



HEMMERA ENVIROCHEM INC.  
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Date Received: 05-JUN-15  
Report Date: 23-JUN-15 12:48 (MT)  
Version: FINAL

Client Phone: 867-456-4865

## Certificate of Analysis

Lab Work Order #: L1622366  
Project P.O. #: NOT SUBMITTED  
Job Reference: 1343-005.09  
C of C Numbers: 1, 2  
Legal Site Desc:

Comments: ADDITIONAL 18-JUN-15 11:36

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Brent Mack, B.Sc.  
Account Manager

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## ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1622366-1 Water 03-JUN-15 17:45 MP09-05	L1622366-2 Water 02-JUN-15 14:55 MW09-06	L1622366-3 Water 03-JUN-15 08:45 W14103083BH03	L1622366-4 Water 03-JUN-15 12:15 MW09-01	L1622366-5 Water 04-JUN-15 14:40 MW09-24
Grouping	Analyte					
<b>WATER</b>						
<b>Physical Tests</b>	Conductivity (uS/cm)	2120	1970	1070	2700	900
	Hardness (as CaCO3) (mg/L)	1270	1230	657	1490	550
	pH (pH)	6.95	7.90	7.23	7.91	7.86
<b>Anions and Nutrients</b>	Alkalinity, Total (as CaCO3) (mg/L)	280	182	378	255	280
	Ammonia, Total (as N) (mg/L)	10.1	1.15	1.76	17.8	<0.0050
	Chloride (Cl) (mg/L)	<2.5 <sup>DLA</sup>	<2.5 <sup>DLA</sup>	<0.50	<5.0 <sup>DLA</sup>	1.10
	Fluoride (F) (mg/L)	0.14	0.41	<0.20 <sup>DLM</sup>	0.33	0.038
	Nitrate (as N) (mg/L)	<0.025 <sup>DLA</sup>	2.54	<0.0050	0.053	2.37
	Nitrite (as N) (mg/L)	<0.0050 <sup>DLA</sup>	0.0919	<0.0010	<0.010 <sup>DLA</sup>	0.0019
	Total Kjeldahl Nitrogen (mg/L)	13.8	1.81	2.76	21.6	0.542
	Sulfate (SO4) (mg/L)	1120	1160	265	1640	226
	Sulphide as S (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020
	Anion Sum (meq/L)	28.9	28.0	13.1	39.2	10.5
	Cation Sum (meq/L)	31.1	26.5	15.7	36.4	11.3
	Cation - Anion Balance (%)	3.5	-2.8	9.3	-3.8	3.9
<b>Cyanides</b>	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	<0.0050	0.0091	<0.0050
	Cyanide, Total (mg/L)	0.0108	<0.0050	<0.0050	0.0881	<0.0050
	Thiocyanate (SCN) (mg/L)	0.78	<0.50	0.53	4.84	<0.50
	Cyanide, Free (mg/L)	<0.0050	<0.0050	<0.0050	0.0058	<0.0050
<b>Organic / Inorganic Carbon</b>	Total Inorganic Carbon (mg/L)	61.3	40.1	83.2	56.9	66.9
	Total Organic Carbon (mg/L)	25.4	9.74	19.0	17.8	7.74
<b>Total Metals</b>	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)					

\* 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	L1622366-6 Water 04-JUN-15 17:41 GSI-PC-03-B	L1622366-7 Water 04-JUN-15 08:15 MW09-23	L1622366-8 Water 04-JUN-15 08:05 MP09-09	L1622366-9 Water 04-JUN-15 09:10 MP09-11	L1622366-10 Water 04-JUN-15 10:10 MW09-22
Grouping	Analyte						
<b>WATER</b>							
<b>Physical Tests</b>	Conductivity (uS/cm)		3490	2040	631	717	1560
	Hardness (as CaCO3) (mg/L)		2440	1270	288	383	924
	pH (pH)		8.07	7.54	8.90	7.75	6.33
<b>Anions and Nutrients</b>	Alkalinity, Total (as CaCO3) (mg/L)		935	336	63.9	386	70.6
	Ammonia, Total (as N) (mg/L)			3.80	3.88	9.49	1.47
	Chloride (Cl) (mg/L)		<10 <sup>DLA</sup>	<2.5 <sup>DLA</sup>	2.59	0.58	<2.5 <sup>DLA</sup>
	Fluoride (F) (mg/L)		<0.60 <sup>DLM</sup>	0.18	1.62	0.491	0.10
	Nitrate (as N) (mg/L)		0.17	<0.025 <sup>DLA</sup>	0.0273	0.0103	0.039
	Nitrite (as N) (mg/L)		<0.020 <sup>DLA</sup>	<0.0050 <sup>DLA</sup>	0.0040	0.0143	0.0205
	Total Kjeldahl Nitrogen (mg/L)			6.81	5.82	12.9	4.42
	Sulfate (SO4) (mg/L)		1570	979	234	22.1	809
	Sulphide as S (mg/L)			<0.020	<1.0 <sup>DLM</sup>	<0.020	<0.020
	Anion Sum (meq/L)		51.3	27.1	6.32	8.21	18.3
	Cation Sum (meq/L)		54.8	29.0	7.40	9.59	24.0
	Cation - Anion Balance (%)		3.3	3.4	7.9	7.8	13.5
<b>Cyanides</b>	Cyanide, Weak Acid Diss (mg/L)		<0.0050	<0.0050	0.278	<0.0050	<0.0050
	Cyanide, Total (mg/L)		<0.0050	0.0093	1.36	0.0254	0.0124
	Thiocyanate (SCN) (mg/L)			0.51	0.98	0.56	<0.50
	Cyanide, Free (mg/L)		<0.0050	<0.0050	0.251	<0.0050	0.0059
<b>Organic / Inorganic Carbon</b>	Total Inorganic Carbon (mg/L)			77.7	8.43	85.7	15.6
	Total Organic Carbon (mg/L)			14.9	31.4	34.3	14.6
<b>Total Metals</b>	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)						

