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WATER QUALITY M E M O R A N D U M Utah Coal Regulatory Program

June 25, 2012

TO: Internal File

THRU: Steve Christensen, Permit Supervisor SC

FROM: Amanda Daniels, Environmental Scientist II AD

RE: 2011 Fourth Quarter Water Monitoring, Hidden Splendor Resources, Inc.,
Horizon Mine, C/007/0020, WQ11-4, Task ID #3968

The Horizon Mine is operational and mining coal. The water-monitoring plan is outlined in Chapter 7 - Hydrology of the MRP, which was most recently updated in June 2005. Surface and groundwater monitoring is required for the Horizon Mine under the operation plan, and monitoring procedures and parameters are discussed in MRP Section 7.1.5 (groundwater) and Section 7.2.2.3 (surface water). UPDES permit UTG040019 authorizes discharges from two outfalls and expires on April 30, 2013.

This report was prepared from monitoring data queried from the UDOGM database. The data that support this report were collected and submitted to the database by the Operator. The data were downloaded into file O:\007020.HZN\Water Quality\Spreadsheets\HorizonWQ.xlsx for this review.

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

Springs YES [X] NO []

Springs SP-1, SP-2, SP-4, SP-9 (Jewkes Spring), 2-6-W (Homestead Spring) and GV-70 will be monitored once each calendar quarter (when the springs are accessible) during the operational and reclamation phases. Ground water quality parameters to be checked are outlined in Table 7-2 of the MRP.

Streams YES [X] NO []

Stations SS-3, SS-5, SS-7, SS-8, SS-10 and SS-11 will be monitored once each quarter (as access conditions permit). Surface water quality parameters are outlined in Table 7-5 of the MRP.

Wells **YES [X]** **NO []**

Water level data will be collected during the operational and reclamation phases from wells HZ-95-1, HZ-95-1S, HZ-95-2, and HZ-01-06-1 once each quarter, when accessible.

UPDES **YES [X]** **NO []**

Monthly monitoring is required for the UPDES outfalls associated with the sedimentation pond (001) and the mine discharge (002).

UPDES sites were monitored monthly for the quarter and all required data were submitted. No flow was reported from the sedimentation pond. Discharge from the underground mine ranged from 160 to 215 gallons per minute.

2. Were all required parameters reported for each site?

Springs **YES [X]** **NO []**

Streams **YES [X]** **NO []**

Wells **YES [X]** **NO []**

UPDES **YES [X]** **NO []**

3. Were irregularities found in the data?

Springs **YES [X]** **NO []**

Spring site SP-2 reported Bcrb CaCO₃ at 349 mg/l. This is 2.35 standard deviations above the parameter mean of 280.07 mg/l. This parameter appears to be a normal variation.

Streams **YES []** **NO [X]**

Stream site SS-5 reported D-Ca at 118.47 mg/l. This is 2.33 standard deviations above the parameter mean of 87.8 mg/l. Stream site SS-5 is located along Jewkes Creek above the mine, all other parameters sampled at the site appear to be within normal ranges.

Wells **YES []** **NO [X]**

UPDES **YES []** **NO [X]**

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

Re-sampling due date is third quarter, July-September 2012.

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

None needed.

Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements? YES [] NO [X]

- 6. Follow-up from last quarter, if necessary.
Did the Mine Operator submit all the missing and/or irregular data (datum)?**

None needed.