



Your Project #: 110217729 NCIA MONITORING  
 Site: FORT SASKATCHEWAN  
 Your C.O.C. #: 32189

**Attention: DYLAN KING**  
 STANTEC CONSULTING LTD.  
 10160-112 STREET  
 EDMONTON, AB  
 CANADA T5K 2L6

**Report Date: 2008/01/10**

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A763547**  
**Received: 2007/12/19, 17:15**

Sample Matrix: Water  
 # Samples Received: 8

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity - Water	8	2007/12/24	2007/12/24	EENVSOP-00054	SM 2320
BTEX in Water by HS GC/MS	7	2007/12/24	2007/12/24	EENVSOP-00004 EENVSOP-00002	EPA 8260C / CCME
BTEX in Water by HS GC/MS	1	2007/12/28	2007/12/28	EENVSOP-00004 EENVSOP-00002	EPA 8260C / CCME
Chloride (IC)	8	N/A	2007/12/24	EENVSOP-00055	SM 4110B
Carbon (DOC)	8	N/A	2007/12/27	EENVSOP-00060 v2	MMCW 119
Conductance - water	8	N/A	2007/12/24	EENVSOP-00054	SM 2510B
CCME Hydrocarbons in Water (F2; C10-C16)	7	2007/12/28	2007/12/29	EENVSOP-00009 EENVSOP-00008	EPA 8015D/3510C
CCME Hydrocarbons in Water (F2; C10-C16)	1	2007/12/31	2007/12/31	EENVSOP-00009 EENVSOP-00008	EPA 8015D/3510C
Fluoride	8	N/A	2008/01/03	EENVSOP-00054	SM 4500 F-C
Hardness	8	N/A	2007/12/27		
Mercury (Dissolved)	8	2007/12/28	2007/12/28	EENVSOP-00031	EPA 245.1
Elements by ICP - Dissolved	8	N/A	2007/12/27	EENVSOP-00034	EPA SW846 6010C
Elements by ICPMS - Dissolved	8	N/A	2007/12/24	EENVSOP-00123	EPA SW-846 6020A
Ion Balance	8	N/A	2007/12/28		
Ammonia-N	8	2007/12/27	2007/12/27	EENVSOP-00058	EPA 350.1
Nitrite (NO2) BY IC-EC	8	N/A	2007/12/24	EENVSOP-00055	SM 4110B
Nitrate + Nitrite-N (calculated)	8	N/A	2007/12/28		
Nitrate (NO3) BY IC-EC	8	N/A	2007/12/24	EENVSOP-00055	SM 4110 B
pH Water	8	N/A	2007/12/24	EENVSOP-00054 EENVSOP-00053	SM 4500H+B
Phenols (4-AAP)	8	N/A	2007/12/24	EENVSOP-00061	TAA 2 MTD 127.71 W/B
Orthophosphate by Konelab	8	N/A	2007/12/24	EENVSOP-00095	EPA 365.1
Sulphate (SO4)	8	N/A	2007/12/24	EENVSOP-00055	SM 4110B
Total Dissolved Solids (Calculated)	8	N/A	2007/12/28	CAL WI-00053	

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



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CANADA T5K 2L6

**Report Date: 2008/01/10**

**CERTIFICATE OF ANALYSIS**

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Encryption Key

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

JEREMY WAKARUK, B.Sc. Biology, Senior Project Manager  
Email: jwakaruk@maxxamanalytics.com  
Phone# (780) 577-7105 Ext:7105

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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. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

**PETROLEUM HYDROCARBONS (CCME) WATER**

Maxxam ID		I44664	I44665	I44666	I44668		
Sampling Date		2007/12/19	2007/12/19	2007/12/19	2007/12/19		
COC Number		32189	32189	32189	32189		
	<b>Units</b>	<b>MW05</b>	<b>MW02</b>	<b>MW07</b>	<b>MW06</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	2042591
<b>Volatiles</b>							
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	0.4	2039348
Toluene	ug/L	<0.4	<0.4	<0.4	<0.4	0.4	2039348
Ethylbenzene	ug/L	<0.4	<0.4	<0.4	<0.4	0.4	2039348
o-Xylene	ug/L	<0.4	<0.4	<0.4	<0.4	0.4	2039348
m & p-Xylene	ug/L	<0.8	<0.8	<0.8	<0.8	0.8	2039348
Xylenes (Total)	ug/L	<0.8	<0.8	<0.8	<0.8	0.8	2039348
F1 (C06-C10) - BTEX	ug/L	<100	<100	<100	<100	100	2039348
(C06-C10)	ug/L	<100	<100	<100	<100	100	2039348
<b>Surrogate Recovery (%)</b>							
O-TERPHENYL (sur.)	%	107	108	107	106	N/A	2042591
4-BROMOFLUOROBENZENE (sur.)	%	97	97	97	97	N/A	2039348
D4-1,2-DICHLOROETHANE (sur.)	%	111	104	118	97	N/A	2039348
D8-TOLUENE (sur.)	%	100	96	95	99	N/A	2039348

N/A = Not Applicable  
RDL = Reportable Detection Limit

**PETROLEUM HYDROCARBONS (CCME) WATER**

Maxxam ID		I44669	I44671		I44672		
Sampling Date		2007/12/19	2007/12/19		2007/12/19		
COC Number		32189	32189		32189		
	<b>Units</b>	<b>MW08</b>	<b>MW04</b>	<b>QC Batch</b>	<b>MW03</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	mg/L	<0.1	<0.1	2042591	<0.1	0.1	2044486
<b>Volatiles</b>							
Benzene	ug/L	<0.4	<0.4	2039348	<0.4	0.4	2042922
Toluene	ug/L	<0.4	<0.4	2039348	<0.4	0.4	2042922
Ethylbenzene	ug/L	<0.4	<0.4	2039348	<0.4	0.4	2042922
o-Xylene	ug/L	<0.4	<0.4	2039348	<0.4	0.4	2042922
m & p-Xylene	ug/L	<0.8	<0.8	2039348	<0.8	0.8	2042922
Xylenes (Total)	ug/L	<0.8	<0.8	2039348	<0.8	0.8	2042922
F1 (C06-C10) - BTEX	ug/L	<100	<100	2039348	<100	100	2042922
(C06-C10)	ug/L	<100	<100	2039348	<100	100	2042922
<b>Surrogate Recovery (%)</b>							
O-TERPHENYL (sur.)	%	108	106	2042591	110	N/A	2044486
4-BROMOFLUOROBENZENE (sur.)	%	93	99	2039348	97	N/A	2042922
D4-1,2-DICHLOROETHANE (sur.)	%	118	111	2039348	106	N/A	2042922
D8-TOLUENE (sur.)	%	95	102	2039348	94	N/A	2042922