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## ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1622366-11 Water 04-JUN-15 10:10 FB-4	L1622366-12 Water 04-JUN-15 13:10 MW09-08	L1622366-13 Water 03-JUN-15 17:45 FB-3	L1622366-14 Water 03-JUN-15 17:45 DUP-4	L1622366-15 Water 05-JUN-15 TRAVEL BLANK
Grouping	Analyte					
<b>WATER</b>						
<b>Physical Tests</b>	Conductivity (uS/cm)	<2.0	385	<2.0	2120	<2.0
	Hardness (as CaCO3) (mg/L)	<0.50	201	<0.50	1300	<0.50
	pH (pH)	5.58	6.66	5.50	7.06	5.43
<b>Anions and Nutrients</b>	Alkalinity, Total (as CaCO3) (mg/L)	<1.0	125	<1.0	277	<1.0
	Ammonia, Total (as N) (mg/L)	<0.0050	2.15	<0.0050	10.1	<0.0050
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<5.0 <sup>DLA</sup>	<0.50
	Fluoride (F) (mg/L)	<0.020	<0.20 <sup>DLM</sup>	<0.020	<0.20 <sup>DLA</sup>	<0.020
	Nitrate (as N) (mg/L)	<0.0050	<0.0050	<0.0050	<0.050 <sup>DLA</sup>	<0.0050
	Nitrite (as N) (mg/L)	<0.001	<0.0010	<0.0010	<0.010 <sup>DLA</sup>	<0.0010
	Total Kjeldahl Nitrogen (mg/L)	<0.050	2.94	<0.050	13.6	<0.050
	Sulfate (SO4) (mg/L)	<0.30	75.9	<0.30	1090	<0.30
	Sulphide as S (mg/L)	<0.020	0.058	<0.020	<0.020	<0.020
	Anion Sum (meq/L)	<0.10	4.08	<0.10	28.2	<0.10
	Cation Sum (meq/L)	<0.10	7.98	<0.10	31.9	<0.10
	Cation - Anion Balance (%)	94.6	32.4	0.0	6.1	0.0
		0.0				
	<b>Cyanides</b>					
	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanide, Total (mg/L)	<0.0050	0.0069	<0.0050	0.0140	<0.0050
	Thiocyanate (SCN) (mg/L)	<0.50	0.62	<0.50	0.78	<0.50
	Cyanide, Free (mg/L)	<0.0050	<0.0050	<0.0050	0.0060	<0.0050
<b>Organic / Inorganic Carbon</b>	Total Inorganic Carbon (mg/L)	<0.50	28.0	<0.50	58.3	<0.50
	Total Organic Carbon (mg/L)	<0.50	15.4	<0.50	26.2	0.52
<b>Total Metals</b>	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)					<0.000050
	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

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# ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1622366-16	L1622366-17	L1622366-18	L1622366-19	L1622366-20
		Description	Water	Water	Water	Water	Water
		Sampled Date	03-JUN-15	03-JUN-15	03-JUN-15	03-JUN-15	04-JUN-15
		Sampled Time	17:45	14:55	08:45	12:15	14:40
		Client ID	MP09-05 FILTERED ALK	MW09-06 FILTERED ALK	W14103083BH03 FILTERED ALK	MW09-01 FILTERED ALK	MW09-24 FILTERED ALK
Grouping	Analyte						
WATER							
Physical Tests	Conductivity (uS/cm)						
	Hardness (as CaCO3) (mg/L)						
	pH (pH)						
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	282	185	376	264	282	
	Ammonia, Total (as N) (mg/L)						
	Chloride (Cl) (mg/L)						
	Fluoride (F) (mg/L)						
	Nitrate (as N) (mg/L)						
	Nitrite (as N) (mg/L)						
	Total Kjeldahl Nitrogen (mg/L)						
	Sulfate (SO4) (mg/L)						
	Sulphide as S (mg/L)						
	Anion Sum (meq/L)						
	Cation Sum (meq/L)						
	Cation - Anion Balance (%)						
	Cyanides	Cyanide, Weak Acid Diss (mg/L)					
Cyanide, Total (mg/L)							
Thiocyanate (SCN) (mg/L)							
Cyanide, Free (mg/L)							
Organic / Inorganic Carbon	Total Inorganic Carbon (mg/L)						
	Total Organic Carbon (mg/L)						
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)						

\* 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		L1622366-22 Water 04-JUN-15 08:15 MW09-23 FILTERED ALK	L1622366-23 Water 04-JUN-15 08:05 MP09-09 FILTERED ALK	L1622366-24 Water 04-JUN-15 09:10 MP09-11 FILTERED ALK	L1622366-25 Water 04-JUN-15 10:10 MW09-22 FILTERED ALK	L1622366-26 Water 04-JUN-15 10:10 FB-4 FILTERED ALK
Grouping	Analyte					
<b>WATER</b>						
<b>Physical Tests</b>	Conductivity (uS/cm)					
	Hardness (as CaCO3) (mg/L)					
	pH (pH)					
<b>Anions and Nutrients</b>	Alkalinity, Total (as CaCO3) (mg/L)	349	62.8	395	117	<1.0
	Ammonia, Total (as N) (mg/L)					
	Chloride (Cl) (mg/L)					
	Fluoride (F) (mg/L)					
	Nitrate (as N) (mg/L)					
	Nitrite (as N) (mg/L)					
	Total Kjeldahl Nitrogen (mg/L)					
	Sulfate (SO4) (mg/L)					
	Sulphide as S (mg/L)					
	Anion Sum (meq/L)					
	Cation Sum (meq/L)					
	Cation - Anion Balance (%)					
<b>Cyanides</b>	Cyanide, Weak Acid Diss (mg/L)					
	Cyanide, Total (mg/L)					
	Thiocyanate (SCN) (mg/L)					
	Cyanide, Free (mg/L)					
<b>Organic / Inorganic Carbon</b>	Total Inorganic Carbon (mg/L)					
	Total Organic Carbon (mg/L)					
<b>Total Metals</b>	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)					

