	<0.05	0.05	4736500
Aroclor 1248	ug/L	<0.05	<0.05	0.05	4736500
Aroclor 1254	ug/L	<0.05	<0.05	0.05	4736500
Aroclor 1260	ug/L	<0.05	<0.05	0.05	4736500
Total PCB	ug/L	<0.05	<0.05	0.05	4736500
<b>Surrogate Recovery (%)</b>					
Decachlorobiphenyl	%	84	86		4736500
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		DJQ261	DJQ262	DJQ262		
Sampling Date		2016/11/03 11:30	2016/11/03 12:00	2016/11/03 12:00		
COC Number		584466-01-01	584466-01-01	584466-01-01		
	UNITS	WS-160900764- 20161103-AM001	WS-160900764- 20161103-AM002	WS-160900764- 20161103-AM002 Lab-Dup	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>						
F1 (C6-C10)	ug/L	<25	<25		25	4737077
F1 (C6-C10) - BTEX	ug/L	<25	<25		25	4737077
<b>F2-F4 Hydrocarbons</b>						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	4736036
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	4736036
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	4736036
Reached Baseline at C50	ug/L	Yes	Yes	Yes		4736036
<b>Surrogate Recovery (%)</b>						
1,4-Difluorobenzene	%	104	106			4737077
4-Bromofluorobenzene	%	95	96			4737077
D10-Ethylbenzene	%	99	103			4737077
D4-1,2-Dichloroethane	%	104	107			4737077
o-Terphenyl	%	98	85	83		4736036
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Lab-Dup = Laboratory Initiated Duplicate						

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJQ261	DJQ262		
Sampling Date		2016/11/03 11:30	2016/11/03 12:00		
COC Number		584466-01-01	584466-01-01		
	UNITS	WS-160900764- 20161103-AM001	WS-160900764- 20161103-AM002	RDL	QC Batch
<b>Semivolatile Organics</b>					
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	0.1	4740353
1-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	4740353
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	0.2	4740353
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	0.2	4740353
2,4-Dichlorophenol	ug/L	<0.1	<0.1	0.1	4740353
2,4-Dimethylphenol	ug/L	<0.5	<0.5	0.5	4740353
2,4-Dinitrophenol	ug/L	<2	<2	2	4740353
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	4740353
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	4740353
2-Chlorophenol	ug/L	<0.1	<0.1	0.1	4740353
2-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	4740353
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	0.5	4740353
Acenaphthene	ug/L	<0.2	<0.2	0.2	4740353
Acenaphthylene	ug/L	<0.2	<0.2	0.2	4740353
Anthracene	ug/L	<0.05	<0.05	0.05	4740353
Benzo(a)anthracene	ug/L	<0.05	<0.05	0.05	4740353
Benzo(a)pyrene	ug/L	<0.01	<0.01	0.01	4740353
Benzo(b,j)fluoranthene	ug/L	<0.05	<0.05	0.05	4740353
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	0.05	4740353
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	0.05	4740353
Biphenyl	ug/L	<0.1	<0.1	0.1	4740353
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	0.5	4740353
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	0.5	4740353
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	1	4740353
Chrysene	ug/L	<0.05	<0.05	0.05	4740353
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	0.1	4740353
Diethyl phthalate	ug/L	<0.1	<0.1	0.1	4740353
Dimethyl phthalate	ug/L	<0.1	<0.1	0.1	4740353
Fluoranthene	ug/L	<0.2	<0.2	0.2	4740353
Fluorene	ug/L	<0.2	<0.2	0.2	4740353
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	0.1	4740353
Naphthalene	ug/L	<0.2	<0.2	0.2	4740353
p-Chloroaniline	ug/L	<1	<1	1	4740353
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJQ261	DJQ262		
Sampling Date		2016/11/03 11:30	2016/11/03 12:00		
COC Number		584466-01-01	584466-01-01		
	UNITS	WS-160900764- 20161103-AM001	WS-160900764- 20161103-AM002	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	0.1	4740353
Phenanthrene	ug/L	<0.1	<0.1	0.1	4740353
Phenol	ug/L	<0.5	<0.5	0.5	4740353
Pyrene	ug/L	<0.05	<0.05	0.05	4740353
<b>Calculated Parameters</b>					
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	0.28	4735597
<b>Surrogate Recovery (%)</b>					
2,4,6-Tribromophenol	%	82	89		4740353
2-Fluorobiphenyl	%	75	72		4740353
D14-Terphenyl (FS)	%	98	98		4740353
D5-Nitrobenzene	%	82	82		4740353
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJQ261	DJQ262		
Sampling Date		2016/11/03 11:30	2016/11/03 12:00		
COC Number		584466-01-01	584466-01-01		
	UNITS	WS-160900764- 20161103-AM001	WS-160900764- 20161103-AM002	RDL	QC Batch
<b>Calculated Parameters</b>					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	4735519
<b>Volatile Organics</b>					
Acetone (2-Propanone)	ug/L	<10	<10	10	4729928
Benzene	ug/L	<0.20	<0.20	0.20	4729928
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	4729928
Bromoform	ug/L	<1.0	<1.0	1.0	4729928
Bromomethane	ug/L	<0.50	<0.50	0.50	4729928
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	4729928
Chlorobenzene	ug/L	<0.20	<0.20	0.20	4729928
Chloroform	ug/L	<0.20	<0.20	0.20	4729928
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	4729928
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4729928
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4729928
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4729928
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	4729928
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	4729928
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	4729928
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	4729928
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4729928
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4729928
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	4729928
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	4729928
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	4729928
Ethylbenzene	ug/L	<0.20	<0.20	0.20	4729928
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	4729928
Hexane	ug/L	<1.0	<1.0	1.0	4729928
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	4729928
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	4729928
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	4729928
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	4729928
Styrene	ug/L	<0.50	<0.50	0.50	4729928
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4729928
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4729928
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJQ261	DJQ262		
Sampling Date		2016/11/03 11:30	2016/11/03 12:00		
COC Number		584466-01-01	584466-01-01		
	UNITS	WS-160900764- 20161103-AM001	WS-160900764- 20161103-AM002	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	4729928
Toluene	ug/L	<0.20	<0.20	0.20	4729928
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	4729928
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	4729928
Trichloroethylene	ug/L	<0.20	<0.20	0.20	4729928
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	4729928
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	4729928
p+m-Xylene	ug/L	<0.20	<0.20	0.20	4729928
o-Xylene	ug/L	<0.20	<0.20	0.20	4729928
Total Xylenes	ug/L	<0.20	<0.20	0.20	4729928
<b>Surrogate Recovery (%)</b>					
4-Bromofluorobenzene	%	94	93		4729928
D4-1,2-Dichloroethane	%	112	111		4729928
D8-Toluene	%	93	93		4729928
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

### TEST SUMMARY

**Maxxam ID:** DJQ261  
**Sample ID:** WS-160900764-20161103-AM001  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4735597	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic
Acidity as CaCO3 in liquid		4737259	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4738616	N/A	2016/11/08	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4735718	N/A	2016/11/09	Automated Statchk
1,3-Dichloropropene Sum	CALC	4735519	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4736769	N/A	2016/11/08	Deonarine Ramnarine
Conductivity	AT	4738651	N/A	2016/11/08	Surinder Rai
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4738194	N/A	2016/11/08	Xuanhong Qiu
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4737077	N/A	2016/11/08	Anca Ganea
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736036	2016/11/06	2016/11/07	Margaret Kulczyk-Stanko
Fluoride	ISE	4738653	2016/11/08	2016/11/08	Surinder Rai
Hardness (calculated as CaCO3)		4735472	N/A	2016/11/09	Automated Statchk
Mercury in Water by CVAA	CV/AA	4740246	2016/11/09	2016/11/09	Magdalena Carlos
Lab Filtered Metals Analysis by ICP	ICP	4738908	2016/11/08	2016/11/09	Azita Fazaeli
Total Metals Analysis by ICPMS	ICP/MS	4740155	N/A	2016/11/09	John Bowman
Total Ammonia-N	LACH/NH4	4740801	N/A	2016/11/11	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4737170	N/A	2016/11/10	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4736500	2016/11/07	2016/11/08	Li Peng
pH	AT	4738654	N/A	2016/11/08	Surinder Rai
Orthophosphate	KONE	4736775	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4735720	N/A	2016/11/09	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4735721	N/A	2016/11/09	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4736774	N/A	2016/11/08	Alina Dobreanu
Total Dissolved Solids	BAL	4743274	2016/11/10	2016/11/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4738251	N/A	2016/11/08	Anastasia Hamanov
Total Phosphorus (Colourimetric)	LACH/P	4740166	2016/11/09	2016/11/09	Sarabjit Raina
Total Suspended Solids	BAL	4740837	2016/11/09	2016/11/09	Gurpreet Kaur
Turbidity	AT	4736850	N/A	2016/11/10	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJQ261 Dup  
**Sample ID:** WS-160900764-20161103-AM001  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4737259	N/A	2016/11/09	Grace Sison
Chloride by Automated Colourimetry	KONE	4736769	N/A	2016/11/08	Deonarine Ramnarine
Lab Filtered Metals Analysis by ICP	ICP	4738908	2016/11/08	2016/11/09	Azita Fazaeli
Orthophosphate	KONE	4736775	N/A	2016/11/08	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	4736774	N/A	2016/11/08	Alina Dobreanu

### TEST SUMMARY

**Maxxam ID:** DJQ262  
**Sample ID:** WS-160900764-20161103-AM002  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4735597	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic
Acidity as CaCO3 in liquid		4737259	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4738616	N/A	2016/11/08	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4735718	N/A	2016/11/09	Automated Statchk
1,3-Dichloropropene Sum	CALC	4735519	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4736769	N/A	2016/11/08	Deonarine Ramnarine
Conductivity	AT	4738651	N/A	2016/11/08	Surinder Rai
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4741130	N/A	2016/11/10	Xuanhong Qiu
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4737077	N/A	2016/11/08	Anca Ganea
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736036	2016/11/06	2016/11/07	Margaret Kulczyk-Stanko
Fluoride	ISE	4738653	2016/11/08	2016/11/08	Surinder Rai
Hardness (calculated as CaCO3)		4735472	N/A	2016/11/09	Automated Statchk
Mercury in Water by CVAA	CV/AA	4740246	2016/11/09	2016/11/09	Magdalena Carlos
Lab Filtered Metals Analysis by ICP	ICP	4738908	2016/11/08	2016/11/09	Azita Fazaeli
Total Metals Analysis by ICPMS	ICP/MS	4740155	N/A	2016/11/09	John Bowman
Total Ammonia-N	LACH/NH4	4740801	N/A	2016/11/11	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4737170	N/A	2016/11/10	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4736500	2016/11/07	2016/11/08	Li Peng
pH	AT	4738654	N/A	2016/11/08	Surinder Rai
Orthophosphate	KONE	4736775	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4735720	N/A	2016/11/09	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4735721	N/A	2016/11/09	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4736774	N/A	2016/11/08	Alina Dobreanu
Total Dissolved Solids	BAL	4743274	2016/11/10	2016/11/10	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4738251	N/A	2016/11/08	Anastasia Hamanov
Total Phosphorus (Colourimetric)	LACH/P	4740166	2016/11/09	2016/11/09	Sarabjit Raina
Total Suspended Solids	BAL	4740837	2016/11/09	2016/11/09	Gurpreet Kaur
Turbidity	AT	4736850	N/A	2016/11/09	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJQ262 Dup  
**Sample ID:** WS-160900764-20161103-AM002  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736036	2016/11/06	2016/11/07	Margaret Kulczyk-Stanko
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4737170	N/A	2016/11/10	Chandra Nandlal

**GENERAL COMMENTS**

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

Package 1	6.3°C
Package 2	7.0°C

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4729928	4-Bromofluorobenzene	2016/11/08	100	70 - 130	101	70 - 130	94	%				
4729928	D4-1,2-Dichloroethane	2016/11/08	104	70 - 130	103	70 - 130	108	%				
4729928	D8-Toluene	2016/11/08	105	70 - 130	104	70 - 130	95	%				
4736036	o-Terphenyl	2016/11/07	105	60 - 130	114	60 - 130	97	%				
4736500	Decachlorobiphenyl	2016/11/08	93	60 - 130	82	60 - 130	79	%				
4737077	1,4-Difluorobenzene	2016/11/07	102	70 - 130	104	70 - 130	105	%				
4737077	4-Bromofluorobenzene	2016/11/07	105	70 - 130	101	70 - 130	100	%				
4737077	D10-Ethylbenzene	2016/11/07	110	70 - 130	90	70 - 130	93	%				
4737077	D4-1,2-Dichloroethane	2016/11/07	106	70 - 130	102	70 - 130	109	%				
4740353	2,4,6-Tribromophenol	2016/11/10	95	50 - 130	86	50 - 130	73	%				
4740353	2-Fluorobiphenyl	2016/11/10	69	50 - 130	60	50 - 130	74	%				
4740353	D14-Terphenyl (FS)	2016/11/10	99	50 - 130	96	50 - 130	98	%				
4740353	D5-Nitrobenzene	2016/11/10	86	50 - 130	81	50 - 130	82	%				
4729928	1,1,1,2-Tetrachloroethane	2016/11/08	96	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4729928	1,1,1-Trichloroethane	2016/11/08	96	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4729928	1,1,2,2-Tetrachloroethane	2016/11/08	95	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4729928	1,1,2-Trichloroethane	2016/11/08	98	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4729928	1,1-Dichloroethane	2016/11/08	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4729928	1,1-Dichloroethylene	2016/11/08	99	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4729928	1,2-Dichlorobenzene	2016/11/08	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4729928	1,2-Dichloroethane	2016/11/08	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4729928	1,2-Dichloropropane	2016/11/08	95	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4729928	1,3-Dichlorobenzene	2016/11/08	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4729928	1,4-Dichlorobenzene	2016/11/08	96	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4729928	Acetone (2-Propanone)	2016/11/08	98	60 - 140	107	60 - 140	<10	ug/L	NC	30		
4729928	Benzene	2016/11/08	96	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4729928	Bromodichloromethane	2016/11/08	97	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4729928	Bromoform	2016/11/08	95	70 - 130	98	70 - 130	<1.0	ug/L	NC	30		
4729928	Bromomethane	2016/11/08	78	60 - 140	83	60 - 140	<0.50	ug/L	NC	30		
4729928	Carbon Tetrachloride	2016/11/08	99	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4729928	Chlorobenzene	2016/11/08	97	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4729928	Chloroform	2016/11/08	96	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4729928	cis-1,2-Dichloroethylene	2016/11/08	101	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
4729928	cis-1,3-Dichloropropene	2016/11/08	92	70 - 130	101	70 - 130	<0.30	ug/L	NC	30		
4729928	Dibromochloromethane	2016/11/08	97	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4729928	Dichlorodifluoromethane (FREON 12)	2016/11/08	86	60 - 140	90	60 - 140	<1.0	ug/L	NC	30		
4729928	Ethylbenzene	2016/11/08	97	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4729928	Ethylene Dibromide	2016/11/08	97	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4729928	Hexane	2016/11/08	109	70 - 130	100	70 - 130	<1.0	ug/L	NC	30		
4729928	Methyl Ethyl Ketone (2-Butanone)	2016/11/08	102	60 - 140	110	60 - 140	<10	ug/L	NC	30		
4729928	Methyl Isobutyl Ketone	2016/11/08	99	70 - 130	105	70 - 130	<5.0	ug/L	NC	30		
4729928	Methyl t-butyl ether (MTBE)	2016/11/08	94	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4729928	Methylene Chloride(Dichloromethane)	2016/11/08	106	70 - 130	107	70 - 130	<2.0	ug/L	NC	30		
4729928	o-Xylene	2016/11/08	91	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4729928	p+m-Xylene	2016/11/08	95	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4729928	Styrene	2016/11/08	98	70 - 130	104	70 - 130	<0.50	ug/L	NC	30		
4729928	Tetrachloroethylene	2016/11/08	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4729928	Toluene	2016/11/08	99	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4729928	Total Xylenes	2016/11/08					<0.20	ug/L	NC	30		
4729928	trans-1,2-Dichloroethylene	2016/11/08	98	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4729928	trans-1,3-Dichloropropene	2016/11/08	90	70 - 130	103	70 - 130	<0.40	ug/L	NC	30		
4729928	Trichloroethylene	2016/11/08	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4729928	Trichlorofluoromethane (FREON 11)	2016/11/08	101	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4729928	Vinyl Chloride	2016/11/08	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4736036	F2 (C10-C16 Hydrocarbons)	2016/11/07	117	50 - 130	124	60 - 130	<100	ug/L	NC	30		
4736036	F3 (C16-C34 Hydrocarbons)	2016/11/07	NC	50 - 130	114	60 - 130	<200	ug/L	NC	30		
4736036	F4 (C34-C50 Hydrocarbons)	2016/11/07	107	50 - 130	114	60 - 130	<200	ug/L	NC	30		
4736500	Aroclor 1242	2016/11/08					<0.05	ug/L	NC	30		
4736500	Aroclor 1248	2016/11/08					<0.05	ug/L	NC	30		
4736500	Aroclor 1254	2016/11/08					<0.05	ug/L	NC	30		
4736500	Aroclor 1260	2016/11/08	88	60 - 130	67	60 - 130	<0.05	ug/L	NC	30		
4736500	Total PCB	2016/11/08	88	60 - 130	67	60 - 130	<0.05	ug/L	NC	40		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4736769	Dissolved Chloride (Cl)	2016/11/08	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.0095	20		
4736774	Dissolved Sulphate (SO4)	2016/11/08	NC	75 - 125	102	80 - 120	<1.0	mg/L	0.55	20		
4736775	Orthophosphate (P)	2016/11/08	106	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
4736850	Turbidity	2016/11/10			100	85 - 115	<0.1	NTU	2.0	20		
4737077	F1 (C6-C10) - BTEX	2016/11/09					<25	ug/L	NC	30		
4737077	F1 (C6-C10)	2016/11/09	85	70 - 130	97	70 - 130	<25	ug/L	NC	30		
4737170	Nitrate (N)	2016/11/10	81	80 - 120	104	80 - 120	<0.10	mg/L	1.6	20		
4737170	Nitrite (N)	2016/11/10	104	80 - 120	97	80 - 120	<0.010	mg/L	NC	20		
4737259	Acidity as CaCO3	2016/11/09					<10	mg/L	NC	25		
4738194	Free Cyanide	2016/11/08	104	80 - 120	104	80 - 120	<1	ug/L	NC	20		
4738251	Total Organic Carbon (TOC)	2016/11/08	98	80 - 120	103	80 - 120	<0.20	mg/L	3.9	20		
4738533	Chromium (VI)	2016/11/08	NC	80 - 120	96	80 - 120	<0.50	ug/L	NC	20		
4738616	Alkalinity (Total as CaCO3)	2016/11/08			96	85 - 115	<1.0	mg/L	1.3	20		
4738651	Conductivity	2016/11/08			101	85 - 115	<1.0	umho/cm	0.37	25		
4738653	Fluoride (F-)	2016/11/08	108	80 - 120	97	80 - 120	<0.10	mg/L	2.4	20		
4738654	pH	2016/11/08			102	98 - 103			0.46	N/A		
4738908	Dissolved Calcium (Ca)	2016/11/09	NC	80 - 120	101	80 - 120	<0.05	mg/L	1.0	25		
4738908	Dissolved Magnesium (Mg)	2016/11/09	NC	80 - 120	95	80 - 120	<0.05	mg/L	1.3	25		
4738908	Dissolved Potassium (K)	2016/11/09	NC	80 - 120	102	80 - 120	<1	mg/L	0.58	25		
4738908	Dissolved Sodium (Na)	2016/11/09	NC	80 - 120	100	80 - 120	<0.5	mg/L	0.79	25		
4740155	Total Aluminum (Al)	2016/11/09	95	80 - 120	95	80 - 120	<0.0050	mg/L				
4740155	Total Antimony (Sb)	2016/11/09	94	80 - 120	90	80 - 120	<0.00050	mg/L				
4740155	Total Arsenic (As)	2016/11/09	98	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
4740155	Total Barium (Ba)	2016/11/09	92	80 - 120	89	80 - 120	<0.0020	mg/L	2.1	20		
4740155	Total Beryllium (Be)	2016/11/09	94	80 - 120	92	80 - 120	<0.00050	mg/L	NC	20		
4740155	Total Boron (B)	2016/11/09	82	80 - 120	82	80 - 120	<0.010	mg/L	NC	20		
4740155	Total Cadmium (Cd)	2016/11/09	100	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
4740155	Total Calcium (Ca)	2016/11/09	NC	80 - 120	94	80 - 120	<0.20	mg/L				
4740155	Total Chromium (Cr)	2016/11/09	97	80 - 120	96	80 - 120	<0.0050	mg/L				
4740155	Total Cobalt (Co)	2016/11/09	98	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4740155	Total Copper (Cu)	2016/11/09	95	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
4740155	Total Iron (Fe)	2016/11/09	97	80 - 120	95	80 - 120	<0.10	mg/L				
4740155	Total Lead (Pb)	2016/11/09	101	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20		
4740155	Total Magnesium (Mg)	2016/11/09	92	80 - 120	93	80 - 120	<0.050	mg/L				
4740155	Total Manganese (Mn)	2016/11/09	92	80 - 120	90	80 - 120	<0.0020	mg/L				
4740155	Total Molybdenum (Mo)	2016/11/09	94	80 - 120	91	80 - 120	<0.00050	mg/L	NC	20		
4740155	Total Nickel (Ni)	2016/11/09	95	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
4740155	Total Phosphorus (P)	2016/11/09	NC	80 - 120	87	80 - 120	<0.10	mg/L				
4740155	Total Potassium (K)	2016/11/09	NC	80 - 120	91	80 - 120	<0.20	mg/L				
4740155	Total Selenium (Se)	2016/11/09	102	80 - 120	103	80 - 120	<0.0020	mg/L	NC	20		
4740155	Total Silicon (Si)	2016/11/09	86	80 - 120	87	80 - 120	<0.050	mg/L				
4740155	Total Silver (Ag)	2016/11/09	98	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
4740155	Total Sodium (Na)	2016/11/09	NC	80 - 120	94	80 - 120	<0.10	mg/L				
4740155	Total Strontium (Sr)	2016/11/09	NC	80 - 120	90	80 - 120	<0.0010	mg/L				
4740155	Total Thallium (Tl)	2016/11/09	103	80 - 120	105	80 - 120	<0.000050	mg/L				
4740155	Total Titanium (Ti)	2016/11/09	87	80 - 120	88	80 - 120	<0.0050	mg/L				
4740155	Total Uranium (U)	2016/11/09	99	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20		
4740155	Total Vanadium (V)	2016/11/09	96	80 - 120	92	80 - 120	<0.00050	mg/L	NC	20		
4740155	Total Zinc (Zn)	2016/11/09	98	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
4740155	Total Zirconium (Zr)	2016/11/09	93	80 - 120	88	80 - 120	<0.0010	mg/L				
4740166	Total Phosphorus	2016/11/09	NC	80 - 120	91	80 - 120	<0.004	mg/L	2.6	20	89	80 - 120
4740246	Mercury (Hg)	2016/11/09	111	75 - 125	109	80 - 120	<0.0001	mg/L	NC	20		
4740353	1,2,4-Trichlorobenzene	2016/11/10	67	40 - 130	63	40 - 130	<0.1	ug/L	NC	30		
4740353	1-Methylnaphthalene	2016/11/10	83	50 - 130	82	50 - 130	<0.2	ug/L				
4740353	2,4,5-Trichlorophenol	2016/11/10	100	50 - 130	93	50 - 130	<0.2	ug/L				
4740353	2,4,6-Trichlorophenol	2016/11/10	93	50 - 130	84	50 - 130	<0.2	ug/L				
4740353	2,4-Dichlorophenol	2016/11/10	79	50 - 130	79	50 - 130	<0.1	ug/L	NC	30		
4740353	2,4-Dimethylphenol	2016/11/10	55	30 - 130	40	30 - 130	<0.5	ug/L				
4740353	2,4-Dinitrophenol	2016/11/10	57	30 - 130	52	30 - 130	<2	ug/L				
4740353	2,4-Dinitrotoluene	2016/11/10	94	50 - 130	86	50 - 130	<0.3	ug/L				
4740353	2,6-Dinitrotoluene	2016/11/10	94	50 - 130	85	50 - 130	<0.3	ug/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4740353	2-Chlorophenol	2016/11/10	72	50 - 130	73	50 - 130	<0.1	ug/L				
4740353	2-Methylnaphthalene	2016/11/10	78	50 - 130	79	50 - 130	<0.2	ug/L				
4740353	3,3'-Dichlorobenzidine	2016/11/10	101	30 - 130	88	30 - 130	<0.5	ug/L				
4740353	Acenaphthene	2016/11/10	89	50 - 130	85	50 - 130	<0.2	ug/L	NC	30		
4740353	Acenaphthylene	2016/11/10	86	50 - 130	83	50 - 130	<0.2	ug/L	NC	30		
4740353	Anthracene	2016/11/10	98	50 - 130	94	50 - 130	<0.05	ug/L	NC	30		
4740353	Benzo(a)anthracene	2016/11/10	99	50 - 130	97	50 - 130	<0.05	ug/L	NC	30		
4740353	Benzo(a)pyrene	2016/11/10	99	50 - 130	96	50 - 130	<0.01	ug/L	NC	30		
4740353	Benzo(b/j)fluoranthene	2016/11/10	106	50 - 130	102	50 - 130	<0.05	ug/L	NC	30		
4740353	Benzo(g,h,i)perylene	2016/11/10	77	50 - 130	75	50 - 130	<0.05	ug/L	NC	30		
4740353	Benzo(k)fluoranthene	2016/11/10	109	50 - 130	101	50 - 130	<0.05	ug/L	NC	30		
4740353	Biphenyl	2016/11/10	79	50 - 130	76	50 - 130	<0.1	ug/L				
4740353	Bis(2-chloroethyl)ether	2016/11/10	78	50 - 130	76	50 - 130	<0.5	ug/L				
4740353	Bis(2-chloroisopropyl)ether	2016/11/10	82	50 - 130	78	50 - 130	<0.5	ug/L				
4740353	Bis(2-ethylhexyl)phthalate	2016/11/10	106	50 - 130	100	50 - 130	<1	ug/L				
4740353	Chrysene	2016/11/10	100	50 - 130	98	50 - 130	<0.05	ug/L	NC	30		
4740353	Dibenz(a,h)anthracene	2016/11/10	87	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4740353	Diethyl phthalate	2016/11/10	95	50 - 130	89	50 - 130	<0.1	ug/L				
4740353	Dimethyl phthalate	2016/11/10	95	50 - 130	89	50 - 130	<0.1	ug/L				
4740353	Fluoranthene	2016/11/10	99	50 - 130	95	50 - 130	<0.2	ug/L	NC	30		
4740353	Fluorene	2016/11/10	90	50 - 130	87	50 - 130	<0.2	ug/L	NC	30		
4740353	Indeno(1,2,3-cd)pyrene	2016/11/10	82	50 - 130	82	50 - 130	<0.1	ug/L	NC	30		
4740353	Naphthalene	2016/11/10	81	50 - 130	81	50 - 130	<0.2	ug/L	NC	30		
4740353	p-Chloroaniline	2016/11/10	80	30 - 130	63	30 - 130	<1	ug/L				
4740353	Pentachlorophenol	2016/11/10	79	50 - 130	44 (1)	50 - 130	<0.1	ug/L				
4740353	Phenanthrene	2016/11/10	89	50 - 130	87	50 - 130	<0.1	ug/L	NC	30		
4740353	Phenol	2016/11/10	33	30 - 130	32	30 - 130	<0.5	ug/L	NC	30		
4740353	Pyrene	2016/11/10	100	50 - 130	98	50 - 130	<0.05	ug/L	NC	30		
4740801	Total Ammonia-N	2016/11/11	100	80 - 120	98	85 - 115	<0.050	mg/L	NC	20		
4740837	Total Suspended Solids	2016/11/09					<10	mg/L	NC	25	97	85 - 115
4741130	Free Cyanide	2016/11/10	97	80 - 120	95	80 - 120	<1	ug/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4743274	Total Dissolved Solids	2016/11/10					<10	mg/L	NC	25	97	90 - 110

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

### VALIDATION SIGNATURE PAGE

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



Brad Newman, Scientific Specialist



Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Contact Name: Accounts Payable	Company Name: #18379 Stantec Consulting Ltd	Contact Name: Report - 1609-00764	Quotation #: B48218	Task #: 160900764	Maxxam Job #:	Bottle Order #:
Address: 49 Frederick St Kitchener ON N2H 6M7	Phone: (519) 579-4410 Fax: (519) 579-6733	Address: ON	Phone: Fax:	Project #: 160900764	Profit Centre:	COC #:	Project Manager:
Email: Stantec.Accounts.Payable.Invoices@Stantec.com	Phone: Fax:	Email: aaron.warkentin@stantec.com, brant.gill@stantec.com	Phone: Fax:	Site #: CLARINGTON TS-SURFACE WATE	Sampled By: Angela Mason		Deepthi Shaji

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY					ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects													
Regulation 153 (2011)		Other Regulations		Special Instructions	Field Filtered (please circle):	Metals (Cr-VI)	Acidity, C,VI, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs		
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw																								
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw																								
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agr/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality																								
<input type="checkbox"/> Table			<input checked="" type="checkbox"/> PWQO																									
Include Criteria on Certificate of Analysis (Y/N)? <u>N</u>																												
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	Metals	Acidity, C,VI, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs	Reg 153 VOCs	Reg 153 SVOCs
1	WS-160900764-2016-1103-AM001	2016/11/03	11:30	SW	Y	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	WS-160900764-2016-1103-AM002	2016/11/03	12:00	SW	Y	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3	WS-160900764-2016-1103-AM003																											
4	WS-160900764-2016-1103-AM004																											
5	WS-160900764-2016-1103-AM005																											
6																												
7																												
8																												
9																												
10																												

Regular (Standard) TAT:  (will be applied if Rush TAT is not specified).  
Standard TAT = 5-7 Working days for most tests.  
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.  
Job Specific Rush TAT (if applies to entire submission):   
Date Required: \_\_\_\_\_ Time Required: \_\_\_\_\_  
Rush Confirmation Number: \_\_\_\_\_ (call lab for #)

03-Nov-16 15:20  
Deepthi Shaji  
  
B6N9272  
RK6 ENV-868

RELINQUISHED BY: (Signature/Print) Angela Mason	Date: (YY/MM/DD) 2016/11/03	Time 15:00	RECEIVED BY: (Signature/Print) [Signature]	Date: (YY/MM/DD) 2016/11/03	Time 15:20	# Jars used and not submitted	Laboratory Use Only
							Time Sensitive
							Temperature (°C) on Receipt
							71.5/17
							Custody Seal Present
							Intact
							White: Maxxam Yellow: Client

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM.

01/11/18

Your Project #: 160900764  
 Site Location: CLARINGTON TS – MONITORING WELL  
 Your C.O.C. #: 584443-01-01, 584443-04-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/10**  
 Report #: R4242391  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N7980**

**Received: 2016/11/02, 08:20**

Sample Matrix: Water  
 # Samples Received: 16

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	15	N/A	2016/11/10	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	7	2016/11/07	2016/11/09	CAM SOP-00301	EPA 8270 m
ABN Compounds in Water by SIM GC/MS	9	2016/11/07	2016/11/10	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	7	N/A	2016/11/09	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	3	N/A	2016/11/04	CAM SOP-00448	SM 22 2320 B m
Alkalinity	4	N/A	2016/11/07	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	3	N/A	2016/11/07	CAM SOP-00102	APHA 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	4	N/A	2016/11/08	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	7	N/A	2016/11/08		EPA 8260C m
Chloride by Automated Colourimetry	7	N/A	2016/11/04	CAM SOP-00463	EPA 325.2 m
Conductivity	3	N/A	2016/11/04	CAM SOP-00414	SM 22 2510 m
Conductivity	4	N/A	2016/11/07	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	7	N/A	2016/11/07	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	7	N/A	2016/11/04	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	6	N/A	2016/11/04	CAM SOP-00446	SM 22 5310 B m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2016/11/05	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydrocarbons F2-F4 in Water (4)	7	2016/11/05	2016/11/06	CAM SOP-00316	CCME PHC-CWS m
Fluoride	3	2016/11/03	2016/11/04	CAM SOP-00449	SM 22 4500-F C m
Fluoride	4	2016/11/05	2016/11/07	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2016/11/07	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	6	N/A	2016/11/08	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	7	2016/11/05	2016/11/08	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	7	N/A	2016/11/07	CAM SOP-00447	EPA 6020B m
Ion Balance (% Difference)	1	N/A	2016/11/07		
Ion Balance (% Difference)	6	N/A	2016/11/08		
Anion and Cation Sum	1	N/A	2016/11/07		
Anion and Cation Sum	6	N/A	2016/11/08		
Total Ammonia-N	3	N/A	2016/11/07	CAM SOP-00441	EPA GS I-2522-90 m
Total Ammonia-N	4	N/A	2016/11/08	CAM SOP-00441	EPA GS I-2522-90 m

Your Project #: 160900764  
 Site Location: CLARINGTON TS – MONITORING WELL  
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**MAXXAM JOB #: B6N7980**

**Received: 2016/11/02, 08:20**

Sample Matrix: Water  
 # Samples Received: 16

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Nitrate (NO3) and Nitrite (NO2) in Water (5)	7	N/A	2016/11/06	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	7	2016/11/04	2016/11/05	CAM SOP-00309	EPA 8082A m
pH	3	N/A	2016/11/04	CAM SOP-00413	SM 4500H+ B m
pH	4	N/A	2016/11/07	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	7	N/A	2016/11/04	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	1	N/A	2016/11/07		
Sat. pH and Langelier Index (@ 20C)	6	N/A	2016/11/08		
Sat. pH and Langelier Index (@ 4C)	1	N/A	2016/11/07		
Sat. pH and Langelier Index (@ 4C)	6	N/A	2016/11/08		
Sulphate by Automated Colourimetry	7	N/A	2016/11/04	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	1	N/A	2016/11/07		
Total Dissolved Solids (TDS calc)	6	N/A	2016/11/08		
Total Dissolved Solids	7	2016/11/04	2016/11/05	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (6)	1	N/A	2016/11/05	CAM SOP-00446	SM 22 5310B m
Total Organic Carbon (TOC) (6)	6	N/A	2016/11/06	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	7	2016/11/04	2016/11/04	CAM SOP-00428	SM 22 2540D m
Turbidity	3	N/A	2016/11/03	CAM SOP-00417	SM 22 2130 B m
Turbidity	4	N/A	2016/11/04	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds and F1 PHCs	7	N/A	2016/11/07	CAM SOP-00230	EPA 8260C m

**Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless



Your Project #: 160900764  
Site Location: CLARINGTON TS – MONITORING WELL  
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Canada

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**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N7980**

**Received: 2016/11/02, 08:20**  
otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (6) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

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

Deepthi Shaji, Project Manager

Email: dshaji@maxxam.ca

Phone# (905)817-5700 Ext:5807

=====

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**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJK300	DJK300		DJK302		
Sampling Date		2016/10/31 16:00	2016/10/31 16:00		2016/10/31 16:30		
COC Number		584443-01-01	584443-01-01		584443-01-01		
	<b>UNITS</b>	<b>WG-160900764-20161031-AM01</b>	<b>WG-160900764-20161031-AM01 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764-20161031-AM02</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Anion Sum	me/L	8.63		4729760	10.1	N/A	4729760
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	130		4729746	290	1.0	4729746
Calculated TDS	mg/L	540		4729455	550	1.0	4729455
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.4		4729746	1.4	1.0	4729746
Cation Sum	me/L	8.24		4729760	9.17	N/A	4729760
Hardness (CaCO3)	mg/L	180		4730860	390	1.0	4730860
Ion Balance (% Difference)	%	2.33		4729759	4.70	N/A	4729759
Langelier Index (@ 20C)	N/A	0.281		4729761	0.745		4729761
Langelier Index (@ 4C)	N/A	0.0340		4729762	0.497		4729762
Saturation pH (@ 20C)	N/A	7.77		4729761	6.95		4729761
Saturation pH (@ 4C)	N/A	8.02		4729762	7.19		4729762

**Inorganics**

Total Ammonia-N	mg/L	<0.050	<0.050	4735016	<0.050	0.050	4735016
Conductivity	umho/cm	840		4732827	950	1.0	4735984
Dissolved Organic Carbon	mg/L	0.88		4733786	1.6	0.20	4733786
Orthophosphate (P)	mg/L	<0.010		4733017	<0.010	0.010	4733017
pH	pH	8.05		4732853	7.69		4735986
Dissolved Sulphate (SO4)	mg/L	270		4733023	150	1.0	4733023
Alkalinity (Total as CaCO3)	mg/L	130		4732810	300	1.0	4735983
Dissolved Chloride (Cl)	mg/L	9.7		4733024	40	1.0	4733024
Nitrite (N)	mg/L	<0.010		4733038	<0.010	0.010	4733038
Nitrate (N)	mg/L	0.10		4733038	0.25	0.10	4733038
Nitrate + Nitrite (N)	mg/L	0.10		4733038	0.25	0.10	4733038

**Metals**

Dissolved Aluminum (Al)	mg/L	<0.0050		4733759	<0.0050	0.0050	4733759
Dissolved Antimony (Sb)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Arsenic (As)	mg/L	<0.0010		4733759	<0.0010	0.0010	4733759
Dissolved Barium (Ba)	mg/L	0.026		4733759	0.12	0.0020	4733759
Dissolved Beryllium (Be)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Boron (B)	mg/L	0.32		4733759	0.058	0.010	4733759
Dissolved Cadmium (Cd)	mg/L	<0.00010		4733759	<0.00010	0.00010	4733759
Dissolved Calcium (Ca)	mg/L	39		4733759	120	0.20	4733759

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate  
N/A = Not Applicable

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJK300	DJK300		DJK302		
Sampling Date		2016/10/31 16:00	2016/10/31 16:00		2016/10/31 16:30		
COC Number		584443-01-01	584443-01-01		584443-01-01		
	UNITS	WG-160900764- 20161031-AM01	WG-160900764- 20161031-AM01 Lab-Dup	QC Batch	WG-160900764- 20161031-AM02	RDL	QC Batch
Dissolved Chromium (Cr)	mg/L	<0.0050		4733759	<0.0050	0.0050	4733759
Dissolved Cobalt (Co)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Copper (Cu)	mg/L	<0.0010		4733759	<0.0010	0.0010	4733759
Dissolved Iron (Fe)	mg/L	<0.10		4733759	<0.10	0.10	4733759
Dissolved Lead (Pb)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Magnesium (Mg)	mg/L	19		4733759	23	0.050	4733759
Dissolved Manganese (Mn)	mg/L	<0.0020		4733759	0.0037	0.0020	4733759
Dissolved Molybdenum (Mo)	mg/L	0.10		4733759	0.00056	0.00050	4733759
Dissolved Nickel (Ni)	mg/L	<0.0010		4733759	<0.0010	0.0010	4733759
Dissolved Phosphorus (P)	mg/L	<0.10		4733759	<0.10	0.10	4733759
Dissolved Potassium (K)	mg/L	4.3		4733759	1.7	0.20	4733759
Dissolved Selenium (Se)	mg/L	<0.0020		4733759	<0.0020	0.0020	4733759
Dissolved Silicon (Si)	mg/L	3.2		4733759	7.4	0.050	4733759
Dissolved Silver (Ag)	mg/L	<0.00010		4733759	<0.00010	0.00010	4733759
Dissolved Sodium (Na)	mg/L	100		4733759	29	0.10	4733759
Dissolved Strontium (Sr)	mg/L	0.92		4733759	0.66	0.0010	4733759
Dissolved Thallium (Tl)	mg/L	<0.000050		4733759	<0.000050	0.000050	4733759
Dissolved Titanium (Ti)	mg/L	<0.0050		4733759	<0.0050	0.0050	4733759
Dissolved Uranium (U)	mg/L	0.0020		4733759	0.00080	0.00010	4733759
Dissolved Vanadium (V)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Zinc (Zn)	mg/L	<0.0050		4733759	<0.0050	0.0050	4733759
Dissolved Zirconium (Zr)	mg/L	<0.0010		4733759	<0.0010	0.0010	4733759

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		DJK302		DJK304		
<b>Sampling Date</b>		2016/10/31 16:30		2016/11/01 12:00		
<b>COC Number</b>		584443-01-01		584443-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161031-AM02 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20161101-AM03</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Anion Sum	me/L		4729760	4.73	N/A	4729760
Bicarb. Alkalinity (calc. as CaCO3)	mg/L		4729746	200	1.0	4729746
Calculated TDS	mg/L		4729455	250	1.0	4729455
Carb. Alkalinity (calc. as CaCO3)	mg/L		4729746	2.2	1.0	4729746
Cation Sum	me/L		4729760	4.57	N/A	4729760
Hardness (CaCO3)	mg/L		4730860	200	1.0	4730860
Ion Balance (% Difference)	%		4729759	1.71	N/A	4729759
Langelier Index (@ 20C)	N/A		4729761	0.513		4729761
Langelier Index (@ 4C)	N/A		4729762	0.264		4729762
Saturation pH (@ 20C)	N/A		4729761	7.55		4729761
Saturation pH (@ 4C)	N/A		4729762	7.80		4729762

**Inorganics**

Total Ammonia-N	mg/L		4735016	<0.050	0.050	4734118
Conductivity	umho/cm	950	4735984	440	1.0	4732827
Dissolved Organic Carbon	mg/L		4733786	2.1	0.20	4734689
Orthophosphate (P)	mg/L		4733017	<0.010	0.010	4733017
pH	pH	7.69	4735986	8.06		4732853
Dissolved Sulphate (SO4)	mg/L		4733023	24	1.0	4733023
Alkalinity (Total as CaCO3)	mg/L	300	4735983	200	1.0	4732810
Dissolved Chloride (Cl)	mg/L		4733024	5.5	1.0	4733024
Nitrite (N)	mg/L		4733038	<0.010	0.010	4733038
Nitrate (N)	mg/L		4733038	<0.10	0.10	4733038
Nitrate + Nitrite (N)	mg/L		4733038	<0.10	0.10	4733038

**Metals**

Dissolved Aluminum (Al)	mg/L	<0.0050	4733759	<0.0050	0.0050	4733425
Dissolved Antimony (Sb)	mg/L	<0.00050	4733759	<0.00050	0.00050	4733425
Dissolved Arsenic (As)	mg/L	<0.0010	4733759	<0.0010	0.0010	4733425
Dissolved Barium (Ba)	mg/L	0.12	4733759	0.066	0.0020	4733425
Dissolved Beryllium (Be)	mg/L	<0.00050	4733759	<0.00050	0.00050	4733425
Dissolved Boron (B)	mg/L	0.056	4733759	0.052	0.010	4733425
Dissolved Cadmium (Cd)	mg/L	<0.00010	4733759	<0.00010	0.00010	4733425
Dissolved Calcium (Ca)	mg/L	120	4733759	36	0.20	4733425

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate  
N/A = Not Applicable

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJK302		DJK304		
Sampling Date		2016/10/31 16:30		2016/11/01 12:00		
COC Number		584443-01-01		584443-01-01		
	UNITS	WG-160900764- 20161031-AM02 Lab-Dup	QC Batch	WG-160900764- 20161101-AM03	RDL	QC Batch
Dissolved Chromium (Cr)	mg/L	<0.0050	4733759	<0.0050	0.0050	4733425
Dissolved Cobalt (Co)	mg/L	<0.00050	4733759	<0.00050	0.00050	4733425
Dissolved Copper (Cu)	mg/L	<0.0010	4733759	<0.0010	0.0010	4733425
Dissolved Iron (Fe)	mg/L	<0.10	4733759	<0.10	0.10	4733425
Dissolved Lead (Pb)	mg/L	<0.00050	4733759	<0.00050	0.00050	4733425
Dissolved Magnesium (Mg)	mg/L	23	4733759	28	0.050	4733425
Dissolved Manganese (Mn)	mg/L	0.0038	4733759	0.027	0.0020	4733425
Dissolved Molybdenum (Mo)	mg/L	0.00053	4733759	0.0026	0.00050	4733425
Dissolved Nickel (Ni)	mg/L	<0.0010	4733759	<0.0010	0.0010	4733425
Dissolved Phosphorus (P)	mg/L	<0.10	4733759	<0.10	0.10	4733425
Dissolved Potassium (K)	mg/L	1.7	4733759	2.6	0.20	4733425
Dissolved Selenium (Se)	mg/L	<0.0020	4733759	<0.0020	0.0020	4733425
Dissolved Silicon (Si)	mg/L	7.4	4733759	7.8	0.050	4733425
Dissolved Silver (Ag)	mg/L	<0.00010	4733759	<0.00010	0.00010	4733425
Dissolved Sodium (Na)	mg/L	29	4733759	10	0.10	4733425
Dissolved Strontium (Sr)	mg/L	0.68	4733759	0.61	0.0010	4733425
Dissolved Thallium (Tl)	mg/L	<0.000050	4733759	<0.000050	0.000050	4733425
Dissolved Titanium (Ti)	mg/L	<0.0050	4733759	<0.0050	0.0050	4733425
Dissolved Uranium (U)	mg/L	0.00079	4733759	0.00058	0.00010	4733425
Dissolved Vanadium (V)	mg/L	<0.00050	4733759	0.00074	0.00050	4733425
Dissolved Zinc (Zn)	mg/L	<0.0050	4733759	<0.0050	0.0050	4733425
Dissolved Zirconium (Zr)	mg/L	<0.0010	4733759	<0.0010	0.0010	4733425
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Lab-Dup = Laboratory Initiated Duplicate						

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJK306	DJK306		DJK308		
Sampling Date		2016/11/01 10:30	2016/11/01 10:30		2016/11/01 14:00		
COC Number		584443-01-01	584443-01-01		584443-01-01		
	<b>UNITS</b>	<b>WG-160900764-20161101-AM04</b>	<b>WG-160900764-20161101-AM04 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764-20161101-AM05</b>	<b>RDL</b>	<b>QC Batch</b>

Calculated Parameters							
Anion Sum	me/L	2.02		4729760	5.63	N/A	4729760
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	89		4729746	200	1.0	4729746
Calculated TDS	mg/L	110		4729455	300	1.0	4729455
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.0		4729746	2.0	1.0	4729746
Cation Sum	me/L	1.91		4729760	5.63	N/A	4729760
Hardness (CaCO3)	mg/L	42		4730860	260	1.0	4730860
Ion Balance (% Difference)	%	NC		4729759	0.00	N/A	4729759
Langelier Index (@ 20C)	N/A	-0.410		4729761	0.527		4729761
Langelier Index (@ 4C)	N/A	-0.660		4729762	0.278		4729762
Saturation pH (@ 20C)	N/A	8.49		4729761	7.51		4729761
Saturation pH (@ 4C)	N/A	8.74		4729762	7.76		4729762

Inorganics							
Total Ammonia-N	mg/L	<0.050		4735016	<0.050	0.050	4733910
Conductivity	umho/cm	190		4735984	540	1.0	4732827
Dissolved Organic Carbon	mg/L	1.0		4733973	1.1	0.20	4733786
Orthophosphate (P)	mg/L	<0.010	<0.010	4733017	<0.010	0.010	4733017
pH	pH	8.08		4735986	8.04		4732853
Dissolved Sulphate (SO4)	mg/L	6.3	6.3	4733023	40	1.0	4733023
Alkalinity (Total as CaCO3)	mg/L	90		4735983	200	1.0	4732810
Dissolved Chloride (Cl)	mg/L	1.8	1.6	4733024	28	1.0	4733024
Nitrite (N)	mg/L	<0.010		4733038	<0.010	0.010	4733038
Nitrate (N)	mg/L	<0.10		4733038	<0.10	0.10	4733038
Nitrate + Nitrite (N)	mg/L	<0.10		4733038	<0.10	0.10	4733038

Metals							
Dissolved Aluminum (Al)	mg/L	0.0059		4733759	0.0084	0.0050	4733759
Dissolved Antimony (Sb)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Arsenic (As)	mg/L	<0.0010		4733759	<0.0010	0.0010	4733759
Dissolved Barium (Ba)	mg/L	0.018		4733759	0.085	0.0020	4733759
Dissolved Beryllium (Be)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Boron (B)	mg/L	0.11		4733759	0.027	0.010	4733759
Dissolved Cadmium (Cd)	mg/L	<0.00010		4733759	<0.00010	0.00010	4733759
Dissolved Calcium (Ca)	mg/L	8.5		4733759	42	0.20	4733759

