



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

gjh

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-538-3940 (Fax)
801-538-5319 (TDD)

INSPECTION REPORT

Partial: Complete: X Exploration:

Inspection Date & Time: August 12 and 19, 1994, 8:30 and 9:00 A.M. to 2:30 and 1:00 P.M.

Date of Last Inspection: July 14, 1994

Mine Name: Castle Gate County: Carbon Permit Number: ACT/007/004

Permittee and/or Operator's Name: AMAX Coal Co.

Business Address: P. O. Box 449, Helper, Utah

Type of Mining Activity: Underground X Surface Prep. Plant X Other

State Official(s): Paul Baker and Steve Johnson

Company Official(s): Lonnie Mills

Federal Official(s): None

Weather Conditions: 8/12: Mostly Cloudy, Showers, 70-80's; 8/19: Cloudy, 60-70's

Existing Acreage: Permitted- 7619 Disturbed- 170 Regraded- 13.2 Seeded- 13.2 Bonded- 134.5

Increased/Decreased: Permitted- 0 Disturbed- 0 Regraded- 0 Seeded- 0 Bonded- 0

Status: Exploration/ Active/ Inactive/ Temporary Cessation/ Bond Forfeiture

Reclamation (X Phase I/ Phase II/ Final Bond Release/ 9 for Goose Island Liability Year)

REVIEW OF PERMIT, PERFORMANCE STANDARDS & PERMIT CONDITION REQUIREMENTS

Instructions

- Substantiate the elements on this inspection by checking the appropriate performance standard.
 - For complete inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check N/A.
 - For partial inspections check only the elements evaluated.
- Document any noncompliance situation by referencing the NOV issued at the appropriate performance standard listed below.
- Reference any narratives written in conjunction with this inspection at the appropriate performance standard listed below.
- Provide a brief status report for all pending enforcement actions, permit conditions, Division Orders, and amendments.

	EVALUATED	N/A	COMMENTS	NOV/ENF
1. PERMITS, CHANGE, TRANSFER, RENEWAL, SALE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. SIGNS AND MARKERS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. TOPSOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. HYDROLOGIC BALANCE:				
a. DIVERSIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. SEDIMENT PONDS AND IMPOUNDMENTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. OTHER SEDIMENT CONTROL MEASURES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. WATER MONITORING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. EFFLUENT LIMITATIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. EXPLOSIVES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. DISPOSAL OF EXCESS SPOIL/FILLS/BENCHES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. COAL MINE WASTE/REFUSE PILES/IMPOUNDMENTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. NONCOAL WASTE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. PROTECTION OF FISH, WILDLIFE AND RELATED ENVIRONMENTAL VALUES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. SLIDES AND OTHER DAMAGE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. CONTEMPORANEOUS RECLAMATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. BACKFILLING AND GRADING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. REVEGETATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. SUBSIDENCE CONTROL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. CESSATION OF OPERATIONS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. ROADS:				
a. CONSTRUCTION/MAINTENANCE/SURFACING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. DRAINAGE CONTROLS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. OTHER TRANSPORTATION FACILITIES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. SUPPORT FACILITIES/UTILITY INSTALLATIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. AVS CHECK (4th Quarter-April, May, June)_(date)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. AIR QUALITY PERMIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. BONDING & INSURANCE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

INSPECTION REPORT

(Continuation sheet)

Page 2 of 4

PERMIT NUMBER: ACT/007/004

DATE OF INSPECTION: August 12 and 19, 1994

(Comments are Numbered to Correspond with Topics Listed Above)

General Comments:

According to weather records kept at the Carbon Steam Plant adjacent to the Castle Gate Preparation Plant, 1.20 inches of rain fell in a fifteen to twenty minute period on August 9, 1994. There is a plastic rain gauge in Hardscrabble Canyon. Water in this gauge is not protected from evaporation, but it showed 0.35 inches of rain between the 12th and 19th.

In addition to the regular inspection, on August 30, I walked up the road above Sowbelly Gulch to see what condition the road was in and to see how far it extended. The purpose of this was not to inspect the area. Instead, the operator has been considering leaving a road after reclamation through the reclaimed area in Sowbelly Gulch to facilitate access to the road above the mine. I wanted to see if the road above the mine warrants leaving a road through the reclaimed mine area.

1. Permits, Change, Transfer, Renewal, Sale

On August 9, 1994, the Division received AMAX's permit renewal application. By letter dated August 16, 1994, the Division responded that the current bond must be escalated to \$4,415,505 and that, upon receipt of the surety rider to increase the bond amount, the Division will determine the permit renewal application complete.

The operator commits in the mining and reclamation plan to commence reclamation in Hardscrabble Canyon by August 31, 1994. On August 25, 1994, the Division received a letter from the operator indicating that asbestos survey work had been completed for the buildings in Hardscrabble Canyon. The laboratory results have not yet been received. The letter says that the steps taken this summer, landowner approval and asbestos identification, are actions that, in the operator's opinion, satisfy regulatory and permit requirements.

3. Topsoil

Two samples were taken of the soil in an area of Sowbelly Gulch where high salt concentrations were found in previous sampling. Sodium adsorption ratios for the two samples were 1.3 and 2.8. These are both within acceptable limits according to Division guidelines.