\* 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	L1622366-27 Water 04-JUN-15 13:10 MW09-08 FILTERED ALK	L1622366-28 Water 03-JUN-15 17:45 FB-3 FILTERED ALK	L1622366-29 Water 03-JUN-15 17:45 DUP-4 FILTERED ALK		
Grouping	Analyte						
<b>WATER</b>							
<b>Physical Tests</b>	Conductivity (uS/cm)						
	Hardness (as CaCO3) (mg/L)						
	pH (pH)						
<b>Anions and Nutrients</b>	Alkalinity, Total (as CaCO3) (mg/L)	130	<1.0	288			
	Ammonia, Total (as N) (mg/L)						
	Chloride (Cl) (mg/L)						
	Fluoride (F) (mg/L)						
	Nitrate (as N) (mg/L)						
	Nitrite (as N) (mg/L)						
	Total Kjeldahl Nitrogen (mg/L)						
	Sulfate (SO4) (mg/L)						
	Sulphide as S (mg/L)						
	Anion Sum (meq/L)						
	Cation Sum (meq/L)						
	Cation - Anion Balance (%)						
<b>Cyanides</b>	Cyanide, Weak Acid Diss (mg/L)						
	Cyanide, Total (mg/L)						
	Thiocyanate (SCN) (mg/L)						
	Cyanide, Free (mg/L)						
<b>Organic / Inorganic Carbon</b>	Total Inorganic Carbon (mg/L)						
	Total Organic Carbon (mg/L)						
<b>Total Metals</b>	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)						

\* 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		L1622366-1 Water 03-JUN-15 17:45 MP09-05	L1622366-2 Water 02-JUN-15 14:55 MW09-06	L1622366-3 Water 03-JUN-15 08:45 W14103083BH03	L1622366-4 Water 03-JUN-15 12:15 MW09-01	L1622366-5 Water 04-JUN-15 14:40 MW09-24
Grouping	Analyte					
<b>WATER</b>						
<b>Total Metals</b>	Lithium (Li)-Total (mg/L)					
	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)					
<b>Dissolved Metals</b>	Dissolved Mercury Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD
	Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD	FIELD
	Aluminum (Al)-Dissolved (mg/L)	0.0218	<0.0020 <sup>DLA</sup>	0.0208	<0.0020 <sup>DLA</sup>	0.0016
	Antimony (Sb)-Dissolved (mg/L)	0.00033	0.259	0.00060	0.0442	0.00020
	Arsenic (As)-Dissolved (mg/L)	0.00755	0.122	0.0541	0.206	0.00169
	Barium (Ba)-Dissolved (mg/L)	0.0321	0.00611	0.101	0.0217	0.0996
	Beryllium (Be)-Dissolved (mg/L)	<0.000040 <sup>DLA</sup>	<0.000040 <sup>DLA</sup>	<0.000020	<0.000040 <sup>DLA</sup>	<0.000020
	Bismuth (Bi)-Dissolved (mg/L)	<0.00010 <sup>DLA</sup>	<0.00010 <sup>DLA</sup>	<0.000050	<0.00010 <sup>DLA</sup>	<0.000050
	Boron (B)-Dissolved (mg/L)	0.074	0.116	0.028	0.098	0.013
	Cadmium (Cd)-Dissolved (mg/L)	0.00141	0.00623	0.0000064	0.0332	0.0000435
	Calcium (Ca)-Dissolved (mg/L)	382	380 <sup>DLA</sup>	190	502 <sup>DLA</sup>	151
	Chromium (Cr)-Dissolved (mg/L)	0.00069	<0.00020	0.00045	<0.00020	0.00037
	Cobalt (Co)-Dissolved (mg/L)	0.0183	0.00151	0.00467	0.0192	<0.00010
	Copper (Cu)-Dissolved (mg/L)	0.00096	0.0107	0.00050	0.00361	0.00855
	Iron (Fe)-Dissolved (mg/L)	42.3	<0.010	32.9	1.75	<0.010
	Lead (Pb)-Dissolved (mg/L)	<0.00010 <sup>DLA</sup>	0.00045	0.000090	0.00430	<0.000050

\* 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		L1622366-6 Water 04-JUN-15 17:41 GSI-PC-03-B	L1622366-7 Water 04-JUN-15 08:15 MW09-23	L1622366-8 Water 04-JUN-15 08:05 MP09-09	L1622366-9 Water 04-JUN-15 09:10 MP09-11	L1622366-10 Water 04-JUN-15 10:10 MW09-22
Grouping	Analyte					
WATER						
Total Metals	Lithium (Li)-Total (mg/L)					
	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)	0.0472	0.0133	0.0030	0.0046	0.0475
	Antimony (Sb)-Dissolved (mg/L)	0.00220	<0.00050 <sup>DLA</sup>	0.0776	0.0140	0.00019
	Arsenic (As)-Dissolved (mg/L)	0.0969	0.0136	15.3	7.35	0.0131
	Barium (Ba)-Dissolved (mg/L)	0.108	0.0734	0.00053	0.145	0.202
	Beryllium (Be)-Dissolved (mg/L)	<0.000040 <sup>DLA</sup>	<0.00010 <sup>DLA</sup>	<0.000040 <sup>DLA</sup>	<0.000020	<0.000020
	Bismuth (Bi)-Dissolved (mg/L)	<0.00010 <sup>DLA</sup>	<0.00025 <sup>DLA</sup>	<0.00010 <sup>DLA</sup>	<0.000050	<0.000050
	Boron (B)-Dissolved (mg/L)	0.057	0.148	0.254	0.033	0.028
	Cadmium (Cd)-Dissolved (mg/L)	0.000048	<0.000025 <sup>DLA</sup>	0.000438	0.0000719	0.0000778
	Calcium (Ca)-Dissolved (mg/L)	149	308	114	86.2	320
	Chromium (Cr)-Dissolved (mg/L)	0.0296	<0.00050 <sup>DLA</sup>	<0.00020 <sup>DLA</sup>	0.00101	0.00079
	Cobalt (Co)-Dissolved (mg/L)	0.00802	0.0215	0.0424	0.00128	0.0144
	Copper (Cu)-Dissolved (mg/L)	0.00122	<0.0010 <sup>DLA</sup>	0.526	0.00043	0.00034
	Iron (Fe)-Dissolved (mg/L)	15.4	15.1	0.171	8.87	64.7
	Lead (Pb)-Dissolved (mg/L)	0.00038	<0.00025 <sup>DLA</sup>	0.00027	0.00171	<0.000050