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate  
N/A = Not Applicable

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJK306	DJK306		DJK308		
Sampling Date		2016/11/01 10:30	2016/11/01 10:30		2016/11/01 14:00		
COC Number		584443-01-01	584443-01-01		584443-01-01		
	UNITS	WG-160900764- 20161101-AM04	WG-160900764- 20161101-AM04 Lab-Dup	QC Batch	WG-160900764- 20161101-AM05	RDL	QC Batch
Dissolved Chromium (Cr)	mg/L	<0.0050		4733759	<0.0050	0.0050	4733759
Dissolved Cobalt (Co)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Copper (Cu)	mg/L	<0.0010		4733759	<0.0010	0.0010	4733759
Dissolved Iron (Fe)	mg/L	<0.10		4733759	<0.10	0.10	4733759
Dissolved Lead (Pb)	mg/L	<0.00050		4733759	<0.00050	0.00050	4733759
Dissolved Magnesium (Mg)	mg/L	5.0		4733759	36	0.050	4733759
Dissolved Manganese (Mn)	mg/L	0.0032		4733759	0.044	0.0020	4733759
Dissolved Molybdenum (Mo)	mg/L	0.0031		4733759	0.0045	0.00050	4733759
Dissolved Nickel (Ni)	mg/L	<0.0010		4733759	<0.0010	0.0010	4733759
Dissolved Phosphorus (P)	mg/L	<0.10		4733759	<0.10	0.10	4733759
Dissolved Potassium (K)	mg/L	2.1		4733759	3.6	0.20	4733759
Dissolved Selenium (Se)	mg/L	<0.0020		4733759	<0.0020	0.0020	4733759
Dissolved Silicon (Si)	mg/L	4.5		4733759	8.6	0.050	4733759
Dissolved Silver (Ag)	mg/L	<0.00010		4733759	<0.00010	0.00010	4733759
Dissolved Sodium (Na)	mg/L	23		4733759	10	0.10	4733759
Dissolved Strontium (Sr)	mg/L	0.25		4733759	0.59	0.0010	4733759
Dissolved Thallium (Tl)	mg/L	<0.000050		4733759	<0.000050	0.000050	4733759
Dissolved Titanium (Ti)	mg/L	<0.0050		4733759	<0.0050	0.0050	4733759
Dissolved Uranium (U)	mg/L	<0.00010		4733759	0.0021	0.00010	4733759
Dissolved Vanadium (V)	mg/L	<0.00050		4733759	0.00063	0.00050	4733759
Dissolved Zinc (Zn)	mg/L	<0.0050		4733759	<0.0050	0.0050	4733759
Dissolved Zirconium (Zr)	mg/L	<0.0010		4733759	<0.0010	0.0010	4733759

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJK320	DJK322		
Sampling Date		2016/11/01 15:30	2016/11/01 16:00		
COC Number		584443-04-01	584443-04-01		
	UNITS	WG-160900764- 20161101-AM06	WG-160900764- 20161101-AM07	RDL	QC Batch
<b>Calculated Parameters</b>					
Anion Sum	me/L	4.55	4.57	N/A	4729760
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	180	180	1.0	4729746
Calculated TDS	mg/L	240	240	1.0	4729455
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	2.2	2.4	1.0	4729746
Cation Sum	me/L	4.52	4.35	N/A	4729760
Hardness (CaCO <sub>3</sub> )	mg/L	200	190	1.0	4730860
Ion Balance (% Difference)	%	0.400	2.47	N/A	4729759
Langelier Index (@ 20C)	N/A	0.370	0.379		4729761
Langelier Index (@ 4C)	N/A	0.121	0.129		4729762
Saturation pH (@ 20C)	N/A	7.76	7.77		4729761
Saturation pH (@ 4C)	N/A	8.00	8.02		4729762
<b>Inorganics</b>					
Total Ammonia-N	mg/L	0.074	0.069	0.050	4733910
Conductivity	umho/cm	420	420	1.0	4735984
Dissolved Organic Carbon	mg/L	0.72	0.72	0.20	4733786
Orthophosphate (P)	mg/L	<0.010	<0.010	0.010	4733017
pH	pH	8.13	8.15		4735986
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	26	26	1.0	4733023
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	180	180	1.0	4735983
Dissolved Chloride (Cl)	mg/L	14	14	1.0	4733024
Nitrite (N)	mg/L	<0.010	<0.010	0.010	4733038
Nitrate (N)	mg/L	<0.10	<0.10	0.10	4733038
Nitrate + Nitrite (N)	mg/L	<0.10	<0.10	0.10	4733038
<b>Metals</b>					
Dissolved Aluminum (Al)	mg/L	<0.0050	<0.0050	0.0050	4733759
Dissolved Antimony (Sb)	mg/L	<0.00050	<0.00050	0.00050	4733759
Dissolved Arsenic (As)	mg/L	0.0012	0.0012	0.0010	4733759
Dissolved Barium (Ba)	mg/L	0.10	0.10	0.0020	4733759
Dissolved Beryllium (Be)	mg/L	<0.00050	<0.00050	0.00050	4733759
Dissolved Boron (B)	mg/L	0.029	0.029	0.010	4733759
Dissolved Cadmium (Cd)	mg/L	<0.00010	<0.00010	0.00010	4733759
Dissolved Calcium (Ca)	mg/L	25	24	0.20	4733759
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable					

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJK320	DJK322		
Sampling Date		2016/11/01 15:30	2016/11/01 16:00		
COC Number		584443-04-01	584443-04-01		
	UNITS	WG-160900764- 20161101-AM06	WG-160900764- 20161101-AM07	RDL	QC Batch
Dissolved Chromium (Cr)	mg/L	<0.0050	<0.0050	0.0050	4733759
Dissolved Cobalt (Co)	mg/L	<0.00050	<0.00050	0.00050	4733759
Dissolved Copper (Cu)	mg/L	<0.0010	<0.0010	0.0010	4733759
Dissolved Iron (Fe)	mg/L	0.12	0.11	0.10	4733759
Dissolved Lead (Pb)	mg/L	<0.00050	<0.00050	0.00050	4733759
Dissolved Magnesium (Mg)	mg/L	33	31	0.050	4733759
Dissolved Manganese (Mn)	mg/L	0.0065	0.0061	0.0020	4733759
Dissolved Molybdenum (Mo)	mg/L	0.0019	0.0018	0.00050	4733759
Dissolved Nickel (Ni)	mg/L	<0.0010	<0.0010	0.0010	4733759
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	0.10	4733759
Dissolved Potassium (K)	mg/L	2.5	2.5	0.20	4733759
Dissolved Selenium (Se)	mg/L	<0.0020	<0.0020	0.0020	4733759
Dissolved Silicon (Si)	mg/L	10	10	0.050	4733759
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	4733759
Dissolved Sodium (Na)	mg/L	12	11	0.10	4733759
Dissolved Strontium (Sr)	mg/L	0.65	0.64	0.0010	4733759
Dissolved Thallium (Tl)	mg/L	<0.000050	<0.000050	0.000050	4733759
Dissolved Titanium (Ti)	mg/L	<0.0050	<0.0050	0.0050	4733759
Dissolved Uranium (U)	mg/L	<0.00010	<0.00010	0.00010	4733759
Dissolved Vanadium (V)	mg/L	<0.00050	<0.00050	0.00050	4733759
Dissolved Zinc (Zn)	mg/L	<0.0050	<0.0050	0.0050	4733759
Dissolved Zirconium (Zr)	mg/L	<0.0010	<0.0010	0.0010	4733759
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJK300		DJK302	DJK302		
<b>Sampling Date</b>		2016/10/31 16:00		2016/10/31 16:30	2016/10/31 16:30		
<b>COC Number</b>		584443-01-01		584443-01-01	584443-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161031-AM01</b>	<b>QC Batch</b>	<b>WG-160900764- 20161031-AM02</b>	<b>WG-160900764- 20161031-AM02 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L	<10	4731762	44		10	4731762
Total Dissolved Solids	mg/L	568	4734260	640		10	4734260
Fluoride (F-)	mg/L	0.63	4732838	0.15	0.14	0.10	4735985
Free Cyanide	ug/L	<1	4734257	<1		1	4734350
Total Organic Carbon (TOC)	mg/L	1.3	4735903	2.1		0.20	4735903
Total Suspended Solids	mg/L	28	4734251	16		10	4734251
Turbidity	NTU	14	4732577	9.0		0.1	4732577

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

<b>Maxxam ID</b>		DJK304		DJK304		DJK306	
<b>Sampling Date</b>		2016/11/01 12:00		2016/11/01 12:00		2016/11/01 10:30	
<b>COC Number</b>		584443-01-01		584443-01-01		584443-01-01	
	<b>UNITS</b>	<b>WG-160900764- 20161101-AM03</b>	<b>WG-160900764- 20161101-AM03 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20161101-AM04</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L	13		4731762	<10	10	4731762
Total Dissolved Solids	mg/L	262		4734260	166	10	4734260
Fluoride (F-)	mg/L	0.30		4732838	0.79	0.10	4735985
Free Cyanide	ug/L	<1		4734350	<1	1	4734350
Total Organic Carbon (TOC)	mg/L	2.3	2.4	4734628	1.2	0.20	4735903
Total Suspended Solids	mg/L	56		4734251	15	10	4734251
Turbidity	NTU	14		4732577	5.0	0.1	4732577

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJK306		DJK308		DJK320		
<b>Sampling Date</b>		2016/11/01 10:30		2016/11/01 14:00		2016/11/01 15:30		
<b>COC Number</b>		584443-01-01		584443-01-01		584443-04-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-AM04 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20161101-AM05</b>	<b>QC Batch</b>	<b>WG-160900764- 20161101-AM06</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>								
Acidity as CaCO3	mg/L		4731762	13	4731762	<10	10	4731762
Total Dissolved Solids	mg/L		4734260	356	4734260	250	10	4734260
Fluoride (F-)	mg/L		4735985	0.28	4732838	0.28	0.10	4735985
Free Cyanide	ug/L	<1	4734350	<1	4734350	<1	1	4734350
Total Organic Carbon (TOC)	mg/L		4735903	1.6	4735903	1.1	0.20	4735903
Total Suspended Solids	mg/L		4734251	91	4734251	<10	10	4734251
Turbidity	NTU		4732577	110	4732577	8.9	0.1	4732577

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

<b>Maxxam ID</b>		DJK322		DJK322			
<b>Sampling Date</b>		2016/11/01 16:00		2016/11/01 16:00			
<b>COC Number</b>		584443-04-01		584443-04-01			
	<b>UNITS</b>	<b>WG-160900764- 20161101-AM07 Lab-Dup</b>		<b>WG-160900764- 20161101-AM07 Lab-Dup</b>		<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L		<10	<10		10	4731762
Total Dissolved Solids	mg/L		270			10	4734260
Fluoride (F-)	mg/L		0.28			0.10	4735985
Free Cyanide	ug/L		<1			1	4734350
Total Organic Carbon (TOC)	mg/L		1.1	1.1		0.20	4735903
Total Suspended Solids	mg/L		12	14		10	4734251
Turbidity	NTU		8.8			0.1	4732577

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		DJK300	DJK302	DJK304	DJK306		
<b>Sampling Date</b>		2016/10/31 16:00	2016/10/31 16:30	2016/11/01 12:00	2016/11/01 10:30		
<b>COC Number</b>		584443-01-01	584443-01-01	584443-01-01	584443-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161031-AM01</b>	<b>WG-160900764- 20161031-AM02</b>	<b>WG-160900764- 20161101-AM03</b>	<b>WG-160900764- 20161101-AM04</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>							
Chromium (VI)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4737116
Mercury (Hg)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	4735594

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

<b>Maxxam ID</b>		DJK308	DJK320	DJK322		
<b>Sampling Date</b>		2016/11/01 14:00	2016/11/01 15:30	2016/11/01 16:00		
<b>COC Number</b>		584443-01-01	584443-04-01	584443-04-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-AM05</b>	<b>WG-160900764- 20161101-AM06</b>	<b>WG-160900764- 20161101-AM07</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>						
Chromium (VI)	ug/L	<0.50	<0.50	<0.50	0.50	4737116
Mercury (Hg)	mg/L	<0.0001	<0.0001	<0.0001	0.0001	4735589

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

**O.REG 153 PCBs (WATER)**

<b>Maxxam ID</b>		DJK300	DJK302	DJK304	DJK306		
<b>Sampling Date</b>		2016/10/31 16:00	2016/10/31 16:30	2016/11/01 12:00	2016/11/01 10:30		
<b>COC Number</b>		584443-01-01	584443-01-01	584443-01-01	584443-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161031-AM01</b>	<b>WG-160900764- 20161031-AM02</b>	<b>WG-160900764- 20161101-AM03</b>	<b>WG-160900764- 20161101-AM04</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166

<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	99	87	89	90		4734166

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

<b>Maxxam ID</b>		DJK308	DJK320	DJK322		
<b>Sampling Date</b>		2016/11/01 14:00	2016/11/01 15:30	2016/11/01 16:00		
<b>COC Number</b>		584443-01-01	584443-04-01	584443-04-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-AM05</b>	<b>WG-160900764- 20161101-AM06</b>	<b>WG-160900764- 20161101-AM07</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PCBs</b>							
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	0.05	4734166	
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	0.05	4734166	
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	0.05	4734166	
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	0.05	4734166	
Total PCB	ug/L	<0.05	<0.05	<0.05	0.05	4734166	

<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	105	90	92		4734166	

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 VOCS & F1-F4 (WATER)**

Maxxam ID		DJK300	DJK302	DJK302		
Sampling Date		2016/10/31 16:00	2016/10/31 16:30	2016/10/31 16:30		
COC Number		584443-01-01	584443-01-01	584443-01-01		
	UNITS	WG-160900764- 20161031-AM01	WG-160900764- 20161031-AM02	WG-160900764- 20161031-AM02 Lab-Dup	RDL	QC Batch

Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50		0.50	4730189
Volatile Organics						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4733660
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	4733660
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Chloroform	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4733660
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4733660
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4733660
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4733660
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4733660
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4733660
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4733660
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4733660
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4733660
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**O.REG 153 VOCS & F1-F4 (WATER)**

Maxxam ID		DJK300	DJK302	DJK302		
Sampling Date		2016/10/31 16:00	2016/10/31 16:30	2016/10/31 16:30		
COC Number		584443-01-01	584443-01-01	584443-01-01		
	UNITS	<b>WG-160900764- 20161031-AM01</b>	<b>WG-160900764- 20161031-AM02</b>	<b>WG-160900764- 20161031-AM02 Lab-Dup</b>	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4733660
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4733660
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	4733660
F1 (C6-C10)	ug/L	<25	<25	<25	25	4733660
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	4733660
<b>F2-F4 Hydrocarbons</b>						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100		100	4735470
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200		200	4735470
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200		200	4735470
Reached Baseline at C50	ug/L	Yes	Yes			4735470
<b>Surrogate Recovery (%)</b>						
o-Terphenyl	%	98	97			4735470
4-Bromofluorobenzene	%	89	90	90		4733660
D4-1,2-Dichloroethane	%	96	95	94		4733660
D8-Toluene	%	101	102	102		4733660
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate						

**O.REG 153 VOCS & F1-F4 (WATER)**

Maxxam ID		DJK304	DJK306	DJK308		
Sampling Date		2016/11/01 12:00	2016/11/01 10:30	2016/11/01 14:00		
COC Number		584443-01-01	584443-01-01	584443-01-01		
	UNITS	WG-160900764- 20161101-AM03	WG-160900764- 20161101-AM04	WG-160900764- 20161101-AM05	RDL	QC Batch
<b>Calculated Parameters</b>						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	4730189
<b>Volatile Organics</b>						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4733660
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	4733660
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Chloroform	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4733660
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4733660
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4733660
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4733660
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4733660
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4733660
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4733660
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4733660
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4733660
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOCS & F1-F4 (WATER)**

Maxxam ID		DJK304	DJK306	DJK308		
Sampling Date		2016/11/01 12:00	2016/11/01 10:30	2016/11/01 14:00		
COC Number		584443-01-01	584443-01-01	584443-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-AM03</b>	<b>WG-160900764- 20161101-AM04</b>	<b>WG-160900764- 20161101-AM05</b>	<b>RDL</b>	<b>QC Batch</b>
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Toluene	ug/L	<0.20	0.33	<0.20	0.20	4733660
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4733660
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4733660
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4733660
p+m-Xylene	ug/L	<0.20	0.26	<0.20	0.20	4733660
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4733660
Total Xylenes	ug/L	<0.20	0.26	<0.20	0.20	4733660
F1 (C6-C10)	ug/L	<25	<25	<25	25	4733660
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	4733660
<b>F2-F4 Hydrocarbons</b>						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	4735470
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	4735470
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	4735470
Reached Baseline at C50	ug/L	Yes	Yes	Yes		4735470
<b>Surrogate Recovery (%)</b>						
o-Terphenyl	%	97	99	99		4735470
4-Bromofluorobenzene	%	88	89	89		4733660
D4-1,2-Dichloroethane	%	96	96	98		4733660
D8-Toluene	%	101	102	100		4733660
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



**O.REG 153 VOCS & F1-F4 (WATER)**

Maxxam ID		DJK320	DJK322		
Sampling Date		2016/11/01 15:30	2016/11/01 16:00		
COC Number		584443-04-01	584443-04-01		
	UNITS	WG-160900764- 20161101-AM06	WG-160900764- 20161101-AM07	RDL	QC Batch
<b>Calculated Parameters</b>					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	4733660
<b>Volatile Organics</b>					
Acetone (2-Propanone)	ug/L	<10	<10	10	4733660
Benzene	ug/L	<0.20	<0.20	0.20	4733660
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	4733660
Bromoform	ug/L	<1.0	<1.0	1.0	4733660
Bromomethane	ug/L	<0.50	<0.50	0.50	4733660
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	4733660
Chlorobenzene	ug/L	<0.20	<0.20	0.20	4733660
Chloroform	ug/L	<0.20	<0.20	0.20	4733660
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	4733660
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4733660
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4733660
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4733660
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	4733660
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	4733660
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	4733660
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	4733660
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4733660
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4733660
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	4733660
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	4733660
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	4733660
Ethylbenzene	ug/L	<0.20	<0.20	0.20	4733660
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	4733660
Hexane	ug/L	<1.0	<1.0	1.0	4733660
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	4733660
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	4733660
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	4733660
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	4733660
Styrene	ug/L	<0.50	<0.50	0.50	4733660
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4733660
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4733660
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

**O.REG 153 VOCS & F1-F4 (WATER)**

Maxxam ID		DJK320	DJK322		
Sampling Date		2016/11/01 15:30	2016/11/01 16:00		
COC Number		584443-04-01	584443-04-01		
	UNITS	WG-160900764- 20161101-AM06	WG-160900764- 20161101-AM07	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	4733660
Toluene	ug/L	<0.20	<0.20	0.20	4733660
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	4733660
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	4733660
Trichloroethylene	ug/L	<0.20	<0.20	0.20	4733660
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	4733660
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	4733660
p+m-Xylene	ug/L	<0.20	<0.20	0.20	4733660
o-Xylene	ug/L	<0.20	<0.20	0.20	4733660
Total Xylenes	ug/L	<0.20	<0.20	0.20	4733660
F1 (C6-C10)	ug/L	<25	<25	25	4733660
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	4733660
<b>F2-F4 Hydrocarbons</b>					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	4735470
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	4735470
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	4735470
Reached Baseline at C50	ug/L	Yes	Yes		4735470
<b>Surrogate Recovery (%)</b>					
o-Terphenyl	%	98	99		4735470
4-Bromofluorobenzene	%	89	89		4733660
D4-1,2-Dichloroethane	%	97	96		4733660
D8-Toluene	%	101	101		4733660
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJK300	DJK301	DJK302	DJK302		
Sampling Date		2016/10/31 16:00	2016/10/31 16:00	2016/10/31 16:30	2016/10/31 16:30		
COC Number		584443-01-01	584443-01-01	584443-01-01	584443-01-01		
	UNITS	WG-160900764- 20161031-AM01	WG-160900764- 20161031-AM01A	WG-160900764- 20161031-AM02	WG-160900764- 20161031-AM02 Lab-Dup	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4737609
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4737609
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4737609
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4737609
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Bis(2-ethylhexyl)phthalate	ug/L	2	<1	<1	<1	1	4737609
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Diethyl phthalate	ug/L	0.2	0.3	<0.1	<0.1	0.1	4737609
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJK300	DJK301	DJK302	DJK302		
Sampling Date		2016/10/31 16:00	2016/10/31 16:00	2016/10/31 16:30	2016/10/31 16:30		
COC Number		584443-01-01	584443-01-01	584443-01-01	584443-01-01		
	UNITS	WG-160900764- 20161031-AM01	WG-160900764- 20161031-AM01A	WG-160900764- 20161031-AM02	WG-160900764- 20161031-AM02 Lab-Dup	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4737609
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28		0.28	4729428
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	31 (1)	31 (1)	52	78		4737609
2-Fluorobiphenyl	%	73	73	87	80		4737609
D14-Terphenyl (FS)	%	95	17 (1)	97	94		4737609
D5-Nitrobenzene	%	83	82	87	85		4737609
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJK303	DJK304	DJK305	DJK306		
Sampling Date		2016/10/31 16:30	2016/11/01 12:00	2016/11/01 12:00	2016/11/01 10:30		
COC Number		584443-01-01	584443-01-01	584443-01-01	584443-01-01		
	UNITS	WG-160900764- 20161031-AM02A	WG-160900764- 20161101-AM03	WG-160900764- 20161101-AM03A	WG-160900764- 20161101-AM04	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4737609
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4737609
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4737609
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4737609
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4737609
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Diethyl phthalate	ug/L	<0.1	0.2	0.2	0.1	0.1	4737609
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4737609

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJK303	DJK304	DJK305	DJK306		
Sampling Date		2016/10/31 16:30	2016/11/01 12:00	2016/11/01 12:00	2016/11/01 10:30		
COC Number		584443-01-01	584443-01-01	584443-01-01	584443-01-01		
	UNITS	WG-160900764- 20161031-AM02A	WG-160900764- 20161101-AM03	WG-160900764- 20161101-AM03A	WG-160900764- 20161101-AM04	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4729428
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	79	30 (1)	28 (1)	49 (1)		4737609
2-Fluorobiphenyl	%	78	80	77	78		4737609
D14-Terphenyl (FS)	%	16 (1)	95	35 (1)	97		4737609
D5-Nitrobenzene	%	82	84	82	82		4737609
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJK307	DJK308	DJK309	DJK320		
Sampling Date		2016/11/01 10:30	2016/11/01 14:00	2016/11/01 14:00	2016/11/01 15:30		
COC Number		584443-01-01	584443-01-01	584443-01-01	584443-04-01		
	UNITS	WG-160900764- 20161101-AM04A	WG-160900764- 20161101-AM05	WG-160900764- 20161101-AM05A	WG-160900764- 20161101-AM06	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4737609
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4737609
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4737609
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4737609
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4737609
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Diethyl phthalate	ug/L	0.1	<0.1	0.1	<0.1	0.1	4737609
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4737609
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4737609

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJK307	DJK308	DJK309	DJK320		
Sampling Date		2016/11/01 10:30	2016/11/01 14:00	2016/11/01 14:00	2016/11/01 15:30		
COC Number		584443-01-01	584443-01-01	584443-01-01	584443-04-01		
	UNITS	WG-160900764- 20161101-AM04A	WG-160900764- 20161101-AM05	WG-160900764- 20161101-AM05A	WG-160900764- 20161101-AM06	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4737609
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4737609
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4737609
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4729428
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	69	53	39 (1)	55		4737609
2-Fluorobiphenyl	%	76	78	79	78		4737609
D14-Terphenyl (FS)	%	37 (1)	96	16 (1)	93		4737609
D5-Nitrobenzene	%	80	80	82	83		4737609
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.							



**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJK321	DJK322	DJK323		DJM473		
Sampling Date		2016/11/01 15:30	2016/11/01 16:00	2016/11/01 16:00				
COC Number		584443-04-01	584443-04-01	584443-04-01		584443-01-01		
	UNITS	WG-160900764- 20161101-AM06A	WG-160900764- 20161101-AM07	WG-160900764- 20161101-AM07A	QC Batch	FILTERED BLANK	RDL	QC Batch

Semivolatile Organics								
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	4737609	<0.5	0.5	4737609
2,4-Dinitrophenol	ug/L	<2	<2	<2	4737609	<2	2	4737609
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	4737609	<0.3	0.3	4737609
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	4737609	<0.3	0.3	4737609
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	4737609	<0.5	0.5	4737609
Acenaphthene	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
Anthracene	ug/L	<0.05	<0.05	<0.05	4737609	<0.05	0.05	4737609
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	4737609	<0.05	0.05	4737609
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	4737609	<0.01	0.01	4737609
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	4737609	<0.05	0.05	4737609
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	4737609	<0.05	0.05	4737609
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	4737609	<0.05	0.05	4737609
Biphenyl	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	4737609	<0.5	0.5	4737609
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	4737609	<0.5	0.5	4737609
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	4737609	<1	1	4737609
Chrysene	ug/L	<0.05	<0.05	<0.05	4737609	<0.05	0.05	4737609
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	4737609	0.3	0.1	4737609
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
Fluoranthene	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
Fluorene	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
Naphthalene	ug/L	<0.2	<0.2	<0.2	4737609	<0.2	0.2	4737609
p-Chloroaniline	ug/L	<1	<1	<1	4737609	<1	1	4737609

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJK321	DJK322	DJK323		DJM473		
Sampling Date		2016/11/01 15:30	2016/11/01 16:00	2016/11/01 16:00				
COC Number		584443-04-01	584443-04-01	584443-04-01		584443-01-01		
	UNITS	WG-160900764- 20161101-AM06A	WG-160900764- 20161101-AM07	WG-160900764- 20161101-AM07A	QC Batch	FILTERED BLANK	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
Phenanthrene	ug/L	<0.1	<0.1	<0.1	4737609	<0.1	0.1	4737609
Phenol	ug/L	<0.5	<0.5	<0.5	4737609	<0.5	0.5	4737609
Pyrene	ug/L	<0.05	<0.05	<0.05	4737609	<0.05	0.05	4737609
<b>Calculated Parameters</b>								
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	4729428	<0.28	0.28	4731491
<b>Surrogate Recovery (%)</b>								
2,4,6-Tribromophenol	%	46 (1)	63	84	4737609	87		4737609
2-Fluorobiphenyl	%	80	73	79	4737609	76		4737609
D14-Terphenyl (FS)	%	25 (1)	96	31 (1)	4737609	21 (1)		4737609
D5-Nitrobenzene	%	85	76	83	4737609	86		4737609
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.								

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

<b>Maxxam ID</b>		DJM477		
<b>Sampling Date</b>				
<b>COC Number</b>		584443-01-01		
	<b>UNITS</b>	<b>FILTERED SPIKE</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Semivolatile Organics</b>				
1,2,4-Trichlorobenzene	ug/L	56	1	4737609
1-Methylnaphthalene	ug/L	74	1	4737609
2,4,5-Trichlorophenol	ug/L	91	1	4737609
2,4,6-Trichlorophenol	ug/L	86	1	4737609
2,4-Dichlorophenol	ug/L	74	1	4737609
2,4-Dimethylphenol	ug/L	54	1	4737609
2,4-Dinitrophenol	ug/L	39	1	4737609
2,4-Dinitrotoluene	ug/L	99	1	4737609
2,6-Dinitrotoluene	ug/L	97	1	4737609
2-Chlorophenol	ug/L	78	1	4737609
2-Methylnaphthalene	ug/L	69	1	4737609
3,3'-Dichlorobenzidine	ug/L	100	1	4737609
Acenaphthene	ug/L	83	1	4737609
Acenaphthylene	ug/L	84	1	4737609
Anthracene	ug/L	45 (1)	1	4737609
Benzo(a)anthracene	ug/L	20 (1)	1	4737609
Benzo(a)pyrene	ug/L	13 (1)	1	4737609
Benzo(b/j)fluoranthene	ug/L	16 (1)	1	4737609
Benzo(g,h,i)perylene	ug/L	11 (1)	1	4737609
Benzo(k)fluoranthene	ug/L	14 (1)	1	4737609
Biphenyl	ug/L	90	1	4737609
Bis(2-chloroethyl)ether	ug/L	85	1	4737609
Bis(2-chloroisopropyl)ether	ug/L	89	1	4737609
Bis(2-ethylhexyl)phthalate	ug/L	27 (1)	1	4737609
Chrysene	ug/L	15 (1)	1	4737609
Dibenz(a,h)anthracene	ug/L	11 (1)	1	4737609
Diethyl phthalate	ug/L	97	1	4737609
Dimethyl phthalate	ug/L	95	1	4737609
Fluoranthene	ug/L	45 (1)	1	4737609
Fluorene	ug/L	73	1	4737609
Indeno(1,2,3-cd)pyrene	ug/L	10 (1)	1	4737609
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.				

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJM477		
Sampling Date				
COC Number		584443-01-01		
	UNITS	FILTERED SPIKE	RDL	QC Batch
Naphthalene	ug/L	63	1	4737609
p-Chloroaniline	ug/L	98	1	4737609
Pentachlorophenol	ug/L	70	1	4737609
Phenanthrene	ug/L	66	1	4737609
Phenol	ug/L	32	1	4737609
Pyrene	ug/L	42 (1)	1	4737609
Surrogate Recovery (%)				
2,4,6-Tribromophenol	%	99		4737609
2-Fluorobiphenyl	%	67		4737609
D14-Terphenyl (FS)	%	52		4737609
D5-Nitrobenzene	%	82		4737609
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.				

### TEST SUMMARY

**Maxxam ID:** DJK300  
**Sample ID:** WG-160900764-20161031-AM01  
**Matrix:** Water

**Collected:** 2016/10/31  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/09	Milijana Avramovic
Acidity as CaCO3 in liquid		4731762	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4730189	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4733024	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4737116	N/A	2016/11/07	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733786	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4735470	2016/11/05	2016/11/06	Zhiyue (Frank) Zhu
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4730860	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735594	2016/11/05	2016/11/08	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4733759	N/A	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Ammonia-N	LACH/NH4	4735016	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4733038	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4733017	N/A	2016/11/04	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4733023	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4732577	N/A	2016/11/04	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4733660	N/A	2016/11/07	Xueming Jiang

**Maxxam ID:** DJK300 Dup  
**Sample ID:** WG-160900764-20161031-AM01  
**Matrix:** Water

**Collected:** 2016/10/31  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	4735016	N/A	2016/11/08	Charles Opoku-Ware

### TEST SUMMARY

**Maxxam ID:** DJK301  
**Sample ID:** WG-160900764-20161031-AM01A  
**Matrix:** Water

**Collected:** 2016/10/31  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/09	Milijana Avramovic

**Maxxam ID:** DJK302  
**Sample ID:** WG-160900764-20161031-AM02  
**Matrix:** Water

**Collected:** 2016/10/31  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/09	Milijana Avramovic
Acidity as CaCO3 in liquid		4731762	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4735983	N/A	2016/11/07	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/08	Automated Statchk
1,3-Dichloropropene Sum	CALC	4730189	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4733024	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4735984	N/A	2016/11/07	Surinder Rai
Chromium (VI) in Water	IC	4737116	N/A	2016/11/07	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733786	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4735470	2016/11/05	2016/11/06	Zhiyue (Frank) Zhu
Fluoride	ISE	4735985	2016/11/05	2016/11/07	Surinder Rai
Hardness (calculated as CaCO3)		4730860	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735594	2016/11/05	2016/11/08	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4733759	N/A	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Ammonia-N	LACH/NH4	4735016	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4733038	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4735986	N/A	2016/11/07	Surinder Rai
Orthophosphate	KONE	4733017	N/A	2016/11/04	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4733023	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4732577	N/A	2016/11/03	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4733660	N/A	2016/11/07	Xueming Jiang

### TEST SUMMARY

**Maxxam ID:** DJK302 Dup  
**Sample ID:** WG-160900764-20161031-AM02  
**Matrix:** Water

**Collected:** 2016/10/31  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/09	Milijana Avramovic
Alkalinity	AT	4735983	N/A	2016/11/07	Surinder Rai
Conductivity	AT	4735984	N/A	2016/11/07	Surinder Rai
Fluoride	ISE	4735985	2016/11/05	2016/11/07	Surinder Rai
Dissolved Metals by ICPMS	ICP/MS	4733759	N/A	2016/11/07	John Bowman
pH	AT	4735986	N/A	2016/11/07	Surinder Rai
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4733660	N/A	2016/11/07	Xueming Jiang

**Maxxam ID:** DJK303  
**Sample ID:** WG-160900764-20161031-AM02A  
**Matrix:** Water

**Collected:** 2016/10/31  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/09	Milijana Avramovic

**Maxxam ID:** DJK304  
**Sample ID:** WG-160900764-20161101-AM03  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/09	Milijana Avramovic
Acidity as CaCO3 in liquid		4731762	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4730189	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4733024	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4737116	N/A	2016/11/07	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4734689	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4735470	2016/11/05	2016/11/06	Zhiyue (Frank) Zhu
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4730860	N/A	2016/11/07	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735594	2016/11/05	2016/11/08	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4733425	N/A	2016/11/07	Prempal Bhatti
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/07	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/07	Automated Statchk
Total Ammonia-N	LACH/NH4	4734118	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4733038	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4733017	N/A	2016/11/04	Alina Dobreanu

### TEST SUMMARY

**Maxxam ID:** DJK304  
**Sample ID:** WG-160900764-20161101-AM03  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/07	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/07	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4733023	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/07	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4734628	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4732577	N/A	2016/11/04	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4733660	N/A	2016/11/07	Xueming Jiang

**Maxxam ID:** DJK304 Dup  
**Sample ID:** WG-160900764-20161101-AM03  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Organic Carbon (TOC)	TOCV/NDIR	4734628	N/A	2016/11/05	Anastasia Hamanov

**Maxxam ID:** DJK305  
**Sample ID:** WG-160900764-20161101-AM03A  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic

**Maxxam ID:** DJK306  
**Sample ID:** WG-160900764-20161101-AM04  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic
Acidity as CaCO3 in liquid		4731762	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4735983	N/A	2016/11/07	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/08	Automated Statchk
1,3-Dichloropropene Sum	CALC	4730189	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4733024	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4735984	N/A	2016/11/07	Surinder Rai
Chromium (VI) in Water	IC	4737116	N/A	2016/11/07	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733973	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4735470	2016/11/05	2016/11/06	Zhiyue (Frank) Zhu
Fluoride	ISE	4735985	2016/11/05	2016/11/07	Surinder Rai
Hardness (calculated as CaCO3)		4730860	N/A	2016/11/08	Automated Statchk



### TEST SUMMARY

**Maxxam ID:** DJK306  
**Sample ID:** WG-160900764-20161101-AM04  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	4735594	2016/11/05	2016/11/08	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4733759	N/A	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Ammonia-N	LACH/NH4	4735016	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4733038	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4735986	N/A	2016/11/07	Surinder Rai
Orthophosphate	KONE	4733017	N/A	2016/11/04	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4733023	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4732577	N/A	2016/11/03	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4733660	N/A	2016/11/07	Xueming Jiang

**Maxxam ID:** DJK306 Dup  
**Sample ID:** WG-160900764-20161101-AM04  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	4733024	N/A	2016/11/04	Alina Dobreanu
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Orthophosphate	KONE	4733017	N/A	2016/11/04	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	4733023	N/A	2016/11/04	Alina Dobreanu

**Maxxam ID:** DJK307  
**Sample ID:** WG-160900764-20161101-AM04A  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic

**Maxxam ID:** DJK308  
**Sample ID:** WG-160900764-20161101-AM05  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic

### TEST SUMMARY

**Maxxam ID:** DJK308  
**Sample ID:** WG-160900764-20161101-AM05  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO <sub>3</sub> in liquid		4731762	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4730189	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4733024	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4737116	N/A	2016/11/07	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733786	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4735470	2016/11/05	2016/11/06	Zhiyue (Frank) Zhu
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO <sub>3</sub> )		4730860	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4733759	N/A	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Ammonia-N	LACH/NH <sub>4</sub>	4733910	N/A	2016/11/07	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4733038	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4733017	N/A	2016/11/04	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4733023	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4732577	N/A	2016/11/04	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4733660	N/A	2016/11/07	Xueming Jiang

**Maxxam ID:** DJK309  
**Sample ID:** WG-160900764-20161101-AM05A  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic

### TEST SUMMARY

**Maxxam ID:** DJK320  
**Sample ID:** WG-160900764-20161101-AM06  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic
Acidity as CaCO3 in liquid		4731762	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4735983	N/A	2016/11/07	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/08	Automated Statchk
1,3-Dichloropropene Sum	CALC	4730189	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4733024	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4735984	N/A	2016/11/07	Surinder Rai
Chromium (VI) in Water	IC	4737116	N/A	2016/11/07	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733786	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4735470	2016/11/05	2016/11/06	Zhiyue (Frank) Zhu
Fluoride	ISE	4735985	2016/11/05	2016/11/07	Surinder Rai
Hardness (calculated as CaCO3)		4730860	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4733759	N/A	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Ammonia-N	LACH/NH4	4733910	N/A	2016/11/07	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4733038	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4735986	N/A	2016/11/07	Surinder Rai
Orthophosphate	KONE	4733017	N/A	2016/11/04	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4733023	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4732577	N/A	2016/11/03	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4733660	N/A	2016/11/07	Xueming Jiang

**Maxxam ID:** DJK321  
**Sample ID:** WG-160900764-20161101-AM06A  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic

### TEST SUMMARY

**Maxxam ID:** DJK322  
**Sample ID:** WG-160900764-20161101-AM07  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic
Acidity as CaCO3 in liquid		4731762	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4735983	N/A	2016/11/07	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/08	Automated Statchk
1,3-Dichloropropene Sum	CALC	4730189	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4733024	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4735984	N/A	2016/11/07	Surinder Rai
Chromium (VI) in Water	IC	4737116	N/A	2016/11/07	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733786	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4735470	2016/11/05	2016/11/06	Zhiyue (Frank) Zhu
Fluoride	ISE	4735985	2016/11/05	2016/11/07	Surinder Rai
Hardness (calculated as CaCO3)		4730860	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4733759	N/A	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Ammonia-N	LACH/NH4	4733910	N/A	2016/11/07	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4733038	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4735986	N/A	2016/11/07	Surinder Rai
Orthophosphate	KONE	4733017	N/A	2016/11/04	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4733023	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4732577	N/A	2016/11/04	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4733660	N/A	2016/11/07	Xueming Jiang

**Maxxam ID:** DJK322 Dup  
**Sample ID:** WG-160900764-20161101-AM07  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4731762	N/A		Grace Sison
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur

**TEST SUMMARY**

**Maxxam ID:** DJK323  
**Sample ID:** WG-160900764-20161101-AM07A  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/10	Milijana Avramovic

**Maxxam ID:** DJM473  
**Sample ID:** FILTERED BLANK  
**Matrix:** Water

**Collected:**  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/09	Milijana Avramovic

**Maxxam ID:** DJM477  
**Sample ID:** FILTERED SPIKE  
**Matrix:** Water

**Collected:**  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4737609	2016/11/07	2016/11/09	Milijana Avramovic

### GENERAL COMMENTS

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

Package 1	4.3°C
Package 2	4.3°C
Package 3	3.0°C
Package 4	3.3°C
Package 5	2.0°C
Package 6	3.7°C
Package 7	5.0°C

Sample DJK306 [WG-160900764-20161101-AM04] : Acidity Test: Sample initial pH was (>8.3), therefore acidity was not detected (ND).

