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# State of Utah

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TO: File

FROM: Paul Baker, Reclamation Biologist *PAB*

DATE: July 26, 1993

RE: Revegetation Test Plots, Southern Utah Fuel Company, Convulsion Canyon Mine, Folder #2, ACT/041/002, Sevier County, Utah

On July 22, 1993, Lance Lawson and I met with Wess Sorensen and Keith Zobell of Coastal States Energy to discuss the commitments which SUFCO made to establish revegetation test plots this year. The purpose of the meeting was to delineate the purposes for the plots, to decide what treatments to try, and to find a location.

The location decided upon is a west-facing slope above the concrete wall in the vicinity of cross-section C-C' as shown on Plate 5-3 in the plan. Most of this slope will not be redisturbed during final reclamation. The slope will be similar to those encountered in final reclamation. The soil also appears to be similar to the spoil material that is expected to be used at final reclamation. There is some perennial grass, possibly slender wheatgrass or thickspike wheatgrass, growing on the slope, but most of it is bare or covered with litter from kochia.

SUFCO committed in correspondence responding to the deficiencies raised at permit renewal to try different mulching methods in the test plot program. Rather than trying different mulching techniques on the test plots, we decided at this meeting that SUFCO would use hydromulch in their bonding calculations but commit to use the best technology currently available at final reclamation. The original concern was that hydromulch is reported to not control erosion as well as other mulching techniques. However, the plan has since been changed to provide some flexibility in mulching techniques.

After walking the site, Mr. Zobell and I recommended some additions to the final reclamation seed mix that will be used on the test plot. Mr. Zobell plans to go through the list of species that will be available as transplants next spring from the Lone Peak State Nursery. He will include these species in the amendment for the test plot program.

Seed of Eriogonum corymbosum (corymb buckwheat) is not generally available commercially. However, this plant is dominant on many of the slopes around the



Page 2  
ACT/041/002  
July 26, 1993

mine and is invading some of the slopes that have been seeded for interim erosion protection. Mr. Sorensen and Mr. Zobell agreed that SUFCO should try to collect seed of this species or to obtain it commercially.

We also discussed taking and testing soil samples. We agreed that the slope should be sampled in a diagonal pattern. We also agreed that, rather than a shovel, a soil auger or similar equipment should be used to better sample the profile. SUFCO will submit composite samples, and these will be tested for plant nutrient availability. We did not discuss specific tests that needed to be performed.

Past memoranda have mentioned that it did not appear that shrubs were becoming established at the waste rock site and that SUFCO might need to consider alternative methods to seeding for planting them. The area that was seeded in 1990 has very few shrubs. We found only a few rabbitbrush plants. However, the area that was seeded in 1992 has very good diversity of grasses, shrubs and forbs. We found numerous sagebrush, Palmer penstemon, and Lewis flax seedlings. Mr. Sorensen believed that deer did not like walking in this area because of the pits which were made when the surface was prepared. It is also possible that the pits created better microhabitats for seed germination and establishment or that the weather was better this year. We will continue to watch the area and decide later if different planting methods need to be tried in future reclamation work. It was recommended that SUFCO consider planting seedling shrubs in the area that was seeded in 1990.

cc: Lance Lawson, Wess Sorensen, Keith Zobell