NEW ELK MINE
Permit No. C-1981-012

QUARTERLY COAL WASTE BANK INSPECTION REPORT
March 29, 2018

The three coal waste banks at the New Elk Mine were inspected on March 29, 2018. The weather was sunny but cool. Ground conditions were generally dry with only minor accumulations of snow on north facing slope. Vegetation was dormant with typical early-spring conditions prevailing. The north facing slope of DWA#1 exhibited the best established vegetation. The south facing reclaimed benches of the RDA exhibited good vegetative growth with some shrubs established on the earliest reclamation areas (1989-1995).

Sediment Control Pond #4 is situated west of DWDA#1. This pond has never discharged and was dry at time of inspection. DWPA#2 run-off reports to Pond#7 via a series of ditches and Culverts. Run-off from the RDA reports to Pond 8 located at the base of the waste bank just north of Highway 12.

Note that the NPDES permit for the New Elk Mine was renewed effective May 31, 2015. The most significant change was that sampling of discharge from Pond 4 is no longer required as the DWDA#1 has been reclaimed and vegetation is becoming well established. Continuous recording flow meters have been installed on both Ponds 7 and 8. Clean-out of pond 7 has been completed. Pond 8 is scheduled for clean-out next month.

DEVELOPMENT WASTE DISPOSAL AREA No. 1

GENERAL DESCRIPTION OR REFERENCE TO SITE PLAN:

This Development Waste Disposal Area is located south of State Highway 12 and west of the main facility Access Road. It is adjacent to and north of the Middle Fork of the Purgatoire River. The area is permitted for disposal of waste rock from underground mining and disposal of sediment collected from ponds and ditches located within the mine permit area. Since mine closure in 1989, the area has been used for disposal of sediment removed from ponds and ditches located within the mine permit area. In 2004 the area was closed and reclaimed. The area received Phase I bond release in 2005

ACTIVITY DURING INSPECTION:

___Removal of Topsoil and Organic Matter
___Placement of Under-drains
___Installation of Surface Drainage System

___Construction of Fill
___Placement of Topsoil
___Seeding
_X_Other __Facility in Final Reclamation- Phase I Bond Released

Drainage: (Discussion of springs. seeps, overland and channel flow, underdrain construction and/or discharge, integrity of 100-year 24-hour drainage structures, and evidence of positive drainage).

Positive drainage is maintained on the surface of the DWDA. No evidence of springs nor seeps
was observed.

Observation of Fill Construction: (Description of material, compaction, lift thicknesses, slopes, and construction methods)

Fill construction and reclamation of the surface has been completed. The site was seeded in 2005 and is eligible for both Phase II & III reclamation subject to a successful vegetation assessment.

Indications of Potential Failure or Instability:

Surface and out slopes of the pile were inspected for visible signs of potential failure or instability. None were observed

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Threat to Human Life or Property:

Failure could impact persons or equipment on or adjacent to the disposal area.
No threat was observed and with final reclamation is unlikely to occur. .

Potential Harm to Land, Air, and Water Resources:

Failure could impact the Purgatoire River or areas adjacent to the disposal area.
No adverse conditions were observed.

DOCUMENTATION AND OTHER OBSERVATIONS

Fall conditions prevail with the surface dry. Overall the site is in good condition.

Maintenance Required:

None at this time.

DEVELOPMENT WASTE DISPOSAL AREA No. 2

GENERAL DESCRIPTION OR REFERENCE TO SITE PLAN:

This Development Waste Disposal Area is located south of State Highway 12 and east of the main facility Access Road. It is adjacent to and north of the Middle Fork of the Purgatoire River. The area is permitted for disposal of waste rock from underground mining and disposal of sediment collected from ponds and ditches located within the mine permit area

ACTIVITY DURING INSPECTION:

___Removal of Topsoil and Organic Matter
___Placement of Under-drains
___Installation of Surface Drainage System
___Construction of Fill
___Placement of Topsoil
___Seeding
_X_Other __Facility was idle at the time of inspection

Refuse placement has been completed and the operator has trucked excess waste to the RDA so that finished slopes can be brought to approved grade. The excess storage space on the west end of the pile is used as a sediment drying area. Dried waste has been trucked to the RDA for permanent disposal.

