

EXPLORATION TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 14, 2006

TO: Internal File

THRU: Peter H. Hess, Environmental Scientist/Engineering, Team Lead

FROM: Priscilla W. Burton, CPSSc, Environmental Scientist/Soils

RE: Minor Coal Exploration, SITLA Muddy Tract, Canyon Fuel Company, LLC., SUFCO, C/041/002, Task #2390

SUMMARY:

Ark Land Co. proposes minor coal exploration in Township 21 South and Range 5 East in Sections 7 & 8, in Sevier County, ten miles northwest of the town of Emery (Map 1). Two holes will be drilled within the National Forest into SITLA owned coal (ML 49443). Hole A-05 is located on the unleased portion of the Muddy Tract and hole B-05 is located on the leased portion.

The drill sites were previously approved under Task ID #2134 for helicopter drilling, but adequate information was not obtained. This exploration application includes additional surface disturbance associated with road improvement, two drill pads, and a staging area to facilitate the use of heavier drilling equipment. The additional surface disturbance amounts to approximately five acres and is at an elevation between 8,400 – 9,000 ft.

The SITLA Muddy Coal tract is in Sevier County, Utah. The area is shown on Flagstaff Peak and Heliotrope Mountain 7.5 Minute Quadrangle USGS. Soil survey information for the location is available from the USFS.

This review describes the topsoil depth likely to be encountered.

EXPLORATION TECHNICAL ANALYSIS:

COMPLIANCE DUTIES

OPERATIONAL STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-230.

Analysis:

Topsoil Removal, Storage and Redistribution

Holes A-05 and B-05 will be drilled during the 2006 field season. Elevation at both sites is approximately 8,800 ft. Information available for the Manti La Sal Forest Service places the soils at drill site B-05 on a pediment terrace in Map Unit 24 Rabbitex-Repp Families. Site B-05 is vegetated with mixed shrub/grass community. The surface horizon is approximately 10 – 15 inches deep, gravelly silt loam. At drill site A-05, the soils lie on steeper slopes and are categorized as Map Unit 600 Faim-Clayburn-Castino families. The slope of A-05 is vegetated with mixed conifers and mountain brush. At site A-05, a thick mollic surface of 20 - 30 in. deep will be encountered. There will be a qualified individual on site to direct the topsoil salvage.

Section R645-201-225 of the application describes 11,980 ft of USFS Road 025 to be widened to 12 ft, which is equivalent to 3.3 acres of disturbance. Two access spurs will be constructed for a combined distance of 4,705 ft accounting for another 1.3 acres of disturbance. Each of the two exploration holes will have a pad that is 100 x 100 ft that accounts for another 0.46 acres. Thus, the total anticipated disturbed area is approximately 5.16 acres.

The plan indicates that the “A” soil horizon will be salvaged from each pad and constructed road surface area. Topsoil will be stockpiled in a separate pile. Subsoils excavated from the mud pit will be separately stockpiled or windrowed (berm) around or along each site. Alternately portable mud tanks may be used (described in Sec. R645-201-224 of the application).

Subsoil will be ripped into the mud pit surface after it dries to eliminate formation of a hardpan layer. Dried drilling fluids will be buried underneath four feet of soil (Sec 225 and 236). Regraded areas will be left rough with gouging.

Findings:

The information provided meets the regulatory requirements for minor exploration reclamation standards.

EXPLORATION TECHNICAL MEMO

RECLAMATION STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-200.

Analysis:

Revegetation

The native seed mix to be used is given on page 12 of the application.

Findings:

The information provided meets the regulatory requirements for minor exploration reclamation standards.

RECOMMENDATIONS:

The application is recommended for approved.