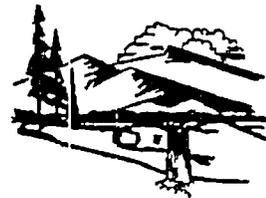




Petrotomics

Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

March 27, 2006

Mr. Scott R. Surovchak
Site Manager, Shirley Basin South
Department of Energy
Office of Legacy Management
2597 B ¼ Road
Grand Junction, CO 81503

RE: Shirley Basin South Site, Groundwater Sampling Reports

Dear Mr. Surovchak:

The Wyoming Department of Environmental Quality, Water Quality Division (WDEQ/WQD) has reviewed the March 10, 2006, *Confirmatory Groundwater Sampling Report*. Because groundwater analyses performed in July 2005 revealed the presence of contaminants in concentrations that exceed the site specific ACL's, the DOE performed confirmatory sampling for two wells in December 2005. The results of this sampling confirmed that ACLs are being exceeded for two wells at the site. Furthermore, plots of the historical data for the two wells in question show that there is an upward trend for the identified contaminants.

The DOE's response to these exceedances, as proposed to the NRC in the March 10, 2006 letter, is to "... initiate development of an alternative monitoring plan." This monitoring plan is to continue annual sampling at the site and "... evaluate the results after the fifth year of sampling that will occur in 2009."

The WDEQ is concerned about this approach. We do not understand how continuing to sample on an annual basis, as is already being performed, constitutes an "evaluative monitoring plan". Furthermore, our understanding is that when ACLs are exceeded, corrective action is to be evaluated, and if necessary, implemented. We do not see how further monitoring satisfies that requirement. There must be an underlying cause for the trend of increasing contaminant concentration in these two wells. We believe that further evaluation needs to be performed to determine the scope of this problem, to initiate corrective action before the groundwater contamination begins to migrate off site. Isn't that the reason for identifying "point of compliance" wells? We are also concerned that "point of exposure" wells are not identified at this site. Without a point of exposure identified, how will the DOE and NRC determine when groundwater contamination is affecting receptors?

Lander Field Office • 510 Meadowview Drive • Lander, WY 82520 • <http://deq.state.wy.us>

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Additionally, after further review of the 2005 Annual Site Inspection and Monitoring Report, we noticed that there is yet another well that has an exceedance of the ACLs that was not mentioned by the DOE in its review of the groundwater data. Well 54-SC, located *down gradient* of the POC wells discussed above, contained Radium-228 at 79.4 pCi/L in the July 2005 sampling event. This is significantly above the ACL limit of 25.7pCi/L. Why was this well not targeted for confirmatory sampling also?

It appears that there is a problem with the groundwater modeling, or geohydraulic data used to make the decision to close out this site. We look forward to discussing these questions with you and hearing your response to our concerns. Please contact me at 307/335-6959 or at the address provided if you have any questions concerning our letter or the concerns we raised.

Sincerely,



Mark Thiesse

West District Supervisor
Groundwater Pollution Control Program

cc: ✓ Mr. Stephen J. Cohen, U.S. NRC, Fuel Cycle Facilities Branch, 11545 Rockville
Pike, Rockville, MD 20852
Mr. Kevin Frederick, WQD Cheyenne
Ms. Roberta Hoy, LQD, Cheyenne