\* 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	L1622366-11 Water 04-JUN-15 10:10 FB-4	L1622366-12 Water 04-JUN-15 13:10 MW09-08	L1622366-13 Water 03-JUN-15 17:45 FB-3	L1622366-14 Water 03-JUN-15 17:45 DUP-4	L1622366-15 Water 05-JUN-15 TRAVEL BLANK
Grouping	Analyte						
<b>WATER</b>							
<b>Total Metals</b>	Lithium (Li)-Total (mg/L)						<0.0010
	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
<b>Dissolved Metals</b>	Dissolved Mercury Filtration Location	FIELD	FIELD	FIELD	FIELD		
	Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD		
	Aluminum (Al)-Dissolved (mg/L)	<0.0010	0.0553	<0.0010	0.0230		
	Antimony (Sb)-Dissolved (mg/L)	<0.00010	0.00021	<0.00010	0.00033		
	Arsenic (As)-Dissolved (mg/L)	<0.00010	0.189	<0.00010	0.00811		
	Barium (Ba)-Dissolved (mg/L)	<0.000050	0.191	<0.000050	0.0324		
	Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000020	<0.000020	<0.000040 <sup>DLA</sup>		
	Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.00010 <sup>DLA</sup>		
	Boron (B)-Dissolved (mg/L)	<0.010	<0.010	<0.010	0.071		
	Cadmium (Cd)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	0.00128		
	Calcium (Ca)-Dissolved (mg/L)	<0.050	61.3	<0.050	392		
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	0.00082	<0.00010	0.00160		
	Cobalt (Co)-Dissolved (mg/L)	<0.00010	0.00119	<0.00010	0.0181		
	Copper (Cu)-Dissolved (mg/L)	<0.00020	<0.00020	<0.00020	0.00098		
	Iron (Fe)-Dissolved (mg/L)	<0.010	65.0	<0.010	43.8		
	Lead (Pb)-Dissolved (mg/L)	<0.000050	0.000070	<0.000050	<0.00010 <sup>DLA</sup>		

