



HEMMERA ENVIROCHEM INC.
ATTN: Natasha Sandys
230 - 2237 2nd Avenue
Whitehorse YK Y1A 0K7

Date Received: 05-FEB-16
Report Date: 16-FEB-16 17:13 (MT)
Version: FINAL

Client Phone: 867-456-4865

Certificate of Analysis

Lab Work Order #: L1731464
Project P.O. #: NOT SUBMITTED
Job Reference: 1343-005.14
C of C Numbers: 1
Legal Site Desc:

Comments:

Brent Mack, B.Sc.
Account Manager

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

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1731464-1 Water 03-FEB-16 16:40 MW09-22	L1731464-2 Water 03-FEB-16 16:45 MW09-01	L1731464-3 Water 02-FEB-16 17:00 MW09-01	L1731464-4 Water 03-FEB-16 15:40 MW09-23	L1731464-5 Water 03-FEB-16 10:30 MW09-04
Grouping	Analyte					
WATER						
Physical Tests	Conductivity (uS/cm)	519	3000		1360	2680
	Hardness (as CaCO3) (mg/L)	246		1550	788	1700
	pH (pH)	6.85	7.36		7.22	8.08
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	178	510		319	108
	Ammonia, Total (as N) (mg/L)	1.15	16.3		3.24	7.38
	Chloride (Cl) (mg/L)	<0.50	<5.0 ^{DLA}		<1.0 ^{DLA}	<5.0 ^{DLA}
	Fluoride (F) (mg/L)	0.040	<0.20 ^{DLA}		0.076	0.33
	Nitrate (as N) (mg/L)	3.79	<0.050 ^{DLA}		0.017	<0.050 ^{DLA}
	Nitrite (as N) (mg/L)	0.0470	<0.010 ^{DLA}		0.0049	<0.010 ^{DLA}
	Total Kjeldahl Nitrogen (mg/L)	13.2	22.5		4.00	8.10
	Sulfate (SO4) (mg/L)	79.7	1220		503	1740
	Sulphide as S (mg/L)	<0.020	<0.020		0.053	<0.020
	Anion Sum (meq/L)	5.50			16.8	38.4
	Cation Sum (meq/L)	6.09			18.5	37.3
	Cation - Anion Balance (%)	5.1			4.7	-1.4
	Cyanides					
	Cyanide, Weak Acid Diss (mg/L)	<0.010 ^{DLM}	<0.0050		<0.0050	<0.0050
	Cyanide, Total (mg/L)	0.021	0.207		0.289	<0.0050
	Thiocyanate (SCN) (mg/L)	<0.50	23.7		<0.50	<0.50
	Cyanide, Free (mg/L)	<0.010 ^{DLM}	<0.0050		<0.0050	<0.0050
Organic / Inorganic Carbon	Total Inorganic Carbon (mg/L)	47.7	130		82.2	19.8
	Total Organic Carbon (mg/L)	266	59.8		19.4	6.00
Total Metals	Aluminum (Al)-Total (mg/L)					
	Antimony (Sb)-Total (mg/L)					
	Arsenic (As)-Total (mg/L)					
	Barium (Ba)-Total (mg/L)					
	Beryllium (Be)-Total (mg/L)					
	Bismuth (Bi)-Total (mg/L)					
	Boron (B)-Total (mg/L)					
	Cadmium (Cd)-Total (mg/L)					
	Calcium (Ca)-Total (mg/L)					
	Chromium (Cr)-Total (mg/L)					
	Cobalt (Co)-Total (mg/L)					
	Copper (Cu)-Total (mg/L)					
	Iron (Fe)-Total (mg/L)					
	Lead (Pb)-Total (mg/L)					
	Lithium (Li)-Total (mg/L)					

