EDI ENVIRONMENTAL DYNAMICS INC.
ATTN: Lyndsay Doetzel
2195 - 2nd Ave
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Date Received: 11-MAY-16
Report Date: 02-JUN-16 16:06 (MT)
Version: FINAL

Client Phone: 867-393-4882

Certificate of Analysis

Lab Work Order #: L1767348

Project P.O. #: NOT SUBMITTED
Job Reference: MOUNT NANAEN 16-Y-0089
C of C Numbers: 1, 2, 3, 4, 5, 6
Legal Site Desc:

Can Dang
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1767348-1 WATER 10-MAY-16 18:40 WQ-DC-DX+105	L1767348-2 WATER 10-MAY-16 15:55 WQ-DESS-01	L1767348-3 WATER 10-MAY-16 17:50 WQ-MS-S-03	L1767348-4 WATER 10-MAY-16 17:10 WQ-DC-D1B	L1767348-5 WATER 10-MAY-16 08:30 WQ-PC-D
WATER						
Physical Tests	Conductivity (uS/cm)	206	1060	1210	734	238
	Hardness (as CaCO3) (mg/L)	102	620	704	401	112
	pH (pH)	7.41	6.06	7.75	8.05	7.53
	Total Suspended Solids (mg/L)	<3.0	<3.0	23.3	10.0	363
	Total Dissolved Solids (mg/L)	116	777	839	476	140
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	44.3	3.5	263	121	42.1
	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)	44.3	3.5	263	121	42.1
	Ammonia, Total (as N) (mg/L)	0.0081	0.0128	0.0367	0.130	0.192
	Chloride (Cl) (mg/L)	<0.50	<1.0 DLDS	<1.0 DLDS	<0.50	<0.50
	Fluoride (F) (mg/L)	0.062	0.042	0.192	0.095	0.053
	Nitrate (as N) (mg/L)	<0.0050	0.012	0.033	0.0062	0.0640
	Nitrite (as N) (mg/L)	<0.0010	<0.0020 DLDS	<0.0020 DLDS	0.0012	0.0022
	Sulfate (SO4) (mg/L)	49.2	563	427	261	68.5
	Anion Sum (meq/L)	1.91	11.8	14.2	7.86	2.28
	Cation Sum (meq/L)	2.19	12.7	14.5	8.26	2.47
	Cation - Anion Balance (%)	6.7	3.7	1.3	2.5	4.2
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)	<2.0 DLIS	<0.20	<0.20	<0.20	0.26
	Thiocyanate (SCN) (mg/L)	0.63	0.74	<0.50	<0.50	0.68 SP
Total Metals	Aluminum (Al)-Total (mg/L)	0.0843	0.208	0.591	0.126	3.64
	Antimony (Sb)-Total (mg/L)	0.00262	0.00015	0.0176	0.00521	0.00269
	Arsenic (As)-Total (mg/L)	0.0103	0.00136	0.183	0.0541	0.0274
	Barium (Ba)-Total (mg/L)	0.0234	0.0312	0.0292	0.0303	0.127
	Beryllium (Be)-Total (mg/L)	<0.000020	0.000041	0.000030	<0.000020	0.000180
	Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	0.000136	0.000093	0.000249
	Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	0.017	<0.010
	Cadmium (Cd)-Total (mg/L)	0.000744	0.00925	0.00385	0.000579	0.00119
	Calcium (Ca)-Total (mg/L)	29.1	133	184	96.7	33.7
	Chromium (Cr)-Total (mg/L)	0.00017	0.00017	0.00069	0.00021	0.00506
	Cobalt (Co)-Total (mg/L)	<0.00010	0.00079	0.00173	0.00027	0.00205
	Copper (Cu)-Total (mg/L)	0.00531	0.00224	0.0230	0.00255	0.0269
	Iron (Fe)-Total (mg/L)	0.159	0.155	4.66	2.39	6.88
	Lead (Pb)-Total (mg/L)	0.00120	<0.000050	0.0290	0.0107	0.0201
	Lithium (Li)-Total (mg/L)	0.0011	0.0026	0.0108	0.0037	0.0028

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1767348-6 WATER 10-MAY-16 16:10 WQ-CH-P-13-01	L1767348-7 WATER 09-MAY-16 17:15 WQ-VC-DBC	L1767348-8 WATER 09-MAY-16 17:45 WQ-VC-U	L1767348-9 WATER 09-MAY-16 15:20 WQ-VC-UMN	L1767348-10 WATER 10-MAY-16 12:05 WQ-TP
WATER						
Physical Tests	Conductivity (uS/cm)	1530	109	103	141	875
	Hardness (as CaCO3) (mg/L)	919	55.7	53.2	71.6	466
	pH (pH)	4.92	7.67	7.69	7.77	7.87
	Total Suspended Solids (mg/L)	<3.0	127	220	149	26.7
	Total Dissolved Solids (mg/L)	1200	56.4	53.5	77.1	609
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	<1.0	41.4	42.2	47.2	54.1
	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)	<1.0	41.4	42.2	47.2	54.1
	Ammonia, Total (as N) (mg/L)	0.0298	0.0076	0.0056	0.0080	0.174
	Chloride (Cl) (mg/L)	<2.5 DLDS	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	<0.10 DLDS	0.042	0.053	0.060	0.142
	Nitrate (as N) (mg/L)	0.026	0.0297	0.0339	0.0424	0.204
	Nitrite (as N) (mg/L)	<0.0050 DLDS	<0.0010	<0.0010	<0.0010	0.0058
	Sulfate (SO4) (mg/L)	888	9.81	7.44	21.1	390
	Anion Sum (meq/L)	18.5	1.04	1.00	1.39	9.22
	Cation Sum (meq/L)	18.8	1.21	1.15	1.54	9.90
	Cation - Anion Balance (%)	1.0	7.7	6.9	5.2	3.6
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)	0.63	<0.50	<0.50	<0.50	<0.50
Total Metals	Aluminum (Al)-Total (mg/L)	0.291	1.83	1.62	2.17	0.193
	Antimony (Sb)-Total (mg/L)	0.00013	0.00022	0.00016	0.00036	0.0353
	Arsenic (As)-Total (mg/L)	0.00113	0.00317	0.00205	0.00508	0.104
	Barium (Ba)-Total (mg/L)	0.0225	0.0960	0.0851	0.0911	0.0108
	Beryllium (Be)-Total (mg/L)	0.000056	0.000094	0.000073	0.000079	<0.000020
	Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	0.000800
	Boron (B)-Total (mg/L)	<0.010	<0.010	<0.010	<0.010	0.035
	Cadmium (Cd)-Total (mg/L)	0.0192	0.000114	0.0000676	0.000126	0.00278
	Calcium (Ca)-Total (mg/L)	178	15.7	14.8	19.4	134
	Chromium (Cr)-Total (mg/L)	0.00018	0.00252	0.00226	0.00293	0.00027
	Cobalt (Co)-Total (mg/L)	0.00017	0.00135	0.00108	0.00134	0.00073
	Copper (Cu)-Total (mg/L)	0.00161	0.00655	0.00615	0.00688	0.0409
	Iron (Fe)-Total (mg/L)	0.082	3.21	2.80	3.45	0.990
	Lead (Pb)-Total (mg/L)	0.000062	0.00313	0.00184	0.00338	0.0524
	Lithium (Li)-Total (mg/L)	0.0034	0.0014	0.0011	0.0014	0.0045