4. Hydrologic Balance

a. Diversions

Diversion CGD-5 above the Schoolhouse Canyon refuse pile was apparently designed for the 10-year, 6-hour precipitation event. Because this ditch diverts water away from the refuse pile, it should have been designed for the 100-year, 6-hour storm. The ditch itself was not damaged in the August 9 storm. However, it empties into a small, very steep (about 80% grade) natural drainage in Barn Canyon. This drainage is outside the disturbed area. According to maps in the plan, there is about a 290 foot drop from the end of CGD-5 to the bottom of Barn Canyon. This drainage now has a gully varying from about three to twenty feet wide and up to about six feet deep. This gully was not noted in prior inspections; it was probably caused by runoff from the August 9 storm. Much of the material that eroded from this gully was deposited at the bottom of the canyon. It is difficult to tell how much continued down the canyon to the Price River. Violation N94-3-1 was written for failure to design, locate, construct, and maintain a diversion to be stable, to minimize adverse impacts to the hydrologic balance within the permit and adjacent areas, and to minimize erosion to the extent possible.

Two diversions on the sides of the Schoolhouse Canyon refuse pile were also damaged. They are numbered CGD-7 (lower) and CGD-19. Riprap from CGD-19 and other material completely covered culvert CGC-4. Water flowed out of diversion CGD-7 (lower) and on to the refuse pile in at least one location. Some riprap was moved exposing the filter blanket beneath. In some locations, water was not able to enter CGD-7 (lower), so it eroded small channels to the side of the diversion.

INSPECTION REPORT

(Continuation sheet)

Page 3 of 4

PERMIT NUMBER: ACT/007/004

DATE OF INSPECTION: August 12 and 19, 1994

CGD-7 (lower) was the subject of violation N92-39-7-1 which was terminated almost exactly one year ago. Although a professional engineer certified that it had been constructed according to the design, Division personnel had serious reservations about the construction.

According to information on page 3.4-72 of the mining and reclamation plan, the discharge quantity used to design CGD-19 was for the 10-year, 6-hour precipitation event. This ditch also diverts water around the refuse pile and should also have been designed for the 100-year, 6-hour precipitation event.

Violation N94-41-4-1 was written for failure to design, locate, construct, and maintain diversions to be stable, to minimize adverse impacts to the hydrologic balance within the permit area, and to minimize erosion to the extent possible.

In Sowbelly Gulch, I was told that there was some damage to diversion SBRD-4. Reclamation is still ongoing in this canyon, and the contractor apparently repaired the damage soon after the storm. I was told that the main channel and other diversions functioned properly, and I saw nothing to contradict this statement.

In Hardscrabble Canyon, there was some damage to the main undisturbed drainage diversion. However, because, according to a Division hydrologist, the storm almost certainly exceeded the design parameters for this diversion and because most of the damage had been repaired in the week interval between the inspection dates, no violation was warranted.

Crandall Canyon showed no signs of unusually heavy precipitation.

b. Sediment Ponds and Impoundments

Pond 17 has been essentially completed and appeared to function properly in the August 9 storm.

c. Other Sediment Control Measures

As an interim measure until grading is completed, areas in Sowbelly Gulch where drainage will not report to a sedimentation pond have been contour furrowed. The plan says that silt fences will be erected in these areas, but the operator will probably amend the plan to allow mulching and furrowing as the sediment control.

12. Backfilling and Grading

The operator intends to cover portions of the mined coal seam that are exposed in No. 4 Mine canyon. By letter dated August 25, 1994, the Division was informed that a survey of the area has been completed and that backfilling and channel designs should be completed within the next several weeks. This should help to further eliminate the highwall.

Since the last inspection, the operator has added material to the area near the No. 5 Mine highwall in Sowbelly Gulch. The Division needs to evaluate the reclamation in this canyon to determine if it meets approximate original contour restoration requirements.

13. Revegetation

With the rain, the dyer's woad in Hardscrabble Canyon should be growing actively. This would be an opportune time to apply an herbicide.

16. Roads

As mentioned under the general comments above, on August 30, 1994, I hiked the road above the mine in Sowbelly Gulch to see what condition the road was in and to see how far it extended. This was not part of the inspection, but the visit needs to be documented. The operator is considering leaving a small road through the reclaimed area that would connect with the road above the mine.

INSPECTION REPORT

(Continuation sheet)

Page 4 of 4

PERMIT NUMBER: ACT/007/004

DATE OF INSPECTION: August 12 and 19, 1994

I hiked within about 200 feet (vertically) of the top of the plateau. The weather started to turn bad, so I decided to return without going clear to the top. I believe the road goes all of the way.

The road is generally in fairly good condition for a four-wheel-drive vehicle, but it would require some minor maintenance to be passable. In two locations, I found large rocks and, in two others, a lot of brush and logs. The road would be impassable at each of these places, but it would not take a lot of work to clear these obstructions.

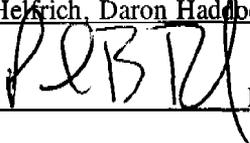
The more important issue for the postmining land use is the amount of use the road has received. In the winter of 1992-93, there was a lot of snow that broke branches and slid on to roads in this general area. I am nearly certain that the brush on the road has been there since that winter. This means that the road has not been used by a car or truck since at least the fall of 1992, nearly two years.

About one mile from the top of the reclaimed area, there is a small canyon with an old road that leads to the left (looking up). I followed this road to where it became completely impassable, about one-fourth mile.

Copy of this Report:

Mailed to: Marcia Petta (OSM), Lonnie Mills (AMAX)

Given to: Joe Helfrich, Daron Haddock (DOGM)

Inspector's Signature: 

Paul B. Baker #41

Date: September 1, 1994