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

PERMIT INFORMATION

Permit Number: C-1981-037 **Mine Name:** GEC Strip Mine **Operator:** GEC Minerals **Operator Address:** **(landowner)** Dr W Corley 2605 Constellation Drive Colorado Springs, CO 80906	**County:** Fremont **Operation Type:** Surface **Permit Status:** Revoked **Ownership:** Private
	Operator Representative Present: NA
Operator Representative Signature: (Field Issuance Only)	

INSPECTION INFORMATION

Inspection Start Date: July 1, 2013 **Inspection Start Time:** 11:45 **Inspection End Date:** July 1, 2013 **Inspection End Time:** 14:45	**Inspection Type:** Coal Partial Inspection **Inspection Reason:** Citizen Complaint **Weather:** Cloudy
Joint Inspection Agency: None	**Joint Inspection Contacts:**
Post Inspection Agency: None	**Post Inspection Contacts:**

Inspector(s):	**Inspector's Signature:**	**Signature Date:**
Janet H. Binns		July 5, 2013

Inspection Topic Summary
NOTE: **Y**=Inspected **N**=Not Inspected **R**=Comments Noted **V**=Violation Issued **NA**=Not Applicable

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

COMMENTS

This was a partial inspection conducted by Janet Binns and Gary Curtiss of DRMS. Gary Curtiss works with the Inactive Mine Reclamation Program (IMP). Janet works with the Coal Program. Gary and Janet met the landowner, Dr. W. D. Corley, at the Corley Mountain Ranch gate on the north side of Fremont County Road No. 15 at 12:45 pm on July 1, 2013.

On Friday June 28, 2013, at 12:20 p.m., the landowner, Dr. Corley, notified the Division by e-mail of a potential coal seam fire on a historic coal mine. Dr. Corley had observed a hole venting near a former mining area. He had used a small "bobcat" dozer to cover the vent with dirt to minimize the potential for surrounding vegetation catching fire.

The inspection on July 1, 2013 progressed from the Corley Mountain Ranch gate along the Corley Mountain Ranch road northwestward to the previously reclaimed GEC tipple area. The vehicles were parked and we proceeded on foot to the south. The area of concern is located at the top of a backfilled and revegetated slope in an area that had evidence of past mining activities: spoil piles and coal refuse material partially covered in two depressions to the west of the edge of the slope. The smell of burning coal was noted in the air. Walking along the top of the slope, it was noted that some areas had a stronger burning coal smell than others. Dr. Corley had dug into the ground to the north of the thermal area with his bobcat and appeared to have uncovered some black coaly material. An old spoil pile was located in the Piñon/Juniper vegetation further to the west. Dr. Corley used this western spoil material to cover the burning coal area.

Gary and Janet collected GPS coordinates of the slope and the hot areas. Gary had a thermal camera and was able to collect ground surface temperatures. Temperatures varied throughout the area of concern based on vegetation cover, color of ground surface, and potential coal fire vents. The air temperature was in the upper 80's to low 90's. The weather was partly cloudy with a light breeze. Gary measured ground temperatures from 89 to 120 degrees F. No smoke was visible from the "hot spots" at the time of the inspection. A vent was identified on the eastern side of the area of concern that the landowner had not recently covered with spoil material. There was brown tarry staining around the vent hole and the associated surface crack. Gary measured the surface temperature of the vent

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closest to the edge of the slope at 135 degrees F. There was some apparent charring of dried grasses near the vent. This charring was of very limited extent and extended to the immediate several inches around the surface expression of the vent. The vegetation in the vicinity of the vents is composed primarily of low native grasses, annual forbs and Cholla cactus.

Janet consulted a DRMS report titled "Report on the Status of Fires at Abandoned Underground Coal Mines in Colorado: Colorado Division of Minerals and Geology, Steve Renner, Project Manager 2005". The current area of concern correlates to a feature previously identified as "Mesa-Side Features 1, 2, and 3". The report indicates that mining maps potentially connect these features with the historic Black Diamond Mine. The report associated this fire area with a coal seam and not previously deposited coal waste. The report also described 3 distinct areas of limited surficial cracking. The description in the report agrees with the description Dr. Corley noted prior to covering the western two areas with spoil material.

The top of the mesa (slope) appears to have been covered with cobbly "spoil" material. DRMS considers these fire features at the top edge of the slope to be associated with historic mining and not a result of the GEC operation. As such, the Inactive Mine Reclamation Program will follow up on this concern.

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PHOTOGRAPHS


Photo 1: surface vent on northern feature (feature 3)


Photo 2: Surface staining and cracking at Feature 3.


Photo 3: Top of slope looking westward. Hot spots appear Limited to the top of the slope in the cobbly material.


Photo 4: Cobbly top of slope.


Photo 5: Dr. Corley and Gary Curtiss on top of slope


Photo 6: Top of slope looking northward.

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Photo 7: Top of slope; looking to eastward at area had been recently covered with spoil material

Photo 8: Top of slope: looking to western extent of area of concern and recent spoil material placement

Photo 9: Surficial cracking on western features not recently Covered by Dr. Corley.

Photo 10: Gary taking thermal temperature of surficial cracks along the top of the slope.

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North
Corley mountain ranch road
Eastern vents
Scotch thistle
Historic block storage building
Western vent
Old spoil pile