N/A = Not Applicable  
 RDL = Reportable Detection Limit

**PETROLEUM HYDROCARBONS (CCME) WATER**

Maxxam ID		144673		
Sampling Date		2007/12/19		
COC Number		32189		
	<b>Units</b>	<b>MW01</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Hydrocarbons</b>				
F2 (C10-C16 Hydrocarbons)	mg/L	<0.1	0.1	2042591
<b>Volatiles</b>				
Benzene	ug/L	<0.4	0.4	2039348
Toluene	ug/L	<0.4	0.4	2039348
Ethylbenzene	ug/L	<0.4	0.4	2039348
o-Xylene	ug/L	<0.4	0.4	2039348
m & p-Xylene	ug/L	<0.8	0.8	2039348
Xylenes (Total)	ug/L	<0.8	0.8	2039348
F1 (C06-C10) - BTEX	ug/L	<100	100	2039348
(C06-C10)	ug/L	<100	100	2039348
<b>Surrogate Recovery (%)</b>				
O-TERPHENYL (sur.)	%	109	N/A	2042591
4-BROMOFLUOROBENZENE (sur.)	%	100	N/A	2039348
D4-1,2-DICHLOROETHANE (sur.)	%	113	N/A	2039348
D8-TOLUENE (sur.)	%	99	N/A	2039348
N/A = Not Applicable RDL = Reportable Detection Limit				

**RCAP - PARTIAL ROUTINE (WATER)**

Maxxam ID		I44664		I44665		
Sampling Date		2007/12/19		2007/12/19		
COC Number		32189		32189		
	Units	MW05	QC Batch	MW02	RDL	QC Batch
<b>CONVENTIONALS</b>						
Nitrate (N)	mg/L	<0.2	2041025	<0.2	0.2	2041025
Nitrite (N)	mg/L	<0.06	2041021	<0.06	0.06	2041021
<b>Calculated Parameters</b>						
Hardness (CaCO3)	mg/L	380	2036151	530	0.5	2036151
Ion Balance	N/A	0.88	2036152	0.84	0.01	2036152
Total Dissolved Solids	mg/L	566	2036155	895	10	2036155
<b>Misc. Inorganics</b>						
Alkalinity (Total as CaCO3)	mg/L	360	2039496	540	1	2039496
Alkalinity (PP as CaCO3)	mg/L	<1	2039496	<1	1	2039496
Bicarbonate (HCO3)	mg/L	440	2039496	660	1	2039496
Carbonate (CO3)	mg/L	<1	2039496	<1	1	2039496
Hydroxide (OH)	mg/L	<1	2039496	<1	1	2039496
<b>Anions</b>						
Dissolved Sulphate (SO4)	mg/L	150	2040992	290	1	2040992
Dissolved Chloride (Cl)	mg/L	22	2040987	13	1	2040987
<b>Nutrients</b>						
Nitrate plus Nitrite (N)	mg/L	<0.2	2038373	<0.2	0.2	2038373
<b>Physical Properties</b>						
Conductivity	uS/cm	930	2039497	1400	1	2039497
pH	pH Units	7.6	2039457	7.4	N/A	2039457
<b>Elements</b>						
Dissolved Barium (Ba)	mg/L	0.04	2041334	N/A	0.01	2041334
Dissolved Boron (B)	mg/L	0.06	2041334	N/A	0.02	2041334
Dissolved Calcium (Ca)	mg/L	100	2041334	140	0.3	2044506
Dissolved Iron (Fe)	mg/L	<0.06	2041334	<0.06	0.06	2044506
Dissolved Lithium (Li)	mg/L	0.04	2041334	N/A	0.02	N/A
Dissolved Magnesium (Mg)	mg/L	30	2041334	46	0.2	2044506
Dissolved Manganese (Mn)	mg/L	0.66	2041334	0.70	0.004	2044506
Dissolved Phosphorus (P)	mg/L	<0.1	2041334	N/A	0.1	N/A
Dissolved Potassium (K)	mg/L	7.4	2041334	4.5	0.3	2044506
Dissolved Silicon (Si)	mg/L	5.6	2041334	N/A	0.1	N/A
Dissolved Sodium (Na)	mg/L	41	2041334	83	0.5	2044506
N/A = Not Applicable RDL = Reportable Detection Limit						

**RCAP - PARTIAL ROUTINE (WATER)**

Maxxam ID		I44664		I44665		
Sampling Date		2007/12/19		2007/12/19		
COC Number		32189		32189		
	<b>Units</b>	<b>MW05</b>	<b>QC Batch</b>	<b>MW02</b>	<b>RDL</b>	<b>QC Batch</b>

Dissolved Strontium (Sr)	mg/L	0.63	2041334	N/A	0.02	N/A
Dissolved Sulphur (S)	mg/L	42	2041334	N/A	0.2	N/A

N/A = Not Applicable  
RDL = Reportable Detection Limit

**RCAP - PARTIAL ROUTINE (WATER)**

Maxxam ID		I44666	I44668	I44669		
Sampling Date		2007/12/19	2007/12/19	2007/12/19		
COC Number		32189	32189	32189		
	<b>Units</b>	<b>MW07</b>	<b>MW06</b>	<b>MW08</b>	<b>RDL</b>	<b>QC Batch</b>

<b>CONVENTIONALS</b>						
Nitrate (N)	mg/L	<0.2	<0.2	<0.2	0.2	2041025
Nitrite (N)	mg/L	<0.06	<0.06	<0.06	0.06	2041021
<b>Calculated Parameters</b>						
Hardness (CaCO3)	mg/L	850	620	480	0.5	2038363
Ion Balance	N/A	0.84	0.85	0.84	0.01	2038367
Total Dissolved Solids	mg/L	1890	1230	977	10	2038379
<b>Misc. Inorganics</b>						
Alkalinity (Total as CaCO3)	mg/L	540	510	520	1	2039496
Alkalinity (PP as CaCO3)	mg/L	<1	<1	<1	1	2039496
Bicarbonate (HCO3)	mg/L	660	630	630	1	2039496
Carbonate (CO3)	mg/L	<1	<1	<1	1	2039496
Hydroxide (OH)	mg/L	<1	<1	<1	1	2039496
<b>Anions</b>						
Dissolved Sulphate (SO4)	mg/L	1000	560	370	1	2040992
Dissolved Chloride (Cl)	mg/L	9	3	2	1	2040987
<b>Nutrients</b>						
Nitrate plus Nitrite (N)	mg/L	<0.2	<0.2	<0.2	0.2	2038373
<b>Physical Properties</b>						
Conductivity	uS/cm	2500	1700	1400	1	2039497
pH	pH Units	7.5	7.7	7.7	N/A	2039457
<b>Elements</b>						
Dissolved Calcium (Ca)	mg/L	220	160	130	0.3	2044506
Dissolved Iron (Fe)	mg/L	<0.06	<0.06	<0.06	0.06	2044506
Dissolved Magnesium (Mg)	mg/L	72	54	36	0.2	2044506
Dissolved Manganese (Mn)	mg/L	1.6	1.5	0.44	0.004	2044506
Dissolved Potassium (K)	mg/L	5.1	5.0	5.4	0.3	2044506
Dissolved Sodium (Na)	mg/L	230	140	120	0.5	2044506

