




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



PERMIT INFORMATION

Permit Number: C-1981-014 Mine Name: Southfield Mine Operator: Energy Fuels Coal, Inc. Operator Address: Mr George Patterson P.O. Box 459 Florence, CO 81226	County: Fremont Operation Type: Underground Permit Status: Permanent Cessation Ownership: Private
	Operator Representative Present: None
Operator Representative Signature: (Field Issuance Only) 	

INSPECTION INFORMATION

Inspection Start Date: May 7, 2013 Inspection Start Time: 13:00 Inspection End Date: May 8, 2013 Inspection End Time: 12:30	Inspection Type: Coal Complete Inspection Inspection Reason: Normal I&E Program Weather: Windy	
Joint Inspection Agency: None	Joint Inspection Contacts:	
Post Inspection Agency: None	Post Inspection Contacts:	
Inspector(s): Janet H. Binns	Inspector's Signature:  5/15/2013	Signature Date:

Inspection Topic Summary

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

NA - Air Resource Protection

R - Availability of Records

Y - Backfill & Grading

NA - Excess Spoil and Dev. Waste

NA - Explosives

R - Fish & Wildlife

R - Hydrologic Balance

R - Gen. Compliance With Mine Plan

NA - Other

R - Processing Waste

R - Roads

R - Reclamation Success

R - Revegetation

R - Subsidence

Y - Slides and Other Damage

Y - Support Facilities On-site

Y - Signs and Markers

R - Support Facilities Not On-site

NA - Special Categories Of Mining

Y - Topsoil

COMMENTS

This was a complete inspection conducted by Janet Binns of CDRMS. The weather on Tuesday, May 7, 2013, was cloudy and windy. The mine site was dry in spite of late season snow storm in the region on May 1, 2013. The weather on Wednesday, May 8, 2013, was overcast with scattered showers in the morning and a large thunderstorm moving through in the afternoon. There is no rain gauge at the reclaimed mine site. CoCoRaHS weather stations in the area (CO-FM-2 Williamsburg) and CO-PU-17 (Pueblo 17W) reported 0.1" to 0.24" of precipitation on 5/8 respectively.

AVAILABILITY OF RECORDS – Rule 5.02.4(1):

Mine records were checked in the EFCI office in Florence. George Patterson met the inspector at the office on Tuesday, 5/7/2013. Records were up to date.

Since Newlin Creek had not had flow so far this spring, Surface water monitoring had not been conducted. Mr. Patterson checks the creek periodically to verify if Newlin Creek is flowing.

FISH and WILDLIFE – Rule 4.18:

Although there were extensive fresh elk track throughout the mine site, and RDA, no elk were observed during the inspection. Numerous wild turkey were observed and heard throughout the mine site and adjacent area. A red fox was observed hunting on the RDA.

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:

Newlin Creek was dry at the Thompson driveway. Although there were small puddles of water in the corrugated culvert from recent precipitation events, there was no sign that there had been recent flow in Newlin Creek. Newlin Creek was dry upstream at NC2 as well. The Canon City area had received a measurable snowfall on May 1, 2013. There was no sign that the snowmelt had resulted in runoff. It appeared that the moisture had

Number of Partial Inspection this Fiscal Year: 7

Number of Complete Inspections this Fiscal Year: 4

infiltrated into the ground and did not run off.
Pond 5 was dry. Pond 4 was dry as well.

The ditches throughout the mine site were in good condition.

EFCI has informed the Division that they have not conducted any rehabilitation of monitoring well MW-NW.

GENERAL MINE PLAN COMPLIANCE:

NOV-CV-2013-002 remains unabated. EFCI has requested an extension of abatement due date. EFCI has not signed the settlement agreement and intends to appeal to the MLRB.

PROCESSING WASTE/COAL MINE WASTE PILES – Rule 4.10 and 4.11 □ Drainage Control; Surface Stabilization; Placement:

Cover on the RDA remains good. The inspector did not find evidence of noxious weeds, or rilling on the RDA.

