UIC CLASS V
QUARTERLY REPORT
for the
LOST CREEK ISR PROJECT

4th Quarter 2017

Lost Creek ISR, LLC
Sweetwater County, WY

UIC PERMIT 15-081

Prepared by Ur-Energy for
Wyoming Department of Environmental Quality -
Water Quality Division – Underground Injection Control

January 30, 2018

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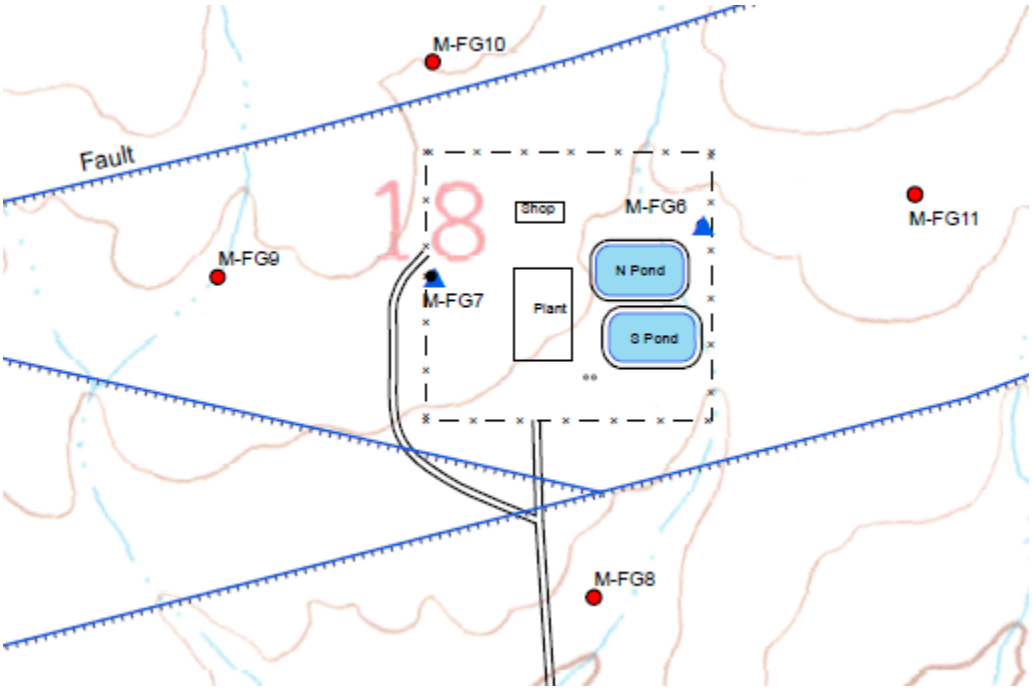
1.0 Introduction

The period covered by this report is the fourth calendar quarter of 2017 from October 1 to December 31, 2017.

One Class V injection well (M-FG7) was available for operation during the reporting period. Well M-FG6 is permitted for operation but was not yet configured for injection. Well locations (labeled) are shown below in relation to the Plant area:

FIGURE 1: Well Locations



Well M-FG7 was shut-in for most of the quarter but was restored to operation in mid-December and operated intermittently. Operational data was monitored and recorded electronically and also recorded manually by operators for each day of operation.

As per permit requirements, the following elements from Section 9b of the UIC Permit have been included in this report:

1. *Injection rates for each month of the quarter, including:*
    - i. *Minimum instantaneous*
    - ii. *Volume-weighted average*
    - iii. *Maximum instantaneous*
    - iv. *Maximum permitted injection rate*
2. *Injection pressure for each month of the quarter, including:*

   i. *Minimum daily*
   ii. *Average daily*
   iii. *Maximum daily*
   iv. *Maximum permitted injection pressure*
   v. *Pressures at which alarms or kill switches are activated*
3. *Injection volume per well, including:*
   i. *Total volume for each month*
   ii. *Total volume for the quarter*
   iii. *Total volume to date*
4. *Analytical results required by Table 6 of the permit.*
5. *Any permit exceedances within the quarter.*
6. *Description of all events that triggered alarms or shutdowns and the responses taken during the quarter.*
7. *Reports for any well tests or well work overs conducted more than thirty days before the end of the quarter.*

2.0 Summary Data

Tables 1A and 1B below provide a data summary for above items ***1, 2, and 3*** above. Data for item ***2*** above is provided in **Appendix 1** including tables and charts of the daily injection pressure values.

TABLE 1A: Operational Data Summary for M-FG7

PARAMETER	UNITS	M-FG7			
		October 2017	November 2017	December 2017	Quarterly Total/Avg Min/Max
Operation Time	min	0	0	3210	3210
% Run Time	%	0%	0%	7%	7%
Injection Rate Minimum Instantaneous	gpm	0	0	0	0
Injection Rate Average (TWA)	gpm	0	0	99	99
Injection Rate Maximum Instantaneous	gpm	0	0	170	170
Injection Rate Maximum Permit Limit	gpm	**200**			**200**
Injection Pressure Daily Minimum	psig	0.0	0.0	0.0	0.0
Injection Pressure Daily Average	psig	0.0	0.0	2.5	2.5
Injection Pressure Daily Maximum	psig	0.0	0.0	47.1 (24.3)*	47.1
Injection Pressure Permit Limit (LSIP)	psig	**45**			**45**
Injection Pressure Automatic Kill	psig	**45**			**45**
Injection Volume	gal	0	0	318324	318324
Injection Volume	bbl	0	0	7579	7579

**Pressure spike occurred with 0 flow rate. Flow rate in parenthesis is max pressure during operational flow.*

TABLE 1B: Operational Data Summary for M-FG6

PARAMETER	UNITS	M-FG6			
		July 2017	August 2017	September 2017	Quarterly Total/Avg Min/Max
Operation Time	min	0	0	0	0
% Run Time	%	0%	0%	0%	0%
Injection Rate Minimum Instantaneous	gpm	0	0	0	0
Injection Rate Average (TWA)	gpm	0	0	0	0
Injection Rate Maximum Instantaneous	gpm	0	0	0	0
Injection Rate Maximum Permit Limit	gpm	**200**			**200**
Injection Pressure Daily Minimum	psig	0	0	0	0
Injection Pressure Daily Average	psig	0	0	0	0
Injection Pressure Daily Maximum	psig	0	0	0	0
Injection Pressure Permit Limit (LSIP)	psig	**45**			**45**
Injection Pressure Automatic Kill	psig	**45**			**45**
Injection Volume	gal	0	0	0	0
Injection Volume	bbl	0	0	0	0

TABLE 2: Cumulative Injection Volumes to Date

TIME PERIOD	UNITS	M-FG7	M-FG6
2017Q1	bbl	11,295	0
2017Q2	bbl	26,736	0
2017Q3	bbl	18,297	0
2017Q4	bbl	7,579	0
CUMULATIVE TOTAL TO DATE	**bbl**	**63,908**	**0**

3.0 Analytical Results

A quarterly grab sample of the injectate was collected on December 19, 2017. Results posted on **Table 3** below.

