COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215, Denver, CO 80203 P 303.866.3567 F 303.832.8106 http://mining.state.co.us

PERMIT INFORMATION

Permit Number: C-1981-035 **Mine Name:** King Coal Mine **Operator:** GCC Energy, LLC **Operator Address:** Mr. Tom Bird 6473 County Road 120 Hesperus, CO 81326	**County:** La Plata **Operation Type:** Underground **Permit Status:** Active **Ownership:** Federal **Operator Representative Present:** Tom Bird
Operator Representative Signature: (Field Issuance Only)	

INSPECTION INFORMATION

Inspection Start Date: April 26, 2017 **Inspection Start Time:** 08:30 **Inspection End Date:** **Inspection End Time:**	**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:**
Robert D. Zuber, P.E.	Robert D. Zuber	5/2/2017

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

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

COMMENTS

A partial inspection was conducted by Rob Zuber of DRMS on April 27, 2017. Tom Bird and Sarah Vance of GCC accompanied Rob in the field. The weather was clear. The ground was mostly dry.

Prior to the on-the-ground inspection, a phone call was made to Landon Beck, GCC's consulting hydrologist. Mr. Beck informed Rob, Tom, and Sarah of the following regarding the recently drilled monitoring wells:

- If an electronic water level sensor is placed in the wells, purified water and clean paper towels are appropriate tools for preventing cross contamination.
- The naming convention for the wells includes the abbreviations "MI" for Menefee Formation interburden, "A" for A seam, and "C" for Cliff House Sandstone.
- The deepest wells (Menefee Formation interburden) were drilled at the north end of each cluster, and the most shallow (Cliff House) at the south end.
- Well MW-2-MI was found to be dry. Any indication of water (with a sensor, for example) is due to water for the bentonite.
- Transducers were placed in MW-3-MI and MW-3-A.

AIR RESOURCE PROTECTION – Rule 4.17:

No dust problems were seen with the haul road or any other roads.

EXCESS SPOIL and DEVELOPMENT WASTE – Rule 4.09
Placement; Drainage Control; Surface Stabilization:

The un-reclaimed portion of the Refuse Pile (upper portion) requires grading to spread the piles of waste and insure a two percent slope from north to south across the pile. No flow was seen from the underdrain of the refuse pile, nor were there signs of recent flows.

Number of Partial Inspection this Fiscal Year: 8
Number of Complete Inspections this Fiscal Year: 3

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:

The surface conditions of the three recently completed well clusters (MW-2, MW-3, and MW-4) were inspected. All three sites included three wells (for the three formations) with steel casings, lids and locks on the casings, and 3' x 3' x 4" concrete pads that abut the casings. Well names were placed on the lids and the casings, in general, but the casings at MW-4 looked like they had been painted, and the paint obscured the well names. One of the pads at MW-4 had been damaged and should be repaired. The bore hole at MW-2-C (and possibly in the other Cliff House holes) was not completed, per the GCC plan if water was not encountered.

An attempt was made to measure the water level in the Menefee Formation wells at MW-2 and MW-4. However, the division's instrument appeared to not have a long enough tape; it is only 301 feet long, and no indication of water was detected at this depth, nor did it feel like the end of the sensor was touching the bottom of a well.

At the King I Mine, the East Pond and the West Pond were inspected. The East Pond was holding water but not discharging. The West Pond was dry. No significant problems were seen with embankments or other structures.

Near the entrance to King II, the surface water controls have been maintained. Sumps and the grated ditch across the road have been cleaned. The wattles look good.

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

At King I, Plant Growth Medium Storage Areas required additional work to protect the resource. At the storage area east of the Refuse Pile, the ditch should be extended around the southwest corner. At the storage area near the old tipple bench, a sump should be added at the low point at the southeast corner. During the inspection, Tom Bird ordered the work near the tipple bench to be done that day.

ENFORCEMENT ACTIONS/COMPLIANCE

No enforcement actions were initiated as a result of this inspection, nor are any pending.

Number of Partial Inspection this Fiscal Year: 8
Number of Complete Inspections this Fiscal Year: 3

PHOTOGRAPHS

Well MW-2-MI

Well MW-3-MI

Number of Partial Inspection this Fiscal Year: 8
Number of Complete Inspections this Fiscal Year: 3

MW-4 well cluster

Cracked base at MW-4

Number of Partial Inspection this Fiscal Year: 8
Number of Complete Inspections this Fiscal Year: 3

Wattles near King II entrance

Ditch at plant growth medium storage area near Refuse Pile
Recently cleaned but needs more maintenance

Number of Partial Inspection this Fiscal Year: 8
Number of Complete Inspections this Fiscal Year: 3

Refuse Pile – needs to be graded

Note low area in middle of pile surface

Number of Partial Inspection this Fiscal Year: 8
Number of Complete Inspections this Fiscal Year: 3