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W. Hedberg
Mine File

INA 1015/004
- 37A
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BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



September 11, 1987

RECEIVED

SEP 16 1987

DIVISION OF OIL
GAS & MINING

Mr. Lowell P. Braxton
Administrator
Utah Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

FILE COPY

Re: Subsidence Control Plan Amendment
Huntington Canyon No. 4 Mine
INA/015/004
Emery County, Utah

Dear Mr. Braxton:

The Huntington Canyon No. 4 Mine started production in early 1977, was temporarily inactive from October, 1978 to March, 1980, resumed full operation in March 1980, and ceased operations in October, 1984. The minesite underwent final reclamation in the fall of 1985. Phase I Bond release was issued for the reclamation on November 10, 1986.

The surface above and adjacent to the mine is owned by Beaver Creek Coal Company and the U.S. Forest Service.

As a condition of our original permit approval in 1979, the U.S. Forest Service insisted that we perform subsidence monitoring at this site under a cooperative agreement with U.S.F.S., using aerial photography. Beaver Creek (formerly Swisher Coal Company) did enter into that agreement on August 27, 1979, and has since that time performed all its obligations under the agreement, including yearly payments for the aerial monitoring.

Since the start of the program, Beaver Creek Coal Company has received virtually no actual subsidence data. We have received only copies of the aerial photos and a map showing flight paths and station locations.

On August 20, 1987 we were notified by U.S.F.S. that a problem exists with the aerotriangulation results and point comparisons to detect subsidence are therefore suspect. As a result we will not be receiving any subsidence data for the past years. In addition the letter states that no flights are planned in 1987, and the program is essentially cancelled until the problem is corrected. A copy of the U.S.F.S. letter is attached.

Beaver Creek Coal Co. is therefore requesting that subsidence monitoring be suspended at the Huntington Canyon No. 4 Mine. This request is based on the following facts:

- (1) We have no past data with which to compare future measurements; with therefore we would, in effect, be starting from scratch;
- (2) Annual field surveys have indicated no visible subsidence effects above the mine;
- (3) Mining stopped three years ago, and no affects have been noted to date; subsidence effects will generally manifest themselves within this time frame;
- (4) There are no renewable resources above the mine except for vegetation, which is generally not adversely affected by subsidence; such affects are not evident, and since mining stopped three years ago, they are not likely to occur in the future;
- (5) Beaver Creek Coal Company has met all of its obligations in connection with the subsidence monitoring program, and has acted in good faith with the managing agencies; we should not be held responsible for the failure of the program, since we did not have a choice as to whether or not to participate;
- (6) Given the late notice of the decision not to fly in 1987, it will not be possible to obtain required base data for another program this year; we would therefore not have even initial data until late 1988, with a first round comparison in 1989 - a full five years after completion of mining!

I have enclosed three copies of our proposed changed to the M.R.P. The pages are numbered and dated, and if approved, should replace corresponding sheets in the plan. Additional copies will be sent at your request.

It is our hope you will appreciate our position on this matter and approve our request for suspension of subsidence monitoring at this site.

If you have any questions, or need any further information, please let me know.

Respectfully,



Dan W Guy
Manager Permitting/Compliance

DWG/rs

cc: J.L. Coffey
R.J. Marshall
File

*OK can we get
USFS to run
some level
surveys to
compare for last
time
LMB*

United States
Department of
Agriculture

Forest
Service

Manti-LaSal
National Forest

599 West Price River Drive
Price, Utah 84501

Reply to: 2820
7140

Date: August 20, 1987

Bert Jeanselme
Beaver Creek Coal Co.
P.O. Box 1378
Price, Utah 84501

Dear Bert:

Enclosed is your set of the 1986 color aerial photography for subsidence monitoring with an accompanying photo index map. Please note that the scale is 1:6000 as compared to 1:4800 for prior years.

Due to the unavailability of Forest Service aircraft and photo crews, the 1986 photography was contracted out to Intermountain Aerial Surveys (IAS). IAS uses a 6" focal length camera as opposed to the 8 1/4" focal length camera used by the Forest Service. Using the 6" camera at 1:6000 scale, the desired accuracy should be obtained.

A Bill for Collection for \$668.33 (No. 1251) was sent to Beaver Creek Coal Co. on September 25, 1986, to cover the estimated cost of the 1986 photography as follows:

\$1,715.04 estimated 1986 cost - \$1,046.71 balance in account = \$668.33

The actual cost of the 1986 photography was as follows:

\$ 453.27	Flight Cost
\$ 279.00	Color Prints (3 sets)
\$ 465.00	Film Positives (1 set)
<u>\$1,197.27</u>	
\$ 228.68	Administration (19.1%)
<u>\$1,425.95</u>	Total

The actual amount owed for the 1986 photography is as follows:

\$1,425.95 actual cost - \$1,046.71 in account = \$379.24 owed.

