



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

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cc: Dave Darby

October 28, 1996

TO: Folder #2

THRU: Joe Helfrich, Permit Supervisor *for*

FROM: Robert Davidson, Soils Reclamation Specialist *RAO*

RE: Technical Analysis of Topsoil Amendment, Mountain Coal Company, Gordon Creek No. 2/7/8 Mines, ACT/007/016, Folder #2, Carbon County, Utah

SYNOPSIS

A topsoil amendment was received from Mountain Coal Company on September 20, 1996. The amendment proposes eliminating topsoil replacement on the reclaimed No. 8 Mine slope and allowing the No. 8 Mine topsoil to be used with the No. 7 Mine subsoil for soiling of the No. 7 Mine area. The No. 7 Mine topsoil stored adjacent to the No. 2 Mine yard will then be used in conjunction with the "substitute topsoil" at the No. 2 Mine to enhance reclamation at that site.

ENVIRONMENTAL RESOURCE INFORMATION SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

Analysis:

During final reclamation activities and backfilling of the No. 8 Mine surface (summer 1996), the surface-fill material visually appeared very similar to the No. 8 Mine stored topsoil. Consequently, both the No. 8 Mine surface-fill material and topsoil pile were sampled and analyzed using the Division's Guidelines for soil and overburden. Analyses indicate no appreciable difference between the fill material and the topsoil. All parameters were within the guideline criteria for overburden evaluation (good rating) except for the percent rock fragments. The topsoil coarse fragments averaged 28.2 %, a poor rating, while the overburden coarse fragments averaged 35.5 %, an unacceptable rating.

The No. 7 Mine subsoil, topsoil and supply road were also sampled and analyzed with the results included in Appendix 8-3. With the following exceptions, all parameters met the Divisions guideline criteria for overburden evaluation for ratings of good to poor. Unacceptable ratings were again received for percent coarse fragments. However, the Division currently does not consider high percentages of coarse rock fragments as a limiting factor in mine reclamation soils if the soil fraction



meets the percent saturation and available water holding capacity.

Findings:

The plan amendment meets the requirements of this section.

**RECLAMATION PLAN
TOPSOIL AND SUBSOIL**

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

The No. 8 Mine will not be topsoiled since there is no significant difference between the No. 8 Mine surface-fill material and topsoil.

The No. 8 Mine topsoil will be used with the No. 7 Mine subsoil and substitute topsoil for soiling the No. 7 Mine surface. This will heighten the reclamation success of the south facing No. 7 mine slope since the No. 8 Mine topsoil is better quality than the stockpiled No. 7 Mine topsoil. The stockpiled volume of No. 8 Mine topsoil is 2,514 cubic yards and when combined with the No. 7 Mine stockpiled subsoil and substitute topsoil, amounts to 14,000 cubic yards of total growth media available. This does not include the 3,684 cubic yards of No. 7 Mine topsoil stored on-site at the No. 2 Mine. Thus, there is excess growth media available for the No. 7 Mine since only 12,100 cubic yards of soil is required for reclaiming this site.

In the No. 2 Mine area, the 3,684 cubic yards of No. 7 Mine topsoil stored on-site will be used to enhance soiling since the No. 2 Mine is prelaw and no topsoil was saved. Substitute topsoil is available from existing fill material from the No. 2 Mine pad and road shoulders, and when combined with the No. 7 Mine topsoil, provides approximately 18,000 cubic yards of topsoil and substitute topsoil. Only 14,810 cubic yards of soil are required for this site.

Findings:

The plan amendment meets the requirements of this section.