



## COLORADO

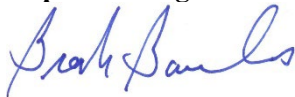
Division of Reclamation,  
Mining and Safety

Department of Natural Resources

### PERMIT INFORMATION

<b>Permit Number:</b> C-1981-012 <b>Mine Name:</b> New Elk Mine <b>Operator:</b> New Elk Coal Company, LLC <b>Operator Address:</b> Mr. Mark Gray 12250 Highway 12 Weston, CO 81091	<b>County:</b> Las Animas <b>Operation Type:</b> Underground <b>Permit Status:</b> Active <b>Ownership:</b> Private
	<b>Operator Representative Present:</b>  Bill Roddy
<b>Operator Representative Signature: (Field Issuance Only)</b>  	

### INSPECTION INFORMATION

<b>Inspection Start Date:</b> March 8, 2023 <b>Inspection Start Time:</b> 08:00 <b>Inspection End Date:</b> March 8, 2023 <b>Inspection End Time:</b> 12:00		<b>Inspection Type:</b> Coal Partial Inspection <b>Inspection Reason:</b> Normal I&E Program <b>Weather:</b> Clear	
<b>Joint Inspection Agency:</b>  None		<b>Joint Inspection Contacts:</b>  	
<b>Post Inspection Agency:</b>  None		<b>Post Inspection Contacts:</b>  	
<b>Inspector(s):</b>  Brock Bowles	<b>Inspector's Signature:</b> 		<b>Signature Date:</b>  March 13, 2023

**Inspection Topic Summary**

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

N - Air Resource Protection	N - Roads
N - Availability of Records	N - Reclamation Success
N - Backfill & Grading	N - Revegetation
N - Excess Spoil and Dev. Waste	N - Subsidence
N - Explosives	N - Slides and Other Damage
N - Fish & Wildlife	R - Support Facilities On-site
R - Hydrologic Balance	N - Signs and Markers
N - Gen. Compliance With Mine Plan	N - Support Facilities Not On-site
N - Other	N - Special Categories Of Mining
R - Processing Waste	N - Topsoil

**COMMENTS**

This partial inspection was conducted by Brock Bowles of the Division of Reclamation, Mining and Safety (Division). Bill Roddy of the New Elk Mine was present for the inspection. The weather was sunny, cold and the ground conditions were dry.

**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:

The raw coal storage area is located south and adjacent to the Middle Fork of the Purgatoire River. Raw coal from the mine is deposited in this area by an elevated conveyor belt which is situated more than 50 feet above the pile. The coal at this point in the mining process is very dusty. As the coal is falling from the conveyor onto the stockpile below, the prevailing westerly wind blows coal dust beyond the coal pile and into the surrounding area. Coal dust was documented more than 200 feet east of the storage pile. The coal dust is thick enough to obstruct ditch D32 (photo 1) and culvert C64 (photo 2). The dust also covers an area in the river's stream buffer zone that is approximately 250 feet long (photos 3-6), and is in the river (photo 7).

Coal storage piles and conveyor systems need to prevent damage to fish, wildlife and related environmental values pursuant to Rule 4.04(1)(a), prevent additional contributions of suspended solids to streamflow or runoff outside the permit area pursuant to Rule 4.04(1)(b) and control and minimize diminution or degradation of water quality pursuant to Rule 4.04(2).

The land between the Middle Fork of the Purgatoire River and ditch D32 is designated as a stream buffer zone and is clearly marked with signs. Stream buffer zones areas are protected by Rule 4.05.18(1) which states that no land within this area shall be disturbed by surface coal mining operations, the mining operations will not cause or contribute to the violation of applicable water quality standards (Rule 4.05.18(1)(a)), and during and after mining, the water quantity and quality, and other environmental resources of the stream shall not be adversely affected

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(Rule 4.05.18(1)(b)).

**These following maintenance issues must be resolved within 30 days of the issuance of this inspection report:**

- All coal fines/dust must be removed from all areas of the stream buffer zone including grassy areas, the willows, stream banks and the rocky riprap (Rule 4.05.18(1)(a)-(b)).
- Clean ditch D32 and culvert C64 (all the way through, as both ends are obstructed) (Rule 4.05.5(1))
- Develop a plan to implement best management practices to prevent coal dust from being blown beyond the stockpile area (Rule 4.04(1)(a)-(b)).