TABLE 3: Injectate Analytical Results

Sample ID: Class V Grab				
Sample Date: 12/19/2017				
Lab Analyte or Parameter	**Method Used**	**Results**	**Units**	**Permit Limit**
Temperature, field	*SM2550B*	NM	°C	---
pH, field	*SM4500-H⁺B*	6.97	s.u.	6.5≤pH≤9.0
Specific Gravity	*D1429*	0.997	---	---
Total Dissolved Solids	*SM2540C*	269	mg/L	500 mg/L
Uranium, total	*E200.8*	0.0226	mg/L	0.158 mg/L
Lead-210, total	*E909.0*	4.8	pCi/L	10 pCi/L
Polonium-210, total	*H Po-02-RC*	ND(2.2)	pCi/L	40 pCi/L
Thorium-230, total	*E908.0*	0.2	pCi/L	100 pCi/L
Radium 226 + 228, total	*E903.0 / RA-05*	1.8	pCi/L	5.4 pCi/L
Gross Alpha-Adjusted, total	*E900.0*	25.6	pCi/L	57 pCi/L
Gross Beta, total	*E900.0*	10.2	pCi/L	15 pCi/L

Semi-annual samples were collected from the four monitoring wells M-FG8, 9, 10, and 11 during the previous quarter. Therefore, no results (**Table 4**) are reported for this quarter.

TABLE 4: Class V Monitor Well Water Quality

Well	Date	Temp. (field)	pH (field)	Specific Gravity	Total Dissolved Solids	Ra226 + 228	Gross Alpha, adjusted*	Gross Beta
		deg F	s.u.	---	mg/L	pCi/L	pCi/L	pCi/L
M-FG6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M-FG8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M-FG9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M-FG10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M-FG11A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**excluding uranium and radon*

Laboratory reports are included in **Appendix 2**.

4.0 Permit Exceedances

No exceedances of permit limits occurred during injection operation for the quarter. However, during line purges following injection on December 13 and 14 pressures slightly over the limit (46.6 and 47.1 psi, respectively) were recorded. The lines were being purged of the injection water to prevent freezing and a pressure spike occurred due to air blowdown but not from fluid injection since the flow rate was concurrently recorded as zero. The operators were re-instructed on the proper valve configuration to prevent the pressure spike due to air injection.

5.0 Alarms, Shut-Downs, and Corrective Actions

The system was voluntarily shut down in August to allow for overhaul of the RO system in response to elevated gross beta values in the treated water. A system test was performed on December 5, 2017 that involved the injection of clean supply water to verify all systems were operational. The system was restarted for routine operation on December 13, 2017.

6.0 Summary of Well Tests or Workovers

No well tests or workovers occurred during the quarter. The annual pressure fall-off test for M-FG7 was due by the end of the year but was deferred as approved by UIC to be completed in January 2017.

APPENDIX 1

APPENDIX 1: Daily Injection Pressures
M-FG7 4th Quarter 2017
Lost Creek ISR Project 15-081

Date	Daily Minimum Injection Pressure (psi)	Daily Average Injection Pressure (psi)	Daily Maximum Injection Pressure (psi)	Automatic Shutdown Pressure (psi)	Maximum Injection Pressure Limit (psi)	Comments
10/1/2017	0.0	0.0	0.0	45	45	
10/2/2017	0.0	0.0	0.0	45	45	
10/3/2017	0.0	0.0	0.0	45	45	
10/4/2017	0.0	0.0	0.0	45	45	
10/5/2017	0.0	0.0	0.0	45	45	
10/6/2017	0.0	0.0	0.0	45	45	
10/7/2017	0.0	0.0	0.0	45	45	
10/8/2017	0.0	0.0	0.0	45	45	
10/9/2017	0.0	0.0	0.0	45	45	
10/10/2017	0.0	0.0	0.0	45	45	
10/11/2017	0.0	0.0	0.0	45	45	
10/12/2017	0.0	0.0	0.0	45	45	
10/13/2017	0.0	0.0	0.0	45	45	
10/14/2017	0.0	0.0	0.0	45	45	
10/15/2017	0.0	0.0	0.0	45	45	
10/16/2017	0.0	0.0	0.0	45	45	
10/17/2017	0.0	0.0	0.0	45	45	
10/18/2017	0.0	0.0	0.0	45	45	
10/19/2017	0.0	0.0	0.0	45	45	
10/20/2017	0.0	0.0	0.0	45	45	
10/21/2017	0.0	0.0	0.0	45	45	
10/22/2017	0.0	0.0	0.0	45	45	
10/23/2017	0.0	0.0	0.0	45	45	
10/24/2017	0.0	0.0	0.0	45	45	
10/25/2017	0.0	0.0	0.0	45	45	
10/26/2017	0.0	0.0	0.0	45	45	
10/27/2017	0.0	0.0	0.0	45	45	
10/28/2017	0.0	0.0	0.0	45	45	
10/29/2017	0.0	0.0	0.0	45	45	
10/30/2017	0.0	0.0	0.0	45	45	
10/31/2017	0.0	0.0	0.0	45	45	
11/1/2017	0.0	0.0	0.0	45	45	
11/2/2017	0.0	0.0	0.0	45	45	
11/3/2017	0.0	0.0	0.0	45	45	
11/4/2017	0.0	0.0	0.0	45	45	
11/5/2017	0.0	0.0	0.0	45	45	
11/6/2017	0.0	0.0	0.0	45	45	
11/7/2017	0.0	0.0	0.0	45	45	
11/8/2017	0.0	0.0	0.0	45	45	
11/9/2017	0.0	0.0	0.0	45	45	
11/10/2017	0.0	0.0	0.0	45	45	
11/11/2017	0.0	0.0	0.0	45	45	

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11/12/2017	0.0	0.0	0.0	45	45	
11/13/2017	0.0	0.0	0.0	45	45	
11/14/2017	0.0	0.0	0.0	45	45	
11/15/2017	0.0	0.0	0.0	45	45	
11/16/2017	0.0	0.0	0.0	45	45	
11/17/2017	0.0	0.0	0.0	45	45	
11/18/2017	0.0	0.0	0.0	45	45	
11/19/2017	0.0	0.0	0.0	45	45	
11/20/2017	0.0	0.0	0.0	45	45	
11/21/2017	0.0	0.0	0.0	45	45	
11/22/2017	0.0	0.0	0.0	45	45	
11/23/2017	0.0	0.0	0.0	45	45	
11/24/2017	0.0	0.0	0.0	45	45	
11/25/2017	0.0	0.0	0.0	45	45	
11/26/2017	0.0	0.0	0.0	45	45	
11/27/2017	0.0	0.0	0.0	45	45	
11/28/2017	0.0	0.0	0.0	45	45	
11/29/2017	0.0	0.0	0.0	45	45	
11/30/2017	0.0	0.0	0.0	45	45	
12/1/2017	0.0	0.0	0.0	45	45	
12/2/2017	0.0	0.0	0.0	45	45	
12/3/2017	0.0	0.0	0.0	45	45	
12/4/2017	0.0	0.0	0.0	45	45	
12/5/2017	-5.9	0.2	12.1	45	45	System test - clean water injection
12/6/2017	0.0	0.0	0.0	45	45	
12/7/2017	0.0	0.0	0.0	45	45	
12/8/2017	0.0	0.0	0.0	45	45	
12/9/2017	0.0	0.0	0.0	45	45	
12/10/2017	0.0	0.0	0.0	45	45	
12/11/2017	0.0	0.0	0.0	45	45	
12/12/2017	0.0	0.0	0.0	45	45	
12/13/2017	-3.2	6.5	46.5	45	45	Class V Restart, 24.3 psi max pressure during flow, inadvertent pressure spike during air blowdown
12/14/2017	-2.0	5.4	47.1	45	45	15.6 psi max pressure during flow, in advertent pressure spike during air blowdown
12/15/2017	-1.0	2.7	15.8	45	45	
12/16/2017	0.0	0.0	0.0	45	45	
12/17/2017	0.0	0.0	0.0	45	45	
12/18/2017	-0.3	1.2	13.0	45	45	
12/19/2017	0.0	3.4	15.5	45	45	