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1767348-11 WATER 11-MAY-16 08:55 WQ-MS-S-09	L1767348-12 WATER 11-MAY-16 09:05 WQ-MS-S-10	L1767348-13 WATER 10-MAY-16 19:05 WQ-DC-DX	L1767348-14 WATER 09-MAY-16 12:45 WQ-VC-R	L1767348-15 WATER 10-MAY-16 18:20 WQ-MS-S-A
WATER						
Physical Tests	Conductivity (uS/cm)	2010	2160	137	138	1380
	Hardness (as CaCO3) (mg/L)	1260	1420	68.4	70.5	873
	pH (pH)	7.93	7.97	7.60	7.77	8.23
	Total Suspended Solids (mg/L)	42.7	8.7	51.3	91.3	34.0
	Total Dissolved Solids (mg/L)	1600	1770	74.9	74.2	1020
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	209	337	39.9	47.2	209
	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)	209	337	39.9	47.2	209
	Ammonia, Total (as N) (mg/L)	<0.0050	<0.0050	0.0106	0.0080	0.0122
	Chloride (Cl) (mg/L)	<2.5 DLDS	<2.5 DLDS	<0.50	<0.50	<1.0 DLDS
	Fluoride (F) (mg/L)	0.10	0.11	0.064	0.050	0.094
	Nitrate (as N) (mg/L)	0.435	0.816	<0.0050	0.0433	0.045
	Nitrite (as N) (mg/L)	<0.0050 DLDS	<0.0050 DLDS	<0.0010	<0.0010	<0.0020 DLDS
	Sulfate (SO4) (mg/L)	1040	1070	22.6	18.5	598
	Anion Sum (meq/L)	25.9	29.0	1.27	1.33	16.6
	Cation Sum (meq/L)	25.9	29.3	1.50	1.52	17.8
	Cation - Anion Balance (%)	-0.2	0.4	8.1	6.7	3.5
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	<2.0 DLIS
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50	0.61	<0.50	<0.50
Total Metals	Aluminum (Al)-Total (mg/L)	0.546	0.0062	0.947	1.60	0.729
	Antimony (Sb)-Total (mg/L)	0.102	0.0263	0.00128	0.00036	0.0344
	Arsenic (As)-Total (mg/L)	0.253	0.0547	0.0145	0.00452	0.141
	Barium (Ba)-Total (mg/L)	0.0171	0.0248	0.0321	0.0797	0.0304
	Beryllium (Be)-Total (mg/L)	0.000055	<0.000040 DLA	0.000046	0.000074	0.000039
	Bismuth (Bi)-Total (mg/L)	0.000064	<0.00010 DLA	<0.000050	<0.000050	0.000367
	Boron (B)-Total (mg/L)	0.036	0.362	<0.010	<0.010	0.023
	Cadmium (Cd)-Total (mg/L)	0.0552	0.00620	0.0000649	0.000126	0.0168
	Calcium (Ca)-Total (mg/L)	282	312	18.8	19.1	191
	Chromium (Cr)-Total (mg/L)	0.00056	<0.00020 DLA	0.00116	0.00214	0.00102
	Cobalt (Co)-Total (mg/L)	0.00107	<0.00020 DLA	0.00064	0.00103	0.00134
	Copper (Cu)-Total (mg/L)	0.0428	0.0030	0.00401	0.00624	0.0252
	Iron (Fe)-Total (mg/L)	2.10	0.019	1.65	2.74	1.95
	Lead (Pb)-Total (mg/L)	0.235	0.00202	0.00234	0.00309	0.0817
	Lithium (Li)-Total (mg/L)	0.0119	0.0101	<0.0010	<0.0010	0.0097

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1767348-16 WATER 10-MAY-16 08:55 WQ-PC-U	L1767348-17 WATER 10-MAY-16 10:45 WQ-DC-U	L1767348-18 WATER 09-MAY-16 17:20 WQ-VC-DBL-R	L1767348-19 WATER 09-MAY-16 19:05 WQ-BC	L1767348-20 WATER 10-MAY-16 16:20 WQ-DESS-02
WATER						
Physical Tests	Conductivity (uS/cm)	227	788	110	149	1120
	Hardness (as CaCO3) (mg/L)	111	447	56.7	76.1	672
	pH (pH)	7.46	8.05	7.74	7.73	7.88
	Total Suspended Solids (mg/L)	193	54.7	219	97.3	158
	Total Dissolved Solids (mg/L)	134	524	57.5	83.1	832
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	39.6	117	42.6	42.7	65.9
	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)	39.6	117	42.6	42.7	65.9
	Ammonia, Total (as N) (mg/L)	0.217	0.346	0.0071	0.0073	0.0107
	Chloride (Cl) (mg/L)	<0.50	<0.50	<0.50	<0.50	<1.0 DLDS
	Fluoride (F) (mg/L)	0.064	0.087	0.046	0.049	0.060
	Nitrate (as N) (mg/L)	0.0424	0.0424	0.0299	<0.0050	0.034
	Nitrite (as N) (mg/L)	0.0015	0.0018	<0.0010	<0.0010	<0.0020 DLDS
	Sulfate (SO4) (mg/L)	64.2	292	9.83	27.2	539
	Anion Sum (meq/L)	2.14	8.42	1.06	1.42	12.5
	Cation Sum (meq/L)	2.48	9.30	1.23	1.65	13.8
	Cation - Anion Balance (%)	7.5	5.0	7.3	7.6	4.6
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)	0.29	0.23	<0.20	<0.20	0.27
	Thiocyanate (SCN) (mg/L)	<0.50	<0.50	<0.50	0.66	0.57
Total Metals	Aluminum (Al)-Total (mg/L)	4.76	0.579	2.07	1.67	1.44
	Antimony (Sb)-Total (mg/L)	0.00218	0.00211	0.00021	0.00061	0.00060
	Arsenic (As)-Total (mg/L)	0.0232	0.0121	0.00360	0.0119	0.0193
	Barium (Ba)-Total (mg/L)	0.155	0.0399	0.105	0.0654	0.0403
	Beryllium (Be)-Total (mg/L)	0.000229	0.000028	0.000086	0.000080	0.000060
	Bismuth (Bi)-Total (mg/L)	0.000183	<0.000050	<0.000050	0.000132	<0.000050
	Boron (B)-Total (mg/L)	<0.010	0.013	<0.010	<0.010	<0.010
	Cadmium (Cd)-Total (mg/L)	0.000595	0.000148	0.000119	0.000271	0.000223
	Calcium (Ca)-Total (mg/L)	34.2	109	16.5	20.6	199
	Chromium (Cr)-Total (mg/L)	0.00651	0.00104	0.00280	0.00195	0.00148
	Cobalt (Co)-Total (mg/L)	0.00224	0.00107	0.00153	0.00094	0.00062
	Copper (Cu)-Total (mg/L)	0.0131	0.00272	0.00732	0.00688	0.00494
	Iron (Fe)-Total (mg/L)	8.09	2.07	3.35	2.41	1.73
	Lead (Pb)-Total (mg/L)	0.0165	0.00132	0.00265	0.00637	0.00439
	Lithium (Li)-Total (mg/L)	0.0035	0.0020	0.0010	0.0015	<0.0010