Sample DJM477 [FILTERED SPIKE] : ABN analysis: Data are reported as percentage recoveries. Sample was filtered and surrogate and spike solutions were added prior to filtration.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4733660	4-Bromofluorobenzene	2016/11/07	95	70 - 130	94	70 - 130	90	%				
4733660	D4-1,2-Dichloroethane	2016/11/07	101	70 - 130	97	70 - 130	101	%				
4733660	D8-Toluene	2016/11/07	102	70 - 130	105	70 - 130	99	%				
4734166	Decachlorobiphenyl	2016/11/04	102	60 - 130	93	60 - 130	102	%				
4735470	o-Terphenyl	2016/11/05	103	60 - 130	101	60 - 130	99	%				
4737609	2,4,6-Tribromophenol	2016/11/09	94	50 - 130	99	50 - 130	83	%				
4737609	2-Fluorobiphenyl	2016/11/09	78	50 - 130	69	50 - 130	79	%				
4737609	D14-Terphenyl (FS)	2016/11/09	100	50 - 130	101	50 - 130	94	%				
4737609	D5-Nitrobenzene	2016/11/09	86	50 - 130	88	50 - 130	84	%				
4731762	Acidity as CaCO3						<10	mg/L	NC	25		
4732577	Turbidity	2016/11/04			100	85 - 115	<0.1	NTU	5.8	20		
4732810	Alkalinity (Total as CaCO3)	2016/11/04			98	85 - 115	<1.0	mg/L	0.70	20		
4732827	Conductivity	2016/11/04			101	85 - 115	<1.0	umho/cm	0.13	25		
4732838	Fluoride (F-)	2016/11/04	102	80 - 120	98	80 - 120	<0.10	mg/L	0.95	20		
4732853	pH	2016/11/04			102	98 - 103			0.088	N/A		
4733017	Orthophosphate (P)	2016/11/04	96	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
4733023	Dissolved Sulphate (SO4)	2016/11/04	106	75 - 125	99	80 - 120	<1.0	mg/L	0.80	20		
4733024	Dissolved Chloride (Cl)	2016/11/04	112	80 - 120	102	80 - 120	<1.0	mg/L	NC	20		
4733038	Nitrate (N)	2016/11/06	95	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
4733038	Nitrite (N)	2016/11/06	99	80 - 120	97	80 - 120	<0.010	mg/L	NC	20		
4733425	Dissolved Aluminum (Al)	2016/11/04	98	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
4733425	Dissolved Antimony (Sb)	2016/11/04	101	80 - 120	102	80 - 120	<0.00050	mg/L				
4733425	Dissolved Arsenic (As)	2016/11/04	98	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
4733425	Dissolved Barium (Ba)	2016/11/04	97	80 - 120	98	80 - 120	<0.0020	mg/L	3.7	20		
4733425	Dissolved Beryllium (Be)	2016/11/04	103	80 - 120	100	80 - 120	<0.00050	mg/L				
4733425	Dissolved Boron (B)	2016/11/04	NC	80 - 120	99	80 - 120	<0.010	mg/L	4.4	20		
4733425	Dissolved Cadmium (Cd)	2016/11/04	100	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20		
4733425	Dissolved Calcium (Ca)	2016/11/04	NC	80 - 120	95	80 - 120	<0.20	mg/L	8.7	20		
4733425	Dissolved Chromium (Cr)	2016/11/04	99	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
4733425	Dissolved Cobalt (Co)	2016/11/04	97	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4733425	Dissolved Copper (Cu)	2016/11/04	94	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
4733425	Dissolved Iron (Fe)	2016/11/04	98	80 - 120	100	80 - 120	<0.10	mg/L	NC	20		
4733425	Dissolved Lead (Pb)	2016/11/04	96	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
4733425	Dissolved Magnesium (Mg)	2016/11/04	NC	80 - 120	98	80 - 120	<0.050	mg/L	7.2	20		
4733425	Dissolved Manganese (Mn)	2016/11/04	99	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20		
4733425	Dissolved Molybdenum (Mo)	2016/11/04	101	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20		
4733425	Dissolved Nickel (Ni)	2016/11/04	95	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
4733425	Dissolved Phosphorus (P)	2016/11/04	106	80 - 120	103	80 - 120	<0.10	mg/L				
4733425	Dissolved Potassium (K)	2016/11/04	97	80 - 120	98	80 - 120	<0.20	mg/L	6.6	20		
4733425	Dissolved Selenium (Se)	2016/11/04	101	80 - 120	102	80 - 120	<0.0020	mg/L	NC	20		
4733425	Dissolved Silicon (Si)	2016/11/04	94	80 - 120	97	80 - 120	<0.050	mg/L				
4733425	Dissolved Silver (Ag)	2016/11/04	95	80 - 120	98	80 - 120	<0.00010	mg/L				
4733425	Dissolved Sodium (Na)	2016/11/04	NC	80 - 120	99	80 - 120	<0.10	mg/L	7.8	20		
4733425	Dissolved Strontium (Sr)	2016/11/04	NC	80 - 120	101	80 - 120	0.0014, RDL=0.0010	mg/L				
4733425	Dissolved Thallium (Tl)	2016/11/04	95	80 - 120	95	80 - 120	<0.000050	mg/L				
4733425	Dissolved Titanium (Ti)	2016/11/04	96	80 - 120	99	80 - 120	<0.0050	mg/L				
4733425	Dissolved Uranium (U)	2016/11/04	98	80 - 120	98	80 - 120	<0.00010	mg/L				
4733425	Dissolved Vanadium (V)	2016/11/04	98	80 - 120	99	80 - 120	<0.00050	mg/L				
4733425	Dissolved Zinc (Zn)	2016/11/04	98	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
4733425	Dissolved Zirconium (Zr)	2016/11/04	101	80 - 120	101	80 - 120	<0.0010	mg/L				
4733660	1,1,1,2-Tetrachloroethane	2016/11/07	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4733660	1,1,1-Trichloroethane	2016/11/07	90	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
4733660	1,1,2,2-Tetrachloroethane	2016/11/07	112	70 - 130	106	70 - 130	<0.50	ug/L	NC	30		
4733660	1,1,2-Trichloroethane	2016/11/07	105	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4733660	1,1-Dichloroethane	2016/11/07	104	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4733660	1,1-Dichloroethylene	2016/11/07	103	70 - 130	104	70 - 130	<0.20	ug/L	NC	30		
4733660	1,2-Dichlorobenzene	2016/11/07	98	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4733660	1,2-Dichloroethane	2016/11/07	97	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4733660	1,2-Dichloropropane	2016/11/07	106	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
4733660	1,3-Dichlorobenzene	2016/11/07	95	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4733660	1,4-Dichlorobenzene	2016/11/07	98	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
4733660	Acetone (2-Propanone)	2016/11/07	112	60 - 140	105	60 - 140	<10	ug/L	NC	30		
4733660	Benzene	2016/11/07	102	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4733660	Bromodichloromethane	2016/11/07	97	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4733660	Bromoform	2016/11/07	88	70 - 130	83	70 - 130	<1.0	ug/L	NC	30		
4733660	Bromomethane	2016/11/07	80	60 - 140	77	60 - 140	<0.50	ug/L	NC	30		
4733660	Carbon Tetrachloride	2016/11/07	91	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4733660	Chlorobenzene	2016/11/07	101	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
4733660	Chloroform	2016/11/07	99	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4733660	cis-1,2-Dichloroethylene	2016/11/07	102	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
4733660	cis-1,3-Dichloropropene	2016/11/07	94	70 - 130	85	70 - 130	<0.30	ug/L	NC	30		
4733660	Dibromochloromethane	2016/11/07	94	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4733660	Dichlorodifluoromethane (FREON 12)	2016/11/07	78	60 - 140	84	60 - 140	<1.0	ug/L	NC	30		
4733660	Ethylbenzene	2016/11/07	97	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4733660	Ethylene Dibromide	2016/11/07	100	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4733660	F1 (C6-C10) - BTEX	2016/11/07					<25	ug/L	NC	30		
4733660	F1 (C6-C10)	2016/11/07	101	60 - 140	97	60 - 140	<25	ug/L	NC	30		
4733660	Hexane	2016/11/07	110	70 - 130	111	70 - 130	<1.0	ug/L	NC	30		
4733660	Methyl Ethyl Ketone (2-Butanone)	2016/11/07	116	60 - 140	106	60 - 140	<10	ug/L	NC	30		
4733660	Methyl Isobutyl Ketone	2016/11/07	110	70 - 130	99	70 - 130	<5.0	ug/L	NC	30		
4733660	Methyl t-butyl ether (MTBE)	2016/11/07	95	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4733660	Methylene Chloride(Dichloromethane)	2016/11/07	104	70 - 130	101	70 - 130	<2.0	ug/L	NC	30		
4733660	o-Xylene	2016/11/07	93	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4733660	p+m-Xylene	2016/11/07	90	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4733660	Styrene	2016/11/07	92	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4733660	Tetrachloroethylene	2016/11/07	93	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4733660	Toluene	2016/11/07	97	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4733660	Total Xylenes	2016/11/07					<0.20	ug/L	NC	30		
4733660	trans-1,2-Dichloroethylene	2016/11/07	97	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4733660	trans-1,3-Dichloropropene	2016/11/07	93	70 - 130	82	70 - 130	<0.40	ug/L	NC	30		
4733660	Trichloroethylene	2016/11/07	94	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4733660	Trichlorofluoromethane (FREON 11)	2016/11/07	97	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4733660	Vinyl Chloride	2016/11/07	105	70 - 130	107	70 - 130	<0.20	ug/L	NC	30		
4733759	Dissolved Aluminum (Al)	2016/11/07	97	80 - 120	96	80 - 120	<0.0050	mg/L	NC	20		
4733759	Dissolved Antimony (Sb)	2016/11/07	98	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
4733759	Dissolved Arsenic (As)	2016/11/07	98	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
4733759	Dissolved Barium (Ba)	2016/11/07	95	80 - 120	94	80 - 120	<0.0020	mg/L	0.13	20		
4733759	Dissolved Beryllium (Be)	2016/11/07	99	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
4733759	Dissolved Boron (B)	2016/11/07	94	80 - 120	94	80 - 120	<0.010	mg/L	3.3	20		
4733759	Dissolved Cadmium (Cd)	2016/11/07	97	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
4733759	Dissolved Calcium (Ca)	2016/11/07	NC	80 - 120	92	80 - 120	<0.20	mg/L	0.74	20		
4733759	Dissolved Chromium (Cr)	2016/11/07	97	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20		
4733759	Dissolved Cobalt (Co)	2016/11/07	94	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
4733759	Dissolved Copper (Cu)	2016/11/07	97	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
4733759	Dissolved Iron (Fe)	2016/11/07	96	80 - 120	96	80 - 120	<0.10	mg/L	NC	20		
4733759	Dissolved Lead (Pb)	2016/11/07	97	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4733759	Dissolved Magnesium (Mg)	2016/11/07	NC	80 - 120	97	80 - 120	<0.050	mg/L	1.7	20		
4733759	Dissolved Manganese (Mn)	2016/11/07	92	80 - 120	92	80 - 120	<0.0020	mg/L	NC	20		
4733759	Dissolved Molybdenum (Mo)	2016/11/07	100	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
4733759	Dissolved Nickel (Ni)	2016/11/07	91	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
4733759	Dissolved Phosphorus (P)	2016/11/07	102	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
4733759	Dissolved Potassium (K)	2016/11/07	98	80 - 120	97	80 - 120	<0.20	mg/L	0.47	20		
4733759	Dissolved Selenium (Se)	2016/11/07	96	80 - 120	97	80 - 120	<0.0020	mg/L	NC	20		
4733759	Dissolved Silicon (Si)	2016/11/07	93	80 - 120	95	80 - 120	<0.050	mg/L	0.18	20		
4733759	Dissolved Silver (Ag)	2016/11/07	87	80 - 120	95	80 - 120	<0.00010	mg/L	NC	20		
4733759	Dissolved Sodium (Na)	2016/11/07	NC	80 - 120	96	80 - 120	<0.10	mg/L	1.3	20		
4733759	Dissolved Strontium (Sr)	2016/11/07	NC	80 - 120	96	80 - 120	<0.0010	mg/L	2.8	20		
4733759	Dissolved Thallium (Tl)	2016/11/07	96	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20		
4733759	Dissolved Titanium (Ti)	2016/11/07	95	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20		
4733759	Dissolved Uranium (U)	2016/11/07	97	80 - 120	94	80 - 120	<0.00010	mg/L	2.0	20		
4733759	Dissolved Vanadium (V)	2016/11/07	97	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20		
4733759	Dissolved Zinc (Zn)	2016/11/07	95	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4733759	Dissolved Zirconium (Zr)	2016/11/07	104	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
4733786	Dissolved Organic Carbon	2016/11/04	NC	80 - 120	105	80 - 120	<0.20	mg/L	0.46	20		
4733910	Total Ammonia-N	2016/11/07	102	80 - 120	102	85 - 115	<0.050	mg/L	NC	20		
4733973	Dissolved Organic Carbon	2016/11/04	106	80 - 120	105	80 - 120	<0.20	mg/L	0.66	20		
4734118	Total Ammonia-N	2016/11/08	108	80 - 120	100	85 - 115	<0.050	mg/L	NC	20		
4734166	Aroclor 1242	2016/11/04					<0.05	ug/L	NC	30		
4734166	Aroclor 1248	2016/11/04					<0.05	ug/L	NC	30		
4734166	Aroclor 1254	2016/11/04					<0.05	ug/L	NC	30		
4734166	Aroclor 1260	2016/11/04	105	60 - 130	79	60 - 130	<0.05	ug/L	NC	30		
4734166	Total PCB	2016/11/04	105	60 - 130	79	60 - 130	<0.05	ug/L	NC	40		
4734251	Total Suspended Solids	2016/11/04					<10	mg/L	NC	25	96	85 - 115
4734257	Free Cyanide	2016/11/04	104	80 - 120	102	80 - 120	<1	ug/L	NC	20		
4734260	Total Dissolved Solids	2016/11/05					<10	mg/L	1.1	25	95	90 - 110
4734350	Free Cyanide	2016/11/04	105	80 - 120	102	80 - 120	<1	ug/L	NC	20		
4734628	Total Organic Carbon (TOC)	2016/11/05	104	80 - 120	105	80 - 120	<0.20	mg/L	1.5	20		
4734689	Dissolved Organic Carbon	2016/11/05	95	80 - 120	99	80 - 120	0.21, RDL=0.20	mg/L	0.98	20		
4735016	Total Ammonia-N	2016/11/08	102	80 - 120	102	85 - 115	<0.050	mg/L	NC	20		
4735470	F2 (C10-C16 Hydrocarbons)	2016/11/06	107	50 - 130	107	60 - 130	<100	ug/L	NC	30		
4735470	F3 (C16-C34 Hydrocarbons)	2016/11/06	103	50 - 130	104	60 - 130	<200	ug/L	NC	30		
4735470	F4 (C34-C50 Hydrocarbons)	2016/11/06	100	50 - 130	100	60 - 130	<200	ug/L	NC	30		
4735589	Mercury (Hg)	2016/11/08	104	75 - 125	102	80 - 120	<0.0001	mg/L	NC	20		
4735594	Mercury (Hg)	2016/11/08	103	75 - 125	101	80 - 120	<0.0001	mg/L	NC	20		
4735903	Total Organic Carbon (TOC)	2016/11/06	101	80 - 120	102	80 - 120	0.25, RDL=0.20	mg/L	7.4	20		
4735983	Alkalinity (Total as CaCO3)	2016/11/07			96	85 - 115	<1.0	mg/L	0.37	20		
4735984	Conductivity	2016/11/07			101	85 - 115	<1.0	umho/cm	0.32	25		
4735985	Fluoride (F-)	2016/11/07	102	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
4735986	pH	2016/11/07			101	98 - 103			0.025	N/A		
4737116	Chromium (VI)	2016/11/07	113	80 - 120	107	80 - 120	<0.50	ug/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4737609	1,2,4-Trichlorobenzene	2016/11/09	69	40 - 130	63	40 - 130	<0.1	ug/L	NC	30		
4737609	1-Methylnaphthalene	2016/11/09	79	50 - 130	81	50 - 130	<0.2	ug/L	NC	30		
4737609	2,4,5-Trichlorophenol	2016/11/09	96	50 - 130	94	50 - 130	<0.2	ug/L	NC	30		
4737609	2,4,6-Trichlorophenol	2016/11/09	85	50 - 130	89	50 - 130	<0.2	ug/L	NC	30		
4737609	2,4-Dichlorophenol	2016/11/09	72	50 - 130	76	50 - 130	<0.1	ug/L	NC	30		
4737609	2,4-Dimethylphenol	2016/11/09	20 (1)	30 - 130	52	30 - 130	<0.5	ug/L	NC	30		
4737609	2,4-Dinitrophenol	2016/11/09	90	30 - 130	36	30 - 130	<2	ug/L	NC	30		
4737609	2,4-Dinitrotoluene	2016/11/09	104	50 - 130	103	50 - 130	<0.3	ug/L	NC	30		
4737609	2,6-Dinitrotoluene	2016/11/09	103	50 - 130	101	50 - 130	<0.3	ug/L	NC	30		
4737609	2-Chlorophenol	2016/11/09	76	50 - 130	81	50 - 130	<0.1	ug/L	NC	30		
4737609	2-Methylnaphthalene	2016/11/09	77	50 - 130	78	50 - 130	<0.2	ug/L	NC	30		
4737609	3,3'-Dichlorobenzidine	2016/11/09	87	30 - 130	106	30 - 130	<0.5	ug/L	NC	30		
4737609	Acenaphthene	2016/11/09	90	50 - 130	90	50 - 130	<0.2	ug/L	NC	30		
4737609	Acenaphthylene	2016/11/09	91	50 - 130	90	50 - 130	<0.2	ug/L	NC	30		
4737609	Anthracene	2016/11/09	94	50 - 130	94	50 - 130	<0.05	ug/L	NC	30		
4737609	Benzo(a)anthracene	2016/11/09	101	50 - 130	101	50 - 130	<0.05	ug/L	NC	30		
4737609	Benzo(a)pyrene	2016/11/09	97	50 - 130	98	50 - 130	<0.01	ug/L	NC	30		
4737609	Benzo(b/j)fluoranthene	2016/11/09	97	50 - 130	97	50 - 130	<0.05	ug/L	NC	30		
4737609	Benzo(g,h,i)perylene	2016/11/09	90	50 - 130	88	50 - 130	<0.05	ug/L	NC	30		
4737609	Benzo(k)fluoranthene	2016/11/09	102	50 - 130	106	50 - 130	<0.05	ug/L	NC	30		
4737609	Biphenyl	2016/11/09	99	50 - 130	101	50 - 130	<0.1	ug/L	NC	30		
4737609	Bis(2-chloroethyl)ether	2016/11/09	87	50 - 130	88	50 - 130	<0.5	ug/L	NC	30		
4737609	Bis(2-chloroisopropyl)ether	2016/11/09	93	50 - 130	94	50 - 130	<0.5	ug/L	NC	30		
4737609	Bis(2-ethylhexyl)phthalate	2016/11/09	97	50 - 130	99	50 - 130	<1	ug/L	NC	30		
4737609	Chrysene	2016/11/09	94	50 - 130	94	50 - 130	<0.05	ug/L	NC	30		
4737609	Dibenz(a,h)anthracene	2016/11/09	96	50 - 130	93	50 - 130	<0.1	ug/L	NC	30		
4737609	Diethyl phthalate	2016/11/09	100	50 - 130	99	50 - 130	<0.1	ug/L	NC	30		
4737609	Dimethyl phthalate	2016/11/09	99	50 - 130	98	50 - 130	<0.1	ug/L	NC	30		
4737609	Fluoranthene	2016/11/09	92	50 - 130	92	50 - 130	<0.2	ug/L	NC	30		
4737609	Fluorene	2016/11/09	87	50 - 130	86	50 - 130	<0.2	ug/L	NC	30		
4737609	Indeno(1,2,3-cd)pyrene	2016/11/09	88	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4737609	Naphthalene	2016/11/09	69	50 - 130	69	50 - 130	<0.2	ug/L	NC	30		
4737609	p-Chloroaniline	2016/11/09	69	30 - 130	101	30 - 130	<1	ug/L	NC	30		
4737609	Pentachlorophenol	2016/11/09	57	50 - 130	67	50 - 130	<0.1	ug/L	NC	30		
4737609	Phenanthrene	2016/11/09	92	50 - 130	91	50 - 130	<0.1	ug/L	NC	30		
4737609	Phenol	2016/11/09	32	30 - 130	33	30 - 130	<0.5	ug/L	NC	30		
4737609	Pyrene	2016/11/09	99	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

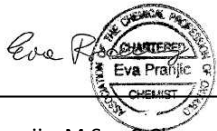
(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

### VALIDATION SIGNATURE PAGE

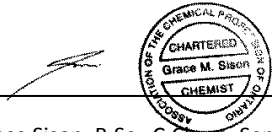
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Specialist



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



Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





02-Nov-16 08:20

Deepthi Shaji



B6N7980

Presence of Visible Particulate/Sediment

Maxxam Analytics  
CAM FCD-01013/5  
Page 1 of 1

*TS 2/21/16/2* When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

TSP ENV-633

Bottle Types

Sample ID	All	Inorganics					Organics								Hydrocarbons						Volatiles				Other										
		CrVI	CN	General	MS	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb 1 of 2	Pest/ Herb 2 of 2	SVOC/ ABN 1 of 2	SVOC/ ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G		VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4						
1 W9-16070764-2016(03) - AM01				TS				TS	TS			TS	TS																						
2 7 - AM02				TS	TS																														
3 M-2016101-AM03				TS	TS				TS	TS		TS	TS									TS	TS												
4 W9-16070764-2016(04) - AM05				TS	TS				TS	TS		TS	TS									TS	TS												
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

Comments:

Legend:

P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print)

Tanvir A. / Tanvir Sinha





Maxxam Analytics International Corporation o/a Maxxam Analytics  
 6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6256 Fax: (905) 817-5777 www.maxxam.ca

STANTEC CHAIN OF CUSTODY RECORD

Page 1 of 2

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Company Name: #18379 Stantec Consulting Ltd	Quotation #: B48218	Maxxam Job #:	Bottle Order #:	584443		
Contact Name: Accounts Payable	Contact Name: Report - 1609-00764	Task #:	COC #:		Project Manager: Deepthi Shaji		
Address: 49 Frederick St, Kitchener ON N2H 6M7	Address: ON	Project #: 160900764	Site #: Clarington TS - Monitoring Wel		C#584443-01-01		
Phone: (519) 579-4410 Fax: (519) 579-6733	Phone: Fax:	Profit Centre:	Sampled By: Angela Masen				
Email: Stantec.Accounts.Payable.Invoices@Stantec.com	Email: aaron.warkentin@stantec.com, brant.gill@stantec.com						

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY					ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects	
Regulation 153 (2011)			Other Regulations		Special Instructions	Field Filtered (please circle)	Acidity, GM, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153/PHC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	RCAP - Comprehensive (field filtered metals)	SVOC	Lab Filtered SVOCs	# of Bottles	Comments
<input checked="" type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw												
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	<input type="checkbox"/> Municipality												
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO	<input type="checkbox"/> Other												
1	WG-160900764-20161031-AM01	2016/10/31	16:00	GW	Y	X	X	X	X	X	X	X	X	20		
2	WG-160900764-20161031-AM01A		16:00	n/a										2		
3	WG-160900764-20161031-AM02		16:30		Y	X	X	X	X	X	X	X	X	20		
4	WG-160900764-20161031-AM02A		16:30	n/a										2	02-Nov-16 08:20	
5	WG-160900764-20161101-AM03	2016/11/01	12:00		Y	X	X	X	X	X	X	X	X	20	Deepthi Shaji B6N7980	
6	WG-160900764-20161101-AM03A		12:00	n/a										2	TSP ENV-633	
7	WG-160900764-20161101-AM04		10:30		Y	X	X	X	X	X	X	X	X	20		
8	WG-160900764-20161101-AM01A		10:30	n/a										2		
9	WG-160900764-20161101-AM05		14:00		Y	X	X	X	X	X	X	X	X	20	REC'D IN PORT HOPE	
10	WG-160900764-20161101-AM05A		14:00	n/a										2		

* RELINQUISHED BY: (Signature/Print) <i>Angela Masen</i>		Date: (YY/MM/DD) 2016/11/01	Time 18:45	RECEIVED BY: (Signature/Print) <i>Paramjeet Singh</i>		Date: (YY/MM/DD) 2016/11/02	Time 13:03	# jars used and not submitted	Laboratory Use Only			
									Temperature (°C) on Receipt: SEE ACTR	Custody Seal Present	Yes	No
									Intact		Yes	No

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

ACTR



Maxxam Analytics International Corporation o/a Maxxam Analytics  
 6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6256 Fax: (905) 817-5777 www.maxxam.ca

STANTEC CHAIN OF CUSTODY RECORD

Page 2 of 2

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Company Name: #18379 Stantec Consulting Ltd	Quotation #: B48218	Maxxam Job #:	Bottle Order #:	584443		
Contact Name: Accounts Payable	Contact Name: Report - 1609-00764	Task #:	COC #:	Project Manager:	584443		
Address: 49 Frederick St Kitchener ON N2H 6M7	Address: ON	Project #: 160900764	Site #:	Project Manager:	584443		
Phone: (519) 579-4410 Fax: (519) 579-6733	Phone: Fax:	Profit Centre:	Site #:	Project Manager:	584443		
Email: Stantec.Accounts.Payable.Invoices@Stantec.com	Email: aaron.warkentin@stantec.com, brant.gill@stantec.com	Sampled By: <u>Angela Mason</u>	Site #:	Project Manager:	584443		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects							
Regulation 153 (2011)			Other Regulations			Special Instructions			Field Filtered (please circle)	Metals (Hg Cr V)	Acidity, Cu, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1 - F4	Reg 153 PCBs	Reg 153 VOCs	Reg 153 VOCs	RCAP - Comprehensive (field filtered metals)	SVOC	Lab Filtered SVOCs	# of Bottles	Comments		
<input checked="" type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw																			
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw																			
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality																			
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO																				
Include Criteria on Certificate of Analysis (Y/N)? <u>N</u>																							
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix																			
1	WG-160900764-20161101 <del>AM06</del>	2016/11/01	15:30	GW	Y	X	X	X	X	X	X	X	X	X	X	X	X	X	20				
2	WG-160900764-20161101 <del>AM06A</del>		15:30	n/a															2				
3	WG-160900764-20161101 <del>AM07</del>		16:00	Y	Y	X	X	X	X	X	X	X	X	X	X	X	X	X	20				
4	WG-160900764-20161101 <del>AM07A</del>		16:00	n/a															2				
5	<del>WG-160900764-2016</del>																						
6	<del>WG-160900764-2016</del>																						
8																							
9																							
10																							

REC'D IN PORT HOPE

RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
<u>Angela Mason AZ</u>		2016/11/01	18:45	<u>Brant Gill</u> <u>Parvinder Parmar</u>		2016/11/02	08:20		Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
						2016/11/02	13:03			SEE ACTR	Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
											Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

ACTR

Your Project #: 160900764  
 Site#: Clarington TS – Monitoring Wel  
 Site Location: Clarington TS – Monitoring Well  
 Your C.O.C. #: 584443-08-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/10**  
 Report #: R4242850  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N9173**

**Received: 2016/11/03, 15:20**

Sample Matrix: Water  
 # Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	6	N/A	2016/11/10	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	7	2016/11/09	2016/11/10	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	2	N/A	2016/11/09	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	2	N/A	2016/11/07	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2016/11/07	CAM SOP-00102	APHA 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	1	N/A	2016/11/08	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	3	N/A	2016/11/08		EPA 8260C m
Chloride by Automated Colourimetry	2	N/A	2016/11/07	CAM SOP-00463	EPA 325.2 m
Conductivity	2	N/A	2016/11/07	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	2	N/A	2016/11/08	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	2	N/A	2016/11/08	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	2	N/A	2016/11/05	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydrocarbons F2-F4 in Water (4)	2	2016/11/07	2016/11/08	CAM SOP-00316	CCME PHC-CWS m
Fluoride	2	2016/11/05	2016/11/07	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2016/11/10	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2016/11/09	2016/11/09	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	2	N/A	2016/11/09	CAM SOP-00447	EPA 6020B m
Ion Balance (% Difference)	2	N/A	2016/11/10		
Anion and Cation Sum	2	N/A	2016/11/10		
Total Ammonia-N	2	N/A	2016/11/10	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (5)	2	N/A	2016/11/08	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	1	2016/11/04	2016/11/08	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Water	1	2016/11/07	2016/11/08	CAM SOP-00309	EPA 8082A m
pH	2	N/A	2016/11/07	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	2	N/A	2016/11/07	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	2	N/A	2016/11/10		
Sat. pH and Langelier Index (@ 4C)	2	N/A	2016/11/10		
Sulphate by Automated Colourimetry	2	N/A	2016/11/07	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	2	N/A	2016/11/10		

Your Project #: 160900764  
 Site#: Clarington TS – Monitoring Wel  
 Site Location: Clarington TS – Monitoring Well  
 Your C.O.C. #: 584443-08-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/10**  
 Report #: R4242850  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N9173**

**Received: 2016/11/03, 15:20**

Sample Matrix: Water  
 # Samples Received: 7

Analyses	Quantity	Date		Laboratory Method	Reference
		Extracted	Analyzed		
Total Dissolved Solids	2	2016/11/07	2016/11/07	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (6)	2	N/A	2016/11/07	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	2	2016/11/07	2016/11/07	CAM SOP-00428	SM 22 2540D m
Turbidity	1	N/A	2016/11/08	CAM SOP-00417	SM 22 2130 B m
Turbidity	1	N/A	2016/11/10	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds and F1 PHCs	3	N/A	2016/11/07	CAM SOP-00230	EPA 8260C m

**Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

Your Project #: 160900764  
Site#: Clarington TS – Monitoring Wel  
Site Location: Clarington TS – Monitoring Well  
Your C.O.C. #: 584443-08-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/11/10**  
Report #: R4242850  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N9173**

**Received: 2016/11/03, 15:20**

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (6) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Deepthi Shaji, Project Manager  
Email: dshaji@maxxam.ca  
Phone# (905)817-5700 Ext:5807

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJP832			DJP834		
Sampling Date		2016/11/03 09:00			2016/11/03 09:30		
COC Number		584443-08-01			584443-08-01		
	UNITS	WG-160900764- 20161103-AM15	RDL	QC Batch	WG-160900764- 20161103-AM16	RDL	QC Batch
<b>Calculated Parameters</b>							
Anion Sum	me/L	16.3	N/A	4734014	6.98	N/A	4734014
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	160	1.0	4734011	230	1.0	4734011
Calculated TDS	mg/L	1100	1.0	4734018	380	1.0	4734018
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.3	1.0	4734011	2.1	1.0	4734011
Cation Sum	me/L	17.2	N/A	4734014	7.00	N/A	4734014
Hardness (CaCO3)	mg/L	460	1.0	4733406	290	1.0	4733406
Ion Balance (% Difference)	%	2.49	N/A	4734013	0.140	N/A	4734013
Langelier Index (@ 20C)	N/A	0.637		4734016	0.675		4734016
Langelier Index (@ 4C)	N/A	0.391		4734017	0.426		4734017
Saturation pH (@ 20C)	N/A	7.32		4734016	7.32		4734016
Saturation pH (@ 4C)	N/A	7.56		4734017	7.57		4734017
<b>Inorganics</b>							
Total Ammonia-N	mg/L	<0.050	0.050	4736120	<0.050	0.050	4736120
Conductivity	umho/cm	1600	1.0	4735984	650	1.0	4735738
Dissolved Organic Carbon	mg/L	1.6	0.20	4735581	1.1	0.20	4735581
Orthophosphate (P)	mg/L	0.012	0.010	4735916	0.013	0.010	4735916
pH	pH	7.96		4735986	7.99		4735739
Dissolved Sulphate (SO4)	mg/L	600	5.0	4735915	91	1.0	4735915
Alkalinity (Total as CaCO3)	mg/L	160	1.0	4735983	230	1.0	4735731
Dissolved Chloride (Cl)	mg/L	22	1.0	4735898	13	1.0	4735898
Nitrite (N)	mg/L	<0.010	0.010	4735777	<0.010	0.010	4735777
Nitrate (N)	mg/L	0.35	0.10	4735777	1.19	0.10	4735777
Nitrate + Nitrite (N)	mg/L	0.35	0.10	4735777	1.19	0.10	4735777
<b>Metals</b>							
Dissolved Aluminum (Al)	mg/L	<0.0050	0.0050	4735713	<0.0050	0.0050	4735713
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	4735713	<0.00050	0.00050	4735713
Dissolved Arsenic (As)	mg/L	<0.0010	0.0010	4735713	<0.0010	0.0010	4735713
Dissolved Barium (Ba)	mg/L	0.023	0.0020	4735713	0.052	0.0020	4735713
Dissolved Beryllium (Be)	mg/L	<0.00050	0.00050	4735713	<0.00050	0.00050	4735713
Dissolved Boron (B)	mg/L	0.29	0.010	4735713	0.086	0.010	4735713
Dissolved Cadmium (Cd)	mg/L	<0.00010	0.00010	4735713	<0.00010	0.00010	4735713
Dissolved Calcium (Ca)	mg/L	110	0.20	4735713	58	0.20	4735713
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable							

**RCAP - COMPREHENSIVE (WATER)**

Maxxam ID		DJP832			DJP834		
Sampling Date		2016/11/03 09:00			2016/11/03 09:30		
COC Number		584443-08-01			584443-08-01		
	UNITS	WG-160900764- 20161103-AM15	RDL	QC Batch	WG-160900764- 20161103-AM16	RDL	QC Batch
Dissolved Chromium (Cr)	mg/L	<0.0050	0.0050	4735713	<0.0050	0.0050	4735713
Dissolved Cobalt (Co)	mg/L	<0.00050	0.00050	4735713	<0.00050	0.00050	4735713
Dissolved Copper (Cu)	mg/L	<0.0010	0.0010	4735713	<0.0010	0.0010	4735713
Dissolved Iron (Fe)	mg/L	<0.10	0.10	4735713	<0.10	0.10	4735713
Dissolved Lead (Pb)	mg/L	<0.00050	0.00050	4735713	<0.00050	0.00050	4735713
Dissolved Magnesium (Mg)	mg/L	43	0.050	4735713	36	0.050	4735713
Dissolved Manganese (Mn)	mg/L	0.013	0.0020	4735713	0.0031	0.0020	4735713
Dissolved Molybdenum (Mo)	mg/L	0.063	0.00050	4735713	0.0085	0.00050	4735713
Dissolved Nickel (Ni)	mg/L	0.0016	0.0010	4735713	<0.0010	0.0010	4735713
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	4735713	<0.10	0.10	4735713
Dissolved Potassium (K)	mg/L	5.5	0.20	4735713	5.4	0.20	4735713
Dissolved Selenium (Se)	mg/L	<0.0020	0.0020	4735713	<0.0020	0.0020	4735713
Dissolved Silicon (Si)	mg/L	4.0	0.050	4735713	6.1	0.050	4735713
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	4735713	<0.00010	0.00010	4735713
Dissolved Sodium (Na)	mg/L	180	0.10	4735713	23	0.10	4735713
Dissolved Strontium (Sr)	mg/L	1.7	0.0010	4735713	0.78	0.0010	4735713
Dissolved Thallium (Tl)	mg/L	<0.000050	0.000050	4735713	<0.000050	0.000050	4735713
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	4735713	<0.0050	0.0050	4735713
Dissolved Uranium (U)	mg/L	0.0054	0.00010	4735713	0.0035	0.00010	4735713
Dissolved Vanadium (V)	mg/L	<0.00050	0.00050	4735713	0.00080	0.00050	4735713
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0050	4735713	<0.0050	0.0050	4735713
Dissolved Zirconium (Zr)	mg/L	<0.0010	0.0010	4735713	<0.0010	0.0010	4735713
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							

**RCAP - COMPREHENSIVE (WATER)**

<b>Maxxam ID</b>		DJP834		
<b>Sampling Date</b>		2016/11/03 09:30		
<b>COC Number</b>		584443-08-01		
	<b>UNITS</b>	<b>WG-160900764- 20161103-AM16 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>				
Conductivity	umho/cm	650	1.0	4735738
pH	pH	8.02		4735739
Alkalinity (Total as CaCO3)	mg/L	230	1.0	4735731
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate				



**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJP832			DJP834	DJP834		
<b>Sampling Date</b>		2016/11/03 09:00			2016/11/03 09:30	2016/11/03 09:30		
<b>COC Number</b>		584443-08-01			584443-08-01	584443-08-01		
	<b>UNITS</b>	<b>WG-160900764- 20161103-AM15</b>	<b>RDL</b>	<b>QC Batch</b>	<b>WG-160900764- 20161103-AM16</b>	<b>WG-160900764- 20161103-AM16 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>								
Acidity as CaCO3	mg/L	10	10	4737259	12		10	4737259
Total Dissolved Solids	mg/L	1160	10	4736777	400		10	4736777
Fluoride (F-)	mg/L	0.32	0.10	4735985	0.28	0.31	0.10	4735728
Free Cyanide	ug/L	<1	1	4737131	<1		1	4737131
Total Organic Carbon (TOC)	mg/L	2.3	0.20	4736113	1.2		0.20	4736113
Total Suspended Solids	mg/L	440	10	4736768	91		10	4736768
Turbidity	NTU	290	0.2	4735761	6.0		0.1	4735744

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		DJP832	DJP834	DJP834		
Sampling Date		2016/11/03 09:00	2016/11/03 09:30	2016/11/03 09:30		
COC Number		584443-08-01	584443-08-01	584443-08-01		
	UNITS	WG-160900764- 20161103-AM15	WG-160900764- 20161103-AM16	WG-160900764- 20161103-AM16 Lab-Dup	RDL	QC Batch
<b>Metals</b>						
Chromium (VI)	ug/L	<0.50	<0.50		0.50	4738533
Mercury (Hg)	mg/L	<0.0001	<0.0001	<0.0001	0.0001	4740246
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate						

**VOLATILE ORGANICS BY GC/MS (WATER)**

<b>Maxxam ID</b>		DJP836		
<b>Sampling Date</b>				
<b>COC Number</b>		584443-08-01		
	<b>UNITS</b>	<b>TRIP BLANK</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	4733971
<b>Volatile Organics</b>				
Acetone (2-Propanone)	ug/L	<10	10	4735455
Benzene	ug/L	<0.20	0.20	4735455
Bromodichloromethane	ug/L	<0.50	0.50	4735455
Bromoform	ug/L	<1.0	1.0	4735455
Bromomethane	ug/L	<0.50	0.50	4735455
Carbon Tetrachloride	ug/L	<0.20	0.20	4735455
Chlorobenzene	ug/L	<0.20	0.20	4735455
Chloroform	ug/L	<0.20	0.20	4735455
Dibromochloromethane	ug/L	<0.50	0.50	4735455
1,2-Dichlorobenzene	ug/L	<0.50	0.50	4735455
1,3-Dichlorobenzene	ug/L	<0.50	0.50	4735455
1,4-Dichlorobenzene	ug/L	<0.50	0.50	4735455
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	4735455
1,1-Dichloroethane	ug/L	<0.20	0.20	4735455
1,2-Dichloroethane	ug/L	<0.50	0.50	4735455
1,1-Dichloroethylene	ug/L	<0.20	0.20	4735455
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	4735455
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	4735455
1,2-Dichloropropane	ug/L	<0.20	0.20	4735455
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	4735455
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	4735455
Ethylbenzene	ug/L	<0.20	0.20	4735455
Ethylene Dibromide	ug/L	<0.20	0.20	4735455
Hexane	ug/L	<1.0	1.0	4735455
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	4735455
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	4735455
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	4735455
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	4735455
Styrene	ug/L	<0.50	0.50	4735455
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	4735455
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	4735455
Tetrachloroethylene	ug/L	<0.20	0.20	4735455
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

**VOLATILE ORGANICS BY GC/MS (WATER)**

<b>Maxxam ID</b>		DJP836		
<b>Sampling Date</b>				
<b>COC Number</b>		584443-08-01		
	<b>UNITS</b>	<b>TRIP BLANK</b>	<b>RDL</b>	<b>QC Batch</b>
Toluene	ug/L	<0.20	0.20	4735455
1,1,1-Trichloroethane	ug/L	<0.20	0.20	4735455
1,1,2-Trichloroethane	ug/L	<0.50	0.50	4735455
Trichloroethylene	ug/L	<0.20	0.20	4735455
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	4735455
Vinyl Chloride	ug/L	<0.20	0.20	4735455
p+m-Xylene	ug/L	<0.20	0.20	4735455
o-Xylene	ug/L	<0.20	0.20	4735455
Total Xylenes	ug/L	<0.20	0.20	4735455
F1 (C6-C10)	ug/L	<25	25	4735455
F1 (C6-C10) - BTEX	ug/L	<25	25	4735455
<b>Surrogate Recovery (%)</b>				
4-Bromofluorobenzene	%	91		4735455
D4-1,2-Dichloroethane	%	101		4735455
D8-Toluene	%	93		4735455
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

**O.REG 153 PCBs (WATER)**

Maxxam ID		DJP832	DJP834		
Sampling Date		2016/11/03 09:00	2016/11/03 09:30		
COC Number		584443-08-01	584443-08-01		
	UNITS	WG-160900764- 20161103-AM15	WG-160900764- 20161103-AM16	RDL	QC Batch
<b>PCBs</b>					
Aroclor 1242	ug/L	<0.05	<0.05	0.05	4736500
Aroclor 1248	ug/L	<0.05	<0.05	0.05	4736500
Aroclor 1254	ug/L	<0.05	<0.05	0.05	4736500
Aroclor 1260	ug/L	<0.05	<0.05	0.05	4736500
Total PCB	ug/L	<0.05	<0.05	0.05	4736500
<b>Surrogate Recovery (%)</b>					
Decachlorobiphenyl	%	79	88		4736500
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 VOCS & F1-F4 (WATER)**

Maxxam ID		DJP832	DJP834		
Sampling Date		2016/11/03 09:00	2016/11/03 09:30		
COC Number		584443-08-01	584443-08-01		
	UNITS	WG-160900764- 20161103-AM15	WG-160900764- 20161103-AM16	RDL	QC Batch
<b>Calculated Parameters</b>					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	4735455
<b>Volatile Organics</b>					
Acetone (2-Propanone)	ug/L	<10	<10	10	4735455
Benzene	ug/L	<0.20	<0.20	0.20	4735455
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	4735455
Bromoform	ug/L	<1.0	<1.0	1.0	4735455
Bromomethane	ug/L	<0.50	<0.50	0.50	4735455
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	4735455
Chlorobenzene	ug/L	<0.20	<0.20	0.20	4735455
Chloroform	ug/L	<0.20	<0.20	0.20	4735455
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	4735455
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4735455
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4735455
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	4735455
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	4735455
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	4735455
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	4735455
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	4735455
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4735455
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	4735455
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	4735455
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	4735455
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	4735455
Ethylbenzene	ug/L	<0.20	<0.20	0.20	4735455
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	4735455
Hexane	ug/L	<1.0	<1.0	1.0	4735455
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	4735455
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	4735455
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	4735455
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	4735455
Styrene	ug/L	<0.50	<0.50	0.50	4735455
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4735455
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	4735455
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

**O.REG 153 VOCS & F1-F4 (WATER)**

Maxxam ID		DJP832	DJP834		
Sampling Date		2016/11/03 09:00	2016/11/03 09:30		
COC Number		584443-08-01	584443-08-01		
	UNITS	WG-160900764- 20161103-AM15	WG-160900764- 20161103-AM16	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	4735455
Toluene	ug/L	<0.20	<0.20	0.20	4735455
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	4735455
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	4735455
Trichloroethylene	ug/L	<0.20	<0.20	0.20	4735455
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	4735455
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	4735455
p+m-Xylene	ug/L	<0.20	<0.20	0.20	4735455
o-Xylene	ug/L	<0.20	<0.20	0.20	4735455
Total Xylenes	ug/L	<0.20	<0.20	0.20	4735455
F1 (C6-C10)	ug/L	<25	<25	25	4735455
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	4735455
<b>F2-F4 Hydrocarbons</b>					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	4737460
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	4737460
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	4737460
Reached Baseline at C50	ug/L	Yes	Yes		4737460
<b>Surrogate Recovery (%)</b>					
o-Terphenyl	%	94	95		4737460
4-Bromofluorobenzene	%	92	93		4735455
D4-1,2-Dichloroethane	%	98	99		4735455
D8-Toluene	%	94	94		4735455
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJP832		DJP833	DJP834	DJP835		
Sampling Date		2016/11/03 09:00		2016/11/03 09:00	2016/11/03 09:30	2016/11/03 09:30		
COC Number		584443-08-01		584443-08-01	584443-08-01	584443-08-01		
	UNITS	WG-160900764- 20161103-AM15	RDL	WG-160900764- 20161103-AM15A	WG-160900764- 20161103-AM16	WG-160900764- 20161103-AM16A	RDL	QC Batch

Semivolatile Organics								
1,2,4-Trichlorobenzene	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
1-Methylnaphthalene	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
2,4,5-Trichlorophenol	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
2,4,6-Trichlorophenol	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
2,4-Dichlorophenol	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
2,4-Dimethylphenol	ug/L	<2	2	<0.5	<0.5	<0.5	0.5	4740353
2,4-Dinitrophenol	ug/L	<8	8	<2	<2	<2	2	4740353
2,4-Dinitrotoluene	ug/L	<1	1	<0.3	<0.3	<0.3	0.3	4740353
2,6-Dinitrotoluene	ug/L	<1	1	<0.3	<0.3	<0.3	0.3	4740353
2-Chlorophenol	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
2-Methylnaphthalene	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
3,3'-Dichlorobenzidine	ug/L	<2	2	<0.5	<0.5	<0.5	0.5	4740353
Acenaphthene	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
Acenaphthylene	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
Anthracene	ug/L	<0.2	0.2	<0.05	<0.05	<0.05	0.05	4740353
Benzo(a)anthracene	ug/L	<0.2	0.2	<0.05	<0.05	<0.05	0.05	4740353
Benzo(a)pyrene	ug/L	0.06	0.04	<0.01	<0.01	<0.01	0.01	4740353
Benzo(b/j)fluoranthene	ug/L	<0.2	0.2	<0.05	<0.05	<0.05	0.05	4740353
Benzo(g,h,i)perylene	ug/L	<0.2	0.2	<0.05	<0.05	<0.05	0.05	4740353
Benzo(k)fluoranthene	ug/L	<0.2	0.2	<0.05	<0.05	<0.05	0.05	4740353
Biphenyl	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
Bis(2-chloroethyl)ether	ug/L	<2	2	<0.5	<0.5	<0.5	0.5	4740353
Bis(2-chloroisopropyl)ether	ug/L	<2	2	<0.5	<0.5	<0.5	0.5	4740353
Bis(2-ethylhexyl)phthalate	ug/L	5	4	<1	<1	<1	1	4740353
Chrysene	ug/L	<0.2	0.2	<0.05	<0.05	<0.05	0.05	4740353
Dibenz(a,h)anthracene	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
Diethyl phthalate	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
Dimethyl phthalate	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
Fluoranthene	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
Fluorene	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
Indeno(1,2,3-cd)pyrene	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
Naphthalene	ug/L	<0.8	0.8	<0.2	<0.2	<0.2	0.2	4740353
p-Chloroaniline	ug/L	<4	4	<1	<1	<1	1	4740353

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJP832		DJP833	DJP834	DJP835		
Sampling Date		2016/11/03 09:00		2016/11/03 09:00	2016/11/03 09:30	2016/11/03 09:30		
COC Number		584443-08-01		584443-08-01	584443-08-01	584443-08-01		
	UNITS	WG-160900764- 20161103-AM15	RDL	WG-160900764- 20161103-AM15A	WG-160900764- 20161103-AM16	WG-160900764- 20161103-AM16A	RDL	QC Batch
Pentachlorophenol	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
Phenanthrene	ug/L	<0.4	0.4	<0.1	<0.1	<0.1	0.1	4740353
Phenol	ug/L	<2	2	<0.5	<0.5	<0.5	0.5	4740353
Pyrene	ug/L	<0.2	0.2	<0.05	<0.05	<0.05	0.05	4740353
<b>Calculated Parameters</b>								
Methylnaphthalene, 2-(1-)	ug/L	<1.1	1.1	<0.28	<0.28	<0.28	0.28	4734010
<b>Surrogate Recovery (%)</b>								
2,4,6-Tribromophenol	%	34 (1)		13 (1)	23 (1)	62		4740353
2-Fluorobiphenyl	%	62		59	72	64		4740353
D14-Terphenyl (FS)	%	93		14 (1)	97	19 (1)		4740353
D5-Nitrobenzene	%	68		72	75	76		4740353
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.								

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJP836	DJS587		DJS590		
Sampling Date							
COC Number		584443-08-01	584443-08-01		584443-08-01		
	UNITS	TRIP BLANK	FILTERED BLANK	RDL	FILTERED SPIKE	RDL	QC Batch
<b>Semivolatile Organics</b>							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	0.1	46	1	4740353
1-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	73	1	4740353
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	0.2	95	1	4740353
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	0.2	90	1	4740353
2,4-Dichlorophenol	ug/L	<0.1	<0.1	0.1	81	1	4740353
2,4-Dimethylphenol	ug/L	<0.5	<0.5	0.5	45	1	4740353
2,4-Dinitrophenol	ug/L	<2	<2	2	28 (1)	1	4740353
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	87	1	4740353
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	88	1	4740353
2-Chlorophenol	ug/L	<0.1	<0.1	0.1	69	1	4740353
2-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	67	1	4740353
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	0.5	92	1	4740353
Acenaphthene	ug/L	<0.2	<0.2	0.2	78	1	4740353
Acenaphthylene	ug/L	<0.2	<0.2	0.2	78	1	4740353
Anthracene	ug/L	<0.05	<0.05	0.05	41 (1)	1	4740353
Benzo(a)anthracene	ug/L	<0.05	<0.05	0.05	24 (1)	1	4740353
Benzo(a)pyrene	ug/L	<0.01	<0.01	0.01	20 (1)	1	4740353
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	0.05	22 (1)	1	4740353
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	0.05	14 (1)	1	4740353
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	0.05	22 (1)	1	4740353
Biphenyl	ug/L	<0.1	<0.1	0.1	67	1	4740353
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	0.5	74	1	4740353
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	0.5	75	1	4740353
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	1	41 (1)	1	4740353
Chrysene	ug/L	<0.05	<0.05	0.05	21 (1)	1	4740353
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	0.1	16 (1)	1	4740353
Diethyl phthalate	ug/L	<0.1	<0.1	0.1	88	1	4740353
Dimethyl phthalate	ug/L	<0.1	<0.1	0.1	89	1	4740353
Fluoranthene	ug/L	<0.2	<0.2	0.2	45 (1)	1	4740353
Fluorene	ug/L	<0.2	<0.2	0.2	71	1	4740353
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	0.1	15 (1)	1	4740353
Naphthalene	ug/L	<0.2	<0.2	0.2	69	1	4740353
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJP836	DJS587		DJS590		
Sampling Date							
COC Number		584443-08-01	584443-08-01		584443-08-01		
	UNITS	TRIP BLANK	FILTERED BLANK	RDL	FILTERED SPIKE	RDL	QC Batch
p-Chloroaniline	ug/L	<1	<1	1	70	1	4740353
Pentachlorophenol	ug/L	<0.1	<0.1	0.1	60	1	4740353
Phenanthrene	ug/L	<0.1	<0.1	0.1	58	1	4740353
Phenol	ug/L	<0.5	<0.5	0.5	29 (1)	1	4740353
Pyrene	ug/L	<0.05	<0.05	0.05	42 (1)	1	4740353
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	0.28			4734010
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	83	63		93		4740353
2-Fluorobiphenyl	%	83	65		59		4740353
D14-Terphenyl (FS)	%	104	15 (2)		66		4740353
D5-Nitrobenzene	%	85	76		81		4740353
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria. (2) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.							

