

# WATER QUALITY MEMORANDUM

## Utah Coal Regulatory Program

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March 9, 2017

TO: Internal File

THRU: Steve Christensen, Permit Supervisor 

FROM: Arati Umarvadia, Environmental Scientist 

RE: 2016 Third Quarter Water Monitoring, UtahAmerican Energy Inc., Horse Canyon Complex, C/007/0013, WQ16-3, Task ID #5330

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 UtahAmerican Energy Inc. (UEI). The data were downloaded into file O:\007013.HOR\WaterQuality\Spreadsheets\HorseCanyonWQ.xlsx for this review.

### Lila Canyon Mine

UEI received permit approval for the Lila Canyon Mine on May 18, 2007 with special conditions attached. The Conditions were clarified on August 3, 2007. Operational water monitoring is described in Section 731.200 and monitoring sites are listed in Table 7-3 of the Lila Canyon MRP. Table 7-4 and Table 7-5 list the monitoring parameters for surface water and groundwater, respectively, and Plate 7-4 shows the water monitoring sites. The list of parameters for baseline, operational and post-mining water monitoring are the same.

#### **1. Were data submitted for all required sites?**

**Springs** YES  NO

Operational monitoring for Lila Canyon includes quarterly monitoring at springs L-11-G, L-12-G, L-7-G, L-8-G, L-9-G, L-16-G and L-17-G. All springs were monitored according to the schedule.

**Streams** YES  NO

Surface water (stream) sites are monitored quarterly. Sites L-1-S, L-2-S, L-3-S, and L-19-S are identified for surface water monitoring for the Lila Canyon Mine.

Stream monitoring sites had no flow during the quarter.

**Wells** YES  NO

**UPDES** YES  NO

Discharges from the Lila Canyon Mine are authorized under UPDES Permit No. UT0026018. The Lila Canyon Mine UPDES permit identifies two discharges: 001 is discharge from the sediment pond and 002 is discharge from the underground mine. These discharges are being monitored as sites L-4-S and L-5-G, respectively. The UPDES permit specifies monitoring frequency and required parameters. The underground mine and sediment pond are constructed but not discharging.

Required monthly monitoring data for both points was reported as “no flow” for third quarter 2016.

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

**Springs** YES  NO

**Streams** YES  NO

**Wells** YES  NO

**UPDES** YES  NO

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

The following sites reported parameters more than two standard deviations from the mean:

**Springs** YES  NO

L-7-G: Total Suspended Solids

No data is available for the previous two quarters due to limited access.

L-9-G: Dissolved Sodium, Sulfate, Total Dissolved Solids

In the previous quarter, Dissolved Na, and SO<sub>4</sub> were above the normal range. This quarter, all major cations/anions are above the normal range.

**Streams** YES  NO

**Wells** YES  NO

**UPDES** YES  NO

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

Re-sampling for baseline parameters is due preceding permit renewal. Analysis of baseline water samples is conducted according to the operational monitoring plan, therefore no additional parameters are required for baseline monitoring.

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

Dissolved Sodium and Sulfate exceeded two-standard deviations of the mean in Quarter 2 and again this quarter. Continue to monitor L-9-G closely for the next quarter.

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

None.