

COLORADO OFFICE
10758 W. CENTENNIAL RD., STE. 200
LITTLETON, CO 80127
TEL: (866) 981-4588
FAX: (720) 981-5643



LOST CREEK ISR, LLC

WYOMING OFFICE
5880 ENTERPRISE DR., STE. 200
CASPER, WY 82609
TEL: (307) 265-2373
FAX: (307) 265-2801

April 22, 2014

NRC Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Quarterly Reporting Pursuant to License Condition 11.1(A)
1st Quarter 2014
Lost Creek ISR Project License SUA-1598

To Whom It May Concern:

The following quarterly report has been submitted in accordance with License Condition 11.1(A) for Lost Creek ISR, LLC's (LCI) Lost Creek Project License SUA-1598. License Condition 11.1(A) requires quarterly reporting of the results of excursion monitoring. This report summarizes the following items:

- Excursion monitoring that has occurred during operations as described in the NRC License Application Technical Report Section 5.7.8.2;
- Summary report for the quarterly Storage Ponds inspections pursuant to LC10.8(C).

The reporting period for this report is the first calendar quarter of 2014 spanning from January 1, 2014 to March 31, 2014.

Monitoring and Results

Excursion monitoring parameters include alkalinity, chloride, and specific conductance for which associated Upper Control Limits (UCLs) have been established on a well-by-well basis. Header houses HH1-1 through HH1-5 within Mine Unit 1 were operational as of the end of the reporting period. An excursion may be indicated by any one analytical parameter result exceeding the associated UCL by 20% or more or by two or three results exceeding the applicable UCL.

All of MU1 monitor wells were sampled routinely which includes 28 monitor ring wells and 26 (13 overlying and 13 underlying) mine unit wells. Sampling was conducted on a semi-monthly basis during production within Mine Unit 1. The results of the excursion monitoring are provided on **Attachment 1**. The table displays the analytical result, the applicable UCL value, and the percent difference. A negative percent difference indicates the analytical value is less than the UCL. The percent difference (or percent change) is determined by the following formula:

FSMEZO

$$\% \text{ Difference} = \frac{\text{Result} - \text{UCL}}{\text{UCL}} \times 100\%$$

There were no values that exceeded any UCL by more than 20% for the first quarter of 2014. However, an elevated chloride reading not above the 20% limit prompted a resample as described in Corrective Actions below.

Corrective Actions

The elevated result of chloride analysis for MU-110 on January 6th that was close to but under the 20% limit prompted a voluntary resampling of the well. Two verification samples for chloride were collected on January 8th and 9th with results successively lower and less than the UCL. No further action was necessary.

Excursion Status

There were no wells on excursion status during the reporting period.

Quarterly Storage Pond Inspection and Monitoring

The quarterly Storage Pond inspection and sampling was conducted on March 26, 2014. The following issues are discussed:

- Excessive Pond water level above allowable freeboard limit
- Water level gauges need to be replaced due to unclear marking
- Reportable Spill between Ponds
- Water collecting in leak detection sumps
- Water in Pond monitor well MW-3
- Quarterly Monitoring

Excessive Pond Level

At the time of observation the freeboard measurement was 1.5 feet which is less than the allowable minimum of 3 feet. The exceedance was also identified by the WDEQ-LQD Project Manager and described in the Lost Creek Inspection Report dated March 28, 2014. In response to the finding, an investigation report was submitted by the Vice President of Regulatory Affairs to the NRC Project Manager dated April 14, 2014.

Water Level Gauges

New water level gauges will be installed in the Ponds to provide better clarity of measurements. The freeboard limit will be clearly indicated on the gauge. There will be engineering oversight of the design to ensure the gauges will be compatible with the Pond liner.

Reportable Spill

A reportable spill occurred on March 20, 2014 and was located between the Ponds. The spill is described in the 30-day spill report submitted to the NRC Project Manager dated April 17, 2014.

Leak Detection

On March 30th, the Plant Foreman discovered water accumulating in the North Pond leak detection sump. The water in the sump was attributed to a spill that occurred on March 20, 2014. The scenario is described in the Spill Report "Storage Ponds Area" submitted to the NRC Project Manager dated April 16, 2014.

Monitor Well MW-3

During the Pond inspection it was discovered that one of the four monitor wells surrounding the two Storage Ponds had accumulated water within the well. Snow melt runoff had accumulated around the well and infiltrated the top of the casing since the well was completed flush with the ground surface. The cap was not sealed properly to prevent water from entering the well. However, a sample was taken to verify the water was only snow melt and submitted to the on-site lab (Table 1). The well was repaired and sealed very soon after the discovery to prevent water entering the well. The other three monitor wells (MW-1, MW-2, and MW-4) were dry.

