

0003

APR 29 1981

MAY 1 1981

DIVISION OF
OIL, GAS & MINING

MEMORANDUM

TO: Gary Fritz
FROM: John Hardaway
SUBJECT: U.S. Fuels Company - Revised Surface and Ground-Water Monitoring Plan

Review of the subject plan shows the following major elements:

. Ten springs will be sampled in the Fall and Spring; one of these (SP-8) will be monitored on a monthly basis since it contributes to a stream (Cedar Creek) which passes near a coal loadout. The initial round of sampling will be comprehensive (Table 3). Subsequent sampling will be limited (Table 4) to representative parameters. The springs were chosen because they had flow in 1977 (a "drought year"). They surround the mine area and a few overlie the mine.

Seven additional springs are listed as monitored Plateau and four additional springs are listed as monitored by the USGS. No particulars on the monitoring of these eleven additional springs are provided.

The ground water monitoring does not include any wells.

. Eight surface water monitoring stations are proposed. Six of these are concentrated in the North Fork of Miller Creek. One is located downstream of the loadout on Cedar Creek. One is located in Gentry Hollow Creek which is the only westward-flowing stream so monitored. The North Fork is perennial.

Seven discharging sedimentation ponds are monitored under a NPDES permit.

All surface water monitoring stations except one will be initially monitored monthly and then reduced to quarterly. The exception is the one station in Gentry Hollow Creek which is to be monitored semi-annually. A full analysis will be conducted the first time (Table 3) after which the limited, but representative, analyses will be conducted (Table 4).

The NPDES monitoring stations are to have monthly analyses (Table 1).

All flow measurements are either wier or time-quantity measurements. No continuous records are proposed.

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U.S. Fuel's entire Hiawatha Mine Complex is integrated in with the aerial imagery monitoring program that the Manti LaSal National Forest has required. This imagery (both IR and color IR) may provide some subsidence and vegetation information which may translate to hydrology effects.

This plan is relatively general in that it does not appear to have been developed to monitor any particular effect of surface activities or underground mining. The geology of the area is presented, but the geologic structure is not (e.g. the Bear Canyon Fault). The initial sampling for numerous constituents (Table 3) is good; however, the reduced sampling (Table 4) may have to be modified based on the information gained from the initial samples. Therefore we suggest the water quality analyses not be changed until the results of the initial sampling are submitted and reviewed, and the changes found acceptable by the regulatory authority.

It is not possible to analyze the adequacy of the entire monitoring plan without complete analysis of the proposed and past mining and surface operations. The completeness review for the U.S. Fuels plan is scheduled for June. We may, in the process of that and subsequent reviews, find that changes in the monitoring are necessary. Based on the review of UT-0006-22 (December 22, 1980) "Surface and Ground Water Monitoring Plan" we can recommend only a provisional approval. We would appreciate U.S. Fuel's assistance in better describing the variations in flow normally experienced with the springs located over and adjacent to the proposed minor workings. It may be appropriate to install a continuous flow monitoring system for one or more of the monitoring locations. However, it is premature for us to require such monitoring without further analysis.

I hope this helps.

cc: Jim Smith, Jr., Utah DOWM 

bcc: John Nadolski
Chron
OFC
John Hardaway
Dan Kimball

J.Hardaway:blu:04/27/81