




COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY COAL PROGRAM INSPECTION REPORT



PERMIT INFORMATION

Permit Number: C-1981-022 Mine Name: Elk Creek Mine Operator: Oxbow Mining, LLC Operator Address: Mr. Jim Kiger P.O. Box 535 3737 Highway 133 Somerset, CO 81434	County: Delta, Gunnison Operation Type: Underground Permit Status: Active Ownership: Federal
	Operator Representative Present: Jim Kiger
Operator Representative Signature: (Field Issuance Only) This report was issued electronically from the Division's Durango Field Office.	

INSPECTION INFORMATION

Inspection Start Date: July 10, 2013 Inspection Start Time: 10:20 Inspection End Date: July 10, 2013 Inspection End Time: 15:15		Inspection Type: Coal Partial Inspection Inspection Reason: Normal I&E Program Weather: Clear	
Joint Inspection Agency: None		Joint Inspection Contacts:	
Post Inspection Agency: None		Post Inspection Contacts:	
Inspector(s): Marcia L. Talvitie, P.E.	Inspector's Signature: 		Signature Date: 12 July 2013

Inspection Topic Summary

NOTE: Y=Inspected N=Not Inspected R=Comments Noted V=Violation Issued NA=Not Applicable

Y - Air Resource Protection

N - Availability of Records

N - Backfill & Grading

R - Excess Spoil and Dev. Waste

NA - Explosives

Y - Fish & Wildlife

R - Hydrologic Balance

R - Gen. Compliance With Mine Plan

R - Other

NA - Processing Waste

R - Roads

R - Reclamation Success

N - Revegetation

N - Subsidence

Y - Slides and Other Damage

Y - Support Facilities On-site

N - Signs and Markers

NA - Support Facilities Not On-site

NA - Special Categories Of Mining

N - Topsoil

COMMENTS

A partial inspection of the Elk Creek Mine was conducted by me, Marcia Talvitie of the Division, on Wednesday, July 10, 2013. Jim Kiger was available to represent the operator, Oxbow Mining, and escorted me throughout the permit area.

Skies were clear, and temperatures were in the 90's. Recent weather conditions have been dry on most of Colorado's Western slope.

EXCESS SPOIL and DEVELOPMENT WASTE – Rule 4.09

Placement; Drainage Control; Surface Stabilization:

- The II West Coal Refuse Facility is the mine's currently active Coal Mine Waste disposal area. This "valley fill" site is described in Exhibit 2.05-E4, Parts 8 and 9, of the permit, and is depicted on various permit maps.
- Construction of II West has reached an elevation such that the II West Haul Road must now be utilized for access and to deliver the mine's development waste.
- Survey lath has been placed to identify the east and west ends of the 6150' Elev. bench. (The surface of the pile has not yet reached this level.)
- Compaction equipment was parked at the pile, and a number of loads of refuse had been end-dumped on the surface, awaiting final placement (Photo 1).
- Unconsolidated material has been excavated away from the western flank of the valley, exposing unweathered sedimentary rock (Photo 2). The excavated material will be utilized as cover/topsoil for reclaiming the face of the pile. A number of boulders were also produced during the excavation; Mr. Kiger said these would be used in construction of the underdrain as the fill progresses further up the valley.
- Lower portions of the pile face, which were seeded in previous years, are becoming well-vegetated. On the upper slope, Oxbow is experimenting with the placement of slash material on top of the soil (Photo 3). This will serve to provide some erosion protection, encourage moisture retention, and add extra organics to the soil. Mr. Kiger said these slopes will be seeded later this year.

Number of Partial Inspection this Fiscal Year: 1Number of Complete Inspections this Fiscal Year: 0

- Riprap-lined Ditch IIW-2 has been constructed along the eastern flank of the facility, and a berm of soil prevents runoff from cascading down the front face of the fill (Photo 3).

HYDROLOGIC BALANCE - Rule 4.05

Drainage Control 4.05.1, 4.05.2, 4.05.3; Siltation Structures 4.05.5, 4.05.6; Discharge Structures 4.05.7, 4.05.10; Diversions 4.05.4; Effluent Limits 4.05.2; Ground Water Monitoring 4.05.13; Surface Water Monitoring 4.05.13; Drainage – Acid and Toxic Materials 4.05.8; Impoundments 4.05.6, 4.05.9; Stream Buffer Zones 4.05.18:

- Ponds A and B have been recently mucked out. Sediment from Pond B was hauled to the East Yard Sediment Pond for temporary storage and drying out, prior to its being hauled to the refuse disposal facility.
- Cleaning of Pond D has been partially completed. Muck from this operation has been hauled to the temporary drying area on top of the West Valley Coal Refuse Facility. Once it has dried sufficiently, it will be transferred to the II West facility for permanent disposal.