N/A = Not Applicable  
RDL = Reportable Detection Limit



**RCAP - PARTIAL ROUTINE (WATER)**

Maxxam ID		I44671	I44672	I44673		
Sampling Date		2007/12/19	2007/12/19	2007/12/19		
COC Number		32189	32189	32189		
	<b>Units</b>	<b>MW04</b>	<b>MW03</b>	<b>MW01</b>	<b>RDL</b>	<b>QC Batch</b>

<b>CONVENTIONALS</b>						
Nitrate (N)	mg/L	0.6	<0.2	<0.2	0.2	2041025
Nitrite (N)	mg/L	<0.06	<0.06	<0.06	0.06	2041021
<b>Calculated Parameters</b>						
Hardness (CaCO3)	mg/L	500	370	310	0.5	2038363
Ion Balance	N/A	0.90	0.87	0.87	0.01	2038367
Total Dissolved Solids	mg/L	763	571	442	10	2038379
<b>Misc. Inorganics</b>						
Alkalinity (Total as CaCO3)	mg/L	380	380	390	1	2039496
Alkalinity (PP as CaCO3)	mg/L	<1	<1	<1	1	2039496
Bicarbonate (HCO3)	mg/L	460	460	470	1	2039496
Carbonate (CO3)	mg/L	<1	<1	<1	1	2039496
Hydroxide (OH)	mg/L	<1	<1	<1	1	2039496
<b>Anions</b>						
Dissolved Sulphate (SO4)	mg/L	82	130	60	1	2040992
Dissolved Chloride (Cl)	mg/L	200	35	2	1	2040987
<b>Nutrients</b>						
Nitrate plus Nitrite (N)	mg/L	0.6	<0.2	<0.2	0.2	2038373
<b>Physical Properties</b>						
Conductivity	uS/cm	1400	960	770	1	2039497
pH	pH Units	7.7	7.7	7.8	N/A	2039457
<b>Elements</b>						
Dissolved Barium (Ba)	mg/L	0.08	0.03	0.11	0.01	2041438
Dissolved Boron (B)	mg/L	0.09	0.11	0.05	0.02	2041438
Dissolved Calcium (Ca)	mg/L	140	98	87	0.3	2041438
Dissolved Iron (Fe)	mg/L	<0.06	<0.06	<0.06	0.06	2041438
Dissolved Lithium (Li)	mg/L	0.03	0.04	0.02	0.02	2041438
Dissolved Magnesium (Mg)	mg/L	35	32	23	0.2	2041438
Dissolved Manganese (Mn)	mg/L	0.016	0.25	0.67	0.004	2041438
Dissolved Phosphorus (P)	mg/L	<0.1	<0.1	<0.1	0.1	2041438
Dissolved Potassium (K)	mg/L	10	2.7	2.2	0.3	2041438
Dissolved Silicon (Si)	mg/L	4.0	6.9	5.9	0.1	2041438
Dissolved Sodium (Na)	mg/L	71	49	34	0.5	2041438

N/A = Not Applicable  
RDL = Reportable Detection Limit

**RCAP - PARTIAL ROUTINE (WATER)**

Maxxam ID		I44671	I44672	I44673		
Sampling Date		2007/12/19	2007/12/19	2007/12/19		
COC Number		32189	32189	32189		
	<b>Units</b>	<b>MW04</b>	<b>MW03</b>	<b>MW01</b>	<b>RDL</b>	<b>QC Batch</b>
Dissolved Strontium (Sr)	mg/L	0.61	0.82	0.53	0.02	2041438
Dissolved Sulphur (S)	mg/L	24	36	18	0.2	2041438
RDL = Reportable Detection Limit						

**RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		I44664	I44665	I44666	I44668		
Sampling Date		2007/12/19	2007/12/19	2007/12/19	2007/12/19		
COC Number		32189	32189	32189	32189		
	<b>Units</b>	<b>MW05</b>	<b>MW02</b>	<b>MW07</b>	<b>MW06</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Misc. Inorganics</b>							
Fluoride (F)	mg/L	0.1	0.1	0.1	0.2	0.1	2047796
<b>Misc. Inorganics</b>							
Dissolved Organic Carbon (C)	mg/L	3	5	6	6	1	2042021
<b>Nutrients</b>							
Ammonia (N)	mg/L	0.05	0.10	0.26	1.9	0.01	2041429
Orthophosphate (P)	mg/L	0.05	0.08	0.02	0.17	0.02	2039454
<b>Misc. Organics</b>							
Phenols	mg/L	<0.001	0.002	0.002	0.002	0.001	2040103
RDL = Reportable Detection Limit							

Maxxam ID		I44669	I44671	I44672	I44673		
Sampling Date		2007/12/19	2007/12/19	2007/12/19	2007/12/19		
COC Number		32189	32189	32189	32189		
	<b>Units</b>	<b>MW08</b>	<b>MW04</b>	<b>MW03</b>	<b>MW01</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Misc. Inorganics</b>							
Fluoride (F)	mg/L	0.1	0.1	0.1	0.2	0.1	2047796
<b>Misc. Inorganics</b>							
Dissolved Organic Carbon (C)	mg/L	5	3	3	2	1	2042021
<b>Nutrients</b>							
Ammonia (N)	mg/L	0.25	0.01	0.06	0.26	0.01	2041429
Orthophosphate (P)	mg/L	0.05	0.04	0.04	0.02	0.02	2039454
<b>Misc. Organics</b>							
Phenols	mg/L	0.001	0.002	0.002	0.002	0.001	2040103
RDL = Reportable Detection Limit							