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1767348-21 WATER 10-MAY-16 11:35 WQ-SEEP	L1767348-22 WATER 10-MAY-16 15:40 WQ-DESS-03	L1767348-23 WATER 10-MAY-16 12:20 WQ-DC-B	L1767348-24 WATER 10-MAY-16 12:30 WQ-DC-B-R	L1767348-25 WATER 10-MAY-16 11:40 WQ-FEILD BLANK
WATER						
Physical Tests	Conductivity (uS/cm)	1460	41.6	720	711	<2.0
	Hardness (as CaCO3) (mg/L)	810	25.4	417	411	<0.50
	pH (pH)	7.30	6.29	8.01	8.01	5.54
	Total Suspended Solids (mg/L)	44.0	3.3	92.0	133	<3.0
	Total Dissolved Solids (mg/L)	1100	19.3	479	474	<1.0
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	230	6.6	108	106	<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)	230	6.6	108	106	<1.0
	Ammonia, Total (as N) (mg/L)	3.99	0.0096	0.0495	0.0416	<0.0050
	Chloride (Cl) (mg/L)	<2.5 DLDS	<0.50	<0.50	<0.50	<0.50
	Fluoride (F) (mg/L)	<0.10 DLDS	0.031	0.083	0.077	<0.020
	Nitrate (as N) (mg/L)	0.325	<0.0050	0.0246	0.0254	<0.0050
	Nitrite (as N) (mg/L)	0.0205	<0.0010	<0.0010	0.0010	<0.0010
	Sulfate (SO4) (mg/L)	605	3.41	266	264	<0.30
	Anion Sum (meq/L)	17.2	0.20	7.69	7.61	<0.10
	Cation Sum (meq/L)	19.1	0.62	8.57	8.47	<0.10
	Cation - Anion Balance (%)	5.1	50.5	5.4	5.3	0.0
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.050 HTD	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanide, Total (mg/L)	0.349 HTD	<0.0050	<0.0050	<0.0050	<0.0050
	Cyanate (mg/L)	2.70	0.32	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)	5.06	1.44	<0.50	<0.50	<0.50
Total Metals	Aluminum (Al)-Total (mg/L)	0.0256	0.319	1.36	1.53	<0.0030
	Antimony (Sb)-Total (mg/L)	0.00049	0.00015	0.00294	0.00246	<0.00010
	Arsenic (As)-Total (mg/L)	0.0811	0.00149	0.0194	0.0169	<0.00010
	Barium (Ba)-Total (mg/L)	0.0658	0.0316	0.0587	0.0497	<0.000050
	Beryllium (Be)-Total (mg/L)	<0.000020	0.000029	0.000059	0.000060	<0.000020
	Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
	Boron (B)-Total (mg/L)	0.049	<0.010	0.012	0.010	<0.010
	Cadmium (Cd)-Total (mg/L)	0.000297	0.0000498	0.000231	0.000218	<0.0000050
	Calcium (Ca)-Total (mg/L)	232	7.14	131	102	<0.050
	Chromium (Cr)-Total (mg/L)	0.00056	0.00027	0.00248	0.00247	<0.00010
	Cobalt (Co)-Total (mg/L)	0.00752	<0.00010	0.00124	0.00120	<0.00010
	Copper (Cu)-Total (mg/L)	0.00263	0.00359	0.00509	0.00451	<0.00050
	Iron (Fe)-Total (mg/L)	17.4	0.169	4.39	4.20	<0.010
	Lead (Pb)-Total (mg/L)	0.000181	<0.000050	0.00325	0.00303	<0.000050
	Lithium (Li)-Total (mg/L)	<0.0010	<0.0010	0.0033	0.0032	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1767348-26	L1767348-27			
	Description	WATER	WATER			
	Sampled Date	10-MAY-16	10-MAY-16			
	Sampled Time	09:25	18:40			
	Client ID	WQ-DC-R	TRAVEL BLANK			
Grouping	**Analyte**					
WATER						
Physical Tests	Conductivity (uS/cm)	821	<2.0			
	Hardness (as CaCO3) (mg/L)	469	<0.50			
	pH (pH)	8.02	5.55			
	Total Suspended Solids (mg/L)	6.7	<3.0			
	Total Dissolved Solids (mg/L)	549	<1.0			
Anions and Nutrients	Alkalinity, Bicarbonate (as CaCO3) (mg/L)	119	<1.0			
	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)	119	<1.0			
	Ammonia, Total (as N) (mg/L)	0.212	0.0081 RRV			
	Chloride (Cl) (mg/L)	<0.50	<0.50			
	Fluoride (F) (mg/L)	0.080	<0.020			
	Nitrate (as N) (mg/L)	0.158	<0.0050			
	Nitrite (as N) (mg/L)	0.0038	<0.0010			
	Sulfate (SO4) (mg/L)	305	<0.30			
	Anion Sum (meq/L)	8.73	<0.10			
	Cation Sum (meq/L)	9.79	<0.10			
	Cation - Anion Balance (%)	5.7	0.0			
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)	<0.50	<0.50			
Total Metals	Aluminum (Al)-Total (mg/L)	0.0776	<0.0030			
	Antimony (Sb)-Total (mg/L)	0.00259	<0.00010			
	Arsenic (As)-Total (mg/L)	0.0214	<0.00010			
	Barium (Ba)-Total (mg/L)	0.0330	<0.000050			
	Beryllium (Be)-Total (mg/L)	<0.000020	<0.000020			
	Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050			
	Boron (B)-Total (mg/L)	0.013	<0.010			
	Cadmium (Cd)-Total (mg/L)	0.000129	<0.0000050			
	Calcium (Ca)-Total (mg/L)	116	<0.050			
	Chromium (Cr)-Total (mg/L)	0.00024	<0.00010			
	Cobalt (Co)-Total (mg/L)	0.00069	<0.00010			
	Copper (Cu)-Total (mg/L)	0.00160	<0.00050			
	Iron (Fe)-Total (mg/L)	1.36	<0.010			
	Lead (Pb)-Total (mg/L)	0.00439	<0.000050			
	Lithium (Li)-Total (mg/L)	0.0017	<0.0010			