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 access road to the Monarch fan was inspected. The Landowner had sent an e-mail to the Division on April 25, 2013 and again on May 7, 2013, with concerns regarding gully formation at the outfall of northernmost culvert on the fan road. This gully has existed for an extended period of time. Previously a fabric “sock” had been attached to the outfall of the culvert (Culvert 1S) in order to reduce the velocity of the outflow from the culvert. Culvert locations are shown on Map 20 for the mine site, and Map 30 for the Monarch Fan access road. The culvert in question is not depicted on either map, nor is there a design found in Exhibit 19. Over time this gully appears to have enlarged. It had been stabilized previously with large boulders. The gully has cut into the bank on the uphill side. Visual estimation size of the gully is 10 feet deep and 30 ft. long. Discussion with George Patterson in the EFCI office regarding this culvert, George said that rock fall had pinched off the outlet “sock” causing flow to back up in the “sock”. George cut the “sock” at the point that it had been pinched off by the rocks. It appears that at the cut location of the “sock” outflow is cutting into the south bank. This undercutting of the bank is allowing for enlargement of the gully. Over time the under cutting could eventually impact the access road.

Culvert 2S on Monarch Fan road indicated no problems or ongoing erosion at the outfall. Culvert 3S has a yellow “sock” attached and exhibited no problems. Culvert 4S has green tubing attached. No problems with this location. Culvert 4S is the only culvert along the Monarch fan road shown on Map 30 and in Exhibit 19. It appears that before the “sock” was pinched off by rockfall, and subsequently cut to alleviate the blockage of flow, the gully did not show signs of actively enlarging. Since the blockage and relief of the “sock” it would appear that this location is showing active erosion. Some method of flow reduction is needed to reduce the ongoing erosion.

Only the Northern most culvert (culvert S1-name given by inspector to designate which culvert is being referenced) was showing sign of active erosion at the outfall.

Number of Partial Inspection this Fiscal Year: 7

Number of Complete Inspections this Fiscal Year: 4

RECLAMATION SUCCESS - Rule 4.15, Rule 3:

The inspector walked the Grassland reference area. It began raining lightly. The inspector was able to located 2 posts, on East corners. The inspector was unable to locate the other corner posts on the west side of the Grassland reference area. Vegetation is mixed blue grama & wheatgrass, as well as isolated clumps of juniper, Yucca, and oak brush. Some die-off of juniper was noted in the Grassland reference area.

The inspector tried to walk the perimeter of the proposed Pinyon Juniper reference area. Portions of this area are extremely dense with oakbrush, and juniper. The proposed boundary was located to avoid areas that had been previously disturbed by mining activities. There is drainage toward the west extent that appears to be a natural drainage. The previously disturbed waterline is further to the west and outside of the proposed area.

Vegetation on the portal area appears in good condition with good cover. Numerous small trees are easily observed in the SW area of the reclaimed portal. The wattles on the slope west of the gravel pad are holding well. The silt fence on the northwest side of the truck tunnel is holding up and appears to effectively be stabilizing this slope.

REVEGETATION – Rule 4.15□ Vegetative Cover; Timing:

This area has only recently been receiving measurable spring moisture. As a result, little spring germination of the seed mix was observable at the 2012 repaired subsidence holes. The wood mulch is still intact and appears to act as a good stabilizer of the surface. Some early grasses appear to be germinating. These are much too small for any positive identification at this stage.

The reclaimed Monarch fan backfilled slope is dominated by bunch grasses. There are considerable openings between the bunch grasses. This slope needs to be monitored by EFCI to assure that weedy species or erosion does not become an concern on this slope.

SUBSIDENCE – Rule 4.20:

2012 subsidence repairs look good. No new holes were found. The repairs have held up well. No rilling was observed. The fill has not yet consolidated. The access route was reclaimed as well.

OFFSITE SUPPORT FACILITES - Rule 4.04, 4.28:

The Load out was dry. Both of the ponds were dry. Train cars are stored on the tracks on both sides of the county road. Both gates are open. No problems were noted on the Load out area.

DOCUMENTS RECEIVED None**OTHER (SPECIFY)**

Number of Partial Inspection this Fiscal Year: 7

Number of Complete Inspections this Fiscal Year: 4

ENFORCEMENT ACTIONS/COMPLIANCE

Infraction Number: CV2013002

Inspection Date: January 23, 2013

Date Issued: January 28, 2013

Primary Topic: Hydrologic Balance

Secondary Topic:

Tertiary Topic:

Description: Failure to ensure that water monitoring well MW-NW continues to function as designed.

