ENVIRONMENTAL DYNAMICS INC.
ATTN: Meghan Marjanovic
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Date Received: 16-SEP-15
Report Date: 16-OCT-15 10:24 (MT)
Version: FINAL REV. 2

Client Phone: 867-393-4882

Certificate of Analysis

Lab Work Order #: L1673876

Project P.O. #: NOT SUBMITTED
Job Reference: MOUNT NANSEN 15-Y-0146
C of C Numbers: 1, 2, 3, 4
Legal Site Desc:

Comments:

16-OCT-2015 Revision 2: The client Sample ID for the samples ALS identify as L1673876 -1, -2, 17 and -25 were modified.

Can Dang
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1673876-1	L1673876-2	L1673876-3	L1673876-4	L1673876-5
	Description	Water	Water	Water	Water	Water
	Sampled Date	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15
	Sampled Time	10:35	08:05	08:20	15:45	13:50
	Client ID	WQ-DC-DX+105	WQ-VC-DBC	WQ-VC-U	WQ-SEEP	WQ-DC-8
Grouping	**Analyte**					
WATER						
Physical Tests	Conductivity (uS/cm)	1090	159	146	1450	1950
	Hardness (as CaCO3) (mg/L)	677	78.9	73.7	869	1400
	pH (pH)	7.34	7.84	7.81	7.15	8.00
	Total Suspended Solids (mg/L)	<3.0	13.3	<3.0	27.0	88.0
	Total Dissolved Solids (mg/L)	798	88.0	79.6	1210	1720
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	275	65.6	62.8	245	367
	Alkalinity, Carbonate (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
	Alkalinity, Total (as CaCO3) (mg/L)	275	65.6	62.8	245	367
	Ammonia, Total (as N) (mg/L)	0.0388	<0.0050	<0.0050	3.90	0.265
	Chloride (Cl) (mg/L)	<1.0 DLA	<0.50	<0.50	<2.5 DLA	<2.5 DLA
	Fluoride (F) (mg/L)	0.161	0.051	0.044	0.12	0.12
	Nitrate (as N) (mg/L)	0.207	0.241	0.114	0.707	0.191
	Nitrite (as N) (mg/L)	0.0023	<0.0010	<0.0010	0.0389	<0.0050 DLA
	Sulfate (SO4) (mg/L)	388	17.1	13.0	682	1010
	Anion Sum (meq/L)	13.6	1.69	1.54	19.1	28.4
	Cation Sum (meq/L)	13.9	1.69	1.59	20.1	28.8
	Cation - Anion Balance (%)	1.2	0.2	1.6	2.5	0.6
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	<0.0050	0.0117	<0.0050
	Cyanide, Total (mg/L)	<0.0050	<0.0050	<0.0050	0.0423	<0.0050
	Cyanate (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50	<0.50	3.87	<0.50
Total Metals	Aluminum (Al)-Total (mg/L)	0.0139	0.153	0.0675	0.0254	0.712
	Antimony (Sb)-Total (mg/L)	0.00875	0.00019	0.00011	0.00043	0.0204
	Arsenic (As)-Total (mg/L)	0.0423	0.00100	0.00037	0.0414	0.0561
	Barium (Ba)-Total (mg/L)	0.0161	0.0526	0.0513	0.0637	0.0503
	Beryllium (Be)-Total (mg/L)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000040 DLA
	Bismuth (Bi)-Total (mg/L)	<0.000050	0.000063	<0.000050	<0.000050	<0.00010 DLA
	Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	0.057	0.053
	Cadmium (Cd)-Total (mg/L)	0.00292	0.0000572	0.0000333	0.000505	0.00452
	Calcium (Ca)-Total (mg/L)	176	20.8	18.9	247	297
	Chromium (Cr)-Total (mg/L)	0.00012	0.00030	0.00024	0.00055	0.00123
	Cobalt (Co)-Total (mg/L)	0.00087	0.00020	0.00015	0.00745	0.00079
	Copper (Cu)-Total (mg/L)	0.00082	0.00217	0.00202	0.00374	0.0041
	Iron (Fe)-Total (mg/L)	0.556	0.236	0.112	9.96	5.38
	Lead (Pb)-Total (mg/L)	0.000345	0.000526	0.000060	0.000093	0.00816
	Lithium (Li)-Total (mg/L)	0.0086	<0.0010	<0.0010	0.0013	0.0117