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1767348-1	L1767348-2	L1767348-3	L1767348-4	L1767348-5
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	10-MAY-16	10-MAY-16	10-MAY-16	10-MAY-16	10-MAY-16
Sampled Time	18:40	15:55	17:50	17:10	08:30
Client ID	WQ-DC-DX+105	WQ-DESS-01	WQ-MS-S-03	WQ-DC-D1B	WQ-PC-D
Grouping / **Analyte**					
WATER					
Total Metals Magnesium (Mg)-Total (mg/L)	7.58	71.1	63.9	37.5	8.05
Manganese (Mn)-Total (mg/L)	0.0737	0.851	1.62	0.628	0.433
Mercury (Hg)-Total (mg/L)	0.0000160	0.0000137	0.0000066	0.0000082	0.0000365
Molybdenum (Mo)-Total (mg/L)	0.000106	<0.000050	0.000351	0.000197	0.000391
Nickel (Ni)-Total (mg/L)	0.00082	0.00612	0.00226	0.00061	0.00345
Phosphorus (P)-Total (mg/L)	<0.050	<0.050	0.061	<0.050	0.141
Potassium (K)-Total (mg/L)	2.80	1.95	3.60	2.49	1.56
Selenium (Se)-Total (mg/L)	0.000089	0.000080	0.000073	0.000075	0.000116
Silicon (Si)-Total (mg/L)	3.82	4.53	7.88	4.32	9.85
Silver (Ag)-Total (mg/L)	0.000068	0.000012	0.000424	0.000164	0.000307
Sodium (Na)-Total (mg/L)	1.26	2.74	5.24	3.01	2.67
Strontium (Sr)-Total (mg/L)	0.0744	0.339	0.431	0.262	0.220
Sulfur (S)-Total (mg/L)	18.3	203	156	95.6	24.6
Thallium (Tl)-Total (mg/L)	0.000017	<0.000010	0.000123	0.000033	0.000074
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	0.00154	0.00077	0.0372	0.00467	0.102
Uranium (U)-Total (mg/L)	0.000255	0.000010	0.00404	0.000857	0.00127
Vanadium (V)-Total (mg/L)	<0.00050	<0.00050	0.00286	0.00088	0.0129
Zinc (Zn)-Total (mg/L)	0.132	3.02	0.954	0.119	0.0910
Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00030	<0.00030	<0.00030	0.00039
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)	0.0586	0.196	0.0011	0.0056	0.0608
Antimony (Sb)-Dissolved (mg/L)	0.00229	0.00011	0.0131	0.00347	0.00110
Arsenic (As)-Dissolved (mg/L)	0.00779	0.00115	0.0656	0.0197	0.00477
Barium (Ba)-Dissolved (mg/L)	0.0220	0.0306	0.0156	0.0258	0.0509
Beryllium (Be)-Dissolved (mg/L)	<0.000020	0.000035	<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	<0.010	0.015	<0.010
Cadmium (Cd)-Dissolved (mg/L)	0.000668	0.00912	0.000831	0.000170	0.000249
Calcium (Ca)-Dissolved (mg/L)	28.7	133	181	98.6	32.6
Chromium (Cr)-Dissolved (mg/L)	<0.00010	0.00012	<0.00010	<0.00010	0.00070
Cobalt (Co)-Dissolved (mg/L)	<0.00010	0.00074	0.00104	0.00022	0.00036
Copper (Cu)-Dissolved (mg/L)	0.00496	0.00209	0.00062	0.00103	0.0110
Iron (Fe)-Dissolved (mg/L)	0.114	0.141	1.60	0.355	1.51
Lead (Pb)-Dissolved (mg/L)	0.000372	<0.000050	0.000119	0.000343	0.00138
Lithium (Li)-Dissolved (mg/L)	<0.0010	0.0024	0.0101	0.0033	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1767348-6	L1767348-7	L1767348-8	L1767348-9	L1767348-10
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	10-MAY-16	09-MAY-16	09-MAY-16	09-MAY-16	10-MAY-16
Sampled Time	16:10	17:15	17:45	15:20	12:05
Client ID	WQ-CH-P-13-01	WQ-VC-DBC	WQ-VC-U	WQ-VC-UMN	WQ-TP
Grouping / **Analyte**					
WATER					
Total Metals Magnesium (Mg)-Total (mg/L)	110	5.06	4.94	6.41	25.3
Manganese (Mn)-Total (mg/L)	1.05	0.144	0.107	0.150	0.844
Mercury (Hg)-Total (mg/L)	0.0000139	0.0000264	0.0000243	0.0000253	0.0000242
Molybdenum (Mo)-Total (mg/L)	<0.000050	0.000335	0.000254	0.000341	0.000780
Nickel (Ni)-Total (mg/L)	0.0106	0.00224	0.00204	0.00240	0.00157
Phosphorus (P)-Total (mg/L)	<0.050	0.272	0.175	0.124	<0.050
Potassium (K)-Total (mg/L)	2.22	0.85	0.80	1.03	7.14
Selenium (Se)-Total (mg/L)	0.000101	0.000071	0.000071	0.000100	0.000052
Silicon (Si)-Total (mg/L)	4.60	6.16	5.92	7.19	2.03
Silver (Ag)-Total (mg/L)	0.000017	0.000033	0.000019	0.000041	0.00123
Sodium (Na)-Total (mg/L)	3.58	1.39	1.36	1.75	8.11
Strontium (Sr)-Total (mg/L)	0.461	0.166	0.148	0.156	0.326
Sulfur (S)-Total (mg/L)	310	3.77	2.95	7.77	140
Thallium (Tl)-Total (mg/L)	<0.000010	0.000021	0.000015	0.000024	0.000160
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	0.00034	0.0530	0.0497	0.0742	0.00136
Uranium (U)-Total (mg/L)	<0.000010	0.000778	0.000647	0.000746	0.000626
Vanadium (V)-Total (mg/L)	<0.00050	0.00683	0.00592	0.00729	0.00052
Zinc (Zn)-Total (mg/L)	6.45	0.0136	0.0106	0.0166	0.231
Zirconium (Zr)-Total (mg/L)	<0.00030	0.00036	<0.00030	0.00034	<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)	0.245	0.0833	0.0747	0.0788	0.0095
Antimony (Sb)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	0.00014	0.0275
Arsenic (As)-Dissolved (mg/L)	0.00097	0.00058	0.00035	0.00089	0.0368
Barium (Ba)-Dissolved (mg/L)	0.0220	0.0423	0.0421	0.0453	0.00709
Beryllium (Be)-Dissolved (mg/L)	0.000052	<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	<0.010	<0.010	0.034
Cadmium (Cd)-Dissolved (mg/L)	0.0176	0.0000248	0.0000171	0.0000274	0.00226
Calcium (Ca)-Dissolved (mg/L)	186	14.7	13.9	18.9	143
Chromium (Cr)-Dissolved (mg/L)	<0.00010	0.00012	0.00013	0.00010	<0.00010
Cobalt (Co)-Dissolved (mg/L)	0.00017	0.00011	<0.00010	0.00011	0.00064
Copper (Cu)-Dissolved (mg/L)	0.00146	0.00284	0.00269	0.00273	0.0250
Iron (Fe)-Dissolved (mg/L)	0.058	0.173	0.170	0.188	0.045
Lead (Pb)-Dissolved (mg/L)	<0.000050	0.000073	<0.000050	0.000110	0.00160
Lithium (Li)-Dissolved (mg/L)	0.0033	<0.0010	<0.0010	<0.0010	0.0042

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1767348-11 WATER 11-MAY-16 08:55 WQ-MS-S-09	L1767348-12 WATER 11-MAY-16 09:05 WQ-MS-S-10	L1767348-13 WATER 10-MAY-16 19:05 WQ-DC-DX	L1767348-14 WATER 09-MAY-16 12:45 WQ-VC-R	L1767348-15 WATER 10-MAY-16 18:20 WQ-MS-S-A
WATER						
Total Metals	Magnesium (Mg)-Total (mg/L)	143	156	5.31	6.31	94.5
	Manganese (Mn)-Total (mg/L)	0.327	0.00811	0.0455	0.122	0.718
	Mercury (Hg)-Total (mg/L)	0.0000719	<0.0000050	0.0000286	0.0000238	0.0000169
	Molybdenum (Mo)-Total (mg/L)	0.000319	0.00032	0.000073	0.000382	0.000384
	Nickel (Ni)-Total (mg/L)	0.00495	0.0021	0.00103	0.00201	0.00293
	Phosphorus (P)-Total (mg/L)	0.059	<0.050	0.140	0.093	<0.050
	Potassium (K)-Total (mg/L)	5.59	6.71	3.11	1.01	4.45
	Selenium (Se)-Total (mg/L)	0.000675	0.00064	<0.000050	0.000079	0.000347
	Silicon (Si)-Total (mg/L)	5.56	5.18	4.52	6.77	4.66
	Silver (Ag)-Total (mg/L)	0.00208	0.000048	0.000047	0.000038	0.00147
	Sodium (Na)-Total (mg/L)	8.70	17.8	0.987	1.70	5.34
	Strontium (Sr)-Total (mg/L)	0.681	0.790	0.0597	0.174	0.470
	Sulfur (S)-Total (mg/L)	374	379	8.37	6.87	211
	Thallium (Tl)-Total (mg/L)	0.000332	0.000122	0.000030	0.000024	0.000370
	Tin (Sn)-Total (mg/L)	0.00012	<0.00020 DLA	<0.00010	<0.00010	0.00014
	Titanium (Ti)-Total (mg/L)	0.0244	<0.00060 DLA	0.0539	0.0545	0.0263
	Uranium (U)-Total (mg/L)	0.00393	0.00485	0.000104	0.000736	0.00347
	Vanadium (V)-Total (mg/L)	0.00311	<0.0010 DLA	0.00427	0.00546	0.00280
	Zinc (Zn)-Total (mg/L)	4.79	1.53	0.0093	0.0126	1.31
	Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00060 DLA	<0.00030	0.00048	<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)	0.0029	<0.0020 DLA	0.0411	0.0786	0.0058
	Antimony (Sb)-Dissolved (mg/L)	0.0840	0.0265	0.00082	0.00014	0.0238
	Arsenic (As)-Dissolved (mg/L)	0.0364	0.0560	0.00527	0.00088	0.0378
	Barium (Ba)-Dissolved (mg/L)	0.00781	0.0253	0.0192	0.0457	0.0198
	Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000040 DLA	<0.000020	<0.000020	<0.000020
	Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.00010 DLA	<0.000050	<0.000050	<0.000050
	Boron (B)-Dissolved (mg/L)	0.035	0.339	<0.010	<0.010	0.024
	Cadmium (Cd)-Dissolved (mg/L)	0.0481	0.00618	0.0000225	0.0000276	0.0161
	Calcium (Ca)-Dissolved (mg/L)	280	312	19.0	18.6	192
	Chromium (Cr)-Dissolved (mg/L)	<0.00010	<0.00020 DLA	0.00012	0.00014	<0.00010
	Cobalt (Co)-Dissolved (mg/L)	0.00013	<0.00020 DLA	<0.00010	0.00012	0.00101
	Copper (Cu)-Dissolved (mg/L)	0.0123	0.00274	0.00200	0.00294	0.00862
	Iron (Fe)-Dissolved (mg/L)	<0.010	<0.010	0.071	0.243	0.013
	Lead (Pb)-Dissolved (mg/L)	0.00258	0.00115	0.000064	0.000089	0.00105
	Lithium (Li)-Dissolved (mg/L)	0.0115	0.0100	<0.0010	<0.0010	0.0087

