

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

April 26, 2005

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor

FROM: Steve Fluke, Reclamation Hydrogeologist

RE: 2004, Third Quarter Water Monitoring, Canyon Fuel Company,
SUFCO Mine, C/041/0002-WQ04-3, Task ID #2015

1. Was data submitted for all of the MRP required sites? YES [X] NO []

2. On what date does the MRP require a five-year resampling of baseline water data.

The MRP does not require a five-year resampling of baseline water data.

Resampling due date.

Not specified.

3. Were all required parameters reported for each site? YES [X] NO []

Additional stream and spring monitoring stations have been added to the East Fork of Box Canyon as part of a mitigation plan for undermining the stream channel with panels 3LPE and 4LPE. These monitoring stations, intended to more carefully document the effects of subsidence on the hydrologic balance and state appropriated water rights on the East Fork of Box Canyon, also include existing quarterly stream and spring monitoring stations (Pines 106 and Pines 214). The data collected at the additional monitoring stations are submitted and reviewed separately from the quarterly water monitoring data as outlined in the MRP (Appendix 3-10). Only the quarterly monitoring stations are reviewed as part of this memo.

4. Were irregularities found in the data? YES [X] NO []

Springs

Concentrations of dissolved calcium and magnesium for Pines 047 were reported above two standard deviations.

Streams

Concentrations of carbonate for Pines 403 and conductivity for Pines 408 were reported above two standard deviations.

5. Were DMR forms submitted for all required sites?

1st quarter, 1st month, YES [X] NO []
2nd month, YES [X] NO []
3rd month, YES [X] NO []

DMR forms are submitted to DOGM and the data submitted to the DOGM database. All required UPDES sites were monitored. For all three months, no flow was reported for UPDES site 001. The July DMR reported that UPDES site 003 passed the test for acute whole effluent toxicity for *Ceriodaphnia dubia*.

6. Were all required DMR parameters reported? YES [X] NO []

7. Were irregularities found in the DMR data? YES [X] NO []

UPDES Site 003

A sample collected on July 28 reported total iron at 2.62 mg/L which exceeds the daily maximum limit of 1.0 mg/L. The mine reported the exceedence by phone to the DEQ on August 9 upon receiving the analytical results of the sample and in two letters dated August 12 and 17, 2004. The reason given by the mine for the exceedence was a power outage that resulted in flooding and subsequent increased pumping with high suspended solids. A follow-up sample was collected on August 4 that had a total iron concentration of 0.15 mg/L.

8. Based on your review, what further actions, if any, do you recommend?

It is likely that the effects of the continued drought have caused an increase in concentrations of parameters at Pines 047 and Pines 403. Continue monitoring these sites and review data for possible trends.

The undermining of the East Fork of Box Canyon has damaged spring Pines 214 and portions of the stream channel as evidenced by measured flow and increased conductivity at stream site Pines 408. The mitigation of the effects of subsidence on the stream channel is ongoing as outlined in the mitigation plan presented in Appendix 3-10 of the MRP.

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