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KAISER COAL CORPORATION  
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August 28, 1985

RECEIVED

AUG 30 1985

DIVISION OF OIL  
GAS & MINING

Lynn Kunzler  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

RE: C Canyon Vegetation Baseline  
Study, Sunnyside Reclamation Test  
Plot

Dear Mr. Kunzler:

The purpose of this letter is to confirm the content of our discussion and agreements reached during your on-site visit at the Sunnyside Mines on August 21, and phone conversation on August 26, 1985. The primary points of discussion and agreements are noted as follows.

O I showed Lynn Kunzler the modifications that Kaiser proposes for the coarse refuse reclamation test plot for the Sunnyside Mines. These modifications were approved as discussed. Kaiser will further document the actual construction of the test plot with photographs. Once completed, Kaiser will submit a letter to the Division delineating the as-built configuration. Modifications, as discussed with Lynn, to the plant species to be tested will also be included with the letter. Tree tubelings will be planted in the spring of 1986; all other species will be seeded during the fall of 1985.

*EV,  
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O For the purposes of the permit, Kaiser will submit vegetation maps for the disturbed areas at a scale of 1":500'; for all other areas within the permit area a scale of 1":1000' will be used. All road corridor vegetation will be mapped at a scale of 1":1000'. For all areas that will be disturbed, the soils will be mapped at a scale of 1":500' at an Order II level survey. All other undisturbed areas within the permit area will be mapped at a scale of 1":1000' at an Order III survey level.

O We discussed the data collected to date within the C Canyon permit area. Sample adequacy for vegetation cover and tree density have been achieved for most vegetation types, or nearly achieved when a maximum sample size was taken. Sample adequacy for shrub density, however, has not been achieved in

any of the vegetation types. Furthermore, the data sample variance indicates that a very high number of samples would be required to achieve adequacy--300 to 1,000 samples in each type. Kaiser has used three sampling methodologies to reduce the sample variance: two 3 X 30 m plots (Lindsey Elbow), 1 X 50 m plot, and the point centered quarter method. None of these methods proved successful in reducing the variance. Indeed, within each vegetation type, the sample variance was approximately the same for each of the methods. Lynn approved using the Lindsey Elbow (3 X 30 m plots) to collect the remaining shrub density data.

O We visited the C Canyon permit area and examined the vegetation types and some of the proposed reference areas. Conclusions reached concerning the reference areas are as follows.

The Steep Pinyon-Juniper reference area appears to be acceptable, both in terms of the location and initial comparative data.

The Mixed Mountain Conifer type reference area likewise appears to be acceptable.

A limited amount of the Greasewood vegetation type will be disturbed during construction of the road corridor. This vegetation type will be reclaimed using grasses and forbs; greasewood shrubs will not be reestablished. Establishment of other suitable shrubs (e.g. four-wing saltbush) will be attempted. The reclamation standard will be the Sagebrush reference area. Kaiser will, however present the data collected for the Greasewood type separately in the permit application. This will be done because the soils found under the Greasewood type are significantly different from the soils found under the Sagebrush vegetation type and reclamation may prove to be more difficult. Furthermore, due to the limited aerial extent of this type, areas suitable as reference areas are extremely limited; all suitable areas are in poor range condition.

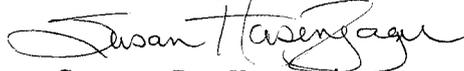
The Sagebrush vegetation type reference area will be located as discussed in Section 4 near sample site 7, since this type is likewise limited in extent and suitable areas for this reference area are restricted. The proposed reference area is probably in fair range condition. Kaiser will examine the ownership of these lands and approach the landowner about fencing the reference area to control grazing for a period of time to improve the range condition.

The Valley Pinyon-Juniper vegetation type occurs on the same soils as does the Chained Pinyon-Juniper vegetation type (SCS Order III survey for Carbon County). Reclamation of this type will probably result in vegetation with similar composition and quantity to the Chained Pinyon-Juniper type. Consequently, the reclamation success standard for this type will be the same as that for the Chained Pinyon-Juniper type. Vegetation data for the Valley Pinyon-Juniper will be presented separately in the permit application.

The reclamation standard for the Chained Pinyon-Juniper vegetation type will not be that of the standard reference area. Rather, the cover and density data collected for this type, plus vegetation productivity data that will be collected in 1986 according to the Utah DOGM Guidelines will serve as the reclamation standard. This is due to the fact that the Chained Pinyon-Juniper type is a seral community (chained in the 1960's), which when mature develops into the Valley Pinyon-Juniper type. For the purposes of permit submittal and approval, however, Kaiser will contact the SCS to estimate the production of the Chained Pinyon-Juniper vegetation type. An adequate sample will be collected, or a maximum sample size of 40 plots will be taken for these production data in 1986.

This letter constitutes my understanding of the discussions and agreements reached between Kaiser Coal and DOGM. If you have any further comments concerning this meeting, please contact me.

Sincerely yours,



Susan D. Hasenjäger  
Environmental/Permitting  
Consultant