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Date	Daily Minimum Injection Pressure (psi)	Daily Average Injection Pressure (psi)	Daily Maximum Injection Pressure (psi)	Automatic Shutdown Pressure (psi)	Maximum Injection Pressure Limit (psi)	Comments
12/20/2017	-2.2	3.3	14.8	45	45	
12/21/2017	-1.3	2.8	14.4	45	45	
12/22/2017	-2.6	3.4	15.4	45	45	
12/23/2017	0.0	0.0	0.0	45	45	
12/24/2017	0.0	0.0	0.0	45	45	
12/25/2017	0.0	0.0	0.0	45	45	
12/26/2017	0.0	0.0	0.0	45	45	
12/27/2017	0.0	0.0	0.0	45	45	
12/28/2017	-1.5	4.5	18.4	45	45	
12/29/2017	-1.0	4.6	17.0	45	45	
12/30/2017	0.0	0.0	0.1	45	45	
12/31/2017	0.0	0.0	0.0	45	45	

psi: pounds per square inch

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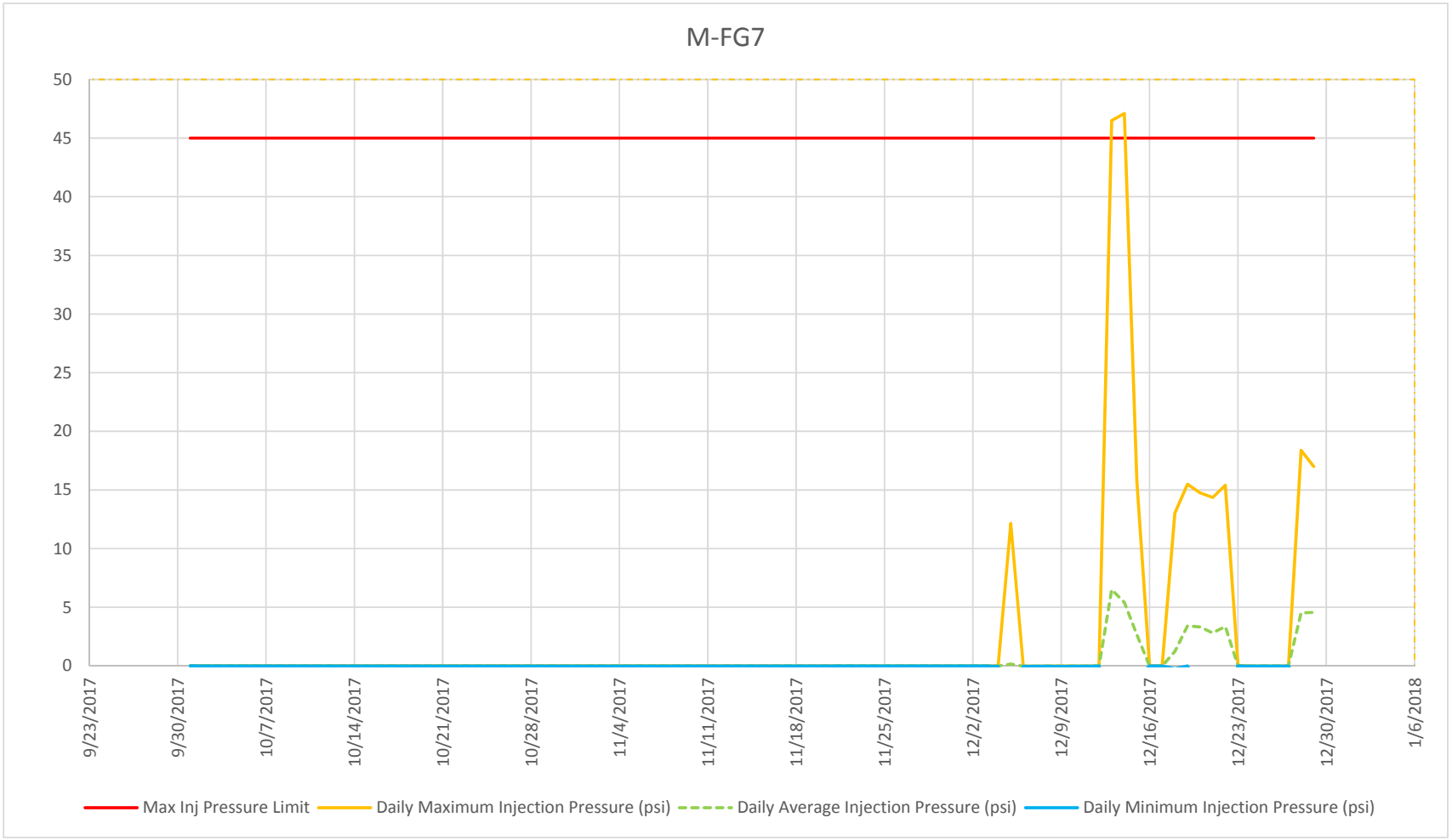
M-FG7 4th Quarter 2017
Lost Creek ISR Project 15-081



APPENDIX 1: Daily Injection Pressures
M-FG6 4th Quarter 2017
Lost Creek ISR Project 15-081

Date	Daily Minimum Injection Pressure (psi)	Daily Average Injection Pressure (psi)	Daily Maximum Injection Pressure (psi)	Automatic Shutdown Pressure (psi)	Maximum Injection Pressure Limit (psi)	Comments
10/1/2017	0.00	0.00	0.00	45	45	
10/2/2017	0.00	0.00	0.00	45	45	
10/3/2017	0.00	0.00	0.00	45	45	
10/4/2017	0.00	0.00	0.00	45	45	
10/5/2017	0.00	0.00	0.00	45	45	
10/6/2017	0.00	0.00	0.00	45	45	
10/7/2017	0.00	0.00	0.00	45	45	
10/8/2017	0.00	0.00	0.00	45	45	
10/9/2017	0.00	0.00	0.00	45	45	
10/10/2017	0.00	0.00	0.00	45	45	
10/11/2017	0.00	0.00	0.00	45	45	
10/12/2017	0.00	0.00	0.00	45	45	
10/13/2017	0.00	0.00	0.00	45	45	
10/14/2017	0.00	0.00	0.00	45	45	
10/15/2017	0.00	0.00	0.00	45	45	
10/16/2017	0.00	0.00	0.00	45	45	
10/17/2017	0.00	0.00	0.00	45	45	
10/18/2017	0.00	0.00	0.00	45	45	
10/19/2017	0.00	0.00	0.00	45	45	
10/20/2017	0.00	0.00	0.00	45	45	
10/21/2017	0.00	0.00	0.00	45	45	
10/22/2017	0.00	0.00	0.00	45	45	
10/23/2017	0.00	0.00	0.00	45	45	
10/24/2017	0.00	0.00	0.00	45	45	
10/25/2017	0.00	0.00	0.00	45	45	
10/26/2017	0.00	0.00	0.00	45	45	
10/27/2017	0.00	0.00	0.00	45	45	
10/28/2017	0.00	0.00	0.00	45	45	
10/29/2017	0.00	0.00	0.00	45	45	
10/30/2017	0.00	0.00	0.00	45	45	
10/31/2017	0.00	0.00	0.00	45	45	
11/1/2017	0.00	0.00	0.00	45	45	
11/2/2017	0.00	0.00	0.00	45	45	
11/3/2017	0.00	0.00	0.00	45	45	
11/4/2017	0.00	0.00	0.00	45	45	
11/5/2017	0.00	0.00	0.00	45	45	
11/6/2017	0.00	0.00	0.00	45	45	
11/7/2017	0.00	0.00	0.00	45	45	
11/8/2017	0.00	0.00	0.00	45	45	
11/9/2017	0.00	0.00	0.00	45	45	
11/10/2017	0.00	0.00	0.00	45	45	
11/11/2017	0.00	0.00	0.00	45	45	

