

# WATER QUALITY MEMORANDUM Utah Coal Regulatory Program

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March 29, 2011

TO: Internal File  
THRU: Daron Haddock *DH*  
FROM: James D. Smith, Environmental Scientist *JS 29Mar11*  
RE: 2009 Third Quarter Water Monitoring, Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002, Task ID #3391

The SUFCO Mine is an operating longwall mine. Current operations are in the Quitcupah and Muddy Tracts. Water monitoring requirements can be found in Section 7.3.1.2 of the MRP, see Tables 7-2, 7-3, 7-4, 7-5, and 7-5A. Page 7-48 contains the important statement that (non Box-Canyon, non-UPDES) "monitoring sites are sampled three times per year," meaning the second, third, and fourth quarters.

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

**Springs** YES  NO

*The MRP requires the Permittee to monitor 25 springs during the second, third, and fourth quarter as per Table 7-2. Some require full laboratory analysis according to Table 7-4, while others simply require field measurements. Link Portal-East and Link Portal-West are listed with the springs in Table 7-2 but they are reported as "Other" in the database.*

Each of the required spring locations was monitored during the third quarter of 2009.

**Streams** YES  NO

*As per Table 7-2, the MRP requires the Permittee to monitor 18 streams during the second, third and fourth quarter, plus FP-1 and FP-2 "on or near October 1 of each year".*

Each of the required stream locations was monitored during the third quarter of 2010. FP-1 and FP-2 were monitored on October 26, 2009.

**Wells** YES  NO

*The MRP requires the Permittee to monitor water levels for 6 wells. Monitoring wells US-80-2, 89-20-2W, US-81-4, and 01-8-1 are monitored quarterly. Monitoring wells US-79-13 and US-80-4 are to be monitored annually during the third quarter.*

All scheduled wells, including US-79-13 and US-80-4, were gauged during the third quarter of 2009.

Additional wells associated with the waste rock disposal site are in the database: WRDS-B3, WRDS-B5, WRDS-B6, WRDS-B8, and WRDS-B9. The sampling protocol for these wells is found in Volume 3, pages 4-10 through 4-12. The wells that were not dry were sampled for the listed parameters during the third quarter of 2009.

**UPDES**

*The UPDES Permit/MRP require bi-weekly monitoring of 3 outfalls: UT0022918-001: mine water discharge to Spring Canyon; UT0022918-002: sedimentation pond discharge to Spring Canyon; and UT0022918-003A: the mine water discharge to the North Fork of Quitchupah Creek.*

The Permittee submitted all required samples for the UPDES sites. Outfall 001 reported no flow this quarter. The mine water discharge from outfall 003A to the North Fork of Quitchupah Creek averaged 3,168 gpm and TDS concentration averaged 642 mg/L.

2. Were all required parameters reported for each site? YES  NO

3. Were any irregularities found in the data? YES  NO

Listed parameters were outside two standard deviations.

**Springs** YES  NO

**Streams** YES  NO

PINES 406b: field specific conductivity; [the measurement of 1,120  $\mu$ mhos/cm, 5.41 standard deviations above the mean, was made while the stream was carrying sediment-laden runoff from a storm event (TSS 18,400 mg/L)].

**UPDES** YES  NO

UT0022918-002 16 September 2009: field pH [6.88, which is 2.27 standard deviations below the mean of 7.93].

**Wells** YES  NO

WRDS-B8: D-Mg [68.84 mg/L, which is 2.08 standard deviations above the mean of 60.79 mg/L].

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

There is no commitment in the MRP to resample for baseline parameters.

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

There is no further action recommended at this time.

**6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements?**

YES  NO

**7. Follow-up from last quarter, if necessary.**

NA

**8. Did the Mine Operator respond adequately to queries about missing or irregular data?**

YES  NO  NA

There were no missing or irregular data in the third quarter 2009.