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1767348-16	L1767348-17	L1767348-18	L1767348-19	L1767348-20
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	10-MAY-16	10-MAY-16	09-MAY-16	09-MAY-16	10-MAY-16
Sampled Time	08:55	10:45	17:20	19:05	16:20
Client ID	WQ-PC-U	WQ-DC-U	WQ-VC-DBL-R	WQ-BC	WQ-DESS-02
Grouping / **Analyte**					
WATER					
Total Metals					
Magnesium (Mg)-Total (mg/L)	7.99	40.2	5.27	5.34	35.9
Manganese (Mn)-Total (mg/L)	0.353	0.752	0.163	0.258	0.117
Mercury (Hg)-Total (mg/L)	0.0000466	0.0000130	0.0000243	0.0000357	0.0000347
Molybdenum (Mo)-Total (mg/L)	0.000390	0.000281	0.000286	0.000618	0.000108
Nickel (Ni)-Total (mg/L)	0.00416	0.00153	0.00253	0.00180	0.00157
Phosphorus (P)-Total (mg/L)	0.181	0.072	0.330	0.065	0.136
Potassium (K)-Total (mg/L)	1.62	2.54	0.93	1.19	3.04
Selenium (Se)-Total (mg/L)	0.000154	0.000092	0.000070	0.000063	0.000086
Silicon (Si)-Total (mg/L)	12.2	4.87	6.59	6.38	9.07
Silver (Ag)-Total (mg/L)	0.000289	0.000038	0.000027	0.000109	0.000182
Sodium (Na)-Total (mg/L)	2.64	5.41	1.48	1.75	5.42
Strontium (Sr)-Total (mg/L)	0.217	0.335	0.138	0.131	0.370
Sulfur (S)-Total (mg/L)	22.8	105	3.79	9.38	186
Thallium (Tl)-Total (mg/L)	0.000087	0.000017	0.000019	0.000033	0.000033
Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total (mg/L)	0.134	0.0300	0.0578	0.0555	0.0407
Uranium (U)-Total (mg/L)	0.00161	0.00144	0.000752	0.000698	0.000282
Vanadium (V)-Total (mg/L)	0.0158	0.00260	0.00729	0.00432	0.00331
Zinc (Zn)-Total (mg/L)	0.0448	0.0157	0.0157	0.0192	0.0202
Zirconium (Zr)-Total (mg/L)	0.00034	<0.00030	<0.00030	0.00052	0.00037
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)	0.0517	0.0535	0.0815	0.157	0.0093
Antimony (Sb)-Dissolved (mg/L)	0.00079	0.00191	<0.00010	0.00027	0.00011
Arsenic (As)-Dissolved (mg/L)	0.00445	0.00607	0.00060	0.00242	0.00299
Barium (Ba)-Dissolved (mg/L)	0.0585	0.0267	0.0425	0.0372	0.0210
Beryllium (Be)-Dissolved (mg/L)	<0.000020	<0.000020	<0.000020	0.000026	<0.000020
Bismuth (Bi)-Dissolved (mg/L)	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved (mg/L)	<0.010	0.012	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved (mg/L)	0.0000306	0.0000537	0.0000312	0.0000993	0.0000194
Calcium (Ca)-Dissolved (mg/L)	32.7	112	15.0	21.7	208
Chromium (Cr)-Dissolved (mg/L)	0.00012	<0.00010	0.00011	0.00018	<0.00010
Cobalt (Co)-Dissolved (mg/L)	0.00035	0.00068	<0.00010	0.00017	<0.00010
Copper (Cu)-Dissolved (mg/L)	0.00148	0.00119	0.00280	0.00383	0.00037
Iron (Fe)-Dissolved (mg/L)	1.84	0.557	0.184	0.244	<0.010
Lead (Pb)-Dissolved (mg/L)	0.000815	0.000126	0.000079	0.000359	<0.000050
Lithium (Li)-Dissolved (mg/L)	<0.0010	0.0025	<0.0010	<0.0010	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L1767348-21 WATER 10-MAY-16 11:35 WQ-SEEP	L1767348-22 WATER 10-MAY-16 15:40 WQ-DESS-03	L1767348-23 WATER 10-MAY-16 12:20 WQ-DC-B	L1767348-24 WATER 10-MAY-16 12:30 WQ-DC-B-R	L1767348-25 WATER 10-MAY-16 11:40 WQ-FEILD BLANK
WATER						
Total Metals	Magnesium (Mg)-Total (mg/L)	51.3	1.41	50.5	38.0	<0.10
	Manganese (Mn)-Total (mg/L)	6.11	0.00663	0.464	0.402	<0.00010
	Mercury (Hg)-Total (mg/L)	0.0000061	0.0000240	0.0000147	0.0000167	<0.0000050
	Molybdenum (Mo)-Total (mg/L)	0.000924	<0.000050	0.000311	0.000264	<0.000050
	Nickel (Ni)-Total (mg/L)	0.00248	0.00136	0.00269	0.00223	<0.00050
	Phosphorus (P)-Total (mg/L)	<0.050	<0.050	0.180	0.163	<0.050
	Potassium (K)-Total (mg/L)	5.54	1.29	3.03	2.34	<0.10
	Selenium (Se)-Total (mg/L)	0.000211	<0.000050	0.000113	0.000099	<0.000050
	Silicon (Si)-Total (mg/L)	7.43	3.13	7.14	6.23	<0.050
	Silver (Ag)-Total (mg/L)	0.000033	<0.000010	0.000059	0.000064	<0.000010
	Sodium (Na)-Total (mg/L)	35.1	0.801	4.44	3.72	<0.050
	Strontium (Sr)-Total (mg/L)	0.674	0.0331	0.400	0.314	<0.00020
	Sulfur (S)-Total (mg/L)	213	1.49	124	94.5	<0.50
	Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010	0.000025	0.000025	<0.000010
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Total (mg/L)	0.00145	0.00139	0.0626	0.0773	<0.00030
	Uranium (U)-Total (mg/L)	0.00137	0.000014	0.00193	0.00157	<0.000010
	Vanadium (V)-Total (mg/L)	0.00273	<0.00050	0.00638	0.00643	<0.00050
	Zinc (Zn)-Total (mg/L)	0.0204	0.0076	0.0331	0.0288	<0.0030
	Zirconium (Zr)-Total (mg/L)	0.00065	0.00031	<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)	0.0114	0.300	0.0509	0.0520	0.0011 RRV
	Antimony (Sb)-Dissolved (mg/L)	0.00044	0.00011	0.00205	0.00203	<0.00010
	Arsenic (As)-Dissolved (mg/L)	0.0464	0.00146	0.00541	0.00521	<0.00010
	Barium (Ba)-Dissolved (mg/L)	0.0627	0.0326	0.0257	0.0248	<0.000050
	Beryllium (Be)-Dissolved (mg/L)	<0.000020	0.000028	<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)	0.048	<0.010	<0.010	<0.010	<0.010
	Cadmium (Cd)-Dissolved (mg/L)	0.000227	0.0000509	0.0000506	0.0000436	<0.0000050
	Calcium (Ca)-Dissolved (mg/L)	239	7.68	103	102	<0.050
	Chromium (Cr)-Dissolved (mg/L)	0.00039	0.00017	<0.00010	<0.00010	<0.00010
	Cobalt (Co)-Dissolved (mg/L)	0.00732	<0.00010	0.00028	0.00028	<0.00010
	Copper (Cu)-Dissolved (mg/L)	0.00148	0.00358	0.00116	0.00115	<0.00020
	Iron (Fe)-Dissolved (mg/L)	13.9	0.137	0.433	0.422	<0.010
	Lead (Pb)-Dissolved (mg/L)	<0.000050	<0.000050	0.000147	0.000126	<0.000050
	Lithium (Li)-Dissolved (mg/L)	<0.0010	<0.0010	0.0019	0.0022	<0.0010