### TEST SUMMARY

**Maxxam ID:** DJP832  
**Sample ID:** WG-160900764-20161103-AM15  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4734010	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic
Acidity as CaCO3 in liquid		4737259	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4735983	N/A	2016/11/07	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4734011	N/A	2016/11/08	Automated Statchk
1,3-Dichloropropene Sum	CALC	4733971	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735898	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4735984	N/A	2016/11/07	Surinder Rai
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4737131	N/A	2016/11/08	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4735581	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737460	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4735985	2016/11/05	2016/11/07	Surinder Rai
Hardness (calculated as CaCO3)		4733406	N/A	2016/11/10	Automated Statchk
Mercury in Water by CVAA	CV/AA	4740246	2016/11/09	2016/11/09	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4735713	N/A	2016/11/09	John Bowman
Ion Balance (% Difference)	CALC	4734013	N/A	2016/11/10	Automated Statchk
Anion and Cation Sum	CALC	4734014	N/A	2016/11/10	Automated Statchk
Total Ammonia-N	LACH/NH4	4736120	N/A	2016/11/10	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4735777	N/A	2016/11/08	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4736500	2016/11/07	2016/11/08	Li Peng
pH	AT	4735986	N/A	2016/11/07	Surinder Rai
Orthophosphate	KONE	4735916	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4734016	N/A	2016/11/10	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4734017	N/A	2016/11/10	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735915	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4734018	N/A	2016/11/10	Automated Statchk
Total Dissolved Solids	BAL	4736777	2016/11/07	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4736113	N/A	2016/11/07	Anastasia Hamanov
Total Suspended Solids	BAL	4736768	2016/11/07	2016/11/07	Zahid Soikot
Turbidity	AT	4735761	N/A	2016/11/08	Neil Dassanayake
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4735455	N/A	2016/11/07	Denis Reid

**Maxxam ID:** DJP833  
**Sample ID:** WG-160900764-20161103-AM15A  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4734010	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic

### TEST SUMMARY

**Maxxam ID:** DJP834  
**Sample ID:** WG-160900764-20161103-AM16  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4734010	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic
Acidity as CaCO3 in liquid		4737259	N/A	2016/11/09	Grace Sison
Alkalinity	AT	4735731	N/A	2016/11/07	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4734011	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4733971	N/A	2016/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735898	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4735738	N/A	2016/11/07	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4737131	N/A	2016/11/08	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4735581	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737460	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4735728	2016/11/05	2016/11/07	Yogesh Patel
Hardness (calculated as CaCO3)		4733406	N/A	2016/11/10	Automated Statchk
Mercury in Water by CVAA	CV/AA	4740246	2016/11/09	2016/11/09	Magdalena Carlos
Dissolved Metals by ICPMS	ICP/MS	4735713	N/A	2016/11/09	John Bowman
Ion Balance (% Difference)	CALC	4734013	N/A	2016/11/10	Automated Statchk
Anion and Cation Sum	CALC	4734014	N/A	2016/11/10	Automated Statchk
Total Ammonia-N	LACH/NH4	4736120	N/A	2016/11/10	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4735777	N/A	2016/11/08	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4736500	2016/11/04	2016/11/08	Li Peng
pH	AT	4735739	N/A	2016/11/07	Yogesh Patel
Orthophosphate	KONE	4735916	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4734016	N/A	2016/11/10	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4734017	N/A	2016/11/10	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735915	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4734018	N/A	2016/11/10	Automated Statchk
Total Dissolved Solids	BAL	4736777	2016/11/07	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4736113	N/A	2016/11/07	Anastasia Hamanov
Total Suspended Solids	BAL	4736768	2016/11/07	2016/11/07	Zahid Soikot
Turbidity	AT	4735744	N/A	2016/11/10	Tahir Anwar
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4735455	N/A	2016/11/07	Denis Reid

**Maxxam ID:** DJP834 Dup  
**Sample ID:** WG-160900764-20161103-AM16  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	4735731	N/A	2016/11/07	Yogesh Patel
Conductivity	AT	4735738	N/A	2016/11/07	Yogesh Patel
Fluoride	ISE	4735728	2016/11/05	2016/11/07	Yogesh Patel
Mercury in Water by CVAA	CV/AA	4740246	2016/11/09	2016/11/09	Magdalena Carlos
pH	AT	4735739	N/A	2016/11/07	Yogesh Patel

**TEST SUMMARY**

**Maxxam ID:** DJP835  
**Sample ID:** WG-160900764-20161103-AM16A  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4734010	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic

**Maxxam ID:** DJP836  
**Sample ID:** TRIP BLANK  
**Matrix:** Water

**Collected:**  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4734010	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic
1,3-Dichloropropene Sum	CALC	4733971	N/A	2016/11/08	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	4735455	N/A	2016/11/07	Denis Reid

**Maxxam ID:** DJS587  
**Sample ID:** FILTERED BLANK  
**Matrix:** Water

**Collected:**  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4734010	N/A	2016/11/10	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic

**Maxxam ID:** DJS590  
**Sample ID:** FILTERED SPIKE  
**Matrix:** Water

**Collected:**  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4740353	2016/11/09	2016/11/10	Milijana Avramovic

### GENERAL COMMENTS

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

Package 1	8.0°C
Package 2	7.7°C
Package 3	5.7°C

Sample DJP832 [WG-160900764-20161103-AM15] : ABN analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample DJS590 [FILTERED SPIKE] : ABN analysis: Data are reported as percentage recoveries. Sample was filtered and surrogate and spike solutions were added prior to filtration.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4735455	4-Bromofluorobenzene	2016/11/07	102	70 - 130	102	70 - 130	95	%				
4735455	D4-1,2-Dichloroethane	2016/11/07	91	70 - 130	91	70 - 130	95	%				
4735455	D8-Toluene	2016/11/07	105	70 - 130	106	70 - 130	95	%				
4736500	Decachlorobiphenyl	2016/11/08	93	60 - 130	82	60 - 130	79	%				
4737460	o-Terphenyl	2016/11/08	97	60 - 130	98	60 - 130	95	%				
4740353	2,4,6-Tribromophenol	2016/11/10	95	50 - 130	86	50 - 130	73	%				
4740353	2-Fluorobiphenyl	2016/11/10	69	50 - 130	60	50 - 130	74	%				
4740353	D14-Terphenyl (FS)	2016/11/10	99	50 - 130	96	50 - 130	98	%				
4740353	D5-Nitrobenzene	2016/11/10	86	50 - 130	81	50 - 130	82	%				
4735455	1,1,1,2-Tetrachloroethane	2016/11/07	94	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4735455	1,1,1-Trichloroethane	2016/11/07	91	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
4735455	1,1,2,2-Tetrachloroethane	2016/11/07	86	70 - 130	85	70 - 130	<0.50	ug/L	NC	30		
4735455	1,1,2-Trichloroethane	2016/11/07	86	70 - 130	86	70 - 130	<0.50	ug/L	NC	30		
4735455	1,1-Dichloroethane	2016/11/07	90	70 - 130	88	70 - 130	<0.20	ug/L	NC	30		
4735455	1,1-Dichloroethylene	2016/11/07	93	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
4735455	1,2-Dichlorobenzene	2016/11/07	94	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4735455	1,2-Dichloroethane	2016/11/07	82	70 - 130	82	70 - 130	<0.50	ug/L	NC	30		
4735455	1,2-Dichloropropane	2016/11/07	87	70 - 130	85	70 - 130	<0.20	ug/L	NC	30		
4735455	1,3-Dichlorobenzene	2016/11/07	97	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4735455	1,4-Dichlorobenzene	2016/11/07	99	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4735455	Acetone (2-Propanone)	2016/11/07	81	60 - 140	82	60 - 140	<10	ug/L	NC	30		
4735455	Benzene	2016/11/07	90	70 - 130	88	70 - 130	<0.20	ug/L	NC	30		
4735455	Bromodichloromethane	2016/11/07	88	70 - 130	87	70 - 130	<0.50	ug/L	NC	30		
4735455	Bromoform	2016/11/07	87	70 - 130	87	70 - 130	<1.0	ug/L	NC	30		
4735455	Bromomethane	2016/11/07	71	60 - 140	70	60 - 140	<0.50	ug/L	NC	30		
4735455	Carbon Tetrachloride	2016/11/07	93	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
4735455	Chlorobenzene	2016/11/07	97	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4735455	Chloroform	2016/11/07	88	70 - 130	86	70 - 130	<0.20	ug/L	NC	30		
4735455	cis-1,2-Dichloroethylene	2016/11/07	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4735455	cis-1,3-Dichloropropene	2016/11/07	88	70 - 130	88	70 - 130	<0.30	ug/L	NC	30		
4735455	Dibromochloromethane	2016/11/07	90	70 - 130	90	70 - 130	<0.50	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4735455	Dichlorodifluoromethane (FREON 12)	2016/11/07	68	60 - 140	66	60 - 140	<1.0	ug/L	NC	30		
4735455	Ethylbenzene	2016/11/07	97	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4735455	Ethylene Dibromide	2016/11/07	89	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
4735455	F1 (C6-C10) - BTEX	2016/11/07					<25	ug/L	NC	30		
4735455	F1 (C6-C10)	2016/11/07	95	60 - 140	95	60 - 140	<25	ug/L	NC	30		
4735455	Hexane	2016/11/07	97	70 - 130	94	70 - 130	<1.0	ug/L	NC	30		
4735455	Methyl Ethyl Ketone (2-Butanone)	2016/11/07	79	60 - 140	81	60 - 140	<10	ug/L	NC	30		
4735455	Methyl Isobutyl Ketone	2016/11/07	84	70 - 130	87	70 - 130	<5.0	ug/L	NC	30		
4735455	Methyl t-butyl ether (MTBE)	2016/11/07	89	70 - 130	89	70 - 130	<0.50	ug/L	NC	30		
4735455	Methylene Chloride(Dichloromethane)	2016/11/07	97	70 - 130	95	70 - 130	<2.0	ug/L	NC	30		
4735455	o-Xylene	2016/11/07	95	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4735455	p+m-Xylene	2016/11/07	94	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
4735455	Styrene	2016/11/07	92	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
4735455	Tetrachloroethylene	2016/11/07	97	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
4735455	Toluene	2016/11/07	97	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4735455	Total Xylenes	2016/11/07					<0.20	ug/L	NC	30		
4735455	trans-1,2-Dichloroethylene	2016/11/07	92	70 - 130	89	70 - 130	<0.50	ug/L	NC	30		
4735455	trans-1,3-Dichloropropene	2016/11/07	93	70 - 130	95	70 - 130	<0.40	ug/L	NC	30		
4735455	Trichloroethylene	2016/11/07	93	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
4735455	Trichlorofluoromethane (FREON 11)	2016/11/07	93	70 - 130	90	70 - 130	<0.50	ug/L	NC	30		
4735455	Vinyl Chloride	2016/11/07	90	70 - 130	86	70 - 130	<0.20	ug/L	NC	30		
4735581	Dissolved Organic Carbon	2016/11/05	96	80 - 120	99	80 - 120	0.22, RDL=0.20	mg/L	0.29	20		
4735713	Dissolved Aluminum (Al)	2016/11/09	NC	80 - 120	101	80 - 120	<0.0050	mg/L	8.8	20		
4735713	Dissolved Antimony (Sb)	2016/11/09	98	80 - 120	100	80 - 120	<0.00050	mg/L				
4735713	Dissolved Arsenic (As)	2016/11/09	97	80 - 120	98	80 - 120	<0.0010	mg/L				
4735713	Dissolved Barium (Ba)	2016/11/09	99	80 - 120	96	80 - 120	<0.0020	mg/L	2.6	20		
4735713	Dissolved Beryllium (Be)	2016/11/09	103	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20		
4735713	Dissolved Boron (B)	2016/11/09	103	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
4735713	Dissolved Cadmium (Cd)	2016/11/09	99	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20		
4735713	Dissolved Calcium (Ca)	2016/11/09	NC	80 - 120	99	80 - 120	<0.20	mg/L	1.8	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4735713	Dissolved Chromium (Cr)	2016/11/09	99	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
4735713	Dissolved Cobalt (Co)	2016/11/09	96	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20		
4735713	Dissolved Copper (Cu)	2016/11/09	97	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20		
4735713	Dissolved Iron (Fe)	2016/11/09	97	80 - 120	98	80 - 120	<0.10	mg/L	3.1	20		
4735713	Dissolved Lead (Pb)	2016/11/09	95	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20		
4735713	Dissolved Magnesium (Mg)	2016/11/09	NC	80 - 120	98	80 - 120	<0.050	mg/L	0.76	20		
4735713	Dissolved Manganese (Mn)	2016/11/09	95	80 - 120	95	80 - 120	<0.0020	mg/L	0.19	20		
4735713	Dissolved Molybdenum (Mo)	2016/11/09	103	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20		
4735713	Dissolved Nickel (Ni)	2016/11/09	94	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
4735713	Dissolved Phosphorus (P)	2016/11/09	NC	80 - 120	104	80 - 120	<0.10	mg/L	NC	20		
4735713	Dissolved Potassium (K)	2016/11/09	100	80 - 120	99	80 - 120	<0.20	mg/L	0.29	20		
4735713	Dissolved Selenium (Se)	2016/11/09	97	80 - 120	100	80 - 120	<0.0020	mg/L				
4735713	Dissolved Silicon (Si)	2016/11/09	97	80 - 120	103	80 - 120	<0.050	mg/L				
4735713	Dissolved Silver (Ag)	2016/11/09	96	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20		
4735713	Dissolved Sodium (Na)	2016/11/09	NC	80 - 120	100	80 - 120	<0.10	mg/L	0.14	20		
4735713	Dissolved Strontium (Sr)	2016/11/09	NC	80 - 120	92	80 - 120	<0.0010	mg/L	0.52	20		
4735713	Dissolved Thallium (Tl)	2016/11/09	94	80 - 120	96	80 - 120	<0.000050	mg/L				
4735713	Dissolved Titanium (Ti)	2016/11/09	98	80 - 120	104	80 - 120	<0.0050	mg/L	2.1	20		
4735713	Dissolved Uranium (U)	2016/11/09	101	80 - 120	99	80 - 120	<0.00010	mg/L	5.0	20		
4735713	Dissolved Vanadium (V)	2016/11/09	97	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
4735713	Dissolved Zinc (Zn)	2016/11/09	96	80 - 120	99	80 - 120	<0.0050	mg/L	NC	20		
4735713	Dissolved Zirconium (Zr)	2016/11/09	102	80 - 120	102	80 - 120	<0.0010	mg/L				
4735728	Fluoride (F-)	2016/11/07	101	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
4735731	Alkalinity (Total as CaCO3)	2016/11/07			96	85 - 115	<1.0	mg/L	1.3	20		
4735738	Conductivity	2016/11/07			100	85 - 115	<1.0	umho/cm	0	25		
4735739	pH	2016/11/07			101	98 - 103			0.31	N/A		
4735744	Turbidity	2016/11/10			100	85 - 115	<0.1	NTU	2.4	20		
4735761	Turbidity	2016/11/09			102	85 - 115	0.1, RDL=0.1	NTU	1.8	20		
4735777	Nitrate (N)	2016/11/08	NC	80 - 120	100	80 - 120	<0.10	mg/L	0.31	20		
4735777	Nitrite (N)	2016/11/08	107	80 - 120	93	80 - 120	<0.010	mg/L	14	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4735898	Dissolved Chloride (Cl)	2016/11/07	106	80 - 120	103	80 - 120	<1.0	mg/L	NC	20		
4735915	Dissolved Sulphate (SO4)	2016/11/07	NC	75 - 125	97	80 - 120	<1.0	mg/L	0.68	20		
4735916	Orthophosphate (P)	2016/11/07	111	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
4735983	Alkalinity (Total as CaCO3)	2016/11/07			96	85 - 115	<1.0	mg/L	0.37	20		
4735984	Conductivity	2016/11/07			101	85 - 115	<1.0	umho/cm	0.32	25		
4735985	Fluoride (F-)	2016/11/07	102	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
4735986	pH	2016/11/07			101	98 - 103			0.025	N/A		
4736113	Total Organic Carbon (TOC)	2016/11/07	NC	80 - 120	108	80 - 120	<0.20	mg/L	0.95	20		
4736120	Total Ammonia-N	2016/11/10	102	80 - 120	99	85 - 115	<0.050	mg/L	NC	20		
4736500	Aroclor 1242	2016/11/08					<0.05	ug/L	NC	30		
4736500	Aroclor 1248	2016/11/08					<0.05	ug/L	NC	30		
4736500	Aroclor 1254	2016/11/08					<0.05	ug/L	NC	30		
4736500	Aroclor 1260	2016/11/08	88	60 - 130	67	60 - 130	<0.05	ug/L	NC	30		
4736500	Total PCB	2016/11/08	88	60 - 130	67	60 - 130	<0.05	ug/L	NC	40		
4736768	Total Suspended Solids	2016/11/07					<10	mg/L	NC	25	97	85 - 115
4736777	Total Dissolved Solids	2016/11/07					<10	mg/L	3.4	25	99	90 - 110
4737131	Free Cyanide	2016/11/08	99	80 - 120	100	80 - 120	<1	ug/L	NC	20		
4737259	Acidity as CaCO3						<10	mg/L	NC	25		
4737460	F2 (C10-C16 Hydrocarbons)	2016/11/08	102	50 - 130	104	60 - 130	<100	ug/L	NC	30		
4737460	F3 (C16-C34 Hydrocarbons)	2016/11/08	101	50 - 130	103	60 - 130	<200	ug/L	NC	30		
4737460	F4 (C34-C50 Hydrocarbons)	2016/11/08	104	50 - 130	107	60 - 130	<200	ug/L	NC	30		
4738533	Chromium (VI)	2016/11/08	NC	80 - 120	96	80 - 120	<0.50	ug/L	NC	20		
4740246	Mercury (Hg)	2016/11/09	111	75 - 125	109	80 - 120	<0.0001	mg/L	NC	20		
4740353	1,2,4-Trichlorobenzene	2016/11/10	67	40 - 130	63	40 - 130	<0.1	ug/L	NC	30		
4740353	1-Methylnaphthalene	2016/11/10	83	50 - 130	82	50 - 130	<0.2	ug/L				
4740353	2,4,5-Trichlorophenol	2016/11/10	100	50 - 130	93	50 - 130	<0.2	ug/L				
4740353	2,4,6-Trichlorophenol	2016/11/10	93	50 - 130	84	50 - 130	<0.2	ug/L				
4740353	2,4-Dichlorophenol	2016/11/10	79	50 - 130	79	50 - 130	<0.1	ug/L	NC	30		
4740353	2,4-Dimethylphenol	2016/11/10	55	30 - 130	40	30 - 130	<0.5	ug/L				
4740353	2,4-Dinitrophenol	2016/11/10	57	30 - 130	52	30 - 130	<2	ug/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4740353	2,4-Dinitrotoluene	2016/11/10	94	50 - 130	86	50 - 130	<0.3	ug/L				
4740353	2,6-Dinitrotoluene	2016/11/10	94	50 - 130	85	50 - 130	<0.3	ug/L				
4740353	2-Chlorophenol	2016/11/10	72	50 - 130	73	50 - 130	<0.1	ug/L				
4740353	2-Methylnaphthalene	2016/11/10	78	50 - 130	79	50 - 130	<0.2	ug/L				
4740353	3,3'-Dichlorobenzidine	2016/11/10	101	30 - 130	88	30 - 130	<0.5	ug/L				
4740353	Acenaphthene	2016/11/10	89	50 - 130	85	50 - 130	<0.2	ug/L	NC	30		
4740353	Acenaphthylene	2016/11/10	86	50 - 130	83	50 - 130	<0.2	ug/L	NC	30		
4740353	Anthracene	2016/11/10	98	50 - 130	94	50 - 130	<0.05	ug/L	NC	30		
4740353	Benzo(a)anthracene	2016/11/10	99	50 - 130	97	50 - 130	<0.05	ug/L	NC	30		
4740353	Benzo(a)pyrene	2016/11/10	99	50 - 130	96	50 - 130	<0.01	ug/L	NC	30		
4740353	Benzo(b/j)fluoranthene	2016/11/10	106	50 - 130	102	50 - 130	<0.05	ug/L	NC	30		
4740353	Benzo(g,h,i)perylene	2016/11/10	77	50 - 130	75	50 - 130	<0.05	ug/L	NC	30		
4740353	Benzo(k)fluoranthene	2016/11/10	109	50 - 130	101	50 - 130	<0.05	ug/L	NC	30		
4740353	Biphenyl	2016/11/10	79	50 - 130	76	50 - 130	<0.1	ug/L				
4740353	Bis(2-chloroethyl)ether	2016/11/10	78	50 - 130	76	50 - 130	<0.5	ug/L				
4740353	Bis(2-chloroisopropyl)ether	2016/11/10	82	50 - 130	78	50 - 130	<0.5	ug/L				
4740353	Bis(2-ethylhexyl)phthalate	2016/11/10	106	50 - 130	100	50 - 130	<1	ug/L				
4740353	Chrysene	2016/11/10	100	50 - 130	98	50 - 130	<0.05	ug/L	NC	30		
4740353	Dibenz(a,h)anthracene	2016/11/10	87	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4740353	Diethyl phthalate	2016/11/10	95	50 - 130	89	50 - 130	<0.1	ug/L				
4740353	Dimethyl phthalate	2016/11/10	95	50 - 130	89	50 - 130	<0.1	ug/L				
4740353	Fluoranthene	2016/11/10	99	50 - 130	95	50 - 130	<0.2	ug/L	NC	30		
4740353	Fluorene	2016/11/10	90	50 - 130	87	50 - 130	<0.2	ug/L	NC	30		
4740353	Indeno(1,2,3-cd)pyrene	2016/11/10	82	50 - 130	82	50 - 130	<0.1	ug/L	NC	30		
4740353	Naphthalene	2016/11/10	81	50 - 130	81	50 - 130	<0.2	ug/L	NC	30		
4740353	p-Chloroaniline	2016/11/10	80	30 - 130	63	30 - 130	<1	ug/L				
4740353	Pentachlorophenol	2016/11/10	79	50 - 130	44 (1)	50 - 130	<0.1	ug/L				
4740353	Phenanthrene	2016/11/10	89	50 - 130	87	50 - 130	<0.1	ug/L	NC	30		
4740353	Phenol	2016/11/10	33	30 - 130	32	30 - 130	<0.5	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4740353	Pyrene	2016/11/10	100	50 - 130	98	50 - 130	<0.05	ug/L	NC	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

### VALIDATION SIGNATURE PAGE

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

*Cristina Carriere*

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Cristina Carriere, Scientific Services



*[Signature]*  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

03-Nov-16 15:20

Deepthi Shaji



B6N9173

**Presence of Visible Particulate/Sediment**

Maxxam Analytics  
CAM FCD-01013/5  
Page 1 of 1

When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

**Bottle Types**

TSP	ENV-632	Inorganics										Organics								Hydrocarbons						Volatiles				Other			
		Sample ID	All	CVI	CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/Herb 1 of 2	Pest/Herb 2 of 2	SVOC/ABN 1 of 2	SVOC/ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin/Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4			
		W4-16090764-2016 1103-AM15	TS																														
		AM16	TS																														

Comments: Except Hg, CVI and the DISM bottles

Legend:	
P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print) *Amir S. Tammisamy*







Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 584868-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/09**  
 Report #: R4240523  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N3868**  
**Received: 2016/10/28, 13:19**

Sample Matrix: Water  
 # Samples Received: 1

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	1	N/A	2016/11/03	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	1	2016/11/02	2016/11/03	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	1	N/A	2016/11/02	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	1	N/A	2016/11/03	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2016/11/04	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	1	N/A	2016/11/01		EPA 8260C m
Chloride by Automated Colourimetry	1	N/A	2016/11/02	CAM SOP-00463	EPA 325.2 m
Conductivity	1	N/A	2016/11/03	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	1	N/A	2016/10/31	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	1	N/A	2016/10/31	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2016/10/31	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2016/11/03	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	1	2016/11/02	2016/11/03	CAM SOP-00316	CCME PHC-CWS m
Fluoride	1	2016/11/01	2016/11/03	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2016/11/04	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2016/11/01	2016/11/02	CAM SOP-00453	EPA 7470A m
Metals Analysis by ICPMS (as received) (5)	1	2016/10/29	2016/11/02	CAM SOP-00447	EPA 6020B m
Ion Balance (% Difference)	1	N/A	2016/11/04		
Anion and Cation Sum	1	N/A	2016/11/04		
Total Coliforms/ E. coli, CFU/100mL	1	N/A	2016/10/28	CAM SOP-00551	MOE E3407
Total Ammonia-N	1	N/A	2016/11/01	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (6)	1	N/A	2016/11/02	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	1	2016/10/28	2016/10/30	CAM SOP-00309	EPA 8082A m
pH	1	N/A	2016/11/03	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	1	N/A	2016/10/31	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	1	N/A	2016/11/04		
Sat. pH and Langelier Index (@ 4C)	1	N/A	2016/11/04		
Sulphate by Automated Colourimetry	1	N/A	2016/10/31	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	1	N/A	2016/11/04		

Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 584868-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/09**  
 Report #: R4240523  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N3868**  
**Received: 2016/10/28, 13:19**

Sample Matrix: Water  
 # Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Reference
		Extracted	Analyzed		
Total Dissolved Solids	1	2016/11/01	2016/11/02	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (7)	1	N/A	2016/11/02	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	1	2016/10/29	2016/11/01	CAM SOP-00428	SM 22 2540D m
Turbidity	1	N/A	2016/10/29	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	1	N/A	2016/11/01	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

Your Project #: 160900764  
Site Location: CLARINGTON TS-PRIVATE WELLS  
Your C.O.C. #: 584868-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/11/09**  
Report #: R4240523  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N3868**

**Received: 2016/10/28, 13:19**

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Metals analysis was performed on the sample 'as received'.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

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

Deepthi Shaji, Project Manager

Email: dshaji@maxxam.ca

Phone# (905)817-5700 Ext:5807

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**RCAP - COMPREHENSIVE (DRINKING WATER)**

<b>Maxxam ID</b>		DIO842		
<b>Sampling Date</b>		2016/10/28 11:30		
<b>COC Number</b>		584868-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161028-AW1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
Anion Sum	me/L	7.95	N/A	4722965
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	290	1.0	4722830
Calculated TDS	mg/L	430	1.0	4722968
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.7	1.0	4722830
Cation Sum	me/L	7.92	N/A	4722965
Hardness (CaCO3)	mg/L	340	1.0	4722905
Ion Balance (% Difference)	%	0.160	N/A	4722703
Langelier Index (@ 20C)	N/A	1.08		4722966
Langelier Index (@ 4C)	N/A	0.827		4722967
Saturation pH (@ 20C)	N/A	6.92		4722966
Saturation pH (@ 4C)	N/A	7.17		4722967
<b>Inorganics</b>				
Total Ammonia-N	mg/L	<0.050	0.050	4725266
Conductivity	umho/cm	790	1.0	4728173
Dissolved Organic Carbon	mg/L	1.1	0.20	4725932
Orthophosphate (P)	mg/L	<0.010	0.010	4725633
pH	pH	8.00		4728176
Dissolved Sulphate (SO4)	mg/L	17	1.0	4725630
Alkalinity (Total as CaCO3)	mg/L	290	1.0	4728164
Dissolved Chloride (Cl)	mg/L	48	1.0	4725626
Nitrite (N)	mg/L	<0.010	0.010	4724909
Nitrate (N)	mg/L	5.45	0.10	4724909
<b>Metals</b>				
. Aluminum (Al)	mg/L	<0.0050	0.0050	4724993
. Antimony (Sb)	mg/L	<0.00050	0.00050	4724993
. Arsenic (As)	mg/L	<0.0010	0.0010	4724993
. Barium (Ba)	mg/L	0.058	0.0020	4724993
. Beryllium (Be)	mg/L	<0.00050	0.00050	4724993
. Boron (B)	mg/L	<0.010	0.010	4724993
. Cadmium (Cd)	mg/L	<0.00010	0.00010	4724993
. Calcium (Ca)	mg/L	120	0.20	4724993
. Chromium (Cr)	mg/L	<0.0050	0.0050	4724993
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable				

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DIO842		
Sampling Date		2016/10/28 11:30		
COC Number		584868-01-01		
	UNITS	WG-160900764- 20161028-AW1	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	0.00050	4724993
. Copper (Cu)	mg/L	0.0080	0.0010	4724993
. Iron (Fe)	mg/L	<0.10	0.10	4724993
. Lead (Pb)	mg/L	<0.00050	0.00050	4724993
. Magnesium (Mg)	mg/L	11	0.050	4724993
. Manganese (Mn)	mg/L	<0.0020	0.0020	4724993
. Molybdenum (Mo)	mg/L	<0.00050	0.00050	4724993
. Nickel (Ni)	mg/L	<0.0010	0.0010	4724993
. Phosphorus (P)	mg/L	<0.10	0.10	4724993
. Potassium (K)	mg/L	2.0	0.20	4724993
. Selenium (Se)	mg/L	<0.0020	0.0020	4724993
. Silicon (Si)	mg/L	5.8	0.050	4724993
. Silver (Ag)	mg/L	<0.00010	0.00010	4724993
. Sodium (Na)	mg/L	26	0.10	4724993
. Strontium (Sr)	mg/L	0.24	0.0010	4724993
. Thallium (Tl)	mg/L	<0.000050	0.000050	4724993
. Titanium (Ti)	mg/L	<0.0050	0.0050	4724993
. Uranium (U)	mg/L	0.00027	0.00010	4724993
. Vanadium (V)	mg/L	0.00057	0.00050	4724993
. Zinc (Zn)	mg/L	0.0098	0.0050	4724993
. Zirconium (Zr)	mg/L	<0.0010	0.0010	4724993
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

**RESULTS OF ANALYSES OF WATER**

Maxxam ID		DIO842	DIO842		
Sampling Date		2016/10/28 11:30	2016/10/28 11:30		
COC Number		584868-01-01	584868-01-01		
	UNITS	WG-160900764- 20161028-AW1	WG-160900764- 20161028-AW1 Lab-Dup	RDL	QC Batch
<b>Inorganics</b>					
Acidity as CaCO3	mg/L	36	32	10	4726431
Total Dissolved Solids	mg/L	456		10	4727884
Fluoride (F-)	mg/L	0.10		0.10	4728168
Free Cyanide	ug/L	<1	<1	1	4724552
Total Organic Carbon (TOC)	mg/L	1.1		0.20	4727905
Total Suspended Solids	mg/L	<10		10	4724574
Turbidity	NTU	0.5	0.5	0.1	4724957
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		DIO842		
<b>Sampling Date</b>		2016/10/28 11:30		
<b>COC Number</b>		584868-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161028-AW1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>				
Chromium (VI)	ug/L	<0.50	0.50	4724493
Mercury (Hg)	mg/L	<0.0001	0.0001	4727626
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

**MICROBIOLOGY (WATER)**

<b>Maxxam ID</b>		DIO842	
<b>Sampling Date</b>		2016/10/28 11:30	
<b>COC Number</b>		584868-01-01	
	<b>UNITS</b>	<b>WG-160900764- 20161028-AW1</b>	<b>QC Batch</b>
<b>Microbiological</b>			
Background	CFU/100mL	20	4723621
Total Coliforms	CFU/100mL	0	4723621
Escherichia coli	CFU/100mL	0	4723621
QC Batch = Quality Control Batch			



**O.REG 153 PCBS (WATER)**

<b>Maxxam ID</b>		DIO842		
<b>Sampling Date</b>		2016/10/28 11:30		
<b>COC Number</b>		584868-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161028-AW1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>PCBs</b>				
Aroclor 1242	ug/L	<0.05	0.05	4724321
Aroclor 1248	ug/L	<0.05	0.05	4724321
Aroclor 1254	ug/L	<0.05	0.05	4724321
Aroclor 1260	ug/L	<0.05	0.05	4724321
Total PCB	ug/L	<0.05	0.05	4724321
<b>Surrogate Recovery (%)</b>				
Decachlorobiphenyl	%	113		4724321
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

<b>Maxxam ID</b>		DIO842		
<b>Sampling Date</b>		2016/10/28 11:30		
<b>COC Number</b>		584868-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161028-AW1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>BTEX &amp; F1 Hydrocarbons</b>				
F1 (C6-C10)	ug/L	<25	25	4730073
F1 (C6-C10) - BTEX	ug/L	<25	25	4730073
<b>F2-F4 Hydrocarbons</b>				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	4729266
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	4729266
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	4729266
Reached Baseline at C50	ug/L	Yes		4729266
<b>Surrogate Recovery (%)</b>				
1,4-Difluorobenzene	%	105		4730073
4-Bromofluorobenzene	%	95		4730073
D10-Ethylbenzene	%	97		4730073
D4-1,2-Dichloroethane	%	110		4730073
o-Terphenyl	%	92		4729266
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DIO842		
Sampling Date		2016/10/28 11:30		
COC Number		584868-01-01		
	UNITS	WG-160900764- 20161028-AW1	RDL	QC Batch
<b>Semivolatile Organics</b>				
1,2,4-Trichlorobenzene	ug/L	<0.1	0.1	4729285
1-Methylnaphthalene	ug/L	<0.2	0.2	4729285
2,4,5-Trichlorophenol	ug/L	<0.2	0.2	4729285
2,4,6-Trichlorophenol	ug/L	<0.2	0.2	4729285
2,4-Dichlorophenol	ug/L	<0.1	0.1	4729285
2,4-Dimethylphenol	ug/L	<0.5	0.5	4729285
2,4-Dinitrophenol	ug/L	<5 (1)	5	4729285
2,4-Dinitrotoluene	ug/L	<0.3	0.3	4729285
2,6-Dinitrotoluene	ug/L	<0.3	0.3	4729285
2-Chlorophenol	ug/L	<0.1	0.1	4729285
2-Methylnaphthalene	ug/L	<0.2	0.2	4729285
3,3'-Dichlorobenzidine	ug/L	<0.5	0.5	4729285
Acenaphthene	ug/L	<0.2	0.2	4729285
Acenaphthylene	ug/L	<0.2	0.2	4729285
Anthracene	ug/L	<0.05	0.05	4729285
Benzo(a)anthracene	ug/L	<0.05	0.05	4729285
Benzo(a)pyrene	ug/L	<0.01	0.01	4729285
Benzo(b/j)fluoranthene	ug/L	<0.05	0.05	4729285
Benzo(g,h,i)perylene	ug/L	<0.05	0.05	4729285
Benzo(k)fluoranthene	ug/L	<0.05	0.05	4729285
Biphenyl	ug/L	<0.1	0.1	4729285
Bis(2-chloroethyl)ether	ug/L	<0.5	0.5	4729285
Bis(2-chloroisopropyl)ether	ug/L	<0.5	0.5	4729285
Bis(2-ethylhexyl)phthalate	ug/L	<1	1	4729285
Chrysene	ug/L	<0.05	0.05	4729285
Dibenz(a,h)anthracene	ug/L	<0.1	0.1	4729285
Diethyl phthalate	ug/L	<0.1	0.1	4729285
Dimethyl phthalate	ug/L	<0.1	0.1	4729285
Fluoranthene	ug/L	<0.2	0.2	4729285
Fluorene	ug/L	<0.2	0.2	4729285
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	0.1	4729285
Naphthalene	ug/L	<0.2	0.2	4729285
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Detection Limit was raised due to matrix interferences.				

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

<b>Maxxam ID</b>		DIO842		
<b>Sampling Date</b>		2016/10/28 11:30		
<b>COC Number</b>		584868-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161028-AW1</b>	<b>RDL</b>	<b>QC Batch</b>
p-Chloroaniline	ug/L	<1	1	4729285
Pentachlorophenol	ug/L	<1 (1)	1	4729285
Phenanthrene	ug/L	<0.1	0.1	4729285
Phenol	ug/L	<0.5	0.5	4729285
Pyrene	ug/L	<0.05	0.05	4729285
<b>Calculated Parameters</b>				
Methylnaphthalene, 2-(1-)	ug/L	<0.28	0.28	4722815
<b>Surrogate Recovery (%)</b>				
2,4,6-Tribromophenol	%	51		4729285
2-Fluorobiphenyl	%	63		4729285
D14-Terphenyl (FS)	%	95		4729285
D5-Nitrobenzene	%	71		4729285
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Detection Limit was raised due to matrix interferences.				

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>		DIO842		
<b>Sampling Date</b>		2016/10/28 11:30		
<b>COC Number</b>		584868-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161028-AW1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	4722768
<b>Volatile Organics</b>				
Acetone (2-Propanone)	ug/L	<10	10	4723386
Benzene	ug/L	<0.20	0.20	4723386
Bromodichloromethane	ug/L	<0.50	0.50	4723386
Bromoform	ug/L	<1.0	1.0	4723386
Bromomethane	ug/L	<0.50	0.50	4723386
Carbon Tetrachloride	ug/L	<0.20	0.20	4723386
Chlorobenzene	ug/L	<0.20	0.20	4723386
Chloroform	ug/L	<0.20	0.20	4723386
Dibromochloromethane	ug/L	<0.50	0.50	4723386
1,2-Dichlorobenzene	ug/L	<0.50	0.50	4723386
1,3-Dichlorobenzene	ug/L	<0.50	0.50	4723386
1,4-Dichlorobenzene	ug/L	<0.50	0.50	4723386
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	4723386
1,1-Dichloroethane	ug/L	<0.20	0.20	4723386
1,2-Dichloroethane	ug/L	<0.50	0.50	4723386
1,1-Dichloroethylene	ug/L	<0.20	0.20	4723386
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	4723386
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	4723386
1,2-Dichloropropane	ug/L	<0.20	0.20	4723386
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	4723386
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	4723386
Ethylbenzene	ug/L	<0.20	0.20	4723386
Ethylene Dibromide	ug/L	<0.20	0.20	4723386
Hexane	ug/L	<1.0	1.0	4723386
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	4723386
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	4723386
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	4723386
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	4723386
Styrene	ug/L	<0.50	0.50	4723386
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	4723386
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	4723386
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>		DIO842		
<b>Sampling Date</b>		2016/10/28 11:30		
<b>COC Number</b>		584868-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161028-AW1</b>	<b>RDL</b>	<b>QC Batch</b>
Tetrachloroethylene	ug/L	<0.20	0.20	4723386
Toluene	ug/L	<0.20	0.20	4723386
1,1,1-Trichloroethane	ug/L	<0.20	0.20	4723386
1,1,2-Trichloroethane	ug/L	<0.50	0.50	4723386
Trichloroethylene	ug/L	<0.20	0.20	4723386
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	4723386
Vinyl Chloride	ug/L	<0.20	0.20	4723386
p+m-Xylene	ug/L	<0.20	0.20	4723386
o-Xylene	ug/L	<0.20	0.20	4723386
Total Xylenes	ug/L	<0.20	0.20	4723386
<b>Surrogate Recovery (%)</b>				
4-Bromofluorobenzene	%	95		4723386
D4-1,2-Dichloroethane	%	106		4723386
D8-Toluene	%	96		4723386
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

### TEST SUMMARY

**Maxxam ID:** DIO842  
**Sample ID:** WG-160900764-20161028-AW1  
**Matrix:** Water

**Collected:** 2016/10/28  
**Shipped:**  
**Received:** 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4722815	N/A	2016/11/03	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4729285	2016/11/02	2016/11/03	Milijana Avramovic
Acidity as CaCO3 in liquid		4726431	N/A	2016/11/02	Grace Sison
Alkalinity	AT	4728164	N/A	2016/11/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4722830	N/A	2016/11/04	Automated Statchk
1,3-Dichloropropene Sum	CALC	4722768	N/A	2016/11/01	Automated Statchk
Chloride by Automated Colourimetry	KONE	4725626	N/A	2016/11/02	Deonarine Ramnarine
Conductivity	AT	4728173	N/A	2016/11/03	Surinder Rai
Chromium (VI) in Water	IC	4724493	N/A	2016/10/31	Lang Le
Free (WAD) Cyanide	SKAL/CN	4724552	N/A	2016/10/31	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4725932	N/A	2016/10/31	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4730073	N/A	2016/11/03	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4729266	2016/11/02	2016/11/03	(Kent) Maolin Li
Fluoride	ISE	4728168	2016/11/01	2016/11/03	Surinder Rai
Hardness (calculated as CaCO3)		4722905	N/A	2016/11/04	Automated Statchk
Mercury in Water by CVAA	CV/AA	4727626	2016/11/01	2016/11/02	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4724993	2016/10/29	2016/11/02	Prempal Bhatti
Ion Balance (% Difference)	CALC	4722703	N/A	2016/11/04	Automated Statchk
Anion and Cation Sum	CALC	4722965	N/A	2016/11/04	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4723621	N/A	2016/10/28	Arpita Patel
Total Ammonia-N	LACH/NH4	4725266	N/A	2016/11/01	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4724909	N/A	2016/11/02	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4724321	2016/10/28	2016/10/30	Dawn Alarie
pH	AT	4728176	N/A	2016/11/03	Surinder Rai
Orthophosphate	KONE	4725633	N/A	2016/10/31	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4722966	N/A	2016/11/04	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4722967	N/A	2016/11/04	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4725630	N/A	2016/10/31	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4722968	N/A	2016/11/04	Automated Statchk
Total Dissolved Solids	BAL	4727884	2016/11/01	2016/11/02	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4727905	N/A	2016/11/02	Anastasia Hamanov
Total Suspended Solids	BAL	4724574	2016/10/29	2016/11/01	Arpan Shah
Turbidity	AT	4724957	N/A	2016/10/29	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4723386	N/A	2016/11/01	Rebecca Schultz

**Maxxam ID:** DIO842 Dup  
**Sample ID:** WG-160900764-20161028-AW1  
**Matrix:** Water

**Collected:** 2016/10/28  
**Shipped:**  
**Received:** 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4726431	N/A		Grace Sison
Free (WAD) Cyanide	SKAL/CN	4724552	N/A	2016/10/31	Xuanhong Qiu
Turbidity	AT	4724957	N/A	2016/10/29	Neil Dassanayake

**GENERAL COMMENTS**

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

Package 1	9.7°C
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**Results relate only to the items tested.**



**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4723386	4-Bromofluorobenzene	2016/10/31	102	70 - 130	101	70 - 130	100	%				
4723386	D4-1,2-Dichloroethane	2016/10/31	105	70 - 130	93	70 - 130	100	%				
4723386	D8-Toluene	2016/10/31	98	70 - 130	102	70 - 130	96	%				
4724321	Decachlorobiphenyl	2016/10/30	93	60 - 130	107	60 - 130	124	%				
4729266	o-Terphenyl	2016/11/03	86	60 - 130	94	60 - 130	93	%				
4729285	2,4,6-Tribromophenol	2016/11/02	83	50 - 130	96	50 - 130	72	%				
4729285	2-Fluorobiphenyl	2016/11/02	43 (2)	50 - 130	69	50 - 130	64	%				
4729285	D14-Terphenyl (FS)	2016/11/02	100	50 - 130	102	50 - 130	95	%				
4729285	D5-Nitrobenzene	2016/11/02	48 (2)	50 - 130	85	50 - 130	71	%				
4730073	1,4-Difluorobenzene	2016/11/03	107	70 - 130	104	70 - 130	102	%				
4730073	4-Bromofluorobenzene	2016/11/03	99	70 - 130	96	70 - 130	92	%				
4730073	D10-Ethylbenzene	2016/11/03	91	70 - 130	90	70 - 130	93	%				
4730073	D4-1,2-Dichloroethane	2016/11/03	95	70 - 130	107	70 - 130	106	%				
4723386	1,1,1,2-Tetrachloroethane	2016/11/01	95	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4723386	1,1,1-Trichloroethane	2016/11/01	91	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4723386	1,1,2,2-Tetrachloroethane	2016/11/01	102	70 - 130	86	70 - 130	<0.50	ug/L	NC	30		
4723386	1,1,2-Trichloroethane	2016/11/01	99	70 - 130	88	70 - 130	<0.50	ug/L	NC	30		
4723386	1,1-Dichloroethane	2016/11/01	91	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
4723386	1,1-Dichloroethylene	2016/11/01	96	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4723386	1,2-Dichlorobenzene	2016/11/01	95	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4723386	1,2-Dichloroethane	2016/11/01	97	70 - 130	86	70 - 130	<0.50	ug/L	NC	30		
4723386	1,2-Dichloropropane	2016/11/01	98	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
4723386	1,3-Dichlorobenzene	2016/11/01	93	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4723386	1,4-Dichlorobenzene	2016/11/01	95	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4723386	Acetone (2-Propanone)	2016/11/01	101	60 - 140	82	60 - 140	<10	ug/L	NC	30		
4723386	Benzene	2016/11/01	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4723386	Bromodichloromethane	2016/11/01	107	70 - 130	93	70 - 130	<0.50	ug/L	NC	30		
4723386	Bromoform	2016/11/01	100	70 - 130	87	70 - 130	<1.0	ug/L	NC	30		
4723386	Bromomethane	2016/11/01	74	60 - 140	79	60 - 140	<0.50	ug/L	NC	30		
4723386	Carbon Tetrachloride	2016/11/01	93	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4723386	Chlorobenzene	2016/11/01	98	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4723386	Chloroform	2016/11/01	92	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4723386	cis-1,2-Dichloroethylene	2016/11/01	96	70 - 130	101	70 - 130	<0.50	ug/L	5.2	30		
4723386	cis-1,3-Dichloropropene	2016/11/01	100	70 - 130	89	70 - 130	<0.30	ug/L	NC	30		
4723386	Dibromochloromethane	2016/11/01	99	70 - 130	91	70 - 130	<0.50	ug/L	NC	30		
4723386	Dichlorodifluoromethane (FREON 12)	2016/11/01	74	60 - 140	80	60 - 140	<1.0	ug/L	NC	30		
4723386	Ethylbenzene	2016/11/01	95	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4723386	Ethylene Dibromide	2016/11/01	102	70 - 130	88	70 - 130	<0.20	ug/L	NC	30		
4723386	Hexane	2016/11/01	96	70 - 130	103	70 - 130	<1.0	ug/L	NC	30		
4723386	Methyl Ethyl Ketone (2-Butanone)	2016/11/01	105	60 - 140	89	60 - 140	<10	ug/L	NC	30		
4723386	Methyl Isobutyl Ketone	2016/11/01	125	70 - 130	88	70 - 130	<5.0	ug/L	NC	30		
4723386	Methyl t-butyl ether (MTBE)	2016/11/01	100	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4723386	Methylene Chloride(Dichloromethane)	2016/11/01	93	70 - 130	88	70 - 130	<2.0	ug/L	NC	30		
4723386	o-Xylene	2016/11/01	91	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4723386	p+m-Xylene	2016/11/01	93	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4723386	Styrene	2016/11/01	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4723386	Tetrachloroethylene	2016/11/01	91	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4723386	Toluene	2016/11/01	89	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
4723386	Total Xylenes	2016/11/01					<0.20	ug/L	NC	30		
4723386	trans-1,2-Dichloroethylene	2016/11/01	95	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4723386	trans-1,3-Dichloropropene	2016/11/01	85	70 - 130	87	70 - 130	<0.40	ug/L	NC	30		
4723386	Trichloroethylene	2016/11/01	93	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4723386	Trichlorofluoromethane (FREON 11)	2016/11/01	94	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
4723386	Vinyl Chloride	2016/11/01	92	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4724321	Aroclor 1242	2016/10/30					<0.05	ug/L	NC	30		
4724321	Aroclor 1248	2016/10/30					<0.05	ug/L	NC	30		
4724321	Aroclor 1254	2016/10/30					<0.05	ug/L	NC	30		
4724321	Aroclor 1260	2016/10/30	114	60 - 130	107	60 - 130	<0.05	ug/L	NC	30		
4724321	Total PCB	2016/10/30	114	60 - 130	107	60 - 130	<0.05	ug/L	NC	40		
4724493	Chromium (VI)	2016/10/31	104	80 - 120	102	80 - 120	<0.50	ug/L	NC	20		
4724552	Free Cyanide	2016/10/31	104	80 - 120	101	80 - 120	<1	ug/L	NC	20		
4724574	Total Suspended Solids	2016/11/01					<10	mg/L	NC	25	98	85 - 115

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4724909	Nitrate (N)	2016/11/02	NC	80 - 120	99	80 - 120	<0.10	mg/L	0.50	20		
4724909	Nitrite (N)	2016/11/02	99	80 - 120	103	80 - 120	<0.010	mg/L	0.74	20		
4724957	Turbidity	2016/10/29			95	85 - 115	0.1, RDL=0.1	NTU	NC	20		
4724993	. Aluminum (Al)	2016/11/02	108	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		
4724993	. Antimony (Sb)	2016/11/02	115	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20		
4724993	. Arsenic (As)	2016/11/02	111	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
4724993	. Barium (Ba)	2016/11/02	108	80 - 120	99	80 - 120	<0.0020	mg/L	4.5	20		
4724993	. Beryllium (Be)	2016/11/02	108	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4724993	. Boron (B)	2016/11/02	103	80 - 120	94	80 - 120	<0.010	mg/L	1.9	20		
4724993	. Cadmium (Cd)	2016/11/02	112	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20		
4724993	. Calcium (Ca)	2016/11/02	NC	80 - 120	99	80 - 120	<0.20	mg/L	2.7	20		
4724993	. Chromium (Cr)	2016/11/02	108	80 - 120	99	80 - 120	<0.0050	mg/L	NC	20		
4724993	. Cobalt (Co)	2016/11/02	106	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4724993	. Copper (Cu)	2016/11/02	105	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
4724993	. Iron (Fe)	2016/11/02	107	80 - 120	97	80 - 120	<0.10	mg/L	1.1	20		
4724993	. Lead (Pb)	2016/11/02	107	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20		
4724993	. Magnesium (Mg)	2016/11/02	NC	80 - 120	101	80 - 120	<0.050	mg/L	4.3	20		
4724993	. Manganese (Mn)	2016/11/02	109	80 - 120	99	80 - 120	<0.0020	mg/L	1.3	20		
4724993	. Molybdenum (Mo)	2016/11/02	112	80 - 120	101	80 - 120	<0.00050	mg/L	3.2	20		
4724993	. Nickel (Ni)	2016/11/02	103	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
4724993	. Phosphorus (P)	2016/11/02	112	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
4724993	. Potassium (K)	2016/11/02	111	80 - 120	102	80 - 120	<0.20	mg/L	4.0	20		
4724993	. Selenium (Se)	2016/11/02	110	80 - 120	98	80 - 120	<0.0020	mg/L	NC	20		
4724993	. Silicon (Si)	2016/11/02	109	80 - 120	101	80 - 120	<0.050	mg/L	2.4	20		
4724993	. Silver (Ag)	2016/11/02	107	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20		
4724993	. Sodium (Na)	2016/11/02	NC	80 - 120	103	80 - 120	<0.10	mg/L	4.5	20		
4724993	. Strontium (Sr)	2016/11/02	NC	80 - 120	97	80 - 120	<0.0010	mg/L	4.6	20		
4724993	. Thallium (Tl)	2016/11/02	106	80 - 120	97	80 - 120	<0.000050	mg/L	NC	20		
4724993	. Titanium (Ti)	2016/11/02	108	80 - 120	99	80 - 120	<0.0050	mg/L	NC	20		
4724993	. Uranium (U)	2016/11/02	109	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20		
4724993	. Vanadium (V)	2016/11/02	108	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4724993	Zinc (Zn)	2016/11/02	107	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
4724993	Zirconium (Zr)	2016/11/02	113	80 - 120	101	80 - 120	<0.0010	mg/L				
4725266	Total Ammonia-N	2016/11/01	99	80 - 120	99	85 - 115	<0.050	mg/L	NC	20		
4725626	Dissolved Chloride (Cl)	2016/11/02	119	80 - 120	103	80 - 120	<1.0	mg/L	NC	20		
4725630	Dissolved Sulphate (SO4)	2016/10/31	NC	75 - 125	97	80 - 120	<1.0	mg/L	0.20	20		
4725633	Orthophosphate (P)	2016/10/31	113	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
4725932	Dissolved Organic Carbon	2016/10/31	102	80 - 120	103	80 - 120	<0.20	mg/L	NC	20		
4726431	Acidity as CaCO3						<10	mg/L	NC	25		
4727626	Mercury (Hg)	2016/11/02	106	75 - 125	99	80 - 120	<0.0001	mg/L	NC	20		
4727884	Total Dissolved Solids	2016/11/02					<10	mg/L	14	25	101	90 - 110
4727905	Total Organic Carbon (TOC)	2016/11/02	NC	80 - 120	102	80 - 120	<0.20	mg/L	1.5	20		
4728164	Alkalinity (Total as CaCO3)	2016/11/03			97	85 - 115	<1.0	mg/L	0.74	20		
4728168	Fluoride (F-)	2016/11/03	100	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
4728173	Conductivity	2016/11/03			102	85 - 115	<1.0	umho/cm	0.14	25		
4728176	pH	2016/11/03			101	98 - 103			0.36	N/A		
4729266	F2 (C10-C16 Hydrocarbons)	2016/11/03	129	50 - 130	101	60 - 130	<100	ug/L	NC	30		
4729266	F3 (C16-C34 Hydrocarbons)	2016/11/03	132 (1)	50 - 130	106	60 - 130	<200	ug/L	NC	30		
4729266	F4 (C34-C50 Hydrocarbons)	2016/11/03	129	50 - 130	101	60 - 130	<200	ug/L	NC	30		
4729285	1,2,4-Trichlorobenzene	2016/11/02	46	40 - 130	69	40 - 130	<0.1	ug/L	NC	30		
4729285	1-Methylnaphthalene	2016/11/02	50 (3)	50 - 130	79	50 - 130	<0.2	ug/L				
4729285	2,4,5-Trichlorophenol	2016/11/02	68	50 - 130	98	50 - 130	<0.2	ug/L				
4729285	2,4,6-Trichlorophenol	2016/11/02	58	50 - 130	92	50 - 130	<0.2	ug/L				
4729285	2,4-Dichlorophenol	2016/11/02	47 (1)	50 - 130	87	50 - 130	<0.1	ug/L	NC	30		
4729285	2,4-Dimethylphenol	2016/11/02	15 (1)	30 - 130	50	30 - 130	<0.5	ug/L				
4729285	2,4-Dinitrophenol	2016/11/02	91	30 - 130	123	30 - 130	<2	ug/L				
4729285	2,4-Dinitrotoluene	2016/11/02	98	50 - 130	108	50 - 130	<0.3	ug/L				
4729285	2,6-Dinitrotoluene	2016/11/02	79	50 - 130	103	50 - 130	<0.3	ug/L				
4729285	2-Chlorophenol	2016/11/02	48 (1)	50 - 130	84	50 - 130	<0.1	ug/L				
4729285	2-Methylnaphthalene	2016/11/02	48 (1)	50 - 130	76	50 - 130	<0.2	ug/L				
4729285	3,3'-Dichlorobenzidine	2016/11/02	103	30 - 130	109	30 - 130	<0.5	ug/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4729285	Acenaphthene	2016/11/02	58	50 - 130	86	50 - 130	<0.2	ug/L	NC	30		
4729285	Acenaphthylene	2016/11/02	58	50 - 130	85	50 - 130	<0.2	ug/L	NC	30		
4729285	Anthracene	2016/11/02	88	50 - 130	92	50 - 130	<0.05	ug/L	NC	30		
4729285	Benzo(a)anthracene	2016/11/02	106	50 - 130	107	50 - 130	<0.05	ug/L	NC	30		
4729285	Benzo(a)pyrene	2016/11/02	97	50 - 130	97	50 - 130	<0.01	ug/L	NC	30		
4729285	Benzo(b,j)fluoranthene	2016/11/02	102	50 - 130	103	50 - 130	<0.05	ug/L	NC	30		
4729285	Benzo(g,h,i)perylene	2016/11/02	96	50 - 130	99	50 - 130	<0.05	ug/L	NC	30		
4729285	Benzo(k)fluoranthene	2016/11/02	108	50 - 130	103	50 - 130	<0.05	ug/L	NC	30		
4729285	Biphenyl	2016/11/02	49 (1)	50 - 130	72	50 - 130	<0.1	ug/L				
4729285	Bis(2-chloroethyl)ether	2016/11/02	52	50 - 130	86	50 - 130	<0.5	ug/L				
4729285	Bis(2-chloroisopropyl)ether	2016/11/02	54	50 - 130	89	50 - 130	<0.5	ug/L				
4729285	Bis(2-ethylhexyl)phthalate	2016/11/02	102	50 - 130	104	50 - 130	<1	ug/L				
4729285	Chrysene	2016/11/02	96	50 - 130	97	50 - 130	<0.05	ug/L	NC	30		
4729285	Dibenz(a,h)anthracene	2016/11/02	104	50 - 130	108	50 - 130	<0.1	ug/L	NC	30		
4729285	Diethyl phthalate	2016/11/02	91	50 - 130	159 (4)	50 - 130	<0.1	ug/L				
4729285	Dimethyl phthalate	2016/11/02	81	50 - 130	99	50 - 130	<0.1	ug/L				
4729285	Fluoranthene	2016/11/02	93	50 - 130	93	50 - 130	<0.2	ug/L	NC	30		
4729285	Fluorene	2016/11/02	66	50 - 130	85	50 - 130	<0.2	ug/L	NC	30		
4729285	Indeno(1,2,3-cd)pyrene	2016/11/02	97	50 - 130	100	50 - 130	<0.1	ug/L	NC	30		
4729285	Naphthalene	2016/11/02	52	50 - 130	77	50 - 130	<0.2	ug/L	NC	30		
4729285	p-Chloroaniline	2016/11/02	53	30 - 130	92	30 - 130	<1	ug/L				
4729285	Pentachlorophenol	2016/11/02	78	50 - 130	99	50 - 130	<0.1	ug/L				
4729285	Phenanthrene	2016/11/02	85	50 - 130	88	50 - 130	<0.1	ug/L	NC	30		
4729285	Phenol	2016/11/02	22 (1)	30 - 130	40	30 - 130	<0.5	ug/L	NC	30		
4729285	Pyrene	2016/11/02	104	50 - 130	102	50 - 130	<0.05	ug/L	NC	30		
4730073	F1 (C6-C10) - BTEX	2016/11/03					<25	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4730073	F1 (C6-C10)	2016/11/03	103	70 - 130	107	70 - 130	<25	ug/L	NC	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

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

(2) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.