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11/12/2017	0.00	0.00	0.00	45	45	
11/13/2017	0.00	0.00	0.00	45	45	
11/14/2017	0.00	0.00	0.00	45	45	
11/15/2017	0.00	0.00	0.00	45	45	
11/16/2017	0.00	0.00	0.00	45	45	
11/17/2017	0.00	0.00	0.00	45	45	
11/18/2017	0.00	0.00	0.00	45	45	
11/19/2017	0.00	0.00	0.00	45	45	
11/20/2017	0.00	0.00	0.00	45	45	
11/21/2017	0.00	0.00	0.00	45	45	
11/22/2017	0.00	0.00	0.00	45	45	
11/23/2017	0.00	0.00	0.00	45	45	
11/24/2017	0.00	0.00	0.00	45	45	
11/25/2017	0.00	0.00	0.00	45	45	
11/26/2017	0.00	0.00	0.00	45	45	
11/27/2017	0.00	0.00	0.00	45	45	
11/28/2017	0.00	0.00	0.00	45	45	
11/29/2017	0.00	0.00	0.00	45	45	
11/30/2017	0.00	0.00	0.00	45	45	
12/1/2017	0.00	0.00	0.00	45	45	
12/2/2017	0.00	0.00	0.00	45	45	
12/3/2017	0.00	0.00	0.00	45	45	
12/4/2017	0.00	0.00	0.00	45	45	
12/5/2017	0.00	0.00	0.00	45	45	
12/6/2017	0.00	0.00	0.00	45	45	
12/7/2017	0.00	0.00	0.00	45	45	
12/8/2017	0.00	0.00	0.00	45	45	
12/9/2017	0.00	0.00	0.00	45	45	
12/10/2017	0.00	0.00	0.00	45	45	
12/11/2017	0.00	0.00	0.00	45	45	
12/12/2017	0.00	0.00	0.00	45	45	
12/13/2017	0.00	0.00	0.00	45	45	
12/14/2017	0.00	0.00	0.00	45	45	
12/15/2017	0.00	0.00	0.00	45	45	
12/16/2017	0.00	0.00	0.00	45	45	
12/17/2017	0.00	0.00	0.00	45	45	
12/18/2017	0.00	0.00	0.00	45	45	
12/19/2017	0.00	0.00	0.00	45	45	
12/20/2017	0.00	0.00	0.00	45	45	
12/21/2017	0.00	0.00	0.00	45	45	
12/22/2017	0.00	0.00	0.00	45	45	
12/23/2017	0.00	0.00	0.00	45	45	

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Date	Daily Minimum Injection Pressure (psi)	Daily Average Injection Pressure (psi)	Daily Maximum Injection Pressure (psi)	Automatic Shutdown Pressure (psi)	Maximum Injection Pressure Limit (psi)	Comments
12/24/2017	0.00	0.00	0.00	45	45	
12/25/2017	0.00	0.00	0.00	45	45	
12/26/2017	0.00	0.00	0.00	45	45	
12/27/2017	0.00	0.00	0.00	45	45	
12/28/2017	0.00	0.00	0.00	45	45	
12/29/2017	0.00	0.00	0.00	45	45	
12/30/2017	0.00	0.00	0.00	45	45	
12/31/2017	0.00	0.00	0.00	45	45	

psi: pounds per square inch

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M-FG6 4th Quarter 2017
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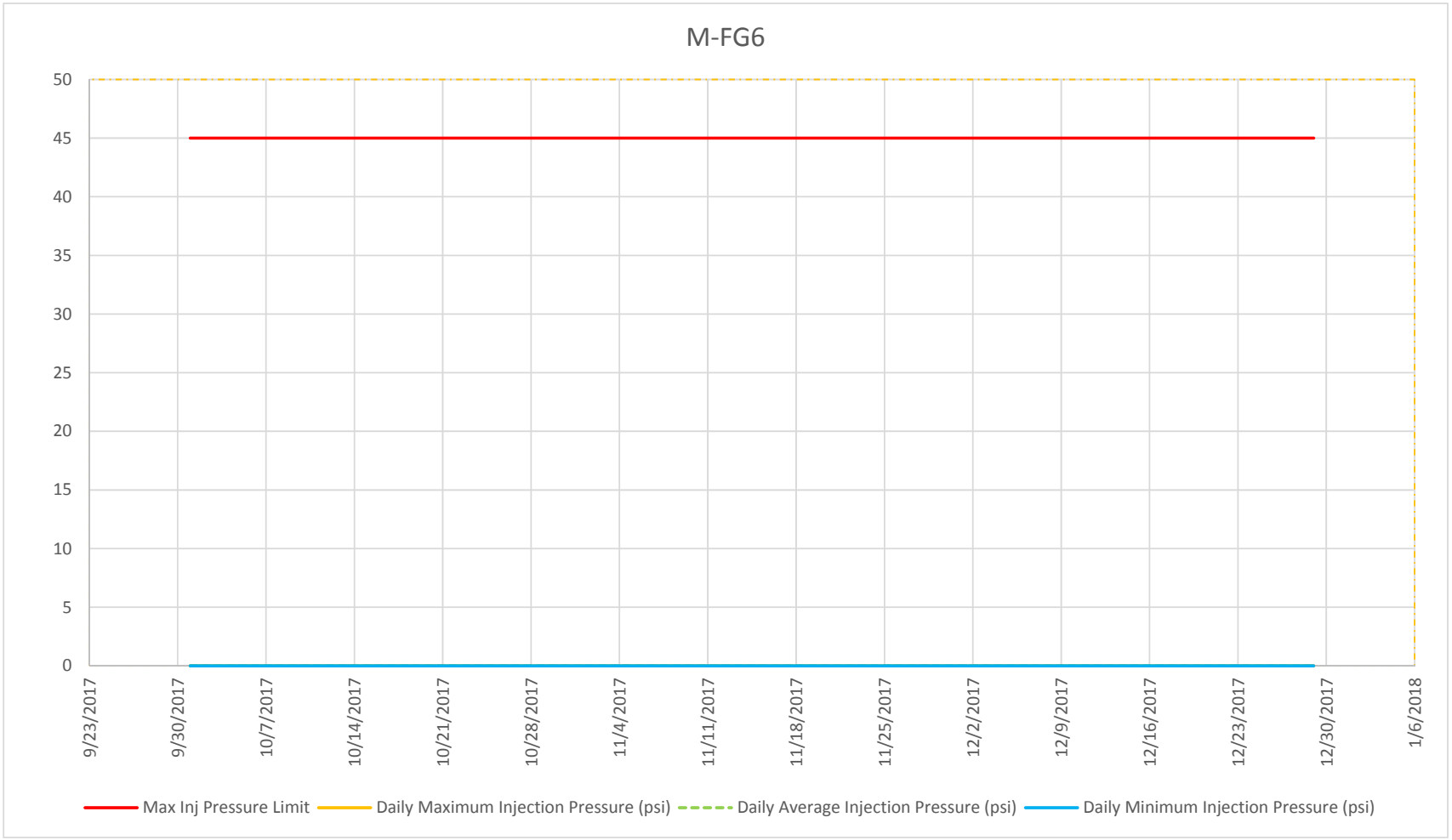