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		I44664	I44665	I44666	I44668		
Sampling Date		2007/12/19	2007/12/19	2007/12/19	2007/12/19		
COC Number		32189	32189	32189	32189		
	<b>Units</b>	<b>MW05</b>	<b>MW02</b>	<b>MW07</b>	<b>MW06</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Elements</b>							
Dissolved Aluminum (Al)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Antimony (Sb)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	2038778
Dissolved Arsenic (As)	mg/L	0.001	0.003	0.001	0.003	0.001	2038778
Dissolved Beryllium (Be)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Cadmium (Cd)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	2038778
Dissolved Chromium (Cr)	mg/L	0.003	0.004	0.004	0.002	0.001	2038778
Dissolved Cobalt (Co)	mg/L	0.0007	0.0026	0.0013	0.0008	0.0003	2038778
Dissolved Copper (Cu)	mg/L	<0.0002	0.0005	0.0016	0.0011	0.0002	2038778
Dissolved Lead (Pb)	mg/L	0.0002	0.0003	0.0003	0.0002	0.0002	2038778
Dissolved Molybdenum (Mo)	mg/L	0.0005	0.0006	0.0011	0.0012	0.0002	2038778
Dissolved Nickel (Ni)	mg/L	0.0029	0.0046	0.0059	0.0052	0.0005	2038778
Dissolved Selenium (Se)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Silver (Ag)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	2038778
Dissolved Thallium (Tl)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	2038778
Dissolved Tin (Sn)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Titanium (Ti)	mg/L	0.002	0.002	0.002	0.002	0.001	2038778
Dissolved Uranium (U)	mg/L	0.0007	0.0014	0.0014	0.0018	0.0001	2038778
Dissolved Vanadium (V)	mg/L	0.001	0.002	0.002	0.001	0.001	2038778
Dissolved Zinc (Zn)	mg/L	<0.003	<0.003	0.003	<0.003	0.003	2038778
<b>Low Level Elements</b>							
Dissolved Mercury (Hg)	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	2043664
RDL = Reportable Detection Limit							

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID		I44669	I44671	I44672	I44673		
Sampling Date		2007/12/19	2007/12/19	2007/12/19	2007/12/19		
COC Number		32189	32189	32189	32189		
	<b>Units</b>	<b>MW08</b>	<b>MW04</b>	<b>MW03</b>	<b>MW01</b>	<b>RDL</b>	<b>QC Batch</b>

Elements							
Dissolved Aluminum (Al)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Antimony (Sb)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	2038778
Dissolved Arsenic (As)	mg/L	0.002	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Beryllium (Be)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Cadmium (Cd)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	2038778
Dissolved Chromium (Cr)	mg/L	0.003	0.001	0.002	<0.001	0.001	2038778
Dissolved Cobalt (Co)	mg/L	0.0004	<0.0003	0.0008	0.0009	0.0003	2038778
Dissolved Copper (Cu)	mg/L	0.0006	0.0006	0.0002	<0.0002	0.0002	2038778
Dissolved Lead (Pb)	mg/L	0.0002	0.0002	0.0002	<0.0002	0.0002	2038778
Dissolved Molybdenum (Mo)	mg/L	0.0014	0.0006	0.0012	0.0008	0.0002	2038778
Dissolved Nickel (Ni)	mg/L	0.0036	0.0052	0.0042	0.0027	0.0005	2038778
Dissolved Selenium (Se)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Silver (Ag)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	2038778
Dissolved Thallium (Tl)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	2038778
Dissolved Tin (Sn)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	2038778
Dissolved Titanium (Ti)	mg/L	0.002	0.002	0.002	0.001	0.001	2038778
Dissolved Uranium (U)	mg/L	0.0008	0.0023	0.0006	0.0024	0.0001	2038778
Dissolved Vanadium (V)	mg/L	0.001	<0.001	0.001	<0.001	0.001	2038778
Dissolved Zinc (Zn)	mg/L	<0.003	<0.003	<0.003	<0.003	0.003	2038778
<b>Low Level Elements</b>							
Dissolved Mercury (Hg)	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	2043664

RDL = Reportable Detection Limit

**General Comments**

Sample I44664-01: Cation anion balance investigated, data quality confirmed  
Sample I44665-01: Ionic imbalance; analysis of major ions performed in duplicate  
Sample I44666-01: Ionic imbalance; analysis of major ions performed in duplicate  
Sample I44668-01: Ionic imbalance; analysis of major ions performed in duplicate  
Sample I44669-01: Ionic imbalance; analysis of major ions performed in duplicate  
Sample I44672-01: Cation anion balance investigated, data quality confirmed  
Sample I44673-01: Cation anion balance investigated, data quality confirmed