TABLE 1: Water Quality of MW-3

Sample ID	Sample Date	Alkalinity, Total (mg/L as CaCO ₃)	Chloride (mg/L)	Field pH (std. units)	Field Specific Cond. (µS/cm)	Total Sodium (mg/L)	Total Sulfate (mg/L)	Total Uranium (mg/L)
MW-3	3/27/2014	68.2	18.4	7.89	226	30.9	12.0	2.05

Quarterly Monitoring

Quarterly routine water quality sampling was conducted on March 26, 2014. A sample was collected from each Pond and were submitted to Energy Laboratories in Casper, WY and analyzed for the required parameters (Table 2).

TABLE 2: Quarterly Pond Water Quality

Sample ID	Sample Date	Alkalinity, Total (mg/L as CaCO ₃)	Chloride (mg/L)	Field pH (std. units)	Field Specific Cond. (µS/cm)	Total Sodium (mg/L)	Total Sulfate (mg/L)	Total Uranium (mg/L)
N. Pond	3/26/2014	95	4,080	7.36	13,200	2,740	193	5.08
S. Pond	3/26/2014	113	3,930	7.19	13,450	2,610	206	6.77

If you have any questions regarding this report or require additional information please contact me at the Casper office.

Sincerely,



Michael D. Gaither
Manager EHS and Regulatory Affairs
Ur-Energy USA, Inc

Attachments: **Attachment 1: Water Quality Data Tables**

Cc: Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
Mail Stop T-8F5
11545 Rockville Pike, Two White Flint North
Rockville, MD 20852-2738
John Saxton, NRC, via e-mail
Melissa Bautz, WDEQ-LQD, Lander, via e-mail
Theresa Horne, Ur-Energy, Littleton, via e-mail

Attachment 1: UCL Data
1st Quarter 2014
Lost Creek ISR Project SUA-1598

Client Sample ID	Collection Date	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance @ 25°C (uS/cm)		
		Assay	UCL	% Chg	Assay	UCL	% Chg	Assay	UCL	% Chg
M-101	01/03/2014	112	172	-35	9	21	-59	635	965	-34
M-101	01/16/2014	113	172	-34	8	21	-61	674	965	-30
M-101	02/03/2014	114	172	-34	5	21	-74	667	965	-31
M-101	02/14/2014	117	172	-32	5	21	-75	680	965	-30
M-101	03/04/2014	114	172	-34	5	21	-74	670	965	-31
M-101	03/17/2014	118	172	-31	6	21	-71	674	965	-30
M-102	01/03/2014	139	173	-20	5	20	-73	790	971	-19
M-102	01/16/2014	138	173	-20	6	20	-70	813	971	-16
M-102	02/03/2014	137	173	-21	5	20	-73	811	971	-16
M-102	02/14/2014	138	173	-20	5	20	-75	816	971	-16
M-102	03/04/2014	136	173	-21	5	20	-74	813	971	-16
M-102	03/18/2014	142	173	-18	6	20	-70	826	971	-15
M-103A	01/03/2014	139	150	-7	7	21	-68	819	1171	-30
M-103A	01/16/2014	138	150	-8	6	21	-72	826	1171	-29
M-103A	02/03/2014	136	150	-10	6	21	-73	823	1171	-30
M-103A	02/14/2014	139	150	-7	5	21	-74	829	1171	-29
M-103A	03/04/2014	136	150	-9	5	21	-75	828	1171	-29
M-103A	03/18/2014	141	150	-6	6	21	-71	832	1171	-29
M-104	01/03/2014	143	173	-17	7	22	-67	817	1162	-30
M-104	01/17/2014	141	173	-19	6	22	-71	822	1162	-29
M-104	02/05/2014	136	173	-21	6	22	-75	786	1162	-32
M-104	02/17/2014	142	173	-18	6	22	-74	819	1162	-30
M-104	03/04/2014	142	173	-18	6	22	-74	820	1162	-29
M-104	03/18/2014	144	173	-17	7	22	-70	823	1162	-29
M-105	01/06/2014	124	148	-16	9	21	-59	704	1036	-32
M-105	01/17/2014	130	148	-12	7	21	-66	742	1036	-28
M-105	02/03/2014	128	148	-13	6	21	-72	736	1036	-29
M-105	02/14/2014	131	148	-12	6	21	-74	747	1036	-28
M-105	03/04/2014	129	148	-13	6	21	-74	735	1036	-29
M-105	03/18/2014	133	148	-10	7	21	-69	750	1036	-28
M-106	01/06/2014	124	134	-8	8	21	-63	678	980	-31
M-106	01/17/2014	123	134	-8	6	21	-72	686	980	-30
M-106	02/03/2014	123	134	-8	6	21	-74	687	980	-30
M-106	02/14/2014	122	134	-9	5	21	-75	686	980	-30
M-106	03/04/2014	121	134	-10	5	21	-75	682	980	-30
M-106	03/18/2014	125	134	-7	6	21	-72	689	980	-30
M-107	01/06/2014	120	138	-13	10	21	-54	665	1033	-36
M-107	01/17/2014	120	138	-13	7	21	-69	680	1033	-34
M-107	02/04/2014	119	138	-14	5	21	-76	686	1033	-34
M-107	02/14/2014	119	138	-14	5	21	-74	684	1033	-34
M-107	03/04/2014	119	138	-14	5	21	-74	679	1033	-34
M-107	03/18/2014	125	138	-10	6	21	-71	685	1033	-34
M-108	01/06/2014	106	127	-16	10	21	-53	545	905	-40
M-108	01/17/2014	109	127	-14	8	21	-63	565	905	-38
M-108	02/04/2014	107	127	-16	5	21	-76	568	905	-37
M-108	02/14/2014	111	127	-12	6	21	-74	573	905	-37
M-108	03/04/2014	107	127	-15	6	21	-74	565	905	-38
M-108	03/18/2014	113	127	-11	7	21	-69	573	905	-37
M-109	01/06/2014	103	161	-36	8	20	-62	525	703	-25
M-109	01/17/2014	102	161	-36	6	20	-71	518	703	-26
M-109	02/04/2014	102	161	-37	5	20	-75	521	703	-26
M-109	02/14/2014	101	161	-37	5	20	-74	526	703	-25
M-109	03/04/2014	100	161	-38	5	20	-74	521	703	-26
M-109	03/18/2014	102	161	-37	6	20	-71	528	703	-25
M-110	01/08/2014	115	147	-22	6	21	-70	587	1022	-43
M-110	01/15/2014	115	147	-22	7	21	-67	590	1022	-42
M-110	02/05/2014	106	147	-28	6	21	-73	552	1022	-46
M-110	02/19/2014	112	147	-24	5	21	-74	560	1022	-45
M-110	03/05/2014	113	147	-23	6	21	-72	592	1022	-42

