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# WATER QUALITY MEMORANDUM

## Utah Coal Regulatory Program

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June 14, 2012

TO: Internal File

THRU: Steve Christensen, Permit Supervisor *SC*

FROM: April A. Abate, Environmental Scientist III *AAA*  
*6/14/12*

RE: 2011 4th Quarter Water Monitoring, Hiawatha Coal Company (HCC), Hiawatha Mine, C/007/0011, Task #3966

HCC has supplied schedules for water monitoring and parameter reporting in Tables 7-12 through 7-17, in the Mining and Reclamation Plan (MRP), updated on October 11, 2011. Water monitoring locations can be found on Plates 7-1 and 7-2 in the Hiawatha MRP. The Hiawatha mine holds Utah Discharge Elimination System (UPDES) Permit #UT0023094. A total of 13 outfalls are permitted at the site. Two of these outfalls discharge consistently (D001 and D002).

The Hiawatha Mine is currently in temporary cessation. There is currently no underground mining taking place.

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

*Identify sites not monitored and reason why, if known:*

### Springs

Currently, no spring locations are monitored. Hiawatha will resume monitoring of the springs listed on Table 7-17 two years prior to the start up of any underground mining activities.

### Streams

HCC monitors 10 stream locations at/near the mine site, ST-1, ST-2, ST-2B, ST-3, ST-3A, ST-3B, ST-4, ST-4A, ST-4B, and ST-5. HCC currently monitors field parameters of streams on a monthly basis from May through August and the month of October. Operational sampling occurs in April and September (Tables 7-13).

Field parameters were monitored for all ten stream sites during the month of October 2011. ST-3, ST-3A, ST-3B, ST-4, ST-4A, ST-4B were reported as not flowing.

**UPDES**

There are a total of 13 UPDES sample locations listed in Permit #UT0023094 for the Hiawatha Mine used to establish discharge quality. UPDES locations are monitored quarterly according to permit. The UPDES locations D003 through D013 listed in the current UPDES permit typically do not discharge. The current permit is due to expire in December 2014. All UPDES sample locations are outlined below:

Pond No.	Location
D001	Mohrland Portal
D002	Overflow at Hiawatha
D003	Upper Coal Storage Yard
D004	North of Slurry Pond No. 1
D005	East of Slurry Pond No. 4
D006	North East of Slurry Pond No. 5
D007	South East of Slurry Pond No. 5
D008	Middle Fork Mine Yard
D009	South Fork Mine Yard
D010	King Mine 4 Discharge
D011	South Fork Truck Loading Facility
D012	Mohrland Pipeline Drain
D013	King 6 Water Tank Overflow

During the third quarter of 2011, locations D003 through D013 did not report any flow data. Monthly data from UPDES locations D001 and D002 were reported this quarter. Analytical data were collected from outfalls D001 and D002 on December 27, 2011.

**2. Were all required parameters reported for each site?**

**Springs** YES  NO

*No springs are currently required to be sampled in the Hiawatha monitoring plan.*

**Streams** YES  NO

Operational sampling data were provided for stream locations ST-1, ST-2, ST-2B, and ST-5 for the 3rd quarter of 2011 collected in the month of September. All other stream locations did not report any flow in September. During the 3rd quarter of 2011, average flow data from the streams were as follows:

Sample ID	Description	Flow average 3Q 2011	Flow average 4Q 2011
ST-1	R FK OF N FK MILLER CREEK	32	26
ST-2 & 2B	L FK OF N FK MILLER CK	113	96
ST-3,	MDL FK MILLER CK-	70	0

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3A & 3B	CONFL W/N FK MILLER CREEK		
ST-4	S FK MILLER CREEK-NR CONFL W/NORTH FORK	54	0
ST-5	MILLER CREEK-BL CONFLUENCE OF SOUTH FORK	375	368

**UPDES**      YES       NO

The flow rate of discharge from the Morhland portal discharge (UPDES D001) this quarter averaged 350 gpm while flow rates from the mine to Miller Creek (UPDES D002) were reported at 130 gpm all three quarters. Total Dissolved Solids (TDS), oil and grease, total suspended solids, and total iron were all either not detected, or within the acceptable UPDES permit limits.

**3. Were irregularities found in the data?**

**Springs**      YES       NO

Not applicable

**Streams**      YES       NO

**UPDES**      YES       NO

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

No baseline sampling obligations are stipulated in the Hiawatha MRP.

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

None

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

No.

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

None.