

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

March 21, 2006

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor

FROM: James D. Smith, Environmental Scientist

RE: 2005 Third Quarter Water Monitoring, CO-OP Mining Company, Bear Canyon Mine, C/015/0025, Task ID #2387

The monitoring plan is described in Section 7.2.5, including Tables 7.1-6, 7.1-7, 7.1-8, 7.1-9, 7.2-4, and 7.2-5 of the MRP.

1. Were data submitted for all of the MRP required sites?

In-mine YES NO

SBC-11 has not been not accessible since early January 2003 because of a roof fall in the Hiawatha workings of Mine #1. SBC-9A replaced SBC-11 for monitoring water in this section of the #1 Mine; however, additional roof falls made Mine #1, including SBC-9A, inaccessible. The pipe that carries the water out of the mine to the culinary water supply is now the location for water quality and quantity monitoring, and SBC-9A has been retained as the name for this sampling site.

Springs YES NO

Streams YES NO

UPDES YES NO

There was no discharge from any of the UPDES permitted sites during the third quarter.

DMR parameters that are not included in the operational parameter lists in the MRP - such as sanitary wastes, visible foam, and floating solids - are not reported in the electronic submittal to the Division. Operational monitoring values are reported for UPDES flow, TDS, TSS, pH, and total iron.

Wells YES NO

2. Were all required parameters reported for each site?

Baseline parameters are to be taken in August of year 5 prior to each permit renewal (Table 7.1-8). Baseline analyses were to have been done in August 2005. The Permittee's third quarter 2005 water monitoring data did not include analysis results for the baseline parameters. Other than these missing baseline parameters, all required parameters were reported for each site, as indicated by the following.

In-mine YES NO

Springs YES NO

Streams YES NO

UPDES YES NO

Wells YES NO

3. Were any irregularities found in the data?

Listed parameters were outside two standard deviations: "n" is the number of values used to calculate the standard deviation in the Division's database. An asterisk (*) indicates this is not a parameter required by the MRP.

In-mine YES NO

Springs YES NO

SBC-3 August: water temperature (n = 56), depth (n = 56), and Cl (n = 56)

SBC-4 August: total alkalinity* (n = 77)

SBC-5 August: Mg (n = 48) and Na (n = 46)

- SBC-12 August: field specific conductivity (n = 38).
- SBC-14 August: field specific conductivity (n = 31), flow (n = 31), Ca (n = 31), Mg (n = 31), K (n = 31), Na (n = 31), SO4 (n = 31), total alkalinity* (n = 30), total hardness (n = 31), lab specific conductivity* (n = 30), and TDS (n = 31).
- SBC-15 August: water temperature (n = 29).
- SBC-16 July: water temperature (n = 15).
- SMH-1 August: water temperature (n = 42)
- SMH-2 July: field specific conductivity (n = 40)
- SMH-3 August: field pH (n = 40)
- SMH-4 July and August: field pH (n = 40) and water temperature (n = 40).

Streams

YES NO

- BC-1 August: water temperature (n = 150)
- BC-2 July: water temperature (n = 153)
- BC-3 July, August, and September: flow (n = 128)
- MH-1 August: DO (n = 25)

UPDES

YES NO

Wells

YES NO

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

Baseline parameters are to be taken in August of year 5 prior to each permit renewal (Table 7.1-8). Baseline parameters were measured August 2000 and included with the Third Quarter 2000 data submittal. Next baseline analysis will be in August 2005.

The Permittee's third quarter 2005 water monitoring data did not include analysis results

for the baseline parameters.

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

Field parameters, in particular water temperature, are frequently outside two standard deviations. The Permittee needs to review field procedures and equipment to assure measurement of field parameters is accurate.

6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements? YES NO

The Permittee will provide analysis results for the baseline parameters for samples collected in August 2006.

7. Follow-up from last quarter (2nd Qtr 2005), if necessary. YES NO

8. Did the Mine Operator respond adequately to queries about missing or irregular data? YES NO

NOV N6-46-1-1 was issued for failure to analyze for the baseline parameters in the August 2005 samples. Abatement will be to analyze the samples collected in August 2006 (the low-flow period) for baseline parameters.