Attachment 1: UCL Data
1st Quarter 2014
Lost Creek ISR Project SUA-1598

Client Sample ID	Collection Date	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance @ 25°C (uS/cm)		
		Assay	UCL	% Chg	Assay	UCL	% Chg	Assay	UCL	% Chg
M-110	03/18/2014	113	147	-23	6	21	-70	576	1022	-44
M-111	01/08/2014	115	146	-21	6	21	-73	563	897	-37
M-111	01/15/2014	114	146	-22	7	21	-67	564	897	-37
M-111	02/05/2014	113	146	-23	5	21	-76	562	897	-37
M-111	02/19/2014	115	146	-21	5	21	-77	563	897	-37
M-111	03/05/2014	111	146	-24	5	21	-76	565	897	-37
M-111	03/18/2014	115	146	-21	6	21	-72	566	897	-37
M-112	01/08/2014	113	147	-23	7	20	-63	547	636	-14
M-112	01/15/2014	113	147	-23	6	20	-68	549	636	-14
M-112	02/05/2014	108	147	-27	5	20	-74	530	636	-17
M-112	02/19/2014	112	147	-24	5	20	-75	541	636	-15
M-112	03/05/2014	112	147	-24	5	20	-74	550	636	-14
M-112	03/18/2014	113	147	-23	6	20	-69	543	636	-15
M-113	01/08/2014	103	203	-49	5	21	-75	514	631	-19
M-113	01/15/2014	104	203	-49	6	21	-71	516	631	-18
M-113	02/05/2014	102	203	-50	5	21	-77	515	631	-18
M-113	02/19/2014	102	203	-50	5	21	-77	510	631	-19
M-113	03/03/2014	101	203	-50	5	21	-77	504	631	-20
M-113	03/18/2014	99	203	-51	5	21	-74	487	631	-23
M-114A	01/08/2014	107	139	-23	7	20	-64	523	772	-32
M-114A	01/15/2014	107	139	-23	6	20	-68	523	772	-32
M-114A	02/06/2014	104	139	-25	6	20	-72	515	772	-33
M-114A	02/19/2014	106	139	-24	5	20	-75	518	772	-33
M-114A	03/03/2014	106	139	-24	5	20	-76	520	772	-33
M-114A	03/18/2014	109	139	-22	6	20	-70	524	772	-32
M-115A	01/06/2014	84	126	-34	6	20	-70	411	726	-43
M-115A	01/17/2014	105	126	-17	5	20	-73	512	726	-29
M-115A	02/04/2014	103	126	-18	5	20	-75	507	726	-30
M-115A	02/14/2014	103	126	-18	5	20	-75	513	726	-29
M-115A	03/03/2014	105	126	-17	5	20	-77	511	726	-30
M-115A	03/18/2014	106	126	-16	5	20	-73	514	726	-29
M-116A	01/06/2014	103	134	-23	7	20	-65	503	679	-26
M-116A	01/17/2014	102	134	-24	5	20	-73	497	679	-27
M-116A	02/04/2014	102	134	-24	5	20	-74	501	679	-26
M-116A	02/17/2014	104	134	-23	5	20	-76	498	679	-27
M-116A	03/03/2014	104	134	-22	5	20	-77	508	679	-25
M-116A	03/17/2014	103	134	-23	5	20	-75	497	679	-27
M-117	01/06/2014	103	139	-26	7	20	-65	508	711	-29
M-117	01/17/2014	102	139	-27	5	20	-74	511	711	-28
M-117	02/04/2014	100	139	-28	5	20	-74	516	711	-27
M-117	02/17/2014	100	139	-28	5	20	-76	520	711	-27
M-117	03/03/2014	99	139	-29	5	20	-77	520	711	-27
M-117	03/17/2014	101	139	-27	5	20	-75	521	711	-27
M-118	01/03/2014	97	108	-10	6	21	-70	503	762	-34
M-118	01/16/2014	96	108	-11	5	21	-75	503	762	-34
M-118	02/03/2014	95	108	-12	5	21	-76	505	762	-34
M-118	02/13/2014	96	108	-11	6	21	-73	506	762	-34
M-118	03/03/2014	96	108	-11	5	21	-78	506	762	-34
M-118	03/17/2014	98	108	-10	5	21	-77	505	762	-34
M-119	01/03/2014	115	128	-10	6	20	-68	486	622	-22
M-119	01/16/2014	113	128	-12	5	20	-73	488	622	-22
M-119	02/03/2014	109	128	-15	5	20	-74	476	622	-23
M-119	02/13/2014	115	128	-10	6	20	-69	487	622	-22
M-119	03/03/2014	112	128	-12	5	20	-75	489	622	-21
M-119	03/17/2014	115	128	-10	5	20	-74	482	622	-23
M-120A	01/03/2014	111	142	-22	7	20	-67	498	715	-30
M-120A	01/16/2014	110	142	-22	5	20	-74	497	715	-30
M-120A	02/03/2014	76	142	-46	4	20	-79	361	715	-49
M-120A	02/13/2014	108	142	-24	6	20	-70	495	715	-31