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1731464-6 Water 03-FEB-16 10:30 MW16-200	L1731464-7 Water 03-FEB-16 13:00 MW09-03	L1731464-8 Water 03-FEB-16 10:15 MW09-14	L1731464-9 Water 04-FEB-16 10:00 MP09-09	L1731464-10 Water 04-FEB-16 10:30 MP09-10
Grouping	Analyte					
WATER						
Physical Tests	Conductivity (uS/cm)	2710	2650	1390	702	822
	Hardness (as CaCO3) (mg/L)	1710	1650	999	313	408
	pH (pH)	8.09	7.60	7.84	8.81	7.78
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	106	167	381	79.2	61.9
	Ammonia, Total (as N) (mg/L)	7.38	3.43	0.0614	4.67	
	Chloride (Cl) (mg/L)	<5.0 ^{DLA}	<5.0 ^{DLA}	3.6	2.97	2.48
	Fluoride (F) (mg/L)	0.30	0.22	0.059	1.71	0.924
	Nitrate (as N) (mg/L)	<0.050 ^{DLA}	0.051	1.74	0.0215	0.0632
	Nitrite (as N) (mg/L)	<0.010 ^{DLA}	0.071	0.0075	0.0033	0.805
	Total Kjeldahl Nitrogen (mg/L)	7.93	3.99	0.635	6.81	
	Sulfate (SO4) (mg/L)	1720	1640	448	255	341
	Sulphide as S (mg/L)	<0.020	<0.020	0.032	<0.020	
	Anion Sum (meq/L)	37.9	37.4	17.2	7.07	8.52
	Cation Sum (meq/L)	37.3	36.4	22.7	8.17	9.71
	Cation - Anion Balance (%)	-0.8	-1.4	13.8	7.2	6.6
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	<0.0050	0.604	
	Cyanide, Total (mg/L)	<0.0050	0.0190	<0.0050	4.10	
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50	<0.50	1.15	
	Cyanide, Free (mg/L)	<0.0050	<0.0050	<0.0050	0.532	
Organic / Inorganic Carbon	Total Inorganic Carbon (mg/L)	21.3	41.0	114	12.4	
	Total Organic Carbon (mg/L)	5.96	6.34	8.59	45.2	
Total Metals	Aluminum (Al)-Total (mg/L)					
	Antimony (Sb)-Total (mg/L)					
	Arsenic (As)-Total (mg/L)					
	Barium (Ba)-Total (mg/L)					
	Beryllium (Be)-Total (mg/L)					
	Bismuth (Bi)-Total (mg/L)					
	Boron (B)-Total (mg/L)					
	Cadmium (Cd)-Total (mg/L)					
	Calcium (Ca)-Total (mg/L)					
	Chromium (Cr)-Total (mg/L)					
	Cobalt (Co)-Total (mg/L)					
	Copper (Cu)-Total (mg/L)					
	Iron (Fe)-Total (mg/L)					
	Lead (Pb)-Total (mg/L)					
	Lithium (Li)-Total (mg/L)					

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1731464-11 Water 04-FEB-16 09:15 MW09-06	L1731464-12 Water 04-FEB-16 TRIP BLANK			
Grouping	Analyte					
WATER						
Physical Tests	Conductivity (uS/cm)	1900	<2.0			
	Hardness (as CaCO3) (mg/L)	1100	<0.50			
	pH (pH)	7.77	5.39			
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	98.4	<1.0			
	Ammonia, Total (as N) (mg/L)	0.483	0.0056 ^{RRV}			
	Chloride (Cl) (mg/L)	<2.5 ^{DLA}	<0.50			
	Fluoride (F) (mg/L)	0.19	<0.020			
	Nitrate (as N) (mg/L)	0.121	<0.0050			
	Nitrite (as N) (mg/L)	<0.0050 ^{DLA}	<0.0010			
	Total Kjeldahl Nitrogen (mg/L)	1.03	<0.050			
	Sulfate (SO4) (mg/L)	1110	<0.30			
	Sulphide as S (mg/L)	<0.020	<0.020			
	Anion Sum (meq/L)	25.0	<0.10			
	Cation Sum (meq/L)	23.5	<0.10			
	Cation - Anion Balance (%)	-3.3	0.0			
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050			
	Cyanide, Total (mg/L)	<0.0050	<0.0050			
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50			
	Cyanide, Free (mg/L)	<0.0050	<0.0050			
Organic / Inorganic Carbon	Total Inorganic Carbon (mg/L)	21.5	<0.50			
	Total Organic Carbon (mg/L)	8.18	<0.50			
Total Metals	Aluminum (Al)-Total (mg/L)		<0.0030			
	Antimony (Sb)-Total (mg/L)		<0.00010			
	Arsenic (As)-Total (mg/L)		<0.00010			
	Barium (Ba)-Total (mg/L)		<0.000050			
	Beryllium (Be)-Total (mg/L)		<0.000020			
	Bismuth (Bi)-Total (mg/L)		<0.000050			
	Boron (B)-Total (mg/L)		<0.010			
	Cadmium (Cd)-Total (mg/L)		<0.0000050			
	Calcium (Ca)-Total (mg/L)		<0.050			
	Chromium (Cr)-Total (mg/L)		<0.00010			
	Cobalt (Co)-Total (mg/L)		<0.00010			
	Copper (Cu)-Total (mg/L)		<0.00050			
	Iron (Fe)-Total (mg/L)		<0.010			
	Lead (Pb)-Total (mg/L)		<0.000050			
	Lithium (Li)-Total (mg/L)		<0.0010			