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

Quality Assurance Report  
 Maxxam Job Number: EA763547

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2038778	JY2	Calibration Check					
		Dissolved Aluminum (Al)	2007/12/24		106	%	80 - 120
		Dissolved Antimony (Sb)	2007/12/24		107	%	80 - 120
		Dissolved Arsenic (As)	2007/12/24		103	%	80 - 120
		Dissolved Beryllium (Be)	2007/12/24		104	%	80 - 120
		Dissolved Cadmium (Cd)	2007/12/24		105	%	80 - 120
		Dissolved Chromium (Cr)	2007/12/24		107	%	81 - 120
		Dissolved Cobalt (Co)	2007/12/24		105	%	80 - 120
		Dissolved Copper (Cu)	2007/12/24		105	%	81 - 120
		Dissolved Lead (Pb)	2007/12/24		104	%	80 - 120
		Dissolved Molybdenum (Mo)	2007/12/24		105	%	80 - 120
		Dissolved Nickel (Ni)	2007/12/24		104	%	80 - 120
		Dissolved Selenium (Se)	2007/12/24		102	%	80 - 120
		Dissolved Silver (Ag)	2007/12/24		104	%	80 - 120
		Dissolved Thallium (Tl)	2007/12/24		106	%	80 - 120
		Dissolved Tin (Sn)	2007/12/24		108	%	80 - 120
		Dissolved Titanium (Ti)	2007/12/24		106	%	80 - 120
		Dissolved Uranium (U)	2007/12/24		104	%	80 - 120
		Dissolved Vanadium (V)	2007/12/24		107	%	80 - 120
		Dissolved Zinc (Zn)	2007/12/24		105	%	80 - 120
	MATRIX SPIKE	Dissolved Antimony (Sb)	2007/12/24		93	%	80 - 120
		Dissolved Arsenic (As)	2007/12/24		98	%	80 - 120
		Dissolved Cadmium (Cd)	2007/12/24		94	%	80 - 120
		Dissolved Cobalt (Co)	2007/12/24		89	%	80 - 120
		Dissolved Copper (Cu)	2007/12/24		91	%	80 - 120
		Dissolved Lead (Pb)	2007/12/24		93	%	80 - 120
		Dissolved Molybdenum (Mo)	2007/12/24		97	%	80 - 120
		Dissolved Nickel (Ni)	2007/12/24		90	%	80 - 120
		Dissolved Selenium (Se)	2007/12/24		100	%	80 - 120
		Dissolved Thallium (Tl)	2007/12/24		95	%	80 - 120
		Dissolved Titanium (Ti)	2007/12/24		94	%	80 - 120
	BLANK	Dissolved Aluminum (Al)	2007/12/24	0.001, RDL=0.001		mg/L	
		Dissolved Antimony (Sb)	2007/12/24	<0.0002		mg/L	
		Dissolved Arsenic (As)	2007/12/24	<0.001		mg/L	
		Dissolved Beryllium (Be)	2007/12/24	<0.001		mg/L	
		Dissolved Cadmium (Cd)	2007/12/24	<0.0002		mg/L	
		Dissolved Chromium (Cr)	2007/12/24	<0.001		mg/L	
		Dissolved Cobalt (Co)	2007/12/24	<0.0003		mg/L	
		Dissolved Copper (Cu)	2007/12/24	<0.0002		mg/L	
		Dissolved Lead (Pb)	2007/12/24	<0.0002		mg/L	
		Dissolved Molybdenum (Mo)	2007/12/24	<0.0002		mg/L	
		Dissolved Nickel (Ni)	2007/12/24	<0.0005		mg/L	
		Dissolved Selenium (Se)	2007/12/24	<0.001		mg/L	
		Dissolved Silver (Ag)	2007/12/24	<0.0001		mg/L	
		Dissolved Thallium (Tl)	2007/12/24	<0.0002		mg/L	
		Dissolved Tin (Sn)	2007/12/24	<0.001		mg/L	
		Dissolved Titanium (Ti)	2007/12/24	<0.001		mg/L	
		Dissolved Uranium (U)	2007/12/24	<0.0001		mg/L	
		Dissolved Vanadium (V)	2007/12/24	<0.001		mg/L	
		Dissolved Zinc (Zn)	2007/12/24	<0.003		mg/L	
	RPD	Dissolved Aluminum (Al)	2007/12/24	NC		%	20
		Dissolved Antimony (Sb)	2007/12/24	NC		%	20
		Dissolved Arsenic (As)	2007/12/24	NC		%	20
		Dissolved Beryllium (Be)	2007/12/24	NC		%	20
		Dissolved Chromium (Cr)	2007/12/24	NC		%	20
		Dissolved Cobalt (Co)	2007/12/24	NC		%	20

Quality Assurance Report (Continued)

Maxxam Job Number: EA763547

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2038778 JY2	RPD	Dissolved Copper (Cu)	2007/12/24	NC		%	20
		Dissolved Lead (Pb)	2007/12/24	NC		%	20
		Dissolved Molybdenum (Mo)	2007/12/24	NC		%	20
		Dissolved Nickel (Ni)	2007/12/24	NC		%	20
		Dissolved Selenium (Se)	2007/12/24	NC		%	20
		Dissolved Silver (Ag)	2007/12/24	NC		%	20
		Dissolved Thallium (Tl)	2007/12/24	NC		%	20
		Dissolved Tin (Sn)	2007/12/24	NC		%	20
		Dissolved Titanium (Ti)	2007/12/24	NC		%	20
		Dissolved Uranium (U)	2007/12/24	0.05		%	20
		Dissolved Vanadium (V)	2007/12/24	NC		%	20
		Dissolved Zinc (Zn)	2007/12/24	NC		%	20
2039348 PC1	MATRIX SPIKE	4-BROMOFLUOROBENZENE (sur.)	2007/12/24		97	%	70 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2007/12/24		104	%	70 - 130
		D8-TOLUENE (sur.)	2007/12/24		96	%	70 - 130
		Benzene	2007/12/24		118	%	70 - 130
		Toluene	2007/12/24		105	%	70 - 130
		Ethylbenzene	2007/12/24		117	%	70 - 130
		o-Xylene	2007/12/24		117	%	70 - 130
		m & p-Xylene	2007/12/24		116	%	70 - 130
		(C06-C10)	2007/12/24		84	%	60 - 140
	SPIKE	4-BROMOFLUOROBENZENE (sur.)	2007/12/24		91	%	70 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2007/12/24		103	%	70 - 130
		D8-TOLUENE (sur.)	2007/12/24		102	%	70 - 130
		Benzene	2007/12/24		111	%	70 - 130
		Toluene	2007/12/24		110	%	70 - 130
		Ethylbenzene	2007/12/24		122	%	70 - 130
		o-Xylene	2007/12/24		120	%	70 - 130
		m & p-Xylene	2007/12/24		120	%	70 - 130
		(C06-C10)	2007/12/24		98	%	80 - 120
	BLANK	4-BROMOFLUOROBENZENE (sur.)	2007/12/24		101	%	70 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2007/12/24		117	%	70 - 130
		D8-TOLUENE (sur.)	2007/12/24		98	%	70 - 130
		Benzene	2007/12/24	<0.4		ug/L	
		Toluene	2007/12/24	<0.4		ug/L	
		Ethylbenzene	2007/12/24	<0.4		ug/L	
		o-Xylene	2007/12/24	<0.4		ug/L	
		m & p-Xylene	2007/12/24	<0.8		ug/L	
		Xylenes (Total)	2007/12/24	<0.8		ug/L	
		F1 (C06-C10) - BTEX	2007/12/24	<100		ug/L	
		(C06-C10)	2007/12/24	<100		ug/L	
	RPD	Benzene	2007/12/24	5.3		%	40
		Toluene	2007/12/24	NC		%	40
		Ethylbenzene	2007/12/24	NC		%	40
		o-Xylene	2007/12/24	NC		%	40
		m & p-Xylene	2007/12/24	NC		%	40
		Xylenes (Total)	2007/12/24	NC		%	40
		F1 (C06-C10) - BTEX	2007/12/24	NC		%	40
		(C06-C10)	2007/12/24	NC		%	40
2039454 DD1	MATRIX SPIKE	Orthophosphate (P)	2007/12/24		95	%	80 - 120
	SPIKE	Orthophosphate (P)	2007/12/24		107	%	90 - 110
	RPD	Orthophosphate (P)	2007/12/24	NC		%	20
2039496 WZ	Calibration Check	Alkalinity (Total as CaCO3)	2007/12/24		100	%	80 - 120
	BLANK	Alkalinity (Total as CaCO3)	2007/12/24	<1		mg/L	
		Alkalinity (PP as CaCO3)	2007/12/24	<1		mg/L	