Attachment 1: UCL Data
1st Quarter 2014
Lost Creek ISR Project SUA-1598

Client Sample ID	Collection Date	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance @ 25°C (uS/cm)		
		Assay	UCL	% Chg	Assay	UCL	% Chg	Assay	UCL	% Chg
M-120A	03/03/2014	107	142	-25	5	20	-76	491	715	-31
M-120A	03/17/2014	110	142	-23	5	20	-74	501	715	-30
M-121	01/03/2014	115	140	-18	6	20	-68	513	755	-32
M-121	01/16/2014	112	140	-20	6	20	-72	507	755	-33
M-121	02/03/2014	77	140	-45	4	20	-79	357	755	-53
M-121	02/13/2014	114	140	-19	6	20	-70	508	755	-33
M-121	03/03/2014	110	140	-22	5	20	-76	509	755	-33
M-121	03/17/2014	114	140	-18	5	20	-74	506	755	-33
M-122	01/03/2014	113	142	-21	6	20	-68	502	593	-15
M-122	01/16/2014	113	142	-21	6	20	-72	499	593	-16
M-122	02/03/2014	102	142	-28	5	20	-74	461	593	-22
M-122	02/13/2014	113	142	-21	6	20	-71	502	593	-15
M-122	03/03/2014	112	142	-21	5	20	-76	502	593	-15
M-122	03/17/2014	115	142	-19	5	20	-75	501	593	-16
M-123	01/03/2014	119	131	-9	6	20	-69	493	718	-31
M-123	01/16/2014	116	131	-12	6	20	-72	495	718	-31
M-123	02/03/2014	99	131	-24	5	20	-75	436	718	-39
M-123	02/14/2014	116	131	-12	5	20	-75	496	718	-31
M-123	03/03/2014	112	131	-15	5	20	-77	494	718	-31
M-123	03/17/2014	117	131	-11	5	20	-76	492	718	-31
M-124	01/03/2014	109	123	-12	6	20	-70	463	536	-14
M-124	01/16/2014	110	123	-11	6	20	-72	466	536	-13
M-124	02/03/2014	106	123	-14	5	20	-73	463	536	-14
M-124	02/14/2014	109	123	-11	5	20	-75	468	536	-13
M-124	03/03/2014	107	123	-13	5	20	-77	468	536	-13
M-124	03/17/2014	110	123	-10	5	20	-77	464	536	-13
M-125	01/03/2014	109	135	-19	7	21	-68	547	657	-17
M-125	01/16/2014	108	135	-20	6	21	-71	547	657	-17
M-125	02/03/2014	105	135	-22	6	21	-70	529	657	-19
M-125	02/14/2014	108	135	-20	6	21	-72	547	657	-17
M-125	03/04/2014	108	135	-20	5	21	-74	546	657	-17
M-125	03/17/2014	111	135	-18	5	21	-76	542	657	-17
M-126	01/03/2014	111	194	-43	7	21	-65	549	682	-20
M-126	01/16/2014	111	194	-43	7	21	-67	549	682	-20
M-126	02/03/2014	107	194	-45	7	21	-68	537	682	-21
M-126	02/14/2014	110	194	-43	6	21	-71	547	682	-20
M-126	03/04/2014	108	194	-44	6	21	-73	548	682	-20
M-126	03/17/2014	110	194	-43	5	21	-75	541	682	-21
M-127	01/03/2014	112	149	-25	7	21	-68	540	792	-32
M-127	01/16/2014	111	149	-26	6	21	-72	539	792	-32
M-127	02/03/2014	109	149	-27	6	21	-70	532	792	-33
M-127	02/14/2014	111	149	-25	6	21	-71	540	792	-32
M-127	03/04/2014	110	149	-26	5	21	-75	539	792	-32
M-127	03/17/2014	114	149	-24	5	21	-77	534	792	-33
M-128	01/03/2014	112	122	-8	7	21	-68	563	802	-30
M-128	01/16/2014	111	122	-9	6	21	-71	557	802	-31
M-128	02/03/2014	109	122	-10	6	21	-70	551	802	-31
M-128	02/14/2014	112	122	-9	6	21	-71	557	802	-31
M-128	03/04/2014	110	122	-10	5	21	-75	555	802	-31
M-128	03/17/2014	112	122	-8	5	21	-77	550	802	-31
MO-101	01/10/2014	107	136	-21	7	23	-68	629	824	-24
MO-101	01/21/2014	105	136	-23	10	23	-57	633	824	-23
MO-101	02/07/2014	109	136	-20	6	23	-74	633	824	-23
MO-101	02/17/2014	108	136	-21	7	23	-72	629	824	-24
MO-101	03/07/2014	108	136	-20	7	23	-71	620	824	-25
MO-101	03/21/2014	110	136	-19	7	23	-69	625	824	-24
MO-102	01/10/2014	103	125	-18	7	21	-66	585	670	-13
MO-102	01/21/2014	100	125	-20	9	21	-55	587	670	-12
MO-102	02/07/2014	100	125	-20	5	21	-75	558	670	-17

