

0033

Beaver Creek Coal Company

P.O. Box 1378
Price, Utah 84501
Telephone 801 837-5050

orig mine file



RECEIVED

MAR 07 1985

**DIVISION OF OIL
GAS & MINING**

March 5, 1985

Dr. Dianne Nielson
Director
Division of Oil, Gas, & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

#24 #3

RE: Special Condition No. 8
Gordon Creek No. 2 Mine Permit
ACT/007/016 (UT-0010,8/84)
Carbon County, Utah

Dear Dr. Nielson:

As per our conversation, Beaver Creek Coal Company is hereby requesting a modification to our mining permit to allow second mining beneath Beaver Creek.

Our proposal is to reduce the pillar size to allow for a greater recovery, while providing adequate support for the cover underlying Beaver Creek. A copy of the proposal, as well as the support calculations, is attached.

Mining conditions, including coal height and quality have been very good in this area until recently; however, we are now encountering some massive rock spars in the advancing faces. It is likely that a decision to retreat from this area will be made within a week. Some 30,000 additional tons of coal can be recovered under this proposal, while still providing for adequate support beneath the stream.

It should be noted that additional justification for mining beneath Beaver Creek was provided in the M.R.P., and the State found this material to be adequate in the Final Technical Analysis issued on July 6, 1984.

March 5, 1985
Page 2

It is our hope this proposal will meet with your approval. Since time is such a critical factor in this plan, I will remain available to meet with you, your staff, and/or other involved agencies to expedite a decision. If you have any questions, or need any further information, please let me know.

Respectfully,



Dan W. Guy
Manager of Permitting and Compliance

DWG/sb

Attachments

cc: J.A. Herickhoff (BCCC)
M.P. Watson (BCCC)
Mary Boucek (DOGM)
Walt Swain (OSM)
Mike Rosenthal (OSM)
Leon Berggren (BLM)
File 4-P-5-1-1
File 4-P-5-6-2
IBM D1

Beaver Creek Coal Company

P.O. Box 1378

Price, Utah 84501

Telephone 801 637-5050



February 25, 1985

Mr. Leon E. Berggren
Bureau of Land Management
P.O. Drawer AB
Price, UT 84501

Dear Mr. Berggren:

This letter is in regard to Special Condition #8 of the Gordon Creek #2/7 Mine permit:

Special Condition No. 8

Before further secondary mining takes place inside of a 20 degree angle of draw measured from vertical on each bank of the Beaver Creek, the permittee must demonstrate through submittal of sufficient technical information and analysis, subject to regulatory authority approval, that Beaver Creek is not likely to be affected by subsidence.

Even though the areas on each side of the current section underlying Beaver Creek have already been extracted, no signs of subsidence have been detected. However, in order to prevent possible subsidence due to the current section, pillars will be left unmined approximately 200' on each side of Beaver Creek. Pillar size is derived from calculation and practical experience of Valley Camp (closest mine in the area). Valley Camp is currently using 20' x 60' pillars to successfully support 500' to 900' of cover while extracting the 16' seam height. The included calculations and practical experience indicate the 40' x 70' pillar centers will be more than adequate to support the 550' of cover underlying Beaver Creek.

February 25, 1985
Page 2

For the above reasons, Beaver Creek Coal Company is requesting the minor modification of our mine plan for 22 Section as included. Economically recoverable coal within the buffer zone on each side of the main development will be extracted similarly to protect Beaver Creek. If you have any questions, please call. Time is of the essence.

Sincerely,

Michael P. Watson

Michael P. Watson
Engineering Supervisor

MPW/sb

Enclosures

cc: J.A. Herickhoff (BCCC)
D.W. Guy (BCCC)
Mary Boucek (DOG M)
Walt Swain (OSM)
File
IBM-WI

Calculations

C_p = Pillar Strength

C = Compressive Strength of 1 to 1 Width to Height Coal Sample

W = Width of Pillar

H = Height of Pillar

R = Recovery Factor

A₁ = Area of Entry

A₂ = Total Area

S = Vertical Stress

F.S. = Factor of Safety

PILLAR STRENGTH

$$C_p = C \left[.778 + .222 \left(\frac{W}{H} \right) \right]$$

$$C_p = 3200 \left[.778 + .222 (20/8.5) \right]$$

$$C_p = 4161 \text{ psi}$$

RECOVERY FACTOR

$$R = \frac{A_1}{A_2}$$

$$R = 1800/2800$$

$$R = .64$$

VERTICAL STRESS

$$S = 1.11 (\text{overburden})$$

$$S = 1.11(550) = 610 \text{ psi}$$

SAFETY FACTOR

$$\begin{aligned} F.S. &= C_p (1-R)/S \\ &= 4161(1-.64)/610 \\ &= 2.4 \end{aligned}$$