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1731464-1 Water 03-FEB-16 16:40 MW09-22	L1731464-2 Water 03-FEB-16 16:45 MW09-01	L1731464-3 Water 02-FEB-16 17:00 MW09-01	L1731464-4 Water 03-FEB-16 15:40 MW09-23	L1731464-5 Water 03-FEB-16 10:30 MW09-04
Grouping	Analyte					
WATER						
Total Metals	Magnesium (Mg)-Total (mg/L)					
	Manganese (Mn)-Total (mg/L)					
	Mercury (Hg)-Total (mg/L)					
	Molybdenum (Mo)-Total (mg/L)					
	Nickel (Ni)-Total (mg/L)					
	Phosphorus (P)-Total (mg/L)					
	Potassium (K)-Total (mg/L)					
	Selenium (Se)-Total (mg/L)					
	Silicon (Si)-Total (mg/L)					
	Silver (Ag)-Total (mg/L)					
	Sodium (Na)-Total (mg/L)					
	Strontium (Sr)-Total (mg/L)					
	Sulfur (S)-Total (mg/L)					
	Thallium (Tl)-Total (mg/L)					
	Tin (Sn)-Total (mg/L)					
	Titanium (Ti)-Total (mg/L)					
	Uranium (U)-Total (mg/L)					
	Vanadium (V)-Total (mg/L)					
	Zinc (Zn)-Total (mg/L)					
	Zirconium (Zr)-Total (mg/L)					
Dissolved Metals	Dissolved Mercury Filtration Location	FIELD		FIELD	FIELD	FIELD
	Dissolved Metals Filtration Location	FIELD		FIELD	FIELD	FIELD
	Aluminum (Al)-Dissolved (mg/L)	0.0307		0.0151	0.0357	<0.0020 ^{DLA}
	Antimony (Sb)-Dissolved (mg/L)	0.00026		0.0219	0.00023	0.273
	Arsenic (As)-Dissolved (mg/L)	0.00326		0.0989	0.0284	3.84
	Barium (Ba)-Dissolved (mg/L)	0.0493		0.0319	0.0419	0.00977
	Beryllium (Be)-Dissolved (mg/L)	<0.000020		0.000072 ^{DLA}	0.000042 ^{DLA}	<0.000040 ^{DLA}
	Bismuth (Bi)-Dissolved (mg/L)	<0.000050		<0.00010 ^{DLA}	<0.00010 ^{DLA}	<0.00010 ^{DLA}
	Boron (B)-Dissolved (mg/L)	0.032		0.126	0.105	0.270
	Cadmium (Cd)-Dissolved (mg/L)	0.0000246		0.0122	0.000045	0.000026
	Calcium (Ca)-Dissolved (mg/L)	85.5		530	198	484 ^{DLA}
	Chromium (Cr)-Dissolved (mg/L)	0.00058		0.00020	0.00045	<0.00020
	Cobalt (Co)-Dissolved (mg/L)	0.00412		0.0279	0.0151 ^{DLA}	0.00101 ^{DLA}
	Copper (Cu)-Dissolved (mg/L)	0.00287		0.00870	<0.00040 ^{DLA}	<0.00040 ^{DLA}
	Iron (Fe)-Dissolved (mg/L)	4.09		0.016	13.1	<0.010
	Lead (Pb)-Dissolved (mg/L)	0.000078		0.00516	<0.00010 ^{DLA}	0.00029
	Lithium (Li)-Dissolved (mg/L)	<0.0010		0.0032	<0.0020 ^{DLA}	0.0102