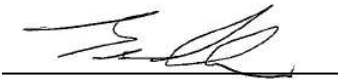
(3) The recovery was below the lower control limit. This may represent a low bias in some results for flagged analytes.

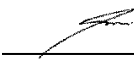

(4) The recovery was above the upper control limit. This may represent a high bias in some results for this specific analyte. For results that were not detected (ND), this potential bias has no impact.

### VALIDATION SIGNATURE PAGE

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

  
\_\_\_\_\_  
Arpita Patel

  
\_\_\_\_\_  
Brad Newman, Scientific Specialist

  
  
\_\_\_\_\_  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



STANTEC

28-Oct-16 13:19

Deepthi Shaji

Page 1 of 1

**INVOICE INFORMATION:**

Company Name: #9197 Stantec Consulting Ltd  
 Contact Name: Accounts Payable  
 Address: 49 Frederick St, Kitchener ON N2H 6M7  
 Phone: (519) 579-4410 Fax: (519) 579-6733  
 Email: Stantec.Accounts.Payable.Invoices@Stantec.com

**REPORT INFORMATION (if differs from invoice):**

Company Name: #18379 Stantec Consulting Ltd  
 Contact Name: Report - 1609-00764  
 Address: ON  
 Phone: Fax:  
 Email: aaron.warkentin@stantec.com, brant.gill@stantec.com

**PROJECT INFORMATION:**

Quotation #: B48218  
 Task #: J.L.  
 Project #: 160900764 ENV-1232  
 Profit Centre:  
 Site #: CLARINGTON TS-PRIVATE WELLS  
 Sampled By: Andy Weatherman

B6N3868

Bottle Order #: 584858  
 Project Manager: Deepthi Shaji

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

**Regulation 153 (2011)**

Table 1  Res/Park  Medium/Fine  
 Table 2  Ind/Comm  Coarse  
 Table 3  Agri/Other  For RSC  
 Table

**Other Regulations**

CCME  Sanitary Sewer Bylaw  
 Reg 598  Storm Sewer Bylaw  
 MISA  Municipality \_\_\_\_\_  
 PWOO   
 Other \_\_\_\_\_

**Special Instructions**

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

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix
1	WG-160900764-20161028- A21	2016/10/28	11:30am	GL
2				
3				
4				
5				
6				
7				
8				
9				
10				

**ANALYSIS REQUESTED (PLEASE BE SPECIFIC)**

Field Filtered (please circle) Metals / Hg / Cr / V	Acidity / Cl / Cyanide / Fluoride / Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	Reg 153 Comp (Drinking Water) - No Filter	SVOCs	E.coli, Total Coliform Background
N	Y	Y	Y	Y	Y	Y	Y	Y

**Turnaround Time (TAT) Required**  
 Please provide advance notice for rush projects

**Regular (Standard) TAT:**  
 (will be applied if Rush TAT is not specified)  
 Standard TAT = 5-7 Working days for most tests.  
 Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

**Job Specific Rush TAT (if applies to entire submission)**  
 Date Required: \_\_\_\_\_ Time Required: \_\_\_\_\_  
 Rush Confirmation Number: \_\_\_\_\_ (call lab for #)

<b>RELINQUISHED BY: (Signature/Print)</b> Andy Weatherman / Andy Weatherman	<b>Date: (YY/MM/DD)</b> 16/10/28	<b>Time</b> 1:20pm	<b>RECEIVED BY: (Signature/Print)</b> AMY MARSHALL	<b>Date: (YY/MM/DD)</b> 20161028	<b>Time</b> 13:19	<b># jars used and not submitted</b>	<b>Laboratory Use Only</b>
							Time Sensitive Temperature (°C) on Receipt: 9/10/10 Custody Seal: Present Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Intact <input checked="" type="checkbox"/>

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client



Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 584480-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/11**  
 Report #: R4244140  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N7539**

**Received: 2016/11/02, 08:36**

Sample Matrix: Water  
 # Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	9	N/A	2016/11/07	CAM SOP-00301	EPA 8270D m
Methylnaphthalene Sum	1	N/A	2016/11/09	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	9	2016/11/03	2016/11/05	CAM SOP-00301	EPA 8270 m
ABN Compounds in Water by SIM GC/MS	1	2016/11/08	2016/11/08	CAM SOP-00301	EPA 8270 m
Acidity as CaCO <sub>3</sub> in liquid (1, 2)	10	N/A	2016/11/07	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	1	N/A	2016/11/03	CAM SOP-00448	SM 22 2320 B m
Alkalinity	9	N/A	2016/11/04	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2016/11/03	CAM SOP-00102	APHA 4500-CO <sub>2</sub> D
Carbonate, Bicarbonate and Hydroxide	9	N/A	2016/11/07	CAM SOP-00102	APHA 4500-CO <sub>2</sub> D
1,3-Dichloropropene Sum	10	N/A	2016/11/07		EPA 8260C m
Chloride by Automated Colourimetry	2	N/A	2016/11/04	CAM SOP-00463	EPA 325.2 m
Chloride by Automated Colourimetry	8	N/A	2016/11/07	CAM SOP-00463	EPA 325.2 m
Conductivity	1	N/A	2016/11/03	CAM SOP-00414	SM 22 2510 m
Conductivity	9	N/A	2016/11/04	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	10	N/A	2016/11/04	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	10	N/A	2016/11/04	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	7	N/A	2016/11/03	CAM SOP-00446	SM 22 5310 B m
Dissolved Organic Carbon (DOC) (3)	3	N/A	2016/11/04	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	10	N/A	2016/11/06	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	10	2016/11/07	2016/11/08	CAM SOP-00316	CCME PHC-CWS m
Fluoride	1	2016/11/02	2016/11/03	CAM SOP-00449	SM 22 4500-F C m
Fluoride	9	2016/11/03	2016/11/04	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO <sub>3</sub> )	10	N/A	2016/11/08	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	10	2016/11/05	2016/11/08	CAM SOP-00453	EPA 7470A m
Metals Analysis by ICPMS (as received) (5)	10	2016/11/05	2016/11/07	CAM SOP-00447	EPA 6020B m
Ion Balance (% Difference)	10	N/A	2016/11/08		
Anion and Cation Sum	10	N/A	2016/11/08		
Total Coliforms/ E. coli, CFU/100mL	10	N/A	2016/11/02	CAM SOP-00551	MOE E3407
Total Ammonia-N	8	N/A	2016/11/08	CAM SOP-00441	EPA GS I-2522-90 m

Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 584480-01-01

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Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/11**  
 Report #: R4244140  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N7539**

**Received: 2016/11/02, 08:36**

Sample Matrix: Water  
 # Samples Received: 10

Analyses	Quantity	Date		Laboratory Method	Reference
		Extracted	Analyzed		
Total Ammonia-N	2	N/A	2016/11/09	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (6)	1	N/A	2016/11/04	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (6)	8	N/A	2016/11/06	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (6)	1	N/A	2016/11/07	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	5	2016/11/04	2016/11/04	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Water	5	2016/11/04	2016/11/05	CAM SOP-00309	EPA 8082A m
pH	1	N/A	2016/11/03	CAM SOP-00413	SM 4500H+ B m
pH	9	N/A	2016/11/04	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	2	N/A	2016/11/04	CAM SOP-00461	EPA 365.1 m
Orthophosphate	1	N/A	2016/11/07	CAM SOP-00461	EPA 365.1 m
Orthophosphate	7	N/A	2016/11/08	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	10	N/A	2016/11/08		
Sat. pH and Langelier Index (@ 4C)	10	N/A	2016/11/08		
Sulphate by Automated Colourimetry	2	N/A	2016/11/04	CAM SOP-00464	EPA 375.4 m
Sulphate by Automated Colourimetry	8	N/A	2016/11/07	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	10	N/A	2016/11/08		
Total Dissolved Solids	7	2016/11/03	2016/11/07	CAM SOP-00428	SM 22 2540C m
Total Dissolved Solids	3	2016/11/04	2016/11/05	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (7)	10	N/A	2016/11/05	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	7	2016/11/03	2016/11/05	CAM SOP-00428	SM 22 2540D m
Total Suspended Solids	3	2016/11/04	2016/11/04	CAM SOP-00428	SM 22 2540D m
Turbidity	9	N/A	2016/11/02	CAM SOP-00417	SM 22 2130 B m
Turbidity	1	N/A	2016/11/03	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	10	N/A	2016/11/04	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing).

Your Project #: 160900764  
Site Location: CLARINGTON TS-PRIVATE WELLS  
Your C.O.C. #: 584480-01-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/11/11**  
Report #: R4244140  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N7539**

**Received: 2016/11/02, 08:36**

All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Metals analysis was performed on the sample 'as received'.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

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

Deepthi Shaji, Project Manager

Email: dshaji@maxxam.ca

Phone# (905)817-5700 Ext:5807

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI427	DJI428		DJI429		
Sampling Date		2016/10/31 14:27	2016/11/01 09:15		2016/11/01 10:43		
COC Number		584480-01-01	584480-01-01		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764-2016111031-JK1</b>	<b>WG-160900764-20161101-JK2</b>	<b>QC Batch</b>	<b>WG-160900764-20161101-JK3</b>	<b>RDL</b>	<b>QC Batch</b>

Calculated Parameters							
Anion Sum	me/L	6.04	8.74	4729760	3.30	N/A	4729760
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	220	310	4729746	120	1.0	4729746
Calculated TDS	mg/L	360	480	4729455	190	1.0	4729455
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.4	2.7	4729746	1.8	1.0	4729746
Cation Sum	me/L	5.87	8.84	4729760	3.16	N/A	4729760
Hardness (CaCO3)	mg/L	<1.0	350	4729450	88	1.0	4729450
Ion Balance (% Difference)	%	1.49	0.590	4729759	2.23	N/A	4729759
Langelier Index (@ 20C)	N/A	NC	1.04	4729761	0.126		4729761
Langelier Index (@ 4C)	N/A	NC	0.794	4729762	-0.124		4729762
Saturation pH (@ 20C)	N/A	NC	6.92	4729761	8.07		4729761
Saturation pH (@ 4C)	N/A	NC	7.17	4729762	8.32		4729762

Inorganics							
Total Ammonia-N	mg/L	<0.050	<0.050	4732783	0.11	0.050	4732772
Conductivity	umho/cm	600	860	4732827	310	1.0	4732827
Dissolved Organic Carbon	mg/L	0.74	1.2	4732615	0.66	0.20	4732615
Orthophosphate (P)	mg/L	<0.010	<0.010	4735787	<0.010	0.010	4731961
pH	pH	8.07	7.96	4732853	8.19		4732853
Dissolved Sulphate (SO4)	mg/L	36	36	4735786	34	1.0	4731957
Alkalinity (Total as CaCO3)	mg/L	220	310	4732810	120	1.0	4732810
Dissolved Chloride (Cl)	mg/L	15	50	4735781	2.7	1.0	4731954
Nitrite (N)	mg/L	<0.010	<0.010	4731606	<0.010	0.010	4730616
Nitrate (N)	mg/L	6.59	4.46	4731606	<0.10	0.10	4730616

Metals							
. Aluminum (Al)	mg/L	<0.0050	<0.0050	4735547	<0.0050	0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050	<0.00050	4735547	<0.00050	0.00050	4735547
. Arsenic (As)	mg/L	<0.0010	<0.0010	4735547	0.0027	0.0010	4735547
. Barium (Ba)	mg/L	<0.0020	<0.0020	4735547	0.033	0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050	<0.00050	4735547	<0.00050	0.00050	4735547
. Boron (B)	mg/L	<0.010	0.018	4735547	0.066	0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010	<0.00010	4735547	<0.00010	0.00010	4735547
. Calcium (Ca)	mg/L	<0.20	110	4735547	16	0.20	4735547
. Chromium (Cr)	mg/L	<0.0050	<0.0050	4735547	<0.0050	0.0050	4735547

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

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI427	DJI428		DJI429		
Sampling Date		2016/10/31 14:27	2016/11/01 09:15		2016/11/01 10:43		
COC Number		584480-01-01	584480-01-01		584480-01-01		
	UNITS	WG-160900764- 2016111031-JK1	WG-160900764- 20161101-JK2	QC Batch	WG-160900764- 20161101-JK3	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	<0.00050	4735547	<0.00050	0.00050	4735547
. Copper (Cu)	mg/L	0.014	0.020	4735547	<0.0010	0.0010	4735547
. Iron (Fe)	mg/L	<0.10	<0.10	4735547	<0.10	0.10	4735547
. Lead (Pb)	mg/L	<0.00050	<0.00050	4735547	<0.00050	0.00050	4735547
. Magnesium (Mg)	mg/L	<0.050	18	4735547	11	0.050	4735547
. Manganese (Mn)	mg/L	<0.0020	0.0072	4735547	0.0075	0.0020	4735547
. Molybdenum (Mo)	mg/L	<0.00050	<0.00050	4735547	0.0052	0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010	0.0027	4735547	<0.0010	0.0010	4735547
. Phosphorus (P)	mg/L	<0.10	<0.10	4735547	<0.10	0.10	4735547
. Potassium (K)	mg/L	<0.20	1.4	4735547	0.85	0.20	4735547
. Selenium (Se)	mg/L	<0.0020	<0.0020	4735547	<0.0020	0.0020	4735547
. Silicon (Si)	mg/L	6.1	6.1	4735547	6.0	0.050	4735547
. Silver (Ag)	mg/L	<0.00010	<0.00010	4735547	<0.00010	0.00010	4735547
. Sodium (Na)	mg/L	130	41	4735547	31	0.10	4735547
. Strontium (Sr)	mg/L	<0.0010	0.18	4735547	0.35	0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050	<0.000050	4735547	<0.000050	0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050	<0.0050	4735547	<0.0050	0.0050	4735547
. Uranium (U)	mg/L	0.00080	0.0014	4735547	0.00048	0.00010	4735547
. Vanadium (V)	mg/L	<0.00050	<0.00050	4735547	<0.00050	0.00050	4735547
. Zinc (Zn)	mg/L	<0.0050	0.11	4735547	<0.0050	0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010	<0.0010	4735547	<0.0010	0.0010	4735547
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI430			DJI431		
Sampling Date		2016/11/01 11:48			2016/11/01 12:39		
COC Number		584480-01-01			584480-01-01		
	UNITS	WG-160900764- 20161101-JK4	RDL	QC Batch	WG-160900764- 20161101-JK5	RDL	QC Batch
<b>Calculated Parameters</b>							
Anion Sum	me/L	14.5	N/A	4729760	6.78	N/A	4729760
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	230	1.0	4729746	270	1.0	4729746
Calculated TDS	mg/L	810	1.0	4729455	370	1.0	4729455
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3	1.0	4729746	2.1	1.0	4729746
Cation Sum	me/L	14.7	N/A	4729760	6.51	N/A	4729760
Hardness (CaCO3)	mg/L	440	1.0	4729450	310	1.0	4729450
Ion Balance (% Difference)	%	0.960	N/A	4729759	2.01	N/A	4729759
Langelier Index (@ 20C)	N/A	0.866		4729761	0.927		4729761
Langelier Index (@ 4C)	N/A	0.620		4729762	0.678		4729762
Saturation pH (@ 20C)	N/A	7.17		4729761	6.99		4729761
Saturation pH (@ 4C)	N/A	7.41		4729762	7.24		4729762
<b>Inorganics</b>							
Total Ammonia-N	mg/L	<0.050	0.050	4732772	<0.050	0.050	4732783
Conductivity	umho/cm	1600	1.0	4732827	650	1.0	4732827
Dissolved Organic Carbon	mg/L	0.81	0.20	4732615	1.0	0.20	4732615
Orthophosphate (P)	mg/L	<0.010	0.010	4735787	<0.010	0.010	4735787
pH	pH	8.03		4732853	7.92		4732853
Dissolved Sulphate (SO4)	mg/L	32	1.0	4735786	23	1.0	4735786
Alkalinity (Total as CaCO3)	mg/L	230	1.0	4732810	270	1.0	4732810
Dissolved Chloride (Cl)	mg/L	320	4.0	4735781	18	1.0	4735781
Nitrite (N)	mg/L	<0.010	0.010	4731606	<0.010	0.010	4731606
Nitrate (N)	mg/L	1.95	0.10	4731606	6.18	0.10	4731606
<b>Metals</b>							
. Aluminum (Al)	mg/L	0.0070	0.0050	4735547	0.0056	0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Arsenic (As)	mg/L	0.0010	0.0010	4735547	<0.0010	0.0010	4735547
. Barium (Ba)	mg/L	0.22	0.0020	4735547	0.044	0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Boron (B)	mg/L	0.011	0.010	4735547	<0.010	0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010	0.00010	4735547	<0.00010	0.00010	4735547
. Calcium (Ca)	mg/L	100	0.20	4735547	100	0.20	4735547
. Chromium (Cr)	mg/L	<0.0050	0.0050	4735547	<0.0050	0.0050	4735547
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable							

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI430			DJI431		
Sampling Date		2016/11/01 11:48			2016/11/01 12:39		
COC Number		584480-01-01			584480-01-01		
	UNITS	WG-160900764- 20161101-JK4	RDL	QC Batch	WG-160900764- 20161101-JK5	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Copper (Cu)	mg/L	0.0083	0.0010	4735547	0.0047	0.0010	4735547
. Iron (Fe)	mg/L	<0.10	0.10	4735547	<0.10	0.10	4735547
. Lead (Pb)	mg/L	0.0015	0.00050	4735547	<0.00050	0.00050	4735547
. Magnesium (Mg)	mg/L	44	0.050	4735547	12	0.050	4735547
. Manganese (Mn)	mg/L	0.0020	0.0020	4735547	<0.0020	0.0020	4735547
. Molybdenum (Mo)	mg/L	0.00051	0.00050	4735547	<0.00050	0.00050	4735547
. Nickel (Ni)	mg/L	0.0014	0.0010	4735547	<0.0010	0.0010	4735547
. Phosphorus (P)	mg/L	<0.10	0.10	4735547	<0.10	0.10	4735547
. Potassium (K)	mg/L	2.9	0.20	4735547	0.99	0.20	4735547
. Selenium (Se)	mg/L	<0.0020	0.0020	4735547	<0.0020	0.0020	4735547
. Silicon (Si)	mg/L	9.1	0.050	4735547	6.0	0.050	4735547
. Silver (Ag)	mg/L	<0.00010	0.00010	4735547	<0.00010	0.00010	4735547
. Sodium (Na)	mg/L	130	0.10	4735547	7.1	0.10	4735547
. Strontium (Sr)	mg/L	0.56	0.0010	4735547	0.19	0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050	0.000050	4735547	<0.000050	0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050	0.0050	4735547	<0.0050	0.0050	4735547
. Uranium (U)	mg/L	0.00080	0.00010	4735547	0.00061	0.00010	4735547
. Vanadium (V)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Zinc (Zn)	mg/L	<0.0050	0.0050	4735547	0.015	0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010	0.0010	4735547	<0.0010	0.0010	4735547
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI432		DJI433	DJI433		
Sampling Date		2016/11/01 13:34		2016/11/01 14:12	2016/11/01 14:12		
COC Number		584480-01-01		584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK6	QC Batch	WG-160900764- 20161101-JK7	WG-160900764- 20161101-JK7 Lab-Dup	RDL	QC Batch

Calculated Parameters							
Anion Sum	me/L	4.44	4729760	7.82		N/A	4729760
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	200	4729746	330		1.0	4729746
Calculated TDS	mg/L	240	4729455	410		1.0	4729455
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3	4729746	2.1		1.0	4729746
Cation Sum	me/L	4.35	4729760	7.47		N/A	4729760
Hardness (CaCO3)	mg/L	200	4729450	350		1.0	4729450
Ion Balance (% Difference)	%	1.06	4729759	2.33		N/A	4729759
Langelier Index (@ 20C)	N/A	0.721	4729761	0.983			4729761
Langelier Index (@ 4C)	N/A	0.471	4729762	0.734			4729762
Saturation pH (@ 20C)	N/A	7.36	4729761	6.84			4729761
Saturation pH (@ 4C)	N/A	7.61	4729762	7.09			4729762

Inorganics							
Total Ammonia-N	mg/L	1.1	4735017	<0.050		0.050	4732783
Conductivity	umho/cm	410	4732827	720		1.0	4732827
Dissolved Organic Carbon	mg/L	1.4	4733786	1.4	1.4	0.20	4733973
Orthophosphate (P)	mg/L	<0.010	4731961	0.010		0.010	4735787
pH	pH	8.08	4732853	7.83			4732853
Dissolved Sulphate (SO4)	mg/L	17	4731957	19		1.0	4735786
Alkalinity (Total as CaCO3)	mg/L	200	4732810	330		1.0	4732810
Dissolved Chloride (Cl)	mg/L	2.7	4731954	20		1.0	4735781
Nitrite (N)	mg/L	<0.010	4735779	<0.010		0.010	4731606
Nitrate (N)	mg/L	<0.10	4735779	4.40		0.10	4731606

Metals							
. Aluminum (Al)	mg/L	<0.0050	4735547	<0.0050		0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Arsenic (As)	mg/L	<0.0010	4735547	<0.0010		0.0010	4735547
. Barium (Ba)	mg/L	0.14	4735547	0.044		0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Boron (B)	mg/L	0.011	4735547	0.019		0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010	4735547	<0.00010		0.00010	4735547
. Calcium (Ca)	mg/L	54	4735547	120		0.20	4735547
. Chromium (Cr)	mg/L	<0.0050	4735547	<0.0050		0.0050	4735547

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate



**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI432		DJI433	DJI433		
Sampling Date		2016/11/01 13:34		2016/11/01 14:12	2016/11/01 14:12		
COC Number		584480-01-01		584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK6	QC Batch	WG-160900764- 20161101-JK7	WG-160900764- 20161101-JK7 Lab-Dup	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Copper (Cu)	mg/L	0.0019	4735547	0.011		0.0010	4735547
. Iron (Fe)	mg/L	1.5	4735547	<0.10		0.10	4735547
. Lead (Pb)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Magnesium (Mg)	mg/L	16	4735547	11		0.050	4735547
. Manganese (Mn)	mg/L	0.027	4735547	<0.0020		0.0020	4735547
. Molybdenum (Mo)	mg/L	0.00067	4735547	<0.00050		0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010	4735547	0.0010		0.0010	4735547
. Phosphorus (P)	mg/L	<0.10	4735547	<0.10		0.10	4735547
. Potassium (K)	mg/L	0.95	4735547	1.2		0.20	4735547
. Selenium (Se)	mg/L	<0.0020	4735547	<0.0020		0.0020	4735547
. Silicon (Si)	mg/L	9.2	4735547	5.7		0.050	4735547
. Silver (Ag)	mg/L	<0.00010	4735547	<0.00010		0.00010	4735547
. Sodium (Na)	mg/L	4.5	4735547	12		0.10	4735547
. Strontium (Sr)	mg/L	0.22	4735547	0.22		0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050	4735547	<0.000050		0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050	4735547	<0.0050		0.0050	4735547
. Uranium (U)	mg/L	<0.00010	4735547	0.00063		0.00010	4735547
. Vanadium (V)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Zinc (Zn)	mg/L	0.0058	4735547	<0.0050		0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010	4735547	<0.0010		0.0010	4735547

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI434		DJI435	DJI435		
Sampling Date		2016/11/01 14:58		2016/11/01 15:42	2016/11/01 15:42		
COC Number		584480-01-01		584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK8	QC Batch	WG-160900764- 20161101-JK9	WG-160900764- 20161101-JK9 Lab-Dup	RDL	QC Batch

Calculated Parameters							
Anion Sum	me/L	9.00	4729760	8.04		N/A	4729760
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	310	4729746	300		1.0	4729746
Calculated TDS	mg/L	490	4729455	440		1.0	4729455
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3	4729746	1.9		1.0	4729746
Cation Sum	me/L	8.88	4729760	7.89		N/A	4729760
Hardness (CaCO3)	mg/L	180	4729450	370		1.0	4729450
Ion Balance (% Difference)	%	0.670	4729759	0.920		N/A	4729759
Langelier Index (@ 20C)	N/A	0.354	4729761	0.889			4729761
Langelier Index (@ 4C)	N/A	0.107	4729762	0.641			4729762
Saturation pH (@ 20C)	N/A	7.53	4729761	6.94			4729761
Saturation pH (@ 4C)	N/A	7.78	4729762	7.19			4729762
Inorganics							
Total Ammonia-N	mg/L	<0.050	4735017	<0.050		0.050	4735017
Conductivity	umho/cm	870	4732827	770		1.0	4732827
Dissolved Organic Carbon	mg/L	1.0	4732615	1.0		0.20	4733786
Orthophosphate (P)	mg/L	<0.010	4735787	<0.010		0.010	4735741
pH	pH	7.89	4732853	7.83			4732853
Dissolved Sulphate (SO4)	mg/L	39	4735786	52		1.0	4735740
Alkalinity (Total as CaCO3)	mg/L	320	4732810	300		1.0	4732810
Dissolved Chloride (Cl)	mg/L	63	4735781	17		1.0	4735737
Nitrite (N)	mg/L	<0.010	4731606	<0.010		0.010	4731606
Nitrate (N)	mg/L	1.16	4731606	6.96		0.10	4731606
Metals							
. Aluminum (Al)	mg/L	<0.0050	4735547	<0.0050	<0.0050	0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050	4735547	<0.00050	<0.00050	0.00050	4735547
. Arsenic (As)	mg/L	<0.0010	4735547	<0.0010	<0.0010	0.0010	4735547
. Barium (Ba)	mg/L	0.011	4735547	0.10	0.10	0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050	4735547	<0.00050	<0.00050	0.00050	4735547
. Boron (B)	mg/L	0.015	4735547	0.012	0.011	0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010	4735547	<0.00010	<0.00010	0.00010	4735547
. Calcium (Ca)	mg/L	28	4735547	110	110	0.20	4735547
. Chromium (Cr)	mg/L	<0.0050	4735547	<0.0050	<0.0050	0.0050	4735547

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI434		DJI435	DJI435		
Sampling Date		2016/11/01 14:58		2016/11/01 15:42	2016/11/01 15:42		
COC Number		584480-01-01		584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK8	QC Batch	WG-160900764- 20161101-JK9	WG-160900764- 20161101-JK9 Lab-Dup	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	4735547	<0.00050	<0.00050	0.00050	4735547
. Copper (Cu)	mg/L	0.044	4735547	0.0063	0.0063	0.0010	4735547
. Iron (Fe)	mg/L	<0.10	4735547	<0.10	<0.10	0.10	4735547
. Lead (Pb)	mg/L	0.00086	4735547	0.00072	0.00071	0.00050	4735547
. Magnesium (Mg)	mg/L	28	4735547	25	25	0.050	4735547
. Manganese (Mn)	mg/L	<0.0020	4735547	<0.0020	<0.0020	0.0020	4735547
. Molybdenum (Mo)	mg/L	<0.00050	4735547	<0.00050	<0.00050	0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010	4735547	<0.0010	<0.0010	0.0010	4735547
. Phosphorus (P)	mg/L	<0.10	4735547	<0.10	<0.10	0.10	4735547
. Potassium (K)	mg/L	4.7	4735547	6.5	6.5	0.20	4735547
. Selenium (Se)	mg/L	<0.0020	4735547	<0.0020	<0.0020	0.0020	4735547
. Silicon (Si)	mg/L	6.2	4735547	8.3	8.2	0.050	4735547
. Silver (Ag)	mg/L	<0.00010	4735547	<0.00010	<0.00010	0.00010	4735547
. Sodium (Na)	mg/L	120	4735547	5.5	5.5	0.10	4735547
. Strontium (Sr)	mg/L	0.045	4735547	0.28	0.28	0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050	4735547	<0.000050	<0.000050	0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050	4735547	<0.0050	<0.0050	0.0050	4735547
. Uranium (U)	mg/L	0.0056	4735547	0.0011	0.0011	0.00010	4735547
. Vanadium (V)	mg/L	<0.00050	4735547	<0.00050	<0.00050	0.00050	4735547
. Zinc (Zn)	mg/L	0.0052	4735547	0.077	0.076	0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010	4735547	<0.0010	<0.0010	0.0010	4735547

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI436	DJI436		
Sampling Date		2016/11/01 16:32	2016/11/01 16:32		
COC Number		584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK10	WG-160900764- 20161101-JK10 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>					
Anion Sum	me/L	5.81		N/A	4729760
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	210		1.0	4729746
Calculated TDS	mg/L	310		1.0	4729455
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	1.5		1.0	4729746
Cation Sum	me/L	5.84		N/A	4729760
Hardness (CaCO <sub>3</sub> )	mg/L	280		1.0	4729450
Ion Balance (% Difference)	%	0.220		N/A	4729759
Langelier Index (@ 20C)	N/A	0.648			4729761
Langelier Index (@ 4C)	N/A	0.400			4729762
Saturation pH (@ 20C)	N/A	7.24			4729761
Saturation pH (@ 4C)	N/A	7.49			4729762
<b>Inorganics</b>					
Total Ammonia-N	mg/L	<0.050		0.050	4735016
Conductivity	umho/cm	550	550	1.0	4730706
Dissolved Organic Carbon	mg/L	0.77		0.20	4732615
Orthophosphate (P)	mg/L	<0.010		0.010	4735787
pH	pH	7.89	7.93		4730710
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	57		1.0	4735786
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	210	210	1.0	4730704
Dissolved Chloride (Cl)	mg/L	14		1.0	4735781
Nitrite (N)	mg/L	<0.010		0.010	4731606
Nitrate (N)	mg/L	<0.10		0.10	4731606
<b>Metals</b>					
. Aluminum (Al)	mg/L	<0.0050		0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050		0.00050	4735547
. Arsenic (As)	mg/L	<0.0010		0.0010	4735547
. Barium (Ba)	mg/L	0.043		0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050		0.00050	4735547
. Boron (B)	mg/L	<0.010		0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010		0.00010	4735547
. Calcium (Ca)	mg/L	76		0.20	4735547
. Chromium (Cr)	mg/L	<0.0050		0.0050	4735547
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJI436	DJI436		
Sampling Date		2016/11/01 16:32	2016/11/01 16:32		
COC Number		584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK10	WG-160900764- 20161101-JK10 Lab-Dup	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050		0.00050	4735547
. Copper (Cu)	mg/L	0.0023		0.0010	4735547
. Iron (Fe)	mg/L	2.1		0.10	4735547
. Lead (Pb)	mg/L	<0.00050		0.00050	4735547
. Magnesium (Mg)	mg/L	21		0.050	4735547
. Manganese (Mn)	mg/L	0.030		0.0020	4735547
. Molybdenum (Mo)	mg/L	0.0024		0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010		0.0010	4735547
. Phosphorus (P)	mg/L	<0.10		0.10	4735547
. Potassium (K)	mg/L	1.2		0.20	4735547
. Selenium (Se)	mg/L	<0.0020		0.0020	4735547
. Silicon (Si)	mg/L	5.3		0.050	4735547
. Silver (Ag)	mg/L	<0.00010		0.00010	4735547
. Sodium (Na)	mg/L	4.5		0.10	4735547
. Strontium (Sr)	mg/L	0.26		0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050		0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050		0.0050	4735547
. Uranium (U)	mg/L	0.00073		0.00010	4735547
. Vanadium (V)	mg/L	<0.00050		0.00050	4735547
. Zinc (Zn)	mg/L	0.0064		0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010		0.0010	4735547
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Lab-Dup = Laboratory Initiated Duplicate					

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJI427		DJI428	DJI428		
<b>Sampling Date</b>		2016/10/31 14:27		2016/11/01 09:15	2016/11/01 09:15		
<b>COC Number</b>		584480-01-01		584480-01-01	584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 2016111031-JK1</b>	<b>QC Batch</b>	<b>WG-160900764- 20161101-JK2</b>	<b>WG-160900764- 20161101-JK2 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L	12	4731752	29		10	4731752
Total Dissolved Solids	mg/L	416	4734260	486	480	10	4731777
Fluoride (F-)	mg/L	<0.10	4732838	<0.10		0.10	4732838
Free Cyanide	ug/L	<1	4734257	<1		1	4734350
Total Organic Carbon (TOC)	mg/L	0.79	4734106	1.2		0.20	4734106
Total Suspended Solids	mg/L	<10	4734251	<10		10	4731766
Turbidity	NTU	0.4	4730384	<0.1		0.1	4730384

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

<b>Maxxam ID</b>		DJI429		DJI430	DJI430		
<b>Sampling Date</b>		2016/11/01 10:43		2016/11/01 11:48	2016/11/01 11:48		
<b>COC Number</b>		584480-01-01		584480-01-01	584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK3</b>	<b>QC Batch</b>	<b>WG-160900764- 20161101-JK4</b>	<b>WG-160900764- 20161101-JK4 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L	<10	4731752	17		10	4731752
Total Dissolved Solids	mg/L	182	4731777	1010		10	4731777
Fluoride (F-)	mg/L	0.39	4732838	<0.10		0.10	4732838
Free Cyanide	ug/L	<1	4734350	<1		1	4734257
Total Organic Carbon (TOC)	mg/L	0.55	4734106	0.76		0.20	4734106
Total Suspended Solids	mg/L	<10	4731766	<10	<10	10	4731766
Turbidity	NTU	0.2	4730384	0.3		0.1	4730384

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJI431	DJI432	DJI433		
<b>Sampling Date</b>		2016/11/01 12:39	2016/11/01 13:34	2016/11/01 14:12		
<b>COC Number</b>		584480-01-01	584480-01-01	584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK5</b>	<b>WG-160900764- 20161101-JK6</b>	<b>WG-160900764- 20161101-JK7</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>						
Acidity as CaCO3	mg/L	26	11	38	10	4731752
Total Dissolved Solids	mg/L	352	230	390	10	4731777
Fluoride (F-)	mg/L	<0.10	0.10	<0.10	0.10	4732838
Free Cyanide	ug/L	<1	<1	<1	1	4734257
Total Organic Carbon (TOC)	mg/L	0.95	1.4	1.4	0.20	4734106
Total Suspended Solids	mg/L	<10	<10	<10	10	4731766
Turbidity	NTU	1.9	5.8	<0.1	0.1	4730384

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

<b>Maxxam ID</b>		DJI434		DJI435		DJI436		
<b>Sampling Date</b>		2016/11/01 14:58		2016/11/01 15:42		2016/11/01 16:32		
<b>COC Number</b>		584480-01-01		584480-01-01		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK8</b>	<b>QC Batch</b>	<b>WG-160900764- 20161101-JK9</b>	<b>QC Batch</b>	<b>WG-160900764- 20161101-JK10</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>								
Acidity as CaCO3	mg/L	29	4731752	32	4731752	16	10	4731752
Total Dissolved Solids	mg/L	536	4734260	440	4731777	402	10	4734260
Fluoride (F-)	mg/L	<0.10	4732838	<0.10	4732838	0.11	0.10	4730707
Free Cyanide	ug/L	<1	4734257	<1	4734257	<1	1	4734257
Total Organic Carbon (TOC)	mg/L	0.97	4734106	1.0	4734106	0.71	0.20	4734106
Total Suspended Solids	mg/L	<10	4734251	<10	4731766	11	10	4734251
Turbidity	NTU	<0.1	4730384	<0.1	4730384	25	0.1	4730384

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJI436		
<b>Sampling Date</b>		2016/11/01 16:32		
<b>COC Number</b>		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK10 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>				
Acidity as CaCO3	mg/L	15	10	4731752
Fluoride (F-)	mg/L	<0.10	0.10	4730707
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate				



**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		DJI427		DJI428		DJI429		
<b>Sampling Date</b>		2016/10/31 14:27		2016/11/01 09:15		2016/11/01 10:43		
<b>COC Number</b>		584480-01-01		584480-01-01		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 2016111031-JK1</b>	<b>QC Batch</b>	<b>WG-160900764- 201611101-JK2</b>	<b>QC Batch</b>	<b>WG-160900764- 201611101-JK3</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>								
Chromium (VI)	ug/L	<0.50	4733930	<0.50	4733930	<0.50	0.50	4733930
Mercury (Hg)	mg/L	<0.0001	4735589	<0.0001	4735595	<0.0001	0.0001	4735589
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

<b>Maxxam ID</b>		DJI430		DJI431		DJI432		
<b>Sampling Date</b>		2016/11/01 11:48		2016/11/01 12:39		2016/11/01 13:34		
<b>COC Number</b>		584480-01-01		584480-01-01		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 201611101-JK4</b>		<b>WG-160900764- 201611101-JK5</b>	<b>QC Batch</b>	<b>WG-160900764- 201611101-JK6</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>								
Chromium (VI)	ug/L	<0.50		0.61	4733930	<0.50	0.50	4733930
Mercury (Hg)	mg/L	<0.0001		<0.0001	4735589	<0.0001	0.0001	4735595
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

<b>Maxxam ID</b>		DJI433		DJI434		DJI434		DJI435		
<b>Sampling Date</b>		2016/11/01 14:12		2016/11/01 14:58		2016/11/01 14:58		2016/11/01 15:42		
<b>COC Number</b>		584480-01-01		584480-01-01		584480-01-01		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 201611101-JK7</b>		<b>WG-160900764- 201611101-JK8</b>		<b>WG-160900764- 201611101-JK8 Lab-Dup</b>		<b>WG-160900764- 201611101-JK9</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>										
Chromium (VI)	ug/L	<0.50		<0.50				0.87	0.50	4733930
Mercury (Hg)	mg/L	<0.0001		<0.0001		<0.0001		<0.0001	0.0001	4735589
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		DJI436		
<b>Sampling Date</b>		2016/11/01 16:32		
<b>COC Number</b>		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK10</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>				
Chromium (VI)	ug/L	<0.50	0.50	4733930
Mercury (Hg)	mg/L	<0.0001	0.0001	4735589
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

**MICROBIOLOGY (WATER)**

<b>Maxxam ID</b>		DJI427	DJI428	DJI429	DJI430	
<b>Sampling Date</b>		2016/10/31 14:27	2016/11/01 09:15	2016/11/01 10:43	2016/11/01 11:48	
<b>COC Number</b>		584480-01-01	584480-01-01	584480-01-01	584480-01-01	
	<b>UNITS</b>	<b>WG-160900764- 201611031-JK1</b>	<b>WG-160900764- 20161101-JK2</b>	<b>WG-160900764- 20161101-JK3</b>	<b>WG-160900764- 20161101-JK4</b>	<b>QC Batch</b>

<b>Microbiological</b>						
Background	CFU/100mL	860	NDOGT (1)	0	NDOGT (1)	4730088
Total Coliforms	CFU/100mL	0	NDOGT (1)	0	NDOGT (1)	4730088
Escherichia coli	CFU/100mL	0	NDOGT (1)	0	NDOGT (1)	4730088

QC Batch = Quality Control Batch  
(1) NDOGT: No data due to overgrowth. Total coliforms and / or E.coli detected

<b>Maxxam ID</b>		DJI431	DJI432	DJI433	DJI434	
<b>Sampling Date</b>		2016/11/01 12:39	2016/11/01 13:34	2016/11/01 14:12	2016/11/01 14:58	
<b>COC Number</b>		584480-01-01	584480-01-01	584480-01-01	584480-01-01	
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK5</b>	<b>WG-160900764- 20161101-JK6</b>	<b>WG-160900764- 20161101-JK7</b>	<b>WG-160900764- 20161101-JK8</b>	<b>QC Batch</b>

<b>Microbiological</b>						
Background	CFU/100mL	0	0	0	870	4730088
Total Coliforms	CFU/100mL	0	0	0	75	4730088
Escherichia coli	CFU/100mL	0	0	0	0	4730088

QC Batch = Quality Control Batch

<b>Maxxam ID</b>		DJI435	DJI436	
<b>Sampling Date</b>		2016/11/01 15:42	2016/11/01 16:32	
<b>COC Number</b>		584480-01-01	584480-01-01	
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK9</b>	<b>WG-160900764- 20161101-JK10</b>	<b>QC Batch</b>

<b>Microbiological</b>				
Background	CFU/100mL	710	0	4730088
Total Coliforms	CFU/100mL	53	0	4730088
Escherichia coli	CFU/100mL	3	0	4730088

QC Batch = Quality Control Batch

**O.REG 153 PCBs (WATER)**

Maxxam ID		DJI427	DJI428	DJI429	DJI430		
Sampling Date		2016/10/31 14:27	2016/11/01 09:15	2016/11/01 10:43	2016/11/01 11:48		
COC Number		584480-01-01	584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 2016111031-JK1	WG-160900764- 20161101-JK2	WG-160900764- 20161101-JK3	WG-160900764- 20161101-JK4	RDL	QC Batch

PCBs							
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166

Surrogate Recovery (%)							
Decachlorobiphenyl	%	95	112	89	98		4734166

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam ID		DJI431	DJI431	DJI432	DJI433		
Sampling Date		2016/11/01 12:39	2016/11/01 12:39	2016/11/01 13:34	2016/11/01 14:12		
COC Number		584480-01-01	584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK5	WG-160900764- 20161101-JK5 Lab-Dup	WG-160900764- 20161101-JK6	WG-160900764- 20161101-JK7	RDL	QC Batch

PCBs							
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734166

Surrogate Recovery (%)							
Decachlorobiphenyl	%	96	98	99	92		4734166

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**O.REG 153 PCBS (WATER)**

Maxxam ID		DJI434	DJI435	DJI436		
Sampling Date		2016/11/01 14:58	2016/11/01 15:42	2016/11/01 16:32		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK8	WG-160900764- 20161101-JK9	WG-160900764- 20161101-JK10	RDL	QC Batch
<b>PCBs</b>						
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	0.05	4734166
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	0.05	4734166
Total PCB	ug/L	<0.05	<0.05	<0.05	0.05	4734166
<b>Surrogate Recovery (%)</b>						
Decachlorobiphenyl	%	92	88	95		4734166
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		DJI427	DJI427	DJI428	DJI428		
Sampling Date		2016/10/31 14:27	2016/10/31 14:27	2016/11/01 09:15	2016/11/01 09:15		
COC Number		584480-01-01	584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 2016111031-JK1	WG-160900764- 2016111031-JK1 Lab-Dup	WG-160900764- 20161101-JK2	WG-160900764- 20161101-JK2 Lab-Dup	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>							
Benzene	ug/L	<0.20	<0.20	<0.20		0.20	4733597
Toluene	ug/L	<0.20	<0.20	<0.20		0.20	4733597
Ethylbenzene	ug/L	<0.20	<0.20	<0.20		0.20	4733597
o-Xylene	ug/L	<0.20	<0.20	<0.20		0.20	4733597
p+m-Xylene	ug/L	<0.40	<0.40	<0.40		0.40	4733597
Total Xylenes	ug/L	<0.40	<0.40	<0.40		0.40	4733597
F1 (C6-C10)	ug/L	<25	<25	<25		25	4733597
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25		25	4733597
<b>F2-F4 Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	ug/L	<100		<100	<100	100	4736509
F3 (C16-C34 Hydrocarbons)	ug/L	<200		<200	<200	200	4736509
F4 (C34-C50 Hydrocarbons)	ug/L	<200		<200	<200	200	4736509
Reached Baseline at C50	ug/L	Yes		Yes	Yes		4736509
<b>Surrogate Recovery (%)</b>							
1,4-Difluorobenzene	%	102	103	108			4733597
4-Bromofluorobenzene	%	86	86	85			4733597
D10-Ethylbenzene	%	110	110	115			4733597
D4-1,2-Dichloroethane	%	106	105	109			4733597
o-Terphenyl	%	105		102	99		4736509
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		DJI429	DJI430	DJI431	DJI432		
Sampling Date		2016/11/01 10:43	2016/11/01 11:48	2016/11/01 12:39	2016/11/01 13:34		
COC Number		584480-01-01	584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK3	WG-160900764- 20161101-JK4	WG-160900764- 20161101-JK5	WG-160900764- 20161101-JK6	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>							
Benzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4733597
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4733597
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4733597
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4733597
p+m-Xylene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	4733597
Total Xylenes	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	4733597
F1 (C6-C10)	ug/L	<25	<25	<25	<25	25	4733597
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	25	4733597
<b>F2-F4 Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	100	4736509
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	4736509
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	4736509
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes		4736509
<b>Surrogate Recovery (%)</b>							
1,4-Difluorobenzene	%	106	107	105	105		4733597
4-Bromofluorobenzene	%	83	84	85	88		4733597
D10-Ethylbenzene	%	117	116	113	112		4733597
D4-1,2-Dichloroethane	%	107	108	102	104		4733597
o-Terphenyl	%	101	101	98	101		4736509
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		DJI433	DJI434	DJI435	DJI436		
Sampling Date		2016/11/01 14:12	2016/11/01 14:58	2016/11/01 15:42	2016/11/01 16:32		
COC Number		584480-01-01	584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK7	WG-160900764- 20161101-JK8	WG-160900764- 20161101-JK9	WG-160900764- 20161101-JK10	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>							
Benzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4733597
Toluene	ug/L	<0.20	<0.20	<0.20	0.25	0.20	4733597
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4733597
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4733597
p+m-Xylene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	4733597
Total Xylenes	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	4733597
F1 (C6-C10)	ug/L	<25	<25	<25	<25	25	4733597
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	25	4733597
<b>F2-F4 Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	100	4736509
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	4736509
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	4736509
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes		4736509
<b>Surrogate Recovery (%)</b>							
1,4-Difluorobenzene	%	108	107	107	107		4733597
4-Bromofluorobenzene	%	90	81	79	81		4733597
D10-Ethylbenzene	%	8.9 (1)	122	117	113		4733597
D4-1,2-Dichloroethane	%	111	113	110	113		4733597
o-Terphenyl	%	100	102	101	101		4736509
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Please view the results of sample with discretion. The surrogate recovery for the sample was below the acceptance criteria. The sample was reanalyzed with the same results. It was concluded that the sample matrix is reacting with the surrogate resulting in low recoveries.							



