




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



## PERMIT INFORMATION

<b>Permit Number:</b> C-1981-014 <b>Mine Name:</b> Southfield Mine <b>Operator:</b> Energy Fuels Coal, Inc. <b>Operator Address:</b> Mr. George Patterson P.O. Box 459 Florence, CO 81226	<b>County:</b> Fremont <b>Operation Type:</b> Underground <b>Permit Status:</b> Permanent Cessation <b>Ownership:</b> Private
<b>Operator Representative Present:</b>  George Patterson	
<b>Operator Representative Signature:</b> (Field Issuance Only)	

## INSPECTION INFORMATION

<b>Inspection Start Date:</b> November 13, 2013 <b>Inspection Start Time:</b> 10:00 <b>Inspection End Date:</b> <b>Inspection End Time:</b>	<b>Inspection Type:</b> Coal Complete 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>  Robert D. Zuber, P.E.	<b>Inspector's Signature:</b>  	<b>Signature Date:</b>  11/14/2013

**Inspection Topic Summary**

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

Y - Air Resource Protection

Y - Availability of Records

Y - Backfill &amp; Grading

NA - Excess Spoil and Dev. Waste

NA - Explosives

Y - Fish &amp; Wildlife

R - Hydrologic Balance

Y - Gen. Compliance With Mine Plan

N - Other

R - Processing Waste

R - Roads

R - Reclamation Success

N - Revegetation

R - Subsidence

N - Slides and Other Damage

N - Support Facilities On-site

R - Signs and Markers

R - Support Facilities Not On-site

NA - Special Categories Of Mining

R - Topsoil

**COMMENTS**

A complete inspection was conducted by Rob Zuber of DRMS on November 13, 2013. The weather was clear and breezy, and the ground was dry. George Patterson of EFCI was present at the office for the records check, but there was no EFCI representative present during the inspection at the mine site or the loadout.

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 and the ground in the area were dry, so the reach below the fence (where a landowner has indicated that the reach is a losing reach) was not inspected for cracks or other indications of mining impacts. It was inspected in September 2013 and October 2013, and will continually be done, especially after precipitation events.

The two ponds at the mine site, Pond 4 and Pond 5, were holding water. Neither of these ponds was discharging. At the loadout, ponds L-1 and L-2 were dry at the time of the inspection.

No major problems were found with embankments or spillways. Some additional observations regarding the ponds:

- Pond L-1 primary spillway contains some sediment at the downstream end. If this gets more than half full, it should be cleaned out.
- The sediment level in Pond 4, on average, appears to be at least two feet below the invert of the decant pipe. Thus the pond does not need to be cleaned at this time.
- The sediment level in Pond 5, on average, appears to be at least two feet below the invert of the decant pipe. Thus the pond does not need to be cleaned at this time. The upper end of this pond has recently been cleaned.
- The channel below the primary spillway of Pond 5 has been cleared of sediment. However, there is significant sediment in the pipe itself; if this condition worsens (reaches the half-way point) it will require

Number of Partial Inspection this Fiscal Year: 3

Number of Complete Inspections this Fiscal Year: 3

maintenance (flushing of spillway).

Culverts 39 and 40 were clear of sediment at both ends.

Near the truck tunnel, where erosion has been observed in recent inspections, the slope looks stable and BMPs were in order, including silt fence and a new wattle.

The wattles near the gravel parking lot in the portal area appear to be functioning and the hillside appears stable. An erosion mat has been added to the top of the slope.

No erosion or other problems were identified in or near the following ditches:

- The Magpie Creek Diversion
- The roadside ditch near the truck tunnel (check dams appear to be functional)
- Permanent Diversion Ditch #1 (west of the RDA), including the California drain pan
- The ditches at the RDA (west, north, and southeast).

The ditch along the southeast side of the RDA has recently been cleared of sediment.

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

The perimeter of the RDA was driven; no rills or other problems were seen.

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):

Roads to the facilities area and the RDA were in good shape, and water bars (aka ditch outs) have recently been cut. Along the road to the Monarch Mine, the downdrain structures (“socks”) were found to be in good shape, and no problems with culverts were seen.

RECLAMATION SUCCESS - Rule 4.15, Rule 3:

The portal area was in good shape; no erosion or large weed patches were observed.

The rock dust storage SAE was inspected and no problems were seen.

