

From: John Cash
To: [Saxton, John](#)
Subject: [External_Sender] 2018-04-16 Clarifying comments for the SER writeup
Date: Tuesday, April 24, 2018 1:15:08 PM
Attachments: [2018-04-16 Clarifying comments for the SER writeup.docx](#)

John,

Please find attached our responses to the questions you posed regarding the amendment application. You will see that we are still working on the last item but hope to provide a fulsome response asap.

Regards,
John

1. In the crosswalk provided in the clarification questions, the term “no change” was used. NRC staff wants confirmation that no change can be interpreted as incorporated by reference. **Yes, the phrase “no change” can be interpreted as incorporated by reference.**
2. On the Wastewater Balance Figure OP-5e, the net natural influx was 260 gpm to a wellfield under restoration. Please confirm that this value is a maximum value and not expected to be a typical value. **The 260 gpm of influx is expected to be the maximum value.**
3. Lost Creek RP 2.3.1 has heading of “Groundwater Transfer” which incorporates by reference Section 6.2.3 of the original Lost Creek Technical Report. However, groundwater transfer was not described in the original technical report sections 6.2.3 or 1.10. What is Lost Creek definition of groundwater transfer? **Groundwater transfer is the approximately equal exchange of water from a mine unit(s) that is going into groundwater restoration with a mine unit(s) that is going into production. The intent is to preserve lixiviant and expedite groundwater restoration. A hydrologic bleed is maintained in both mine units to prevent excursions.**
4. Has Lost Creek conducted surface water sampling after a spill? **Yes. Additional surface water samplers have been located downgradient of spills.**
5. Gross Alpha measurements in water for the KM Amendment – is it by EPA Method 900? (no lab reports are included in the application). **All gross alpha numbers were derived using EPA method 900.0.**
6. LCI’s response to RAI-13 (1/5/18) included a Joint Frequency Distribution (JFD) Table that differed from the JFD Table in prior submittals (Amendment 6 and others). Please provide the source of the information (i.e., data years). **The data set is from 2007 thru 2012. The JFD table looks different because some errors were corrected in the final data set.**
7. Please confirm that no hunting areas are located within 3.2 km (2 mi) of the Lost Creek area and the LCE sites, and that livestock samples from both areas are better food samples and more likely to be in the pathway-to-man than game wildlife. **The BLM and State of Wyoming lands surrounding the mine site are open to hunting. However, this area isn’t known for its big game hunting since there are virtually no mule deer and only sporadic elk. There is some hunting for pronghorn in the area but not typically near the mine. Beef represents a more likely pathway-to-man than game wildlife, and as such, a beef analysis was included in the original application.**

8. Please state whether there has been a change in cattle grazing or wildlife at the Lost Creek or LCE sites since the previous beef sampling and analyses were conducted for the Lost Creek license. **The BLM and State of Wyoming continue to allow grazing of cattle in the area. We are unaware of any changes to grazing practices. The wildlife numbers grow and shrink through time but there have been no dramatic changes in big game numbers. The contract biologist, as well as site staff, have noted slight increases in elk and pronghorn in the region.**
9. The NRC staff agrees with the soil sampling plan discussed in the January 5, 2018 letter (response to RAI-11). Please confirm that the soil sampling will be conducted as stated, and that soil sampling results will be compared to the OHV gamma scans for those areas where the soil samples will be taken. **Yes.**
10. The NRC staff did not find in application a summary of the soil sampling results performed at HV-6/PR-13. Please state where the data are located in the application, provide a summary of the data or confirm that soil samples will be collected prior to major site construction. **The soil was sampled at air sampling station HV6 on May 12, 2016. The results for uranium, Pb-210, Ra-226 and Th-230, which are attached to this submittal, are consistent with the results from the other sample sites co-located with air samplers.**
11. LCI's response to RAI-11(g) (vegetation sampling), LCI letter dated January 5, 2018 stated that LCI would compare the current LCE MILDOS-AREA modeling results, for maximum radon daughter deposition, with the April 2010 LC technical Report "near plant" analysis. Please confirm that the maximum deposition location in the current MILDOS-AREA modeling results is the same as that for the prior results (Section 2.9.3.2 of the LC Application). If LCI has made this comparison, please inform the NRC staff where the comparison can be found. **LC ISR is currently working with a contractor to determine when the MILDOS based estimate can be completed. It is our desire to submit this data to the NRC prior to completion of the SER. However, if the estimate is not available by then, we suggest the license include a pre-operational condition requiring submittal of the information prior to facility construction.**

From: John Cash
To: [Saxton, John](#)
Subject: [External_Sender] Soil sample results at HV6
Date: Tuesday, April 24, 2018 5:48:42 PM
Attachments: [Scanned from a Xerox Multifunction Printer.pdf](#)

John,

I forgot to attach the soil sample results from HV6 to my email from earlier today. Here it is.

John



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Spring Soil
Lab ID: C16050557-006
Client Sample ID: HV6

Report Date: 06/13/16
Collection Date: 05/12/16 10:01
Date Received: 05/17/16
Matrix: Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---------------------------------|--------|-----------|------------|------|-------------|--------|-------------------------|
| PHYSICAL CHARACTERISTICS | | | | | | | |
| Moisture | 7.4 | wt% | | 0.2 | | D2974 | 05/23/16 16:40 / sf |
| METALS - TOTAL | | | | | | | |
| Uranium | 1 | mg/kg-dry | | 0.01 | | SW6020 | 06/07/16 14:00 / sf |
| RADIONUCLIDES | | | | | | | |
| Lead 210 | 0.8 | pCi/g-dry | | | E909.0 | | 06/11/16 08:15 / eli-cs |
| Lead 210 precision (±) | 0.3 | pCi/g-dry | | | E909.0 | | 06/11/16 08:15 / eli-cs |
| Lead 210 MDC | 0.2 | pCi/g-dry | | | E909.0 | | 06/11/16 08:15 / eli-cs |
| Radium 226 | 1.3 | pCi/g-dry | | | E903.0 | | 06/01/16 11:11 / dmf |
| Radium 226 precision (±) | 0.3 | pCi/g-dry | | | E903.0 | | 06/01/16 11:11 / dmf |
| Radium 226 MDC | 0.04 | pCi/g-dry | | | E903.0 | | 06/01/16 11:11 / dmf |
| Thorium 230 | 0.7 | pCi/g-dry | | | E908.0 | | 06/02/16 16:03 / cng |
| Thorium 230 precision (±) | 0.1 | pCi/g-dry | | | E908.0 | | 06/02/16 16:03 / cng |
| Thorium 230 MDC | 0.2 | pCi/g-dry | | | E908.0 | | 06/02/16 16:03 / cng |

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.