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# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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March 13, 1991

**TO: FILE**

**FROM: DAVID DARBY, GEOLOGIST** 

**RE: EXPLORATION PROPOSAL, SOLDIER CANYON MINE, ACT/007/018  
SOLDIER CREEK COAL COMPANY, CARBON COUNTY, UTAH, FOLDER  
#2.**

## Synopsis

On March 7, 1991 the Division received an exploration proposal from Soldier Creek Coal Company (SCCC). SCCC intends to drill three exploration holes to obtain geologic and hydrologic information in the vicinity of their proposed waste rock site. Three wells will be established, well site No. 1 will be drilled down dip of the proposed waste rock site, Well No.2 will be drilled east of the site and Well No. 3 will be drilled to the west.

Installation of the three drill holes will provide the baseline information necessary to identify the contact zone between the colluvial deposits and Mancos Shale and any aquifers or water sources within the contact zone or upper Mancos Shale. Water that is contacted will be characterized by depth, availability and quality (if feasible).

A discussion with Tom Suchoski on March 13, 1991 outlined the drilling and construction methods for well development. Drill hole No. 1 will be drilled 50 feet below the contact zone into the Mancos Shale. The wells will be developed for each aquifer contacted, and in the event that no water is contacted either in the Mancos Shale or the colluvium the monitoring well will be developed at the contact between the Mancos and the colluvium.

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Soldier Creek Coal Company  
Waste Rock Exploration Plan  
March 13, 1991

Drill hole sites No. 2 and No. 3 will also be drilled 50 feet below the contact zone. Stratigraphic and texture analyses will be made to establish the existence of an aquifer. These holes will be established as wells to sample any subsurface infiltration of runoff from the waste site.

### Analysis

The exploration plan was reviewed to ensure that all information will be collected to determine the probable hydrologic impacts. The drilling is scheduled to begin on Monday

March 18, 1991. I will be on site while the drilling proceeds to examine cutting and record water contacts. The wells are intended to remain for monitoring until reclamation.

### Recommendations

I recommend that this exploration plan be approved.

dwd/DWD

cc. B-team