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1767348-26	L1767348-27			
	Description	WATER	WATER			
	Sampled Date	10-MAY-16	10-MAY-16			
	Sampled Time	09:25	18:40			
	Client ID	WQ-DC-R	TRAVEL BLANK			
Grouping	**Analyte**					
WATER						
Total Metals	Magnesium (Mg)-Total (mg/L)	39.4	<0.10			
	Manganese (Mn)-Total (mg/L)	0.366	<0.00010			
	Mercury (Hg)-Total (mg/L)	0.0000062	<0.0000050			
	Molybdenum (Mo)-Total (mg/L)	0.000332	<0.000050			
	Nickel (Ni)-Total (mg/L)	0.00071	<0.00050			
	Phosphorus (P)-Total (mg/L)	<0.050	<0.050			
	Potassium (K)-Total (mg/L)	2.49	<0.10			
	Selenium (Se)-Total (mg/L)	0.000078	<0.000050			
	Silicon (Si)-Total (mg/L)	3.94	<0.050			
	Silver (Ag)-Total (mg/L)	0.000076	<0.000010			
	Sodium (Na)-Total (mg/L)	7.10	<0.050			
	Strontium (Sr)-Total (mg/L)	0.354	<0.00020			
	Sulfur (S)-Total (mg/L)	109	<0.50			
	Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010			
	Tin (Sn)-Total (mg/L)	<0.00010	<0.00010			
	Titanium (Ti)-Total (mg/L)	0.00285	<0.00030			
	Uranium (U)-Total (mg/L)	0.00147	<0.000010			
	Vanadium (V)-Total (mg/L)	0.00068	<0.00050			
	Zinc (Zn)-Total (mg/L)	0.0075	<0.0030			
	Zirconium (Zr)-Total (mg/L)	<0.00030	<0.00030			
Dissolved Metals	Dissolved Mercury Filtration Location	FIELD				
	Dissolved Metals Filtration Location	FIELD				
	Aluminum (Al)-Dissolved (mg/L)	0.0121				
	Antimony (Sb)-Dissolved (mg/L)	0.00142				
	Arsenic (As)-Dissolved (mg/L)	0.00639				
	Barium (Ba)-Dissolved (mg/L)	0.0306				
	Beryllium (Be)-Dissolved (mg/L)	<0.000020				
	Bismuth (Bi)-Dissolved (mg/L)	<0.000050				
	Boron (B)-Dissolved (mg/L)	0.010				
	Cadmium (Cd)-Dissolved (mg/L)	0.0000410				
	Calcium (Ca)-Dissolved (mg/L)	121				
	Chromium (Cr)-Dissolved (mg/L)	0.00018				
	Cobalt (Co)-Dissolved (mg/L)	0.00068				
	Copper (Cu)-Dissolved (mg/L)	0.00114				
	Iron (Fe)-Dissolved (mg/L)	0.480				
	Lead (Pb)-Dissolved (mg/L)	0.00123				
	Lithium (Li)-Dissolved (mg/L)	0.0017				

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1767348-1	L1767348-2	L1767348-3	L1767348-4	L1767348-5
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	10-MAY-16	10-MAY-16	10-MAY-16	10-MAY-16	10-MAY-16
Sampled Time	18:40	15:55	17:50	17:10	08:30
Client ID	WQ-DC-DX+105	WQ-DESS-01	WQ-MS-S-03	WQ-DC-D1B	WQ-PC-D
Grouping / **Analyte**					
WATER					
Dissolved Metals Magnesium (Mg)-Dissolved (mg/L)	7.44	70.2	61.2	37.7	7.34
Manganese (Mn)-Dissolved (mg/L)	0.0678	0.817	1.39	0.502	0.300
Mercury (Hg)-Dissolved (mg/L)	0.0000173	0.0000145	<0.0000050	<0.0000050	0.0000112
Molybdenum (Mo)-Dissolved (mg/L)	0.000078	<0.000050	0.000284	0.000142	0.000302
Nickel (Ni)-Dissolved (mg/L)	0.00076	0.00584	0.00163	<0.00050	0.00070
Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved (mg/L)	2.82	1.95	3.32	2.54	1.05
Selenium (Se)-Dissolved (mg/L)	0.000066	0.000072	<0.000050	0.000055	<0.000050
Silicon (Si)-Dissolved (mg/L)	3.65	4.45	6.61	3.97	3.91
Silver (Ag)-Dissolved (mg/L)	0.000027	<0.000010	<0.000010	<0.000010	0.000013
Sodium (Na)-Dissolved (mg/L)	1.19	2.66	4.93	2.85	2.45
Strontium (Sr)-Dissolved (mg/L)	0.0700	0.331	0.414	0.253	0.202
Sulfur (S)-Dissolved (mg/L)	17.4	201	147	94.9	24.1
Thallium (Tl)-Dissolved (mg/L)	0.000014	<0.000010	0.000074	0.000022	<0.000010
Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved (mg/L)	0.00089	0.00051	<0.00030	<0.00030	0.00121
Uranium (U)-Dissolved (mg/L)	0.000230	<0.000010	0.00380	0.000797	0.000366
Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	0.00133
Zinc (Zn)-Dissolved (mg/L)	0.132	3.01	0.835	0.0801	0.0264
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	L1767348-6	L1767348-7	L1767348-8	L1767348-9	L1767348-10
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	10-MAY-16	09-MAY-16	09-MAY-16	09-MAY-16	10-MAY-16
Sampled Time	16:10	17:15	17:45	15:20	12:05
Client ID	WQ-CH-P-13-01	WQ-VC-DBC	WQ-VC-U	WQ-VC-UMN	WQ-TP
Grouping / **Analyte**					
WATER					
Dissolved Metals Magnesium (Mg)-Dissolved (mg/L)	110	4.59	4.51	5.95	26.8
Manganese (Mn)-Dissolved (mg/L)	0.898	0.0353	0.0197	0.0315	0.767
Mercury (Hg)-Dissolved (mg/L)	0.0000126	0.0000166	0.0000144	0.0000155	0.0000071
Molybdenum (Mo)-Dissolved (mg/L)	<0.000050	0.000264	0.000228	0.000277	0.000755
Nickel (Ni)-Dissolved (mg/L)	0.00960	0.00060	0.00057	0.00062	0.00155
Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved (mg/L)	2.32	0.68	0.64	0.75	7.36
Selenium (Se)-Dissolved (mg/L)	0.000086	<0.000050	<0.000050	<0.000050	<0.000050
Silicon (Si)-Dissolved (mg/L)	4.89	3.60	3.58	3.78	1.58
Silver (Ag)-Dissolved (mg/L)	0.000010	<0.000010	<0.000010	<0.000010	0.000129
Sodium (Na)-Dissolved (mg/L)	3.54	1.30	1.24	1.58	7.79
Strontium (Sr)-Dissolved (mg/L)	0.455	0.146	0.146	0.162	0.330
Sulfur (S)-Dissolved (mg/L)	314	3.72	2.93	7.60	143
Thallium (Tl)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	0.000137
Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved (mg/L)	<0.00030	0.00100	0.00076	0.00105	<0.00030
Uranium (U)-Dissolved (mg/L)	<0.000010	0.000319	0.000282	0.000371	0.000619
Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved (mg/L)	6.29	0.0043	0.0011	0.0016	0.195
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