Abatement #: 1

Abatement Due Date: 6/20/2013

Abatement Description: Remove the obstruction from MW-NW or establish a replacement water monitoring well that intercepts the Southfield Mine workings in the Red Arrow or Jack O' Lantern Coal seam.

Abatement #: 2

Abatement Due Date: 6/20/2013

Abatement Description: Provide evidence to the Division that Energy Fuels Coal Inc. has applied for a monitoring well permit with CDWR in accordance with Rule 2.03.10.

Number of Partial Inspection this Fiscal Year: 7

Number of Complete Inspections this Fiscal Year: 4

PHOTOGRAPHS



Photo 1: Reclaimed Monarch fan slope



Photo 2: reclaimed Monarch fan slope



Photo 3: open space between bunch grass on Monarch Fan reclamation (Yuma for scale)



Photo 4: top of RDA

Number of Partial Inspection this Fiscal Year: 7

Number of Complete Inspections this Fiscal Year: 4



Photo 5: Grassland Reference area



Photo 6: Grassland reference area



Photo 7: vegetative cover of Grassland reference area



Photo 8: junction of Culvert 1S on Monarch fan road
With "sock"



Photo 9: bank cutting on south side of Culvert 1S outfall



Photo 10: bank cutting at culvert 1S

Number of Partial Inspection this Fiscal Year: 7

Number of Complete Inspections this Fiscal Year: 4



Photo 11: bottom of sock where water is cutting into South bank below culvert 1S Monarch fan road.



Photo 12: Silt fence at Truck tunnel holding well.



Photo 13: Proposed PJ reference area



Photo 14: Proposed PJ reference area

Number of Partial Inspection this Fiscal Year: 7

Number of Complete Inspections this Fiscal Year: 4

AVAILABILITY OF RECORDS**PERMIT RECORDS**

DRMS Permit	Exp. 7/30/2014
Permit Application w/Revisions	X
Findings Document	RN5 5/21/2009
Insurance Certificate	Exp. 10/1/2013
Bond Document	16-66-96
Phased Bond Release	RN5
Documents/Findings	SL2
Air Emission Permits	cancelled
County Special Use Permits	CUP-98-3
UG Mining Landowner Notification	X
Subsidence Monitoring Reports	due in 2013
Subsidence Monitoring Data	due in 2013
Rill & Gully Survey	2012 ARR
Vegetation Monitoring Data	2010
Specific Variance Approvals	NA
Annual Reclamation Reports	2012
Midterm Review Documents	2013
DRMS/OSM Inspection	Thru 4/15/2013
Reports/Enforcement Actions (3 Years)	
Transfers/Succession of Operator	X
Temporary Cessation Notification	X--
Reclamation Cost Estimate	MT6
CERTIFICATIONS	
Pond Certifications	X
Annual Certifications for Impoundments	X
Fill Certifications for Excess Spoil or Underground Development Waste	NA
• Quarterly Inspections	
• Compaction Testing	
• Final Certification	
Coal Processing Waste Banks	RDA Term.2010
Haul Road Certifications	X
Access Road Certifications	X

HYDROLOGIC RECORDS

NPDES Permit	6-30-2013 *1
NPDES Records	Thu 1 st ¼ 2013
Stormwater Management Plan	terminated 5/25/04
SPCC Plan	Updated 9/11/12
MSHA Pond Inspections	NA
State Engineer's Pond Inspection	NA
Quarterly Pond Inspections	Thru 3/7/13
Annual Hydrology Reports	2012
• Ground Water Monitoring	11-28-12
• Surface Water Monitoring	11-30-12 *2
• Spring & Seep Monitoring	
• Mine Water Discharge Monitoring	
• Mine Inflow Study	
• Water Consumption Records	
Well Permits	

BLASTING RECORDS

Blasting Publication	NA
Blasting Records (3 years)	NA
ATFE Explosives Permit	NA
Blasting Variances	NA
Pre-Blast Surveys	NA

**ADDITIONAL RECORDS
(specify)**

Subsidence 11/2006	Due by 12/31/13

COMMENTS:*1 EFCI sent NPDES renewal app. To CDPHE 12/20/2012. Awaiting CDPHE response.

*2 Newlin Creek still dry. Has not yet had flow this Spring.

Number of Partial Inspection this Fiscal Year: 7

Number of Complete Inspections this Fiscal Year: 4