GENERAL MINE PLAN COMPLIANCE:

- Development of the East Panel is under way, and coal produced by that operation is being sorted and stacked at the Elk Creek facilities. A train loaded with coal departed from the mine during the inspection.
- Oxbow continues to work with MSHA in monitoring conditions within the sealed portion of the mine and developing a plan for reopening the mine in order to retrieve the longwall equipment.

OTHER (Dewatering and Monitoring Wells)

- Oxbow has drilled a series of boreholes into the sealed mine. These wells were permitted under MR-104 and MR-105.
- Limited erosion control, in the form of straw wattles, has been installed on the downhill side of the pads.
- A number of the new boreholes were required in order to monitor gases within the sealed workings. We observed these sites during the course of the inspection. Each borehole has been fitted with tubing which allows gas from within the mine to be drawn to the surface and evaluated. A typical setup is shown in Photo 4.
- Two water monitoring / dewatering boreholes were drilled from a single pad. Mr. Kiger explained that when the first hole was drilled, the water level in the northeastern corner of the workings had built up to a depth of 90 feet. Oxbow began pumping water from that hole the last week of June. By the time drilling of the second hole was complete, they determined that the water level had been drawn down 40 feet. With both pumps running, they anticipate de-watering to be complete by the end of July.
- The water pumps were lowered through the boreholes into the workings, and are supplied power by a generator trailer situated on the pad's surface. A large, double-walled tank has been situated at the site in order to fuel the generator (Photo 5). A mine employee was filling the fuel tank during our visit. He said they return to the site with fuel 2 to 3 times a week in order to ensure that the generator and pumps do not shut down.

- Each well has been fitted with a totalizing flow meter (Photo 6). The combined flow, at the time of the inspection, was between 900 and 1000 gallons per minute, which equates to 2.0 to 2.2 cubic feet per second.
- Water discharged from the pumps is carried by a hose away from the pad, down the fill slope, and into a pre-existing “sump” area that serves to dissipate the energy of the flow (Photo 7). The water then proceeds toward Elk Creek. We did not attempt to trace the flow down the hill below the sump.
- The water itself has a distinctive coal mine odor, and Mr. Kiger said it is high in total dissolved solids (TDS), particularly bicarbonate. They anticipate that they will have difficulty meeting the WET requirements. The Discharge permit has been issued by the CDPHE WQCD, and submitted to the Division.
- Topsoil has been salvaged from the pad area, stockpiled (Photo 8), and is marked with an identification sign.

ROADS – Rule 4.03

Construction 4.03.1(3) / 4.03.2(3); Drainage 4.03.1(4) / 4.03.2(4); Surfacing and Maintenance 4.03.1(5) and (6) / 4.03.2(5) and (6); Reclamation 4.03.1(7) / 4.03.2(7):

- Roads within the main Elk Creek Surface Facilities area were well maintained, with no problems noted.
- Because of the dry weather conditions that have prevailed in recent months, the system of light use roads which is used to access the various methane degas wells was in good shape, and easily passable by vehicle.
- Recent temporary well and road construction activity has occurred within the Pilot Knob Colorado Roadless Area. Mr. Kiger said that a representative from the US Forest Service has inspected the work on numerous occasions, to ensure that conditions imposed by that agency are being met. The road is developed mainly through aspen forest or scrub oak. It appeared that reclamation of the roadway would be fairly straightforward, and would consist of pulling the excavated material back across the temporary road surface. Mr. Kiger said that following redistribution of the topsoil, aspen logs would be laid across the surface, mimicking the conditions found in the adjacent, undisturbed forest.

RECLAMATION SUCCESS - Rule 4.15, Rule 3:

- We observed numerous temporary drill pad sites which have been reclaimed. They were well vegetated, and not readily identifiable as areas which had been previously disturbed by mining.

ENFORCEMENT ACTIONS/COMPLIANCE

No enforcement actions were issued as a result of this inspection, and none are pending.



Photo 1



Photo 2

Number of Partial Inspection this Fiscal Year: 1

Number of Complete Inspections this Fiscal Year: 0



Photo 3



Photo 4

Number of Partial Inspection this Fiscal Year: 1

Number of Complete Inspections this Fiscal Year: 0



Photo 5



Photo 6

Number of Partial Inspection this Fiscal Year: 1

Number of Complete Inspections this Fiscal Year: 0



Photo 7



Photo 8

Number of Partial Inspection this Fiscal Year: 1

Number of Complete Inspections this Fiscal Year: 0