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1673876-6 Water 15-SEP-15 09:25 WQ-VC-U-R	L1673876-7 Water 14-SEP-15 13:20 WQ-PC-D	L1673876-8 Water 14-SEP-15 19:25 WQ-DC-R	L1673876-9 Water 14-SEP-15 16:50 WQ-VC-R	L1673876-10 Water 14-SEP-15 18:20 WQ-VC-UMN
Sample ID						
Description						
Sampled Date						
Sampled Time						
Client ID						
WATER						
Physical Tests	Conductivity (uS/cm)	147	272	879	178	188
	Hardness (as CaCO3) (mg/L)	73.4	137	526	87.9	93.1
	pH (pH)	7.80	7.64	7.89	7.90	7.92
	Total Suspended Solids (mg/L)	<3.0	20.7	6.0	16.0	5.3
	Total Dissolved Solids (mg/L)	79.9	172	643	99.7	106
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	63.6	46.3	138	64.4	67.7
	Alkalinity, Carbonate (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
	Alkalinity, Total (as CaCO3) (mg/L)	63.6	46.3	138	64.4	67.7
	Ammonia, Total (as N) (mg/L)	0.0055	0.352	0.202	<0.0050	<0.0050
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	0.047	0.055	0.075	0.048	0.048
	Nitrate (as N) (mg/L)	0.114	0.0343	0.316	0.0924	0.0968
	Nitrite (as N) (mg/L)	<0.0010	0.0012	0.0078	<0.0010	<0.0010
	Sulfate (SO4) (mg/L)	13.0	89.7	367	26.9	28.9
	Anion Sum (meq/L)	1.55	2.80	10.4	1.86	1.96
	Cation Sum (meq/L)	1.58	2.97	11.0	1.89	1.99
	Cation - Anion Balance (%)	0.9	3.0	2.7	0.9	0.8
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanide, Total (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanate (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
Total Metals	Aluminum (Al)-Total (mg/L)	0.109	2.12	0.0588	0.213	0.157
	Antimony (Sb)-Total (mg/L)	0.00011	0.00367	0.00161	0.00023	0.00021
	Arsenic (As)-Total (mg/L)	0.00045	0.0273	0.00969	0.00157	0.00142
	Barium (Ba)-Total (mg/L)	0.0529	0.0922	0.0448	0.0538	0.0531
	Beryllium (Be)-Total (mg/L)	<0.000020	0.000111	<0.000020	<0.000020	<0.000020
	Bismuth (Bi)-Total (mg/L)	<0.000050	0.000332	<0.000050	<0.000050	<0.000050
	Boron (B)-Total (mg/L)	<0.010	<0.010	0.018	<0.010	<0.010
	Cadmium (Cd)-Total (mg/L)	0.0000305	0.000636	0.0000450	0.0000489	0.0000457
	Calcium (Ca)-Total (mg/L)	19.2	38.3	120	23.4	24.3
	Chromium (Cr)-Total (mg/L)	0.00028	0.00257	0.00033	0.00039	0.00031
	Cobalt (Co)-Total (mg/L)	0.00018	0.00120	0.00082	0.00021	0.00018
	Copper (Cu)-Total (mg/L)	0.00218	0.0121	0.00155	0.00233	0.00216
	Iron (Fe)-Total (mg/L)	0.175	4.56	1.40	0.357	0.266
	Lead (Pb)-Total (mg/L)	0.000130	0.0262	0.000201	0.000710	0.000678
	Lithium (Li)-Total (mg/L)	<0.0010	0.0022	0.0022	<0.0010	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1673876-11	L1673876-12	L1673876-13	L1673876-14	L1673876-15
Description	Water	Water	Water	Water	Water
Sampled Date	15-SEP-15	15-SEP-15	14-SEP-15	15-SEP-15	
Sampled Time	11:55	11:30	13:40	14:40	
Client ID	WQ-DC-11	WQ-DC-15	WQ-PC-U	WQ-DC-U	TRAVEL BLANK
Grouping / **Analyte**					
WATER					
Physical Tests Conductivity (uS/cm)	1080	1070	269	1070	<2.0
Hardness (as CaCO3) (mg/L)	687	685	133	665	<0.50
pH (pH)	7.65	7.37	7.62	8.14	5.54
Total Suspended Solids (mg/L)	<3.0	<3.0	66.7	28.7	<3.0
Total Dissolved Solids (mg/L)	808	807	169	829	<1.0
Anions and Nutrients Alkalinity, Bicarbonate (as CaCO3) (mg/L)	275	273	45.4	171	<1.0
Alkalinity, Carbonate (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3) (mg/L)	275	273	45.4	171	<1.0
Ammonia, Total (as N) (mg/L)	0.0304	0.0391	0.390	0.486	<0.0050
Chloride (Cl) (mg/L)	<1.0 DLA	<1.0 DLA	<0.50	<1.0 DLA	<0.50
Fluoride (F) (mg/L)	0.154	0.155	0.049	0.096	<0.020
Nitrate (as N) (mg/L)	0.209	0.203	0.0250	0.201	<0.0050
Nitrite (as N) (mg/L)	0.0021	0.0021	0.0012	0.0053	<0.0010
Sulfate (SO4) (mg/L)	394	394	89.2	486	<0.30
Anion Sum (meq/L)	13.7	13.7	2.77	13.6	<0.10
Cation Sum (meq/L)	14.1	14.1	2.88	13.9	<0.10
Cation - Anion Balance (%)	1.3	1.3	2.0	1.1	0.0
Cyanides Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide, Total (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanate (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20
Thiocyanate (SCN) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
Total Metals Aluminum (Al)-Total (mg/L)	0.0311	0.0814	1.25	0.421	<0.0030
Antimony (Sb)-Total (mg/L)	0.00856	0.00923	0.00159	0.00218	<0.00010
Arsenic (As)-Total (mg/L)	0.0454	0.0521	0.0109	0.0141	<0.00010
Barium (Ba)-Total (mg/L)	0.0169	0.0167	0.0778	0.0526	<0.000050
Beryllium (Be)-Total (mg/L)	<0.000020	<0.000020	0.000061	0.000020	<0.000020
Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	0.000082	<0.000050	<0.000050
Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	0.021	<0.010
Cadmium (Cd)-Total (mg/L)	0.00317	0.00339	0.000143	0.0000960	<0.0000050
Calcium (Ca)-Total (mg/L)	174	178	37.9	155	<0.050
Chromium (Cr)-Total (mg/L)	0.00012	0.00018	0.00166	0.00088	<0.00010
Cobalt (Co)-Total (mg/L)	0.00078	0.00091	0.00070	0.00121	<0.00010
Copper (Cu)-Total (mg/L)	0.00091	0.00098	0.00400	0.00234	<0.00050
Iron (Fe)-Total (mg/L)	0.657	0.828	2.63	2.25	<0.010
Lead (Pb)-Total (mg/L)	0.000503	0.000677	0.00666	0.000415	<0.000050
Lithium (Li)-Total (mg/L)	0.0085	0.0088	0.0015	0.0031	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1673876-16	L1673876-17	L1673876-18	L1673876-19	L1673876-20
	Description	Water	Water	Water	Water	Water
	Sampled Date	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15
	Sampled Time	09:10	13:20		16:20	11:10
	Client ID	WQ-BC	WQ-DC-D1B	WQ-DC-10	WQ-TP	WQ-DC-14
Grouping	**Analyte**					
WATER						
Physical Tests	Conductivity (uS/cm)	279	1520	1110	1260	344
	Hardness (as CaCO3) (mg/L)	152	1050	704	761	176
	pH (pH)	8.05	8.20	7.97	8.06	7.79
	Total Suspended Solids (mg/L)	29.3	22.7	8.0	3.3	4.0
	Total Dissolved Solids (mg/L)	173	1280	834	1040	217
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	87.2	298	272	75.2	67.9
	Alkalinity, Carbonate (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
	Alkalinity, Total (as CaCO3) (mg/L)	87.2	298	272	75.2	67.9
	Ammonia, Total (as N) (mg/L)	0.0116	0.103	0.0296	0.0401	<0.0050
	Chloride (Cl) (mg/L)	<0.50	<2.5 DLA	<1.0 DLA	<1.0 DLA	<0.50
	Fluoride (F) (mg/L)	0.065	0.13	0.162	0.245	0.050
	Nitrate (as N) (mg/L)	0.0566	0.095	0.093	0.073	<0.0050
	Nitrite (as N) (mg/L)	<0.0010	<0.0050 DLA	<0.0020 DLA	<0.0020 DLA	<0.0010
	Sulfate (SO4) (mg/L)	62.0	740	415	685	107
	Anion Sum (meq/L)	3.04	21.4	14.1	15.8	3.59
	Cation Sum (meq/L)	3.23	21.5	14.5	16.3	3.73
	Cation - Anion Balance (%)	3.0	0.3	1.4	1.5	1.9
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanide, Total (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanate (mg/L)	<2.0 DLIS	<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
Total Metals	Aluminum (Al)-Total (mg/L)	0.871	0.299	0.0418	0.101	0.0511
	Antimony (Sb)-Total (mg/L)	0.00059	0.0117	0.00936	0.0369	0.00173
	Arsenic (As)-Total (mg/L)	0.00750	0.0276	0.0541	0.115	0.00460
	Barium (Ba)-Total (mg/L)	0.0662	0.0310	0.0186	0.0112	0.0401
	Beryllium (Be)-Total (mg/L)	0.000041	<0.000020	<0.000020	<0.000020	<0.000020
	Bismuth (Bi)-Total (mg/L)	0.000070	<0.000050	<0.000050	0.000195	<0.000050
	Boron (B)-Total (mg/L)	<0.010	0.032	<0.010	0.077	<0.010
	Cadmium (Cd)-Total (mg/L)	0.000245	0.00151	0.00232	0.000987	0.0000568
	Calcium (Ca)-Total (mg/L)	41.8	229	184	225	48.1
	Chromium (Cr)-Total (mg/L)	0.00121	0.00060	0.00014	0.00018	0.00021
	Cobalt (Co)-Total (mg/L)	0.00068	0.00042	0.00084	0.00045	<0.00010
	Copper (Cu)-Total (mg/L)	0.00350	0.00192	0.00117	0.0265	0.00208
	Iron (Fe)-Total (mg/L)	1.53	1.71	1.57	0.341	0.078
	Lead (Pb)-Total (mg/L)	0.00489	0.00299	0.00124	0.0168	0.000355
	Lithium (Li)-Total (mg/L)	0.0016	0.0090	0.0080	0.0077	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1673876-21 Water 15-SEP-15 16:45 WQ-DC-B	L1673876-22 Water 15-SEP-15 17:00 FIELD BLANK	L1673876-23 Water 15-SEP-15 10:30 WQ-DC-DX	L1673876-24 Water 14-SEP-15 19:40 WQ-DC-R-R	L1673876-25 Water 15-SEP-15 12:15 WQ-MS-S-03
WATER						
Physical Tests	Conductivity (uS/cm)	1060	<2.0	480	887	1220
	Hardness (as CaCO3) (mg/L)	671	<0.50	259	522	788
	pH (pH)	8.08	5.64	7.89	7.96	7.25
	Total Suspended Solids (mg/L)	36.0	<3.0	30.7	<3.0	91.3
	Total Dissolved Solids (mg/L)	818	<1.0	314	643	940
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	167	<1.0	104	141	300
	Alkalinity, Carbonate (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0
	Alkalinity, Total (as CaCO3) (mg/L)	167	<1.0	104	141	300
	Ammonia, Total (as N) (mg/L)	0.0936	<0.0050	0.0107	0.192	0.0460
	Chloride (Cl) (mg/L)	<1.0 DLA	<0.50	<0.50	<0.50	<1.0 DLA
	Fluoride (F) (mg/L)	0.097	<0.020	0.058	0.075	0.191
	Nitrate (as N) (mg/L)	0.097	<0.0050	0.0223	0.316	0.016
	Nitrite (as N) (mg/L)	<0.0020 DLA	<0.0010	<0.0010	0.0075	<0.0020 DLA
	Sulfate (SO4) (mg/L)	483	<0.30	152	367	474
	Anion Sum (meq/L)	13.4	<0.10	5.26	10.5	15.9
	Cation Sum (meq/L)	13.8	<0.10	5.43	10.9	16.3
	Cation - Anion Balance (%)	1.6	0.0	1.6	2.0	1.2
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanide, Total (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanate (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50
Total Metals	Aluminum (Al)-Total (mg/L)	0.478	<0.0030	1.49	0.0605	0.270
	Antimony (Sb)-Total (mg/L)	0.00274	<0.00010	0.00190	0.00163	0.0137
	Arsenic (As)-Total (mg/L)	0.0102	<0.00010	0.0152	0.00996	0.141
	Barium (Ba)-Total (mg/L)	0.0520	<0.000050	0.0556	0.0470	0.0310
	Beryllium (Be)-Total (mg/L)	0.000026	<0.000020	0.000048	<0.000020	<0.000020
	Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	0.000059
	Boron (B)-Total (mg/L)	0.017	<0.010	<0.010	0.018	<0.010
	Cadmium (Cd)-Total (mg/L)	0.0000997	<0.0000050	0.0000626	0.0000516	0.00324
	Calcium (Ca)-Total (mg/L)	151	<0.050	69.8	129	200
	Chromium (Cr)-Total (mg/L)	0.00092	<0.00010	0.00178	0.00035	0.00047
	Cobalt (Co)-Total (mg/L)	0.00054	<0.00010	0.00081	0.00079	0.00165
	Copper (Cu)-Total (mg/L)	0.00224	<0.00050	0.00378	0.00155	0.0144
	Iron (Fe)-Total (mg/L)	2.19	<0.010	2.30	1.53	4.04
	Lead (Pb)-Total (mg/L)	0.000518	<0.000050	0.00247	0.000205	0.0136
	Lithium (Li)-Total (mg/L)	0.0034	<0.0010	0.0012	0.0018	0.0095

