



State of Utah
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

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TECHNICAL FIELD VISIT

Date: Sept. 18, 1998
DOG M Staff: Michael Suflita
Other Attendees: Ken Payne, and Scott Boylen, Canyon Fuel Co.
Re: Review County Road Culvert, Canyon Fuel Co., Dugout Mine, ACT/007/039, Carbon County, Utah, Folder #2

Purpose:

Visit the mine site to determine what, if any, impact would result from routing a side drainage into the county road culvert immediately below the mine's energy dissipator.

Background:

The phase two revisions to the MRP included drawing the disturbed area boundary between the energy dissipator at the lower end of the site and the immediately adjacent culvert installed by the county under their road leading to the site. There was concern that, as shown, such a configuration could lead to off-site impacts with flows from Dugout Creek and the side drainage hitting the west shoulder of the county road culvert.

Observations:

1. Photos were taken of the situations described in this report. They are in the DOGM library under the Dugout Mine.
2. The side drainage area is relatively quite small as compared to the other drainages leading to the culvert. The drainage is very well vegetated and there is only one very small rock outcrop. The channel is well vegetated and flows would have a minimal effect on entering Dugout Creek and the culvert.
3. There is an old channel that once led straight out of the canyon. It almost appears human intervention relocated the channel to flow in its present course. Perhaps this was to construct one culvert rather than two. It will be important that adequate riprap be provided from the natural side channel to the culvert inlet.
4. It appears that there would not be any significant impacts from the configuration as constructed. It should be noted that the county has already installed the culvert and was in process of constructing the concrete entrance and exit wingwalls. See photos showing all the above conditions.
5. A water flow was noted as a gravity drainage from an old portal on the east side of the canyon. This is a pre-SMCRA mine site and this situation is a result of long past mining. Such drainages were not noted on the site until the current construction was begun. This flow was below the ground surface along side the, already installed, culvert. This is in

the area where the coal pile reclaim tunnel will be constructed. The Operator described their intent to route the flow alongside the main culvert to gain an elevation drop and then route the flow into the 18-inch perforated CMP that is installed below the main CMP. As-built drawings were request to be submitted to DOGM so we can deal with future situations if they should develop. This configuration is essentially the same as it has been for many years. That is, the flows from the mine are entering Dugout Creek.

6. The small depression into which the water was flowing had iron oxide deposits as shown in the photos (no. 5 and 6). There was a sulfurous odor in the pit. These suggest the possibility of this being acid mine drainage. Since this is a pre-SMCRA site the current operator is believed to be not liable for these conditions or their clean up, if necessary. That responsibility could change if mining proceeds to the coal seams on the side of Dugout Creek where these waters appear to originate. As a result of this situation, it will be required that the mine operator install a monitoring well and sample and test this water as part of their water monitoring program for the mine plan. The testing would be the same as described in the plan and be sampled quarterly. See photos of the water flows.
7. There is a sediment pond installed at the lowest end of the site which captures all the runoff from the disturbed area. This is important since during construction there is no vegetation over the entire site. The main access road has a dip at the lowest elevation which leads to the pond. Accumulated sediment in the pond shows it is working. The four silt fences are installed in Dugout Creek and appear to be functioning also.

Recommendations/Conclusions:

1. The plan configuration with the side drainage leading into the county culvert, below the energy dissipator, appears adequate and should not have a significant impact.
2. The side channel leading into Dugout Creek must have adequate riprap to prevent erosion.
3. The newly discovered mine drainage must be monitored and tested, as described in the MRP, as part of the mine groundwater monitoring plan to establish a baseline and track any possible future problems.
4. The operator must provide plans of how and where the water was diverted to accommodate their construction activities.

Signature: Michael Suflita on 10/2/98
Michael Suflita, Reclamation Hydrologist Date