



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

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October 2, 1986

Mr. Richard Holbrook  
Office of Surface Mining  
Western Technical Center  
Brooks Towers, 1020 15th Street  
Denver, Colorado 80202

Dear Mr. Holbrook:

Re: Conditions #5 and #6, Valley Camp of Utah, Belina Complex,  
ACT/007/001, Folder #2, Carbon County, Utah

Since issuance of Permit UT-0013 for Valley Camp of Utah's Belina Mine Complex, the Division has been working with the permittee to address conditions #5 and 6. In summary, these conditions to the permit reviewed by the Office of Surface Mining require Valley Camp to substantiate the volume and suitability of proposed substitute soil materials with field trials or greenhouse studies. The original determination of suitability was apparently based on adjacent soils as described by the Soil Conservation Service and not the proposed substitute materials. As a result, a condition to demonstrate suitability was warranted.

While Condition #6 allowed a choice of greenhouse studies or field trials, the wording made greenhouse studies impractical, if not impossible, to implement. After several site visits by Division personnel to assist Valley Camp in finding suitable locations for the field trials, it was determined that no suitable site existed without redistributing revegetated areas or disturbing additional acreage.

During site visits in June of 1986, it was noted that disturbing currently vegetated areas to conduct field trials to show that the area could be revegetated is counter-productive. It was further suggested that the interim revegetation on the proposed substitute material was indeed a field trial. The Division agreed in principle to this, and after discussing the

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following proposal with Mr. Dwight Kimsey of the Office of Surface Mining, Valley Camp was instructed to delay the designed field trials until:

1. Vegetation data on cover and productivity could be collected and analyzed from interim revegetation areas;
2. The collected data could be compared to reference area data;
3. The suitability of the proposed substitute materials for revegetation could be made from analysis of recent soil samples.

The vegetation data were collected July 12, 1986 and submitted to the Division on August 27, 1986 (copy enclosed). These data were reviewed by the Division (see file memos by L. Kunzler, September 29, 1986, and J.S. Leatherwood, and report by Cedar Creek Associates, both attached). Since baseline vegetation data from the reference area was collected by species (totaling more than 100 percent) direct comparisons could not be made. Mr. Kimsey had suggested a minimum total cover level of 60 percent. As you will note, all areas sampled except Area G exceeded this level. Area G was seeded only one year ago and cover is expected to increase significantly for the next 2 to 3 years, and will probably be close to 65 percent within 4 more years. Productivity on the aspen reference area (which was the highest level for the Belina area reference areas) was 738 lbs/acre. All three sites sampled this year exceeded this level. The productivity of the reference area for the Utah 2 site was 1,375 lbs/acre. While this is greater than the 1,182 lbs/acre sampled in the Utah 2 site in 1986, the difference could easily be attributed to two factors. First, as of July 12, 1986, plants were still actively growing. Had sampling been delayed 3 to 4 weeks, production would have been greater. Second, the mature shrubs in the reference area add additional layers to the vegetation canopy and thus additional production.

The Division's Soil Scientist evaluated the data from soil samples of the proposed substitute materials. All samples had at least a good - fair suitability rating (see attached September 16, 1986 Memo to Technical File).

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In conclusion, the Division believes the analysis of soil and vegetation data from the interim revegetated areas demonstrates reclamation feasibility as required by law, and that these areas should be considered "field trials" which fulfill conditions No. 5 and 6 as they relate to suitability of substitute soil materials. The Division hereby requests that you concur with this decision.

Sincerely,



Lowell P. Braxton  
Administrator  
Mineral Resource Development  
and Reclamation Program

Enclosure(s)  
djh  
cc: S. Linner  
L. Kunzler  
J. Leatherwood  
R. Summers  
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