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1673876-26	L1673876-27			
	Description	Water	Water			
	Sampled Date	16-SEP-15	16-SEP-15			
	Sampled Time	07:55	08:20			
	Client ID	WQ-MS-S-A	WQ-CH-P-13-01			
Grouping	**Analyte**					
WATER						
Physical Tests	Conductivity (uS/cm)	2370	1280			
	Hardness (as CaCO3) (mg/L)	1870	867			
	pH (pH)	7.91	6.43			
	Total Suspended Solids (mg/L)	7.3	4.7			
	Total Dissolved Solids (mg/L)	2270	1110			
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	523	8.9			
	Alkalinity, Carbonate (as CaCO3) (mg/L)	<1.0	<1.0			
	Alkalinity, Hydroxide (as CaCO3) (mg/L)	<1.0	<1.0			
	Alkalinity, Total (as CaCO3) (mg/L)	523	8.9			
	Ammonia, Total (as N) (mg/L)	0.0181	0.0054			
	Chloride (Cl) (mg/L)	<2.5 DLA	<1.0 DLA			
	Fluoride (F) (mg/L)	0.14	0.046			
	Nitrate (as N) (mg/L)	0.117	0.113			
	Nitrite (as N) (mg/L)	<0.0050 DLA	0.0031			
	Sulfate (SO4) (mg/L)	1340	800			
	Anion Sum (meq/L)	38.3	16.8			
	Cation Sum (meq/L)	38.0	17.7			
	Cation - Anion Balance (%)	-0.4	2.6			
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0050	<0.0050			
	Cyanide, Total (mg/L)	<0.0050	<0.0050			
	Cyanate (mg/L)	<0.20	<0.20			
	Thiocyanate (SCN) (mg/L)	<2.5 DLM	<0.50			
Total Metals	Aluminum (Al)-Total (mg/L)	0.0212	0.222			
	Antimony (Sb)-Total (mg/L)	0.00879	0.00023			
	Arsenic (As)-Total (mg/L)	0.0574	0.00161			
	Barium (Ba)-Total (mg/L)	0.0151	0.0123			
	Beryllium (Be)-Total (mg/L)	<0.000040 DLA	0.000028			
	Bismuth (Bi)-Total (mg/L)	<0.00010 DLA	<0.000050			
	Boron (B)-Total (mg/L)	<0.020 DLA	<0.010			
	Cadmium (Cd)-Total (mg/L)	0.00313	0.00877			
	Calcium (Ca)-Total (mg/L)	375	218			
	Chromium (Cr)-Total (mg/L)	<0.00020 DLA	0.00022			
	Cobalt (Co)-Total (mg/L)	0.00038	<0.00010			
	Copper (Cu)-Total (mg/L)	0.0026	0.00116			
	Iron (Fe)-Total (mg/L)	0.318	0.155			
	Lead (Pb)-Total (mg/L)	0.00428	0.000787			
	Lithium (Li)-Total (mg/L)	0.0185	0.0010			

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1673876-1	L1673876-2	L1673876-3	L1673876-4	L1673876-5
Description	Water	Water	Water	Water	Water
Sampled Date	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15
Sampled Time	10:35	08:05	08:20	15:45	13:50
Client ID	WQ-DC-DX+105	WQ-VC-DBC	WQ-VC-U	WQ-SEEP	WQ-DC-8
Grouping / **Analyte**					
WATER					
Total Metals Magnesium (Mg)-Total (mg/L)	56.7	6.26	5.86	52.6	146
Manganese (Mn)-Total (mg/L)	1.21	0.0493	0.0204	5.52	1.51
Mercury (Hg)-Total (mg/L)	0.0000080	0.0000070	0.0000061	0.0000079	0.0000146
Molybdenum (Mo)-Total (mg/L)	0.000271	0.000379	0.000317	0.000821	0.00021
Nickel (Ni)-Total (mg/L)	0.00168	0.00060	<0.00050	0.00343	0.0020
Phosphorus (P)-Total (mg/L)	<0.050	<0.050	<0.050	<0.050	0.089
Potassium (K)-Total (mg/L)	3.62	0.55	0.48	6.01	5.42
Selenium (Se)-Total (mg/L)	0.000058	<0.000050	<0.000050	0.000295	0.00091
Silicon (Si)-Total (mg/L)	6.54	6.16	5.99	7.14	6.87
Silver (Ag)-Total (mg/L)	0.000013	0.000035	<0.000010	0.000040	0.000100
Sodium (Na)-Total (mg/L)	4.93	2.22	2.09	33.0	8.93
Strontium (Sr)-Total (mg/L)	0.396	0.210	0.205	0.703	0.706
Sulfur (S)-Total (mg/L)	134	5.88	4.46	224	329
Thallium (Tl)-Total (mg/L)	0.000096	0.000016	<0.000010	0.000010	0.000144
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020 DLA
Titanium (Ti)-Total (mg/L)	0.00041	0.00421	0.00121	0.00133	0.0364
Uranium (U)-Total (mg/L)	0.00409	0.000406	0.000323	0.00196	0.00452
Vanadium (V)-Total (mg/L)	<0.00050	0.00058	<0.00050	0.00170	0.0036
Zinc (Zn)-Total (mg/L)	0.541	0.0041	<0.0030	0.0436	0.772
Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00030	<0.00030	0.00050	<0.00060 DLA
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)	0.0038	0.0355	0.0354	0.0131	0.0046
Antimony (Sb)-Dissolved (mg/L)	0.00849	0.00011	<0.00010	0.00039	0.0198
Arsenic (As)-Dissolved (mg/L)	0.0127	0.00046	0.00029	0.0375	0.0269
Barium (Ba)-Dissolved (mg/L)	0.0157	0.0508	0.0507	0.0716	0.0383
Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000040 DLA
Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.00010 DLA
Boron (B)-Dissolved (mg/L)	<0.010	<0.010	<0.010	0.054	0.049
Cadmium (Cd)-Dissolved (mg/L)	0.000910	0.0000397	0.0000255	0.000463	0.000630
Calcium (Ca)-Dissolved (mg/L)	176	21.2	19.6	256	310
Chromium (Cr)-Dissolved (mg/L)	<0.00010	0.00013	0.00013	0.00042	<0.00020 DLA
Cobalt (Co)-Dissolved (mg/L)	0.00086	0.00013	0.00012	0.00879	0.00044
Copper (Cu)-Dissolved (mg/L)	0.00047	0.00188	0.00188	0.00289	0.00082
Iron (Fe)-Dissolved (mg/L)	0.207	0.066	0.061	7.36	2.41
Lead (Pb)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.00010 DLA
Lithium (Li)-Dissolved (mg/L)	0.0083	<0.0010	<0.0010	0.0012	0.0107

