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

PERMIT INFORMATION

Permit Number: C-1980-007 **Mine Name:** West Elk Mine **Operator:** Mountain Coal Company, LLC **Operator Address:** Ms Kathleen G Welt P.O. Box 591 Somerset, CO 81434	**County:** Delta, Gunnison **Operation Type:** Underground **Permit Status:** Active **Ownership:** Federal
	Operator Representative Present: Kathy Welt, Jessica Loveland, Weston Norris
Operator Representative Signature: (Field Issuance Only)	

INSPECTION INFORMATION

Inspection Start Date: May 22, 2013 **Inspection Start Time:** 08:30 **Inspection End Date:** May 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):	**Inspector's Signature:**	**Signature Date:**
Leigh D. Simmons Daniel I. Hernandez		5/24/2013

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

COMMENTS

This was a partial inspection of the West Elk Mine by Leigh Simmons and Dan Hernandez of Colorado Division of Reclamation, Mining and Safety (the Division). Kathy Welt and Jessica Loveland, Environmetal Engineers with Mountain Coal accompanied the inspection throughout. Weston Norris (Manager of Engineering and Environmental Compliance) was also present for a short time before leaving to attend a meeting with the Board of Directors. The mine was in active production at the time of the inspection. Many of the outlying areas of the mine were still inaccessible due to snow. The weather was warm and sunny, and the ground was 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:

Sediment pond MB-5E at the west end of the site is designed as two cell pond to aid with cleaning. At the time of the inspection, the southerly cell was receiving runoff. Neither cell was discharging. The embankments and spillways were in good order.

The small sediment pond (NSSA) treating the topsoil piles north of the highway was dry. All ditches, berms and spillways associated with the pond were in good order.

The stream in Sylvester Gulch is designated as intermittent or ephemeral along the reach passing through the permit area. Running water was not observed. The roadside ditch along the Sylvester Gulch haul road is steep and straight. Mountain Coal has attempted to break up the flow and reduce the velocity of water conveyed by the ditch using straw bale and rock sock check dams.

The shallow pond (SG-1) up the Sylvester Gulch haul road was holding water but not discharging. The pond is lined with hdpe to avoid direct hydrologic communication with adjacent alluvial water in the gulch, per the permit. This can lead to problems with algal growth in the shallow warm water.

The RPE pond is another two cell pond. The first cell was holding significant water, but was below the discharge level. The second cell just had a little water in the bottom. Both cells are hdpe lined, for the same reason, and with the same problems as described above. The ditch adjacent to the pond was being cleaned at the time of

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the inspection.

GENERAL MINE PLAN COMPLIANCE:

The mine was producing coal at the time of the inspection. Mr Norris and Ms Welt summarised the long term mine plan, which sees mining proceeding from the current position of the longwall in panel 4, through panels to the south, in the E seam.

Significant technical challenges exist at the site, principally dealing with: (1) the slide prone nature of the land surface; and (2) the gassy nature of the coal seams and adjacent strata. Mountain Coal has developed engineering solutions which allow them to manage these issues and continue to mine without adversely impacting the environment or the safety of the public or mine staff.

The mine is ventilated by a series of mobile methane ventilation wells drilled into the overburden ahead of the longwall and in adjacent E-seam panels, and a permanent ventilation well finished in the old B-seam void, behind the seals. In combination with the positive pressure created by pumping heated air into the mine, these facilities help to prevent the bulk of the formational methane from entering the mine ventilation air, and maintain a safe working environment. Currently the methane from these facilities is vented directly to the atmosphere, since it is not considered economically feasible to collect and utilize it as a resource. Even mitigation of the greenhouse gas emissions by flaring is not possible due to the location in the Gunnison National Forest. Ms Welt said that the situation is regularly reviewed by consultants employed by Mountain Coal.

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

Drainage Control; Surface Stabilization; Placement:

Waste was being placed on the RPE East during the inspection. From a distance the fill appeared to be stable and well drained. According to Ms Welt, the final configuration of the RPE East is likely to be smaller than currently approved. Once the revised configuration is approved, Mountain Coal plans to bring the lower-most benches up to their final contours, possibly during the summer of 2013.

REVEGETATION – Rule 4.15

Vegetative Cover; Timing:

The subsoil pile adjacent to pond MB-5E was well vegetated, but had a significant amount of Whitetop/Hoary Cress (*Cardaria draba*). This list B noxious weed should be controlled. According to Ms Welt, contract sprayers will be on the site soon - the site is sprayed for weed control twice a year.

The slopes crossed by the RPE East haul road were profligate with Chokecherry (*Prunus virginiana*) which was flowering to a greater extent than in previous years.

SLIDES and DAMAGE - Rule 4.12:

The slide on the slope to the south of pond MB-5E (ST-02?) was inspected from below. The repairs appeared to have been successful and no instability was observed.

A very small slide opposite the office building was inspected. According to Ms Welt the cameras mounted on the buildings show that the slope has been stable since the initial movement about a month ago (no picture). Mountain Coal plan to restrict their repair operation to filling the crack at the crown of the slide.

