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WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

December 15, 2010

TO: Internal File

THRU: James D. Smith, Permit Supervisor JDS 15 Dec 2010

FROM: April A. Abate, Environmental Scientist II/Hydrologist AAA 12-15-2010

RE: 2010 2nd Quarter Water Monitoring, Savage Services Corporation, Savage Coal Terminal, C/007/0022, Task #3567

The Savage Coal Terminal is an operating coal loadout where coal is crushed, screened, blended, and then loaded onto rail transport.

Pertinent water monitoring requirement information is in the MRP in Section 731.200.

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

Springs –

The Permittee is not required to monitor any springs at the Savage Coal Terminal. There are no springs to monitor at the Savage coal terminal site.

Streams –

Stream site CV-14-W was monitored during the 2nd quarter of 2010. The Permittee is required to sample CV-14-W in the second and fourth quarter of each year.

No flow was detected at stream site CV-14-W this quarter.

Wells–

There are three groundwater monitoring wells at the site: S-1-GW, S-2-GW, and CV-1-W. Monitoring well S-1-GW near the northeast boundary of the property was reported to be dry.

As of 2nd quarter 2010, the MRP states that all wells will be monitored during the second and forth quarter only. Laboratory and field analytical parameters were collected on June 15, 2010.

UPDES–

There is one active UPDES outfall at the Savage Coal Terminal, CV-15-W, or UTG040005-001. The Permittee is required to monitor this UPDES site monthly under Permit # UTG040005 that is due to expire on April 13, 2013.

The location was monitored monthly during the 2nd quarter. The Permittee recorded no flow at the UPDES point during the period.

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

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

Data from groundwater monitoring well S-2-GW indicate that oil and grease (O&G) has been detected at a concentration of 10 milligrams per liter (mg/L). O&G was previously detected in a groundwater sample from this well at a concentration of 5 ppm reported in 1st quarter 2010. The permitee has determined that the source for the oil and grease is from surface water infiltration into the well and has subsequently undertaken repairs to well S-2-GW in December 2010 (see Inspection Report #2589).

Data shown below are reported from groundwater samples collected this quarter that did not pass the following standard water quality reliability checks:

Reliability Check	Acceptable Range	CV-1W Values	S-2-GW Values
Cation/Anion Balance	<5%	***6.62%***	***9.68%***
TDS/Conductivity	>0.55 - <0.75	***95%***	***44%***
Conductivity/Cations	>90 - <110	**72**	**155**

This does not mean that something is wrong, just that there may be something usual in the water chemistry of the sample collected.

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

The permit renewal was issued on August 6, 2010. Currently there is no specified baseline sampling protocol established in the MRP for the groundwater monitoring wells.

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

The oil and grease detected in groundwater monitoring well S-2-GW has been investigated and determined that the source is from the infiltration of surface water. The well has been repaired and will be monitored to determine if this has eliminated the problem. This well

should be sampled quarterly until concentrations of oil and grease decrease to non-detectable levels. Furthermore, the Division recommends that the table listed on page 80 of the MRP be updated to reflect an updated sampling frequency at all applicable groundwater monitoring wells.

Currently, the water monitoring plan in the MRP does not have a 5-year commitment to sample baseline parameters. A list of baseline parameters to be sampled on a 5-year basis is a recommended update to Section 731.200 of the MRP.

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