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1673876-6	L1673876-7	L1673876-8	L1673876-9	L1673876-10
Description	Water	Water	Water	Water	Water
Sampled Date	15-SEP-15	14-SEP-15	14-SEP-15	14-SEP-15	14-SEP-15
Sampled Time	09:25	13:20	19:25	16:50	18:20
Client ID	WQ-VC-U-R	WQ-PC-D	WQ-DC-R	WQ-VC-R	WQ-VC-UMN
Grouping / **Analyte**					
WATER					
Total Metals Magnesium (Mg)-Total (mg/L)	5.96	9.26	47.1	7.17	7.55
Manganese (Mn)-Total (mg/L)	0.0240	0.281	0.575	0.0483	0.0468
Mercury (Hg)-Total (mg/L)	0.0000064	0.0000132	0.0000053	0.0000050	<0.0000050
Molybdenum (Mo)-Total (mg/L)	0.000311	0.000301	0.000292	0.000356	0.000356
Nickel (Ni)-Total (mg/L)	0.00052	0.00200	0.00102	0.00071	<0.00050
Phosphorus (P)-Total (mg/L)	<0.050	0.094	<0.050	<0.050	<0.050
Potassium (K)-Total (mg/L)	0.50	1.12	2.32	0.62	0.62
Selenium (Se)-Total (mg/L)	<0.000050	0.000055	0.000130	0.000053	<0.000050
Silicon (Si)-Total (mg/L)	6.09	10.5	6.30	6.61	6.28
Silver (Ag)-Total (mg/L)	<0.000010	0.000310	<0.000010	0.000013	<0.000010
Sodium (Na)-Total (mg/L)	2.11	3.57	8.43	2.45	2.47
Strontium (Sr)-Total (mg/L)	0.206	0.228	0.367	0.203	0.213
Sulfur (S)-Total (mg/L)	4.58	29.3	120	9.31	9.59
Thallium (Tl)-Total (mg/L)	<0.000010	0.000064	<0.000010	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	0.00301	0.0581	0.00162	0.00536	0.00418
Uranium (U)-Total (mg/L)	0.000328	0.000676	0.00129	0.000411	0.000442
Vanadium (V)-Total (mg/L)	0.00057	0.00660	0.00079	0.00079	0.00063
Zinc (Zn)-Total (mg/L)	0.0033	0.0654	0.0073	0.0043	0.0036
Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
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)	0.0360	0.0183	0.0248	0.0418	0.0347
Antimony (Sb)-Dissolved (mg/L)	<0.00010	0.00115	0.00162	0.00016	0.00016
Arsenic (As)-Dissolved (mg/L)	0.00031	0.00455	0.00579	0.00082	0.00074
Barium (Ba)-Dissolved (mg/L)	0.0503	0.0566	0.0445	0.0506	0.0510
Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved (mg/L)	<0.010	<0.010	0.016	<0.010	<0.010
Cadmium (Cd)-Dissolved (mg/L)	0.0000295	0.000129	0.0000445	0.0000392	0.0000361
Calcium (Ca)-Dissolved (mg/L)	19.5	39.6	129	23.4	24.8
Chromium (Cr)-Dissolved (mg/L)	0.00015	<0.00010	0.00023	0.00016	0.00013
Cobalt (Co)-Dissolved (mg/L)	0.00012	0.00021	0.00081	0.00013	0.00012
Copper (Cu)-Dissolved (mg/L)	0.00188	0.00167	0.00142	0.00197	0.00187
Iron (Fe)-Dissolved (mg/L)	0.062	0.306	0.598	0.094	0.064
Lead (Pb)-Dissolved (mg/L)	<0.000050	0.000668	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved (mg/L)	<0.0010	<0.0010	0.0021	<0.0010	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1673876-11	L1673876-12	L1673876-13	L1673876-14	L1673876-15
Description	Water	Water	Water	Water	Water
Sampled Date	15-SEP-15	15-SEP-15	14-SEP-15	15-SEP-15	
Sampled Time	11:55	11:30	13:40	14:40	
Client ID	WQ-DC-11	WQ-DC-15	WQ-PC-U	WQ-DC-U	TRAVEL BLANK
Grouping / **Analyte**					
WATER					
Total Metals Magnesium (Mg)-Total (mg/L)	55.2	57.1	9.01	61.4	<0.10
Manganese (Mn)-Total (mg/L)	1.08	1.18	0.236	0.991	<0.00010
Mercury (Hg)-Total (mg/L)	0.0000083	0.0000073	0.0000107	0.0000060	<0.0000050
Molybdenum (Mo)-Total (mg/L)	0.000260	0.000293	0.000236	0.000349	<0.000050
Nickel (Ni)-Total (mg/L)	0.00157	0.00164	0.00125	0.00145	<0.00050
Phosphorus (P)-Total (mg/L)	<0.050	<0.050	0.057	<0.050	<0.050
Potassium (K)-Total (mg/L)	3.59	3.74	0.84	2.95	<0.10
Selenium (Se)-Total (mg/L)	<0.000050	0.000061	0.000056	0.000167	<0.000050
Silicon (Si)-Total (mg/L)	6.46	6.74	9.17	6.60	<0.050
Silver (Ag)-Total (mg/L)	0.000012	0.000038	0.000085	0.000013	<0.000010
Sodium (Na)-Total (mg/L)	4.88	4.91	3.55	9.19	<0.050
Strontium (Sr)-Total (mg/L)	0.387	0.400	0.215	0.454	<0.00020
Sulfur (S)-Total (mg/L)	128	133	28.9	158	<0.50
Thallium (Tl)-Total (mg/L)	0.000090	0.000111	0.000032	<0.000010	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	0.00121	0.00437	0.0418	0.0196	<0.00030
Uranium (U)-Total (mg/L)	0.00407	0.00416	0.000570	0.00187	<0.000010
Vanadium (V)-Total (mg/L)	<0.00050	0.00065	0.00445	0.00237	<0.00050
Zinc (Zn)-Total (mg/L)	0.533	0.552	0.0173	0.0156	<0.0030
Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved Metals Dissolved Mercury Filtration Location	FIELD	FIELD	FIELD	FIELD	
Dissolved Metals Filtration Location	FIELD	FIELD	FIELD	FIELD	
Aluminum (Al)-Dissolved (mg/L)	0.0036	0.0040	0.0155	0.0375	
Antimony (Sb)-Dissolved (mg/L)	0.00855	0.00850	0.00099	0.00210	
Arsenic (As)-Dissolved (mg/L)	0.00955	0.0126	0.00477	0.00818	
Barium (Ba)-Dissolved (mg/L)	0.0163	0.0158	0.0596	0.0462	
Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000020	<0.000020	<0.000020	
Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	
Boron (B)-Dissolved (mg/L)	<0.010	<0.010	<0.010	0.018	
Cadmium (Cd)-Dissolved (mg/L)	0.000812	0.000897	0.0000143	0.0000318	
Calcium (Ca)-Dissolved (mg/L)	179	179	38.5	161	
Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00010	0.00011	0.00016	
Cobalt (Co)-Dissolved (mg/L)	0.00079	0.00085	0.00020	0.00101	
Copper (Cu)-Dissolved (mg/L)	0.00039	0.00044	0.00089	0.00115	
Iron (Fe)-Dissolved (mg/L)	0.119	0.210	0.417	0.488	
Lead (Pb)-Dissolved (mg/L)	<0.000050	<0.000050	0.000593	<0.000050	
Lithium (Li)-Dissolved (mg/L)	0.0081	0.0081	<0.0010	0.0027	

