



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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DIVISION OF OIL, GAS & MINING TECHNICAL FIELD VISIT

DATE: June 21, 2000

DOGM STAFF: Robert Davidson and Pete Hess

ATTENDANTS: John Walters

RE: ½ Pipe Culvert Removal Reclamation, Loadstar Energy, Inc., White Oak Mine, ACT/007/001, Carbon County, Utah, Internal File

Purpose:

Locate substitute soil source for reclaiming the ½ pipe culvert. Decide where, what portion and to what extent of ½ pipe culvert removal area to place the substitute soil.

Background:

The ½ pipe culvert was removed in the fall of 1998 after an amendment approval that allowed removal of the culvert, stopping flow to the road out-slope, and reclaiming the eroded slope/gully in the culvert removal area.

Field Observations:

As discussed in the MRP approved amendment, the area where soil needs to be placed is located at the top end of the slope, just below the road-berm, out-slope lip. As observed, the culvert exits from underneath the road at this point (see Figure 1). The hillside appears to have been excavated to accommodate the ½- pipe culvert tie in with the exiting culvert. This obviously needs to be filled in and re-soiled.

A substitute topsoil source was located up the mine haul road, just around the first bend on a shoulder pullout. The soil was sampled taking three composite samples. The sample was returned to Salt Lake and analyzed in the DOGM Laboratory by Robert Davidson on 6/23/2000. After laboratory observation and testing, the following are summarized:

Parameter	Results	DOGM Rating
Soil Texture	silty clay loam	fair
Rock	gravels	---
% Rock (by volume)	28.6 %	poor
% Rock (by weight)	34 %	---
Saturation %	36.7	good
pH*	8.4	fair
EC* mmhos/cm	2.0	good

*by saturation paste method

The sample rated good to poor depending on the parameter. The poor rating results from a high gravel content by volume. Accordingly, the sample may be used as substitute soil.

Recommendations and Conclusions:

Follow the plan to place soil at the top end of the slope, just below the road-berm, out-slope lip where the culvert exits from underneath the main haul road. Soil will be stabilized on the steep slope using boards tied into the slope, a method that was successfully implemented earlier adjacent slope areas (see Figure 1).

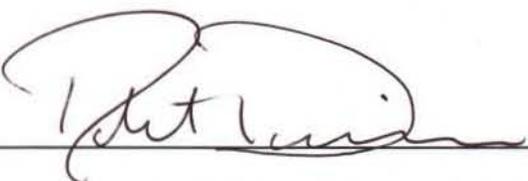
Use the identified substitute soil, rather than soil from the topsoil stockpile.

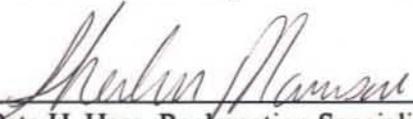
Wait until late summer to place soil and to roughen the other soil surfaces in the vicinity of the removed culvert area. Plan work so it occurs just prior to seeding and hydromulching. This should help reduce unnecessary soil erosion from the steep slope during late summer thunderstorms.

Seeding will be done in a two stage hydromulching method, where seed will be sprayed onto the soil surface first, followed by hydromulch and tackifier.



Figure 1. Culvert exiting from beneath the main mine access road.

Signature:  on June 27, 2000
Robert A. Davidson, Reclamation Soil Scientist

Signature:  on June 27, 2000
for Pete H. Hess, Reclamation Specialist