Grouping	Analyte	L1767348-11 WATER 11-MAY-16 08:55 WQ-MS-S-09	L1767348-12 WATER 11-MAY-16 09:05 WQ-MS-S-10	L1767348-13 WATER 10-MAY-16 19:05 WQ-DC-DX	L1767348-14 WATER 09-MAY-16 12:45 WQ-VC-R	L1767348-15 WATER 10-MAY-16 18:20 WQ-MS-S-A
WATER						
Dissolved Metals	Magnesium (Mg)-Dissolved (mg/L)	137	155	5.11	5.86	95.5
	Manganese (Mn)-Dissolved (mg/L)	0.140	0.00735	0.0147	0.0350	0.632
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050	<0.0000050	0.0000103	0.0000091	<0.0000050
	Molybdenum (Mo)-Dissolved (mg/L)	0.000265	0.00025	0.000055	0.000275	0.000339
	Nickel (Ni)-Dissolved (mg/L)	0.00443	0.0021	<0.00050	0.00061	0.00262
	Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
	Potassium (K)-Dissolved (mg/L)	5.21	6.50	3.07	0.75	4.24
	Selenium (Se)-Dissolved (mg/L)	0.000567	0.00059	0.000055	<0.000050	0.000357
	Silicon (Si)-Dissolved (mg/L)	4.53	5.04	3.24	4.02	3.10
	Silver (Ag)-Dissolved (mg/L)	0.000043	<0.000020 DLA	<0.000010	<0.000010	0.000050
	Sodium (Na)-Dissolved (mg/L)	7.99	17.6	0.921	1.67	5.10
	Strontium (Sr)-Dissolved (mg/L)	0.664	0.761	0.0556	0.158	0.458
	Sulfur (S)-Dissolved (mg/L)	357	370	8.21	6.62	210
	Thallium (Tl)-Dissolved (mg/L)	0.000288	0.000119	<0.000010	<0.000010	0.000315
	Tin (Sn)-Dissolved (mg/L)	<0.00010	<0.00020 DLA	<0.00010	<0.00010	<0.00010
	Titanium (Ti)-Dissolved (mg/L)	<0.00030	<0.00060 DLA	0.00069	0.00109	<0.00030
	Uranium (U)-Dissolved (mg/L)	0.00377	0.00474	0.000032	0.000364	0.00345
	Vanadium (V)-Dissolved (mg/L)	<0.00050	<0.0010 DLA	<0.00050	<0.00050	<0.00050
	Zinc (Zn)-Dissolved (mg/L)	4.37	1.57	0.0015	0.0010	1.25
	Zirconium (Zr)-Dissolved (mg/L)	<0.00030	<0.00060 DLA	<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	L1767348-16	L1767348-17	L1767348-18	L1767348-19	L1767348-20
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	10-MAY-16	10-MAY-16	09-MAY-16	09-MAY-16	10-MAY-16
Sampled Time	08:55	10:45	17:20	19:05	16:20
Client ID	WQ-PC-U	WQ-DC-U	WQ-VC-DBL-R	WQ-BC	WQ-DESS-02
Grouping / **Analyte**					
WATER					
Dissolved Metals Magnesium (Mg)-Dissolved (mg/L)	7.08	40.8	4.67	5.32	37.2
Manganese (Mn)-Dissolved (mg/L)	0.266	0.673	0.0344	0.165	0.00387
Mercury (Hg)-Dissolved (mg/L)	0.0000061	0.0000053	0.0000096	0.0000118	<0.0000050
Molybdenum (Mo)-Dissolved (mg/L)	0.000170	0.000241	0.000234	0.000523	<0.000050
Nickel (Ni)-Dissolved (mg/L)	<0.00050	0.00073	0.00064	0.00071	<0.00050
Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved (mg/L)	1.08	2.56	0.71	0.91	3.03
Selenium (Se)-Dissolved (mg/L)	0.000053	0.000067	<0.000050	<0.000050	<0.000050
Silicon (Si)-Dissolved (mg/L)	4.05	3.98	3.65	3.85	7.37
Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved (mg/L)	2.48	5.16	1.27	1.69	5.56
Strontium (Sr)-Dissolved (mg/L)	0.198	0.335	0.136	0.138	0.373
Sulfur (S)-Dissolved (mg/L)	22.8	104	3.69	9.79	190
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	0.00015	<0.00010
Titanium (Ti)-Dissolved (mg/L)	0.00121	0.00058	0.00102	0.00246	<0.00030
Uranium (U)-Dissolved (mg/L)	0.000345	0.00140	0.000299	0.000575	0.000193
Vanadium (V)-Dissolved (mg/L)	0.00139	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved (mg/L)	0.0051	0.0073	0.0013	0.0065	0.0024
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	L1767348-21	L1767348-22	L1767348-23	L1767348-24	L1767348-25
Description	WATER	WATER	WATER	WATER	WATER
Sampled Date	10-MAY-16	10-MAY-16	10-MAY-16	10-MAY-16	10-MAY-16
Sampled Time	11:35	15:40	12:20	12:30	11:40
Client ID	WQ-SEEP	WQ-DESS-03	WQ-DC-B	WQ-DC-B-R	WQ-FEILD BLANK
Grouping / Analyte					
WATER					
Dissolved Metals					
Magnesium (Mg)-Dissolved (mg/L)	51.7	1.52	38.7	38.1	<0.10
Manganese (Mn)-Dissolved (mg/L)	5.95	0.00337	0.286	0.306	<0.00010
Mercury (Hg)-Dissolved (mg/L)	<0.0000050	0.0000220	0.0000051	0.0000060	<0.0000050
Molybdenum (Mo)-Dissolved (mg/L)	0.000889	<0.000050	0.000189	0.000190	<0.000050
Nickel (Ni)-Dissolved (mg/L)	0.00231	0.00135	0.00064	0.00058	<0.00050
Phosphorus (P)-Dissolved (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved (mg/L)	5.75	1.42	2.22	2.21	<0.10
Selenium (Se)-Dissolved (mg/L)	0.000221	<0.000050	<0.000050	0.000066	<0.000050
Silicon (Si)-Dissolved (mg/L)	7.41	3.33	3.82	3.76	<0.050
Silver (Ag)-Dissolved (mg/L)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved (mg/L)	34.5	0.810	3.42	3.55	<0.050
Strontium (Sr)-Dissolved (mg/L)	0.665	0.0340	0.304	0.302	<0.00020
Sulfur (S)-Dissolved (mg/L)	208	1.54	94.3	93.4	<0.50
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)	0.00089	0.00077	0.00059	0.00063	<0.00030
Uranium (U)-Dissolved (mg/L)	0.00139	<0.000010	0.00137	0.00136	<0.000010
Vanadium (V)-Dissolved (mg/L)	0.00180	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved (mg/L)	0.0191	0.0081	0.0092	0.0084	<0.0010
Zirconium (Zr)-Dissolved (mg/L)	0.00063	0.00034	<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	L1767348-26	L1767348-27			
	Description	WATER	WATER			
	Sampled Date	10-MAY-16	10-MAY-16			
	Sampled Time	09:25	18:40			
	Client ID	WQ-DC-R	TRAVEL BLANK			
Grouping	**Analyte**					
WATER						
Dissolved Metals	Magnesium (Mg)-Dissolved (mg/L)	40.4				
	Manganese (Mn)-Dissolved (mg/L)	0.340				
	Mercury (Hg)-Dissolved (mg/L)	<0.0000050				
	Molybdenum (Mo)-Dissolved (mg/L)	0.000268				
	Nickel (Ni)-Dissolved (mg/L)	0.00075				
	Phosphorus (P)-Dissolved (mg/L)	<0.050				
	Potassium (K)-Dissolved (mg/L)	2.60				
	Selenium (Se)-Dissolved (mg/L)	0.000144				
	Silicon (Si)-Dissolved (mg/L)	3.86				
	Silver (Ag)-Dissolved (mg/L)	0.000011				
	Sodium (Na)-Dissolved (mg/L)	6.99				
	Strontium (Sr)-Dissolved (mg/L)	0.293				
	Sulfur (S)-Dissolved (mg/L)	109				
	Thallium (Tl)-Dissolved (mg/L)	<0.000010				
	Tin (Sn)-Dissolved (mg/L)	<0.00010				
	Titanium (Ti)-Dissolved (mg/L)	0.00042				
	Uranium (U)-Dissolved (mg/L)	0.00124				
	Vanadium (V)-Dissolved (mg/L)	<0.00050				
	Zinc (Zn)-Dissolved (mg/L)	0.0042				
	Zirconium (Zr)-Dissolved (mg/L)	<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	Cyanide, Weak Acid Diss	HTD	L1767348-21
Matrix Spike	Sulfate (SO4)	MS-B	L1767348-1, -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	Sulfate (SO4)	MS-B	L1767348-1, -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	Sulfur (S)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Boron (B)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Uranium (U)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Aluminum (Al)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Arsenic (As)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Barium (Ba)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Copper (Cu)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Lead (Pb)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Manganese (Mn)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Sodium (Na)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Strontium (Sr)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Titanium (Ti)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Arsenic (As)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Manganese (Mn)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Sodium (Na)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9

