



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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INSPECTION REPORT

Partial: X Complete: Exploration:
Inspection Date & Time: June 13, 2:00 to 4:00 P.M. and June 15, 1994, 1:00 to 3:00 P.M.
Date of Last Inspection: May 19, 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 Helper, Utah
Type of Mining Activity: Underground X Surface Prep. Plant X Other
State Officials(s): Paul Baker; Steve Johnson and Henry Sauer on June 15
Company Official(s): Lonnie Mills
Federal Official(s): None
Weather Conditions: June 13: mostly cloudy, 80's; June 15: clear, 80'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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. SIGNS AND MARKERS	<input 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 checked="" type="checkbox"/>
c. OTHER SEDIMENT CONTROL MEASURES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
d. WATER MONITORING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. EFFLUENT LIMITATIONS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. EXPLOSIVES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. DISPOSAL OF EXCESS SPOIL/FILLS/BENCHES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. COAL MINE WASTE/REFUSE PILES/IMPOUNDMENTS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. NONCOAL WASTE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. PROTECTION OF FISH, WILDLIFE AND RELATED ENVIRONMENTAL VALUES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. SLIDES AND OTHER DAMAGE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. CONTEMPORANEOUS RECLAMATION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. BACKFILLING AND GRADING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. CESSATION OF OPERATIONS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. ROADS:				
a. CONSTRUCTION/MAINTENANCE/SURFACING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. DRAINAGE CONTROLS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. OTHER TRANSPORTATION FACILITIES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. SUPPORT FACILITIES/UTILITY INSTALLATIONS	<input 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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
21. BONDING & INSURANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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(Comments are Numbered to Correspond with Topics Listed Above)

3. Topsoil

A portion of a small, previously undisturbed island of vegetation in the Sowbelly Gulch area had to be disturbed to allow grading to proceed. The plants were transplanted to an area at the easternmost part of the canyon that enters Sowbelly Gulch from the east. I could not see that there was any site preparation prior to this transplanting, and the plants are very dry. There is some potential that some of them could still be alive, but I think it is unlikely. However, there is probably some seed in the soil, and the soil was not wasted and graded with the spoil.

4. Hydrologic Balance

a. Diversions

b. Sediment Ponds and Impoundments

c. Other Sediment Control Measures

The May inspection report discussed the need to do some work on the ditch (berm) on the northeast side of the area being reclaimed. The report said that the ditch was uneven and that I did not expect it to function properly. It also said that this needed to be done before the main reclaimed channel was opened to the main channel below the reclaimed area. In the plan, the ditch is described as a berm one foot high, one foot wide at the top, and with a four to eight foot wide swale through which water would flow.

The berm and associated swale were measured by Steve Johnson on June 22, 1994. Although the berm is typically one foot high, there are places where it is only six inches high. It has essentially no width at the top. There is no swale uphill from the berm. Rather, the berm delineates a triangular ditch about six feet wide at the top.

Although the main channel has not been fully opened, it has been opened to the point that water from most of the regraded areas would not flow to sediment pond 5. Instead, the water would flow to the end of this channel, and, if there was enough water, it would overflow and enter the undisturbed channel. Near the end of the excavated channel is a "plug" that forms an impounding structure. The end of the reclaimed channel cannot be considered a sediment pond without any designs in the plan; therefore, it must be considered that drainage from most of the reclaimed area would enter the undisturbed channel untreated. Also, the impounding structure is not designed or constructed according to the regulations. In a large enough precipitation event, water could flow over the top of the plug, erode through it, and cause problems downstream.

A small silt fence was installed in the undisturbed channel below the reclaimed area, but this silt fence would not be adequate to treat water from nearly the entire reclaimed area and all of the undisturbed watershed above the mine (about 1300 acres). If the flow in the channel was more than 3½" deep, it would go around the silt fence.