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1673876-16	L1673876-17	L1673876-18	L1673876-19	L1673876-20
Description	Water	Water	Water	Water	Water
Sampled Date	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15
Sampled Time	09:10	13:20		16:20	11:10
Client ID	WQ-BC	WQ-DC-D1B	WQ-DC-10	WQ-TP	WQ-DC-14
Grouping / **Analyte**					
WATER					
Total Metals Magnesium (Mg)-Total (mg/L)	10.0	106	60.5	42.2	12.1
Manganese (Mn)-Total (mg/L)	0.341	0.686	1.03	0.160	0.00592
Mercury (Hg)-Total (mg/L)	0.0000097	<0.0000050	0.0000054	0.0000195	0.0000061
Molybdenum (Mo)-Total (mg/L)	0.000806	0.000223	0.000239	0.00127	0.000060
Nickel (Ni)-Total (mg/L)	0.00119	0.00115	0.00152	0.00083	<0.00050
Phosphorus (P)-Total (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total (mg/L)	1.04	4.46	3.58	14.5	3.39
Selenium (Se)-Total (mg/L)	0.000053	0.000427	<0.000050	0.000055	0.000061
Silicon (Si)-Total (mg/L)	8.54	6.07	6.43	2.38	5.29
Silver (Ag)-Total (mg/L)	0.000064	0.000042	0.000022	0.000291	0.000012
Sodium (Na)-Total (mg/L)	3.39	6.91	4.83	15.0	2.63
Strontium (Sr)-Total (mg/L)	0.267	0.538	0.407	0.552	0.142
Sulfur (S)-Total (mg/L)	20.5	235	142	226	35.6
Thallium (Tl)-Total (mg/L)	0.000024	0.000056	0.000077	0.000170	<0.000010
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	0.0292	0.0152	<0.0030 DLM	<0.00090 DLM	0.00153
Uranium (U)-Total (mg/L)	0.00123	0.00385	0.00404	0.000960	0.000076
Vanadium (V)-Total (mg/L)	0.00252	0.00151	<0.00050	<0.00050	0.00055
Zinc (Zn)-Total (mg/L)	0.0143	0.364	0.573	0.0700	0.0091
Zirconium (Zr)-Total (mg/L)	0.00037	<0.00030	<0.00030	<0.00030	<0.00030
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)	0.0245	0.0043	0.0033	0.0144	0.0179
Antimony (Sb)-Dissolved (mg/L)	0.00030	0.0115	0.00895	0.0353	0.00164
Arsenic (As)-Dissolved (mg/L)	0.00210	0.0123	0.0288	0.0817	0.00401
Barium (Ba)-Dissolved (mg/L)	0.0520	0.0271	0.0180	0.0109	0.0397
Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved (mg/L)	<0.010	0.029	<0.010	0.073	<0.010
Cadmium (Cd)-Dissolved (mg/L)	0.000141	0.000234	0.000629	0.000781	0.0000529
Calcium (Ca)-Dissolved (mg/L)	44.0	239	185	234	50.0
Chromium (Cr)-Dissolved (mg/L)	0.00020	<0.00010	<0.00010	<0.00010	0.00012
Cobalt (Co)-Dissolved (mg/L)	0.00022	0.00026	0.00079	0.00045	<0.00010
Copper (Cu)-Dissolved (mg/L)	0.00174	0.00073	0.00042	0.0198	0.00187
Iron (Fe)-Dissolved (mg/L)	0.107	0.262	1.06	0.018	0.020
Lead (Pb)-Dissolved (mg/L)	0.000139	<0.000050	<0.000050	0.000861	<0.000050
Lithium (Li)-Dissolved (mg/L)	0.0012	0.0087	0.0076	0.0075	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1673876-21	L1673876-22	L1673876-23	L1673876-24	L1673876-25
	Description	Water	Water	Water	Water	Water
	Sampled Date	15-SEP-15	15-SEP-15	15-SEP-15	14-SEP-15	15-SEP-15
	Sampled Time	16:45	17:00	10:30	19:40	12:15
	Client ID	WQ-DC-B	FIELD BLANK	WQ-DC-DX	WQ-DC-R-R	WQ-MS-S-03
Grouping	**Analyte**					
WATER						
Total Metals	Magnesium (Mg)-Total (mg/L)	67.8	<0.10	19.0	48.7	64.5
	Manganese (Mn)-Total (mg/L)	0.421	<0.00010	0.0775	0.597	1.51
	Mercury (Hg)-Total (mg/L)	<0.0000050	<0.0000050	0.0000052	<0.0000050	0.0000051
	Molybdenum (Mo)-Total (mg/L)	0.000317	<0.000050	0.000085	0.000318	0.000285
	Nickel (Ni)-Total (mg/L)	0.00137	<0.00050	0.00122	0.00098	0.00234
	Phosphorus (P)-Total (mg/L)	<0.050	<0.050	0.091	<0.050	0.088
	Potassium (K)-Total (mg/L)	2.69	<0.10	4.11	2.51	3.71
	Selenium (Se)-Total (mg/L)	0.000175	<0.000050	0.000134	0.000128	<0.000050
	Silicon (Si)-Total (mg/L)	6.72	<0.050	6.92	6.41	6.54
	Silver (Ag)-Total (mg/L)	0.000038	<0.000010	0.000045	<0.000010	0.000253
	Sodium (Na)-Total (mg/L)	6.21	<0.050	3.36	8.14	4.73
	Strontium (Sr)-Total (mg/L)	0.436	<0.00020	0.210	0.378	0.428
	Sulfur (S)-Total (mg/L)	161	<0.50	51.3	126	157
	Thallium (Tl)-Total (mg/L)	0.000014	<0.000010	0.000046	<0.000010	0.000105
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Total (mg/L)	0.0213	<0.00030	0.0774	0.00166	0.0192
	Uranium (U)-Total (mg/L)	0.00205	<0.000010	0.000392	0.00133	0.00410
	Vanadium (V)-Total (mg/L)	0.00238	<0.00050	0.00616	0.00080	0.00177
	Zinc (Zn)-Total (mg/L)	0.0189	<0.0030	0.0106	0.0073	0.881
	Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
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)	0.0425	<0.0010	0.0117	0.0239	0.0020
	Antimony (Sb)-Dissolved (mg/L)	0.00257	<0.00010	0.00138	0.00157	0.0120
	Arsenic (As)-Dissolved (mg/L)	0.00500	<0.00010	0.00334	0.00568	0.0826
	Barium (Ba)-Dissolved (mg/L)	0.0445	<0.000050	0.0367	0.0456	0.0174
	Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
	Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
	Boron (B)-Dissolved (mg/L)	0.015	<0.010	<0.010	0.015	<0.010
	Cadmium (Cd)-Dissolved (mg/L)	0.0000238	<0.0000050	0.0000169	0.0000290	0.000424
	Calcium (Ca)-Dissolved (mg/L)	156	<0.050	72.2	130	206
	Chromium (Cr)-Dissolved (mg/L)	0.00014	<0.00010	<0.00010	0.00020	<0.00010
	Cobalt (Co)-Dissolved (mg/L)	0.00033	<0.00010	0.00016	0.00079	0.00136
	Copper (Cu)-Dissolved (mg/L)	0.00102	<0.00020	0.00105	0.00129	0.00023
	Iron (Fe)-Dissolved (mg/L)	0.764	<0.010	0.161	0.589	2.59
	Lead (Pb)-Dissolved (mg/L)	0.000071	<0.000050	<0.000050	<0.000050	0.000108
	Lithium (Li)-Dissolved (mg/L)	0.0030	<0.0010	<0.0010	0.0016	0.0089

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1673876-26	L1673876-27			
	Description	Water	Water			
	Sampled Date	16-SEP-15	16-SEP-15			
	Sampled Time	07:55	08:20			
	Client ID	WQ-MS-S-A	WQ-CH-P-13-01			
Grouping	**Analyte**					
WATER						
Total Metals	Magnesium (Mg)-Total (mg/L)	216	72.5			
	Manganese (Mn)-Total (mg/L)	0.434	0.290			
	Mercury (Hg)-Total (mg/L)	<0.0000050	0.0000065			
	Molybdenum (Mo)-Total (mg/L)	0.00016	<0.000050			
	Nickel (Ni)-Total (mg/L)	0.0010	0.00696			
	Phosphorus (P)-Total (mg/L)	<0.050	<0.050			
	Potassium (K)-Total (mg/L)	6.86	0.56			
	Selenium (Se)-Total (mg/L)	0.00182	0.000084			
	Silicon (Si)-Total (mg/L)	5.67	8.01			
	Silver (Ag)-Total (mg/L)	0.000056	0.000033			
	Sodium (Na)-Total (mg/L)	9.48	5.28			
	Strontium (Sr)-Total (mg/L)	0.890	0.458			
	Sulfur (S)-Total (mg/L)	437	270			
	Thallium (Tl)-Total (mg/L)	0.000581	<0.000010			
	Tin (Sn)-Total (mg/L)	<0.00020 DLA	<0.00010			
	Titanium (Ti)-Total (mg/L)	<0.0020 DLM	0.00292			
	Uranium (U)-Total (mg/L)	0.00836	0.000020			
	Vanadium (V)-Total (mg/L)	<0.0010 DLA	0.00058			
	Zinc (Zn)-Total (mg/L)	0.254	3.24			
	Zirconium (Zr)-Total (mg/L)	<0.00060 DLA	<0.00030			
Dissolved Metals	Dissolved Mercury Filtration Location	FIELD	FIELD			
	Dissolved Metals Filtration Location	FIELD	FIELD			
	Aluminum (Al)-Dissolved (mg/L)	0.0022	0.147			
	Antimony (Sb)-Dissolved (mg/L)	0.00825	<0.00010			
	Arsenic (As)-Dissolved (mg/L)	0.0534	0.00046			
	Barium (Ba)-Dissolved (mg/L)	0.0151	0.0111			
	Beryllium (Be)-Dissolved (mg/L)	<0.000040 DLA	0.000023			
	Bismuth (Bi)-Dissolved (mg/L)	<0.00010 DLA	<0.000050			
	Boron (B)-Dissolved (mg/L)	<0.020 DLA	<0.010			
	Cadmium (Cd)-Dissolved (mg/L)	0.00305	0.00957			
	Calcium (Ca)-Dissolved (mg/L)	384	224			
	Chromium (Cr)-Dissolved (mg/L)	<0.00020 DLA	0.00010			
	Cobalt (Co)-Dissolved (mg/L)	0.00037	<0.00010			
	Copper (Cu)-Dissolved (mg/L)	0.00167	0.00091			
	Iron (Fe)-Dissolved (mg/L)	0.234	0.026			
	Lead (Pb)-Dissolved (mg/L)	0.00078	<0.000050			
	Lithium (Li)-Dissolved (mg/L)	0.0175	<0.0010			