Attachment 1: UCL Data
1st Quarter 2014
Lost Creek ISR Project SUA-1598

Client Sample ID	Collection Date	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance @ 25°C (uS/cm)		
		Assay	UCL	% Chg	Assay	UCL	% Chg	Assay	UCL	% Chg
MO-102	02/17/2014	104	125	-17	6	21	-72	589	670	-12
MO-102	03/07/2014	106	125	-15	6	21	-70	578	670	-14
MO-102	03/21/2014	107	125	-15	6	21	-70	582	670	-13
MO-103	01/10/2014	105	130	-19	7	21	-65	593	849	-30
MO-103	01/21/2014	103	130	-21	10	21	-51	593	849	-30
MO-103	02/07/2014	107	130	-17	6	21	-71	593	849	-30
MO-103	02/17/2014	107	130	-18	6	21	-69	594	849	-30
MO-103	03/07/2014	108	130	-17	7	21	-68	585	849	-31
MO-103	03/21/2014	108	130	-17	7	21	-68	590	849	-30
MO-104	01/10/2014	--	160	--	--	24	--	--	714	--
MO-104	01/20/2014	115	160	-28	9	24	-62	619	714	-13
MO-104	02/07/2014	121	160	-24	8	24	-65	622	714	-13
MO-104	02/17/2014	116	160	-28	8	24	-65	619	714	-13
MO-104	03/07/2014	119	160	-25	9	24	-64	614	714	-14
MO-104	03/21/2014	120	160	-25	8	24	-65	619	714	-13
MO-105	01/07/2014	104	128	-19	7	20	-66	473	669	-29
MO-105	01/20/2014	101	128	-21	5	20	-73	484	669	-28
MO-105	02/06/2014	104	128	-19	6	20	-72	483	669	-28
MO-105	02/17/2014	104	128	-19	5	20	-74	481	669	-28
MO-105	03/07/2014	105	128	-18	5	20	-74	478	669	-29
MO-105	03/21/2014	108	128	-16	6	20	-72	483	669	-28
MO-106	01/07/2014	97	143	-32	5	20	-76	457	626	-27
MO-106	01/21/2014	92	143	-36	8	20	-58	450	626	-28
MO-106	02/06/2014	96	143	-33	6	20	-70	459	626	-27
MO-106	02/18/2014	98	143	-32	5	20	-75	460	626	-27
MO-106	03/06/2014	97	143	-32	5	20	-74	463	626	-26
MO-106	03/20/2014	100	143	-30	6	20	-70	463	626	-26
MO-107	01/07/2014	103	110	-7	6	20	-69	465	502	-7
MO-107	01/20/2014	98	110	-11	5	20	-73	466	502	-7
MO-107	02/06/2014	101	110	-8	6	20	-72	463	502	-8
MO-107	02/18/2014	101	110	-8	5	20	-77	463	502	-8
MO-107	03/06/2014	101	110	-8	5	20	-75	464	502	-7
MO-107	03/20/2014	103	110	-6	6	20	-71	466	502	-7
MO-108	01/07/2014	103	118	-13	6	20	-70	498	513	-3
MO-108	01/20/2014	99	118	-16	8	20	-59	502	513	-2
MO-108	02/06/2014	101	118	-15	7	20	-66	500	513	-2
MO-108	02/18/2014	101	118	-14	6	20	-72	504	513	-2
MO-108	03/06/2014	101	118	-15	6	20	-68	500	513	-2
MO-108	03/20/2014	103	118	-13	8	20	-62	501	513	-2
MO-109	01/07/2014	103	120	-14	6	21	-70	482	567	-15
MO-109	01/20/2014	99	120	-17	6	21	-72	489	567	-14
MO-109	02/04/2014	102	120	-15	5	21	-74	492	567	-13
MO-109	02/18/2014	102	120	-15	5	21	-76	491	567	-13
MO-109	03/06/2014	103	120	-14	6	21	-74	487	567	-14
MO-109	03/20/2014	105	120	-13	6	21	-71	489	567	-14
MO-110	01/06/2014	98	128	-24	8	23	-67	434	533	-19
MO-110	01/17/2014	97	128	-25	5	23	-76	432	533	-19
MO-110	02/04/2014	95	128	-26	5	23	-78	437	533	-18
MO-110	02/18/2014	96	128	-25	5	23	-79	433	533	-19
MO-110	03/06/2014	96	128	-25	5	23	-77	431	533	-19
MO-110	03/19/2014	98	128	-23	6	23	-76	434	533	-19
MO-111	01/08/2014	101	115	-12	5	20	-77	433	639	-32
MO-111	01/15/2014	102	115	-11	6	20	-72	437	639	-32
MO-111	02/05/2014	89	115	-23	5	20	-74	379	639	-41
MO-111	02/19/2014	101	115	-12	5	20	-76	431	639	-33
MO-111	03/06/2014	99	115	-14	5	20	-74	429	639	-33
MO-111	03/19/2014	102	115	-11	5	20	-73	431	639	-33
MO-112	01/06/2014	91	252	-64	8	22	-65	353	541	-35

