

0011



BLACKHAWK ENGINEERING, INC.

Rt. 1, Box 146-H5 - Helper, Utah 84526 - Telephone (435) 637-2422

*Income
C/007/022*

FAX

Date: 4/18/02

of Pages: 3 + Cover

To: Priscilla Burton

Phone No. (801) 538-5288

Fax No. (801) 359-3940

From: Dan King

Phone No. (435) 637-2422

Fax No. (435) 637-2431

Comment:

*Here are the revised pages for the
Savage Topsoil Amendment. Please call
if you need anything else.*

*Thanks,
Dan*

RECEIVED
APR 18 2002
DIVISION OF
OIL, GAS AND MINING

Mining and Reclamation Plan
Castle Valley Spur Coal Processing and Loadout Facility Permit Application

Section 8
SOIL RESOURCES

8.1 Scope

A soil survey of C.V. Spur was conducted to provide soil resource information to meet the requirements of the Utah Division of Oil, Gas and Mining and the Office of Surface Mining. The soil survey was performed by James P. Walsh & Associates based on a contract with Beaver Creek Coal Company.

An additional soils survey was conducted in March, 2002 on the area proposed for disturbance inside the railroad loop east of the office. This survey was conducted by Mr. Dan Larsen, Soils Scientist for E.I.S. Services Co., Helper, Utah. The survey was conducted to determine topsoil stripping depths. Results of the survey are included in Appendix 8-2.

8.2 Methodology

The permit area was mapped by the USDA Soil Conservation Service (SCS) in 1970. Plate 8-1, Soil Map of Castle Valley Spur permit area was made by James P. Walsh and Associates in July 1980 as refinement of the SCS survey. At the time of mapping, a large part of the area was mapped as disturbed land.

Map unit descriptions are site specific. Six map units are mapped and described.

Soil series descriptions are adapted from the SCS to be site specific. Detailed pedon descriptions are presented for the six major soil series at the site. Pedons were described in

Mining and Reclamation Plan
Castle Valley Spur Coal Processing and Loadout Facility Permit Application

8.7 Removal, Storage and Protection of Soils (continued)

discussed in Sections 8.5 and 8.6, the Disturbed Landfill will be used as a substitute for topsoil since no better topsoil material exists for reclamation.

8.8 Nutrients and Soil Amendments

Soil tests will be taken in materials to be used for final reclamation in order to evaluate the need for soil amendments and nutrients, as described in the following Section 8.9. Soil testing will be performed by a qualified soils scientist, and analyses will be performed by a qualified laboratory which uses accepted analytical procedures.

8.9 Effects of Mining Operations on Soils, Nutrients and Soil Amendments to be Used

The Disturbed Landfill which has been impacted by mining operations has some inherent problems that will be addressed prior to reclamation. These include gravelly road fill, clayey subsoil, and surface contamination with coal fines. The coal fines and gravelly road fill will be removed by standard earth moving equipment. The clayey subsoil will be deep chiseled to eliminate compacted zones.

The disturbed soils samples show it to be of a quality similar to the stockpiled soil on site. This material can be upgraded as needed to provide a plant growth medium; therefore, no soil substitute is necessary for reclamation of the disturbed soil areas.

Additional soil testing will be performed on the disturbed soils prior to regrading and final reclamation.

Location and number of soil tests will be determined in

Mining and Reclamation Plan
Castle Valley Spur Coal Processing and Loadout Facility Permit Application

consultation with the Division at least 60 days prior to final reclamation.

All soils will be properly fertilized to bring them up to the level necessary for vegetation establishment. Fertilizer application will be based on soil test analysis as discussed in Section 8.8.

8.10 Mitigation and Control Plans

All suitable seedbed quality material (topsoil) will be stripped and stockpiled prior to disturbance. Topsoil stockpiles will be placed on a stable surface in an attempt to limit wind and water erosion and other factors which would lessen the capability of the material to support vegetation. Every effort will be made to minimize the area of disturbance to only that area needed immediately. A quick-growing cover of annual and perennial plants will be seeded or planted during the first desirable planting period after disturbance. Topsoil stockpiles will remain in-place and undisturbed until the material is to be redistributed on disturbed areas.

Stipulation UMC 817.23-(HS)-(1)

An as-built survey was performed on the soil stockpiles, as required. Results of the survey show a total of 49,475 cubic yards of material presently in storage, as indicated on Table 8-9. The survey is summarized in Appendix 8-1, and the as-built map of the piles is shown on Plate 8-2.

In April 2002, an additional 12,140 cubic yards of topsoil will be stripped and added to the Topsoil Stockpile. This will increase the volume of the Topsoil Stockpile to 25,438 cubic yards, and the total storage volume of both piles to 61,615 cubic yards.