The extensive slide at the eastern end of the site, around the RPE East access/haul road was observed from the RPE sediment pond. Repair work was ongoing.

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SIGNS AND MARKERS – Rule 4.02:

Mine ID signs were clear and in place. Topsoil and subsoil piles were clearly marked. The stream buffer zone was also clearly marked.

TOPSOIL – Rule 4.06 Removal 4.06.2; Substitute Materials 4.06.4(4); Storage and Protection 4.06.3; Redistribution 4.06.4:

The topsoil piles on the north side of highway 133 were inspected and found to be clearly marked and well vegetated. Whitetop/Hoary Cress (*Cardaria draba*) and Cheat Grass/Downy Brome (*Bromus tectorum*) were observed on the pile. These are list B and list C noxious weeds, respectively. Rule 4.06.3(2)(a) specifies that protection of stored topsoil shall be accomplished by "An effective cover of non-noxious, quick-growing annual and perennial plants..."

DOCUMENTS RECEIVED

N/A

OTHER (SPECIFY)

N/A

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ENFORCEMENT ACTIONS/COMPLIANCE

No enforcement actions are necessary at this time.

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PHOTOGRAPHS

Photo 1: West Elk mine looking east, from Pond MB-5E

Photo 2: Discharge into southerly cell of Pond MB-5E

Photo 3: Whitetop on subsoil pile near to Pond MB-5E

Photo 4: Repaired slide ST-02

Photo 5: Entrance to soil storage area north of the highway

Photo 6: Some cheatgrass and whitetop on topsoil pile

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Photo 7: Sediment pond NSSA

Photo 8: Sediment pond SG-1

Photo 9: RPE

Photo 10: Chokecherry in bloom above RPE haul road

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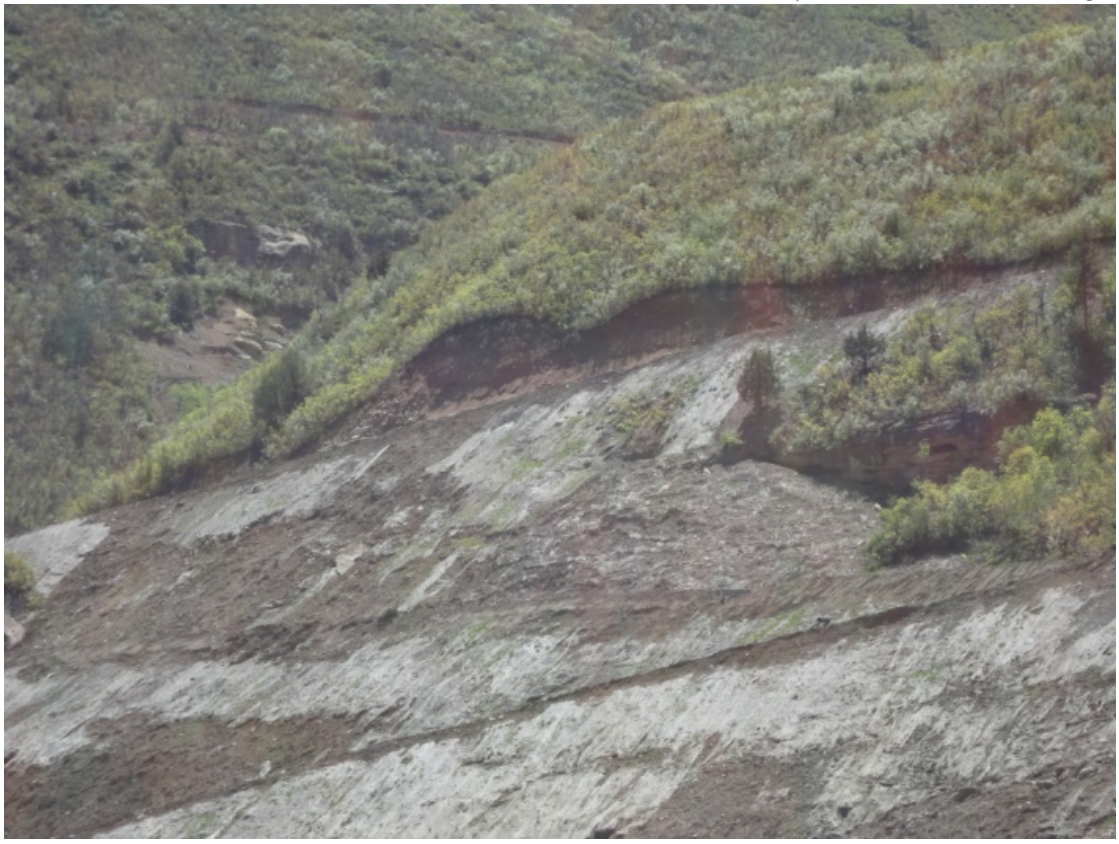
Photo 11: RPE pond with slide damage in background

Photo 12: Close up of RPE haul road slide damage



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