**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJI427	DJI428	DJI429	DJI430		
Sampling Date		2016/10/31 14:27	2016/11/01 09:15	2016/11/01 10:43	2016/11/01 11:48		
COC Number		584480-01-01	584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 2016111031-JK1	WG-160900764- 20161101-JK2	WG-160900764- 20161101-JK3	WG-160900764- 20161101-JK4	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4732105
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4732105
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4732105
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4732105
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4732105
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4732105
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4732105
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4732105
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4732105
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4732105
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4732105
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4732105
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4732105
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4732105
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4732105
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4732105
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4732105

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJI427	DJI428	DJI429	DJI430		
Sampling Date		2016/10/31 14:27	2016/11/01 09:15	2016/11/01 10:43	2016/11/01 11:48		
COC Number		584480-01-01	584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 2016111031-JK1	WG-160900764- 20161101-JK2	WG-160900764- 20161101-JK3	WG-160900764- 20161101-JK4	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4732105
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4732105
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4732105
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4729428
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	73	41 (1)	54	53		4732105
2-Fluorobiphenyl	%	62	66	65	38 (1)		4732105
D14-Terphenyl (FS)	%	95	100	100	98		4732105
D5-Nitrobenzene	%	79	83	85	52		4732105
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJI431		DJI432		DJI433		
Sampling Date		2016/11/01 12:39		2016/11/01 13:34		2016/11/01 14:12		
COC Number		584480-01-01		584480-01-01		584480-01-01		
	UNITS	WG-160900764- 20161101-JK5	QC Batch	WG-160900764- 20161101-JK6	QC Batch	WG-160900764- 20161101-JK7	RDL	QC Batch

Semivolatile Organics								
1,2,4-Trichlorobenzene	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
1-Methylnaphthalene	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
2,4,5-Trichlorophenol	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
2,4,6-Trichlorophenol	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
2,4-Dichlorophenol	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
2,4-Dimethylphenol	ug/L	<0.5	4732105	<0.5	4738261	<0.5	0.5	4732105
2,4-Dinitrophenol	ug/L	<2	4732105	<2	4738261	<2	2	4732105
2,4-Dinitrotoluene	ug/L	<0.3	4732105	<0.3	4738261	<0.3	0.3	4732105
2,6-Dinitrotoluene	ug/L	<0.3	4732105	<0.3	4738261	<0.3	0.3	4732105
2-Chlorophenol	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
2-Methylnaphthalene	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
3,3'-Dichlorobenzidine	ug/L	<0.5	4732105	<0.5	4738261	<0.5	0.5	4732105
Acenaphthene	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
Acenaphthylene	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
Anthracene	ug/L	<0.05	4732105	<0.05	4738261	<0.05	0.05	4732105
Benzo(a)anthracene	ug/L	<0.05	4732105	<0.05	4738261	<0.05	0.05	4732105
Benzo(a)pyrene	ug/L	<0.01	4732105	<0.01	4738261	<0.01	0.01	4732105
Benzo(b/j)fluoranthene	ug/L	<0.05	4732105	<0.05	4738261	<0.05	0.05	4732105
Benzo(g,h,i)perylene	ug/L	<0.05	4732105	<0.05	4738261	<0.05	0.05	4732105
Benzo(k)fluoranthene	ug/L	<0.05	4732105	<0.05	4738261	<0.05	0.05	4732105
Biphenyl	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
Bis(2-chloroethyl)ether	ug/L	<0.5	4732105	<0.5	4738261	<0.5	0.5	4732105
Bis(2-chloroisopropyl)ether	ug/L	<0.5	4732105	<0.5	4738261	<0.5	0.5	4732105
Bis(2-ethylhexyl)phthalate	ug/L	<1	4732105	<1	4738261	<1	1	4732105
Chrysene	ug/L	<0.05	4732105	<0.05	4738261	<0.05	0.05	4732105
Dibenz(a,h)anthracene	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
Diethyl phthalate	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
Dimethyl phthalate	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
Fluoranthene	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
Fluorene	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
Naphthalene	ug/L	<0.2	4732105	<0.2	4738261	<0.2	0.2	4732105
p-Chloroaniline	ug/L	<1	4732105	<1	4738261	<1	1	4732105

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJI431		DJI432		DJI433		
Sampling Date		2016/11/01 12:39		2016/11/01 13:34		2016/11/01 14:12		
COC Number		584480-01-01		584480-01-01		584480-01-01		
	UNITS	WG-160900764- 20161101-JK5	QC Batch	WG-160900764- 20161101-JK6	QC Batch	WG-160900764- 20161101-JK7	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
Phenanthrene	ug/L	<0.1	4732105	<0.1	4738261	<0.1	0.1	4732105
Phenol	ug/L	<0.5	4732105	<0.5	4738261	<0.5	0.5	4732105
Pyrene	ug/L	<0.05	4732105	<0.05	4738261	<0.05	0.05	4732105
<b>Calculated Parameters</b>								
Methylnaphthalene, 2-(1-)	ug/L	<0.28	4729428	<0.28	4729428	<0.28	0.28	4729428
<b>Surrogate Recovery (%)</b>								
2,4,6-Tribromophenol	%	81	4732105	62	4738261	33 (1)		4732105
2-Fluorobiphenyl	%	69	4732105	59	4738261	61		4732105
D14-Terphenyl (FS)	%	100	4732105	93	4738261	99		4732105
D5-Nitrobenzene	%	88	4732105	57	4738261	81		4732105
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.								

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJI434	DJI435	DJI436		
Sampling Date		2016/11/01 14:58	2016/11/01 15:42	2016/11/01 16:32		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK8	WG-160900764- 20161101-JK9	WG-160900764- 20161101-JK10	RDL	QC Batch
<b>Semivolatile Organics</b>						
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	0.1	4732105
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	0.2	4732105
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	0.2	4732105
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	0.2	4732105
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	0.1	4732105
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	0.5	4732105
2,4-Dinitrophenol	ug/L	<2	<2	<2	2	4732105
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	0.3	4732105
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	0.3	4732105
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	0.1	4732105
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	0.2	4732105
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	0.5	4732105
Acenaphthene	ug/L	<0.2	<0.2	<0.2	0.2	4732105
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	0.2	4732105
Anthracene	ug/L	<0.05	<0.05	<0.05	0.05	4732105
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	0.05	4732105
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	0.01	4732105
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	0.05	4732105
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	0.05	4732105
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	0.05	4732105
Biphenyl	ug/L	<0.1	<0.1	<0.1	0.1	4732105
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	0.5	4732105
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	0.5	4732105
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	1	4732105
Chrysene	ug/L	<0.05	<0.05	<0.05	0.05	4732105
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	0.1	4732105
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	0.1	4732105
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	0.1	4732105
Fluoranthene	ug/L	<0.2	<0.2	<0.2	0.2	4732105
Fluorene	ug/L	<0.2	<0.2	<0.2	0.2	4732105
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	0.1	4732105
Naphthalene	ug/L	<0.2	<0.2	<0.2	0.2	4732105
p-Chloroaniline	ug/L	<1	<1	<1	1	4732105
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJI434	DJI435	DJI436		
Sampling Date		2016/11/01 14:58	2016/11/01 15:42	2016/11/01 16:32		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK8	WG-160900764- 20161101-JK9	WG-160900764- 20161101-JK10	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	0.1	4732105
Phenanthrene	ug/L	<0.1	<0.1	<0.1	0.1	4732105
Phenol	ug/L	<0.5	<0.5	<0.5	0.5	4732105
Pyrene	ug/L	<0.05	<0.05	<0.05	0.05	4732105
<b>Calculated Parameters</b>						
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	0.28	4729428
<b>Surrogate Recovery (%)</b>						
2,4,6-Tribromophenol	%	56	49 (1)	0.40 (1)		4732105
2-Fluorobiphenyl	%	77	67	60		4732105
D14-Terphenyl (FS)	%	101	99	105		4732105
D5-Nitrobenzene	%	82	87	78		4732105
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results.						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJI427	DJI428	DJI429		
Sampling Date		2016/10/31 14:27	2016/11/01 09:15	2016/11/01 10:43		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 2016111031-JK1	WG-160900764- 20161101-JK2	WG-160900764- 20161101-JK3	RDL	QC Batch
<b>Calculated Parameters</b>						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	4729429
<b>Volatile Organics</b>						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4731247
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	4731247
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Chloroform	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4731247
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4731247
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4731247
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4731247
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4731247
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4731247
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4731247
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJI427	DJI428	DJI429		
Sampling Date		2016/10/31 14:27	2016/11/01 09:15	2016/11/01 10:43		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 2016111031-JK1	WG-160900764- 20161101-JK2	WG-160900764- 20161101-JK3	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4731247
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	4731247
<b>Surrogate Recovery (%)</b>						
4-Bromofluorobenzene	%	88	89	89		4731247
D4-1,2-Dichloroethane	%	110	114	113		4731247
D8-Toluene	%	100	99	99		4731247
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJI430	DJI431	DJI432		
Sampling Date		2016/11/01 11:48	2016/11/01 12:39	2016/11/01 13:34		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK4	WG-160900764- 20161101-JK5	WG-160900764- 20161101-JK6	RDL	QC Batch
<b>Calculated Parameters</b>						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	4729429
<b>Volatile Organics</b>						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4731247
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Bromodichloromethane	ug/L	<0.50	1.9	<0.50	0.50	4731247
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	4731247
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Chloroform	ug/L	0.21	3.1	<0.20	0.20	4731247
Dibromochloromethane	ug/L	<0.50	1.1	<0.50	0.50	4731247
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4731247
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4731247
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4731247
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4731247
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4731247
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4731247
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4731247
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJI430	DJI431	DJI432		
Sampling Date		2016/11/01 11:48	2016/11/01 12:39	2016/11/01 13:34		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK4</b>	<b>WG-160900764- 20161101-JK5</b>	<b>WG-160900764- 20161101-JK6</b>	<b>RDL</b>	<b>QC Batch</b>
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4731247
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	4731247
<b>Surrogate Recovery (%)</b>						
4-Bromofluorobenzene	%	89	87	87		4731247
D4-1,2-Dichloroethane	%	113	113	113		4731247
D8-Toluene	%	98	99	100		4731247
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJI433	DJI434	DJI435		
Sampling Date		2016/11/01 14:12	2016/11/01 14:58	2016/11/01 15:42		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK7	WG-160900764- 20161101-JK8	WG-160900764- 20161101-JK9	RDL	QC Batch
<b>Calculated Parameters</b>						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	4729429
<b>Volatile Organics</b>						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4731247
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Bromodichloromethane	ug/L	5.3	2.4	<0.50	0.50	4731247
Bromoform	ug/L	<1.0	3.9	<1.0	1.0	4731247
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Chloroform	ug/L	15	2.3	<0.20	0.20	4731247
Dibromochloromethane	ug/L	2.5	4.3	<0.50	0.50	4731247
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4731247
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4731247
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4731247
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4731247
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4731247
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4731247
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4731247
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJI433	DJI434	DJI435		
Sampling Date		2016/11/01 14:12	2016/11/01 14:58	2016/11/01 15:42		
COC Number		584480-01-01	584480-01-01	584480-01-01		
	UNITS	WG-160900764- 20161101-JK7	WG-160900764- 20161101-JK8	WG-160900764- 20161101-JK9	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4731247
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4731247
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4731247
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4731247
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	4731247
<b>Surrogate Recovery (%)</b>						
4-Bromofluorobenzene	%	90	88	90		4731247
D4-1,2-Dichloroethane	%	113	113	116		4731247
D8-Toluene	%	94	100	97		4731247
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>		DJI436		
<b>Sampling Date</b>		2016/11/01 16:32		
<b>COC Number</b>		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK10</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	4729429
<b>Volatile Organics</b>				
Acetone (2-Propanone)	ug/L	<10	10	4731247
Benzene	ug/L	<0.20	0.20	4731247
Bromodichloromethane	ug/L	<0.50	0.50	4731247
Bromoform	ug/L	<1.0	1.0	4731247
Bromomethane	ug/L	<0.50	0.50	4731247
Carbon Tetrachloride	ug/L	<0.20	0.20	4731247
Chlorobenzene	ug/L	<0.20	0.20	4731247
Chloroform	ug/L	0.24	0.20	4731247
Dibromochloromethane	ug/L	<0.50	0.50	4731247
1,2-Dichlorobenzene	ug/L	<0.50	0.50	4731247
1,3-Dichlorobenzene	ug/L	<0.50	0.50	4731247
1,4-Dichlorobenzene	ug/L	<0.50	0.50	4731247
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	4731247
1,1-Dichloroethane	ug/L	<0.20	0.20	4731247
1,2-Dichloroethane	ug/L	<0.50	0.50	4731247
1,1-Dichloroethylene	ug/L	<0.20	0.20	4731247
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	4731247
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	4731247
1,2-Dichloropropane	ug/L	<0.20	0.20	4731247
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	4731247
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	4731247
Ethylbenzene	ug/L	<0.20	0.20	4731247
Ethylene Dibromide	ug/L	<0.20	0.20	4731247
Hexane	ug/L	<1.0	1.0	4731247
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	4731247
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	4731247
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	4731247
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	4731247
Styrene	ug/L	<0.50	0.50	4731247
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	4731247
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	4731247
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

**O.REG 153 VOLATILE ORGANICS (WATER)**

<b>Maxxam ID</b>		DJI436		
<b>Sampling Date</b>		2016/11/01 16:32		
<b>COC Number</b>		584480-01-01		
	<b>UNITS</b>	<b>WG-160900764- 20161101-JK10</b>	<b>RDL</b>	<b>QC Batch</b>
Tetrachloroethylene	ug/L	<0.20	0.20	4731247
Toluene	ug/L	0.26	0.20	4731247
1,1,1-Trichloroethane	ug/L	<0.20	0.20	4731247
1,1,2-Trichloroethane	ug/L	<0.50	0.50	4731247
Trichloroethylene	ug/L	<0.20	0.20	4731247
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	4731247
Vinyl Chloride	ug/L	<0.20	0.20	4731247
p+m-Xylene	ug/L	<0.20	0.20	4731247
o-Xylene	ug/L	<0.20	0.20	4731247
Total Xylenes	ug/L	<0.20	0.20	4731247
<b>Surrogate Recovery (%)</b>				
4-Bromofluorobenzene	%	86		4731247
D4-1,2-Dichloroethane	%	111		4731247
D8-Toluene	%	100		4731247
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

### TEST SUMMARY

**Maxxam ID:** DJI427  
**Sample ID:** WG-160900764-2016111031-JK1  
**Matrix:** Water

**Collected:** 2016/10/31  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735781	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4732615	N/A	2016/11/03	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4732783	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4731606	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/04	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4735787	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735786	N/A	2016/11/07	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI427 Dup  
**Sample ID:** WG-160900764-2016111031-JK1  
**Matrix:** Water

**Collected:** 2016/10/31  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino

### TEST SUMMARY

**Maxxam ID:** DJI428  
**Sample ID:** WG-160900764-20161101-JK2  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735781	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4732615	N/A	2016/11/03	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735595	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4732783	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4731606	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/04	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4735787	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735786	N/A	2016/11/07	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4731777	2016/11/03	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4731766	2016/11/03	2016/11/05	Arpan Shah
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI428 Dup  
**Sample ID:** WG-160900764-20161101-JK2  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Total Dissolved Solids	BAL	4731777	2016/11/03	2016/11/07	Bansari Ray



### TEST SUMMARY

**Maxxam ID:** DJI429  
**Sample ID:** WG-160900764-20161101-JK3  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4731954	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4732615	N/A	2016/11/03	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4732772	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4730616	N/A	2016/11/04	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/04	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4731961	N/A	2016/11/04	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4731957	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4731777	2016/11/03	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4731766	2016/11/03	2016/11/05	Arpan Shah
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI430  
**Sample ID:** WG-160900764-20161101-JK4  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel

### TEST SUMMARY

**Maxxam ID:** DJI430  
**Sample ID:** WG-160900764-20161101-JK4  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735781	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4732615	N/A	2016/11/03	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4732772	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4731606	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/04	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4735787	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735786	N/A	2016/11/07	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4731777	2016/11/03	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4731766	2016/11/03	2016/11/05	Arpan Shah
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI430 Dup  
**Sample ID:** WG-160900764-20161101-JK4  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Suspended Solids	BAL	4731766	2016/11/03	2016/11/05	Arpan Shah

**Maxxam ID:** DJI431  
**Sample ID:** WG-160900764-20161101-JK5  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** DJI431  
**Sample ID:** WG-160900764-20161101-JK5  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735781	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4732615	N/A	2016/11/03	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4732783	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4731606	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/04	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4735787	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735786	N/A	2016/11/07	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4731777	2016/11/03	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4731766	2016/11/03	2016/11/05	Arpan Shah
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI431 Dup  
**Sample ID:** WG-160900764-20161101-JK5  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/04	Dawn Alarie

### TEST SUMMARY

**Maxxam ID:** DJI432  
**Sample ID:** WG-160900764-20161101-JK6  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/09	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4738261	2016/11/08	2016/11/08	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4731954	N/A	2016/11/04	Alina Dobreanu
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733786	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735595	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4735017	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4735779	N/A	2016/11/07	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4731961	N/A	2016/11/04	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4731957	N/A	2016/11/04	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4731777	2016/11/03	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4731766	2016/11/03	2016/11/05	Arpan Shah
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI433  
**Sample ID:** WG-160900764-20161101-JK7  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel

### TEST SUMMARY

**Maxxam ID:** DJI433  
**Sample ID:** WG-160900764-20161101-JK7  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735781	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733973	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAAs	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4732783	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4731606	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4735787	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735786	N/A	2016/11/07	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4731777	2016/11/03	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4731766	2016/11/03	2016/11/05	Arpan Shah
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI433 Dup  
**Sample ID:** WG-160900764-20161101-JK7  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733973	N/A	2016/11/04	Anastasia Hamanov

**Maxxam ID:** DJI434  
**Sample ID:** WG-160900764-20161101-JK8  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** DJI434  
**Sample ID:** WG-160900764-20161101-JK8  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735781	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4732615	N/A	2016/11/03	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4735017	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4731606	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4735787	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735786	N/A	2016/11/07	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI434 Dup  
**Sample ID:** WG-160900764-20161101-JK8  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos



### TEST SUMMARY

**Maxxam ID:** DJI435  
**Sample ID:** WG-160900764-20161101-JK9  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4732810	N/A	2016/11/04	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735737	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4732827	N/A	2016/11/04	Yogesh Patel
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4733786	N/A	2016/11/04	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4732838	2016/11/03	2016/11/04	Yogesh Patel
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4735017	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4731606	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4732853	N/A	2016/11/04	Yogesh Patel
Orthophosphate	KONE	4735741	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735740	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4731777	2016/11/03	2016/11/07	Bansari Ray
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4731766	2016/11/03	2016/11/05	Arpan Shah
Turbidity	AT	4730384	N/A	2016/11/02	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI435 Dup  
**Sample ID:** WG-160900764-20161101-JK9  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman

### TEST SUMMARY

**Maxxam ID:** DJI436  
**Sample ID:** WG-160900764-20161101-JK10  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4729428	N/A	2016/11/07	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4732105	2016/11/03	2016/11/05	Milijana Avramovic
Acidity as CaCO3 in liquid		4731752	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4730704	N/A	2016/11/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	4729746	N/A	2016/11/03	Automated Statchk
1,3-Dichloropropene Sum	CALC	4729429	N/A	2016/11/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735781	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4730706	N/A	2016/11/03	Surinder Rai
Chromium (VI) in Water	IC	4733930	N/A	2016/11/04	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4732615	N/A	2016/11/03	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4733597	N/A	2016/11/06	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4736509	2016/11/07	2016/11/08	(Kent) Maolin Li
Fluoride	ISE	4730707	2016/11/02	2016/11/03	Surinder Rai
Hardness (calculated as CaCO3)		4729450	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4735589	2016/11/05	2016/11/08	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4729759	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4729760	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4730088	N/A	2016/11/02	Jigar Shah
Total Ammonia-N	LACH/NH4	4735016	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4731606	N/A	2016/11/06	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734166	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4730710	N/A	2016/11/03	Surinder Rai
Orthophosphate	KONE	4735787	N/A	2016/11/08	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4729761	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4729762	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735786	N/A	2016/11/07	Deonarine Ramnarine
Total Dissolved Solids (TDS calc)	CALC	4729455	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4734106	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4730384	N/A	2016/11/03	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4731247	N/A	2016/11/04	Anna Gabrielyan

**Maxxam ID:** DJI436 Dup  
**Sample ID:** WG-160900764-20161101-JK10  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4731752	N/A		Grace Sison
Alkalinity	AT	4730704	N/A	2016/11/03	Surinder Rai
Conductivity	AT	4730706	N/A	2016/11/03	Surinder Rai
Fluoride	ISE	4730707	2016/11/02	2016/11/03	Surinder Rai



Maxxam Job #: B6N7539  
Report Date: 2016/11/11

Stantec Consulting Ltd  
Client Project #: 160900764  
Site Location: CLARINGTON TS-PRIVATE WELLS  
Sampler Initials: JK

**TEST SUMMARY**

**Maxxam ID:** DJI436 Dup  
**Sample ID:** WG-160900764-20161101-JK10  
**Matrix:** Water

**Collected:** 2016/11/01  
**Shipped:**  
**Received:** 2016/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	4730710	N/A	2016/11/03	Surinder Rai

**GENERAL COMMENTS**

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

Package 1	8.0°C
Package 2	8.3°C
Package 3	6.7°C
Package 4	7.0°C
Package 5	8.0°C
Package 6	8.0°C
Package 7	6.0°C
Package 8	6.3°C
Package 9	8.0°C
Package 10	8.0°C

Sample DJI429 [WG-160900764-20161101-JK3] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJI430 [WG-160900764-20161101-JK4] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJI431 [WG-160900764-20161101-JK5] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent. Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJI433 [WG-160900764-20161101-JK7] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJI434 [WG-160900764-20161101-JK8] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJI435 [WG-160900764-20161101-JK9] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent. Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJI436 [WG-160900764-20161101-JK10] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4731247	4-Bromofluorobenzene	2016/11/04	93	70 - 130	93	70 - 130	92	%				
4731247	D4-1,2-Dichloroethane	2016/11/04	110	70 - 130	107	70 - 130	111	%				
4731247	D8-Toluene	2016/11/04	107	70 - 130	107	70 - 130	96	%				
4732105	2,4,6-Tribromophenol	2016/11/04	92	50 - 130	95	50 - 130	65	%				
4732105	2-Fluorobiphenyl	2016/11/04	70	50 - 130	76	50 - 130	74	%				
4732105	D14-Terphenyl (FS)	2016/11/04	101	50 - 130	100	50 - 130	100	%				
4732105	D5-Nitrobenzene	2016/11/04	75	50 - 130	84	50 - 130	77	%				
4733597	1,4-Difluorobenzene	2016/11/06	105	70 - 130	101	70 - 130	103	%				
4733597	4-Bromofluorobenzene	2016/11/06	100	70 - 130	99	70 - 130	91	%				
4733597	D10-Ethylbenzene	2016/11/06	116	70 - 130	108	70 - 130	104	%				
4733597	D4-1,2-Dichloroethane	2016/11/06	105	70 - 130	101	70 - 130	103	%				
4734166	Decachlorobiphenyl	2016/11/04	102	60 - 130	93	60 - 130	102	%				
4736509	o-Terphenyl	2016/11/08	112	60 - 130	115	60 - 130	105	%				
4738261	2,4,6-Tribromophenol	2016/11/08	96	50 - 130	96	50 - 130	79	%				
4738261	2-Fluorobiphenyl	2016/11/08	87	50 - 130	78	50 - 130	79	%				
4738261	D14-Terphenyl (FS)	2016/11/08	101	50 - 130	98	50 - 130	94	%				
4738261	D5-Nitrobenzene	2016/11/08	93	50 - 130	85	50 - 130	83	%				
4730384	Turbidity	2016/11/02			101	85 - 115	<0.1	NTU	19	20		
4730616	Nitrate (N)	2016/11/04	95	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
4730616	Nitrite (N)	2016/11/04	97	80 - 120	100	80 - 120	<0.010	mg/L	NC	20		
4730704	Alkalinity (Total as CaCO3)	2016/11/03			95	85 - 115	<1.0	mg/L	0.67	20		
4730706	Conductivity	2016/11/03			99	85 - 115	<1.0	umho/cm	0.18	25		
4730707	Fluoride (F-)	2016/11/03	85	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
4730710	pH	2016/11/03			102	98 - 103			0.50	N/A		
4731247	1,1,1,2-Tetrachloroethane	2016/11/04	102	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4731247	1,1,1-Trichloroethane	2016/11/04	94	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
4731247	1,1,2,2-Tetrachloroethane	2016/11/04	103	70 - 130	110	70 - 130	<0.50	ug/L	NC	30		
4731247	1,1,2-Trichloroethane	2016/11/04	114	70 - 130	112	70 - 130	<0.50	ug/L	NC	30		
4731247	1,1-Dichloroethane	2016/11/04	102	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
4731247	1,1-Dichloroethylene	2016/11/04	105	70 - 130	106	70 - 130	<0.20	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4731247	1,2-Dichlorobenzene	2016/11/04	103	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4731247	1,2-Dichloroethane	2016/11/04	101	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4731247	1,2-Dichloropropane	2016/11/04	107	70 - 130	107	70 - 130	<0.20	ug/L	NC	30		
4731247	1,3-Dichlorobenzene	2016/11/04	100	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
4731247	1,4-Dichlorobenzene	2016/11/04	102	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
4731247	Acetone (2-Propanone)	2016/11/04	114	60 - 140	102	60 - 140	<10	ug/L	NC	30		
4731247	Benzene	2016/11/04	100	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4731247	Bromodichloromethane	2016/11/04	103	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
4731247	Bromoform	2016/11/04	100	70 - 130	99	70 - 130	<1.0	ug/L	NC	30		
4731247	Bromomethane	2016/11/04	85	60 - 140	87	60 - 140	<0.50	ug/L	NC	30		
4731247	Carbon Tetrachloride	2016/11/04	95	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4731247	Chlorobenzene	2016/11/04	103	70 - 130	104	70 - 130	<0.20	ug/L	NC	30		
4731247	Chloroform	2016/11/04	97	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4731247	cis-1,2-Dichloroethylene	2016/11/04	98	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4731247	cis-1,3-Dichloropropene	2016/11/04	101	70 - 130	102	70 - 130	<0.30	ug/L	NC	30		
4731247	Dibromochloromethane	2016/11/04	104	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4731247	Dichlorodifluoromethane (FREON 12)	2016/11/04	100	60 - 140	100	60 - 140	<1.0	ug/L	NC	30		
4731247	Ethylbenzene	2016/11/04	98	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4731247	Ethylene Dibromide	2016/11/04	106	70 - 130	104	70 - 130	<0.20	ug/L	NC	30		
4731247	Hexane	2016/11/04	109	70 - 130	111	70 - 130	<1.0	ug/L	NC	30		
4731247	Methyl Ethyl Ketone (2-Butanone)	2016/11/04	115	60 - 140	105	60 - 140	<10	ug/L	NC	30		
4731247	Methyl Isobutyl Ketone	2016/11/04	120	70 - 130	114	70 - 130	<5.0	ug/L	NC	30		
4731247	Methyl t-butyl ether (MTBE)	2016/11/04	99	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4731247	Methylene Chloride(Dichloromethane)	2016/11/04	99	70 - 130	98	70 - 130	<2.0	ug/L	NC	30		
4731247	o-Xylene	2016/11/04	92	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4731247	p+m-Xylene	2016/11/04	94	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4731247	Styrene	2016/11/04	95	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
4731247	Tetrachloroethylene	2016/11/04	96	70 - 130	98	70 - 130	<0.20	ug/L	3.7	30		
4731247	Toluene	2016/11/04	97	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4731247	Total Xylenes	2016/11/04					<0.20	ug/L	NC	30		
4731247	trans-1,2-Dichloroethylene	2016/11/04	99	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4731247	trans-1,3-Dichloropropene	2016/11/04	107	70 - 130	111	70 - 130	<0.40	ug/L	NC	30		
4731247	Trichloroethylene	2016/11/04	102	70 - 130	92	70 - 130	<0.20	ug/L	3.8	30		
4731247	Trichlorofluoromethane (FREON 11)	2016/11/04	100	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
4731247	Vinyl Chloride	2016/11/04	110	70 - 130	112	70 - 130	<0.20	ug/L	NC	30		
4731606	Nitrate (N)	2016/11/06	97	80 - 120	100	80 - 120	<0.10	mg/L	NC	20		
4731606	Nitrite (N)	2016/11/06	98	80 - 120	96	80 - 120	<0.010	mg/L	NC	20		
4731752	Acidity as CaCO3						<10	mg/L	NC	25		
4731766	Total Suspended Solids	2016/11/05					<10	mg/L	NC	25	98	85 - 115
4731777	Total Dissolved Solids	2016/11/07					<10	mg/L	1.2	25	96	90 - 110
4731954	Dissolved Chloride (Cl)	2016/11/04	NC	80 - 120	101	80 - 120	<1.0	mg/L	0.21	20		
4731957	Dissolved Sulphate (SO4)	2016/11/04	NC	75 - 125	97	80 - 120	<1.0	mg/L	1.8	20		
4731961	Orthophosphate (P)	2016/11/04	115	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
4732105	1,2,4-Trichlorobenzene	2016/11/05	62	40 - 130	75	40 - 130	<0.1	ug/L	NC	30		
4732105	1-Methylnaphthalene	2016/11/04	78	50 - 130	85	50 - 130	<0.2	ug/L				
4732105	2,4,5-Trichlorophenol	2016/11/04	93	50 - 130	102	50 - 130	<0.2	ug/L				
4732105	2,4,6-Trichlorophenol	2016/11/04	87	50 - 130	98	50 - 130	<0.2	ug/L				
4732105	2,4-Dichlorophenol	2016/11/05	77	50 - 130	90	50 - 130	<0.1	ug/L	NC	30		
4732105	2,4-Dimethylphenol	2016/11/04	22 (1)	30 - 130	32	30 - 130	<0.5	ug/L				
4732105	2,4-Dinitrophenol	2016/11/04	97	30 - 130	99	30 - 130	<2	ug/L				
4732105	2,4-Dinitrotoluene	2016/11/04	96	50 - 130	98	50 - 130	<0.3	ug/L				
4732105	2,6-Dinitrotoluene	2016/11/04	91	50 - 130	95	50 - 130	<0.3	ug/L				
4732105	2-Chlorophenol	2016/11/04	65	50 - 130	78	50 - 130	<0.1	ug/L				
4732105	2-Methylnaphthalene	2016/11/04	77	50 - 130	83	50 - 130	<0.2	ug/L				
4732105	3,3'-Dichlorobenzidine	2016/11/04	98	30 - 130	117	30 - 130	<0.5	ug/L				
4732105	Acenaphthene	2016/11/05	85	50 - 130	91	50 - 130	<0.2	ug/L	NC	30		
4732105	Acenaphthylene	2016/11/05	82	50 - 130	88	50 - 130	<0.2	ug/L	NC	30		
4732105	Anthracene	2016/11/05	96	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		
4732105	Benzo(a)anthracene	2016/11/05	103	50 - 130	104	50 - 130	<0.05	ug/L	NC	30		
4732105	Benzo(a)pyrene	2016/11/05	102	50 - 130	104	50 - 130	<0.01	ug/L	NC	30		
4732105	Benzo(b,j)fluoranthene	2016/11/05	110	50 - 130	110	50 - 130	<0.05	ug/L	NC	30		
4732105	Benzo(g,h,i)perylene	2016/11/05	94	50 - 130	103	50 - 130	<0.05	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4732105	Benzo(k)fluoranthene	2016/11/05	106	50 - 130	110	50 - 130	<0.05	ug/L	NC	30		
4732105	Biphenyl	2016/11/04	77	50 - 130	83	50 - 130	<0.1	ug/L				
4732105	Bis(2-chloroethyl)ether	2016/11/04	73	50 - 130	80	50 - 130	<0.5	ug/L				
4732105	Bis(2-chloroisopropyl)ether	2016/11/04	77	50 - 130	83	50 - 130	<0.5	ug/L				
4732105	Bis(2-ethylhexyl)phthalate	2016/11/04	113	50 - 130	108	50 - 130	<1	ug/L				
4732105	Chrysene	2016/11/05	104	50 - 130	105	50 - 130	<0.05	ug/L	NC	30		
4732105	Dibenz(a,h)anthracene	2016/11/05	102	50 - 130	107	50 - 130	<0.1	ug/L	NC	30		
4732105	Diethyl phthalate	2016/11/04	98	50 - 130	96	50 - 130	<0.1	ug/L				
4732105	Dimethyl phthalate	2016/11/04	97	50 - 130	96	50 - 130	<0.1	ug/L				
4732105	Fluoranthene	2016/11/05	104	50 - 130	104	50 - 130	<0.2	ug/L	NC	30		
4732105	Fluorene	2016/11/05	87	50 - 130	94	50 - 130	<0.2	ug/L	NC	30		
4732105	Indeno(1,2,3-cd)pyrene	2016/11/05	93	50 - 130	98	50 - 130	<0.1	ug/L	NC	30		
4732105	Naphthalene	2016/11/05	74	50 - 130	83	50 - 130	<0.2	ug/L	NC	30		
4732105	p-Chloroaniline	2016/11/04	60	30 - 130	84	30 - 130	<1	ug/L				
4732105	Pentachlorophenol	2016/11/04	66	50 - 130	74	50 - 130	<0.1	ug/L				
4732105	Phenanthrene	2016/11/05	93	50 - 130	96	50 - 130	<0.1	ug/L	NC	30		
4732105	Phenol	2016/11/05	25 (2)	30 - 130	32	30 - 130	<0.5	ug/L	NC	30		
4732105	Pyrene	2016/11/05	109	50 - 130	109	50 - 130	<0.05	ug/L	NC	30		
4732615	Dissolved Organic Carbon	2016/11/03	96	80 - 120	96	80 - 120	0.22, RDL=0.20	mg/L	NC	20		
4732772	Total Ammonia-N	2016/11/09	100	80 - 120	100	85 - 115	<0.050	mg/L	NC	20		
4732783	Total Ammonia-N	2016/11/08	99	80 - 120	100	85 - 115	<0.050	mg/L	3.2	20		
4732810	Alkalinity (Total as CaCO3)	2016/11/04			98	85 - 115	<1.0	mg/L	0.70	20		
4732827	Conductivity	2016/11/04			101	85 - 115	<1.0	umho/cm	0.13	25		
4732838	Fluoride (F-)	2016/11/04	102	80 - 120	98	80 - 120	<0.10	mg/L	0.95	20		
4732853	pH	2016/11/04			102	98 - 103			0.088	N/A		
4733597	Benzene	2016/11/06	102	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4733597	Ethylbenzene	2016/11/06	112	70 - 130	107	70 - 130	<0.20	ug/L	NC	30		
4733597	F1 (C6-C10) - BTEX	2016/11/06					<25	ug/L	NC	30		
4733597	F1 (C6-C10)	2016/11/06	75	70 - 130	93	70 - 130	<25	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4733597	o-Xylene	2016/11/06	112	70 - 130	107	70 - 130	<0.20	ug/L	NC	30		
4733597	p+m-Xylene	2016/11/06	104	70 - 130	99	70 - 130	<0.40	ug/L	NC	30		
4733597	Toluene	2016/11/06	97	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
4733597	Total Xylenes	2016/11/06					<0.40	ug/L	NC	30		
4733786	Dissolved Organic Carbon	2016/11/04	NC	80 - 120	105	80 - 120	<0.20	mg/L	0.46	20		
4733930	Chromium (VI)	2016/11/04	98	80 - 120	95	80 - 120	<0.50	ug/L	NC	20		
4733973	Dissolved Organic Carbon	2016/11/04	106	80 - 120	105	80 - 120	<0.20	mg/L	0.66	20		
4734106	Total Organic Carbon (TOC)	2016/11/05	103	80 - 120	104	80 - 120	<0.20	mg/L	0.62	20		
4734166	Aroclor 1242	2016/11/04					<0.05	ug/L	NC	30		
4734166	Aroclor 1248	2016/11/04					<0.05	ug/L	NC	30		
4734166	Aroclor 1254	2016/11/04					<0.05	ug/L	NC	30		
4734166	Aroclor 1260	2016/11/04	105	60 - 130	79	60 - 130	<0.05	ug/L	NC	30		
4734166	Total PCB	2016/11/04	105	60 - 130	79	60 - 130	<0.05	ug/L	NC	40		
4734251	Total Suspended Solids	2016/11/04					<10	mg/L	NC	25	96	85 - 115
4734257	Free Cyanide	2016/11/04	104	80 - 120	102	80 - 120	<1	ug/L	NC	20		
4734260	Total Dissolved Solids	2016/11/05					<10	mg/L	1.1	25	95	90 - 110
4734350	Free Cyanide	2016/11/04	105	80 - 120	102	80 - 120	<1	ug/L	NC	20		
4735016	Total Ammonia-N	2016/11/08	102	80 - 120	102	85 - 115	<0.050	mg/L	NC	20		
4735017	Total Ammonia-N	2016/11/08	97	80 - 120	99	85 - 115	<0.050	mg/L	NC	20		
4735547	. Aluminum (Al)	2016/11/07	95	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		
4735547	. Antimony (Sb)	2016/11/07	98	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Arsenic (As)	2016/11/07	96	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
4735547	. Barium (Ba)	2016/11/07	92	80 - 120	96	80 - 120	<0.0020	mg/L	1.1	20		
4735547	. Beryllium (Be)	2016/11/07	91	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Boron (B)	2016/11/07	88	80 - 120	100	80 - 120	<0.010	mg/L	NC	20		
4735547	. Cadmium (Cd)	2016/11/07	95	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
4735547	. Calcium (Ca)	2016/11/07	NC	80 - 120	96	80 - 120	<0.20	mg/L	1.7	20		
4735547	. Chromium (Cr)	2016/11/07	95	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
4735547	. Cobalt (Co)	2016/11/07	93	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Copper (Cu)	2016/11/07	96	80 - 120	98	80 - 120	<0.0010	mg/L	0.016	20		
4735547	. Iron (Fe)	2016/11/07	95	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4735547	. Lead (Pb)	2016/11/07	93	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Magnesium (Mg)	2016/11/07	NC	80 - 120	101	80 - 120	<0.050	mg/L	0.46	20		
4735547	. Manganese (Mn)	2016/11/07	91	80 - 120	93	80 - 120	<0.0020	mg/L	NC	20		
4735547	. Molybdenum (Mo)	2016/11/07	99	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Nickel (Ni)	2016/11/07	89	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
4735547	. Phosphorus (P)	2016/11/07	99	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
4735547	. Potassium (K)	2016/11/07	97	80 - 120	102	80 - 120	<0.20	mg/L	0.029	20		
4735547	. Selenium (Se)	2016/11/07	93	80 - 120	96	80 - 120	<0.0020	mg/L	NC	20		
4735547	. Silicon (Si)	2016/11/07	92	80 - 120	99	80 - 120	<0.050	mg/L	1.1	20		
4735547	. Silver (Ag)	2016/11/07	94	80 - 120	95	80 - 120	<0.00010	mg/L	NC	20		
4735547	. Sodium (Na)	2016/11/07	96	80 - 120	99	80 - 120	0.10, RDL=0.10 (3)	mg/L	0.68	20		
4735547	. Strontium (Sr)	2016/11/07	NC	80 - 120	96	80 - 120	<0.0010	mg/L	0.93	20		
4735547	. Thallium (Tl)	2016/11/07	93	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20		
4735547	. Titanium (Ti)	2016/11/07	93	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
4735547	. Uranium (U)	2016/11/07	93	80 - 120	96	80 - 120	<0.00010	mg/L	1.5	20		
4735547	. Vanadium (V)	2016/11/07	96	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Zinc (Zn)	2016/11/07	94	80 - 120	96	80 - 120	<0.0050	mg/L	1.0	20		
4735547	. Zirconium (Zr)	2016/11/07	103	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20		
4735589	Mercury (Hg)	2016/11/08	104	75 - 125	102	80 - 120	<0.0001	mg/L	NC	20		
4735595	Mercury (Hg)	2016/11/08	103	75 - 125	98	80 - 120	<0.0001	mg/L	NC	20		
4735737	Dissolved Chloride (Cl)	2016/11/07	NC	80 - 120	103	80 - 120	<1.0	mg/L	1.7	20		
4735740	Dissolved Sulphate (SO4)	2016/11/07	NC	75 - 125	98	80 - 120	<1.0	mg/L	0.67	20		
4735741	Orthophosphate (P)	2016/11/07	120	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
4735779	Nitrate (N)	2016/11/07	94	80 - 120	101	80 - 120	<0.10	mg/L	NC	20		
4735779	Nitrite (N)	2016/11/07	99	80 - 120	94	80 - 120	<0.010	mg/L	NC	20		
4735781	Dissolved Chloride (Cl)	2016/11/07	91	80 - 120	102	80 - 120	<1.0	mg/L	1.0	20		
4735786	Dissolved Sulphate (SO4)	2016/11/07	93	75 - 125	98	80 - 120	<1.0	mg/L	0.86	20		
4735787	Orthophosphate (P)	2016/11/08	118	75 - 125	100	80 - 120	<0.010	mg/L	3.9	25		
4736509	F2 (C10-C16 Hydrocarbons)	2016/11/08	103	50 - 130	104	60 - 130	<100	ug/L	NC	30		
4736509	F3 (C16-C34 Hydrocarbons)	2016/11/08	106	50 - 130	113	60 - 130	<200	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4736509	F4 (C34-C50 Hydrocarbons)	2016/11/08	107	50 - 130	111	60 - 130	<200	ug/L	NC	30		
4738261	1,2,4-Trichlorobenzene	2016/11/08	83	40 - 130	69	40 - 130	<0.1	ug/L	NC	30		
4738261	1-Methylnaphthalene	2016/11/08	86	50 - 130	81	50 - 130	<0.2	ug/L				
4738261	2,4,5-Trichlorophenol	2016/11/08	97	50 - 130	94	50 - 130	<0.2	ug/L				
4738261	2,4,6-Trichlorophenol	2016/11/08	90	50 - 130	88	50 - 130	<0.2	ug/L				
4738261	2,4-Dichlorophenol	2016/11/08	75	50 - 130	73	50 - 130	<0.1	ug/L	NC	30		
4738261	2,4-Dimethylphenol	2016/11/08	25 (4)	30 - 130	41	30 - 130	<0.5	ug/L				
4738261	2,4-Dinitrophenol	2016/11/08	90	30 - 130	83	30 - 130	<2	ug/L				
4738261	2,4-Dinitrotoluene	2016/11/08	104	50 - 130	103	50 - 130	<0.3	ug/L				
4738261	2,6-Dinitrotoluene	2016/11/08	103	50 - 130	91	50 - 130	<0.3	ug/L				
4738261	2-Chlorophenol	2016/11/08	86	50 - 130	80	50 - 130	<0.1	ug/L				
4738261	2-Methylnaphthalene	2016/11/08	82	50 - 130	75	50 - 130	<0.2	ug/L				
4738261	3,3'-Dichlorobenzidine	2016/11/08	86	30 - 130	100	30 - 130	<0.5	ug/L				
4738261	Acenaphthene	2016/11/08	90	50 - 130	86	50 - 130	<0.2	ug/L	NC	30		
4738261	Acenaphthylene	2016/11/08	89	50 - 130	85	50 - 130	<0.2	ug/L	NC	30		
4738261	Anthracene	2016/11/08	92	50 - 130	91	50 - 130	<0.05	ug/L	NC	30		
4738261	Benzo(a)anthracene	2016/11/08	98	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4738261	Benzo(a)pyrene	2016/11/08	94	50 - 130	98	50 - 130	<0.01	ug/L	NC	30		
4738261	Benzo(b/j)fluoranthene	2016/11/08	93	50 - 130	94	50 - 130	<0.05	ug/L	NC	30		
4738261	Benzo(g,h,i)perylene	2016/11/08	86	50 - 130	84	50 - 130	<0.05	ug/L	NC	30		
4738261	Benzo(k)fluoranthene	2016/11/08	103	50 - 130	96	50 - 130	<0.05	ug/L	NC	30		
4738261	Biphenyl	2016/11/08	100	50 - 130	95	50 - 130	<0.1	ug/L				
4738261	Bis(2-chloroethyl)ether	2016/11/08	95	50 - 130	86	50 - 130	<0.5	ug/L				
4738261	Bis(2-chloroisopropyl)ether	2016/11/08	100	50 - 130	92	50 - 130	<0.5	ug/L				
4738261	Bis(2-ethylhexyl)phthalate	2016/11/08	99	50 - 130	98	50 - 130	<1	ug/L				
4738261	Chrysene	2016/11/08	91	50 - 130	90	50 - 130	<0.05	ug/L	NC	30		
4738261	Dibenz(a,h)anthracene	2016/11/08	92	50 - 130	90	50 - 130	<0.1	ug/L	NC	30		
4738261	Diethyl phthalate	2016/11/08	100	50 - 130	98	50 - 130	<0.1	ug/L				
4738261	Dimethyl phthalate	2016/11/08	101	50 - 130	97	50 - 130	<0.1	ug/L				
4738261	Fluoranthene	2016/11/08	88	50 - 130	89	50 - 130	<0.2	ug/L	NC	30		
4738261	Fluorene	2016/11/08	85	50 - 130	83	50 - 130	<0.2	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4738261	Indeno(1,2,3-cd)pyrene	2016/11/08	90	50 - 130	88	50 - 130	<0.1	ug/L	NC	30		
4738261	Naphthalene	2016/11/08	78	50 - 130	71	50 - 130	<0.2	ug/L	NC	30		
4738261	p-Chloroaniline	2016/11/08	79	30 - 130	90	30 - 130	<1	ug/L				
4738261	Pentachlorophenol	2016/11/08	71	50 - 130	73	50 - 130	<0.1	ug/L				
4738261	Phenanthrene	2016/11/08	87	50 - 130	86	50 - 130	<0.1	ug/L	NC	30		
4738261	Phenol	2016/11/08	36	30 - 130	36	30 - 130	<0.5	ug/L	NC	30		
4738261	Pyrene	2016/11/08	93	50 - 130	92	50 - 130	<0.05	ug/L	NC	30		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) The recovery was below the lower control limit. This may represent a low bias in some results for flagged analytes.

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

(3) Analyte was detected in the method blank at a level marginally above the detection limit. Sample results have not been blank corrected. Those results at or near the detection limit may be biased high..

