

# WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

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June 30, 2005

TO: Internal File

THRU: Wayne Hedberg, Permit Supervisor

FROM: Steve Fluke, Reclamation Hydrogeologist

RE: 2005 First Quarter Water Monitoring, West Ridge Resources, West Ridge Mine, C007/0041-WQ05-1, Task ID #2276

**1. Was data submitted for all required monitoring sites?** YES [ X ] NO [ ]

The West Ridge Mine is currently operational. Water monitoring data is evaluated from the data that is submitted quarterly by the mine to the Division EDI database. Water monitoring protocols, and surface, groundwater and monitoring wells, and UPDES sample parameters are outlined in the mine's MRP on Tables 7-1, 7-2, 7-3, and 7-4, respectively.

**Surface** Operational sampling is required quarterly for five stream monitoring sites (ST-3, ST-4, ST-8, ST-9, and ST-10). There are four stream monitoring sites (ST-5, ST-6, ST-6A, and ST-7) that are equipped with automatic samplers that are required to be checked following precipitation events.

No access was reported for ST-3, ST-9, and ST-10 due to snow and ice from a cold and wet spring. Access was attempted at the end of the quarter (March 29, 2005). No flow was reported for ST-4, ST-6A, and ST-7. Samples were collected and data submitted as required for ST-5 and ST-8.

**Groundwater and Wells** Operational sampling is required quarterly for eight spring monitoring sites (SP-12, SP-13, SP-15, WR-1, WR-2, SP-16, SP-8, and S-80) and one groundwater monitoring well site (DH 86-2).

No access was reported for all eight spring monitoring sites due to snow and ice from a cold and wet spring. Well site DH 86-2 was sampled and data submitted.

**UPDES** Operational sampling is required monthly for two active UPDES sites (D001 and D002).  
All UPDES sites were sampled and data submitted.

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

**Surface** All required parameters were reported with the following exceptions:

No oil and grease analysis was submitted for **ST-8**.

**Groundwater and Wells** No data was submitted for the spring sites because they could not be accessed. All required parameters were submitted for well DH 86-2.

**UPDES** All required parameters were reported.

**3. Were any irregularities found in the data?** YES [ X ] NO [ ]

**Surface** No irregularities were found in the data with the following exceptions:

**ST-5** - conductivity, total dissolved solids (TDS), sulfate, and dissolved magnesium, potassium, and sodium were reported above two standard deviations. This is not uncommon for this site that uses an automatic sampler to collect surface water following a storm event.

**Groundwater and Wells** No irregularities were found in the data.

**UPDES** No irregularities were found in the data with the following exceptions:

**D002** – the calculated TDS for the mine water discharge exceeds the maximum limit of 2,000 lbs/day for January, February, and March. In addition, after discussing the matter with Jeff Studenka of the Utah Division of Water Quality, it was discovered that some of the effluent discharge and TDS data input in the EDI database does not match the DMR data as it should.

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

Five-year baseline resampling is to occur at the time of the mid-term review. The next baseline resampling should be conducted by October 1, 2006.

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

**Surface** Continue discussions with the Permittee and mine hydrologist regarding whether the automatic sampling method for some of the stream sites can be improved upon. Determine why oil and grease analysis was not submitted for **ST-8**.

