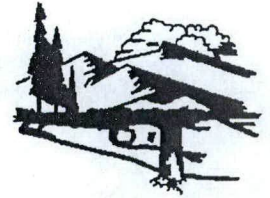




Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matt Mead, Governor

Todd Parfitt, Director

January 31, 2017

Mr. Richard P. Bush
Site Manager, Shirley Basin South
U. S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

RE: Shirley Basin South Title II Facility; Data Validation Package/July 2016 GW Sampling Event

Dear Mr. Bush:

The Wyoming Department of Environmental Quality/Water Quality Division (WDEQ/WQD) has received and reviewed the above referenced document. The report, entitled, "July 2016 Groundwater Sampling at the Shirley Basin South, Wyoming, Disposal Site" presented the results of the data validation package from the July, 2016 groundwater sampling activities at the Shirley Basin South disposal facility. Based on the review, WDEQ/WQD has the following questions/concerns:

1. The elevated radium-228 concentration in POC well 5-DC continues to be of concern to WDEQ/WQD in that well 5-DC is a point of compliance and the reported concentration exceeds the ACL.
2. A malfunctioning turbidity meter necessitated the use of filters during sample collection. The effect of the filter on constituent concentration was not addressed in the report. Did the filter skew the data pertaining to the metals analysis to appear to have lower concentration? We would appreciate an evaluation as to the impact on the data.
3. Table I 'Analytes and Methods' lists Chlorides, Nitrate+Nitrite as N, Sulfates and Total Dissolved Solids (TDS) in the sampling program. However, the concentrations of these analytes were not included 'Time Concentration Graphs' section.

The WDEQ looks forward to future reports which should continue to include, but not be limited to, sampling for radium-226 and radium-228 and application of the current ACLs. Should you have questions as to this correspondence please contact me at your earliest convenience. My direct line is (307) 335-6942.

Sincerely,

James P. O'Connor, P.G.

Project Geologist
WQD/GPC Section

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cc: Mr. Dominic Orlando, Senior Project Manager, Materials Decommissioning Branch,
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Mr. Kevin Frederick, P.G., WQD Administrator/Cheyenne (pdf)
Ms. Lily Lee, GW Program Manager/Cheyenne (pdf)
Ms. Nicole Twing, P.G., GPC Supervisor/Cheyenne (pdf)
Mr. Don Fischer, P.G., GPC N.E. District Supervisor/Sheridan (pdf)
File (2): Petrotomics, Shirley Basin, Carbon Co. / Chron
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