SUBSIDENCE – Rule 4.20:

The area southeast of Newlin Creek where subsidence holes have been repaired was walked during the inspection. No signs of subsidence were seen within a 200-foot buffer along the southeast side of the creek for approximately 1,000 feet upstream of the road and large culvert.

SIGNS AND MARKERS – Rule 4.02:

At the mine site, the mine sign is in place, legible, and contains the necessary information. At the loadout,

Number of Partial Inspection this Fiscal Year: 3

Number of Complete Inspections this Fiscal Year: 3

the sign is still partially obscured by graffiti.

**OFFSITE SUPPORT FACILITIES - Rule 4.04, 4.28:**

Trash should be removed at the loadout, including a box spring below pond L-2 and a pile of concrete rubble, or a letter from the landowner should be provided that indicates that this trash is not an issue for the landowner.

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

Topsoil stockpiles were observed and no problems were identified. These include the one near the gravel parking lot in the facilities area and the one at the northwest corner of the RDA.

### **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: 4/1/2013

Abatement Due Extended 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: 4/1/2013

Abatement Due Extended 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.

Abatement steps have been extended due to EFCI's request for a board hearing.

Number of Partial Inspection this Fiscal Year: 3

Number of Complete Inspections this Fiscal Year: 3

**PHOTOGRAPHS**



**Sediment Pond L-1**



**Portal area, looking northwest**

Number of Partial Inspection this Fiscal Year: 3

Number of Complete Inspections this Fiscal Year: 3



**Drainage “sock” on road to Monarch fan**



**Sediment Pond 5 – upper part of pond has been cleaned**

Number of Partial Inspection this Fiscal Year: 3

Number of Complete Inspections this Fiscal Year: 3





**BMPs near truck tunnel**



**Sediment Pond 4 embankment**

Number of Partial Inspection this Fiscal Year: 3

Number of Complete Inspections this Fiscal Year: 3



**BMPs on slope above gravel lot**



**BMPs on slope above gravel lot**

Number of Partial Inspection this Fiscal Year: 3

Number of Complete Inspections this Fiscal Year: 3



**AVAILABILITY OF RECORDS****PERMIT RECORDS**

DRMS Permit	Exp. 7/30/2014
Permit Application w/Revisions	yes
Findings Document	RN5 5/21/2009
Insurance Certificate	Exp. 10/1/2014
Bond Document	16-66-96
Phased Bond Release	
Documents/Findings	SL2
Air Emission Permits	cancelled
County Special Use Permits	CUP-98-3
UG Mining Landowner Notification	With RN5
Subsidence Monitoring Reports	due in 2013
Subsidence Monitoring Data	due in 2013
Rill & Gully Survey	ARRs
Vegetation Monitoring Data	*1
Specific Variance Approvals	NA
Annual Reclamation Reports	2012
Midterm Review Documents	MT6
DRMS/OSM Inspection	Thru 10/9/2013
Reports/Enforcement Actions (3 Years)	
Transfers/Succession of Operator	yes
Temporary Cessation Notification	yes
Reclamation Cost Estimate	MT6 2/19//2013
<b>CERTIFICATIONS</b>	
Pond Certifications	yes
Annual Certifications for Impoundments	yes
Fill Certifications for Excess Spoil or Underground Development Waste	NA
• Quarterly Inspections	
• Compaction Testing	
• Final Certification	
Coal Processing Waste Banks	*2
Haul Road Certifications	NA
Access Road Certifications	In PAP

**HYDROLOGIC RECORDS**

NPDES Permit	Exp. 6/30/13 *3
NPDES Records	Thru 3Q 2013
Stormwater Management Plan	Updated 9/11/12
SPCC Plan	Updated 9/11/12
MSHA Pond Inspections	NA
	NA
State Engineer's Pond Inspection	
Quarterly Pond Inspections	Thru 9/23/2013
Annual Hydrology Reports	2012
• Ground Water Monitoring	6/25/2013
• Surface Water Monitoring	5/29/2013
• Spring & Seep Monitoring	NA
• Mine Water Discharge Monitoring	NA
• Mine Inflow Study	NA-after mine closure
• Water Consumption Records	
Well Permits	None

**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 Report from Kent Crofts is pending.
- \*2 Inspections of RDA terminated in 2010.
- \*3 EFCI sent NPDES renewal application to CDPHE ON 12/20/2012.

Number of Partial Inspection this Fiscal Year: 3Number of Complete Inspections this Fiscal Year: 3