The coal refuse conveyor comes out of the wash plant on the north side of building moving refuse to the RDA. The area under the conveyor belt contains coal waste that fell off the belt and does not have adequate sediment controls in place (photo 8). Water and coal waste sediment can flow from this area downhill into the stream buffer zone and into the river. Map 13 of the permit shows that a berm is supposed to be maintained in this area to prevent water from entering the stream buffer zone and direct water east to ditch D32A. **The berm shown on Map 13 needs to be reestablished up to and under the coal refuse conveyor belt and direct the water to the east towards ditch D32A within 30 days of the issuance of this inspection report (Rules 4.05.5(1), 4.05.18(1)(a)-(b)).**

The ditches and culverts located on the south side of the Purgatoire River, from the where entrance haul road crosses the river to Pond 7, were inspected. The berm in this area was also inspected. With the exception of the areas noted above, ditches D13, D15, D32A, D32B, D22A, and culverts C72, C73, C74, C65, C22 and C32 were clean and in working order. The berm appeared to be stable. No erosion or signs of instability were seen (photo 9).

Pond 6 contained a small amount of water.

Pond 7 contained a small amount of water and was not discharging. The primary and emergency spillways were clear of obstructions.

**Culverts C34 and C46 located southeast of the clean coal storage area need to be cleaned (Rule 4.05.5(1)) within 30 days of the issuance of this inspection report.** The willows on the outlet side of the culverts need to be removed. The willows are preventing the sediment from moving down Ditch D24 resulting in the culverts being half full of sediment. This item has been documented in the September, November and December 2022 inspection reports and has not been resolved.

Culverts C41 and C88 on the east side of the RDA were clean. The sump on the east side of the conveyor above Containment #5 contained some water. The sump was recently cleaned. Containment #5 contained a small amount of water.

Pond 8 contained water and was well below the primary discharge level. The primary and emergency spillways were clear of obstructions.

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**The sediment sumps along the water tank access road are full and need cleaning (Rule 4.05.5(1)).** The SAE silt fence and berm around the water tower pad were in good condition.

#### PROCESSING WASTE/COAL MINE WASTE PILES – Rule 4.10 and 4.11

Drainage Control; Surface Stabilization; Placement:

Standing water was noted on top of the RDA in the northeast corner (photo 10). The perimeter drainage ditch that directs water to the east side of the RDA was obstructed preventing water from properly draining. The drainage ditch needs to be reestablished to direct water off the top of the pile (Rules 4.10.3(2) and 4.09.2(7)).

#### SUPPORT FACILITIES - Rule 4.04:

Several large liquid containers are being stored in the Portable Explosives and Chemical Storage Area, east of the old train shop. The containers are constructed of plastic, wrapped in a metal framework and sit on an integrated pallet. The containers are approximately 3'x4'x3' in size and have an approximate capacity of 270 gallons each. It appears the plastic is getting brittle from sitting in the sun and several tops of these containers are cracked and missing pieces (photo 11). The missing pieces allow precipitation to get into the containers and are filling them up. The containers that are broken are nearly full and will leak solution with additional precipitation. The contents of each container is unknown because the labels are too weathered to read or are missing. The operator said most of the liquids were either mag-chloride or flocculent used in the wash plant. This issue was raised in the November 2022 inspection report and has not been resolved. These products and containers are not being stored and maintained in a manner that will control and minimize diminution or degradation of water quality (Rule 4.04(2)), and stored to ensure leachate and surface runoff do not degrade surface or groundwater and that the area remains stable and suitable for reclamation and revegetation (Rule 4.11.4(1)). **These chemicals need to be stored in a manner that meet the standards of Rules 4.04(2) and 4.11.4(1) within 30 days of the issuance of this inspection report.**

#### DOCUMENTS RECEIVED

#### OTHER (SPECIFY)

#### **ENFORCEMENT ACTIONS/COMPLIANCE**

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

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**PHOTOGRAPHS**



Photo 1 - Ditch D32 filled with coal fines/dust



Photo 2 – Culvert C64 obstructed by coal fines/dust

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Photo 3 – Coal fines/dust in the Stream Buffer Zone



Photo 4 – Coal fines/dust on the hillside above the Middle Fork of the Purgatoire River

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Photo 5 – Coal fines/dust in riprap, elevated conveyor in background (source of dust)



Photo 6 – Coal fines/dust on Purgatoire River bank

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Photo 7 – Coal fines/dust in the sandbar of the Purgatoire River



Photo 8 – Sediment control structures under coal refuse conveyor belt

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Photo 9 – Ditch D15



Photo 10 – Standing water in the northeast corner of the RDA

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Photo 11 – Broken chemical storage containers

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