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1731464-6	L1731464-7	L1731464-8	L1731464-9	L1731464-10
		Description	Water	Water	Water	Water	Water
		Sampled Date	03-FEB-16	03-FEB-16	03-FEB-16	04-FEB-16	04-FEB-16
		Sampled Time	10:30	13:00	10:15	10:00	10:30
		Client ID	MW16-200	MW09-03	MW09-14	MP09-09	MP09-10
Grouping	Analyte						
WATER							
Total Metals	Magnesium (Mg)-Total (mg/L)						
	Manganese (Mn)-Total (mg/L)						
	Mercury (Hg)-Total (mg/L)						
	Molybdenum (Mo)-Total (mg/L)						
	Nickel (Ni)-Total (mg/L)						
	Phosphorus (P)-Total (mg/L)						
	Potassium (K)-Total (mg/L)						
	Selenium (Se)-Total (mg/L)						
	Silicon (Si)-Total (mg/L)						
	Silver (Ag)-Total (mg/L)						
	Sodium (Na)-Total (mg/L)						
	Strontium (Sr)-Total (mg/L)						
	Sulfur (S)-Total (mg/L)						
	Thallium (Tl)-Total (mg/L)						
	Tin (Sn)-Total (mg/L)						
	Titanium (Ti)-Total (mg/L)						
	Uranium (U)-Total (mg/L)						
	Vanadium (V)-Total (mg/L)						
	Zinc (Zn)-Total (mg/L)						
Zirconium (Zr)-Total (mg/L)							
Dissolved Metals	Dissolved Mercury Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD	
	Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD	
	Aluminum (Al)-Dissolved (mg/L)	<0.0020 ^{DLA}	0.0061	0.0021	0.0039	0.0024	
	Antimony (Sb)-Dissolved (mg/L)	0.269	0.521	0.00020	0.0941	0.0890	
	Arsenic (As)-Dissolved (mg/L)	3.88	1.66	0.0134	17.0	6.26	
	Barium (Ba)-Dissolved (mg/L)	0.0101 ^{DLA}	0.0291 ^{DLA}	0.0364	0.00103 ^{DLA}	0.0101	
	Beryllium (Be)-Dissolved (mg/L)	<0.000040 ^{DLA}	<0.00010 ^{DLA}	<0.000020	<0.000040 ^{DLA}	<0.000020	
	Bismuth (Bi)-Dissolved (mg/L)	<0.00010 ^{DLA}	<0.00025 ^{DLA}	<0.000050	<0.00010 ^{DLA}	<0.000050	
	Boron (B)-Dissolved (mg/L)	0.267	0.185	0.011	0.163	0.188	
	Cadmium (Cd)-Dissolved (mg/L)	0.000029	0.00121	0.0000251	0.000179	0.000688	
	Calcium (Ca)-Dissolved (mg/L)	486 ^{DLA}	520 ^{DLA}	180	124 ^{DLA}	161	
	Chromium (Cr)-Dissolved (mg/L)	<0.00020 ^{DLA}	<0.00050 ^{DLA}	0.00019	<0.00020 ^{DLA}	<0.00010	
	Cobalt (Co)-Dissolved (mg/L)	0.00101	0.00307	0.00156	0.0534	0.0328	
	Copper (Cu)-Dissolved (mg/L)	<0.00040 ^{DLA}	0.0010	0.00060	0.578	0.0469	
	Iron (Fe)-Dissolved (mg/L)	<0.010	0.057 ^{DLA}	7.25	0.192	0.057	
	Lead (Pb)-Dissolved (mg/L)	0.00028	<0.00025 ^{DLA}	0.000130	0.00076 ^{DLA}	0.000603	
	Lithium (Li)-Dissolved (mg/L)	0.0105	<0.0050 ^{DLA}	0.0115	<0.0020 ^{DLA}	0.0011	

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L1731464-11 Water 04-FEB-16 09:15 MW09-06	L1731464-12 Water 04-FEB-16 TRIP BLANK			
Grouping	Analyte						
WATER							
Total Metals	Magnesium (Mg)-Total (mg/L)			<0.10			
	Manganese (Mn)-Total (mg/L)			<0.00010			
	Mercury (Hg)-Total (mg/L)			<0.0000050			
	Molybdenum (Mo)-Total (mg/L)			<0.000050			
	Nickel (Ni)-Total (mg/L)			<0.00050			
	Phosphorus (P)-Total (mg/L)			<0.050			
	Potassium (K)-Total (mg/L)			<0.10			
	Selenium (Se)-Total (mg/L)			<0.000050			
	Silicon (Si)-Total (mg/L)			<0.050			
	Silver (Ag)-Total (mg/L)			<0.000010			
	Sodium (Na)-Total (mg/L)			<0.050			
	Strontium (Sr)-Total (mg/L)			<0.00020			
	Sulfur (S)-Total (mg/L)			<0.50			
	Thallium (Tl)-Total (mg/L)			<0.000010			
	Tin (Sn)-Total (mg/L)			<0.00010			
	Titanium (Ti)-Total (mg/L)			<0.00030			
	Uranium (U)-Total (mg/L)			<0.000010			
	Vanadium (V)-Total (mg/L)			<0.00050			
	Zinc (Zn)-Total (mg/L)			<0.0030			
	Zirconium (Zr)-Total (mg/L)			<0.00030			
Dissolved Metals	Dissolved Mercury Filtration Location	FIELD					
	Dissolved Metals Filtration Location	FIELD					
	Aluminum (Al)-Dissolved (mg/L)	0.0023					
	Antimony (Sb)-Dissolved (mg/L)	0.250					
	Arsenic (As)-Dissolved (mg/L)	0.211					
	Barium (Ba)-Dissolved (mg/L)	0.00968					
	Beryllium (Be)-Dissolved (mg/L)	<0.000040 ^{DLA}					
	Bismuth (Bi)-Dissolved (mg/L)	<0.00010 ^{DLA}					
	Boron (B)-Dissolved (mg/L)	0.101					
	Cadmium (Cd)-Dissolved (mg/L)	0.00513					
	Calcium (Ca)-Dissolved (mg/L)	358					
	Chromium (Cr)-Dissolved (mg/L)	0.00036					
	Cobalt (Co)-Dissolved (mg/L)	0.00165					
	Copper (Cu)-Dissolved (mg/L)	0.00761					
	Iron (Fe)-Dissolved (mg/L)	<0.010					
	Lead (Pb)-Dissolved (mg/L)	0.00058					
	Lithium (Li)-Dissolved (mg/L)	0.0087					

