

**From:** Robert Nelson  
**To:** Mike Griffin  
**Date:** 6/17/05 3:43PM  
**Subject:** Re: Initial report of apparent excursion for SM6-28

I acknowledge receipt of your report of apparent excursion for SM6-28 sent by e-mail this date. If we have any comments or questions, we will contact you.

ROBERT NELSON, Chief  
Uranium Processing Section  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety and Safeguards  
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Docket No.: 40-8943  
License No.: SUA-1543

>>> "Mike Griffin" <mgriffin@citicnet.net> 06/17/05 03:33PM >>>  
Dear Mr. Nelson:

As we discussed by telephone earlier today, Crow Butte Resources (CBR) is placing shallow monitor well SM6-28 on excursion status based on exceedance of the alkalinity and conductivity upper control limits (UCLs). In the routine sample obtained on June 16 and a duplicate sample obtained on June 17 per NRC License requirements, water quality for SM6-28 exceeded the multiple UCL for alkalinity and the single UCL for conductivity.

CBR believes that this apparent excursion is due to increased groundwater levels caused by the significant amount of precipitation received at the facility this spring and is not caused by mining activities. This conclusion is supported by the following indications:

- 1.. Water level in the well has increased 4 feet this spring and is currently within 10 feet of the top of the casing at the well. SM6-28 is located in Mine Unit 6 in an area of high groundwater near the springs that form the source of English Creek. Groundwater quality in this area is under the influence of surface water.
  - 2.. The chloride concentration has increased from normal concentrations of 6 mg/l to 15 mg/l and has not exceeded the UCLs. If the monitor well were affected by an excursion of mining solutions, it would be expected that the chloride concentration would be much higher due to its high concentration in the lixiviant (which typically contains chloride concentrations in excess of 500 mg/l) and its mobility in the environment.
  - 3.. There are several other shallow monitor wells in Mine Unit 6 (which is south of English Creek) and Mine Unit 8 (which is north of English Creek) that are showing similar increases in water level, alkalinity, and conductivity without corresponding increases in chloride concentrations. A common characteristic of these wells is the close proximity to the creek.
  - 4.. There are very few injection wells in operation near SM6-28. All wellheads, wellhouses, and trunklines were checked by CBR field staff this morning and no apparent sources for the excursion were identified.
  - 5.. This same shallow monitor well was placed on excursion status in May 2000 following a similar increase in water level due to precipitation (see excursion report dated May 30, 2000). The well was removed from excursion status in late June 2000 after water level had decreased during summer months (see excursion report dated June 27, 2000).
- CBR will prepare a report with well data for submittal as required in the NRC License.

If you have any questions, please feel free to call me.

Michael Griffin  
Manager of Health, Safety, and Environmental Affairs

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**From:** Robert Nelson  
  
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