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1673876-1 Water 15-SEP-15 10:35 WQ-DC-DX+105	L1673876-2 Water 15-SEP-15 08:05 WQ-VC-DBC	L1673876-3 Water 15-SEP-15 08:20 WQ-VC-U	L1673876-4 Water 15-SEP-15 15:45 WQ-SEEP	L1673876-5 Water 15-SEP-15 13:50 WQ-DC-8
WATER						
Dissolved Metals	Magnesium (Mg)-Dissolved (mg/L)	57.5	6.32	6.04	55.8	152
	Manganese (Mn)-Dissolved (mg/L)	1.18	0.0438	0.0182	6.41	1.52
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
	Molybdenum (Mo)-Dissolved (mg/L)	0.000261	0.000326	0.000277	0.000781	0.00019
	Nickel (Ni)-Dissolved (mg/L)	0.00164	<0.00050	<0.00050	0.00391	0.0013
	Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
	Potassium (K)-Dissolved (mg/L)	3.60	0.51	0.50	6.28	5.61
	Selenium (Se)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	0.000283	0.00083
	Silicon (Si)-Dissolved (mg/L)	6.52	6.10	6.08	7.26	6.13
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000020 DLA
	Sodium (Na)-Dissolved (mg/L)	4.84	2.21	2.12	38.6	9.20
	Strontium (Sr)-Dissolved (mg/L)	0.392	0.211	0.204	0.722	0.710
	Sulfur (S)-Dissolved (mg/L)	132	5.95	4.55	229	337
	Thallium (Tl)-Dissolved (mg/L)	0.000089	<0.000010	<0.000010	0.000011	0.000096
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020 DLA
	Titanium (Ti)-Dissolved (mg/L)	<0.00030	<0.00030	<0.00030	<0.0012 DLM	<0.00060 DLA
	Uranium (U)-Dissolved (mg/L)	0.00386	0.000364	0.000297	0.00196	0.00454
	Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	0.00145	<0.0010 DLA
	Zinc (Zn)-Dissolved (mg/L)	0.522	0.0027	0.0022	0.0477	0.682
	Zirconium (Zr)-Dissolved (mg/L)	<0.00030	<0.00030	<0.00030	0.00047	<0.00060 DLA

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1673876-6	L1673876-7	L1673876-8	L1673876-9	L1673876-10
	Description	Water	Water	Water	Water	Water
	Sampled Date	15-SEP-15	14-SEP-15	14-SEP-15	14-SEP-15	14-SEP-15
	Sampled Time	09:25	13:20	19:25	16:50	18:20
	Client ID	WQ-VC-U-R	WQ-PC-D	WQ-DC-R	WQ-VC-R	WQ-VC-UMN
Grouping	**Analyte**					
WATER						
Dissolved Metals	Magnesium (Mg)-Dissolved (mg/L)	6.02	9.35	49.4	7.17	7.60
	Manganese (Mn)-Dissolved (mg/L)	0.0179	0.207	0.579	0.0388	0.0395
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
	Molybdenum (Mo)-Dissolved (mg/L)	0.000282	0.000177	0.000272	0.000308	0.000316
	Nickel (Ni)-Dissolved (mg/L)	<0.00050	<0.00050	0.00096	0.00055	<0.00050
	Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
	Potassium (K)-Dissolved (mg/L)	0.47	0.62	2.46	0.59	0.59
	Selenium (Se)-Dissolved (mg/L)	<0.000050	<0.000050	0.000135	0.000050	<0.000050
	Silicon (Si)-Dissolved (mg/L)	6.04	7.23	6.52	6.33	6.11
	Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Sodium (Na)-Dissolved (mg/L)	2.11	3.63	8.69	2.42	2.52
	Strontium (Sr)-Dissolved (mg/L)	0.202	0.224	0.375	0.198	0.212
	Sulfur (S)-Dissolved (mg/L)	4.65	30.6	125	9.20	9.90
	Thallium (Tl)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Dissolved (mg/L)	<0.00030	0.00044	0.00057	0.00034	<0.00030
	Uranium (U)-Dissolved (mg/L)	0.000299	0.000413	0.00129	0.000379	0.000408
	Vanadium (V)-Dissolved (mg/L)	<0.00050	0.00067	<0.00050	<0.00050	<0.00050
	Zinc (Zn)-Dissolved (mg/L)	0.0021	0.0173	0.0053	0.0017	0.0018
	Zirconium (Zr)-Dissolved (mg/L)	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1673876-11	L1673876-12	L1673876-13	L1673876-14	L1673876-15
Description	Water	Water	Water	Water	Water
Sampled Date	15-SEP-15	15-SEP-15	14-SEP-15	15-SEP-15	
Sampled Time	11:55	11:30	13:40	14:40	
Client ID	WQ-DC-11	WQ-DC-15	WQ-PC-U	WQ-DC-U	TRAVEL BLANK
Grouping **Analyte**					
WATER					
Dissolved Metals Magnesium (Mg)-Dissolved (mg/L)	58.5	57.6	8.91	63.8	
Manganese (Mn)-Dissolved (mg/L)	1.08	1.15	0.212	0.981	
Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	
Molybdenum (Mo)-Dissolved (mg/L)	0.000239	0.000251	0.000172	0.000308	
Nickel (Ni)-Dissolved (mg/L)	0.00153	0.00155	<0.00050	0.00099	
Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	
Potassium (K)-Dissolved (mg/L)	3.68	3.73	0.53	3.05	
Selenium (Se)-Dissolved (mg/L)	<0.000050	0.000051	<0.000050	0.000153	
Silicon (Si)-Dissolved (mg/L)	6.54	6.66	7.02	6.30	
Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	
Sodium (Na)-Dissolved (mg/L)	4.86	4.86	3.56	9.30	
Strontium (Sr)-Dissolved (mg/L)	0.384	0.387	0.218	0.451	
Sulfur (S)-Dissolved (mg/L)	131	131	30.2	163	
Thallium (Tl)-Dissolved (mg/L)	0.000080	0.000088	<0.000010	<0.000010	
Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	
Titanium (Ti)-Dissolved (mg/L)	<0.00030	<0.00030	0.00040	<0.00090 DLM	
Uranium (U)-Dissolved (mg/L)	0.00398	0.00397	0.000409	0.00182	
Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.00050	0.00077	<0.00050	
Zinc (Zn)-Dissolved (mg/L)	0.521	0.521	0.0013	0.0068	
Zirconium (Zr)-Dissolved (mg/L)	<0.00030	<0.00030	<0.00030	<0.00030	