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1731464-1 Water 03-FEB-16 16:40 MW09-22	L1731464-2 Water 03-FEB-16 16:45 MW09-01	L1731464-3 Water 02-FEB-16 17:00 MW09-01	L1731464-4 Water 03-FEB-16 15:40 MW09-23	L1731464-5 Water 03-FEB-16 10:30 MW09-04
Grouping	Analyte					
WATER						
Dissolved Metals	Magnesium (Mg)-Dissolved (mg/L)	7.81		55.9	71.5	120
	Manganese (Mn)-Dissolved (mg/L)	1.89		13.7	15.9	7.01
	Mercury (Hg)-Dissolved (mg/L)	0.0000067		<0.0000050	<0.0000050	<0.0000050
	Molybdenum (Mo)-Dissolved (mg/L)	0.000180		0.00234	0.00242	0.00589
	Nickel (Ni)-Dissolved (mg/L)	0.00063		0.0071	<0.0010 ^{DLA}	<0.0010 ^{DLA}
	Phosphorus (P)-Dissolved (mg/L)	<0.050		<0.050	<0.050	0.096
	Potassium (K)-Dissolved (mg/L)	3.00		15.5	7.79	43.3
	Selenium (Se)-Dissolved (mg/L)	0.000121		0.00018	<0.00010 ^{DLA}	<0.00010 ^{DLA}
	Silicon (Si)-Dissolved (mg/L)	4.46		6.95	6.37	14.5
	Silver (Ag)-Dissolved (mg/L)	0.000046		0.000068	<0.000020 ^{DLA}	<0.000020 ^{DLA}
	Sodium (Na)-Dissolved (mg/L)	16.8		156	23.7	32.6
	Strontium (Sr)-Dissolved (mg/L)	0.266		1.23	0.530	1.36
	Sulfur (S)-Dissolved (mg/L)	26.1		523	173	547
	Thallium (Tl)-Dissolved (mg/L)	<0.000010		0.000791 ^{DLA}	<0.000020 ^{DLA}	0.000138 ^{DLA}
	Tin (Sn)-Dissolved (mg/L)	<0.00010 ^{DLM}		<0.00020 ^{DLA}	<0.00020 ^{DLA}	<0.00020 ^{DLA}
	Titanium (Ti)-Dissolved (mg/L)	<0.0015		<0.00060 ^{DLA}	0.00135	<0.00060 ^{DLA}
	Uranium (U)-Dissolved (mg/L)	0.000259		0.00273 ^{DLA}	0.00189	0.000297 ^{DLA}
	Vanadium (V)-Dissolved (mg/L)	0.00077		<0.0010 ^{DLA}	0.0024	<0.0010 ^{DLA}
	Zinc (Zn)-Dissolved (mg/L)	0.0126		0.968 ^{DLA}	0.0916	0.0931 ^{DLA}
	Zirconium (Zr)-Dissolved (mg/L)	0.00038		<0.00060 ^{DLA}	0.00069	<0.00060 ^{DLA}