\* 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		L1622366-16 Water 03-JUN-15 17:45 MP09-05 FILTERED ALK	L1622366-17 Water 03-JUN-15 14:55 MW09-06 FILTERED ALK	L1622366-18 Water 03-JUN-15 08:45 W14103083BH03 FILTERED ALK	L1622366-19 Water 03-JUN-15 12:15 MW09-01 FILTERED ALK	L1622366-20 Water 04-JUN-15 14:40 MW09-24 FILTERED ALK
Grouping	Analyte					
<b>WATER</b>						
<b>Total Metals</b>	Lithium (Li)-Total (mg/L)					
	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)					
<b>Dissolved Metals</b>	Dissolved Mercury Filtration Location					
	Dissolved Metals Filtration Location					
	Aluminum (Al)-Dissolved (mg/L)					
	Antimony (Sb)-Dissolved (mg/L)					
	Arsenic (As)-Dissolved (mg/L)					
	Barium (Ba)-Dissolved (mg/L)					
	Beryllium (Be)-Dissolved (mg/L)					
	Bismuth (Bi)-Dissolved (mg/L)					
	Boron (B)-Dissolved (mg/L)					
	Cadmium (Cd)-Dissolved (mg/L)					
	Calcium (Ca)-Dissolved (mg/L)					
	Chromium (Cr)-Dissolved (mg/L)					
	Cobalt (Co)-Dissolved (mg/L)					
	Copper (Cu)-Dissolved (mg/L)					
	Iron (Fe)-Dissolved (mg/L)					
	Lead (Pb)-Dissolved (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		L1622366-22 Water 04-JUN-15 08:15 MW09-23 FILTERED ALK	L1622366-23 Water 04-JUN-15 08:05 MP09-09 FILTERED ALK	L1622366-24 Water 04-JUN-15 09:10 MP09-11 FILTERED ALK	L1622366-25 Water 04-JUN-15 10:10 MW09-22 FILTERED ALK	L1622366-26 Water 04-JUN-15 10:10 FB-4 FILTERED ALK
Grouping	Analyte					
<b>WATER</b>						
<b>Total Metals</b>	Lithium (Li)-Total (mg/L)					
	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)					
<b>Dissolved Metals</b>	Dissolved Mercury Filtration Location					
	Dissolved Metals Filtration Location					
	Aluminum (Al)-Dissolved (mg/L)					
	Antimony (Sb)-Dissolved (mg/L)					
	Arsenic (As)-Dissolved (mg/L)					
	Barium (Ba)-Dissolved (mg/L)					
	Beryllium (Be)-Dissolved (mg/L)					
	Bismuth (Bi)-Dissolved (mg/L)					
	Boron (B)-Dissolved (mg/L)					
	Cadmium (Cd)-Dissolved (mg/L)					
	Calcium (Ca)-Dissolved (mg/L)					
	Chromium (Cr)-Dissolved (mg/L)					
	Cobalt (Co)-Dissolved (mg/L)					
	Copper (Cu)-Dissolved (mg/L)					
	Iron (Fe)-Dissolved (mg/L)					
	Lead (Pb)-Dissolved (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	L1622366-27 Water 04-JUN-15 13:10 MW09-08 FILTERED ALK	L1622366-28 Water 03-JUN-15 17:45 FB-3 FILTERED ALK	L1622366-29 Water 03-JUN-15 17:45 DUP-4 FILTERED ALK		
Grouping	Analyte						
<b>WATER</b>							
<b>Total Metals</b>	Lithium (Li)-Total (mg/L)						
	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)						
<b>Dissolved Metals</b>	Dissolved Mercury Filtration Location						
	Dissolved Metals Filtration Location						
	Aluminum (Al)-Dissolved (mg/L)						
	Antimony (Sb)-Dissolved (mg/L)						
	Arsenic (As)-Dissolved (mg/L)						
	Barium (Ba)-Dissolved (mg/L)						
	Beryllium (Be)-Dissolved (mg/L)						
	Bismuth (Bi)-Dissolved (mg/L)						
	Boron (B)-Dissolved (mg/L)						
	Cadmium (Cd)-Dissolved (mg/L)						
	Calcium (Ca)-Dissolved (mg/L)						
	Chromium (Cr)-Dissolved (mg/L)						
	Cobalt (Co)-Dissolved (mg/L)						
	Copper (Cu)-Dissolved (mg/L)						
	Iron (Fe)-Dissolved (mg/L)						
	Lead (Pb)-Dissolved (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		L1622366-1 Water 03-JUN-15 17:45 MP09-05	L1622366-2 Water 02-JUN-15 14:55 MW09-06	L1622366-3 Water 03-JUN-15 08:45 W14103083BH03	L1622366-4 Water 03-JUN-15 12:15 MW09-01	L1622366-5 Water 04-JUN-15 14:40 MW09-24
Grouping	Analyte					
<b>WATER</b>						
<b>Dissolved Metals</b>	Lithium (Li)-Dissolved (mg/L)	<0.0020 <sup>DLA</sup>	0.0099	0.0010	0.0054	0.0010
	Magnesium (Mg)-Dissolved (mg/L)	75.6	67.1	44.3	56.9	42.0
	Manganese (Mn)-Dissolved (mg/L)	15.0	5.77	6.37	20.5	0.00029
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	0.0000180	<0.0000050	0.0000103	<0.0000050
	Molybdenum (Mo)-Dissolved (mg/L)	0.00085	0.00401	0.000970	0.00260	0.000309
	Nickel (Ni)-Dissolved (mg/L)	0.0083	0.0025	0.00241	0.0066	<0.00050
	Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	0.074	<0.050	<0.050
	Potassium (K)-Dissolved (mg/L)	8.48	16.4	3.98	14.8	1.50
	Selenium (Se)-Dissolved (mg/L)	0.00027	0.00019	0.000139	0.00013	0.00102
	Silicon (Si)-Dissolved (mg/L)	5.85	7.56	9.64	6.55	6.20
	Silver (Ag)-Dissolved (mg/L)	<0.000020 <sup>DLA</sup>	0.000062	<0.000010	0.000076	<0.000010
	Sodium (Na)-Dissolved (mg/L)	46.2	29.8	8.68	93.2	7.35
	Strontium (Sr)-Dissolved (mg/L)	1.08	0.748	0.498	1.10	0.537
	Sulfur (S)-Dissolved (mg/L)	368	364	90.7	516	80.1
	Thallium (Tl)-Dissolved (mg/L)	0.000024	0.000298	<0.000010	0.000860	<0.000010
	Tin (Sn)-Dissolved (mg/L)	<0.00020 <sup>DLA</sup>	<0.00020 <sup>DLA</sup>	<0.00010	<0.00020 <sup>DLA</sup>	<0.00010
	Titanium (Ti)-Dissolved (mg/L)	0.00113	<0.00060 <sup>DLA</sup>	0.00102	<0.00060 <sup>DLA</sup>	<0.00030
	Uranium (U)-Dissolved (mg/L)	0.00217	0.00215	0.00115	0.00189	0.00436
	Vanadium (V)-Dissolved (mg/L)	0.0017	<0.0010 <sup>DLA</sup>	0.00158	<0.0010 <sup>DLA</sup>	<0.00050
	Zinc (Zn)-Dissolved (mg/L)	0.0249	0.171	0.0027	2.98	0.0011
	Zirconium (Zr)-Dissolved (mg/L)	0.00076	<0.00060 <sup>DLA</sup>	0.00054	<0.00060 <sup>DLA</sup>	<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		L1622366-6 Water 04-JUN-15 17:41 GSI-PC-03-B	L1622366-7 Water 04-JUN-15 08:15 MW09-23	L1622366-8 Water 04-JUN-15 08:05 MP09-09	L1622366-9 Water 04-JUN-15 09:10 MP09-11	L1622366-10 Water 04-JUN-15 10:10 MW09-22
Grouping	Analyte					
<b>WATER</b>						
<b>Dissolved Metals</b>	Lithium (Li)-Dissolved (mg/L)	0.0526	<0.0050 <sup>DLA</sup>	<0.0020 <sup>DLA</sup>	0.0022	<0.0010
	Magnesium (Mg)-Dissolved (mg/L)	502	122	1.10	40.8	30.3
	Manganese (Mn)-Dissolved (mg/L)	2.67	24.9	0.0239	2.48	9.41
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	0.0000661	<0.0000050	<0.0000050
	Molybdenum (Mo)-Dissolved (mg/L)	0.0155	0.00311	0.0219	0.00350	0.000235
	Nickel (Ni)-Dissolved (mg/L)	0.0845	<0.0025 <sup>DLA</sup>	0.0195	0.00654	0.00267
	Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	0.205	<0.050	<0.050
	Potassium (K)-Dissolved (mg/L)	25.1	9.27	9.37	8.36	4.49
	Selenium (Se)-Dissolved (mg/L)	0.00035	<0.00025 <sup>DLA</sup>	0.00188	0.000246	0.000168
	Silicon (Si)-Dissolved (mg/L)	8.59	6.24	6.22	9.06	5.07
	Silver (Ag)-Dissolved (mg/L)	<0.000020 <sup>DLA</sup>	<0.000050 <sup>DLA</sup>	0.0244	0.000012	0.000021
	Sodium (Na)-Dissolved (mg/L)	103	30.2	25.3	11.0	33.7
	Strontium (Sr)-Dissolved (mg/L)	2.84	0.727	0.168	0.667	1.06
	Sulfur (S)-Dissolved (mg/L)	516	330	95.7	8.48	295
	Thallium (Tl)-Dissolved (mg/L)	<0.000020 <sup>DLA</sup>	<0.000050 <sup>DLA</sup>	0.000042	0.000012	<0.000010
	Tin (Sn)-Dissolved (mg/L)	0.00043	<0.00050 <sup>DLA</sup>	<0.00020 <sup>DLA</sup>	<0.00010	<0.00010
	Titanium (Ti)-Dissolved (mg/L)	0.00257	<0.0015 <sup>DLA</sup>	<0.00060 <sup>DLA</sup>	0.00123	<0.0018 <sup>DLM</sup>
	Uranium (U)-Dissolved (mg/L)	0.0164	0.00340	0.000861	0.000281	0.000293
	Vanadium (V)-Dissolved (mg/L)	0.0029	<0.0025 <sup>DLA</sup>	<0.0010 <sup>DLA</sup>	0.00354	0.00150
	Zinc (Zn)-Dissolved (mg/L)	0.0071	0.0807	<0.0020 <sup>DLA</sup>	0.0401	0.0040
	Zirconium (Zr)-Dissolved (mg/L)	0.00076	<0.0015 <sup>DLA</sup>	<0.00060 <sup>DLA</sup>	0.00160	0.00047