Pump malfunction No sample



Attachment 1: UCL Data
1st Quarter 2014
Lost Creek ISR Project SUA-1598

Client Sample ID	Collection Date	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance @ 25°C (uS/cm)		
		Assay	UCL	% Chg	Assay	UCL	% Chg	Assay	UCL	% Chg
MO-112	01/17/2014	107	252	-58	7	22	-70	418	541	-23
MO-112	02/04/2014	106	252	-58	6	22	-74	419	541	-23
MO-112	02/19/2014	106	252	-58	6	22	-75	417	541	-23
MO-112	03/05/2014	105	252	-59	5	22	-75	419	541	-23
MO-112	03/19/2014	108	252	-57	7	22	-70	426	541	-21
MO-113	01/08/2014	103	121	-15	7	21	-67	454	484	-6
MO-113	01/15/2014	105	121	-13	6	21	-73	454	484	-6
MO-113	02/05/2014	63	121	-48	5	21	-75	281	484	-42
MO-113	02/19/2014	104	121	-14	5	21	-76	450	484	-7
MO-113	03/05/2014	103	121	-15	5	21	-76	449	484	-7
MO-113	03/19/2014	107	121	-12	6	21	-71	459	484	-5
MU-101	01/10/2014	107	157	-32	8	20	-59	539	653	-17
MU-101	01/21/2014	107	157	-32	8	20	-60	545	653	-17
MU-101	02/07/2014	104	157	-34	4	20	-79	510	653	-22
MU-101	02/17/2014	108	157	-31	5	20	-75	541	653	-17
MU-101	03/07/2014	111	157	-29	5	20	-76	540	653	-17
MU-101	03/21/2014	114	157	-28	6	20	-69	540	653	-17
MU-102	01/10/2014	101	119	-15	6	19	-66	427	507	-16
MU-102	01/21/2014	100	119	-16	8	19	-60	428	507	-16
MU-102	02/07/2014	106	119	-11	4	19	-77	428	507	-16
MU-102	02/17/2014	102	119	-14	5	19	-75	428	507	-16
MU-102	03/07/2014	104	119	-13	5	19	-75	423	507	-16
MU-102	03/21/2014	106	119	-11	5	19	-72	428	507	-16
MU-103	01/10/2014	99	213	-53	6	20	-71	422	560	-25
MU-103	01/21/2014	98	213	-54	8	20	-62	417	560	-26
MU-103	02/07/2014	102	213	-52	4	20	-78	418	560	-25
MU-103	02/17/2014	100	213	-53	5	20	-76	420	560	-25
MU-103	03/07/2014	103	213	-52	5	20	-76	414	560	-26
MU-103	03/21/2014	104	213	-51	5	20	-74	419	560	-25
MU-104	01/10/2014	97	159	-39	6	21	-72	453	572	-21
MU-104	01/20/2014	94	159	-41	6	21	-73	436	572	-24
MU-104	02/07/2014	97	159	-39	5	21	-77	429	572	-25
MU-104	02/17/2014	95	159	-40	5	21	-75	434	572	-24
MU-104	03/07/2014	99	159	-38	5	21	-76	427	572	-25
MU-104	03/21/2014	101	159	-37	5	21	-74	433	572	-24
MU-105	01/07/2014	104	124	-16	6	19	-69	432	562	-23
MU-105	01/21/2014	99	124	-20	8	19	-59	436	562	-22
MU-105	02/06/2014	102	124	-18	5	19	-73	437	562	-22
MU-105	02/18/2014	102	124	-17	5	19	-76	438	562	-22
MU-105	03/07/2014	104	124	-16	5	19	-75	435	562	-23
MU-105	03/20/2014	106	124	-14	6	19	-71	439	562	-22
MU-106	01/07/2014	103	137	-25	5	20	-75	456	522	-13
MU-106	01/21/2014	99	137	-27	9	20	-57	463	522	-11
MU-106	02/07/2014	103	137	-24	5	20	-74	466	522	-11
MU-106	02/18/2014	101	137	-26	5	20	-75	459	522	-12