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1673876-16	L1673876-17	L1673876-18	L1673876-19	L1673876-20
Description	Water	Water	Water	Water	Water
Sampled Date	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15	15-SEP-15
Sampled Time	09:10	13:20		16:20	11:10
Client ID	WQ-BC	WQ-DC-D1B	WQ-DC-10	WQ-TP	WQ-DC-14
Grouping / **Analyte**					
WATER					
Dissolved Metals Magnesium (Mg)-Dissolved (mg/L)	10.3	111	58.9	43.1	12.5
Manganese (Mn)-Dissolved (mg/L)	0.307	0.641	0.990	0.148	0.00394
Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved (mg/L)	0.000734	0.000196	0.000215	0.00123	<0.000050
Nickel (Ni)-Dissolved (mg/L)	0.00056	0.00083	0.00140	0.00069	<0.00050
Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved (mg/L)	0.78	4.75	3.60	15.2	3.47
Selenium (Se)-Dissolved (mg/L)	<0.000050	0.000395	<0.000050	<0.000050	0.000068
Silicon (Si)-Dissolved (mg/L)	7.28	5.89	6.38	2.43	5.41
Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	0.000023	<0.000010
Sodium (Na)-Dissolved (mg/L)	3.41	7.09	4.71	15.1	2.61
Strontium (Sr)-Dissolved (mg/L)	0.272	0.553	0.401	0.562	0.145
Sulfur (S)-Dissolved (mg/L)	21.0	240	137	232	36.2
Thallium (Tl)-Dissolved (mg/L)	<0.000010	0.000045	0.000065	0.000167	<0.000010
Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved (mg/L)	0.00044	<0.00030	<0.00030	<0.00030	<0.00030
Uranium (U)-Dissolved (mg/L)	0.00114	0.00377	0.00386	0.000935	0.000069
Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved (mg/L)	0.0032	0.308	0.538	0.0502	0.0080
Zirconium (Zr)-Dissolved (mg/L)	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1673876-21	L1673876-22	L1673876-23	L1673876-24	L1673876-25
Description	Water	Water	Water	Water	Water
Sampled Date	15-SEP-15	15-SEP-15	15-SEP-15	14-SEP-15	15-SEP-15
Sampled Time	16:45	17:00	10:30	19:40	12:15
Client ID	WQ-DC-B	FIELD BLANK	WQ-DC-DX	WQ-DC-R-R	WQ-MS-S-03
Grouping **Analyte**					
WATER					
Dissolved Metals Magnesium (Mg)-Dissolved (mg/L)	68.4	<0.10	19.1	48.2	66.2
Manganese (Mn)-Dissolved (mg/L)	0.399	<0.00010	0.0456	0.596	1.49
Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved (mg/L)	0.000272	<0.000050	<0.000050	0.000276	0.000232
Nickel (Ni)-Dissolved (mg/L)	0.00073	<0.00050	<0.00050	0.00094	0.00189
Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved (mg/L)	2.76	<0.10	3.97	2.51	3.71
Selenium (Se)-Dissolved (mg/L)	0.000158	<0.000050	0.000087	0.000127	<0.000050
Silicon (Si)-Dissolved (mg/L)	6.29	<0.050	4.96	6.30	6.31
Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved (mg/L)	6.08	<0.050	3.25	8.13	4.81
Strontium (Sr)-Dissolved (mg/L)	0.431	<0.00020	0.209	0.371	0.430
Sulfur (S)-Dissolved (mg/L)	161	<0.50	51.5	127	160
Thallium (Tl)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	0.000073
Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved (mg/L)	<0.00090 DLM	<0.00030	<0.00030	<0.00090 DLM	<0.00030
Uranium (U)-Dissolved (mg/L)	0.00196	<0.000010	0.000289	0.00128	0.00398
Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved (mg/L)	0.0105	<0.0010	0.0023	0.0052	0.835
Zirconium (Zr)-Dissolved (mg/L)	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1673876-26	L1673876-27			
	Description	Water	Water			
	Sampled Date	16-SEP-15	16-SEP-15			
	Sampled Time	07:55	08:20			
	Client ID	WQ-MS-S-A	WQ-CH-P-13-01			
Grouping	**Analyte**					
WATER						
Dissolved Metals	Magnesium (Mg)-Dissolved (mg/L)	222	74.9			
	Manganese (Mn)-Dissolved (mg/L)	0.435	0.283			
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050			
	Molybdenum (Mo)-Dissolved (mg/L)	0.00014	<0.000050			
	Nickel (Ni)-Dissolved (mg/L)	0.0011	0.00737			
	Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050			
	Potassium (K)-Dissolved (mg/L)	6.99	0.49			
	Selenium (Se)-Dissolved (mg/L)	0.00191	<0.000050			
	Silicon (Si)-Dissolved (mg/L)	5.70	8.41			
	Silver (Ag)-Dissolved (mg/L)	<0.000020 DLA	<0.000010			
	Sodium (Na)-Dissolved (mg/L)	9.50	5.43			
	Strontium (Sr)-Dissolved (mg/L)	0.894	0.471			
	Sulfur (S)-Dissolved (mg/L)	432	270			
	Thallium (Tl)-Dissolved (mg/L)	0.000559	<0.000010			
	Tin (Sn)-Dissolved (mg/L)	<0.00020 DLA	<0.00010			
	Titanium (Ti)-Dissolved (mg/L)	<0.00060 DLA	<0.00030			
	Uranium (U)-Dissolved (mg/L)	0.00833	<0.000010			
	Vanadium (V)-Dissolved (mg/L)	<0.0010 DLA	<0.00050			
	Zinc (Zn)-Dissolved (mg/L)	0.254	3.62			
	Zirconium (Zr)-Dissolved (mg/L)	<0.00060 DLA	<0.00030			

* 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)
Duplicate	Cyanate	DLA	L1673876-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Duplicate	Bismuth (Bi)-Total	DLA	L1673876-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -6, -7, -8, -9
Duplicate	Silver (Ag)-Total	DLA	L1673876-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -6, -7, -8, -9
Duplicate	Tin (Sn)-Total	DLA	L1673876-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -6, -7, -8, -9
Duplicate	Cyanate	DLIS	L1673876-15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27
Matrix Spike	Calcium (Ca)-Total	MS-B	L1673876-1, -2, -3, -4, -5
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1673876-1, -2, -3, -4, -5
Matrix Spike	Silicon (Si)-Total	MS-B	L1673876-1, -2, -3, -4, -5
Matrix Spike	Sulfur (S)-Total	MS-B	L1673876-1, -2, -3, -4, -5
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Lithium (Li)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L1673876-1, -2, -3, -4, -5
Matrix Spike	Sodium (Na)-Total	MS-B	L1673876-1, -2, -3, -4, -5
Matrix Spike	Strontium (Sr)-Total	MS-B	L1673876-1, -2, -3, -4, -5
Matrix Spike	Uranium (U)-Total	MS-B	L1673876-1, -2, -3, -4, -5
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Iron (Fe)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfate (SO4)	MS-B	L1673876-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1673876-1, -10, -11, -12, -13, -14, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-25, -26, -27

Reference Information

	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Barium (Ba)-Total	MS-B	L1673876-25, -26, -27
Matrix Spike	Copper (Cu)-Total	MS-B	L1673876-25, -26, -27
Matrix Spike	Sodium (Na)-Total	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Total	MS-B	L1673876-25, -26, -27
Matrix Spike	Zinc (Zn)-Total	MS-B	L1673876-25, -26, -27
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Zinc (Zn)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Antimony (Sb)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Molybdenum (Mo)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1673876-25, -26, -27
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1673876-25, -26, -27

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLIS	Detection Limit Adjusted: Insufficient Sample
DLM	Detection Limit Adjusted due to sample matrix effects.
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**
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.

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-CNO-WT	Water	Cyanate	APHA 4500-CN-L

This analysis is carried out using procedures adapted from APHA method 4500-CN "Cyanide". Cyanate is determined by the Cyanate hydrolysis

Reference Information

method using an ammonia selective electrode

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 CaCO3 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.

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.

TDS-CALC-VA Water TDS (Calculated) APHA 1030E (20TH EDITION)

This analysis is carried out using procedures adapted from APHA 1030E "Checking Correctness of Analyses".

TSS-MAN-WR Water Total Suspended Solids by Gravimetric APHA 2540 D

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.

** 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:

1 2 3 4

Reference Information

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 wwt - 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.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1673876-COFC

COC Number: 14 -

Page ____ of ____

Report To	
Company:	EDI
Contact:	Meghan Marjanovic
Address:	2195 - 2nd Avenue Whitehorse, YT Y1A 3T8
Phone:	867-393-4882

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report	☐ Yes ☐ No
☐ Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	mmarjanovic@edynamics.com
Email 2	Emilie.Hamm@gov.yk.ca
Email 3	erik.pit@gov.yk.ca

Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)	
R	☑ Regular (Standard TAT if received by 3 pm - business days)
P	☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
E	☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
E2	☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Specify Date Required for E2,E or P:	

Invoice To		
	Same as Report To	☑ Yes ☑ No
	Copy of Invoice with Report	☑ Yes ☐ No
Company:	EDI	
Contact:	S Jenner	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	sjenner@edynamics.com
Email 2	mmarjanovic@edynamics.com

Project Information	
ALS Quote #:	Q49310
Job #:	MOUNT NANSEN 15-Y-0146
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)	
Approver ID:	Cost Center:
GL Account:	Routing Code:
Activity Code:	
Location:	

ALS Lab Work Order # (lab use only) [redacted]

ALS Contact: Sean Sluggett | Sampler:

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	ALK-PCT-VA,EC-PCT-VA,PH-PCT-VA	ANIONS-ALL-IC-WR,TSS-MAN-WR	CN-WAD-CFA-VA,CN-T-CFA-VA	CN-CNO-WT	CN-SCN-VA	NH3-F-VA	MET-T-BCMDG-VA	MET-D-BCMDG-VA	IONBALANC-VA, TDS-CALC-VA					Number of Containers
							P	P	P	P	P	F/P						
	WQ-DC-DX+10S	15-Sep-15	10:35	Water	R	R	R	R	R	R	R	R	R					9
	WQ-VC-DBC	15-Sep-15	8:05	Water	R	R	R	R	R	R	R	R	R					9
	WQ-VC-U	15-Sep-15	8:20	Water	R	R	R	R	R	R	R	R	R					9
	WQ-SEEP	15-Sep-15	15:45	Water	R	R	R	R	R	R	R	R	R					9
	WQ-DC-8	15-Sep-15	13:50	Water	R	R	R	R	R	R	R	R	R					9
	WQ-VC-U-F	15-Sep-15	9:25	Water	R	R	R	R	R	R	R	R	R					9
		-Sep-15		Water	R	R	R	R	R	R	R	R	R					9

Short Holding Time

● *Rush Processing*

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	
Are samples for human drinking water use? ☐ Yes ☑ No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐		SIF Observations Yes ☐	No ☐
Ice packs Yes ☐	No ☐	Custody seal intact Yes ☑	No ☐
Cooling Initiated ☐			

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C
1.7 2.6	3.4 2.3	3.3 3.0	14 coolers 7 C Aug

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: BRODIE SMITH	Date: 16SEPT2015	Time: 13:00	Received by: SG	Date: 16Sep15	Time: 1300	Received by: Shafeel	Date: Sep 17	Time: 1435