(4) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

### VALIDATION SIGNATURE PAGE


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

*Cristina Carriere*

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Cristina Carriere, Scientific Services


*Eva Pranjic*



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

*Grace M. Sison*



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Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

*Jigar Kumar Shah*

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Jigar Shah, Microbiology Analyst

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





Maxxam Analytics International Corporation o/a Maxxam Analytics  
 6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-8266 Fax: (905) 817-5777 www.maxxam.com

STANTEC CHAIN OF CUSTODY RECORD

<b>INVOICE INFORMATION:</b> Company Name: #9197 Stantec Consulting Ltd Contact Name: Accounts Payable Address: 49 Frederick St Kitchener ON N2H 6M7 Phone: (519) 579-4410 Fax: (519) 579-6733 Email: Stantec.Accounts.Payable.Invoices@Stantec.com		<b>REPORT INFORMATION:</b> Company Name: #18379 Stantec Consulting Ltd Contact Name: Report - 1609-00764 Address: ON Email: aaron.warkentin@stantec.com, brant.gill@stantec.com		<b>PROJECT INFORMATION:</b> B48218 160900764 CLARINGTON TS-PRIVATE WELLS Site #: JK Sampled By: JK		<b>Laboratory Use Only:</b> Maxxam Job #: 584480 Bottle Order #: 584480 COC #: C#584480-01-01 Project Manager: Deepthi Shaji	
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MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects				
Regulation 153 (2011)			Other Regulations			Special Instructions			Field Filtered (please circle): Metals / Hg / Cr / V / Acidity / CN / Cyanide / Fluoride / Mercury / TDS / TOC / TSS / Turbidity / Reg 153 PNC - F / F4 / Reg 153 PCBs / Reg 153 VOCs / RO/OP - Comp (Drinking Water) - No Filter / SVOCs / Each Total Coliform Background										Regular (Standard) TAT: (will be applied if Rush TAT is not specified). Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details. Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: <input type="checkbox"/> Rush Confirmation Number: _____ (call lab for #)	
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix													# of Bottles	Comments		
1	WG-160900764-20161101-3K1 2C	2016 OCT 31	1427	WG	na												21	* bacti sampled OCT 31		
2	WG-160900764-20161101-3K2	NOV 1 2016	0915															* JK2: Sulphide bottle was originally in set. Noticed it had removed it but had to use a bit of water from solids + general bottles to fill the missing cyanide bottle which I took from a spare set.		
3	WG-160900764-20161101-3K3		1043																	
4	WG-160900764-20161101-3K4		1148																	
5	WG-160900764-20161101-3K5		1239																	
6	WG-160900764-20161101-3K6		1334																	
7	WG-160900764-20161101-3K7		1412																	
8	WG-160900764-20161101-3K8		1458																	
9	WG-160900764-20161101-3K9		1542																	
10	WG-160900764-20161101-3K10		1632																	

02-Nov-16 08:36  
 Deepthi Shaji  
  
 B6N7539  
 TSP ENV-1109  
 SOD IN PORT HOP

* RELINQUISHED BY: (Signature/Print) Jahn Jamic Koch		Date: (YY/MM/DD) 16/11/01	Time 2:00	RECEIVED BY: (Signature/Print) BRENDA WOODWARD KUSHKORA KAU		Date: (YY/MM/DD) 2016/11/02	Time 08:30	# jars used and not submitted	Laboratory Use Only				
						Date: (YY/MM/DD) 2016/11/02	Time 13:03		Time Sensitive	Temperature (°C) on Receipt SEE ACTR	Custody Seal	Yes	No
											Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
											Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics # 358490



Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 584480-02-01, 584480-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/16**  
 Report #: R4248571  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N8820**

**Received: 2016/11/03, 13:23**

Sample Matrix: Water  
 # Samples Received: 11

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Methylnaphthalene Sum	11	N/A	2016/11/15	CAM SOP-00301	EPA 8270D m
ABN Compounds in Water by SIM GC/MS	2	2016/11/10	2016/11/11	CAM SOP-00301	EPA 8270 m
ABN Compounds in Water by SIM GC/MS	9	2016/11/10	2016/11/12	CAM SOP-00301	EPA 8270 m
Acidity as CaCO3 in liquid (1, 2)	11	N/A	2016/11/07	SLA SOP-00100	APHA SM2310B (Mod)
Alkalinity	11	N/A	2016/11/06	CAM SOP-00448	SM 22 2320 B m
Carbonate, Bicarbonate and Hydroxide	11	N/A	2016/11/07	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	11	N/A	2016/11/09		EPA 8260C m
Chloride by Automated Colourimetry	11	N/A	2016/11/07	CAM SOP-00463	EPA 325.2 m
Conductivity	11	N/A	2016/11/06	CAM SOP-00414	SM 22 2510 m
Chromium (VI) in Water	11	N/A	2016/11/08	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	11	N/A	2016/11/04	CAM SOP-00457	OMOE E3015 m
Dissolved Organic Carbon (DOC) (3)	10	N/A	2016/11/05	CAM SOP-00446	SM 22 5310 B m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2016/11/10	CAM SOP-00446	SM 22 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	11	N/A	2016/11/07	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	11	2016/11/07	2016/11/08	CAM SOP-00316	CCME PHC-CWS m
Fluoride	11	2016/11/04	2016/11/06	CAM SOP-00449	SM 22 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2016/11/07	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	10	N/A	2016/11/08	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	7	2016/11/07	2016/11/09	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	2	2016/11/08	2016/11/09	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	1	2016/11/09	2016/11/09	CAM SOP-00453	EPA 7470A m
Metals Analysis by ICPMS (as received) (5)	11	2016/11/05	2016/11/07	CAM SOP-00447	EPA 6020B m
Ion Balance (% Difference)	11	N/A	2016/11/08		
Anion and Cation Sum	1	N/A	2016/11/07		
Anion and Cation Sum	10	N/A	2016/11/08		
Total Coliforms/ E. coli, CFU/100mL	11	N/A	2016/11/03	CAM SOP-00551	MOE E3407
Total Ammonia-N	1	N/A	2016/11/08	CAM SOP-00441	EPA GS I-2522-90 m
Total Ammonia-N	8	N/A	2016/11/09	CAM SOP-00441	EPA GS I-2522-90 m
Total Ammonia-N	2	N/A	2016/11/10	CAM SOP-00441	EPA GS I-2522-90 m

Your Project #: 160900764  
 Site Location: CLARINGTON TS-PRIVATE WELLS  
 Your C.O.C. #: 584480-02-01, 584480-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
 Clarington  
 ON  
 Canada

**Report Date: 2016/11/16**  
 Report #: R4248571  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N8820**

**Received: 2016/11/03, 13:23**

Sample Matrix: Water  
 # Samples Received: 11

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Reference</b>
Nitrate (NO3) and Nitrite (NO2) in Water (6)	1	N/A	2016/11/08	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (6)	10	N/A	2016/11/09	CAM SOP-00440	SM 22 4500-NO3I/NO2B
Polychlorinated Biphenyl in Water	11	2016/11/04	2016/11/05	CAM SOP-00309	EPA 8082A m
pH	11	N/A	2016/11/06	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	11	N/A	2016/11/07	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	1	N/A	2016/11/07		
Sat. pH and Langelier Index (@ 20C)	10	N/A	2016/11/08		
Sat. pH and Langelier Index (@ 4C)	1	N/A	2016/11/07		
Sat. pH and Langelier Index (@ 4C)	10	N/A	2016/11/08		
Sulphate by Automated Colourimetry	11	N/A	2016/11/07	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	11	N/A	2016/11/08		
Total Dissolved Solids	1	2016/11/04	2016/11/05	CAM SOP-00428	SM 22 2540C m
Total Dissolved Solids	10	2016/11/04	2016/11/08	CAM SOP-00428	SM 22 2540C m
Total Organic Carbon (TOC) (7)	1	N/A	2016/11/05	CAM SOP-00446	SM 22 5310B m
Total Organic Carbon (TOC) (7)	6	N/A	2016/11/06	CAM SOP-00446	SM 22 5310B m
Total Organic Carbon (TOC) (7)	3	N/A	2016/11/08	CAM SOP-00446	SM 22 5310B m
Total Organic Carbon (TOC) (7)	1	N/A	2016/11/10	CAM SOP-00446	SM 22 5310B m
Total Suspended Solids	1	2016/11/04	2016/11/04	CAM SOP-00428	SM 22 2540D m
Total Suspended Solids	10	2016/11/04	2016/11/07	CAM SOP-00428	SM 22 2540D m
Turbidity	10	N/A	2016/11/06	CAM SOP-00417	SM 22 2130 B m
Turbidity	1	N/A	2016/11/07	CAM SOP-00417	SM 22 2130 B m
Volatile Organic Compounds in Water	11	N/A	2016/11/08	CAM SOP-00228	EPA 8260C m

**Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Your Project #: 160900764  
Site Location: CLARINGTON TS-PRIVATE WELLS  
Your C.O.C. #: 584480-02-01, 584480-03-01

**Attention:Report - 1609-00764**

Stantec Consulting Ltd  
Clarington  
ON  
Canada

**Report Date: 2016/11/16**  
Report #: R4248571  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B6N8820**

**Received: 2016/11/03, 13:23**

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

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

- (1) This test was performed by Maxxam Sladeview Petrochemical
- (2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion
- (3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (5) Metals analysis was performed on the sample 'as received'.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

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

Deepthi Shaji, Project Manager

Email: dshaji@maxxam.ca

Phone# (905)817-5700 Ext:5807

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO301		DJO302		
Sampling Date		2016/11/02 09:56		2016/11/02 10:44		
COC Number		584480-02-01		584480-02-01		
	UNITS	WG-160900764- 20161102-JK11	QC Batch	WG-160900764- 20161102-JK12	RDL	QC Batch
<b>Calculated Parameters</b>						
Anion Sum	me/L	5.64	4731758	3.26	N/A	4731758
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	200	4731753	140	1.0	4731753
Calculated TDS	mg/L	300	4731756	170	1.0	4731756
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.9	4731753	1.8	1.0	4731753
Cation Sum	me/L	5.59	4731758	3.13	N/A	4731758
Hardness (CaCO3)	mg/L	260	4731938	120	1.0	4731938
Ion Balance (% Difference)	%	0.480	4731626	1.93	N/A	4731626
Langelier Index (@ 20C)	N/A	0.739	4731754	0.269		4731754
Langelier Index (@ 4C)	N/A	0.490	4731755	0.0190		4731755
Saturation pH (@ 20C)	N/A	7.25	4731754	7.86		4731754
Saturation pH (@ 4C)	N/A	7.50	4731755	8.11		4731755
<b>Inorganics</b>						
Total Ammonia-N	mg/L	<0.050	4736148	0.24	0.050	4736148
Conductivity	umho/cm	530	4734840	300	1.0	4734840
Dissolved Organic Carbon	mg/L	0.77	4735571	0.80	0.20	4735571
Orthophosphate (P)	mg/L	<0.010	4735452	0.014	0.010	4735452
pH	pH	7.99	4734845	8.13		4734845
Dissolved Sulphate (SO4)	mg/L	56	4735451	12	1.0	4735451
Alkalinity (Total as CaCO3)	mg/L	210	4734829	150	1.0	4734829
Dissolved Chloride (Cl)	mg/L	12	4735450	2.4	1.0	4735450
Nitrite (N)	mg/L	<0.010	4735457	<0.010	0.010	4734794
Nitrate (N)	mg/L	<0.10	4735457	<0.10	0.10	4734794
<b>Metals</b>						
. Aluminum (Al)	mg/L	<0.0050	4735547	<0.0050	0.0050	4735559
. Antimony (Sb)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735559
. Arsenic (As)	mg/L	<0.0010	4735547	<0.0010	0.0010	4735559
. Barium (Ba)	mg/L	0.083	4735547	0.10	0.0020	4735559
. Beryllium (Be)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735559
. Boron (B)	mg/L	<0.010	4735547	0.044	0.010	4735559
. Cadmium (Cd)	mg/L	<0.00010	4735547	<0.00010	0.00010	4735559
. Calcium (Ca)	mg/L	73	4735547	23	0.20	4735559
. Chromium (Cr)	mg/L	<0.0050	4735547	<0.0050	0.0050	4735559
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable						

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO301		DJO302		
Sampling Date		2016/11/02 09:56		2016/11/02 10:44		
COC Number		584480-02-01		584480-02-01		
	UNITS	WG-160900764- 20161102-JK11	QC Batch	WG-160900764- 20161102-JK12	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735559
. Copper (Cu)	mg/L	<0.0010	4735547	<0.0010	0.0010	4735559
. Iron (Fe)	mg/L	1.8	4735547	0.40	0.10	4735559
. Lead (Pb)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735559
. Magnesium (Mg)	mg/L	20	4735547	16	0.050	4735559
. Manganese (Mn)	mg/L	0.029	4735547	0.0093	0.0020	4735559
. Molybdenum (Mo)	mg/L	0.0010	4735547	0.00094	0.00050	4735559
. Nickel (Ni)	mg/L	<0.0010	4735547	<0.0010	0.0010	4735559
. Phosphorus (P)	mg/L	<0.10	4735547	<0.10	0.10	4735559
. Potassium (K)	mg/L	1.2	4735547	0.60	0.20	4735559
. Selenium (Se)	mg/L	<0.0020	4735547	<0.0020	0.0020	4735559
. Silicon (Si)	mg/L	4.8	4735547	7.8	0.050	4735559
. Silver (Ag)	mg/L	<0.00010	4735547	<0.00010	0.00010	4735559
. Sodium (Na)	mg/L	4.8	4735547	14	0.10	4735559
. Strontium (Sr)	mg/L	0.23	4735547	0.37	0.0010	4735559
. Thallium (Tl)	mg/L	<0.000050	4735547	<0.000050	0.000050	4735559
. Titanium (Ti)	mg/L	<0.0050	4735547	<0.0050	0.0050	4735559
. Uranium (U)	mg/L	<0.00010	4735547	<0.00010	0.00010	4735559
. Vanadium (V)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735559
. Zinc (Zn)	mg/L	0.0063	4735547	<0.0050	0.0050	4735559
. Zirconium (Zr)	mg/L	<0.0010	4735547	<0.0010	0.0010	4735559
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO303		DJO304		
Sampling Date		2016/11/02 11:43		2016/11/02 12:47		
COC Number		584480-02-01		584480-02-01		
	UNITS	WG-160900764- 20161102-JK13	QC Batch	WG-160900764- 20161102-JK14	RDL	QC Batch
<b>Calculated Parameters</b>						
Anion Sum	me/L	4.45	4731758	8.43	N/A	4731758
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	200	4731753	350	1.0	4731753
Calculated TDS	mg/L	240	4731756	450	1.0	4731756
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	2.1	4731753	1.8	1.0	4731753
Cation Sum	me/L	4.38	4731758	8.20	N/A	4731758
Hardness (CaCO <sub>3</sub> )	mg/L	200	4731938	340	1.0	4731938
Ion Balance (% Difference)	%	0.780	4731626	1.35	N/A	4731626
Langelier Index (@ 20C)	N/A	0.707	4731754	0.791		4731754
Langelier Index (@ 4C)	N/A	0.458	4731755	0.542		4731755
Saturation pH (@ 20C)	N/A	7.34	4731754	6.95		4731754
Saturation pH (@ 4C)	N/A	7.59	4731755	7.20		4731755
<b>Inorganics</b>						
Total Ammonia-N	mg/L	0.12	4736148	<0.050	0.050	4736153
Conductivity	umho/cm	410	4734840	770	1.0	4734840
Dissolved Organic Carbon	mg/L	1.2	4734513	1.1	0.20	4734513
Orthophosphate (P)	mg/L	<0.010	4735452	<0.010	0.010	4735452
pH	pH	8.05	4734845	7.74		4734845
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	13	4735451	24	1.0	4735451
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	200	4734829	350	1.0	4734829
Dissolved Chloride (Cl)	mg/L	2.2	4735450	14	1.0	4735450
Nitrite (N)	mg/L	<0.010	4735457	<0.010	0.010	4735457
Nitrate (N)	mg/L	<0.10	4735457	6.11	0.10	4735457
<b>Metals</b>						
. Aluminum (Al)	mg/L	<0.0050	4735547	0.011	0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735547
. Arsenic (As)	mg/L	<0.0010	4735547	<0.0010	0.0010	4735547
. Barium (Ba)	mg/L	0.17	4735547	0.058	0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735547
. Boron (B)	mg/L	0.013	4735547	<0.010	0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010	4735547	<0.00010	0.00010	4735547
. Calcium (Ca)	mg/L	56	4735547	91	0.20	4735547
. Chromium (Cr)	mg/L	<0.0050	4735547	<0.0050	0.0050	4735547
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable						

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO303		DJO304		
Sampling Date		2016/11/02 11:43		2016/11/02 12:47		
COC Number		584480-02-01		584480-02-01		
	UNITS	WG-160900764- 20161102-JK13	QC Batch	WG-160900764- 20161102-JK14	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735547
. Copper (Cu)	mg/L	0.0011	4735547	0.012	0.0010	4735547
. Iron (Fe)	mg/L	1.1	4735547	<0.10	0.10	4735547
. Lead (Pb)	mg/L	<0.00050	4735547	0.00059	0.00050	4735547
. Magnesium (Mg)	mg/L	16	4735547	28	0.050	4735547
. Manganese (Mn)	mg/L	0.020	4735547	<0.0020	0.0020	4735547
. Molybdenum (Mo)	mg/L	0.00056	4735547	<0.00050	0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010	4735547	<0.0010	0.0010	4735547
. Phosphorus (P)	mg/L	<0.10	4735547	<0.10	0.10	4735547
. Potassium (K)	mg/L	1.0	4735547	4.5	0.20	4735547
. Selenium (Se)	mg/L	<0.0020	4735547	<0.0020	0.0020	4735547
. Silicon (Si)	mg/L	11	4735547	9.1	0.050	4735547
. Silver (Ag)	mg/L	<0.00010	4735547	<0.00010	0.00010	4735547
. Sodium (Na)	mg/L	4.9	4735547	28	0.10	4735547
. Strontium (Sr)	mg/L	0.22	4735547	0.19	0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050	4735547	<0.000050	0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050	4735547	<0.0050	0.0050	4735547
. Uranium (U)	mg/L	<0.00010	4735547	0.0017	0.00010	4735547
. Vanadium (V)	mg/L	<0.00050	4735547	<0.00050	0.00050	4735547
. Zinc (Zn)	mg/L	0.0095	4735547	0.0098	0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010	4735547	<0.0010	0.0010	4735547
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**RCAP - COMPREHENSIVE (DRINKING WATER)**

<b>Maxxam ID</b>		DJO305		DJO306	DJO306		
<b>Sampling Date</b>		2016/11/02 13:22		2016/11/02 15:13	2016/11/02 15:13		
<b>COC Number</b>		584480-02-01		584480-02-01	584480-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK15</b>	<b>QC Batch</b>	<b>WG-160900764- 20161102-JK16</b>	<b>WG-160900764- 20161102-JK16 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Anion Sum	me/L	3.36	4731758	12.6		N/A	4731758
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	160	4731753	390		1.0	4731753
Calculated TDS	mg/L	180	4731756	670		1.0	4731756
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.8	4731753	2.5		1.0	4731753
Cation Sum	me/L	3.28	4731758	12.4		N/A	4731758
Hardness (CaCO3)	mg/L	130	4731938	450		1.0	4731938
Ion Balance (% Difference)	%	1.11	4731626	0.780		N/A	4731626
Langelier Index (@ 20C)	N/A	0.368	4731754	1.01			4731754
Langelier Index (@ 4C)	N/A	0.117	4731755	0.765			4731755
Saturation pH (@ 20C)	N/A	7.71	4731754	6.82			4731754
Saturation pH (@ 4C)	N/A	7.96	4731755	7.06			4731755

**Inorganics**

Total Ammonia-N	mg/L	0.11	4736148	<0.050	<0.050	0.050	4736148
Conductivity	umho/cm	310	4734840	1200		1.0	4734840
Dissolved Organic Carbon	mg/L	0.69	4735571	1.8		0.20	4734802
Orthophosphate (P)	mg/L	0.012	4735733	<0.010		0.010	4735452
pH	pH	8.08	4734845	7.83			4734845
Dissolved Sulphate (SO4)	mg/L	9.0	4735730	40		1.0	4735451
Alkalinity (Total as CaCO3)	mg/L	160	4734829	390		1.0	4734829
Dissolved Chloride (Cl)	mg/L	<1.0	4735729	130		1.0	4735450
Nitrite (N)	mg/L	<0.010	4734794	<0.010		0.010	4735457
Nitrate (N)	mg/L	<0.10	4734794	1.31		0.10	4735457

**Metals**

. Aluminum (Al)	mg/L	<0.0050	4735547	<0.0050		0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Arsenic (As)	mg/L	0.0014	4735547	<0.0010		0.0010	4735547
. Barium (Ba)	mg/L	0.11	4735547	0.11		0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Boron (B)	mg/L	0.039	4735547	0.026		0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010	4735547	<0.00010		0.00010	4735547
. Calcium (Ca)	mg/L	29	4735547	120		0.20	4735547
. Chromium (Cr)	mg/L	<0.0050	4735547	<0.0050		0.0050	4735547

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO305		DJO306	DJO306		
Sampling Date		2016/11/02 13:22		2016/11/02 15:13	2016/11/02 15:13		
COC Number		584480-02-01		584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK15	QC Batch	WG-160900764- 20161102-JK16	WG-160900764- 20161102-JK16 Lab-Dup	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Copper (Cu)	mg/L	<0.0010	4735547	0.0060		0.0010	4735547
. Iron (Fe)	mg/L	0.35	4735547	<0.10		0.10	4735547
. Lead (Pb)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Magnesium (Mg)	mg/L	15	4735547	33		0.050	4735547
. Manganese (Mn)	mg/L	0.029	4735547	<0.0020		0.0020	4735547
. Molybdenum (Mo)	mg/L	0.0011	4735547	<0.00050		0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010	4735547	<0.0010		0.0010	4735547
. Phosphorus (P)	mg/L	<0.10	4735547	<0.10		0.10	4735547
. Potassium (K)	mg/L	0.88	4735547	2.8		0.20	4735547
. Selenium (Se)	mg/L	<0.0020	4735547	<0.0020		0.0020	4735547
. Silicon (Si)	mg/L	10	4735547	8.6		0.050	4735547
. Silver (Ag)	mg/L	<0.00010	4735547	<0.00010		0.00010	4735547
. Sodium (Na)	mg/L	13	4735547	78		0.10	4735547
. Strontium (Sr)	mg/L	0.30	4735547	0.37		0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050	4735547	<0.000050		0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050	4735547	<0.0050		0.0050	4735547
. Uranium (U)	mg/L	<0.00010	4735547	0.0018		0.00010	4735547
. Vanadium (V)	mg/L	<0.00050	4735547	<0.00050		0.00050	4735547
. Zinc (Zn)	mg/L	<0.0050	4735547	0.014		0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010	4735547	<0.0010		0.0010	4735547

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO307			DJO309		
Sampling Date		2016/11/02 16:13			2016/11/03 09:22		
COC Number		584480-02-01			584480-03-01		
	UNITS	WG-160900764- 20161102-JK17	RDL	QC Batch	WG-160900764- 20161103-JK18	RDL	QC Batch
<b>Calculated Parameters</b>							
Anion Sum	me/L	18.1	N/A	4731758	4.00	N/A	4731758
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	270	1.0	4731753	180	1.0	4731753
Calculated TDS	mg/L	1100	1.0	4731756	220	1.0	4731756
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.8	1.0	4731753	2.0	1.0	4731753
Cation Sum	me/L	19.7	N/A	4731758	3.94	N/A	4731758
Hardness (CaCO3)	mg/L	340	1.0	4731938	180	1.0	4732984
Ion Balance (% Difference)	%	4.07	N/A	4731626	0.720	N/A	4731626
Langelier Index (@ 20C)	N/A	0.620		4731754	0.590		4731754
Langelier Index (@ 4C)	N/A	0.374		4731755	0.340		4731755
Saturation pH (@ 20C)	N/A	7.21		4731754	7.46		4731754
Saturation pH (@ 4C)	N/A	7.46		4731755	7.71		4731755
<b>Inorganics</b>							
Total Ammonia-N	mg/L	0.13	0.050	4736153	0.093	0.050	4736153
Conductivity	umho/cm	2100	1.0	4734840	370	1.0	4734840
Dissolved Organic Carbon	mg/L	1.4	0.20	4734928	0.85	0.20	4734802
Orthophosphate (P)	mg/L	<0.010	0.010	4735452	<0.010	0.010	4735452
pH	pH	7.83		4734845	8.05		4734845
Dissolved Sulphate (SO4)	mg/L	40	1.0	4735451	11	1.0	4735451
Alkalinity (Total as CaCO3)	mg/L	280	1.0	4734829	190	1.0	4734829
Dissolved Chloride (Cl)	mg/L	420	5.0	4735450	1.8	1.0	4735450
Nitrite (N)	mg/L	<0.010	0.010	4735457	<0.010	0.010	4735457
Nitrate (N)	mg/L	<0.10	0.10	4735457	<0.10	0.10	4735457
<b>Metals</b>							
. Aluminum (Al)	mg/L	<0.0050	0.0050	4735547	<0.0050	0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Arsenic (As)	mg/L	<0.0010	0.0010	4735547	<0.0010	0.0010	4735547
. Barium (Ba)	mg/L	0.075	0.0020	4735547	0.17	0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Boron (B)	mg/L	0.019	0.010	4735547	0.018	0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010	0.00010	4735547	<0.00010	0.00010	4735547
. Calcium (Ca)	mg/L	81	0.20	4735547	46	0.20	4735547
. Chromium (Cr)	mg/L	<0.0050	0.0050	4735547	<0.0050	0.0050	4735547
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable							

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO307			DJO309		
Sampling Date		2016/11/02 16:13			2016/11/03 09:22		
COC Number		584480-02-01			584480-03-01		
	UNITS	WG-160900764- 20161102-JK17	RDL	QC Batch	WG-160900764- 20161103-JK18	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Copper (Cu)	mg/L	0.023	0.0010	4735547	0.0033	0.0010	4735547
. Iron (Fe)	mg/L	<0.10	0.10	4735547	1.2	0.10	4735547
. Lead (Pb)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Magnesium (Mg)	mg/L	35	0.050	4735547	16	0.050	4735547
. Manganese (Mn)	mg/L	0.031	0.0020	4735547	0.018	0.0020	4735547
. Molybdenum (Mo)	mg/L	0.00054	0.00050	4735547	0.00082	0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010	0.0010	4735547	<0.0010	0.0010	4735547
. Phosphorus (P)	mg/L	<0.10	0.10	4735547	<0.10	0.10	4735547
. Potassium (K)	mg/L	3.0	0.20	4735547	1.1	0.20	4735547
. Selenium (Se)	mg/L	<0.0020	0.0020	4735547	<0.0020	0.0020	4735547
. Silicon (Si)	mg/L	8.6	0.050	4735547	11	0.050	4735547
. Silver (Ag)	mg/L	<0.00010	0.00010	4735547	<0.00010	0.00010	4735547
. Sodium (Na)	mg/L	290	0.10	4735547	6.7	0.10	4735547
. Strontium (Sr)	mg/L	0.33	0.0010	4735547	0.25	0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050	0.000050	4735547	<0.000050	0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050	0.0050	4735547	<0.0050	0.0050	4735547
. Uranium (U)	mg/L	0.00010	0.00010	4735547	<0.00010	0.00010	4735547
. Vanadium (V)	mg/L	<0.00050	0.00050	4735547	<0.00050	0.00050	4735547
. Zinc (Zn)	mg/L	0.035	0.0050	4735547	0.0070	0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010	0.0010	4735547	<0.0010	0.0010	4735547
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



**RCAP - COMPREHENSIVE (DRINKING WATER)**

<b>Maxxam ID</b>		DJO310	DJO310		DJO311		
<b>Sampling Date</b>		2016/11/03 10:16	2016/11/03 10:16		2016/11/03 10:53		
<b>COC Number</b>		584480-03-01	584480-03-01		584480-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20161103-JK19</b>	<b>WG-160900764- 20161103-JK19 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20161103-JK20</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Calculated Parameters</b>							
Anion Sum	me/L	10.3		4731758	10.3	N/A	4731758
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	340		4731753	350	1.0	4731753
Calculated TDS	mg/L	550		4731756	560	1.0	4731756
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.1		4731753	2.2	1.0	4731753
Cation Sum	me/L	9.94		4731758	10.4	N/A	4731758
Hardness (CaCO3)	mg/L	410		4732984	410	1.0	4732984
Ion Balance (% Difference)	%	1.58		4731626	0.650	N/A	4731626
Langelier Index (@ 20C)	N/A	1.01		4731754	1.05		4731754
Langelier Index (@ 4C)	N/A	0.766		4731755	0.800		4731755
Saturation pH (@ 20C)	N/A	6.81		4731754	6.79		4731754
Saturation pH (@ 4C)	N/A	7.05		4731755	7.03		4731755

<b>Inorganics</b>							
Total Ammonia-N	mg/L	<0.050	<0.050	4736151	<0.050	0.050	4734633
Conductivity	umho/cm	970		4734840	990	1.0	4734840
Dissolved Organic Carbon	mg/L	0.79		4734513	1.2	0.20	4734513
Orthophosphate (P)	mg/L	<0.010		4735452	<0.010	0.010	4735452
pH	pH	7.82		4734845	7.83		4734845
Dissolved Sulphate (SO4)	mg/L	21		4735451	20	1.0	4735451
Alkalinity (Total as CaCO3)	mg/L	350		4734829	350	1.0	4734829
Dissolved Chloride (Cl)	mg/L	92		4735450	95	1.0	4735450
Nitrite (N)	mg/L	<0.010		4735543	<0.010	0.010	4734794
Nitrate (N)	mg/L	3.87		4735543	2.56	0.10	4734794

<b>Metals</b>							
. Aluminum (Al)	mg/L	<0.0050		4735547	0.37	0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050		4735547	<0.00050	0.00050	4735547
. Arsenic (As)	mg/L	<0.0010		4735547	<0.0010	0.0010	4735547
. Barium (Ba)	mg/L	0.073		4735547	0.068	0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050		4735547	<0.00050	0.00050	4735547
. Boron (B)	mg/L	0.022		4735547	0.017	0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010		4735547	<0.00010	0.00010	4735547
. Calcium (Ca)	mg/L	140		4735547	140	0.20	4735547
. Chromium (Cr)	mg/L	<0.0050		4735547	<0.0050	0.0050	4735547

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate  
N/A = Not Applicable

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO310	DJO310		DJO311		
Sampling Date		2016/11/03 10:16	2016/11/03 10:16		2016/11/03 10:53		
COC Number		584480-03-01	584480-03-01		584480-03-01		
	UNITS	WG-160900764- 20161103-JK19	WG-160900764- 20161103-JK19 Lab-Dup	QC Batch	WG-160900764- 20161103-JK20	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050		4735547	<0.00050	0.00050	4735547
. Copper (Cu)	mg/L	0.013		4735547	0.0023	0.0010	4735547
. Iron (Fe)	mg/L	<0.10		4735547	0.34	0.10	4735547
. Lead (Pb)	mg/L	0.00052		4735547	0.00057	0.00050	4735547
. Magnesium (Mg)	mg/L	18		4735547	13	0.050	4735547
. Manganese (Mn)	mg/L	<0.0020		4735547	0.023	0.0020	4735547
. Molybdenum (Mo)	mg/L	<0.00050		4735547	<0.00050	0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010		4735547	<0.0010	0.0010	4735547
. Phosphorus (P)	mg/L	<0.10		4735547	<0.10	0.10	4735547
. Potassium (K)	mg/L	0.93		4735547	1.6	0.20	4735547
. Selenium (Se)	mg/L	<0.0020		4735547	<0.0020	0.0020	4735547
. Silicon (Si)	mg/L	7.3		4735547	6.4	0.050	4735547
. Silver (Ag)	mg/L	<0.00010		4735547	<0.00010	0.00010	4735547
. Sodium (Na)	mg/L	38		4735547	52	0.10	4735547
. Strontium (Sr)	mg/L	0.29		4735547	0.28	0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050		4735547	<0.000050	0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050		4735547	0.021	0.0050	4735547
. Uranium (U)	mg/L	0.00047		4735547	0.0010	0.00010	4735547
. Vanadium (V)	mg/L	<0.00050		4735547	0.00082	0.00050	4735547
. Zinc (Zn)	mg/L	0.014		4735547	0.0099	0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010		4735547	0.0015	0.0010	4735547

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO312	DJO312		
Sampling Date		2016/11/03 11:56	2016/11/03 11:56		
COC Number		584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161103-JK21	WG-160900764- 20161103-JK21 Lab-Dup	RDL	QC Batch
<b>Calculated Parameters</b>					
Anion Sum	me/L	9.53		N/A	4731758
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	320		1.0	4731753
Calculated TDS	mg/L	500		1.0	4731756
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	2.1		1.0	4731753
Cation Sum	me/L	9.19		N/A	4731758
Hardness (CaCO <sub>3</sub> )	mg/L	390		1.0	4732984
Ion Balance (% Difference)	%	1.81		N/A	4732985
Langelier Index (@ 20C)	N/A	0.940			4731754
Langelier Index (@ 4C)	N/A	0.692			4731755
Saturation pH (@ 20C)	N/A	6.90			4731754
Saturation pH (@ 4C)	N/A	7.14			4731755
<b>Inorganics</b>					
Total Ammonia-N	mg/L	<0.050		0.050	4734633
Conductivity	umho/cm	910		1.0	4734840
Dissolved Organic Carbon	mg/L	0.91	0.90	0.20	4742882
Orthophosphate (P)	mg/L	<0.010		0.010	4735916
pH	pH	7.84			4734845
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	31		1.0	4735915
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	320		1.0	4734829
Dissolved Chloride (Cl)	mg/L	83		1.0	4735898
Nitrite (N)	mg/L	<0.010		0.010	4734794
Nitrate (N)	mg/L	0.81		0.10	4734794
<b>Metals</b>					
. Aluminum (Al)	mg/L	<0.0050		0.0050	4735547
. Antimony (Sb)	mg/L	<0.00050		0.00050	4735547
. Arsenic (As)	mg/L	<0.0010		0.0010	4735547
. Barium (Ba)	mg/L	0.067		0.0020	4735547
. Beryllium (Be)	mg/L	<0.00050		0.00050	4735547
. Boron (B)	mg/L	0.010		0.010	4735547
. Cadmium (Cd)	mg/L	<0.00010		0.00010	4735547
. Calcium (Ca)	mg/L	120		0.20	4735547
. Chromium (Cr)	mg/L	<0.0050		0.0050	4735547
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate					

**RCAP - COMPREHENSIVE (DRINKING WATER)**

Maxxam ID		DJO312	DJO312		
Sampling Date		2016/11/03 11:56	2016/11/03 11:56		
COC Number		584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161103-JK21	WG-160900764- 20161103-JK21 Lab-Dup	RDL	QC Batch
. Cobalt (Co)	mg/L	<0.00050		0.00050	4735547
. Copper (Cu)	mg/L	0.0083		0.0010	4735547
. Iron (Fe)	mg/L	0.34		0.10	4735547
. Lead (Pb)	mg/L	<0.00050		0.00050	4735547
. Magnesium (Mg)	mg/L	25		0.050	4735547
. Manganese (Mn)	mg/L	0.0038		0.0020	4735547
. Molybdenum (Mo)	mg/L	<0.00050		0.00050	4735547
. Nickel (Ni)	mg/L	<0.0010		0.0010	4735547
. Phosphorus (P)	mg/L	<0.10		0.10	4735547
. Potassium (K)	mg/L	2.0		0.20	4735547
. Selenium (Se)	mg/L	<0.0020		0.0020	4735547
. Silicon (Si)	mg/L	6.2		0.050	4735547
. Silver (Ag)	mg/L	<0.00010		0.00010	4735547
. Sodium (Na)	mg/L	31		0.10	4735547
. Strontium (Sr)	mg/L	0.27		0.0010	4735547
. Thallium (Tl)	mg/L	<0.000050		0.000050	4735547
. Titanium (Ti)	mg/L	<0.0050		0.0050	4735547
. Uranium (U)	mg/L	0.0088		0.00010	4735547
. Vanadium (V)	mg/L	<0.00050		0.00050	4735547
. Zinc (Zn)	mg/L	0.017		0.0050	4735547
. Zirconium (Zr)	mg/L	<0.0010		0.0010	4735547
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Lab-Dup = Laboratory Initiated Duplicate					

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJO301		DJO302		DJO303		
<b>Sampling Date</b>		2016/11/02 09:56		2016/11/02 10:44		2016/11/02 11:43		
<b>COC Number</b>		584480-02-01		584480-02-01		584480-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK11</b>	<b>QC Batch</b>	<b>WG-160900764- 20161102-JK12</b>	<b>QC Batch</b>	<b>WG-160900764- 20161102-JK13</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>								
Acidity as CaCO3	mg/L	15	4734096	<10	4734096	13	10	4734096
Total Dissolved Solids	mg/L	322	4734152	166	4734260	244	10	4734152
Fluoride (F-)	mg/L	<0.10	4734841	0.22	4734841	0.13	0.10	4734841
Free Cyanide	ug/L	<1	4734350	<1	4734257	<1	1	4734257
Total Organic Carbon (TOC)	mg/L	0.54	4736150	0.63	4736150	1.5	0.20	4735903
Total Suspended Solids	mg/L	<10	4734143	<10	4734251	<10	10	4734143
Turbidity	NTU	19	4734717	1.2	4734753	5.2	0.1	4734753

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

<b>Maxxam ID</b>		DJO304		DJO304		DJO305		
<b>Sampling Date</b>		2016/11/02 12:47		2016/11/02 12:47		2016/11/02 13:22		
<b>COC Number</b>		584480-02-01		584480-02-01		584480-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK14</b>		<b>WG-160900764- 20161102-JK14 Lab-Dup</b>		<b>WG-160900764- 20161102-JK15</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>								
Acidity as CaCO3	mg/L	52				<10	10	4734096
Total Dissolved Solids	mg/L	458				176	10	4734152
Fluoride (F-)	mg/L	<0.10				0.28	0.10	4734841
Free Cyanide	ug/L	<1		<1		<1	1	4734257
Total Organic Carbon (TOC)	mg/L	1.8				1.0	0.20	4735903
Total Suspended Solids	mg/L	<10		<10		<10	10	4734143
Turbidity	NTU	0.8				0.9	0.1	4734753

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJO306	DJO306		DJO307		
<b>Sampling Date</b>		2016/11/02 15:13	2016/11/02 15:13		2016/11/02 16:13		
<b>COC Number</b>		584480-02-01	584480-02-01		584480-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK16</b>	<b>WG-160900764- 20161102-JK16 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20161102-JK17</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L	46		4734096	29	10	4734096
Total Dissolved Solids	mg/L	678	676	4734152	1070	10	4734152
Fluoride (F-)	mg/L	<0.10		4734841	<0.10	0.10	4734841
Free Cyanide	ug/L	<1		4734257	<1	1	4734257
Total Organic Carbon (TOC)	mg/L	1.7		4736150	1.4	0.20	4735903
Total Suspended Solids	mg/L	<10		4734143	<10	10	4734143
Turbidity	NTU	0.2		4734753	0.2	0.1	4734753

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

<b>Maxxam ID</b>		DJO309		DJO310	DJO310		
<b>Sampling Date</b>		2016/11/03 09:22		2016/11/03 10:16	2016/11/03 10:16		
<b>COC Number</b>		584480-03-01		584480-03-01	584480-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20161103-JK18</b>	<b>QC Batch</b>	<b>WG-160900764- 20161103-JK19</b>	<b>WG-160900764- 20161103-JK19 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>							
Acidity as CaCO3	mg/L	10		4734096	50	10	4734096
Total Dissolved Solids	mg/L	222		4734152	558	10	4734152
Fluoride (F-)	mg/L	0.16		4734841	<0.10	0.10	4734841
Free Cyanide	ug/L	<1		4734257	<1	1	4734257
Total Organic Carbon (TOC)	mg/L	1.1		4735903	1.7	0.20	4735903
Total Suspended Solids	mg/L	<10		4734143	<10	10	4734143
Turbidity	NTU	8.3		4734717	0.8	0.1	4734753

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**RESULTS OF ANALYSES OF WATER**

<b>Maxxam ID</b>		DJO311	DJO311		DJO312		
<b>Sampling Date</b>		2016/11/03 10:53	2016/11/03 10:53		2016/11/03 11:56		
<b>COC Number</b>		584480-03-01	584480-03-01		584480-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20161103-JK20</b>	<b>WG-160900764- 20161103-JK20 Lab-Dup</b>	<b>QC Batch</b>	<b>WG-160900764- 20161103-JK21</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>							
Acidity as CaCO3	mg/L	44	44	4734096	38	10	4734096
Total Dissolved Solids	mg/L	552		4734152	512	10	4734152
Fluoride (F-)	mg/L	<0.10		4734841	<0.10	0.10	4734841
Free Cyanide	ug/L	<1		4734257	<1	1	4734257
Total Organic Carbon (TOC)	mg/L	1.4		4734628	0.86	0.20	4742857
Total Suspended Solids	mg/L	<10		4734143	<10	10	4734143
Turbidity	NTU	2.4		4734753	2.1	0.1	4734753
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							

<b>Maxxam ID</b>		DJO312		
<b>Sampling Date</b>		2016/11/03 11:56		
<b>COC Number</b>		584480-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20161103-JK21 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>				
Total Organic Carbon (TOC)	mg/L	0.82	0.20	4742857
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate				

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

<b>Maxxam ID</b>		DJO301	DJO302		DJO303		
<b>Sampling Date</b>		2016/11/02 09:56	2016/11/02 10:44		2016/11/02 11:43		
<b>COC Number</b>		584480-02-01	584480-02-01		584480-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK11</b>	<b>WG-160900764- 20161102-JK12</b>	<b>QC Batch</b>	<b>WG-160900764- 20161102-JK13</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>							
Chromium (VI)	ug/L	<0.50	<0.50	4738533	<0.50	0.50	4738533
Mercury (Hg)	mg/L	<0.0001	<0.0001	4737104	<0.0001	0.0001	4738418
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

<b>Maxxam ID</b>		DJO304		DJO305		DJO306		
<b>Sampling Date</b>		2016/11/02 12:47		2016/11/02 13:22		2016/11/02 15:13		
<b>COC Number</b>		584480-02-01		584480-02-01		584480-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK14</b>	<b>QC Batch</b>	<b>WG-160900764- 20161102-JK15</b>	<b>QC Batch</b>	<b>WG-160900764- 20161102-JK16</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>								
Chromium (VI)	ug/L	0.75	4738533	<0.50	4738533	<0.50	0.50	4738533
Mercury (Hg)	mg/L		4738418	<0.0001	4737104	<0.0001	0.0001	4740246
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

<b>Maxxam ID</b>		DJO307		DJO309		DJO310		
<b>Sampling Date</b>		2016/11/02 16:13		2016/11/03 09:22		2016/11/03 10:16		
<b>COC Number</b>		584480-02-01		584480-03-01		584480-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK17</b>	<b>QC Batch</b>	<b>WG-160900764- 20161103-JK18</b>	<b>QC Batch</b>	<b>WG-160900764- 20161103-JK19</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>								
Chromium (VI)	ug/L	<0.50	4738533	<0.50		0.58	0.50	4738533
Mercury (Hg)	mg/L	<0.0001	4738418	<0.0001		<0.0001	0.0001	4737104
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								



**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		DJO311	DJO312		
Sampling Date		2016/11/03 10:53	2016/11/03 11:56		
COC Number		584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161103-JK20	WG-160900764- 20161103-JK21	RDL	QC Batch
<b>Metals</b>					
Chromium (VI)	ug/L	<0.50	<0.50	0.50	4738533
Mercury (Hg)	mg/L	<0.0001	<0.0001	0.0001	4737104
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

**MICROBIOLOGY (WATER)**

<b>Maxxam ID</b>		DJO301	DJO302	DJO303	DJO304	
<b>Sampling Date</b>		2016/11/02 09:56	2016/11/02 10:44	2016/11/02 11:43	2016/11/02 12:47	
<b>COC Number</b>		584480-02-01	584480-02-01	584480-02-01	584480-02-01	
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK11</b>	<b>WG-160900764- 20161102-JK12</b>	<b>WG-160900764- 20161102-JK13</b>	<b>WG-160900764- 20161102-JK14</b>	<b>QC Batch</b>

<b>Microbiological</b>						
Background	CFU/100mL	0	0	1500	29	4733035
Total Coliforms	CFU/100mL	0	0	0	1	4733035
Escherichia coli	CFU/100mL	0	0	0	0	4733035

QC Batch = Quality Control Batch

<b>Maxxam ID</b>		DJO305	DJO306	DJO307	DJO309	
<b>Sampling Date</b>		2016/11/02 13:22	2016/11/02 15:13	2016/11/02 16:13	2016/11/03 09:22	
<b>COC Number</b>		584480-02-01	584480-02-01	584480-02-01	584480-03-01	
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK15</b>	<b>WG-160900764- 20161102-JK16</b>	<b>WG-160900764- 20161102-JK17</b>	<b>WG-160900764- 20161103-JK18</b>	<b>QC Batch</b>

<b>Microbiological</b>						
Background	CFU/100mL	2	150	16	5	4733035
Total Coliforms	CFU/100mL	1	7	0	1	4733035
Escherichia coli	CFU/100mL	0	0	0	0	4733035

QC Batch = Quality Control Batch

<b>Maxxam ID</b>		DJO310	DJO311	DJO312	
<b>Sampling Date</b>		2016/11/03 10:16	2016/11/03 10:53	2016/11/03 11:56	
<b>COC Number</b>		584480-03-01	584480-03-01	584480-03-01	
	<b>UNITS</b>	<b>WG-160900764- 20161103-JK19</b>	<b>WG-160900764- 20161103-JK20</b>	<b>WG-160900764- 20161103-JK21</b>	<b>QC Batch</b>

<b>Microbiological</b>					
Background	CFU/100mL	1300	NDOGT (1)	0	4733035
Total Coliforms	CFU/100mL	0	NDOGT (1)	0	4733035
Escherichia coli	CFU/100mL	0	NDOGT (1)	0	4733035

QC Batch = Quality Control Batch

(1) NDOGT: No data due to overgrowth. Total coliforms and / or E.coli detected

**O.REG 153 PCBs (WATER)**

Maxxam ID		DJO301	DJO302	DJO303	DJO304		
Sampling Date		2016/11/02 09:56	2016/11/02 10:44	2016/11/02 11:43	2016/11/02 12:47		
COC Number		584480-02-01	584480-02-01	584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK11	WG-160900764- 20161102-JK12	WG-160900764- 20161102-JK13	WG-160900764- 20161102-JK14	RDL	QC Batch

PCBs							
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327

Surrogate Recovery (%)							
Decachlorobiphenyl	%	97	102	103	97		4734327

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam ID		DJO305	DJO306	DJO306	DJO307		
Sampling Date		2016/11/02 13:22	2016/11/02 15:13	2016/11/02 15:13	2016/11/02 16:13		
COC Number		584480-02-01	584480-02-01	584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK15	WG-160900764- 20161102-JK16	WG-160900764- 20161102-JK16 Lab-Dup	WG-160900764- 20161102-JK17	RDL	QC Batch

PCBs							
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327

Surrogate Recovery (%)							
Decachlorobiphenyl	%	89	84	86	99		4734327

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**O.REG 153 PCBS (WATER)**

Maxxam ID		DJO309	DJO310	DJO311	DJO312		
Sampling Date		2016/11/03 09:22	2016/11/03 10:16	2016/11/03 10:53	2016/11/03 11:56		
COC Number		584480-03-01	584480-03-01	584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161103-JK18	WG-160900764- 20161103-JK19	WG-160900764- 20161103-JK20	WG-160900764- 20161103-JK21	RDL	QC Batch
<b>PCBs</b>							
Aroclor 1242	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1248	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1254	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Aroclor 1260	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4734327
<b>Surrogate Recovery (%)</b>							
Decachlorobiphenyl	%	86	95	93	92		4734327
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		DJO301	DJO301	DJO302	DJO302		
Sampling Date		2016/11/02 09:56	2016/11/02 09:56	2016/11/02 10:44	2016/11/02 10:44		
COC Number		584480-02-01	584480-02-01	584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK11	WG-160900764- 20161102-JK11 Lab-Dup	WG-160900764- 20161102-JK12	WG-160900764- 20161102-JK12 Lab-Dup	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>							
F1 (C6-C10)	ug/L	<25	<25	<25		25	4736889
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25		25	4736889
<b>F2-F4 Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	ug/L	<100		<100	<100	100	4737052
F3 (C16-C34 Hydrocarbons)	ug/L	<200		<200	<200	200	4737052
F4 (C34-C50 Hydrocarbons)	ug/L	<200		<200	<200	200	4737052
Reached Baseline at C50	ug/L	Yes		Yes	Yes		4737052
<b>Surrogate Recovery (%)</b>							
1,4-Difluorobenzene	%	102	101	101			4736889
4-Bromofluorobenzene	%	100	100	100			4736889
D10-Ethylbenzene	%	105	104	104			4736889
D4-1,2-Dichloroethane	%	89	89	87			4736889
o-Terphenyl	%	100		98	100		4737052
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		DJO303	DJO304	DJO305	DJO306		
Sampling Date		2016/11/02 11:43	2016/11/02 12:47	2016/11/02 13:22	2016/11/02 15:13		
COC Number		584480-02-01	584480-02-01	584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK13	WG-160900764- 20161102-JK14	WG-160900764- 20161102-JK15	WG-160900764- 20161102-JK16	RDL	QC Batch

<b>BTEX &amp; F1 Hydrocarbons</b>							
F1 (C6-C10)	ug/L	<25	<25	<25	<25	25	4736889
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	25	4736889
<b>F2-F4 Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	100	4737052
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	4737052
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	4737052
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes		4737052
<b>Surrogate Recovery (%)</b>							
1,4-Difluorobenzene	%	103	103	97	103		4736889
4-Bromofluorobenzene	%	99	101	103	100		4736889
D10-Ethylbenzene	%	105	103	100	107		4736889
D4-1,2-Dichloroethane	%	88	88	90	89		4736889
o-Terphenyl	%	99	99	99	100		4737052

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

Maxxam ID		DJO307	DJO309	DJO310	DJO311		
Sampling Date		2016/11/02 16:13	2016/11/03 09:22	2016/11/03 10:16	2016/11/03 10:53		
COC Number		584480-02-01	584480-03-01	584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161102-JK17	WG-160900764- 20161103-JK18	WG-160900764- 20161103-JK19	WG-160900764- 20161103-JK20	RDL	QC Batch

BTEX & F1 Hydrocarbons							
F1 (C6-C10)	ug/L	<25	<25	<25	<25	25	4736889
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	25	4736889
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	100	4737052
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	4737052
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	4737052
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes		4737052
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	103	100	103	102		4736889
4-Bromofluorobenzene	%	100	99	97	99		4736889
D10-Ethylbenzene	%	109	106	106	105		4736889
D4-1,2-Dichloroethane	%	89	88	88	87		4736889
o-Terphenyl	%	100	99	99	98		4737052

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 PETROLEUM HYDROCARBONS (WATER)**

<b>Maxxam ID</b>		DJO312		
<b>Sampling Date</b>		2016/11/03 11:56		
<b>COC Number</b>		584480-03-01		
	<b>UNITS</b>	<b>WG-160900764- 20161103-JK21</b>	<b>RDL</b>	<b>QC Batch</b>
<b>BTEX &amp; F1 Hydrocarbons</b>				
F1 (C6-C10)	ug/L	<25	25	4736889
F1 (C6-C10) - BTEX	ug/L	<25	25	4736889
<b>F2-F4 Hydrocarbons</b>				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	4737052
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	4737052
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	4737052
Reached Baseline at C50	ug/L	Yes		4737052
<b>Surrogate Recovery (%)</b>				
1,4-Difluorobenzene	%	103		4736889
4-Bromofluorobenzene	%	99		4736889
D10-Ethylbenzene	%	107		4736889
D4-1,2-Dichloroethane	%	88		4736889
o-Terphenyl	%	100		4737052
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJO301	DJO302	DJO303	DJO304		
Sampling Date		2016/11/02 09:56	2016/11/02 10:44	2016/11/02 11:43	2016/11/02 12:47		
COC Number		584480-02-01	584480-02-01	584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK11	WG-160900764- 20161102-JK12	WG-160900764- 20161102-JK13	WG-160900764- 20161102-JK14	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4742285
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4742285
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4742285
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4742285
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4742285
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4742285

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJO301	DJO302	DJO303	DJO304		
Sampling Date		2016/11/02 09:56	2016/11/02 10:44	2016/11/02 11:43	2016/11/02 12:47		
COC Number		584480-02-01	584480-02-01	584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK11	WG-160900764- 20161102-JK12	WG-160900764- 20161102-JK13	WG-160900764- 20161102-JK14	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4731491
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	16 (1)	20 (1)	57	12 (1)		4742285
2-Fluorobiphenyl	%	71	75	90	78		4742285
D14-Terphenyl (FS)	%	94	97	99	97		4742285
D5-Nitrobenzene	%	71	76	90	80		4742285
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a lower bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJO305	DJO306		DJO307		
Sampling Date		2016/11/02 13:22	2016/11/02 15:13		2016/11/02 16:13		
COC Number		584480-02-01	584480-02-01		584480-02-01		
	UNITS	WG-160900764- 20161102-JK15	WG-160900764- 20161102-JK16	RDL	WG-160900764- 20161102-JK17	RDL	QC Batch
<b>Semivolatile Organics</b>							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
1-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
2,4-Dichlorophenol	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
2,4-Dimethylphenol	ug/L	<0.5	<0.5	0.5	<0.5	0.5	4742285
2,4-Dinitrophenol	ug/L	<2	<2	2	<2	2	4742285
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	<0.3	0.3	4742285
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	0.3	<0.3	0.3	4742285
2-Chlorophenol	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
2-Methylnaphthalene	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	0.5	<0.5	0.5	4742285
Acenaphthene	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
Acenaphthylene	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
Anthracene	ug/L	<0.05	<0.05	0.05	<0.05	0.05	4742285
Benzo(a)anthracene	ug/L	<0.05	<0.05	0.05	<0.05	0.05	4742285
Benzo(a)pyrene	ug/L	<0.01	<0.01	0.01	<0.01	0.01	4742285
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	0.05	<0.05	0.05	4742285
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	0.05	<0.05	0.05	4742285
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	0.05	<0.05	0.05	4742285
Biphenyl	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	0.5	<0.5	0.5	4742285
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	0.5	<0.5	0.5	4742285
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	1	<1	1	4742285
Chrysene	ug/L	<0.05	<0.05	0.05	<0.05	0.05	4742285
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
Diethyl phthalate	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
Dimethyl phthalate	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
Fluoranthene	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
Fluorene	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
Naphthalene	ug/L	<0.2	<0.2	0.2	<0.2	0.2	4742285
p-Chloroaniline	ug/L	<1	<1	1	<1	1	4742285
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJO305	DJO306		DJO307		
Sampling Date		2016/11/02 13:22	2016/11/02 15:13		2016/11/02 16:13		
COC Number		584480-02-01	584480-02-01		584480-02-01		
	UNITS	WG-160900764- 20161102-JK15	WG-160900764- 20161102-JK16	RDL	WG-160900764- 20161102-JK17	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	0.1	<0.3 (1)	0.3	4742285
Phenanthrene	ug/L	<0.1	<0.1	0.1	<0.1	0.1	4742285
Phenol	ug/L	<0.5	<0.5	0.5	<0.5	0.5	4742285
Pyrene	ug/L	<0.05	<0.05	0.05	<0.05	0.05	4742285
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	0.28	<0.28	0.28	4731491
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	55	49 (2)		26 (2)		4742285
2-Fluorobiphenyl	%	82	81		74		4742285
D14-Terphenyl (FS)	%	100	97		96		4742285
D5-Nitrobenzene	%	82	82		77		4742285
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Detection limit was raised due to matrix interferences. (2) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a lower bias in some results.							