\* 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		L1622366-11 Water 04-JUN-15 10:10 FB-4	L1622366-12 Water 04-JUN-15 13:10 MW09-08	L1622366-13 Water 03-JUN-15 17:45 FB-3	L1622366-14 Water 03-JUN-15 17:45 DUP-4	L1622366-15 Water 05-JUN-15 TRAVEL BLANK
Grouping	Analyte					
<b>WATER</b>						
<b>Dissolved Metals</b>	Lithium (Li)-Dissolved (mg/L)	<0.0010	<0.0010	<0.0010	<0.0020 <sup>DLA</sup>	
	Magnesium (Mg)-Dissolved (mg/L)	<0.10	11.6	<0.10	78.4	
	Manganese (Mn)-Dissolved (mg/L)	<0.00010	5.59	<0.00010	15.1	
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	
	Molybdenum (Mo)-Dissolved (mg/L)	<0.000050	0.000162	<0.000050	0.00078	
	Nickel (Ni)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	0.0081	
	Phosphorus (P)-Dissolved (mg/L)	<0.050	0.100	<0.050	<0.050	
	Potassium (K)-Dissolved (mg/L)	<0.10	1.54	<0.10	9.07	
	Selenium (Se)-Dissolved (mg/L)	<0.000050	0.000119	<0.000050	0.00031	
	Silicon (Si)-Dissolved (mg/L)	<0.050	10.0	<0.050	5.92	
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000020 <sup>DLA</sup>	
	Sodium (Na)-Dissolved (mg/L)	<0.050	1.75	<0.050	45.2	
	Strontium (Sr)-Dissolved (mg/L)	<0.00020	0.238	<0.00020	1.07	
	Sulfur (S)-Dissolved (mg/L)	<0.50	26.3	<0.50	355	
	Thallium (Tl)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	0.000020	
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00020 <sup>DLA</sup>	
	Titanium (Ti)-Dissolved (mg/L)	<0.00030	0.00259	<0.00030	<0.0015 <sup>DLM</sup>	
	Uranium (U)-Dissolved (mg/L)	<0.000010	0.000067	<0.000010	0.00216	
	Vanadium (V)-Dissolved (mg/L)	<0.00050	0.00257	<0.00050	0.0017	
	Zinc (Zn)-Dissolved (mg/L)	<0.0010	0.0022	<0.0010	0.0251	
	Zirconium (Zr)-Dissolved (mg/L)	<0.00030	0.00066	<0.00030	0.00075	

