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Beaver Creek Coal Company
P. O. Box AU
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Telephone 801 637-5050



March 22, 1983

RECEIVED
MAR 25 1983

Lynn Kunzler
Reclamation Biologist
4241 State Office Building
Salt Lake City, UT 84114

**DIVISION OF
OIL GAS & MINING**

Re: CV Spur Small Area Exemption ACT/007/022

Dear Mr. Kunzler:

This letter provides written documentation of the responses to your letter of January 21, 1983, concerning Beaver Creek Coal Company's application for a Small Area Exemption at our CV Spur Coal Processing and Loadout Facility. This information was originally transmitted over the telephone to Joe Lyons of your office on February 22, 1983.

It should be pointed out that the area in question was disturbed only during construction of the road, the sedimentation pond and the railroad spur, and is not defined as disturbed area under UMC 817.42(a)(4). Irregardless of this fact, the following calculations and data show that the anticipated runoff and sedimentation yield from this area is minimal.

The surface area of the site is 44,000 ft.² or approximately one acre. Average slope length is approximately 330 feet and the average slope of the site is 0.6%.

Approximately 1/3 of the area consists of road and embankments for the railroad or drainage controls. The remaining portion of the site is disturbed area. Runoff volumes were determined using the SCS curve number method. A weighted curve number was determined as follows:

<u>Surface</u>	<u>Area</u>	<u>Curve Number</u>
Road and Embankment	0.34 acres	89
Disturbed Soil	0.67 acres	87
Total Area	1.01 acres	87.7

Mr. Lynn Kunzler

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The 10-year, 24-hour precipitation for the CV Spur area is 1.7 inches. Using the curve number method, the direct runoff from a 10-year, 24-hour precipitation event is 0.71 inches or 0.06 acre-feet of water.

The Universal Soil Loss Equation (USLE) was used to predict the rate of sediment loss from the site.

The erosion rate (A) in tons/acre/year is determined as follows:

$$A = (R)(K)(LS)(C)(P)$$

Where R - is the rainfall factor estimated to be 16.5 for CV Spur

K - is the soil erodibility factor which is 0.43 for the native soils in the SAE location

LS - is the length slope factor which is estimated to be 0.15 for the site

C - is the cover factor. In this analysis, C was assumed to be 1.0, a value representing no vegetation cover.

P - is the erosion control practice factor which was assumed to be 1.0, a value representing no control measures.

Using the USLE, the erosion rate is estimated to be 1.06 tons/acre/year or 1.07 tons/year from the site. The volume of erosion that would result is estimated to be 0.0005 acre-feet/year, assuming a unit weight for sediment of 100 lb/ft³.

The analysis indicates minimal runoff and sediment yield from the area. Furthermore, because the distance between the site and the Price River is greater than one mile, little of the sediment would reach the Price River.

If you have any questions or problems with the above information, please call me at 637-5050. Thank you for your time and consideration.

Sincerely,

BEAVER CREEK COAL COMPANY



Scott M. Raymond
Environmental/Permits Coordinator

SMR/mp

cc: J. Smith, DOGM
J. Lyons, DOGM