MU-106	03/06/2014	102	137	-25	5	20	-74	460	522	-12
MU-106	03/20/2014	104	137	-24	6	20	-71	460	522	-12
MU-107	01/07/2014	102	136	-25	4	20	-80	464	556	-17
MU-107	01/20/2014	99	136	-27	5	20	-74	466	556	-16
MU-107	02/06/2014	102	136	-25	5	20	-73	463	556	-17
MU-107	02/20/2014	102	136	-25	5	20	-76	465	556	-16
MU-107	03/06/2014	101	136	-26	5	20	-76	469	556	-16
MU-107	03/20/2014	103	136	-24	6	20	-72	467	556	-16
KPW-2	01/07/2014	103	136	-24	6	21	-72	474	615	-23
KPW-2	01/20/2014	99	136	-27	5	21	-75	478	615	-22
KPW-2	02/06/2014	102	136	-25	5	21	-74	475	615	-23
KPW-2	02/18/2014	101	136	-26	5	21	-78	479	615	-22
KPW-2	03/06/2014	101	136	-26	5	21	-76	479	615	-22
KPW-2	03/20/2014	104	136	-23	6	21	-73	479	615	-22

Attachment 1: UCL Data
1st Quarter 2014
Lost Creek ISR Project SUA-1598

Client Sample ID	Collection Date	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance @ 25°C (uS/cm)		
		Assay	UCL	% Chg	Assay	UCL	% Chg	Assay	UCL	% Chg
MU-109	01/07/2014	97	196	-50	5	23	-79	456	525	-13
MU-109	01/20/2014	89	196	-55	8	23	-67	459	525	-13
MU-109	02/04/2014	90	196	-54	5	23	-76	464	525	-12
MU-109	02/21/2014	97	196	-51	5	23	-77	459	525	-13
MU-109	03/06/2014	94	196	-52	6	23	-72	463	525	-12
MU-109	03/20/2014	96	196	-51	8	23	-67	463	525	-12
MU-110	01/06/2014	89	144	-38	28	24	16	433	596	-27
MU-110	01/08/2014	88	144	-39	18	24	-23	435	596	-27
MU-110	01/09/2014	90	144	-37	10	24	-60	442	596	-26
MU-110	01/17/2014	90	144	-38	18	24	-26	446	596	-25
MU-110	02/04/2014	87	144	-39	6	24	-75	441	596	-26
MU-110	02/18/2014	88	144	-39	6	24	-75	441	596	-26
MU-110	03/06/2014	89	144	-38	7	24	-70	442	596	-26
MU-110	03/19/2014	90	144	-38	12	24	-52	447	596	-25
MU-111	01/08/2014	98	188	-48	4	22	-81	504	652	-23
MU-111	01/15/2014	97	188	-49	6	22	-75	503	652	-23
MU-111	02/05/2014	90	188	-52	5	22	-76	487	652	-25
MU-111	02/19/2014	96	188	-49	5	22	-78	498	652	-24
MU-111	03/06/2014	98	188	-48	5	22	-77	498	652	-24
MU-111	03/19/2014	97	188	-48	6	22	-73	502	652	-23
MU-112	01/06/2014	90	224	-60	7	24	-71	448	483	-7
MU-112	01/17/2014	90	224	-60	6	24	-77	450	483	-7
MU-112	02/04/2014	89	224	-60	5	24	-79	449	483	-7
MU-112	02/19/2014	89	224	-60	5	24	-80	449	483	-7
MU-112	03/05/2014	89	224	-60	5	24	-80	452	483	-6
MU-112	03/19/2014	92	224	-59	6	24	-76	451	483	-7
MU-113	01/08/2014	90	140	-36	5	25	-81	465	590	-21
MU-113	01/15/2014	92	140	-34	6	25	-78	466	590	-21
MU-113	02/05/2014	74	140	-47	6	25	-78	384	590	-35
MU-113	02/19/2014	91	140	-35	5	25	-79	463	590	-22
MU-113	03/05/2014	87	140	-38	5	25	-79	462	590	-22
MU-113	03/19/2014	91	140	-35	7	25	-73	462	590	-22