\* 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		L1622366-16 Water 03-JUN-15 17:45 MP09-05 FILTERED ALK	L1622366-17 Water 03-JUN-15 14:55 MW09-06 FILTERED ALK	L1622366-18 Water 03-JUN-15 08:45 W14103083BH03 FILTERED ALK	L1622366-19 Water 03-JUN-15 12:15 MW09-01 FILTERED ALK	L1622366-20 Water 04-JUN-15 14:40 MW09-24 FILTERED ALK
Grouping	Analyte					
<b>WATER</b>						
<b>Dissolved Metals</b>	Lithium (Li)-Dissolved (mg/L)					
	Magnesium (Mg)-Dissolved (mg/L)					
	Manganese (Mn)-Dissolved (mg/L)					
	Mercury (Hg)-Dissolved (mg/L)					
	Molybdenum (Mo)-Dissolved (mg/L)					
	Nickel (Ni)-Dissolved (mg/L)					
	Phosphorus (P)-Dissolved (mg/L)					
	Potassium (K)-Dissolved (mg/L)					
	Selenium (Se)-Dissolved (mg/L)					
	Silicon (Si)-Dissolved (mg/L)					
	Silver (Ag)-Dissolved (mg/L)					
	Sodium (Na)-Dissolved (mg/L)					
	Strontium (Sr)-Dissolved (mg/L)					
	Sulfur (S)-Dissolved (mg/L)					
	Thallium (Tl)-Dissolved (mg/L)					
	Tin (Sn)-Dissolved (mg/L)					
	Titanium (Ti)-Dissolved (mg/L)					
	Uranium (U)-Dissolved (mg/L)					
	Vanadium (V)-Dissolved (mg/L)					
	Zinc (Zn)-Dissolved (mg/L)					
	Zirconium (Zr)-Dissolved (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		L1622366-22 Water 04-JUN-15 08:15 MW09-23 FILTERED ALK	L1622366-23 Water 04-JUN-15 08:05 MP09-09 FILTERED ALK	L1622366-24 Water 04-JUN-15 09:10 MP09-11 FILTERED ALK	L1622366-25 Water 04-JUN-15 10:10 MW09-22 FILTERED ALK	L1622366-26 Water 04-JUN-15 10:10 FB-4 FILTERED ALK
Grouping	Analyte					
<b>WATER</b>						
<b>Dissolved Metals</b>	Lithium (Li)-Dissolved (mg/L)					
	Magnesium (Mg)-Dissolved (mg/L)					
	Manganese (Mn)-Dissolved (mg/L)					
	Mercury (Hg)-Dissolved (mg/L)					
	Molybdenum (Mo)-Dissolved (mg/L)					
	Nickel (Ni)-Dissolved (mg/L)					
	Phosphorus (P)-Dissolved (mg/L)					
	Potassium (K)-Dissolved (mg/L)					
	Selenium (Se)-Dissolved (mg/L)					
	Silicon (Si)-Dissolved (mg/L)					
	Silver (Ag)-Dissolved (mg/L)					
	Sodium (Na)-Dissolved (mg/L)					
	Strontium (Sr)-Dissolved (mg/L)					
	Sulfur (S)-Dissolved (mg/L)					
	Thallium (Tl)-Dissolved (mg/L)					
	Tin (Sn)-Dissolved (mg/L)					
	Titanium (Ti)-Dissolved (mg/L)					
	Uranium (U)-Dissolved (mg/L)					
	Vanadium (V)-Dissolved (mg/L)					
	Zinc (Zn)-Dissolved (mg/L)					
	Zirconium (Zr)-Dissolved (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	L1622366-27 Water 04-JUN-15 13:10 MW09-08 FILTERED ALK	L1622366-28 Water 03-JUN-15 17:45 FB-3 FILTERED ALK	L1622366-29 Water 03-JUN-15 17:45 DUP-4 FILTERED ALK		
Grouping	Analyte						
<b>WATER</b>							
<b>Dissolved Metals</b>	Lithium (Li)-Dissolved (mg/L)						
	Magnesium (Mg)-Dissolved (mg/L)						
	Manganese (Mn)-Dissolved (mg/L)						
	Mercury (Hg)-Dissolved (mg/L)						
	Molybdenum (Mo)-Dissolved (mg/L)						
	Nickel (Ni)-Dissolved (mg/L)						
	Phosphorus (P)-Dissolved (mg/L)						
	Potassium (K)-Dissolved (mg/L)						
	Selenium (Se)-Dissolved (mg/L)						
	Silicon (Si)-Dissolved (mg/L)						
	Silver (Ag)-Dissolved (mg/L)						
	Sodium (Na)-Dissolved (mg/L)						
	Strontium (Sr)-Dissolved (mg/L)						
	Sulfur (S)-Dissolved (mg/L)						
	Thallium (Tl)-Dissolved (mg/L)						
	Tin (Sn)-Dissolved (mg/L)						
	Titanium (Ti)-Dissolved (mg/L)						
	Uranium (U)-Dissolved (mg/L)						
	Vanadium (V)-Dissolved (mg/L)						
	Zinc (Zn)-Dissolved (mg/L)						
	Zirconium (Zr)-Dissolved (mg/L)						

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

## Reference Information

## QC Samples with Qualifiers &amp; Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Duplicate	Fluoride (F)	DLM	L1622366-1, -10, -11, -12, -13, -14, -15, -2, -3, -4, -5, -6, -7, -8, -9
Duplicate	Total Inorganic Carbon	HTA	L1622366-1, -11, -12, -13, -14, -15, -3, -4, -5, -7, -9
Duplicate	Total Inorganic Carbon	HTA	L1622366-1, -11, -12, -13, -14, -15, -3, -4, -5, -7, -9
Duplicate	Total Inorganic Carbon	HTA	L1622366-1, -11, -12, -13, -14, -15, -3, -4, -5, -7, -9
Matrix Spike	Total Inorganic Carbon	MS-B	L1622366-1, -11, -12, -13, -14, -15, -3, -4, -5, -7, -9
Matrix Spike	Thiocyanate (SCN)	MS-B	L1622366-1, -10, -11, -12, -13, -14, -15, -2, -3, -4, -5, -7, -8, -9
Matrix Spike	Thiocyanate (SCN)	MS-B	L1622366-1, -10, -11, -12, -13, -14, -15, -2, -3, -4, -5, -7, -8, -9
Matrix Spike	Antimony (Sb)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Ammonia, Total (as N)	MS-B	L1622366-14, -4
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1622366-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Total Kjeldahl Nitrogen	MS-B	L1622366-1, -10, -11, -12, -13, -14, -15, -2, -3, -5, -7, -8, -9

## Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
HTA	Analytical holding time was exceeded.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

## Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
<b>ALK-PCT-VA</b>	Water	Alkalinity by Auto. 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.			
<b>ALK-PCT-VA</b>	Water	Alkalinity by Auto. 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.			
<b>BE-D-L-CCMS-VA</b>	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.			
<b>BE-T-L-CCMS-VA</b>	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.			