Quality Assurance Report (Continued)  
 Maxxam Job Number: EA763547

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits	
2039496 WZ	BLANK	Bicarbonate (HCO3)	2007/12/24	<1		mg/L		
		Carbonate (CO3)	2007/12/24	<1		mg/L		
		Hydroxide (OH)	2007/12/24	<1		mg/L		
	RPD	Alkalinity (Total as CaCO3)	2007/12/24	NC		%	25	
		Alkalinity (PP as CaCO3)	2007/12/24	NC		%	25	
		Bicarbonate (HCO3)	2007/12/24	NC		%	25	
		Carbonate (CO3)	2007/12/24	NC		%	25	
2039497 WZ	Calibration Check	Conductivity	2007/12/24		99	%	80 - 120	
	BLANK	Conductivity	2007/12/24	<1		uS/cm		
2040103 YY	RPD	Conductivity	2007/12/24	NC		%	25	
	MATRIX SPIKE	Phenols	2007/12/24		102	%	80 - 120	
2040987 JQ	SPIKE	Phenols	2007/12/24		99	%	80 - 120	
	BLANK	Phenols	2007/12/24	<0.001		mg/L		
	RPD	Phenols	2007/12/24	NC		%	20	
	Calibration Check	Dissolved Chloride (Cl)	2007/12/24		101	%	80 - 120	
2040992 JQ	MATRIX SPIKE	Dissolved Chloride (Cl)	2007/12/24		102	%	80 - 120	
	BLANK	Dissolved Chloride (Cl)	2007/12/24	<1		mg/L		
	RPD	Dissolved Chloride (Cl)	2007/12/24	NC		%	25	
	Calibration Check	Dissolved Sulphate (SO4)	2007/12/24		99	%	80 - 120	
2041021 JQ	MATRIX SPIKE	Dissolved Sulphate (SO4)	2007/12/24		113	%	80 - 120	
	BLANK	Dissolved Sulphate (SO4)	2007/12/24	<1		mg/L		
	RPD	Dissolved Sulphate (SO4)	2007/12/24	0.03		%	25	
	Calibration Check	Nitrite (N)	2007/12/24		97	%	80 - 120	
2041025 JQ	MATRIX SPIKE	Nitrite (N)	2007/12/24		92	%	80 - 120	
	BLANK	Nitrite (N)	2007/12/24	<0.06		mg/L		
	RPD	Nitrite (N)	2007/12/24	NC		%	25	
	Calibration Check	Nitrate (N)	2007/12/24		107	%	80 - 120	
2041334 AS7	MATRIX SPIKE	MATRIX SPIKE	Nitrate (N)	2007/12/24		111	%	80 - 120
		BLANK	Nitrate (N)	2007/12/24	<0.2		mg/L	
	Calibration Check	RPD	Nitrate (N)	2007/12/24	NC		%	25
		Dissolved Barium (Ba)	2007/12/27		115	%	80 - 120	
		Dissolved Boron (B)	2007/12/27		100	%	80 - 120	
		Dissolved Calcium (Ca)	2007/12/27		102	%	80 - 120	
		Dissolved Iron (Fe)	2007/12/27		90	%	80 - 120	
		Dissolved Lithium (Li)	2007/12/27		96	%	80 - 120	
		Dissolved Magnesium (Mg)	2007/12/27		100	%	80 - 120	
		Dissolved Manganese (Mn)	2007/12/27		98	%	80 - 120	
		Dissolved Phosphorus (P)	2007/12/27		102	%	80 - 120	
		Dissolved Potassium (K)	2007/12/27		99	%	80 - 120	
		Dissolved Silicon (Si)	2007/12/27		102	%	80 - 120	
		Dissolved Sodium (Na)	2007/12/27		100	%	80 - 120	
		Dissolved Strontium (Sr)	2007/12/27		95	%	80 - 120	
		MATRIX SPIKE	Dissolved Boron (B)	2007/12/27		98	%	80 - 120
		Dissolved Calcium (Ca)	2007/12/27		97	%	80 - 120	
		Dissolved Iron (Fe)	2007/12/27		89	%	80 - 120	
		Dissolved Lithium (Li)	2007/12/27		94	%	80 - 120	
		Dissolved Magnesium (Mg)	2007/12/27		96	%	80 - 120	
Dissolved Manganese (Mn)	2007/12/27		95	%	80 - 120			
Dissolved Phosphorus (P)	2007/12/27		104	%	80 - 120			
Dissolved Potassium (K)	2007/12/27		97	%	80 - 120			
Dissolved Silicon (Si)	2007/12/27		97	%	80 - 120			
Dissolved Sodium (Na)	2007/12/27		98	%	80 - 120			
Dissolved Strontium (Sr)	2007/12/27		90	%	80 - 120			
SPIKE	Dissolved Sulphur (S)	2007/12/27		99	%	80 - 120		

