



**State of Utah**  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF OIL, GAS AND MINING

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December 4, 1998

Dan Guy  
 Blackhawk Engineering  
 214 East 1st North  
 Price, Utah 84501

Re: Water Monitoring Wells, Savage Coal Industries, Savage Coal Terminal, ACT/007/022-98B  
Folder #2, Carbon County, Utah

Dear Mr. Guy:

The referenced amendment has been reviewed by Jim Smith, (Senior Reclamation Specialist for the Division). The following technical analysis is provided for your review and response.

**TECHNICAL ANALYSIS**

**ENVIRONMENTAL RESOURCE INFORMATION**

**HYDROLOGIC RESOURCE INFORMATION**

**MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

**Analysis:**

**Monitoring Sampling Location Maps**

A revised Plate 7-1 and a new Plate A7-1 are included with the proposed amendment. Elevations and locations of the wells that are currently monitored are shown on Plate A7-1, and Plate 7-1 shows CV-1W (the french-drain monitoring well) as the only ground-water monitoring location under the proposed amendment. Both Plates 7-1 and A7-1 show the three surface-water monitoring locations that are currently monitored and that will continue to be monitored under the proposed revision of the MRP. The copies of these maps submitted to UDOGM are of poor quality and details cannot be read.

**Subsurface Water Resource Maps**

Plate 7-1 in the current MRP shows the underground drain constructed in the southeast corner of the Savage Coal Terminal property, south of the railroad loop. In the letter from Savage Industries received October 20, 1998 it is indicated that this drain has been added to Plate 7-1; however, the submitted copies of this map are of such poor quality that the drain cannot be seen.

### **Findings:**

Maps, plans, and cross sections of resource information are not adequate to meet the requirements of this section. Prior to approval the applicant must provide the following information:

**R645-301-722.200, -731.720, -731.760** - The submitted copies of Plates 7-1 and A7-1 are so poor that most features cannot be identified on them. The underground drain constructed in the southeast corner of the Savage Coal Terminal property, south of the railroad loop cannot be identified on the submitted copy of Plate 7-1.

## **OPERATION PLAN**

### **HYDROLOGIC INFORMATION**

#### **Analysis:**

Appendix 7-1 states that well CV-12W is on land owned by Rail Co Coal Loadout (Co-Op Coal Company) and that the use of the land has changed since CV-12W was installed. This well has been dry for at least five years, but any monitoring results that might be obtained would most likely indicate impacts from the Rail Co operation rather than the Savage Coal Terminal. (Plate 4-1 shows E. W. Stoddard, G. W. Stoddard, and Dan R. Brown as the landowners of the Rail Co property; none of these names appear in the Co-Op Coal Company's Bear Canyon Mine MRP, but B. W. Stoddard is listed as an officer and director.) A railroad cut on the Rail Co property is mentioned on page 3 of Appendix 7-1 and the part of the cut nearest the Savage terminal is shown on Plate 3-2. During a visit to the site on April 30, 1998 this cut was observed just adjacent to the north boundary of the Savage Coal Terminal. The cut is 15 to 20 feet deep, approximately the same depth as Savage's french drain and monitoring, and there are patches of dried salt at the bottom of the cut. Although Plate 3-2 shows the Rail Co railroad cut, Plates A7-1 and 7-1 indicate the property north of the Savage terminal is an alfalfa field and show no railroad cut. Use of adjacent lands needs to be clarified on these maps.

On pages 3 and 4 of Appendix 7-1 the Rail Co railroad cut is mentioned, along with the french drain at the west and north boundaries, as impacting ground water flow or recharge to wells CV-4W and CV-5W. As already discussed there is no railroad cut shown on the maps. CV-4W and CV-5W are immediately adjacent to the french drain and have been dry for at least five years. Continued monitoring of CV-4W and CV-5W appears to be of no value as long as the french drain and the Rail Co railroad cut are draining the ground water from the area.