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION   WHITE - LABORATORY COPY   YELLOW - CLIENT COPY

NA-FM0326e v09 Front/04 January 2014

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L1673876-COFC

COC Number: 14 -

Page 1 of 1

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	EDI	Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Meghan Marjanovic	Quality Control (QC) Report with Report	☐ Yes ☐ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	2195 - 2nd Avenue Whitehorse, YT Y1A 3T8	☐ Criteria on Report - provide details below if box checked		E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
		Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	867-393-4882	Email 1 or Fax	mmarjanovic@edynamics.com	Specify Date Required for E2,E or P:
		Email 2	Emilie.Hamm@gov.yk.ca	
		Email 3	erik.pit@gov.yk.ca	

Invoice To	Same as Report To ☑ Yes ☑ No	Invoice Distribution		
	Copy of Invoice with Report ☑ Yes ☐ No	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	
Company:	EDI	Email 1 or Fax	sjenner@edynamics.com	
Contact:	S Jenner	Email 2	mmarjanovic@edynamics.com	
Project Information		**Oil and Gas Required Fields (client use)**		
ALS Quote #:	Q49310	Approver ID:	Cost Center:	
Job #:	MOUNT NANSEN 15-Y-0146	GL Account:	Routing Code:	
PO / AFE:		Activity Code:		
LSD:		Location:		
ALS Lab Work Order # (lab use only)	[redacted]	ALS Contact: Sean Slugget	Sampler:	

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	ALK-PCT-VA,EC-PCT-VA,PH-PCT-VA	ANIONS-ALL-IC-WR,TSS-MAN-WR	CN-WAD-CFA-VA,CN-T-CFA-VA	CN-CNO-WT	CN-SCN-VA	NH3-F-VA	MET-T-BCMDG-VA	MET-D-BCMDG-VA	IONBALANC-VA, TDS-CALC-VA					Number of Containers
							P	P	P	P	P	F/P						
[redacted]	WQ-PC-D	14 - Sep -15	13:20	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-DC-R	14 - Sep -15	19:25	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-VC-R	14 - Sep -15	16:50	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-VC-DMN	14 - Sep -15	18:20	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-DC-11	15 - Sep -15	11:55	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-DC-15	15 - Sep -15	11:30	Water	R	R	R	R	R	R	R	R	R					9
[redacted]		- Sep -15		Water	R	R	R	R	R	R	R	R	R					9
[redacted]																		
[redacted]																		
[redacted]																		
[redacted]																		
[redacted]																		

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☒ No	
Are samples for human drinking water use? ☐ Yes ☒ No	

[redacted] SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen		SIF Observations	Yes ☐	No ☐
Ice packs	Yes ☐ No ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☐			

[redacted] INITIAL COOLER TEMPERATURES °C			[redacted] FINAL COOLER TEMPERATURES °C		
1 2.0	2 3.4	3 2.0	[redacted]	[redacted]	[redacted]

SHIPMENT RELEASE (client use)			[redacted] INITIAL SHIPMENT RECEPTION (lab use only)			[redacted] FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
BRODIE SMITH	16SEPT15	13:00	[redacted]	16Sep15	1300	[redacted]	Sep 17	1435

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1673876-COFC

COC Number: 14 -

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Report To	
Company:	EDI
Contact:	Meghan Marjanovic
Address:	2195 - 2nd Avenue Whitehorse, YT Y1A 3T8
Phone:	867-393-4882

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ Yes ☐ No
☐ Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: mmarjanovic@edynamics.com
Email 2: Emilie.Hamm@gov.yk.ca
Email 3: erik.pit@gov.yk.ca

Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)

R ☑ Regular (Standard TAT if received by 3 pm - business days)
P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Specify Date Required for E2,E or P:

Invoice To		
Same as Report To	☑ Yes	☑ No
Copy of Invoice with Report	☑ Yes	☐ No
Company:	EDI	
Contact:	S Jenner	

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: sjenner@edynamics.com
Email 2: mmarjanovic@edynamics.com

Project Information

ALS Quote #:	Q49310
Job #:	MOUNT NANSEN 15-Y-0146
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

Approver ID:	Cost Center:
GL Account:	Routing Code:
Activity Code:	
Location:	

ALS Lab Work Order # (lab use only): [redacted]

ALS Contact: Sean Stugget
Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	ALK-PCT-VA,EC-PCT-VA,PH-PCT-VA	ANIONS-ALL-IC-WR,TSS-MAN-WR	CN-WAD-CFA-VA,CN-T-CFA-VA (P)	CN-CNO-WT (P)	CN-SCN-VA (P)	NH3-F-VA (P)	MET-T-BCMDG-VA (P)	MET-D-BCMDG-VA (F/P)	IONBALANC-VA, TDS-CALC-VA					Number of Containers
[redacted]	WQ-PC-U	14-Sep-15	13:40	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-DC-U	15-Sep-15	14:40	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	TRAVEL BLANK	—-Sep-15	——	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-BC	15-Sep-15	9:10	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-DC-D16	15-Sep-15	13:20	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-DC-10	15-Sep-15	12:00	Water	R	R	R	R	R	R	R	R	R					9
[redacted]		-Sep-15		Water	R	R	R	R	R	R	R	R	R					9
[redacted]																		
[redacted]																		
[redacted]																		
[redacted]																		
[redacted]																		

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ Yes ☒ No

Are samples for human drinking water use?
☐ Yes ☒ No

Special Instructions / Specify Criteria to add on report (client Use)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☑ SIF Observations Yes ☐ No ☐
Ice packs Yes ☑ No ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
2.0	2.3	3.3 2.0	14 coolers	7	CAcy

SHIPMENT RELEASE (client use)

Released by: BRODIE SMITH Date: 16 SEPT 2015 Time: 13:00

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: [signature] Date: 16 Sep 15 Time: 1200

FINAL SHIPMENT RECEPTION (lab use only)

Received by: Shafee Date: Sept-17 Time: 1435

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NA-FM 0326e v09 Front/04 January 2014

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L1673876-COFC

COC Number: 14 -

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Report To	
Company:	EDI
Contact:	Meghan Marjanovic
Address:	2195 - 2nd Avenue Whitehorse, YT Y1A 3T8
Phone:	867-393-4882

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ Yes ☐ No
☐ Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: mmarjanovic@edynamics.com
Email 2: Emilie.Hamm@gov.yk.ca
Email 3: erik.pit@gov.yk.ca

Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)

- R ☑ Regular (Standard TAT if received by 3 pm - business days)
- P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
- E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
- E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge

Specify Date Required for E2,E or P:

Invoice To		
	Same as Report To	☑ Yes ☑ No
	Copy of Invoice with Report	☑ Yes ☐ No
Company:	EDI	
Contact:	S Jenner	

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: sjenner@edynamics.com
Email 2: mmarjanovic@edynamics.com

Project Information

ALS Quote #:	Q49310
Job #:	MOUNT NANSEN 15-Y-0146
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

Approver ID:	Cost Center:
GL Account:	Routing Code:
Activity Code:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Sean Slugget | Sampler:

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	ALK-PCT-VA,EC-PCT-VA,PH-PCT-VA	ANIONS-ALL-IC-WR,TSS-MAN-WR	CN-WAD-CFA-VA,CN-T-CFA-VA (P)	CN-CNO-WT (P)	CN-SCN-VA (P)	NH3-F-VA (P)	MET-T-BCMDG-VA (P)	MET-D-BCMDG-VA (F/P)	IONBALANC-VA, TDS-CALC-VA					Number of Containers
	WQ-TP	15-Sep-15	16:20	Water	R	R	R	R	R	R	R	R	R					9
	WQ-DC-14	15-Sep-15	11:10	Water	R	R	R	R	R	R	R	R	R					9
	WQ-DC-B	15-Sep-15	16:45	Water	R	R	R	R	R	R	R	R	R					9
	Field Blank	15-Sep-15	17:00	Water	R	R	R	R	R	R	R	R	R					9
	WQ-DC-DX	15-Sep-15	10:30	Water	R	R	R	R	R	R	R	R	R					9
	WQ-DC-R-F	14-Sep-15	19:40	Water	R	R	R	R	R	R	R	R	R					9
		-Sep-15		Water	R	R	R	R	R	R	R	R	R					9

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ Yes ☒ No

Are samples for human drinking water use? ☐ Yes ☒ No

Special Instructions / Specify Criteria to add on report (client Use)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice packs Yes ☐ No ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C | FINAL COOLER TEMPERATURES °C

2.2 | 3.4 2.3 | 3.3 2.0 | 14.6 | 0.0 | 7 | 2 Avg

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: SCOTT DILLING	Date: 16-SEPT	Time: 1300h.	Received by: [illegible]	Date: 16Sept15	Time: 1300	Received by: [illegible]	Date: Sept.17	Time: 1435

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