## Reference Information

**CARBONS-TIC-VA**      Water      Total inorganic carbon by CO<sub>2</sub> 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.

**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<sub>3</sub> 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 µm), 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:

$$\text{Ion Balance (\%)} = [\text{Cation Sum} - \text{Anion Sum}] / [\text{Cation Sum} + \text{Anion Sum}]$$

**MET-D-CCMS-VA**      Water      Dissolved Metals in Water by CRC ICPMS      APHA 3030B/6020A (mod)

Water samples are filtered (0.45 µm), 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.

## Reference Information

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)

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.

## Reference Information

\*\* 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
WR	ALS ENVIRONMENTAL - WHITEHORSE, YUKON, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

### Chain of Custody Numbers:

1	2
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### 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.*



<b>Report To</b>		<b>Report Format / Distribution</b>			<b>Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)</b>																																											
Company: Hemmera Environchem Inc.		Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (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: 867-458-4865		Select Distribution: <input checked="" type="checkbox"/> EMAIL <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, rmartinka@hemmera.com			Specify Date Required for E2,E or P:																																											
		Email 2 chris@elr.ca			<b>Analysis Request</b>																																											
<b>Invoice To</b>		<b>Invoice Distribution</b>			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																											
Same as Report To <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input type="checkbox"/> FAX																																														
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																																																
<b>Project Information</b>		<b>Oil and Gas Required Fields (client use)</b>			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>F/P</td><td>F/P</td><td></td><td></td><td></td><td></td><td>P</td><td>P</td><td>P</td><td>P</td><td></td><td>F</td><td></td><td></td><td></td><td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Number of Containers</td> </tr> <tr> <td>Dissolved Metals, Hardness</td> <td>Dissolved Mercury</td> <td>Nitrate, Nitrite, Total Kjeldahl N (TKN)</td> <td>Cl, F, Sulfate, conductivity, pH, alkalinity</td> <td>Anion Sum, Cation Sum, Cation/Anion Balance</td> <td>Cyanide - Weak Acid Diss., Total, Free</td> <td>Ammonia N (total), Total Organic Carbon</td> <td>Thiocyanate (SCN)</td> <td>Sulfide as S</td> <td>Total Inorganic Carbon</td> <td>Dissolved Alkalinity</td> <td></td><td></td><td></td><td></td> </tr> </table>													F/P	F/P					P	P	P	P		F				Number of Containers	Dissolved Metals, Hardness	Dissolved Mercury	Nitrate, Nitrite, Total Kjeldahl N (TKN)	Cl, F, Sulfate, conductivity, pH, alkalinity	Anion Sum, Cation Sum, Cation/Anion Balance	Cyanide - Weak Acid Diss., Total, Free	Ammonia N (total), Total Organic Carbon	Thiocyanate (SCN)	Sulfide as S	Total Inorganic Carbon	Dissolved Alkalinity				
F/P	F/P																		P	P	P	P		F				Number of Containers																				
Dissolved Metals, Hardness	Dissolved Mercury	Nitrate, Nitrite, Total Kjeldahl N (TKN)	Cl, F, Sulfate, conductivity, pH, alkalinity	Anion Sum, Cation Sum, Cation/Anion Balance														Cyanide - Weak Acid Diss., Total, Free	Ammonia N (total), Total Organic Carbon	Thiocyanate (SCN)	Sulfide as S	Total Inorganic Carbon	Dissolved Alkalinity																									
ALS Quote #: Q50588		Approver ID:																Cost Center:																														
Job #: 1343-005.09		GL Account:																Routing Code:																														
PO / AFE:		Activity Code:																																														
LSD:		Location:																																														
<b>ALS Lab Work Order # (lab use only)</b>		<b>ALS Contact:</b>			<b>Sampler:</b> RM, JC, AN, MN																																											
<b>ALS Sample # (lab use only)</b>	<b>Sample Identification and/or Coordinates (This description will appear on the report)</b>			<b>Date (dd-mm-yy)</b>	<b>Time (hh:mm)</b>	<b>Sample Type</b>																																										
1	MP09-05			03-Jun-15	17:45	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
2	MW09-06			03-Jun-15	14:55	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
3	W14103083BH03			03-Jun-15	8:45	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
4	MW09-01			03-Jun-15	12:15	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
5	MW09-24			04-Jun-15	14:40	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
6	GSI-PC-03-B			04-Jun-15	17:41	Water	R	R	R	R	R	R									4																											
7	MW09-23			04-Jun-15	8:15	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
8	MP09-09			04-Jun-15	8:05	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
9	MP09-11			04-Jun-15	9:10	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
10	MW09-22			04-Jun-15	10:10	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
11	FB-4			04-Jun-15	10:10	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
12	MW09-08			04-Jun-15	13:10	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	9																											
<b>Drinking Water (DW) Samples<sup>1</sup> (client use)</b>				<b>Special Instructions / Specify Criteria to add on report (client Use)</b>				<b>SAMPLE CONDITION AS RECEIVED (lab use only)</b>																																								
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				- 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No								Ice packs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																																								
								Cooling Initiated <input checked="" type="checkbox"/>																																								
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<b>SHIPMENT RELEASE (client use)</b>				<b>INITIAL SHIPMENT RECEPTION (lab use only)</b>				<b>FINAL SHIPMENT RECEPTION (lab use only)</b>																																								
Released by: (Signature)				Date: June 5 2015 Time: 9:15				Received by: (Signature) Date: 5-Jun-15 Time: 9:15																																								





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NA-EN-0135a v09 Final/EN January 2014