Plate 3-2 shows a small portion of the railroad cut and indicates the location of Covol Technologies and the Jensen Trucking facility, but Plates 7-1 and A7-1 do not show any of these adjacent operations and their relationship to current operations at the Savage Coal Terminal. None of these maps accurately show the location of all buildings located within 1000 feet of the proposed permit area, with identification of the current use. These off-permit operations have the potential to affect surface- and ground- water quality and post-mining land use in the permit and adjacent areas.

**Findings:**

Hydrologic operation information is adequate to meet the requirements of this section. Deficiencies on the related maps are discussed in the following section.

**MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS**

**Analysis:**

**Surface and subsurface manmade features maps.**

Since the coal terminal was first permitted, several other industries have developed on adjacent lands. Rail Co's coal shipping operation and Covol's briquet manufacturing plant are immediately adjacent to the Savage Coal Terminal, to the north and west, respectively. A deep cut for Rail Co's railroad loop lies within 100 feet of the Savage terminal's north boundary line. In the mid 90's the CTC truck maintenance facility was opened adjacent to the southwest corner of the Savage terminal. Cascade Mountain Resources opened a wood processing plant adjacent to the southeast corner, along the main railroad spur. Along with the Jensen Trucking operation, these industries have the potential to affect surface- and ground- water quality and post-mining land use.

Plate 3-2 shows these adjacent operations except for the CTC and Cascade operations. Plates 7-1 and A7-1 do not show any of these adjacent operations and their relationship to current operations at the Savage Coal Terminal.

**Surface and subsurface ownership maps.**

Plate 4-1 has been updated to show current ownership of properties adjacent to the Savage Coal Terminal.

**Monitoring and sample location maps.**

A revised Plate 7-1 and a new Plate A7-1 are included with the proposed amendment. Elevations and locations of the wells that are currently monitored are shown on Plate 7-1, and Plate A7-1 shows CV-1W (the french-drain monitoring well) as the only ground-water monitoring location under the proposed amendment. Both Plates 7-1 and A7-1 show the three surface-water monitoring locations that are currently monitored and that will continue to be monitored under the proposed revision of the MRP. (Plate 7-2 in the current MRP shows locations of older wells that are no longer monitored.) Plates 7-1 and A7-1 are certified. However, the copies of these maps submitted to UDOGM are of poor quality and details cannot be read.

**Surface Water Resource Maps**

Plates 7-1, A7-1, and 7-2 show locations of surface waters that receive discharges from affected areas in the Savage Coal Terminal property and locations of surface water bodies such as

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streams, lakes, ponds, wetlands, springs, drains, and irrigation ditches within the proposed permit and adjacent areas. The copies of these maps submitted to UDOGM are of poor quality and details cannot be read.

Surface drainage from the Jensen Trucking property has been diverted and no longer flows to the Savage Coal Terminal sedimentation ponds. Plates 7-1 and A7-1 show drainage from the Jensen Trucking flows onto the Savage Coal Terminal property, along the south side of the railroad loop to the BTCA area in the southeast corner of the permitted area, then through a culvert under the main railroad line, and off the Savage Industries property. If there is any discharge from the southern french drain, that water mixes with the surface drainage from the Jensen property before it flows off the Savage Coal Terminal.

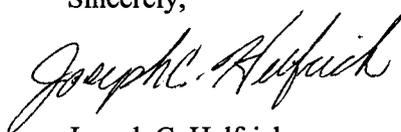
**Findings:**

Maps, plans, and cross sections of surface and subsurface operations and monitoring and sampling locations are not adequate to meet the requirements of this section. Prior to approval the applicant must provide the following information:

**R645-301-722.200, -731.720, -731.760** - The submitted copies of Plates 7-1 and A7-1 are so poor that most features cannot be identified on them. Although Plate 3-2 shows a small portion of the Rail Co railroad cut, Plates A7-1 and 7-1 indicate the property north of the Savage terminal is an alfalfa field and show no railroad cut. Use of adjacent lands needs to be clarified on these maps.

Please submit 3 copies of the revised maps by December 16, 1998. If you have any questions please call.

Sincerely,



Joseph C. Helfrich  
Permit Supervisor

tam  
cc: James Jensen, Savage Industries  
Bill Malencik  
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