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STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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May 9, 1986

Mr. Ben Grimes
Environmental Coordinator
Plateau Mining Company
P. O. Drawer PMC
Price, Utah 84501

Dear Ben Grimes:

Re: Second Review of Rock Tunnel Graben Crossing, Star Point Mines, ACT/007/006, Folder No. 3, Carbon County, Utah

The Division has reviewed your submittal dated February 4, 1986, regarding Plateau's response to the Division's review letter dated December 13, 1984. Several issues still must be resolved prior to the Division being able to approve this project.

Enclosed please find the deficiency comments organized in a regulation by regulation basis. If you have any questions, please don't hesitate to call me.

Sincerely,

L. P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

JJW:jvb
cc: D. Darby
P. Grubaugh-Littig
W. Hedberg
T. Munson
J. Whitehead
0761R

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DETERMINATION OF COMPLETENESS DEFICIENCIES

Plateau Mining Company
Rock Tunnel Graben Crossing
Star Point Mines
ACT/007/006
Carbon County, Utah

April 29, 1986

UMC 783.17 Alternative Water Supply - TM

The applicant must reference where in the Mining and Reclamation Plan (MRP) the necessary information can be found identifying alternative sources of water supply that could be developed to replace existing sources if contamination, diminution or interruption of an underground or surface source of water within the proposed mine plan or adjacent area for domestic, agricultural, industrial or other legitimate use. If this information is not found in the MRP, then the applicant must address this issue in their response to this deficiency.

UMC 783.24 Maps: General Requirements - JW

A clear, accurate map of the permit area depicting the 160 acre addition to the permit area is needed in the application. Please assure the map has a directional arrow, Township and Range delineations, a scale, and a legend.

UMC 784.11 Operation Plan: General Requirements - JW

The Office of Surface Mining (OSM) has indicated in a letter dated November 2, 1984 that secretarial approval of a mining plan modification would be needed if any coal will be mined in the 160 acre lease modification except for the tunnel driven to access the previously permitted Federal Lease U-13047. Please indicate if any coal will be mined in the lease modification other than the tunnels?

UMC 817.41 Hydrologic Balance: General Requirements - DWD

Since long term adverse impacts could result from implacement of the tunnels, additional detailed information concerning groundwater gradient, movement and seasonal fluctuation must be provided.

More information is needed to establish the water levels within each fault block, to gain an understanding of the annual groundwater fluctuation for each fault block and the movement of groundwater between fault blocks.

In accordance with regulation UMC 783.15 Ground Water Information, the applicant shall describe the depth below the surface and the horizontal extent of the water table(s) and aquifer(s), along with the recharge, storage, and discharge characteristics of aquifers.

The applicant must submit a piezometric surface map of the proposed graben crossing environs showing the surface of the regional or local aquifer(s) on a map with a scale of at least 1 inch = 200 feet.

The applicant must submit a spring monitoring plan in order to classify all springs in and adjacent to the area of the proposed tunnel according to their relationship to and connection to the regional ground water aquifer system. As stated in the submittal and illustrated on Plate 2, several large springs discharge along the axis of the faults. Although the applicant shows discharge measurements for springs there is no mention of the dates they were monitored or the method used to measure their flow. It is also necessary to have a hydrograph established for these springs to determine if their flow fluctuates through the year and to establish the total annual discharge for obtaining an annual water budget. The applicant will also be required to establish a spring monitoring plan to show the annual fluctuations in water quality for springs on and adjacent to the area consistent with established guidelines.

Information describing the idealized version of a fault in the Bear Canyon Graben (also shown on Figure 1) leads to the concept that there is little or no movement of ground water between faults. Thus, ground water movement would be from north to south. Varying velocities of ground water could exist within each fault block due to the physical characteristics (fracturing and matrix) establishing a separate water table for each fault block. When adjacent faults merge closer together a damming effect could result causing higher water tables in the vicinity of the tunnel crossing. This possibility must be evaluated by supplying the data to define water tables and water table gradients.

To evaluate the extent and depth of groundwater aquifers the applicant must submit geophysical logs in detail to define the aquifers and supply all known data from all boreholes in the area. Include depth of hole, surface elevation of hole, elevations of water sources contacted, dates monitored, fluctuations in water levels, drilling mediums used and analyses of water contacted.

The applicant should quantify data on wells in the area that has not been mentioned. Drill holes W-14, W-15, W-16, W-18, W-20, W-21, W-22, CVR-6, CVR-7 and CVR-8 are all drilled in the vicinity of the

proposed tunnel (Nov. 23, 1984 Submittal) that may give some information on the ground water movement and location. No information from these drill holes has been discussed.

The applicant has supplied information about the permeabilities of the formations from other areas and related it to their plans. More site specific information is requested. The fracturing of the proposed tunnel site is most likely very different from the area sampled in the cited reports.

If the proposed crossing will be driven below the water table, more information must be submitted on the grouting method to be used. Grouting of the tunnel may not be affective for controlling ground water inflow into the tunnel because the extent of fracturing is not known, and the amount of ground water inflow is not predictable at this time.

UMC 817.50 Underground Mine Discharge - TM

The applicant currently states that they discharge 144,000 gpd from their 001 discharge point. After conversations with Mr. Ben Grimes of Plateau Mining Company, the Company states they have not installed a totalizing flow meter on their discharge pipe and will take at least weekly readings of this meter. The Division would like to get a more accurate indication of the current discharges and, therefore, requests that Plateau submit any data collected to date on flow readings taken from this meter and commit to submit this information on a monthly basis. As well as this, the applicant must commit to document photographically the stability of the Mudwater Canyon Wash downstream from discharge point 001. These photographs will be taken every six months and submitted to the Division every year along with the water quality and quantity data summaries in the annual hydrologic report. The purpose of this photographic survey will be to document the stability of Mudwater Canyon channel over time and the impact of the mine water discharge on the stability of this channel.

UMC 817.71-.74 Disposal of Excess Spoil and Underground Development Waste - PGL

The only waste piles found in the permitted plan are the coal processing waste piles.

The applicant proposes to dispose of the development waste in the presently permitted refuse pile (also known as the coal processing waste pile in the mine plan). The mine plan referred to phases of the pile during the life of the mine (Section 13.2.6). Which phase of the piles are presently under use that would handle the material for the graben crossing as shown on Plate F-12?

It was stated on page 29 (Section 13.2.6) that waste will be spread in two foot lifts, but the "Graben Crossing" proposes 2.15 of the coal processing waste may vary the compaction capabilities. How will compaction be achieved and verified at 90 percent of the maximum dry density?

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