



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

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

TECHNICAL FIELD VISIT FORM

Date : March 18, 1997  
Time: 9:30 a.m. to 4:00 p.m.  
Mine: Hidden Valley Mine #5  
File Number: ACT/015/007  
DOGM Staff: Robert Davidson and Susan White  
Other Attendees: Gary Raines and Stephen Behling, Consol; Lewis Munk, Soils consultant; and Bruce Ware, surveyor consultant

**Purpose:**

- Hidden Valley Task Force - follow-up field and soil sampling visit.

**Observations:**

- The acidic seam and associated residuum above the "A" portal area were noted as supporting vegetation in water collection areas.
- Thirteen soil samples were collected from hand dug soil pits as follows: "B" portal area - four soil pits consisting of soil cover and underlying fills. One grab sample of surface coal material. "A" portal area - One soil pit consisting of soil cover and underlying fills. One grab sample of acidic seam material above the "A" portal fill slope. Road outslope - 1 grab sample of outslope material.
- Field observations and measurements included soil cover depth, moisture depth, moist soil color, texture, percent rock and gravels, pH, acid reaction, and roots.
- Samples will be submitted for saturated paste pH, saturation extract EC, SAR, Particle size analysis, AB-DTPA extractable Se, and soluble Ca, Mg & Na. Acid Base Account will be determined on the subsurface samples containing coal fragments and the acidic seam material. Sample preparation will include air-drying and screening through a 2 mm sieve. Subsamples will be ground to pass a 100 mesh sieve.
- As discussed by phone on March 20, 1997 with Lewis Munk, all analyses will be performed using the Utah Guidelines, with the exception of the Se and ABA methods. Work will be performed by Energy Labs located in Billings Montana.

**Recommendations/Conclusions:**

- The objective is to achieve reclamation and vegetation success for bond release by reworking the reclaimed site. After removing the soil cover, slopes will be steepened and covered with a calcareous soil containing a high percentage of rock and boulders. Drainage channels will be provided for natural drainage areas. Diversion ditches above portal areas will be removed. Salvaged soils will be placed with the rock cover and in the valleys below the portals. Surface roughening techniques will be utilized in conjunction with rock and boulder placement. Soil surface matting may also be used in conjunction with hydromulching techniques.
- An amendment will follow after soil analyses results are obtained. The amendment will outline proposed techniques to re-establish reclamation.

Signature:   
Robert A. Davidson, Reclamation Specialist III (Soils)

on March 25, 1997

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cc: Gary Raines  
Stephen Behling  
Lewis Munk