APPENDIX 2

ANALYTICAL SUMMARY REPORT

January 24, 2018

UR Energy USA Inc
10758 W Centennial Rd Ste 200
Ken Caryl Ranch, CO 80127

Work Order: C17120582

Project Name: Lost Creek Class V

Energy Laboratories, Inc. Casper WY received the following 1 sample for UR Energy USA Inc on 12/20/2017 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C17120582-001	Class V Grab	12/19/17 09:00	12/20/17	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Conductivity Mercury, Dissolved Fluoride Specific Gravity pH Preservation by the Laboratory Metals Preparation by EPA 200.2 Sample Filtering, Metals Sample Filtering, Radiochemical Analytes Digestion, Mercury by CVAA Gross Alpha, Gross Beta Gross Alpha, Gross Beta Lead 210, Total Polonium 210, Total Radium 226, Dissolved Radium 226, Total Radium 228, Dissolved Radium 228, Total Thorium, Isotopic Solids, Total Dissolved

The results as reported relate only to the item(s) submitted for testing. The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: UR Energy USA Inc
Project: Lost Creek Class V
Work Order: C17120582

Report Date: 01/24/18

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

Tests associated with analyst identified as ELI-G were subcontracted to Energy Laboratories, 400 W. Boxelder Rd., Gillette, WY, EPA Number WY00006.

Prep Comments for Sample C17120582-001E, Test PRP-FILT-RAD: The prep hold time was exceeded by 0.325 days.

Prep Comments for Sample C17120582-001D, Test PRESERVATION: - The sample fraction submitted for Metals Analysis was received in the laboratory with a pH of ~ 7. This is outside of the method specified requirement of pH < 2. Proper preservation was added before sample analysis.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Class V
Lab ID: C17120582-001
Client Sample ID: Class V Grab

Report Date: 01/24/18
Collection Date: 12/19/17 09:00
DateReceived: 12/20/17
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Fluoride	ND	mg/L		0.1		A4500-F C	12/21/17 17:50 / mvr
PHYSICAL PROPERTIES							
Specific Gravity 60/60F	0.997	unitless				D1429	12/27/17 23:30 / eli-b
Conductivity @ 25 C	400	umhos/cm		5		A2510 B	12/21/17 14:08 / mvr
pH	6.97	s.u.	H	0.01		A4500-H B	12/21/17 13:21 / mvr
Solids, Total Dissolved TDS @ 180 C	269	mg/L		10		A2540 C	12/21/17 15:01 / mvr
METALS, DISSOLVED							
Arsenic	0.002	mg/L		0.001		E200.8	12/27/17 05:59 / eli-b
Barium	0.44	mg/L		0.05		E200.8	12/27/17 05:59 / eli-b
Beryllium	ND	mg/L		0.001		E200.8	12/27/17 05:59 / eli-b
Cadmium	ND	mg/L		0.001		E200.8	12/27/17 05:59 / eli-b
Chromium	ND	mg/L		0.005		E200.8	12/27/17 05:59 / eli-b
Copper	ND	mg/L		0.005		E200.8	12/27/17 05:59 / eli-b
Lead	0.036	mg/L		0.001		E200.8	12/27/17 05:59 / eli-b
Mercury	ND	mg/L		0.0001		E245.1	12/28/17 14:00 / eli-b
Selenium	ND	mg/L		0.001		E200.8	12/27/17 05:59 / eli-b
Uranium	0.0215	mg/L		0.0003		E200.8	12/27/17 05:59 / eli-b
METALS, TOTAL							
Uranium	0.0226	mg/L		0.0003		E200.8	12/27/17 19:58 / eli-b
RADIONUCLIDES, DISSOLVED							
Gross Alpha	21.4	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Alpha precision (±)	4.9	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Alpha MDC	1.9	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Beta	8.3	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Beta precision (±)	2.0	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Beta MDC	3.9	pCi/L				E900.0	01/02/18 22:45 / cnh
Radium 226	0.7	pCi/L				E903.0	01/09/18 10:03 / arh
Radium 226 precision (±)	0.2	pCi/L				E903.0	01/09/18 10:03 / arh
Radium 226 MDC	0.2	pCi/L				E903.0	01/09/18 10:03 / arh
Radium 228	1.3	pCi/L	U			RA-05	01/04/18 12:21 / trs
Radium 228 precision (±)	0.9	pCi/L				RA-05	01/04/18 12:21 / trs
Radium 228 MDC	1.5	pCi/L				RA-05	01/04/18 12:21 / trs
RADIONUCLIDES, TOTAL							
Gross Alpha	40.9	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Alpha precision (±)	8.5	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Alpha MDC	1.9	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Beta	10.2	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Beta precision (±)	1.7	pCi/L				E900.0	01/02/18 22:45 / cnh
Gross Beta MDC	2.7	pCi/L				E900.0	01/02/18 22:45 / cnh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Class V
Lab ID: C17120582-001
Client Sample ID: Class V Grab

Report Date: 01/24/18
Collection Date: 12/19/17 09:00
DateReceived: 12/20/17
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Lead 210	4.8	pCi/L				E909.0	12/29/17 15:19 / meh
Lead 210 precision (±)	1.7	pCi/L				E909.0	12/29/17 15:19 / meh
Lead 210 MDC	1.5	pCi/L				E909.0	12/29/17 15:19 / meh
Polonium 210	-0.09	pCi/L	U			H Po-02-RC	01/12/18 14:53 / cnh
Polonium 210 precision (±)	0.8	pCi/L				H Po-02-RC	01/12/18 14:53 / cnh
Polonium 210 MDC	2.2	pCi/L				H Po-02-RC	01/12/18 14:53 / cnh
Radium 226	0.2	pCi/L	U			E903.0	01/15/18 09:15 / arh
Radium 226 precision (±)	0.1	pCi/L				E903.0	01/15/18 09:15 / arh
Radium 226 MDC	0.2	pCi/L				E903.0	01/15/18 09:15 / arh
Radium 228	1.6	pCi/L				RA-05	01/07/18 11:33 / trs
Radium 228 precision (±)	0.8	pCi/L				RA-05	01/07/18 11:33 / trs
Radium 228 MDC	1.3	pCi/L				RA-05	01/07/18 11:33 / trs
Thorium 230	0.2	pCi/L	U			E908.0	01/11/18 15:05 / cnh
Thorium 230 precision (±)	0.1	pCi/L				E908.0	01/11/18 15:05 / cnh
Thorium 230 MDC	0.2	pCi/L				E908.0	01/11/18 15:05 / cnh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 12/27/17
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Batch: 171221_1_COND-PROBE-W	
Lab ID: ICV1-1_171221	Initial Calibration Verification Standard					Run: CONDUCTIVITY METER 1_1			12/21/17 13:58	
Conductivity @ 25 C		99.8	umhos/cm	5.0	100	90	110			
Lab ID: ICV2-1_171221	Initial Calibration Verification Standard					Run: CONDUCTIVITY METER 1_1			12/21/17 13:59	
Conductivity @ 25 C		4510	umhos/cm	5.0	90	90	110			
Lab ID: ICV3-1_171221	Initial Calibration Verification Standard					Run: CONDUCTIVITY METER 1_1			12/21/17 14:00	
Conductivity @ 25 C		16000	umhos/cm	5.0	80	90	110			S
Lab ID: MBLK-21_171221	Method Blank					Run: CONDUCTIVITY METER 1_1			12/21/17 14:01	
Conductivity @ 25 C		2	umhos/cm							