Quality Assurance Report (Continued)  
 Maxxam Job Number: EA763547

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2041334 AS7	BLANK	Dissolved Barium (Ba)	2007/12/27	<0.01		mg/L	
		Dissolved Boron (B)	2007/12/27	<0.02		mg/L	
		Dissolved Calcium (Ca)	2007/12/27	<0.3		mg/L	
		Dissolved Iron (Fe)	2007/12/27	<0.06		mg/L	
		Dissolved Lithium (Li)	2007/12/27	<0.02		mg/L	
		Dissolved Magnesium (Mg)	2007/12/27	<0.2		mg/L	
		Dissolved Manganese (Mn)	2007/12/27	<0.004		mg/L	
		Dissolved Phosphorus (P)	2007/12/27	<0.1		mg/L	
		Dissolved Potassium (K)	2007/12/27	<0.3		mg/L	
		Dissolved Silicon (Si)	2007/12/27	<0.1		mg/L	
		Dissolved Sodium (Na)	2007/12/27	<0.5		mg/L	
		Dissolved Strontium (Sr)	2007/12/27	<0.02		mg/L	
		Dissolved Sulphur (S)	2007/12/27	<0.2		mg/L	
		RPD	Dissolved Calcium (Ca)	2007/12/27	2.2		%
Dissolved Magnesium (Mg)	2007/12/27		0.2		%	20	
Dissolved Potassium (K)	2007/12/27		1.9		%	20	
Dissolved Sodium (Na)	2007/12/27		1.7		%	20	
2041429 DD1	MATRIX SPIKE	Ammonia (N)	2007/12/27		NC	%	80 - 120
	SPIKE	Ammonia (N)	2007/12/27		102	%	80 - 120
	RPD	Ammonia (N)	2007/12/27	NC		%	25
2041438 AS7	Calibration Check	Dissolved Barium (Ba)	2007/12/27		112	%	80 - 120
		Dissolved Boron (B)	2007/12/27		98	%	80 - 120
		Dissolved Calcium (Ca)	2007/12/27		99	%	80 - 120
		Dissolved Iron (Fe)	2007/12/27		90	%	80 - 120
		Dissolved Lithium (Li)	2007/12/27		95	%	80 - 120
		Dissolved Magnesium (Mg)	2007/12/27		99	%	80 - 120
		Dissolved Manganese (Mn)	2007/12/27		97	%	80 - 120
		Dissolved Phosphorus (P)	2007/12/27		100	%	80 - 120
		Dissolved Potassium (K)	2007/12/27		99	%	80 - 120
		Dissolved Silicon (Si)	2007/12/27		99	%	80 - 120
		Dissolved Sodium (Na)	2007/12/27		100	%	80 - 120
	Dissolved Strontium (Sr)	2007/12/27		92	%	80 - 120	
	MATRIX SPIKE [I44669-01]	Dissolved Barium (Ba)	2007/12/27		117	%	80 - 120
		Dissolved Boron (B)	2007/12/27		97	%	80 - 120
		Dissolved Calcium (Ca)	2007/12/27		97	%	80 - 120
		Dissolved Iron (Fe)	2007/12/27		87	%	80 - 120
		Dissolved Lithium (Li)	2007/12/27		91	%	80 - 120
		Dissolved Magnesium (Mg)	2007/12/27		90	%	80 - 120
		Dissolved Manganese (Mn)	2007/12/27		93	%	80 - 120
		Dissolved Phosphorus (P)	2007/12/27		105	%	80 - 120
		Dissolved Potassium (K)	2007/12/27		93	%	80 - 120
		Dissolved Silicon (Si)	2007/12/27		95	%	80 - 120
		Dissolved Sodium (Na)	2007/12/27		94	%	80 - 120
	Dissolved Strontium (Sr)	2007/12/27		87	%	80 - 120	
	SPIKE BLANK	Dissolved Sulphur (S)	2007/12/27		100	%	80 - 120
		Dissolved Barium (Ba)	2007/12/27	<0.01		mg/L	
		Dissolved Boron (B)	2007/12/27	<0.02		mg/L	
		Dissolved Calcium (Ca)	2007/12/27	<0.3		mg/L	
		Dissolved Iron (Fe)	2007/12/27	<0.06		mg/L	
		Dissolved Lithium (Li)	2007/12/27	<0.02		mg/L	
		Dissolved Magnesium (Mg)	2007/12/27	<0.2		mg/L	
		Dissolved Manganese (Mn)	2007/12/27	<0.004		mg/L	
Dissolved Phosphorus (P)		2007/12/27	<0.1		mg/L		
Dissolved Potassium (K)		2007/12/27	<0.3		mg/L		

Quality Assurance Report (Continued)  
 Maxxam Job Number: EA763547

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2041438 AS7	BLANK	Dissolved Silicon (Si)	2007/12/27	<0.1		mg/L	
		Dissolved Sodium (Na)	2007/12/27	<0.5		mg/L	
		Dissolved Strontium (Sr)	2007/12/27	<0.02		mg/L	
		Dissolved Sulphur (S)	2007/12/27	<0.2		mg/L	
2042021 YY	MATRIX SPIKE						
	[I44664-01]	Dissolved Organic Carbon (C)	2007/12/27		98	%	80 - 120
	SPIKE	Dissolved Organic Carbon (C)	2007/12/27		97	%	80 - 120
	BLANK	Dissolved Organic Carbon (C)	2007/12/27	<1		mg/L	
	RPD [I44664-01]	Dissolved Organic Carbon (C)	2007/12/27	NC		%	20
2042591 LC8	MATRIX SPIKE	O-TERPHENYL (sur.)	2007/12/29		109	%	70 - 130
		F2 (C10-C16 Hydrocarbons)	2007/12/29		93	%	70 - 130
	SPIKE	O-TERPHENYL (sur.)	2007/12/29		110	%	70 - 130
		F2 (C10-C16 Hydrocarbons)	2007/12/29		102	%	80 - 120
	BLANK	O-TERPHENYL (sur.)	2007/12/29		113	%	70 - 130
		F2 (C10-C16 Hydrocarbons)	2007/12/29	<0.1		mg/L	
	RPD	F2 (C10-C16 Hydrocarbons)	2007/12/29	NC		%	40
2042922 JM7	MATRIX SPIKE	4-BROMOFLUOROBENZENE (sur.)	2007/12/28		97	%	70 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2007/12/28		95	%	70 - 130
		D8-TOLUENE (sur.)	2007/12/28		100	%	70 - 130
		Benzene	2007/12/28		117	%	70 - 130
		Toluene	2007/12/28		115	%	70 - 130
		Ethylbenzene	2007/12/28		128	%	70 - 130
		o-Xylene	2007/12/28		122	%	70 - 130
		m & p-Xylene (C06-C10)	2007/12/28		124	%	70 - 130
			2007/12/28		104	%	60 - 140
	SPIKE	4-BROMOFLUOROBENZENE (sur.)	2007/12/28		97	%	70 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2007/12/28		91	%	70 - 130
		D8-TOLUENE (sur.)	2007/12/28		100	%	70 - 130
		Benzene	2007/12/28		118	%	70 - 130
		Toluene	2007/12/28		113	%	70 - 130
		Ethylbenzene	2007/12/28		129	%	70 - 130
		o-Xylene	2007/12/28		121	%	70 - 130
		m & p-Xylene (C06-C10)	2007/12/28		124	%	70 - 130
			2007/12/28		105	%	80 - 120
	BLANK	4-BROMOFLUOROBENZENE (sur.)	2007/12/28		92	%	70 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2007/12/28		97	%	70 - 130
		D8-TOLUENE (sur.)	2007/12/28		95	%	70 - 130
		Benzene	2007/12/28	<0.4		ug/L	
		Toluene	2007/12/28	<0.4		ug/L	
		Ethylbenzene	2007/12/28	<0.4		ug/L	
		o-Xylene	2007/12/28	<0.4		ug/L	
		m & p-Xylene	2007/12/28	<0.8		ug/L	
		Xylenes (Total)	2007/12/28	<0.8		ug/L	
		F1 (C06-C10) - BTEX (C06-C10)	2007/12/28	<100		ug/L	
			2007/12/28	<100		ug/L	
	RPD	Benzene	2007/12/28	NC		%	40
		Toluene	2007/12/28	NC		%	40
		Ethylbenzene	2007/12/28	NC		%	40
		o-Xylene	2007/12/28	NC		%	40
		m & p-Xylene	2007/12/28	NC		%	40
		Xylenes (Total)	2007/12/28	NC		%	40
		F1 (C06-C10) - BTEX (C06-C10)	2007/12/28	NC		%	40
			2007/12/28	NC		%	40
2043664 RB3	Calibration Check	Dissolved Mercury (Hg)	2007/12/28		106	%	85 - 115
	MATRIX SPIKE [I44664-01]	Dissolved Mercury (Hg)	2007/12/28		100	%	85 - 115