Reference Information

	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Strontium (Sr)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Iron (Fe)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Iron (Fe)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Silicon (Si)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Sulfur (S)-Total	MS-B	L1767348-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Calcium (Ca)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Iron (Fe)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Silicon (Si)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Sulfur (S)-Total	MS-B	L1767348-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Aluminum (Al)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1767348-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLIS	Detection Limit Adjusted: Insufficient Sample
HTD	Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis
SP	Sample was Preserved at the laboratory

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.

Reference Information

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 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

Reference Information

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.

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:

Reference Information

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

1 2 3 4 5
6

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

L1767348-COFC

COC Number: 14 -

Page ___ of ___

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

Report Format / ...	
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	ldoetzel@edynamics.com
Email 2	Emilie.Hamm@gov.yk.ca
Email 3	erik.pit@gov.yk.ca

... (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	ldoetzel@edynamics.com

Project Information	
ALS Quote #:	Q55559
Job #:	MOUNT NANSEN 16-Y-0089
PO / AFE:	
LSD:	
ALS Lab Work Order # (lab use only)	[redacted]

Oil and Gas Required Fields (client use)	
Approver ID:	Cost Center:
GL Account:	Routing Code:
Activity Code:	
Location:	
ALS Contact: Sean Slugget	Sampler: DH + MSa

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-DC-DX+105	10-May-16	18:40	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-DESS-01	10-May-16	15:55	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-MS-S-03	10-May-16	17:50	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-DC-D1b	10-May-16	17:10	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-PC-D	10-May-16	08:30	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	~~-May-16~~			~~Water~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~					~~9~~

Short Holding Time

- *Rush Processing*

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)

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

Frozen ☐	[redacted]	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: [redacted] 3 [redacted] 3 [redacted] 4 [redacted]

SHIPMENT RELEASE (client use)		
Released by: [signature]	Date: 11 May 2016	Time: 09:47

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by: [redacted]	Date: [redacted]	Time: [redacted]

FINAL SHIPMENT RECEPTION (lab use only)		
Received by: [redacted] JC	Date: 12 May	Time: 17:40

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ALS Environmental

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COC Number: 14 -

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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:	Lyndsay Doetzel	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	ldoetzel@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	ldoetzel@edynamics.com	
Project Information			**Oil and Gas Required Fields (client use)**		
ALS Quote #:	Q55559		Approver ID:	Cost Center:	
Job #:	MOUNT NANSEN 16-Y-0089		GL Account:	Routing Code:	
PO / AFE:			Activity Code:		
LSD:			Location:		
ALS Lab Work Order # (lab use only)	[redacted]		ALS Contact:	Sean Slugget	Sampler: MSa + DH

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-CH-P-13-01	10-May-16	16:10	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-VC-DBC	9-May-16	17:15	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-VC-U	9-May-16	17:45	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-VC-UMN	9-May-16	15:20	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	WQ-TP	10-May-16	12:05	Water	R	R	R	R	R	R	R	R	R					9
[redacted]	~~[redacted]~~	~~-May-16~~		~~Water~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~					~~9~~
[redacted]																		
[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	

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		
5.7	[redacted]	[redacted]	2.3	3	4

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
M Sandfad	11 May 16	1000	[redacted]	[redacted]	[redacted]	[redacted] JC	12 May	7.40

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ALS Environmental

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COC Number: 14 -

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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:	Lyndsay Doetzel	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	ldoetzel@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	ldoetzel@edynamics.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:	Q55559	Approver ID:	Cost Center:
Job #:	MOUNT NANSEN 16-Y-0089	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

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

ALS Contact: Sean Slugget

Sampler: DH + MSa

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	P	F/P		
[redacted]	WQ-MS-S-09	11-May-16	08:55	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-MS-S-10	11-May-16	09:05	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-DC-DX	10-May-16	19:05	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-VC-R	09-May-16	12:45	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ-MS-S-A	10-May-16	18:20	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	~~[redacted]~~	~~May-16~~		~~Water~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~9~~
[redacted]														
[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	

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

Frozen ☐ | Ice packs Yes ☐ No ☐ | Cooling Initiated ☐

SIF Observations Yes ☐ No ☐

Custody seal intact Yes ☐ No ☐

INITIAL COOLER TEMPERATURES °C [redacted]			FINAL COOLER TEMPERATURES °C [redacted]		
7.3			3	3	4

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only) [redacted]			FINAL SHIPMENT RECEPTION (lab use only) [redacted]		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
[redacted]	11 May 2016	09:41	[redacted]	May-12/16	8:20pm	JC	12 May	17:40

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Canada Toll Free: 1 800 668 9878

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COC Number: 14 -

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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:	Lyndsay Doetzel	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	ldoetzel@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		Analysis Request
	Copy of Invoice with Report ☑ Yes ☐ No	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:	EDI	Email 1 or Fax	sjenner@edynamics.com	
Contact:	S Jenner	Email 2	ldoetzel@edynamics.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:	Q55559	Approver ID:	Cost Center:
Job #:	MOUNT NANSEN 16-Y-0089	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

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

ALS Contact: Sean Slugget

Sampler: MSa + DH

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	P	F/P		
[redacted]	WQ - PC - U	10 -May-16	08:55	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ - DC - U	10 -May-16	10:45	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ - VC - DBC - r	9 -May-16	17:20	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ - BC	9 -May-16	19:05	Water	R	R	R	R	R	R	R	R	R	9
[redacted]	WQ - DESS - 02	10 -May-16	16:20	Water	R	R	R	R	R	R	R	R	R	9
[redacted]		-May-16		Water	R	R	R	R	R	R	R	R	R	9
[redacted]														
[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	

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		
2.8	[redacted]	[redacted]	3	3	4.7

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
[redacted] Sandford	11 May 16	09:53	[redacted]	[redacted]	[redacted]	[redacted]	12 May	7:40