



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF RADIATION CONTROL

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
William J. Sinclair
Director

168 North 1950 West
P.O. Box 144850
Salt Lake City, Utah 84114-4850
(801) 536-4250
(801) 533-4097 Fax
(801) 536-4414 T.D.D.
www.deq.state.ut.us Web

December 7, 1999

Frederick R. Craft
Plateau Resources Limited
877 North 8th West
Riverton, Wyoming 82501

SUBJECT: Shootaring Canyon Uranium Mill Ground Water Monitoring Quality Assurance Plan,
Ground Water Quality Discharge Permit Compliance Item II.H.4: DRC Approval

Dear Fred,

The Utah Department of Environmental Quality Division of Radiation Control (DRC) has received the revised *Groundwater Monitoring Quality Assurance Plan* (QAP) dated November 30, 1999 for the Plateau Resources Limited (PRL) Shootaring Canyon uranium mill near Ticaboo, Utah. A review of the revised QAP indicates that all of the DRC comments we discussed via telephone have been addressed. The DRC's primary concern was related to pre-sampling purge volume constraints caused by the low hydraulic conductivity and correspondingly low transmissivity of the Entrada Sandstone aquifer.

As indicated in Table 4.1 of the report titled *Aquifer Properties of New Wells and Recommended Sampling Rates* (Hydro-Engineering, LLC, 1999), the hydraulic conductivity of the Entrada Sandstone aquifer ranges from less than 0.002 feet per day in well RM11 to 0.21 feet per day in well RM3 with an average of 0.07 feet per day for all compliance monitoring wells. This low hydraulic conductivity results in very low yields, very narrow and deep cones of depression around wells, and very slow recovery times during pre-sampling purging. Therefore, removing three casing volumes from these wells is not feasible, and may lead to problems such as pulling air into the pump intakes which could compromise the integrity of the samples.

To resolve the purge volume problem described above, the DRC has given PRL a variance to allow one casing volume to be removed from each well prior to sampling instead of the three-casing purge volume recommended in the RCRA Technical Enforcement Guidance Document (EPA, 1986). However, PRL must demonstrate that the groundwater has stabilized in each well prior to collecting samples. This demonstration must be done by recording three consecutive measurements of pH, temperature, and specific conductivity that meet the stabilization criteria stipulated in the QAP. As indicated in the QAP, these measurements must be made in the field using a flow cell and documented on the groundwater sampling form.


11104

PDU WASTE Wm-60

Mr. Frederick R. Craft
December 7, 1999
Page 2

If you have any questions regarding this letter, please call Rob Herbert at (801) 536-0046. We appreciate your cooperation in helping us resolve issues related to the Shootaring Canyon Ground Water Quality Discharge Permit.

UTAH RADIATION CONTROL BOARD



William J. Sinclair, Executive Secretary

WJS/RFH/rh

cc: Larry Mize, DWQ
Phyllis Sobel, NRC

F:\WP\PLATEAU\QAPAPP.LTR
FILE:PLATEAU RESOURCES

References

- Hydro-Engineering, LLC, 1999. Aquifer Properties of New Wells and Recommended Sampling Rates, prepared for Plateau Resources Limited. November 1999.
- Hydro-Engineering, LLC, 1998. Ground-Water Hydrology of the Shootaring Canyon Tailings Site, prepared for Plateau Resources Limited. May 1998. Revised August 28, 1998.
- U.S. Environmental Protection Agency, 1986. RCRA Ground-Water Monitoring Technical Enforcement Guidance Document, OSWER-9950.1. September 1986.
- Utah Department of Environmental Quality, 1999. Ground Water Quality Discharge Permit for the Plateau Resources Limited Shootaring Canyon Uranium Mill near Ticaboo, Utah. Issue date March 17, 1999.



State of Utah
DIVISION OF RADIATION CONTROL
DEPARTMENT OF ENVIRONMENTAL QUALITY

P.O. Box 144850
Salt Lake City Utah 84114-4850

RETURN SERVICE REQUESTED

PRESORTED
FIRST CLASS



U.S. POSTAGE

00.243

H METER 705381

PHYLLIS SOBEL PROJECT MANAGER
MAIL STOP T7J8
U.S. NUCLEAR REGULATORY COMMISSION
11555 ROCKVILLE PIKE
WASHINGTON DC 20555

1 AUTO 20555