The plan recognizes that there could be some periods during grading operations when it is difficult to have sediment control for the entire area. However, the chronology on pages 3.2-32 and 3.2-33 indicates that reclamation sediment control structures will be installed prior to grading and removing ponds 3, 4, and 5. Even though it might be impossible to have sediment control over the entire area, it would be possible for water from the area on the northeast side of the reclaimed area to be treated if the ditch discussed above had been repaired before it needed to be functional. Also, pond 17 could have been built before the main channel was excavated to where it now is.

N94-41-2-2, part 1 of 2, is being issued for: 1) Failure to construct a sediment control structure according to the mining and reclamation plan; 2) Failure to construct siltation structures before beginning reclamation operations; 3) Constructing an impounding structure without designs or approval; and 4) Failure to follow the sequence of installing sediment control structures outlined in the mining and reclamation plan.

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13. Revegetation

The May inspection report indicated that there were very few seedlings of seeded species in the Sowbelly area. I counted the number of seeded species in four square foot areas on the east side of the area seeded last fall. The sample was only meant to give an idea of how many seedlings had emerged; it was not statistically designed. I found an average of 0.44 seedlings per square foot. According to two different literature sources, the success could be classified as fair or poor. Depending on how well these seedlings are able to grow this summer, the operator may want to consider reseeding in the fall.

Much of the dyer's woad in Hardscrabble Canyon has been sprayed with an herbicide. The herbicide may have been applied too late to prevent seed formation. I took a plant sample and will test the seed to see if it is viable.

There are numerous dyer's woad seedlings on the north side of the reclaimed No. 4 Mine canyon. These seedlings would be expected to bloom next year. They can be sprayed at any time through this fall, but it would be best to wait for some rain so they are actively growing. Properly timing spraying operations can be difficult in the spring. Spraying them this year rather than next spring would prevent these timing problems and more seed development next year.

20. Air Quality Permit

R307-1-4 of the Air Quality regulations says:

B. Any person who owns or operates a mining operation shall minimize fugitive dust as an integral part of site preparation, mining activities, and reclamation operations.

C. The fugitive dust control measures to be used may include, but are not limited to:

- (1) periodic watering of unpaved roads,
- (2) chemical stabilization of unpaved roads,

The Air Quality Approval Order says:

All unpaved roads and other operational areas in use shall be water sprayed and/or chemically treated to reduce fugitive dust. The application rate of water shall be a minimum of 0.5 gallons per square yard. Application shall be made at least once every two hours during all times the installation is in use unless daily rainfall exceeds .10 of inch.

The National Weather Service told me by telephone on June 23, 1994, that there has been no precipitation recorded in Helper since some time prior to June 13.

Julie Rose of Air Quality told me by telephone on June 22, 1994, that any area over which equipment is travelling to get to another place is considered a "road." Thus, the channels that are being used by equipment operators to drive over would be considered roads. Also, the staging area near pond 5 is considered an area where fugitive dust could be controlled. However, she said that Air Quality would not normally require areas being graded to be watered.

On the two days when I was at the site, I saw no sign of a watering truck or that the area had been watered any time recently. Dust was very thick in some places: there was at least three inches of powdery dust where I parked. The equipment was also raising a lot of dust as it travelled. On the two days, equipment I saw operating included a semi-trailer truck, a dozer, and a front-end loader.

On June 22, 1994, when Steve Johnson visited the site, he also saw no watering truck or sign that the travelled areas had been watered. He photographed the dust being raised by a piece of equipment.

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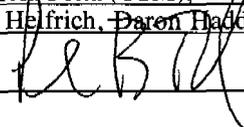
DATE OF INSPECTION: June 13 and 15, 1994

N94-41-2-2, part 2 of 2, is being issued for failure to conduct mining and reclamation operations in accordance with the Air Quality Approval Order and regulations promulgated under the Clean Air Act.

Copy of this Report:

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

Given to: Joe Helfrich, Daren Haddock (DOGM)

Inspector's Signature:  Paul B. Baker #41 Date: June 27, 1994