



40-8964

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Uranium Project  
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Glenrock, Wyoming USA 82637  
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September 17, 2004

Mr. Lowell Spackman, Acting District 1 Supervisor  
Land Quality Division  
Wyoming Department of Environmental Quality  
Herschler Building  
122 West 25<sup>th</sup> Street  
Cheyenne, WY 82002

RE: Permit to Mine No. 603  
In Situ Uranium Wellfield Release Report

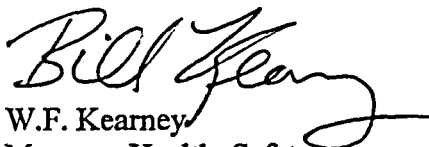
Dear Mr. Spackman:

As reported via email to Mr. Steve Ingle of the Land Quality Division and Mr. John Lusher, NRC Project Manager, on September 13, 2004, Power Resources, Inc. (PRI) had a release of Production Fluid at the Smith Ranch Uranium Project in Converse County, Wyoming. The release was detected on September 12, 2004 in the F-Wellfield, Headerhouse F-42 area. The release of fluid resulted from a failure of a steel reducer from the 14-inch main trunk line to the 6-inch main line from the Headerhouse. The reducer was at a Valve Station contained in an inverted culvert (manhole). The concentrations of uranium, selenium and radium in Production Fluid are above background levels, however the fluid is not considered hazardous material under RCRA, and is not reportable under SARA.

In accordance with Chapter IV, Section 4(a)(iv) of the Water Quality Division Rules and Regulations, attached is a report describing the release and the steps taken to prevent a recurrence of this nature.

Please call if you have any questions.

Sincerely,

  
W.F. Kearney  
Manager-Health, Safety  
& Environmental Affairs

WFK/klm

Cc: John Lusher - NRC Project Manager      R. Knode      K. Milmine  
M.D. Bryson      File 4.3.3.1      File 4.6.4.2      File 4.6.4.4



UMSS01

## Attachment

**Power Resources, Inc  
Smith Ranch-Highland Uranium Project  
URANIUM IN SITU WELLFIELD FLUID RELEASE REPORT**

### **PIPELINE REDUCER FAILURE AT HEADERHOUSE F-42 VALVE STATION**

**A. DESCRIPTION OF THE EVENT AND MITIGATIVE ACTIONS TAKEN**

On September 12, 2004 at approximately 1:30 p.m., personnel discovered a Production Fluid leak inside the F-Wellfield near Headerhouse F-42. The release occurred when a 14-inch to 6-inch steel reducer failed at the Valve Station that connects the Headerhouse to the main trunk line. The main line was immediately shut down and repairs were completed.

The Valve Station consists of a large culvert placed vertically in the ground around the pipeline with an entrance on the top. Most of the spill was contained in the culvert. However, an estimated 1000 gallons of Production Fluid overflowed on to the ground. The released fluid flowed approximately 600 feet where it then soaked into the ground. It was not possible to recover any of the fluid released from the culvert before it was absorbed. However, the fluid that remained contained in the culvert was recovered. The Valve Station is located in an ephemeral draw. The released fluid entered the dry draw and flowed downstream approximately 570 feet (of the total 600 feet).

The approximate uranium concentration of the Production Fluid was 10.5 mg/l. The entire area will be reevaluated during the decommissioning of the wellfield to ensure that applicable decommissioning standards for soils are met. Although no adverse impacts are expected due to the small quantity of fluid involved and the small extent of the spill, soil samples were obtained at two locations within the wetted area and at an adjacent background site. The samples will be analyzed for uranium, radium -226 and selenium.

The release occurred in the NE ¼, SE ¼, Section 21, T36N, R73W and affected approximately 0.03 acres. The exact location and extent of the spill is shown on the attached map.

**B. CAUSE OF THE RELEASE AND THE STEPS TAKEN TO PREVENT RECCURANCE**

Cause

The release occurred when a steel reducer connecting the production line inside the Valve Station failed. Investigation showed that a hole had developed in the reducer as a result of rusting.

Recurrence Prevention

The reducer was replaced and the pipeline was placed back into service.