Qualifiers:

RL - Analyte reporting limit.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 12/27/17
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: TDS171221A	
Lab ID: MB-1_171221A		Method Blank				Run: BAL-18_171221A			12/21/17 14:57	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Lab ID: LCS-2_171221A		Laboratory Control Sample				Run: BAL-18_171221A			12/21/17 14:57	
Solids, Total Dissolved TDS @ 180 C		1080	mg/L	11	97	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 12/27/17
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A4500-F C**										Batch: R230681
Lab ID: **LCS-9807**		Laboratory Control Sample				Run: MANTECH_171221A				12/21/17 16:58
Fluoride		2.08	mg/L	0.10	104	90	110			
Lab ID: **MBLK**		Method Blank				Run: MANTECH_171221A				12/21/17 17:04
Fluoride		ND	mg/L	0.06						
Lab ID: **C17120543-001AMS**		Sample Matrix Spike				Run: MANTECH_171221A				12/21/17 17:13
Fluoride		2.00	mg/L	0.10	88	90	110			S
Lab ID: **C17120549-001ADUP**		Sample Duplicate				Run: MANTECH_171221A				12/21/17 17:20
Fluoride		0.650	mg/L	0.10				1.5	10	

Qualifiers:

RL - Analyte reporting limit.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 12/27/17
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION 3 STAR PH_171221A		
Lab ID: ICV-3_171221	Initial Calibration Verification Standard								12/21/17 11:49	
pH		6.83	s.u.	0.010	100	98	102			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: UR Energy USA Inc
Report Date: 12/29/17
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: ICPMS206-B_171226A	
Lab ID: QCS	9	Initial Calibration Verification Standard							12/27/17 02:42	
Arsenic		0.0514	mg/L	0.0050	103	90	110			
Barium		0.0506	mg/L	0.10	101	90	110			
Beryllium		0.0256	mg/L	0.0010	103	90	110			
Cadmium		0.0264	mg/L	0.0010	106	90	110			
Chromium		0.0519	mg/L	0.010	104	90	110			
Copper		0.0531	mg/L	0.010	106	90	110			
Lead		0.0498	mg/L	0.010	100	90	110			
Selenium		0.0510	mg/L	0.0050	102	90	110			
Uranium		0.0205	mg/L	0.0010	103	90	110			
Method: E200.8										Batch: R292124
Lab ID: LRB	9	Method Blank				Run: ICPMS206-B_171226A			12/26/17 11:41	
Arsenic		ND	mg/L	0.0001						
Barium		ND	mg/L	0.00004						
Beryllium		ND	mg/L	0.00003						
Cadmium		ND	mg/L	0.00002						
Chromium		ND	mg/L	0.00004						
Copper		ND	mg/L	0.0001						
Lead		ND	mg/L	0.00002						
Selenium		ND	mg/L	0.0004						
Uranium		ND	mg/L	0.00003						
Lab ID: LFB	9	Laboratory Fortified Blank				Run: ICPMS206-B_171226A			12/26/17 11:48	
Arsenic		0.0521	mg/L	0.0050	104	85	115			
Barium		0.0518	mg/L	0.10	104	85	115			
Beryllium		0.0520	mg/L	0.0010	104	85	115			
Cadmium		0.0534	mg/L	0.0010	107	85	115			
Chromium		0.0527	mg/L	0.010	105	85	115			
Copper		0.0518	mg/L	0.010	104	85	115			
Lead		0.0529	mg/L	0.010	106	85	115			
Selenium		0.0514	mg/L	0.0050	103	85	115			
Uranium		0.0532	mg/L	0.0010	106	85	115			
Lab ID: B17121849-003BMS	9	Sample Matrix Spike				Run: ICPMS206-B_171226A			12/27/17 05:27	
Arsenic		0.0883	mg/L	0.0010	107	70	130			
Barium		0.0619	mg/L	0.050	102	70	130			
Beryllium		0.0494	mg/L	0.0010	99	70	130			
Cadmium		0.0512	mg/L	0.0010	102	70	130			
Chromium		0.0504	mg/L	0.0050	101	70	130			
Copper		0.0529	mg/L	0.0050	103	70	130			
Lead		0.0513	mg/L	0.0010	103	70	130			
Selenium		0.0517	mg/L	0.0010	103	70	130			
Uranium		0.0689	mg/L	0.00030	108	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: UR Energy USA Inc **Report Date:** 12/29/17