Quality Assurance Report (Continued)  
 Maxxam Job Number: EA763547

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2043664 RB3	SPIKE	Dissolved Mercury (Hg)	2007/12/28		102	%	85 - 115
	BLANK	Dissolved Mercury (Hg)	2007/12/28	<0.05		ug/L	
	RPD [I44664-01]	Dissolved Mercury (Hg)	2007/12/28	NC		%	25
2044486 LC8	SPIKE	O-TERPHENYL (sur.)	2007/12/31		110	%	70 - 130
		F2 (C10-C16 Hydrocarbons)	2007/12/31		105	%	80 - 120
	BLANK	O-TERPHENYL (sur.)	2007/12/31		114	%	70 - 130
		F2 (C10-C16 Hydrocarbons)	2007/12/31	<0.1		mg/L	
2044506 AS7	Calibration Check	Dissolved Calcium (Ca)	2007/12/31		99	%	80 - 120
		Dissolved Iron (Fe)	2007/12/31		91	%	80 - 120
		Dissolved Magnesium (Mg)	2007/12/31		100	%	80 - 120
		Dissolved Manganese (Mn)	2007/12/31		99	%	80 - 120
		Dissolved Potassium (K)	2007/12/31		101	%	80 - 120
		Dissolved Sodium (Na)	2007/12/31		101	%	80 - 120
	MATRIX SPIKE	Dissolved Calcium (Ca)	2007/12/31		92	%	80 - 120
		Dissolved Iron (Fe)	2007/12/31		88	%	80 - 120
		Dissolved Magnesium (Mg)	2007/12/31		93	%	80 - 120
		Dissolved Manganese (Mn)	2007/12/31		94	%	80 - 120
		Dissolved Potassium (K)	2007/12/31		98	%	80 - 120
		Dissolved Sodium (Na)	2007/12/31		97	%	80 - 120
	BLANK	Dissolved Calcium (Ca)	2007/12/31	<0.3		mg/L	
		Dissolved Iron (Fe)	2007/12/31	<0.06		mg/L	
		Dissolved Magnesium (Mg)	2007/12/31	<0.2		mg/L	
		Dissolved Manganese (Mn)	2007/12/31	<0.004		mg/L	
		Dissolved Potassium (K)	2007/12/31	<0.3		mg/L	
		Dissolved Sodium (Na)	2007/12/31	<0.5		mg/L	
2047796 RV	Calibration Check	Fluoride (F)	2008/01/03		104	%	80 - 120
	MATRIX SPIKE						
	[I44664-01]	Fluoride (F)	2008/01/03		96	%	80 - 120
	BLANK	Fluoride (F)	2008/01/03	<0.1		mg/L	
	RPD [I44664-01]	Fluoride (F)	2008/01/03	NC		%	25

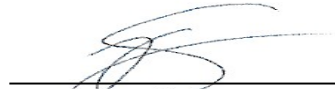
NC = Non-calculable  
 RPD = Relative Percent Difference

**Validation Signature Page**

**Maxxam Job #: A763547**

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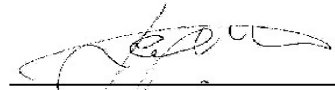
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



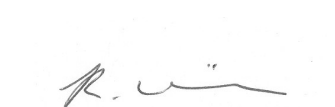
\_\_\_\_\_  
KRISTOPHER BEAUDET,



\_\_\_\_\_  
LENE NIELSEN,



\_\_\_\_\_  
LUKASZ LEGUTKO,



\_\_\_\_\_  
ROBERT VIVIAN,



\_\_\_\_\_  
RON VENZI,

=====

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. SCC and CAEAL have approved this reporting process and electronic report format.

**Invoice To:** Require Report? Yes  No

**Company Name:** Stantec

**Contact Name:** Dylan King

**Address:** 10160-112 Street  
Edmonton PC: \_\_\_\_\_

**Phone / Fax #:** Ph: 969-2223 Fax: \_\_\_\_\_

**Report To:** Dylan King **A763574**

Ph: \_\_\_\_\_

**PO # / AFE #:** \_\_\_\_\_

**Quotation #:** \_\_\_\_\_

**Project #:** 110217729

**Project Name:** NCA Monitoring

**Location:** Fort Saskatchewan

**Sampler's Initials:** D.K. / J.N.

**REGULATORY REQUIREMENTS:**

AT1 - (1994)

CCME

CCME FWAL

Regulatory Limits to appear on Final report

**REPORT DISTRIBUTION:**

**EMAIL ADDRESSES:** dylan.king@stantec.com

**SERVICE REQUESTED:**

RUSH (Please ensure you contact the lab)

Date Required: \_\_\_\_\_

REGULAR Turnaround

	SOILS								WATERS							
	BTEX F1-F4	Sieve (75 micron)	Salinity 4	Metals <input type="checkbox"/> Extended <input type="checkbox"/> CCME <input type="checkbox"/> AT1	Mercury	Leachable BTEX	Leachable Metals	Paint Filter (Free liquid)	Flashpoint	pH	BTEX F1-F2	Routine Water Package <input type="checkbox"/> Turb <input type="checkbox"/> F <input type="checkbox"/> TOC <input checked="" type="checkbox"/> DOC	TOTAL Metals	DISS. Metals	Mercury <input type="checkbox"/> Total <input checked="" type="checkbox"/> Dissolved	NH3 <input type="checkbox"/> NH3-D <input type="checkbox"/> TKN <input type="checkbox"/> DKN
1											X	X	X		X	X
2											X	X	X		X	X
3											X	X	X		X	X
4											X	X	X		X	X
5											X	X	X		X	X
6											X	X	X		X	X
7											X	X	X		X	X
8											X	X	X		X	X
9																
10																
11																
12																

\*\*All samples are held for 60 days after sample receipt. For special requests please contact your Project Manager.

Relinquished By: Dylan King Signature: DL King Date/Time: 19/Dec/07 17:15

COMMENTS/SPECIAL INSTRUCTIONS: Paint filter and preserve metals and nutrients  
ASAP Copy

Received AM  
19/12/07  
17:15  
P.W

Temperature  
0.0.3  
23.4