1st Verification
2nd Verification

UCL : Upper Control Limit
 : Indicates warning when single result is > UCL but < 120% of UCL
 : Indicates potential excursion

Attachment 1: UCL Data Quality Control

1st Quarter 2014

Lost Creek ISR Project SUA-1598

QC Sample ID	Collection Date	QC Type	Source Sample ID	Alkalinity (mg/L)			Chloride (mg/L)		
				QC Sample Assay	Primary Sample Assay	RPD	QC Sample Assay	Primary Sample Assay	RPD
M-129	01/03/2014	Duplicate	M-119	114	115	0	6	6	1
M-129	01/16/2014	Duplicate	M-120A	109	110	0	6	5	3
M-129	02/03/2014	Duplicate	M-120A	78	76	1	5	4	5
M-129	02/14/2014	Duplicate	M-123	114	116	0	5	5	2
M-129	03/03/2014	Duplicate	M-118	95	96	0	5	5	2
M-129	03/17/2014	Duplicate	M-117	102	101	0	4	5	3
M-130	01/03/2014	Blank	N/A	13	N/A	N/A	1	N/A	N/A
M-130	01/16/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
M-130	02/03/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
M-130	02/14/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
M-130	03/03/2014	Blank	N/A	2	N/A	N/A	1	N/A	N/A
M-130	03/17/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
M-131	01/08/2014	Duplicate	M-113	103	103	0	7	5	9
M-131	01/17/2014	Duplicate	M-116A	103	102	0	5	5	1
M-131	02/04/2014	Duplicate	M-115A	102	103	0	5	5	1
M-131	02/19/2014	Duplicate	M-113	102	102	0	5	5	1
M-131	03/03/2014	Duplicate	M-117	100	99	0	5	5	2
M-131	03/18/2014	Duplicate	M-102	135	142	1	6	6	0
M-132	01/06/2014	Blank	N/A	9	N/A	N/A	1	N/A	N/A
M-132	01/17/2014	Blank	N/A	0	N/A	N/A	0	N/A	N/A
M-132	02/04/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
M-132	02/19/2014	Blank	N/A	1	N/A	N/A	1	N/A	N/A
M-132	03/03/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
M-132	03/18/2014	Blank	N/A	0	N/A	N/A	2	N/A	N/A
MO-121	01/08/2014	Duplicate	MO-113	104	103	0	7	7	1
MO-121	02/04/2014	Duplicate	MO-112	105	106	0	6	6	0
MO-121	02/18/2014	Duplicate	MO-110	95	96	0	5	5	0
MO-121	03/05/2014	Duplicate	MO-112	104	105	0	5	5	2
MO-121	03/19/2014	Duplicate	MO-112	109	108	0	6	7	2
MO-122	01/07/2014	Blank	N/A	7	N/A	N/A	1	N/A	N/A
MO-122	02/05/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
MO-122	03/07/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
MO-122	03/21/2014	Blank	N/A	0	N/A	N/A	2	N/A	N/A
MO-124	01/21/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
MU-123	01/20/2014	Duplicate	MU-104	94	94	0	6	6	1
MU-123	02/07/2014	Duplicate	MU-106	101	103	0	5	5	2
MU-123	02/18/2014	Duplicate	MU-105	101	102	0	5	5	2
MU-123	03/07/2014	Duplicate	MU-102	104	104	0	5	5	1
MU-123	03/21/2014	Duplicate	MU-104	100	101	0	5	5	2
MU-124	01/10/2014	Blank	N/A	3	N/A	N/A	1	N/A	N/A
MU-124	02/06/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
MU-124	02/17/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
MU-124	03/05/2014	Blank	N/A	0	N/A	N/A	1	N/A	N/A
MU-124	03/19/2014	Blank	N/A	0	N/A	N/A	2	N/A	N/A

RPD = Relative Percent Difference