0018

007/011 #2

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

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DIVISION OF OIL GAS & MINING
FIELD VISIT FORM
TECHNICAL

Date : August 26, 1996

Time: 9:00 a.m. to 12:00 noon

Mine: Hiawatha

File Number: ACT/007/011

DOGM Staff: Robert Davidson, Paul Baker and Pete Hess

Other Attendees: Dan Guy, Gary Gray, and Casey Jones

Purpose:
On-site visit to access Topsoil Borrow Area "A".

Observations:
In order to continue with the reclamation of Slurry Pond #5, U.S. Fuel plans on beginning topsoiling within the next two weeks. An amendment to the MRP has been submitted to open Borrow Area "A". Based on cross section and profile data of Borrow Area "A", the amendment shows an effective surface area reduction from 20 to 16.85 acres while removing the top 7 feet rather than 6 feet of soil. Soil removal will affect horizons A1 (0 to 3 in.), B1 (3 to 11 in.), C1 (11 to 37 in.), C2 (37 to 78 in.), and C3 (78 to 94 in.). Beyond the C3 horizon are cobbles and boulders. The lower section of "A" was used for equipment storage and has already had the A1 and B1 horizons (total depth 12 in.) removed and stockpiled. This topsoil stockpile sits at the western edge of the equipment storage area. The upper end of Area "A" appears undisturbed and is vegetated with a monoculture of Sagebrush with Juniper and Pinion on the southern fringe. The equipment storage area contains sparsely disbursed Sagebrush and Rabbitbrush with a predominance of Snakeweed and Russian Thistle.

Recommendations/Conclusions:
Original suggestions included stripping and removing the A and B horizon, segregating this soil from the C horizon material for final placement as a top dressing on Slurry Pond #5. However, because of the large surface area of Pond #5, the placement of the A and B soil will only amount to 2 inches average cover. The Slurry Pond #5 surface area is 60.3 acres while the surface area of the Borrow Area "A" is 16.85 acres. The A and B horizon depth totals 11 inches and provides 18,127 yd^3 of soil while the C horizon material is 73 inches thick and amounts to 120,299 yd^3 of

soil. If the entire thickness of the C horizon soils are used on the Slurry Pond #5, a 15 inch thick soil layer is provided; the MRP calls for a 16 inch layer and requires 129,712 yd^3 of soil. The additional soil volume could be obtained from the material under the C3 horizon that was proposed as the reclaimed soil surface for the Borrow pit area.

Since the A and B horizon soil volume provides little benefit for appreciable cover on the Slurry Pond #5 surface, this topsoil could be better used to successfully reclaim the borrow pit area with an effective 11 inch topsoil replacement depth. In addition, native seed and live haul of the topsoil will heighten the reclamation success and recovery of the borrow pit area.

The MRP explains measures to physically and chemically amend the C horizon soils by providing fertilizers and organic mulch. Proper surface roughening and seeding density will further ensure revegetation success of the Slurry Pond #5. If the A and B horizon soils will be used on Slurry Pond #5 instead of being used to reclaim the borrow area, then the benefit of segregating this soil from the C horizon material would essentially be negligible.

The surface of Slurry Pond #5 is being graded at a 5:1 slope. In addition, coal fines have been harvested and removed from the surface. Since both these activities have altered the surface appreciably since the MRP was originally approved, additional sampling of the newly disturbed surface material should be required to ascertain toxic and acid forming properties before reclamation proceeds.

Signature: _____ on August 26, 1996
Robert A. Davidson, Reclamation Specialist II (Soils)

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