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1731464-6 Water 03-FEB-16 10:30 MW16-200	L1731464-7 Water 03-FEB-16 13:00 MW09-03	L1731464-8 Water 03-FEB-16 10:15 MW09-14	L1731464-9 Water 04-FEB-16 10:00 MP09-09	L1731464-10 Water 04-FEB-16 10:30 MP09-10
Grouping	Analyte					
WATER						
Dissolved Metals	Magnesium (Mg)-Dissolved (mg/L)	119	86.4	133	0.86	1.57
	Manganese (Mn)-Dissolved (mg/L)	6.89	32.9	1.26	0.0182	0.190
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	0.0000328	0.0000881
	Molybdenum (Mo)-Dissolved (mg/L)	0.00563	0.00435	0.000758	0.0216	0.0180
	Nickel (Ni)-Dissolved (mg/L)	<0.0010 ^{DLA}	<0.0025 ^{DLA}	0.00248	0.0276	0.00889
	Phosphorus (P)-Dissolved (mg/L)	0.090	0.053	0.091	0.333	0.255
	Potassium (K)-Dissolved (mg/L)	41.3	22.6	4.85	12.0	11.2
	Selenium (Se)-Dissolved (mg/L)	<0.00010 ^{DLA}	<0.00025 ^{DLA}	0.000084	0.00103	0.00156
	Silicon (Si)-Dissolved (mg/L)	14.4	13.6	6.87	6.81	6.31
	Silver (Ag)-Dissolved (mg/L)	<0.000020 ^{DLA}	<0.000050 ^{DLA}	<0.000010	0.0193	0.00272
	Sodium (Na)-Dissolved (mg/L)	31.9	29.6	49.5	28.6	28.9
	Strontium (Sr)-Dissolved (mg/L)	1.35	1.38	1.35	0.189	0.269
	Sulfur (S)-Dissolved (mg/L)	546	535	193	92.4	125
	Thallium (Tl)-Dissolved (mg/L)	0.000127	0.000077	<0.000010	0.000053	0.000118
	Tin (Sn)-Dissolved (mg/L)	<0.00020 ^{DLA}	<0.00050 ^{DLA}	0.00386	<0.00020 ^{DLA}	0.00016
	Titanium (Ti)-Dissolved (mg/L)	<0.00060 ^{DLA}	<0.0015 ^{DLA}	<0.00030	<0.00060 ^{DLA}	<0.00030
	Uranium (U)-Dissolved (mg/L)	0.000287	0.00219	0.0193	0.00134	0.00142
	Vanadium (V)-Dissolved (mg/L)	<0.0010 ^{DLA}	<0.0025 ^{DLA}	0.00067	<0.0010 ^{DLA}	<0.00050
	Zinc (Zn)-Dissolved (mg/L)	0.0943	0.0061	0.0026	<0.0020 ^{DLA}	0.0094
	Zirconium (Zr)-Dissolved (mg/L)	<0.00060 ^{DLA}	<0.0015 ^{DLA}	0.00073	<0.00060 ^{DLA}	<0.00030

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1731464-11 Water 04-FEB-16 09:15 MW09-06	L1731464-12 Water 04-FEB-16 TRIP BLANK			
Grouping	Analyte					
WATER						
Dissolved Metals	Magnesium (Mg)-Dissolved (mg/L)	50.5				
	Manganese (Mn)-Dissolved (mg/L)	5.33				
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050				
	Molybdenum (Mo)-Dissolved (mg/L)	0.00513				
	Nickel (Ni)-Dissolved (mg/L)	0.0014				
	Phosphorus (P)-Dissolved (mg/L)	<0.050				
	Potassium (K)-Dissolved (mg/L)	18.1				
	Selenium (Se)-Dissolved (mg/L)	<0.00010 ^{DLA}				
	Silicon (Si)-Dissolved (mg/L)	6.59				
	Silver (Ag)-Dissolved (mg/L)	0.000062				
	Sodium (Na)-Dissolved (mg/L)	17.5				
	Strontium (Sr)-Dissolved (mg/L)	0.716				
	Sulfur (S)-Dissolved (mg/L)	339				
	Thallium (Tl)-Dissolved (mg/L)	0.000397				
	Tin (Sn)-Dissolved (mg/L)	0.00071				
	Titanium (Ti)-Dissolved (mg/L)	<0.00060 ^{DLA}				
	Uranium (U)-Dissolved (mg/L)	0.00117				
	Vanadium (V)-Dissolved (mg/L)	<0.0010 ^{DLA}				
	Zinc (Zn)-Dissolved (mg/L)	0.0879				
	Zirconium (Zr)-Dissolved (mg/L)	<0.00060 ^{DLA}				