A Bill for Collection for this amount is enclosed. The unpaid Bill for Collection (No. 1251) for \$668.33 has been canceled. Please submit a check payable to the USDA Forest Service

We do not plan to conduct the annual photography for this year (1987), therefore, no Bill for Collection for the estimated cost of the 1987 photography is enclosed.

Bridging and point readings for the base year and 1985 photography have been completed by our geometronics group for most of the participating companies. Aerotriangulation results show overall residuals that exceed theoretical and acceptable standards. As a result, point comparisons for the subsequent years which are made to detect subsidence are suspect. At the present time we are unable to isolate the problem. We do not feel that it would be prudent to continue the annual aerial photography until the problem can be isolated and corrected.

The Forest Service will recontrol, retarget and photograph a test area on the Forest to check the results of photogrammetric subsidence monitoring. The results will be applied photogrammetrically to the base year and past annual photography for this area in an attempt to isolate any problem in the original control or photogrammetric process. Hopefully, the problem can be isolated and corrected so that accurate data regarding subsidence on the test area and other mine areas can be obtained and photography can be resumed next year.

Geometronics will continue to process this existing data for you mine area to obtain the most accurate results on subsidence as possible. In order to complete the baseline data and register the surface control with the underground mine workings, we will need an accurate map of the underground mine workings and coordinates. We are presently working with a scale of 1 inch = 100 ft. for the surface maps. Please submit two copies of an accurate, up-to-date map of the mine workings registered to the surface and underground coordinate system at this scale.

We will need to work together to evaluate the results of the program and prepare base maps and subsidence maps which will meet the needs of the company and the Forest Service and help us better understand the mechanisms of mining induced subsidence and associated effects to resources.

If you have any questions, contact the Forest Supervisor's Office in Price, Utah.

Sincerely,



for
GEORGE A. MORRIS
Forest Supervisor

Enclosures

3.4.8.3 Subsidence Impacts (continued)

Local surface fracturing, should it occur, would increase groundwater recharge. Some springs, therefore, may actually increase in flow during the period that a fracture remains open. Subsidence may also cause some springs to reissue elsewhere, possibly causing some inconvenience without any material damage.

Mitigation measures, should a substantial water inflow occur, may include; attempts to seal off the inflow, increased monitoring efforts, pumping and cleaning of inflow water, replacement of lost water if indicated by monitoring. The first step will be to try and seal off the inflow by grouting, first from the underground and then from the surface. If this is unsuccessful, the other measures mentioned above will be employed.

Mitigation measures, should surface damage occur due to subsidence, may include; filling of fractures, regrading of broken areas, replanting degraded areas, intensified monitoring.

3.4.8.4 Subsidence Monitoring Plan

Beaver Creek Coal Company has followed a monitoring plan established under an August 27, 1979 Cooperative Agreement with the Manti-LaSal National Forest Service, U.S. Department of Agriculture (see Figure 3-5). The current U.S.F.S. Environmental Assessment on this area has been attached as Appendix 6.

A photogrammetric monitoring program, as opposed to a subsidence monitoring survey net, was initiated at the insistence of the Forest Service to minimize the surface disturbance associated with subsidence monitoring.

*How does
photo survey minimize
surface disturbance?*

Mining and Reclamation Plan
Huntington Canyon No. 4 Mine Permit Application

3.4.8.4 Subsidence Monitoring Plan (continued)

The subsidence monitoring program was suspended in 1987 after eight years of monitoring showed no effects from subsidence, and the U.S. Forest Service suspended the program.

(Note: Delete pages 49 through 54 and Plate 3-7).

did it show anything
at all?

Mining and Reclamation Plan
Huntington Canyon No. 4 Mine Permit Application

3.5 Reclamation Plan

3.5.1 Contemporaneous Reclamation

The completion of mining operations at No. 4 was 1984. As soon as areas become available, they will be backfilled, graded, retopsoiled and revegetated to acceptable reclamation standards established by environmental baseline studies. Seeding, fertitizing, and mulching will be performed in conjunction with backfilling and grading as access for reclamation equipment will be limited due to the steepness of the recontoured surface. It is anticipated that reclamation will be completed in 100 foot intervals.