Project: Lost Creek Class V **Work Order:** C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R292124
Lab ID: B17121849-003BMSD	9	Sample Matrix Spike Duplicate				Run: ICPMS206-B_171226A				12/27/17 05:31
Arsenic		0.0864	mg/L	0.0010	103	70	130	2.2	20	
Barium		0.0649	mg/L	0.050	108	70	130	4.8	20	
Beryllium		0.0491	mg/L	0.0010	98	70	130	0.6	20	
Cadmium		0.0508	mg/L	0.0010	101	70	130	0.6	20	
Chromium		0.0508	mg/L	0.0050	101	70	130	0.7	20	
Copper		0.0533	mg/L	0.0050	104	70	130	0.7	20	
Lead		0.0507	mg/L	0.0010	101	70	130	1.3	20	
Selenium		0.0535	mg/L	0.0010	107	70	130	3.5	20	
Uranium		0.0687	mg/L	0.00030	108	70	130	0.2	20	
Method: E200.8										Analytical Run: ICPMS206-B_171227A
Lab ID: QCS		Initial Calibration Verification Standard								12/27/17 13:36
Uranium		0.0209	mg/L	0.0010	104	90	110			
Method: E200.8										Batch: 116990
Lab ID: MB-116990		Method Blank				Run: ICPMS206-B_171227A				12/27/17 19:37
Uranium		ND	mg/L	0.00003						
Lab ID: LCS-116990		Laboratory Control Sample				Run: ICPMS206-B_171227A				12/27/17 20:02
Uranium		0.577	mg/L	0.0010	115	85	115			
Lab ID: B17121860-002AMS3		Sample Matrix Spike				Run: ICPMS206-B_171227A				12/27/17 20:05
Uranium		0.579	mg/L	0.00030	116	70	130			
Lab ID: B17121860-002AMSD		Sample Matrix Spike Duplicate				Run: ICPMS206-B_171227A				12/27/17 20:09
Uranium		0.592	mg/L	0.00030	118	70	130	2.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: UR Energy USA Inc
Report Date: 12/29/17
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **E245.1**									Analytical Run: HGCV202-B_171228B	
Lab ID: **ICV**		Initial Calibration Verification Standard							12/28/17 13:50	
Mercury		0.00189	mg/L	0.00010	94	90	110			
Method: **E245.1**									Batch: 117010	
Lab ID: **MB-117010**		Method Blank				Run: HGCV202-B_171228B			12/28/17 13:56	
Mercury		3E-06	mg/L	1E-06						
Lab ID: **LCS-117010**		Laboratory Control Sample				Run: HGCV202-B_171228B			12/28/17 13:58	
Mercury		0.00185	mg/L	0.00010	92	85	115			
Lab ID: **C17120582-001CMS**		Sample Matrix Spike				Run: HGCV202-B_171228B			12/28/17 14:02	
Mercury		0.00184	mg/L	0.00010	92	70	130			
Lab ID: **C17120582-001CMSD**		Sample Matrix Spike Duplicate				Run: HGCV202-B_171228B			12/28/17 14:03	
Mercury		0.00182	mg/L	0.00010	91	70	130	0.7	30	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 01/23/18
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-2438
Lab ID: Th230-GrAB-2438		Laboratory Control Sample				Run: G542M_171229A				01/02/18 22:45
Gross Alpha		110	pCi/L		109	80	120			
Lab ID: MB-GrAB-2438	6	Method Blank				Run: G542M_171229A				01/02/18 22:45
Gross Alpha		0.2	pCi/L							U
Gross Alpha precision (±)		0.9	pCi/L							
Gross Alpha MDC		2	pCi/L							
Gross Beta		-1	pCi/L							U
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Lab ID: C17120582-001FMS		Sample Matrix Spike				Run: G542M_171229A				01/02/18 22:45
Gross Alpha		100	pCi/L		59	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the RPD recoveries are acceptable, the response is considered to be matrix related. The batch is approved.										
Lab ID: C17120582-001FMSD		Sample Matrix Spike Duplicate				Run: G542M_171229A				01/02/18 22:45
Gross Alpha		110	pCi/L		69	70	130	10	20	S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the RPD recoveries are acceptable, the response is considered to be matrix related. The batch is approved.										
Lab ID: Sr90-GrAB-2438		Laboratory Control Sample				Run: G542M_171229A				01/02/18 22:45
Gross Beta		210	pCi/L		112	80	120			
Lab ID: C17120582-001FMS		Sample Matrix Spike				Run: G542M_171229A				01/02/18 22:45
Gross Beta		220	pCi/L		114	70	130			
Lab ID: C17120582-001FMSD		Sample Matrix Spike Duplicate				Run: G542M_171229A				01/02/18 22:45
Gross Beta		210	pCi/L		107	70	130	5.9	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 01/23/18
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-8790
Lab ID: LCS-RA226-8790		Laboratory Control Sample				Run: G5000W_171229C				01/15/18 09:15
Radium 226		8.6	pCi/L		86	80	120			
Lab ID: MB-RA226-8790	3	Method Blank				Run: G5000W_171229C				01/15/18 09:15
Radium 226		-0.02	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C17120618-006EMS		Sample Matrix Spike				Run: G5000W_171229C				01/15/18 09:15
Radium 226		17	pCi/L		83	70	130			
Lab ID: C17120618-006EMSD		Sample Matrix Spike Duplicate				Run: G5000W_171229C				01/15/18 09:15
Radium 226		18	pCi/L		88	70	130	5.9	20	
Method: E903.0										Batch: RA226-8789
Lab ID: LCS-RA226-8789		Laboratory Control Sample				Run: G542M-2_171229A				01/09/18 10:03
Radium 226		9.7	pCi/L		97	80	120			
Lab ID: MB-RA226-8789	3	Method Blank				Run: G542M-2_171229A				01/09/18 10:03
Radium 226		-0.009	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C17120504-001CMS		Sample Matrix Spike				Run: G542M-2_171229A				01/09/18 10:03
Radium 226		28	pCi/L		71	70	130			
Lab ID: C17120504-001CMSD		Sample Matrix Spike Duplicate				Run: G542M-2_171229A				01/09/18 10:03
Radium 226		35	pCi/L		103	70	130	20	20	R

- The RPD for the MSD is high. The individual spike recoveries are within range, the MB is acceptable, and the LCS is acceptable.
- For all R qualified analytes the RERs are less than the limit of 2.0. This batch is approved.

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
ND - Not detected at the reporting limit.
R - RPD exceeds advisory limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 01/23/18
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: RA-TH-ISO-2662
Lab ID: LCS-RA-TH-ISO-2662		Laboratory Control Sample				Run: EGG-ORTEC_180108A				01/11/18 15:05
Thorium 230		11	pCi/L		100	80	120			
Lab ID: C17120574-002CMS		Sample Matrix Spike				Run: EGG-ORTEC_180108A				01/11/18 15:05
Thorium 230		22	pCi/L		99	70	130			
Lab ID: C17120574-002CMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_180108A				01/11/18 15:05
Thorium 230		24	pCi/L		106	70	130	7.0	20	
Lab ID: MB-RA-TH-ISO-2662	3	Method Blank				Run: EGG-ORTEC_180108A				01/11/18 15:05
Thorium 230		0.1	pCi/L							U
Thorium 230 precision (±)		0.1	pCi/L							
Thorium 230 MDC		0.2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 01/23/18
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: PB-210-0889	
Lab ID: LCS-PB-210-0889		Laboratory Control Sample				Run: PACKARD 3100TR_171221A			12/27/17 21:00	
Lead 210		20	pCi/L		90	80	120			
Lab ID: MB-PB-210-0889	3	Method Blank				Run: PACKARD 3100TR_171221A			12/27/17 22:08	
Lead 210		0.5	pCi/L							U
Lead 210 precision (±)		0.8	pCi/L							
Lead 210 MDC		1	pCi/L							
Lab ID: C17120451-001CMS		Sample Matrix Spike				Run: PACKARD 3100TR_171221A			12/28/17 10:25	
Lead 210		37	pCi/L		86	70	130			
Lab ID: C17120451-001CMSD		Sample Matrix Spike Duplicate				Run: PACKARD 3100TR_171221A			12/28/17 11:36	
Lead 210		40	pCi/L		92	70	130	6.6	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 01/23/18
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **H Po-02-RC**									Batch: PO210-0673	
Lab ID: **C18010134-002HMS**		Sample Matrix Spike				Run: EGG-ORTEC_2_180109B			01/12/18 14:53	
Polonium 210		66	pCi/L		107	70	130			
Lab ID: **C18010134-002HMSD**		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_2_180109B			01/12/18 14:53	
Polonium 210		64	pCi/L		104	70	130	3.7	20	
Lab ID: **MB-PO210-0673**	3	Method Blank				Run: EGG-ORTEC_2_180109B			01/12/18 14:53	
Polonium 210		-0.02	pCi/L							U
Polonium 210 precision (±)		0.3	pCi/L							
Polonium 210 MDC		0.9	pCi/L							
Lab ID: **LCS-PO210-0673**		Laboratory Control Sample				Run: EGG-ORTEC_2_180109B			01/12/18 14:53	
Polonium 210		32	pCi/L		105	80	120			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Report Date: 01/23/18
Project: Lost Creek Class V
Work Order: C17120582

