



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



PERMIT INFORMATION

Permit Number: C-1981-038 Mine Name: Bowie No. 1 Mine Operator: Bowie Resources, LLC Operator Address: Mr Basil Bear P.O. Box 1488 Paonia, CO 81428	County: Delta Operation Type: Underground Permit Status: Active Ownership: Federal
	Operator Representative Present: None Present
Operator Representative Signature: (Field Issuance Only)	

INSPECTION INFORMATION

Inspection Start Date: August 22, 2013 Inspection Start Time: 08:40 Inspection End Date: August 22, 2013 Inspection End Time: 12:30	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): Susan L. Burgmaier	Inspector's Signature: <i>Susan Burgmaier</i> Signature Date: 08/23/2013

Inspection Topic Summary

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

N - Air Resource Protection

N - Availability of Records

Y - Backfill & Grading

R - Excess Spoil and Dev. Waste

NA - Explosives

Y - Fish & Wildlife

R - Hydrologic Balance

Y - Gen. Compliance With Mine Plan

NA - Other

Y - Processing Waste

R - Roads

N - Reclamation Success

R - Revegetation

N - Subsidence

Y - Slides and Other Damage

Y - Support Facilities On-site

Y - Signs and Markers

NA - Support Facilities Not On-site

NA - Special Categories Of Mining

N - Topsoil

COMMENTS

This was a partial inspection of the Bowie No. 1 Mine conducted by Susan Burgmaier of DRMS. No representative of Bowie Resources, LLC (BRL) was present during the inspection. Weather conditions were clear and warm; ground conditions were dry. The mine area has had frequent heavy rain events recently, most notably a reported 2.2" (recorded at the Bowie No. 2 mine office) on July 28th, that resulted in extensive runoff sitewide. This particular event was about 5 hours in duration; the 25 yr-24 hr and 100 yr-24 hr events for the site are 2.0" and 2.6", respectively.

The mine site is inactive, and nearly all of the disturbance has been reclaimed. The loadout remains active and is used as a staging area for BRL drilling operations.

EXCESS SPOIL and DEVELOPMENT WASTE – Rule 4.09

Placement; Drainage Control; Surface Stabilization:

Both waste piles were stable and well vegetated, with no signs of erosion.

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:

East Mine : Pond 4 was muddy but not holding water. Pond 3 held water below the discharge level but appeared to have recently discharged, as the area below the bin wall was wet. Repairs had been made on the east side of the pond embankment, to direct drainage from the adjacent light use road away from the pond. Pond 2 held water below the discharge level. The inlet to Pond 2 had been eroded from recent heavy rains. Pond 1 was dry. The West Ridge pond held water below the discharge level, and did not appear to have discharged recently.

Ditch 7, on the east side of the East Mine, was partially blown out with the recent storm activity, but had been fully reconstructed at the time of the inspection. There were small gullies at the base of the reclaimed crushing bench outslope, where braided flow from the Ditch 7 blowout made its way down to Pond 2. The channel above

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Ditch 7, from the former fan bench to Ditch 7 was in excellent condition and did not appear to have been damaged by the recent events.

The West Mine ponds were dry.

The silt fence along Stevens Gulch, at the ROM area, needs to be replaced. Alternatively, BRL can submit a revision to the permit to allow for alternate sediment control measures (straw wattles, vegetative filter, etc.) along the disturbance, or provide a demonstration that vegetation is adequate to control erosion and sedimentation. Repairs, replacement, or a demonstration need to be completed by October 31, 2013.

The coal stockpile pond and sewage lagoon at the loadout were dry; the east sediment pond at the loadout had about 6" of water in it. The berm at the south end of the gravel storage area SAE on the west end of the eastern part of the loadout was not in place, and needs to be repaired immediately.

There were a few gullies near the loadout substation that need to be repaired; two coming off of the substation and one just east of the substation. Drainage from these areas does flow to the sediment pond, as shown on Map 7, but the concentrated flow paths to the ditch are not stable.

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):

The main entrance road surface at the East Mine was in good condition. Ditches were functional, but slightly downcut in places along the straight north/south stretch just north of the reclaimed refuse disposal area, just before the culvert that crosses the drainage over to the east side of the road. Water has also eroded around and under the shotcrete lining just above the culvert. The outfall of the culvert was downcut considerably, below and slightly to the right of the rip rap. This steep outfall drop might benefit from the installation of step pools or splash blocks. The first section of the outfall does have a large splash block that seems to help with the downcutting, but the next 20-30' beyond are still steep enough to allow for significant erosion.

At the third curve up from the entrance, between the former Warehouse Bench and the Transfer Tower 1 location, the rip rap and shotcrete were dislodged.

Straw bales had been replaced in several locations along the main East Mine road. There is one location that still needs the bales replaced, on the switchback just west of the refuse disposal area (second curve heading up from entrance). When the bales are replaced, it would also be good to excavate a small pooling area (similar to the installations upgradient) to drop some sediment and reduce velocity before the water flows into the adjacent undisturbed area.

The silt fence on the lower section of the reclaimed roadway that does not drain to a sediment pond needs to be replaced. Alternatively, BRL can submit a revision to the permit to allow for alternate sediment control measures

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(straw wattles, vegetative filter, etc.) along the disturbance, or provide a demonstration that vegetation is adequate to control erosion and sedimentation. Repairs, replacement, or a demonstration need to be completed by October 31, 2013.

At the West Mine, the culvert that brings drainage across the road from the east side to the west is still blocked. Water has crossed over onto the road and caused a large soft spot in the road. The culvert should be cleared this construction season, to be ready for Spring snowmelt.

REVEGETATION – Rule 4.15 □ Vegetative Cover; Timing:

Weeds had been sprayed throughout the East Mine reclamation, presumably targeting thistle. Recently sprayed dead thistle was observed in several locations. The operator chopped down the tamarisk at Ponds 1 and 3. There is still a large tamarisk bush just below Pond 2 that should also be eradicated.

ENFORCEMENT ACTIONS/COMPLIANCE

No enforcement actions were initiated as a result of this inspection, nor are any pending.

PHOTOGRAPHS



Photo 1
Pond 3

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Photo 2
Grading at Pond 3
embankment



Photo 3
Pond 2

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Photo 4
Tamarisk at Pond 2



Photo 5
Upper channel above
Ditch 7

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Photo 6
Shotcrete channel above
warehouse bench



Photo 7
Repaired upper Ditch 7

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Photo 8
Culvert outfall along East
Mine road



Photo 9
Ditch outlet on East Mine
road

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Photo 10
Upgradient portion of
ditch carrying East Mine
road runoff into
undisturbed area



Photo 11
West Mine

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Photo 12
West Mine culvert inlet



Photo 13
West Mine culvert
location

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Photo 14
Silt fence on Stevens
Gulch at ROM area



Photo 15
Loadout gravel storage
area SAE – berm should
be parallel to tracks, on
near side

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Photo 16
Gullies on outslope just
east of loadout substation

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