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WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

September 20, 2011
AA

TO: Internal File

THRU: Steve Christensen, Permit Supervisor

FROM: April A. Abate, Environmental Scientist III *AAA*
9/21/2011

RE: 2011 First Quarter Water Monitoring, Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002, WQ11-01, Task ID #3761

The SUFCO Mine is an operating longwall mine. Current operations are in the Quitchupah 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.

SUFCO has added two additional stream monitoring points to their plan: SUFCO 006A and SUFCO 006B are intended to monitor the upstream and downstream flow along the South Fork of Quitchupah Creek on a quarterly basis and every two weeks while mining is taking place within a 15-degree angle of draw of the stream channel.

1. Was 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.

Spring locations GW-8 and GW-9 were the only springs monitored during the first quarter of 2011. These springs are the Lizonbee Springs that are the newest spring locations incorporated into the water monitoring program designed to better characterize mining in the West Lease area.

Streams YES NO

The MRP requires the Permittee to monitor 20 streams during the second, third and fourth quarter as per Table 7-2.

None of the stream locations were required to be monitored during the first quarter of 2011.

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-80-4 and US-79-13 are monitored annually during the 3rd quarter.

No wells are required to be gauged during the first quarter of 2011.

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 outfall locations that did report data reported the following:

	SED POND Q TO E SPRING CYN Outfall: UT0022918-002	Mine Water Discharge to N.Fk. Quitchupah Outfall: UT0022918-003A
Average Flow (gpm)	44.95	2502
Average TDS (mg/L)	1182	644.4

All data reported were within the compliance requirements of the UPDES Permit No. UT0022918.

2. Were all required parameters reported for each site?

YES NO

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

The following sample locations reported results outside of at least two standard deviations:

Sample ID	Date	Parameter	Value	STD. Deviation
UT0022918-002	1/5/2011	Flow	63.04 gpm	>2.06
UT0022918-003A	3/8/2011	Water Temp	9.9 deg C	<2.93

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?

As a general comment, the existing water monitoring plan in the MRP contains several outdated references to sampling protocols that were performed in the 1990s. The Division recommends that the water monitoring plan be updated in the near future that is more reflective of current sampling protocols (i.e. addressing the U.S. Forest Service sampling locations in the MRP).