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-5695
Lab ID: LCS-228-RA226-8789		Laboratory Control Sample				Run: TENNELEC-3_171229A			01/04/18 12:21	
Radium 228		10	pCi/L		90	80	120			
Lab ID: MB-RA226-8789	3	Method Blank				Run: TENNELEC-3_171229A			01/04/18 12:21	
Radium 228		1	pCi/L							U
Radium 228 precision (±)		0.9	pCi/L							
Radium 228 MDC		2	pCi/L							
Lab ID: C17120505-001CMS		Sample Matrix Spike				Run: TENNELEC-3_171229A			01/04/18 12:21	
Radium 228		19	pCi/L		89	70	130			
Lab ID: C17120505-001CMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_171229A			01/04/18 12:21	
Radium 228		24	pCi/L		119	70	130	26	20	R
- The RPD for the MSD is high. The individual spike recoveries are within range, the MB is acceptable, and the LCS is acceptable therefore the batch is approved.										
Method: RA-05										Batch: RA228-5696
Lab ID: LCS-228-RA226-8790		Laboratory Control Sample				Run: TENNELEC-3_171229B			01/07/18 11:33	
Radium 228		10	pCi/L		102	80	120			
Lab ID: MB-RA226-8790	3	Method Blank				Run: TENNELEC-3_171229B			01/07/18 11:33	
Radium 228		0.5	pCi/L							U
Radium 228 precision (±)		0.9	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C17120644-001CMS		Sample Matrix Spike				Run: TENNELEC-3_171229B			01/07/18 11:33	
Radium 228		23	pCi/L		87	70	130			
Lab ID: C17120644-001CMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_171229B			01/07/18 11:33	
Radium 228		23	pCi/L		90	70	130	2.6	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
ND - Not detected at the reporting limit.
R - RPD exceeds advisory limit.

Work Order Receipt Checklist

UR Energy USA Inc

C17120582

Login completed by: Dorian Quis
Date Received: 12/20/2017
Reviewed by: Kasey Vidick
Received by: dcq
Reviewed Date: 12/26/2017
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	4.8°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Samples for dissolved metals and radionuclides were subsampled, filtered and preserved with 2 mLs nitric acid in lab upon receipt to pH <2. According to 40CFR136, samples for Dissolved Metals should be filtered and preserved within 15 minutes of collection. Sample for Total Metals was preserved to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. In accordance with the Clean Water Act. Sample for total radiochem was preserved to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. tla 1/24/2018

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Chain of Custody & Analytical Request Record

www.energylab.com

Account Information (Billing information)

Company/Name	Ur Energy
Contact	Mike Gaither
Phone	307-265-2373 x321
Mailing Address	5880 Enterprise Dr Ste 200
City, State, Zip	Casper, WY 82609
Email	mike.gaither@ur-energy.com
Receive Invoice	☐Hard Copy ☐Email
Receive Report	☐Hard Copy ☐Email
Purchase Order	
Quote	
Bottle Order	

Report Information (if different than Account Information)

Company/Name	
Contact	
Phone	
Mailing Address	
City, State, Zip	
Email	
Receive Report	☐Hard Copy ☐Email

Special Report/Formats:
☐ LEVEL IV ☐ NELAC ☐ EDD/EDT (contact laboratory) ☐ Other_____

Comments

* METALS + IONS
As, Ba, Be, Cd, Cr, Cu, Fe, Pb, Hg, Se, Fluoride

-SAMPLES RAN - FILTER + PRESERVE AS NECESSARY

Project Information

Project Name, PWSID, Permit, etc.	~~RO~~ ~~Water~~ LOST CREEK CLASS V
Sampler Name	Alex Buehrle
Sampler Phone	
Sample Origin State	WY
EPA/State Compliance	☐ Yes ☐ No

MINING CLIENTS, please indicate sample type.
*If ore has been processed or refined, call before sending.
☐ Byproduct 11 (e)2 material ☐ Unprocessed ore (NOT ground or refined)*

Matrix Codes
A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Other
DW - Drinking Water

All turnaround times are standard unless marked as RUSH.
Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

Sample Identification (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers	Matrix (See Codes Above)	pH / Cond.	Specific Grav.	TDS	U (ppt & Diss)	Gross α + β (ppt + Diss)	Ra 226 + 228 (Total + Diss)	Pb-210 (ppt)	Po-210 (ppt)	Th-230 (ppt)	Metals* (Diss)	See Attached	RUSH TAT	ELI LAB ID (Laboratory Use Only)
1 Class II GRAB	12-19-17	0900	1	W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			C17120582
~~2 Class II~~	12-19-17	0900	1	W													
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex Buehrle	12-19-17/1500		M.GAITHER	12/20/2017 0800	
	M.GAITHER	12/20/2017 0951		Received by Laboratory (print)	Date/Time 12/20/17 951	Signature Darian Ruiz

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals	Intact	Receipt Temp	Temp Blank	On Ice	Payment Type	Amount	Receipt Number (cash/check only)
Hand	Client	Y (N) C B	Y (N)	4.8 °C	Y (N)	(Y) N	CC Cash Check_____	$	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

ENERGY LABORATORIES
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College Station, TX 888.690.2218 • Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

Lab Receipt Chain of Custody

Client: UR ENERGY Date: 12/20/17 WO Number: C17120582

☐ **Was a Temperature Blank Received?** Y / (N) N/A
Record Temp of each cooler received. If cooler(s) is received outside 2-6°C record which samples were received in each cooler(s).

Temp °C 1 4.8 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____ 9 _____ 10 _____

Circle: From Field (On Ice) Melted Ice Blue Ice No Ice *If samples are received frozen notate them in the comments section.*

Thermometer Probe Number _____ IR Thermometer Number 2 Geiger Reading/Instrument Number 15613 / 250 ur/hr

☐ **What is the shipment method?** (*circle*)

UPS / Fed Ex:	GRD	2ND Day	NDA	Sat Del
US Mail:	STD	Priority	Express	
(*Other:*)	(HAND)	NPT	DROP BOX	

✓ **# containers/coolers were received?** 1 **Shipping charged to client?** Y / (N) **If Y, Qty** _____

Is the Shipping container/cooler in good condition?	(Y) / N N/P
Are there Custody seals intact on all shipping container/cooler?	Y / N (N/P)
Are there Custody seals intact on sample bottles?	Y / N (N/P)
Is the Chain of Custody present?	(Y) / N
Is the Chain of Custody signed when relinquished and received?	(Y) / N
Does the COC agree with the sample labels?	(Y) / N
Are Samples in proper container/bottle?	(Y) / N
Are the Sample containers intact?	(Y) / N
Is there sufficient sample volume for indicated test?	(Y) / N
Are all samples received within holding time?	(Y) / N
Water-VOA vials have 0 headspace? *List samples with headspace (bubble >1/4 in) in the comments section*	Y / N (NA)
Water-pH acceptable upon receipt?	Y / N (NA)

This section is only to be filled out if applicable
Subsampled / Preserved
For: _____
Circle one or both of the above as applicable

Is lab filtering required for the sample(s)? Y/N
For:

*** Take Pictures of shipping container(s) & sample bottles**

Set up completed by: KAK

Bottle/ELI Labels Checked By: KAK

- Sample ID
- Bottle
- Preservative
- Date/Time

COMMENTS: