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May 2, 1994

Utah Coal Regulatory Program  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
Attn: Lowell Braxton

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MAY 4 1994

DIVISION OF  
OIL GAS & MINING

Dear Mr. Braxton,

ACT/007/006 #2

RE: U.S. FOREST SERVICE LAND VEGETATION EVALUATION

Enclosed are 3 copies of the evaluation of vegetation changes due to mining as required by our permit commitment on page 500-29a, and on Table 525.100c of Volume III of the Star Point Mines permit No. ACT/007/006.

The findings of Mr. Paul West of JBR Consultants Group enclosed makes the following statements:

"We do not feel that any of the changes listed above should be considered significant as in no instance do these changes exceed four acres per site."

"There may be several possible explanations for the changes we observed including; insect damage, disease, possible ground subsidence, groundwater alterations, weather conditions, etc. However, we feel that the changes we observed are most likely season related, manifested by the defoliation of deciduous trees in late September of 1993."

The 1993 photography was taken later in September than the 1980 photography which also may account for the vegetation differences as indicated by JBR in the report.

The following may also help clarify the areas listed by JBR on Table 1 of the report:

Site Number	Explanation
1	Mining conducted beneath this area is very recent and consists of development of main entries only which do not create subsidence. The area in the mine below this area is dry and therefore there is no indication of dewatering that could cause vegetation changes.
2	This area is outside of the area of influence of Plateau mining impacts.
4	This spring area is spring number 514 which we have inventoried two times in the past. During the July 9, 1986 inventory, the flow was 11.2 GPM and by August 21, 1991 the flow was down to 1.33 GPM. Refer to discussion below related to this spring and spring No. 754.
12	This area is also outside of the area of influence of Plateau mining impacts; the area is above the Hiawatha mine. This spring area is spring number 520 which we have inventoried two times in the past. During the July 9, 1986 inventory, the flow was 2.5 GPM and by August 20, 1991 the flow was down to 0.25 GPM.
13	This area is a burn that took place in about 1978 as a result of careless cattle herders.

**Discussion related to general precipitation and spring flows:**

As indicated by the attached Precipitation Yearly graph, precipitation at Plateau, at the Soil Conservation Service's Stuart Ranger Station, Red Pine Ridge Station and at the Mammoth Cottonwood Station all showed a downward precipitation trend from about 1984 through 1992. This trend could possibly account for vegetative stress and die off of already weakened or old trees.

In addition to possibly affecting trees and other vegetation, there is a noticeable trend in spring flows due to the 8 year drought. I have made a comparison of the spring and seep inventory data from the 1986 and 1991 inventories. My evaluation consisted of comparing the flows from seeps and springs in the Huntington River drainage portion of our monitoring area and the Price River drainage portion. Of 115 springs and seeps monitored in the Huntington drainage in 1986 and 1991, 114 or 99.1% decreased in flow. Of 89 springs and seeps in the Price River drainage, 73, or 97.3% decreased in flow. Many of these springs and seeps are outside of the area of influence of mining by Plateau. Decreased

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spring flows as a result of lower precipitation indicates a natural change in the ground water regime, which could cause vegetation changes.

It is our opinion that mining has not affected the vegetation above mining. The ground water monitoring program conducted by Plateau has not indicated negative impacts to springs or seeps in the area.

If you need further information on this report, please call me at 636-2227.

Respectfully,



Ben Grimes  
Sr. Environmental Engineer

Enclosures

c: Carter Reed U.S. Forest Service

File: 1.1.9  
Chron: BG940501