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Method Blank	Alkalinity, Total (as CaCO ₃)	B	L1731464-1, -10, -11, -12, -2, -4, -5, -6, -7, -8, -9
Method Blank	Alkalinity, Total (as CaCO ₃)	B	L1731464-1, -10, -11, -12, -2, -4, -5, -6, -7, -8, -9
Method Blank	Alkalinity, Total (as CaCO ₃)	B	L1731464-1, -10, -11, -12, -2, -4, -5, -6, -7, -8, -9
Method Blank	Barium (Ba)-Total	MB-LOR	L1731464-12
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1731464-1, -10, -11, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L1731464-1, -10, -11, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1731464-1, -10, -11, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L1731464-1, -10, -11, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Nitrite (as N)	MS-B	L1731464-1, -10, -11, -12, -2, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfate (SO ₄)	MS-B	L1731464-1, -10, -11, -12, -2, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfate (SO ₄)	MS-B	L1731464-1, -10, -11, -12, -2, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfate (SO ₄)	MS-B	L1731464-1, -10, -11, -12, -2, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L1731464-12
Matrix Spike	Selenium (Se)-Total	MS-B	L1731464-12
Matrix Spike	Strontium (Sr)-Total	MS-B	L1731464-12
Matrix Spike	Uranium (U)-Total	MS-B	L1731464-12
Matrix Spike	Total Inorganic Carbon	MS-B	L1731464-2, -8, -9
Matrix Spike	Total Organic Carbon	MS-B	L1731464-1, -4
Matrix Spike	Total Kjeldahl Nitrogen	MSTN	L1731464-1, -11, -12, -2, -4, -5, -6, -7, -8, -9

Qualifiers for Individual Parameters Listed:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
MSTN	TKN Matrix Spike recovery was low due to interference from high nitrate, which causes negative bias on TKN.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
BE-D-L-CCMS-VA	Water	Diss. Be (low) in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
BE-T-L-CCMS-VA	Water	Total Be (Low) in Water by CRC ICPMS	EPA 200.2/6020A (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
CARBONS-TIC-VA	Water	Total inorganic carbon by CO ₂ purge	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)".			
CARBONS-TOC-VA	Water	Total organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)".			
CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			

Reference Information

CN-FREE-CFA-VA	Water	Free Cyanide in water by CFA	ASTM 7237
This analysis is carried out using procedures adapted from ASTM Method 7237 "Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection". Free cyanide is determined by in-line gas diffusion at pH 6 with final determination by colourimetric analysis.			
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.			
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			
EC-PCT-VA	Water	Conductivity (Automated)	APHA 2510 Auto. Conduc.
This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.			
F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
HARDNESS-CALC-VA	Water	Hardness	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO ₃ equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
HG-T-CVAA-VA	Water	Total Mercury in Water by CVAAS or CVAFS	EPA 1631E (mod)
Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
IONBALANCE-VA	Water	Ion Balance Calculation	APHA 1030E
Cation Sum, Anion Sum, and Ion Balance (as % difference) are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Because all aqueous solutions are electrically neutral, the calculated ion balance (% difference of cations minus anions) should be near-zero.			
Cation and Anion Sums are the total meq/L concentration of major cations and anions. Dissolved species are used where available. Minor ions are included where data is present. Ion Balance is calculated as:			
Ion Balance (%) = [Cation Sum-Anion Sum] / [Cation Sum+Anion Sum]			
MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-DIS-LOW-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
MET-T-CCMS-VA	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-TOT-LOW-ICP-VA	Water	Total Metals in Water by ICPOES	EPA 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)

Reference Information

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NH3-F-VA Water Ammonia in Water by Fluorescence J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NO2-L-IC-N-WR Water Nitrite in Water by IC (Low Level) EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-L-IC-N-WR Water Nitrate in Water by IC (Low Level) EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

PH-PCT-VA Water pH by Meter (Automated) APHA 4500-H "pH Value"

This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode

It is recommended that this analysis be conducted in the field.

PH-PCT-VA Water pH by Meter (Automated) APHA 4500-H pH Value

This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode

It is recommended that this analysis be conducted in the field.

S-DIS-ICP-VA Water Dissolved Sulfur in Water by ICPOES EPA SW-846 3005A/6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.

S-TOT-ICP-VA Water Total Sulfur in Water by ICPOES EPA SW-846 3005A/6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.

S2-T-COL-VA Water Total Sulphide by Colorimetric APHA 4500-S2 Sulphide

This analysis is carried out using procedures adapted from APHA Method 4500-S2 "Sulphide". Sulphide is determined using the methylene blue colourimetric method.

SO4-IC-N-WR Water Sulfate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

TKN-F-VA Water TKN in Water by Fluorescence APHA 4500-NORG D.