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJO309	DJO310	DJO311	DJO312		
Sampling Date		2016/11/03 09:22	2016/11/03 10:16	2016/11/03 10:53	2016/11/03 11:56		
COC Number		584480-03-01	584480-03-01	584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161103-JK18	WG-160900764- 20161103-JK19	WG-160900764- 20161103-JK20	WG-160900764- 20161103-JK21	RDL	QC Batch

Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
1-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
2,4,5-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
2,4,6-Trichlorophenol	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
2,4-Dichlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
2,4-Dimethylphenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
2,4-Dinitrophenol	ug/L	<2	<2	<2	<2	2	4742285
2,4-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4742285
2,6-Dinitrotoluene	ug/L	<0.3	<0.3	<0.3	<0.3	0.3	4742285
2-Chlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
2-Methylnaphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
3,3'-Dichlorobenzidine	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
Acenaphthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
Acenaphthylene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
Anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Benzo(a)anthracene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	4742285
Benzo(b/j)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Benzo(g,h,i)perylene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Benzo(k)fluoranthene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Biphenyl	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Bis(2-chloroethyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
Bis(2-chloroisopropyl)ether	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
Bis(2-ethylhexyl)phthalate	ug/L	<1	<1	<1	<1	1	4742285
Chrysene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
Dibenz(a,h)anthracene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Diethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Dimethyl phthalate	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Fluoranthene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
Fluorene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
Indeno(1,2,3-cd)pyrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	4742285
p-Chloroaniline	ug/L	<1	<1	<1	<1	1	4742285

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

**O.REG 153 SEMIVOLATILES PACKAGE (WATER)**

Maxxam ID		DJO309	DJO310	DJO311	DJO312		
Sampling Date		2016/11/03 09:22	2016/11/03 10:16	2016/11/03 10:53	2016/11/03 11:56		
COC Number		584480-03-01	584480-03-01	584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161103-JK18	WG-160900764- 20161103-JK19	WG-160900764- 20161103-JK20	WG-160900764- 20161103-JK21	RDL	QC Batch
Pentachlorophenol	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Phenanthrene	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	4742285
Phenol	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	4742285
Pyrene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	4742285
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	<0.28	<0.28	<0.28	<0.28	0.28	4731491
<b>Surrogate Recovery (%)</b>							
2,4,6-Tribromophenol	%	41 (1)	34 (1)	49 (1)	56		4742285
2-Fluorobiphenyl	%	47 (1)	80	76	78		4742285
D14-Terphenyl (FS)	%	96	98	99	96		4742285
D5-Nitrobenzene	%	51	81	77	77		4742285
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate recovery was below the lower control limit due to matrix interference. This may represent a lower bias in some results.							

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJO301	DJO302	DJO302		
Sampling Date		2016/11/02 09:56	2016/11/02 10:44	2016/11/02 10:44		
COC Number		584480-02-01	584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK11	WG-160900764- 20161102-JK12	WG-160900764- 20161102-JK12 Lab-Dup	RDL	QC Batch

Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50		0.50	4731492
Volatile Organics						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4729928
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	4729928
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Chloroform	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4729928
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4729928
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4729928
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4729928
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4729928
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4729928
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4729928
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch  
Lab-Dup = Laboratory Initiated Duplicate

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJO301	DJO302	DJO302		
Sampling Date		2016/11/02 09:56	2016/11/02 10:44	2016/11/02 10:44		
COC Number		584480-02-01	584480-02-01	584480-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK11</b>	<b>WG-160900764- 20161102-JK12</b>	<b>WG-160900764- 20161102-JK12 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4729928
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	4729928
<b>Surrogate Recovery (%)</b>						
4-Bromofluorobenzene	%	92	91	91		4729928
D4-1,2-Dichloroethane	%	108	109	111		4729928
D8-Toluene	%	93	94	93		4729928
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Lab-Dup = Laboratory Initiated Duplicate						



**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJO303	DJO304	DJO305		
Sampling Date		2016/11/02 11:43	2016/11/02 12:47	2016/11/02 13:22		
COC Number		584480-02-01	584480-02-01	584480-02-01		
	UNITS	WG-160900764- 20161102-JK13	WG-160900764- 20161102-JK14	WG-160900764- 20161102-JK15	RDL	QC Batch
<b>Calculated Parameters</b>						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	4731492
<b>Volatile Organics</b>						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4729928
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	4729928
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Chloroform	ug/L	<0.20	1.4	<0.20	0.20	4729928
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4729928
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4729928
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4729928
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4729928
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4729928
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4729928
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4729928
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJO303	DJO304	DJO305		
Sampling Date		2016/11/02 11:43	2016/11/02 12:47	2016/11/02 13:22		
COC Number		584480-02-01	584480-02-01	584480-02-01		
	<b>UNITS</b>	<b>WG-160900764- 20161102-JK13</b>	<b>WG-160900764- 20161102-JK14</b>	<b>WG-160900764- 20161102-JK15</b>	<b>RDL</b>	<b>QC Batch</b>
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4729928
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	4729928
<b>Surrogate Recovery (%)</b>						
4-Bromofluorobenzene	%	91	90	91		4729928
D4-1,2-Dichloroethane	%	112	114	112		4729928
D8-Toluene	%	93	92	93		4729928
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJO306	DJO307	DJO309		
Sampling Date		2016/11/02 15:13	2016/11/02 16:13	2016/11/03 09:22		
COC Number		584480-02-01	584480-02-01	584480-03-01		
	UNITS	WG-160900764- 20161102-JK16	WG-160900764- 20161102-JK17	WG-160900764- 20161103-JK18	RDL	QC Batch
<b>Calculated Parameters</b>						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	4731492
<b>Volatile Organics</b>						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4729928
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	4729928
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Chloroform	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4729928
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4729928
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4729928
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4729928
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4729928
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4729928
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4729928
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJO306	DJO307	DJO309		
Sampling Date		2016/11/02 15:13	2016/11/02 16:13	2016/11/03 09:22		
COC Number		584480-02-01	584480-02-01	584480-03-01		
	UNITS	WG-160900764- 20161102-JK16	WG-160900764- 20161102-JK17	WG-160900764- 20161103-JK18	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4729928
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	4729928
<b>Surrogate Recovery (%)</b>						
4-Bromofluorobenzene	%	91	95	94		4729928
D4-1,2-Dichloroethane	%	114	107	109		4729928
D8-Toluene	%	92	94	93		4729928
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJO310	DJO311	DJO312		
Sampling Date		2016/11/03 10:16	2016/11/03 10:53	2016/11/03 11:56		
COC Number		584480-03-01	584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161103-JK19	WG-160900764- 20161103-JK20	WG-160900764- 20161103-JK21	RDL	QC Batch
<b>Calculated Parameters</b>						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	4732983
<b>Volatile Organics</b>						
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	4729928
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	4729928
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Chloroform	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	4729928
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	4729928
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	4729928
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	4729928
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	4729928
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	4729928
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	4729928
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

**O.REG 153 VOLATILE ORGANICS (WATER)**

Maxxam ID		DJO310	DJO311	DJO312		
Sampling Date		2016/11/03 10:16	2016/11/03 10:53	2016/11/03 11:56		
COC Number		584480-03-01	584480-03-01	584480-03-01		
	UNITS	WG-160900764- 20161103-JK19	WG-160900764- 20161103-JK20	WG-160900764- 20161103-JK21	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	4729928
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	4729928
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	4729928
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	4729928
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	4729928
<b>Surrogate Recovery (%)</b>						
4-Bromofluorobenzene	%	93	93	93		4729928
D4-1,2-Dichloroethane	%	108	104	110		4729928
D8-Toluene	%	94	95	94		4729928
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

### TEST SUMMARY

**Maxxam ID:** DJO301  
**Sample ID:** WG-160900764-20161102-JK11  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/11	Kathy Horvat
Acidity as CaCO3 in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4731492	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734350	N/A	2016/11/04	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4735571	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO3)		4731938	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4737104	2016/11/07	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4736148	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4735457	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4736150	N/A	2016/11/08	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734717	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO301 Dup  
**Sample ID:** WG-160900764-20161102-JK11  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi

### TEST SUMMARY

**Maxxam ID:** DJO302  
**Sample ID:** WG-160900764-20161102-JK12  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/11	Kathy Horvat
Acidity as CaCO3 in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4731492	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4735571	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO3)		4731938	N/A	2016/11/07	Automated Statchk
Mercury in Water by CVAA	CV/AA	4737104	2016/11/07	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735559	2016/11/05	2016/11/07	Prempal Bhatti
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/07	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4736148	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4734794	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/07	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/07	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734260	2016/11/04	2016/11/05	Zahid Soikot
Total Organic Carbon (TOC)	TOCV/NDIR	4736150	N/A	2016/11/08	Anastasia Hamanov
Total Suspended Solids	BAL	4734251	2016/11/04	2016/11/04	Gurpreet Kaur
Turbidity	AT	4734753	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO302 Dup  
**Sample ID:** WG-160900764-20161102-JK12  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes



### TEST SUMMARY

**Maxxam ID:** DJO303  
**Sample ID:** WG-160900764-20161102-JK13  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO <sub>3</sub> in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4731492	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4734513	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO <sub>3</sub> )		4731938	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4738418	2016/11/08	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH <sub>4</sub>	4736148	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4735457	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734753	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO304  
**Sample ID:** WG-160900764-20161102-JK14  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO <sub>3</sub> in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel

### TEST SUMMARY

**Maxxam ID:** DJO304  
**Sample ID:** WG-160900764-20161102-JK14  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4731492	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4734513	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO3)		4731938	N/A	2016/11/08	Automated Statchk
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4736153	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4735457	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734753	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO304 Dup  
**Sample ID:** WG-160900764-20161102-JK14  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray

**Maxxam ID:** DJO305  
**Sample ID:** WG-160900764-20161102-JK15  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** DJO305  
**Sample ID:** WG-160900764-20161102-JK15  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO <sub>3</sub> in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4731492	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735729	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4735571	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO <sub>3</sub> )		4731938	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4737104	2016/11/07	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH <sub>4</sub>	4736148	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4734794	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735733	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735730	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734753	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO306  
**Sample ID:** WG-160900764-20161102-JK16  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO <sub>3</sub> in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk

### TEST SUMMARY

**Maxxam ID:** DJO306  
**Sample ID:** WG-160900764-20161102-JK16  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	4731492	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4734802	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO3)		4731938	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4740246	2016/11/09	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4736148	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4735457	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4736150	N/A	2016/11/08	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734753	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO306 Dup  
**Sample ID:** WG-160900764-20161102-JK16  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	4736148	N/A	2016/11/09	Charles Opoku-Ware
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan

### TEST SUMMARY

**Maxxam ID:** DJO307  
**Sample ID:** WG-160900764-20161102-JK17  
**Matrix:** Water

**Collected:** 2016/11/02  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO <sub>3</sub> in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4731492	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4734928	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO <sub>3</sub> )		4731938	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4738418	2016/11/08	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH <sub>4</sub>	4736153	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO <sub>3</sub> ) and Nitrite (NO <sub>2</sub> ) in Water	LACH	4735457	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734753	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO309  
**Sample ID:** WG-160900764-20161103-JK18  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO <sub>3</sub> in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel

### TEST SUMMARY

**Maxxam ID:** DJO309  
**Sample ID:** WG-160900764-20161103-JK18  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4731492	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4734802	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO3)		4732984	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAAs	CV/AA	4737104	2016/11/07	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4736153	N/A	2016/11/09	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4735457	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734717	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO310  
**Sample ID:** WG-160900764-20161103-JK19  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO3 in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4732983	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel



### TEST SUMMARY

**Maxxam ID:** DJO310  
**Sample ID:** WG-160900764-20161103-JK19  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4734513	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO3)		4732984	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4737104	2016/11/07	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4736151	N/A	2016/11/08	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4735543	N/A	2016/11/08	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4735903	N/A	2016/11/06	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734753	N/A	2016/11/07	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO310 Dup  
**Sample ID:** WG-160900764-20161103-JK19  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	4736151	N/A	2016/11/08	Charles Opoku-Ware
Turbidity	AT	4734753	N/A	2016/11/07	Neil Dassanayake

**Maxxam ID:** DJO311  
**Sample ID:** WG-160900764-20161103-JK20  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO3 in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel

### TEST SUMMARY

**Maxxam ID:** DJO311  
**Sample ID:** WG-160900764-20161103-JK20  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4732983	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735450	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4734513	N/A	2016/11/05	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO3)		4732984	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAAs	CV/AA	4737104	2016/11/07	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4731626	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4734633	N/A	2016/11/10	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4734794	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735452	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735451	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4734628	N/A	2016/11/05	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734753	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO311 Dup  
**Sample ID:** WG-160900764-20161103-JK20  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity as CaCO3 in liquid		4734096	N/A	2016/11/07	Grace Sison

**Maxxam ID:** DJO312  
**Sample ID:** WG-160900764-20161103-JK21  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	4731491	N/A	2016/11/15	Automated Statchk



### TEST SUMMARY

**Maxxam ID:** DJO312  
**Sample ID:** WG-160900764-20161103-JK21  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by SIM GC/MS	GC/MS	4742285	2016/11/10	2016/11/12	Kathy Horvat
Acidity as CaCO3 in liquid		4734096	N/A	2016/11/07	Grace Sison
Alkalinity	AT	4734829	N/A	2016/11/06	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	4731753	N/A	2016/11/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	4732983	N/A	2016/11/09	Automated Statchk
Chloride by Automated Colourimetry	KONE	4735898	N/A	2016/11/07	Deonarine Ramnarine
Conductivity	AT	4734840	N/A	2016/11/06	Yogesh Patel
Chromium (VI) in Water	IC	4738533	N/A	2016/11/08	Lang Le
Free (WAD) Cyanide	SKAL/CN	4734257	N/A	2016/11/04	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4742882	N/A	2016/11/10	Anastasia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4736889	N/A	2016/11/07	Jiaxuan (Simon) Xi
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4737052	2016/11/07	2016/11/08	Zhiyue (Frank) Zhu
Fluoride	ISE	4734841	2016/11/04	2016/11/06	Yogesh Patel
Hardness (calculated as CaCO3)		4732984	N/A	2016/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	4737104	2016/11/07	2016/11/09	Magdalena Carlos
Metals Analysis by ICPMS (as received)	ICP/MS	4735547	2016/11/05	2016/11/07	John Bowman
Ion Balance (% Difference)	CALC	4732985	N/A	2016/11/08	Automated Statchk
Anion and Cation Sum	CALC	4731758	N/A	2016/11/08	Automated Statchk
Total Coliforms/ E. coli, CFU/100mL	PL	4733035	N/A	2016/11/03	Ranju Chaudhari
Total Ammonia-N	LACH/NH4	4734633	N/A	2016/11/10	Charles Opoku-Ware
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	4734794	N/A	2016/11/09	Chandra Nandlal
Polychlorinated Biphenyl in Water	GC/ECD	4734327	2016/11/04	2016/11/05	Dawn Alarie
pH	AT	4734845	N/A	2016/11/06	Yogesh Patel
Orthophosphate	KONE	4735916	N/A	2016/11/07	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	4731754	N/A	2016/11/08	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4731755	N/A	2016/11/08	Automated Statchk
Sulphate by Automated Colourimetry	KONE	4735915	N/A	2016/11/07	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	4731756	N/A	2016/11/08	Automated Statchk
Total Dissolved Solids	BAL	4734152	2016/11/04	2016/11/08	Massarat Jan
Total Organic Carbon (TOC)	TOCV/NDIR	4742857	N/A	2016/11/10	Anastasia Hamanov
Total Suspended Solids	BAL	4734143	2016/11/04	2016/11/07	Bansari Ray
Turbidity	AT	4734753	N/A	2016/11/06	Neil Dassanayake
Volatile Organic Compounds in Water	GC/MS	4729928	N/A	2016/11/08	Karen Hughes

**Maxxam ID:** DJO312 Dup  
**Sample ID:** WG-160900764-20161103-JK21  
**Matrix:** Water

**Collected:** 2016/11/03  
**Shipped:**  
**Received:** 2016/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	4742882	N/A	2016/11/10	Anastasia Hamanov
Total Organic Carbon (TOC)	TOCV/NDIR	4742857	N/A	2016/11/10	Anastasia Hamanov

### GENERAL COMMENTS

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

Package 1	7.0°C
Package 2	3.0°C
Package 3	5.3°C
Package 4	9.0°C
Package 5	10.3°C
Package 6	8.0°C

Sample DJO301 [WG-160900764-20161102-JK11] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJO302 [WG-160900764-20161102-JK12] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJO304 [WG-160900764-20161102-JK14] : Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJO306 [WG-160900764-20161102-JK16] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJO310 [WG-160900764-20161103-JK19] : Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample DJO312 [WG-160900764-20161103-JK21] : Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

**Results relate only to the items tested.**

**QUALITY ASSURANCE REPORT**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4729928	4-Bromofluorobenzene	2016/11/08	100	70 - 130	101	70 - 130	94	%				
4729928	D4-1,2-Dichloroethane	2016/11/08	104	70 - 130	103	70 - 130	108	%				
4729928	D8-Toluene	2016/11/08	105	70 - 130	104	70 - 130	95	%				
4734327	Decachlorobiphenyl	2016/11/05	94	60 - 130	97	60 - 130	93	%				
4736889	1,4-Difluorobenzene	2016/11/07	102	70 - 130	99	70 - 130	100	%				
4736889	4-Bromofluorobenzene	2016/11/07	101	70 - 130	105	70 - 130	99	%				
4736889	D10-Ethylbenzene	2016/11/07	103	70 - 130	111	70 - 130	102	%				
4736889	D4-1,2-Dichloroethane	2016/11/07	88	70 - 130	92	70 - 130	88	%				
4737052	o-Terphenyl	2016/11/08	108	60 - 130	105	60 - 130	102	%				
4742285	2,4,6-Tribromophenol	2016/11/11	89	50 - 130	89	50 - 130	64	%				
4742285	2-Fluorobiphenyl	2016/11/11	85	50 - 130	81	50 - 130	59	%				
4742285	D14-Terphenyl (FS)	2016/11/11	99	50 - 130	96	50 - 130	88	%				
4742285	D5-Nitrobenzene	2016/11/11	85	50 - 130	85	50 - 130	64	%				
4729928	1,1,1,2-Tetrachloroethane	2016/11/08	96	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
4729928	1,1,1-Trichloroethane	2016/11/08	96	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4729928	1,1,2,2-Tetrachloroethane	2016/11/08	95	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4729928	1,1,2-Trichloroethane	2016/11/08	98	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4729928	1,1-Dichloroethane	2016/11/08	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4729928	1,1-Dichloroethylene	2016/11/08	99	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4729928	1,2-Dichlorobenzene	2016/11/08	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
4729928	1,2-Dichloroethane	2016/11/08	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
4729928	1,2-Dichloropropane	2016/11/08	95	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4729928	1,3-Dichlorobenzene	2016/11/08	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
4729928	1,4-Dichlorobenzene	2016/11/08	96	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4729928	Acetone (2-Propanone)	2016/11/08	98	60 - 140	107	60 - 140	<10	ug/L	NC	30		
4729928	Benzene	2016/11/08	96	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4729928	Bromodichloromethane	2016/11/08	97	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4729928	Bromoform	2016/11/08	95	70 - 130	98	70 - 130	<1.0	ug/L	NC	30		
4729928	Bromomethane	2016/11/08	78	60 - 140	83	60 - 140	<0.50	ug/L	NC	30		
4729928	Carbon Tetrachloride	2016/11/08	99	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
4729928	Chlorobenzene	2016/11/08	97	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4729928	Chloroform	2016/11/08	96	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4729928	cis-1,2-Dichloroethylene	2016/11/08	101	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
4729928	cis-1,3-Dichloropropene	2016/11/08	92	70 - 130	101	70 - 130	<0.30	ug/L	NC	30		
4729928	Dibromochloromethane	2016/11/08	97	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4729928	Dichlorodifluoromethane (FREON 12)	2016/11/08	86	60 - 140	90	60 - 140	<1.0	ug/L	NC	30		
4729928	Ethylbenzene	2016/11/08	97	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4729928	Ethylene Dibromide	2016/11/08	97	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
4729928	Hexane	2016/11/08	109	70 - 130	100	70 - 130	<1.0	ug/L	NC	30		
4729928	Methyl Ethyl Ketone (2-Butanone)	2016/11/08	102	60 - 140	110	60 - 140	<10	ug/L	NC	30		
4729928	Methyl Isobutyl Ketone	2016/11/08	99	70 - 130	105	70 - 130	<5.0	ug/L	NC	30		
4729928	Methyl t-butyl ether (MTBE)	2016/11/08	94	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
4729928	Methylene Chloride(Dichloromethane)	2016/11/08	106	70 - 130	107	70 - 130	<2.0	ug/L	NC	30		
4729928	o-Xylene	2016/11/08	91	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4729928	p+m-Xylene	2016/11/08	95	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
4729928	Styrene	2016/11/08	98	70 - 130	104	70 - 130	<0.50	ug/L	NC	30		
4729928	Tetrachloroethylene	2016/11/08	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4729928	Toluene	2016/11/08	99	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
4729928	Total Xylenes	2016/11/08					<0.20	ug/L	NC	30		
4729928	trans-1,2-Dichloroethylene	2016/11/08	98	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
4729928	trans-1,3-Dichloropropene	2016/11/08	90	70 - 130	103	70 - 130	<0.40	ug/L	NC	30		
4729928	Trichloroethylene	2016/11/08	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
4729928	Trichlorofluoromethane (FREON 11)	2016/11/08	101	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
4729928	Vinyl Chloride	2016/11/08	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
4734096	Acidity as CaCO3	2016/11/07					<10	mg/L	NC	25		
4734143	Total Suspended Solids	2016/11/07					<10	mg/L	NC	25	96	85 - 115
4734152	Total Dissolved Solids	2016/11/08					<10	mg/L	0.30	25	100	90 - 110
4734251	Total Suspended Solids	2016/11/04					<10	mg/L	NC	25	96	85 - 115
4734257	Free Cyanide	2016/11/04	104	80 - 120	102	80 - 120	<1	ug/L	NC	20		
4734260	Total Dissolved Solids	2016/11/05					<10	mg/L	1.1	25	95	90 - 110
4734327	Aroclor 1242	2016/11/05					<0.05	ug/L	NC	30		
4734327	Aroclor 1248	2016/11/05					<0.05	ug/L	NC	30		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4734327	Aroclor 1254	2016/11/05					<0.05	ug/L	NC	30		
4734327	Aroclor 1260	2016/11/05	92	60 - 130	91	60 - 130	<0.05	ug/L	NC	30		
4734327	Total PCB	2016/11/05	92	60 - 130	91	60 - 130	<0.05	ug/L	NC	40		
4734350	Free Cyanide	2016/11/04	105	80 - 120	102	80 - 120	<1	ug/L	NC	20		
4734513	Dissolved Organic Carbon	2016/11/05	104	80 - 120	106	80 - 120	<0.20	mg/L	0.36	20		
4734628	Total Organic Carbon (TOC)	2016/11/05	104	80 - 120	105	80 - 120	<0.20	mg/L	1.5	20		
4734633	Total Ammonia-N	2016/11/10	NC	80 - 120	98	85 - 115	<0.050	mg/L	0.63	20		
4734717	Turbidity	2016/11/05			100	85 - 115	0.1, RDL=0.1	NTU	7.2	20		
4734753	Turbidity	2016/11/07			100	85 - 115	0.2, RDL=0.1	NTU	10	20		
4734794	Nitrate (N)	2016/11/09	105	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
4734794	Nitrite (N)	2016/11/09	101	80 - 120	96	80 - 120	<0.010	mg/L	NC	20		
4734802	Dissolved Organic Carbon	2016/11/05	100	80 - 120	104	80 - 120	0.28, RDL=0.20	mg/L	1.2	20		
4734829	Alkalinity (Total as CaCO3)	2016/11/06			95	85 - 115	<1.0	mg/L	7.1	20		
4734840	Conductivity	2016/11/06			101	85 - 115	<1.0	umho/cm	NC	25		
4734841	Fluoride (F-)	2016/11/06	13 (1)	80 - 120	101	80 - 120	<0.10	mg/L	NC	20		
4734845	pH	2016/11/06			102	98 - 103			1.5	N/A		
4734928	Dissolved Organic Carbon	2016/11/04	100	80 - 120	102	80 - 120	0.24, RDL=0.20	mg/L	0.91	20		
4735450	Dissolved Chloride (Cl)	2016/11/07	83	80 - 120	103	80 - 120	<1.0	mg/L	0.99	20		
4735451	Dissolved Sulphate (SO4)	2016/11/07	108	75 - 125	102	80 - 120	<1.0	mg/L	0.29	20		
4735452	Orthophosphate (P)	2016/11/07	114	75 - 125	101	80 - 120	<0.010	mg/L	NC	25		
4735457	Nitrate (N)	2016/11/09	104	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
4735457	Nitrite (N)	2016/11/09	105	80 - 120	95	80 - 120	<0.010	mg/L	NC	20		
4735543	Nitrate (N)	2016/11/08	100	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
4735543	Nitrite (N)	2016/11/08	108	80 - 120	94	80 - 120	<0.010	mg/L	NC	20		
4735547	. Aluminum (Al)	2016/11/07	95	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		
4735547	. Antimony (Sb)	2016/11/07	98	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Arsenic (As)	2016/11/07	96	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
4735547	. Barium (Ba)	2016/11/07	92	80 - 120	96	80 - 120	<0.0020	mg/L	1.1	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4735547	. Beryllium (Be)	2016/11/07	91	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Boron (B)	2016/11/07	88	80 - 120	100	80 - 120	<0.010	mg/L	NC	20		
4735547	. Cadmium (Cd)	2016/11/07	95	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
4735547	. Calcium (Ca)	2016/11/07	NC	80 - 120	96	80 - 120	<0.20	mg/L	1.7	20		
4735547	. Chromium (Cr)	2016/11/07	95	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
4735547	. Cobalt (Co)	2016/11/07	93	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Copper (Cu)	2016/11/07	96	80 - 120	98	80 - 120	<0.0010	mg/L	0.016	20		
4735547	. Iron (Fe)	2016/11/07	95	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
4735547	. Lead (Pb)	2016/11/07	93	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Magnesium (Mg)	2016/11/07	NC	80 - 120	101	80 - 120	<0.050	mg/L	0.46	20		
4735547	. Manganese (Mn)	2016/11/07	91	80 - 120	93	80 - 120	<0.0020	mg/L	NC	20		
4735547	. Molybdenum (Mo)	2016/11/07	99	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Nickel (Ni)	2016/11/07	89	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
4735547	. Phosphorus (P)	2016/11/07	99	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
4735547	. Potassium (K)	2016/11/07	97	80 - 120	102	80 - 120	<0.20	mg/L	0.029	20		
4735547	. Selenium (Se)	2016/11/07	93	80 - 120	96	80 - 120	<0.0020	mg/L	NC	20		
4735547	. Silicon (Si)	2016/11/07	92	80 - 120	99	80 - 120	<0.050	mg/L	1.1	20		
4735547	. Silver (Ag)	2016/11/07	94	80 - 120	95	80 - 120	<0.00010	mg/L	NC	20		
4735547	. Sodium (Na)	2016/11/07	96	80 - 120	99	80 - 120	0.10, RDL=0.10 (2)	mg/L	0.68	20		
4735547	. Strontium (Sr)	2016/11/07	NC	80 - 120	96	80 - 120	<0.0010	mg/L	0.93	20		
4735547	. Thallium (Tl)	2016/11/07	93	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20		
4735547	. Titanium (Ti)	2016/11/07	93	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
4735547	. Uranium (U)	2016/11/07	93	80 - 120	96	80 - 120	<0.00010	mg/L	1.5	20		
4735547	. Vanadium (V)	2016/11/07	96	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
4735547	. Zinc (Zn)	2016/11/07	94	80 - 120	96	80 - 120	<0.0050	mg/L	1.0	20		
4735547	. Zirconium (Zr)	2016/11/07	103	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20		
4735559	. Aluminum (Al)	2016/11/07	95	80 - 120	97	80 - 120	<0.0050	mg/L				
4735559	. Antimony (Sb)	2016/11/07	97	80 - 120	98	80 - 120	<0.00050	mg/L				
4735559	. Arsenic (As)	2016/11/07	95	80 - 120	95	80 - 120	<0.0010	mg/L				
4735559	. Barium (Ba)	2016/11/07	94	80 - 120	94	80 - 120	<0.0020	mg/L				

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4735559	. Beryllium (Be)	2016/11/07	97	80 - 120	96	80 - 120	<0.00050	mg/L				
4735559	. Boron (B)	2016/11/07	92	80 - 120	98	80 - 120	<0.010	mg/L				
4735559	. Cadmium (Cd)	2016/11/07	95	80 - 120	95	80 - 120	<0.00010	mg/L				
4735559	. Calcium (Ca)	2016/11/07	94	80 - 120	94	80 - 120	<0.20	mg/L	0.33	20		
4735559	. Chromium (Cr)	2016/11/07	94	80 - 120	96	80 - 120	<0.0050	mg/L				
4735559	. Cobalt (Co)	2016/11/07	95	80 - 120	96	80 - 120	<0.00050	mg/L				
4735559	. Copper (Cu)	2016/11/07	92	80 - 120	94	80 - 120	<0.0010	mg/L				
4735559	. Iron (Fe)	2016/11/07	95	80 - 120	96	80 - 120	<0.10	mg/L				
4735559	. Lead (Pb)	2016/11/07	92	80 - 120	93	80 - 120	<0.00050	mg/L				
4735559	. Magnesium (Mg)	2016/11/07	96	80 - 120	97	80 - 120	<0.050	mg/L	0.56	20		
4735559	. Manganese (Mn)	2016/11/07	94	80 - 120	98	80 - 120	<0.0020	mg/L				
4735559	. Molybdenum (Mo)	2016/11/07	95	80 - 120	96	80 - 120	<0.00050	mg/L				
4735559	. Nickel (Ni)	2016/11/07	94	80 - 120	95	80 - 120	<0.0010	mg/L				
4735559	. Phosphorus (P)	2016/11/07	NC	80 - 120	99	80 - 120	<0.10	mg/L				
4735559	. Potassium (K)	2016/11/07	96	80 - 120	96	80 - 120	<0.20	mg/L				
4735559	. Selenium (Se)	2016/11/07	96	80 - 120	95	80 - 120	<0.0020	mg/L				
4735559	. Silicon (Si)	2016/11/07	95	80 - 120	97	80 - 120	<0.050	mg/L	0.94	20		
4735559	. Silver (Ag)	2016/11/07	92	80 - 120	93	80 - 120	<0.00010	mg/L				
4735559	. Sodium (Na)	2016/11/07	NC	80 - 120	97	80 - 120	<0.10	mg/L				
4735559	. Strontium (Sr)	2016/11/07	95	80 - 120	96	80 - 120	<0.0010	mg/L				
4735559	. Thallium (Tl)	2016/11/07	90	80 - 120	92	80 - 120	<0.000050	mg/L				
4735559	. Titanium (Ti)	2016/11/07	93	80 - 120	95	80 - 120	<0.0050	mg/L				
4735559	. Uranium (U)	2016/11/07	95	80 - 120	95	80 - 120	<0.00010	mg/L				
4735559	. Vanadium (V)	2016/11/07	95	80 - 120	95	80 - 120	<0.00050	mg/L				
4735559	. Zinc (Zn)	2016/11/07	95	80 - 120	96	80 - 120	<0.0050	mg/L				
4735559	. Zirconium (Zr)	2016/11/07	95	80 - 120	97	80 - 120	<0.0010	mg/L				
4735571	Dissolved Organic Carbon	2016/11/05	97	80 - 120	99	80 - 120	0.23, RDL=0.20	mg/L	NC	20		
4735729	Dissolved Chloride (Cl)	2016/11/07	103	80 - 120	103	80 - 120	<1.0	mg/L	NC	20		
4735730	Dissolved Sulphate (SO4)	2016/11/07	116	75 - 125	98	80 - 120	<1.0	mg/L	NC	20		
4735733	Orthophosphate (P)	2016/11/07	110	75 - 125	99	80 - 120	<0.010	mg/L	8.8	25		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4735898	Dissolved Chloride (Cl)	2016/11/07	106	80 - 120	103	80 - 120	<1.0	mg/L	NC	20		
4735903	Total Organic Carbon (TOC)	2016/11/06	101	80 - 120	102	80 - 120	0.25, RDL=0.20	mg/L	7.4	20		
4735915	Dissolved Sulphate (SO4)	2016/11/07	NC	75 - 125	97	80 - 120	<1.0	mg/L	0.68	20		
4735916	Orthophosphate (P)	2016/11/07	111	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
4736148	Total Ammonia-N	2016/11/09	102	80 - 120	101	85 - 115	<0.050	mg/L	NC	20		
4736150	Total Organic Carbon (TOC)	2016/11/08	97	80 - 120	107	80 - 120	<0.20	mg/L	2.3	20		
4736151	Total Ammonia-N	2016/11/08	99	80 - 120	100	85 - 115	<0.050	mg/L	NC	20		
4736153	Total Ammonia-N	2016/11/09	102	80 - 120	101	85 - 115	<0.050	mg/L	NC	20		
4736889	F1 (C6-C10) - BTEX	2016/11/07					<25	ug/L	NC	30		
4736889	F1 (C6-C10)	2016/11/07	86	70 - 130	87	70 - 130	<25	ug/L	NC	30		
4737052	F2 (C10-C16 Hydrocarbons)	2016/11/08	116	50 - 130	113	60 - 130	<100	ug/L	NC	30		
4737052	F3 (C16-C34 Hydrocarbons)	2016/11/08	111	50 - 130	108	60 - 130	<200	ug/L	NC	30		
4737052	F4 (C34-C50 Hydrocarbons)	2016/11/08	109	50 - 130	105	60 - 130	<200	ug/L	NC	30		
4737104	Mercury (Hg)	2016/11/09	111	75 - 125	102	80 - 120	<0.0001	mg/L	NC	20		
4738418	Mercury (Hg)	2016/11/09	101	75 - 125	100	80 - 120	<0.0001	mg/L	NC	20		
4738533	Chromium (VI)	2016/11/08	NC	80 - 120	96	80 - 120	<0.50	ug/L	NC	20		
4740246	Mercury (Hg)	2016/11/09	111	75 - 125	109	80 - 120	<0.0001	mg/L	NC	20		
4742285	1,2,4-Trichlorobenzene	2016/11/11	76	40 - 130	76	40 - 130	<0.1	ug/L	NC	30		
4742285	1-Methylnaphthalene	2016/11/11	92	50 - 130	91	50 - 130	<0.2	ug/L				
4742285	2,4,5-Trichlorophenol	2016/11/11	100	50 - 130	96	50 - 130	<0.2	ug/L				
4742285	2,4,6-Trichlorophenol	2016/11/11	90	50 - 130	90	50 - 130	<0.2	ug/L				
4742285	2,4-Dichlorophenol	2016/11/11	77	50 - 130	79	50 - 130	<0.1	ug/L	NC	30		
4742285	2,4-Dimethylphenol	2016/11/11	20 (3)	30 - 130	18 (3)	30 - 130	<0.5	ug/L				
4742285	2,4-Dinitrophenol	2016/11/11	98	30 - 130	91	30 - 130	<2	ug/L				
4742285	2,4-Dinitrotoluene	2016/11/11	102	50 - 130	98	50 - 130	<0.3	ug/L				
4742285	2,6-Dinitrotoluene	2016/11/11	100	50 - 130	96	50 - 130	<0.3	ug/L				
4742285	2-Chlorophenol	2016/11/11	72	50 - 130	77	50 - 130	<0.1	ug/L				
4742285	2-Methylnaphthalene	2016/11/11	87	50 - 130	87	50 - 130	<0.2	ug/L				
4742285	3,3'-Dichlorobenzidine	2016/11/11	83	30 - 130	105	30 - 130	<0.5	ug/L				
4742285	Acenaphthene	2016/11/11	98	50 - 130	96	50 - 130	<0.2	ug/L	NC	30		



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4742285	Acenaphthylene	2016/11/11	94	50 - 130	92	50 - 130	<0.2	ug/L	NC	30		
4742285	Anthracene	2016/11/11	104	50 - 130	100	50 - 130	<0.05	ug/L	NC	30		
4742285	Benzo(a)anthracene	2016/11/11	103	50 - 130	101	50 - 130	<0.05	ug/L	NC	30		
4742285	Benzo(a)pyrene	2016/11/11	101	50 - 130	99	50 - 130	<0.01	ug/L	NC	30		
4742285	Benzo(b/j)fluoranthene	2016/11/11	109	50 - 130	102	50 - 130	<0.05	ug/L	NC	30		
4742285	Benzo(g,h,i)perylene	2016/11/11	109	50 - 130	110	50 - 130	<0.05	ug/L	NC	30		
4742285	Benzo(k)fluoranthene	2016/11/11	105	50 - 130	105	50 - 130	<0.05	ug/L	NC	30		
4742285	Biphenyl	2016/11/11	87	50 - 130	86	50 - 130	<0.1	ug/L				
4742285	Bis(2-chloroethyl)ether	2016/11/11	80	50 - 130	83	50 - 130	<0.5	ug/L				
4742285	Bis(2-chloroisopropyl)ether	2016/11/11	83	50 - 130	86	50 - 130	<0.5	ug/L				
4742285	Bis(2-ethylhexyl)phthalate	2016/11/11	107	50 - 130	105	50 - 130	<1	ug/L				
4742285	Chrysene	2016/11/11	105	50 - 130	102	50 - 130	<0.05	ug/L	NC	30		
4742285	Dibenz(a,h)anthracene	2016/11/11	112	50 - 130	112	50 - 130	<0.1	ug/L	NC	30		
4742285	Diethyl phthalate	2016/11/11	97	50 - 130	94	50 - 130	<0.1	ug/L				
4742285	Dimethyl phthalate	2016/11/11	99	50 - 130	96	50 - 130	<0.1	ug/L				
4742285	Fluoranthene	2016/11/11	106	50 - 130	103	50 - 130	<0.2	ug/L	NC	30		
4742285	Fluorene	2016/11/11	99	50 - 130	97	50 - 130	<0.2	ug/L	NC	30		
4742285	Indeno(1,2,3-cd)pyrene	2016/11/11	109	50 - 130	110	50 - 130	<0.1	ug/L	NC	30		
4742285	Naphthalene	2016/11/11	87	50 - 130	87	50 - 130	<0.2	ug/L	NC	30		
4742285	p-Chloroaniline	2016/11/11	30 (3)	30 - 130	73	30 - 130	<1	ug/L				
4742285	Pentachlorophenol	2016/11/11	45 (3)	50 - 130	42 (3)	50 - 130	<0.1	ug/L				
4742285	Phenanthrene	2016/11/11	98	50 - 130	95	50 - 130	<0.1	ug/L	NC	30		
4742285	Phenol	2016/11/11	30	30 - 130	33	30 - 130	<0.5	ug/L	NC	30		
4742285	Pyrene	2016/11/11	106	50 - 130	103	50 - 130	<0.05	ug/L	NC	30		
4742857	Total Organic Carbon (TOC)	2016/11/10	95	80 - 120	98	80 - 120	0.23, RDL=0.20	mg/L	NC	20		

**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4742882	Dissolved Organic Carbon	2016/11/10	94	80 - 120	98	80 - 120	0.24, RDL=0.20	mg/L	NC	20		

N/A = Not Applicable

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

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

(2) Analyte was detected in the method blank at a level marginally above the detection limit. Sample results have not been blank corrected. Those results at or near the detection limit may be biased high..

(3) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

### VALIDATION SIGNATURE PAGE

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

*Cristina Carriere*

\_\_\_\_\_  
Cristina Carriere, Scientific Services

*Eva Pranjic*



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

*Grace M. Sison*




\_\_\_\_\_  
Grace Sison, B.Sc., C.Chem, Senior Project Manager - Petroleum Division

*Ranju Chaudhari*

\_\_\_\_\_  
Ranju Chaudhari

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.


<b>INVOICE INFORMATION:</b> Company Name: #9197 Stantec Consulting Ltd Contact Name: Accounts Payable Address: 49 Frederick St, Kitchener ON N2H 6M7 Phone: (519) 579-4410 Fax: (519) 579-6733 Email: Stantec.Accounts Payable Invoices@Stantec.com		<b>REPORT INFORMATION (if differs from invoice):</b> Company Name: #18379 Stantec Consulting Ltd Contact Name: Report - 1609-00764 Address: ON Phone: Fax: Email: aaron.warkentin@stantec.com, brant.gill@stantec.com		<b>PROJECT INFORMATION:</b> Quotation #: B48218 Task #: Project #: 160900764 Profit Centre: Site #: CLARINGTON TS-PRIVATE WELLS Sampled By: JK		<b>Laboratory Use Only:</b> Maxxam Job #: Bottle Order #: 584480 COC #:  Project Manager: Deepthi Shaji C#584480-02-01	
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MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY				Field Filtered (please circle) Metals / Hg / Cr / V	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										# of Bottles	Comments		
Regulation 153 (2011)		Other Regulations			Special Instructions		Acidity, CrVI, Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1-F4	Reg 153 PCBs	Reg 153 VOCs	RCAP - Comp. (Drinking Water) - No Filter	SVOCs	E.coli, Total Coliform Background				
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw														
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw														
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality														
<input type="checkbox"/> Table			<input type="checkbox"/> PWOO	Other														
Include Criteria on Certificate of Analysis (Y/N)?																		
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix														
1	WG-160900764-20161102-3K11	Nov 2 2016	0956	WG	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	21	
2	WG-160900764-20161102-3K12		1044			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
3	WG-160900764-20161102-3K13		1143			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
4	WG-160900764-20161102-3K14		1247			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
5	WG-160900764-20161102-3K15		1322			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
6	WG-160900764-20161102-3K16		1513			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
7	WG-160900764-20161102-3K17		1613			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
8	WG-160900764-20161102-3K18																	
9	WG-160900764-20161102-3K19																	
10	WG-160900764-20161102-3K20																	

Turnaround Time (TAT) Required:  
Please provide advance notice for rush projects

**Regular (Standard) TAT:**  
(will be applied if Rush TAT is not specified)  
Standard TAT = 5-7 Working days for most tests.  
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are 5 days - contact your Project Manager for details.

**Job Specific Rush TAT (if applies to entire submission)**  
Date Required: \_\_\_\_\_ Time Required: \_\_\_\_\_  
Rush Confirmation Number: \_\_\_\_\_ (call lab for #)

03-Nov-16 13:23  
Deepthi Shaji  
  
B6N8820  
TSP ENV-601

RELINQUISHED BY: (Signature/Print) Jami Kich	Date: (YY/MM/DD) 16/11/03	Time 13:22	RECEIVED BY: (Signature/Print) ANUSHKARAN KAOK	Date: (YY/MM/DD) 2016/11/03	Time 13:23	# jars used and not submitted	Laboratory Use Only								
							Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No				
								REFER TO ACT	Present						
									Intact						

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam Yellow: Client

<b>INVOICE INFORMATION:</b>		<b>REPORT INFORMATION (if differs from invoice):</b>		<b>PROJECT INFORMATION:</b>		<b>Laboratory Use Only:</b>	
Company Name: #9197 Stantec Consulting Ltd	Company Name: #18379 Stantec Consulting Ltd	Quotation #: B48218	Maxxam Job #:	Bottle Order #:			
Contact Name: Accounts Payable	Contact Name: Report - 1609-00764	Task #:					
Address: 49 Frederick St Kitchener ON N2H 6M7	Address: ON	Project #: 160900764	COC #:	Project Manager:			
Phone: (519) 579-4410 Fax: (519) 579-6733	Phone: Fax:	Profit Centre:	CLARINGTON TS-PRIVATE WELLS				
Email: Stantec.Accounts.Payable.Invoices@Stantec.com	Email: aaron.warkentin@stantec.com, brant.gill@stantec.com	Site #:			Turnaround Time (TAT) Required: Please provide advance notice for rush projects		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects		
Regulation 153 (2011)			Other Regulations			Special Instructions	Field Filtered (please circle)	Metals / Hg / Cr / V	Acidity, C.V.I. Cyanide, Fluoride, Mercury	TDS, TOC, TSS, Turbidity	Reg 153 PHC - F1, F4	Reg 153 PCBs	Reg 153 VOCs	RCAp - Comp. (Drinking Water) - No Filter	SVOCs	E.coli, Total Coliform Background	Regular (Standard) TAT: (will be applied if Rush TAT is not specified) Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)
Table 1	Res/Park	Medium/Fine	CCME	Sanitary Sewer Bylaw														
Table 2	Ind/Comm	Coarse	Reg 558	Storm Sewer Bylaw														
Table 3	Agri/Other	For RSC	MISA	Municipality														
Table			PWOO															
Include Criteria on Certificate of Analysis (Y/N)?																		
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix														
1	WG-160900764-20161103-JK18	NOV 3 2016	0922	WG	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	21	
2	WG-160900764-20161103-JK19		1016			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
3	WG-160900764-20161103-JK20		1053			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
4	WG-160900764-20161103-JK21		1156			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
5	WG-160900764-20161103-___																	
6	WG-160900764-20161103-___																	
7	WG-160900764-20161103-___																	
8																		
9																		
10																		

* RELINQUISHED BY: (Signature/Print) Jamilie Kuch		Date: (YY/MM/DD) 16/11/03	Time 1322	RECEIVED BY: (Signature/Print) KARAN TAWK		Date: (YY/MM/DD) 2016/11/23	Time 1312	# jars used and not submitted	Laboratory Use Only		
Time Sensitive	Temperature (°C) on Receipt REFER TO NLR	Custody Seal	Yes	No							
		Present									
		Intact									

\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM. White: Maxxam. Yellow: Client.