Drainage: (Discussion of springs. seeps, overland and channel flow, underdrain construction and/or discharge, integrity of 100-year 24-hour drainage structures, and evidence of positive drainage).

Positive drainage is maintained on the surface of the DWDA. No evidence of springs nor seeps
was observed.

Observation of Fill Construction: (Description of material, compaction, lift thicknesses, slopes, and construction methods)

Coarse to fine-grained development waste rock has been placed and compacted according to approved plans. Compaction testing was done by CTL-Thompson on May 28, 2012 demonstrating that refuse placement has been conducted in accordance with plan requirements.

No refuse placement has occurred since the May 2012 compaction testing.

Indications of Potential Failure or Instability:

Surface and out slopes of the pile were inspected for visible signs of potential failure or instability. None were observed

Threat to Human Life or Property:

Failure could impact persons or equipment on or adjacent to the disposal area.
No threat was observed. .

Potential Harm to Land, Air, and Water Resources:

Failure could impact the Purgatoire River or areas adjacent to the disposal area.
No adverse conditions were observed.

DOCUMENTATION AND OTHER OBSERVATIONS

Late fall conditions prevail with the surface dry.. Overall the site is in good condition.

Maintenance Required:

Rills are developing primarily on the south facing slope. The area is at storage capacity. Operator is evaluating either reclaiming the area or permitting alternative uses for the land north of the Purgatoire River and south of Highway 12.

REFUSE DISPOSAL AREA (RDA)

GENERAL DESCRIPTION OR REFERENCE TO SITE PLAN:

The Primary Refuse Disposal Area is located north of State Highway 12 and the Middle Fork of the Purgatoire River. Refuse is transported by conveyor belt to the RDA from the coal preparation plant located south of the river. The plant operated intermittently during 2012 with temporary cessation of operations announced effective July 11, 2012. The mine briefly returned to production May-September, 2014; but returned to temporary cessation of mining in September 2014. Since then the mine has intermittently transported development waste from temporary storage piles to the RDA

ACTIVITY DURING INSPECTION:

___Removal of Topsoil and Organic Matter

___Placement of Under-drains
___Installation of Surface Drainage System
___Construction of Fill
___Placement of Topsoil
___Seeding
_X_Other __Facility is idle at this time

Drainage: (Discussion of springs. seeps, overland and channel flow, underdrain construction and/or discharge, integrity of 100-year 24-hour drainage structures, and evidence of positive drainage).

Observation of Fill Construction: (Description of material, compaction, lift thicknesses, slopes, and construction methods)

Refuse is placed in 1-2 foot lifts, allowed to dry and then compacted. Periodically CTL-Thompson, a geotechnical engineering firm, evaluates refuse compaction. The permit requires and testing has demonstrated that the operation have achieved in excess of the required 90% compaction.

Indications of Potential Failure or Instability:

None observed.

Threat to Human Life or Property:

None observed. Location and placement minimize potential impacts to life or property.

Potential Harm to Land, Air, and Water Resources:

None observed. Location of the waste bank minimizes potential impacts to land and water resources,
but failure could impact State Highway 12 and the Purgatoire River.

DOCUMENTATION AND OTHER OBSERVATIONS

Late winter conditions prevail with the surface dry. Overall the site is in good condition. Dried sediment from pond 7 and ditch cleanout is being trucked to the RDA and will be spread into no greater than 2-foot lifts for additional drying as needed, followed by compaction for permanent placement.

Depth to water in water level monitoring wells taken March 7, 2018:

Well	Depth	Elevation
TH-1	42.3 ft	7443.00
TH-2	70.0 ft	7461.40
TH-3	93.0 ft	7500.1

Maintenance Required

None required at this time.

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Ronald G. Thompson
Inspector

4/6/2018
Date

Charles W. McGlothlin
Professional Engineer

4/5/2018
Date

Inspections completed in compliance with Rule 4.09.1(11)(b) must be submitted to the Division within two weeks of completion.