This analysis is carried out using procedures adapted from APHA Method 4500-Norg D. "Block Digestion and Flow Injection Analysis". Total Kjeldahl Nitrogen is determined using block digestion followed by Flow-injection analysis with fluorescence detection.

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

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

Laboratory Definition Code	Laboratory Location
----------------------------	---------------------

VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA
----	---

Chain of Custody Numbers:

Reference Information

1

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

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

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

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

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

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

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

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

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



L1731464-COFC

Report To				Report Format /				Analysis Request												
Company: Hemmera Environchem Inc.				Select Report Format: <input checked="" type="checkbox"/> PDF <input type="checkbox"/> E-MAIL (DIGITAL)				R <input checked="" type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days)												
Contact: Natasha Sandys				Quality Control (QC) Report with Report <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				P <input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT												
Address: 230 - 2237 2nd Avenue Whitehorse, YT				Criteria on Report - provide details below if box checked				E <input type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT												
Phone: 867-456-4865				Select Distribution: <input checked="" type="checkbox"/> E-MAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				E2 <input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge												
				Email 1 or Fax nsandys@hemmera.com, jhains@hemmera.com				Specify Date Required for E2.E or P:												
				Email 2 chris@elr.ca																
Invoice To				Invoice Distribution				Analysis Request												
Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Select Invoice Distribution: <input checked="" type="checkbox"/> E-MAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below												
Copy of Invoice with Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Email 1 or Fax nsandys@hemmera.com																
Company: Hemmera Environchem Inc.				Email 2 chris@elr.ca																
Contact: Natasha Sandys																				
Project Information				Oil and Gas Required Fields (client use)																
ALS Quote #: Q50588				Approver ID:																
Job #: 1343-005.14				GL Account:																
PO / AFE:				Activity Code:																
LSD:				Location:																
ALS Lab Work Order # (lab use only)				ALS Contact:				Sampler: JH, DC, GR, AN												
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Dissolved Metals, Hardness	Dissolved Mercury	Nitrate, Nitrite, Total Kjeldahl N (TKN)	Cl, F, Sulfate, conductivity, pH, alkalinity	Anion Sum, Cation Sum, Cation/Anion Ratio	Cyanide - Weak Acid Diss., Total, Free	Ammonia N (total), Total Organic Carbon	Thiocyanate (SCN)	Sulphide as S	Total Inorganic Carbon	Total Metals, Hardness	Total Mercury	Number of Containers	
	MW09-22			03-Feb-15	16:40	WATER	R	R	R	R	R	R	R	R	R	R	R			8
	MW09-01			03-Feb-16	14:45	WATER			R	R	R	R	R	R	R	R	R			6
	MW09-01			02-Feb-16	17:00	WATER	R	R												2
	MW09-23			03-Feb-16	15:40	WATER	R	R	R	R	R	R	R	R	R	R	R			8
	MW09-04			03-Feb-16	10:30	WATER	R	R	R	R	R	R	R	R	R	R	R			8
	MW16-200			03-Feb-16	10:30	WATER	R	R	R	R	R	R	R	R	R	R	R			8
	MW09-03			03-Feb-16	13:00	WATER	R	R	R	R	R	R	R	R	R	R	R			8
	MW09-14			03-Feb-16	10:15	WATER	R	R	R	R	R	R	R	R	R	R	R			8
	MP09-09			04-Feb-16	10:00	WATER	R	R	R	R	R	R	R	R	R	R	R			8
	MP09-10			04-Feb-16	10:30	WATER	R	R	R	R	R									3
	MW09-06			04-Feb-16	9:15	WATER	R	R	R	R	R	R	R	R	R	R	R			8
	TRIP BLANK			04-Feb-16	-	WATER			R	R	R	R	R	R	R	R	R			8
Drinking Water (DW) Samples¹ (client use)				Special Instructions / Specify Criteria to add on report (client use)				SAMPLE CONDITION AS RECEIVED (lab use only)												
Are samples taken from a Regulated DW System? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				- See attached parameter sheet for list of full parameters and metals required.				Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>												
Are samples for human drinking water use? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								Ice packs Yes <input type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>												
								Cooling Initiated <input type="checkbox"/>												
								INITIAL COOLER TEMPERATURES °C: 33°C												
								FINAL COOLER TEMPERATURES °C: 7.4/6.9/4.0/6.1°C												
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)												
Released by: Justin Heins		Date: Feb 4, 2016		Time: 12:07		Received by: [Signature]		Date: Feb 09, 2016		Time: 10:40 AM		Received by: [Signature]		Date: Feb 6		Time: 11:30 AM				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY

YELLOW - CLIENT COPY

NA-FM-0158a v08 From:04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.