



0009

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

ACT/041/002
File #2

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

March 3, 1988

Mr. George Morris
Forest Supervisor
U.S. Forest Service
Manti-LaSal National Forest
599 West Price River Road
Price, UT 84501

Re: Response to Condition USFS 3, Southern Utah Fuel Company,
Convulsion Canyon Mine, ACT/041/002, Folder #2, Sevier County,
Utah

Dear Mr. Morris:

Enclosed are two (2) copies of Southern Utah Fuel Company's response to Permit Condition USFS 3 for the Convulsion Canyon Mine. This condition was put in the Five-Year Mining Permit due to the Manti-LaSal National Forest's concerns over potential long-term subsidence under Quitcupah Creek.

Please review the company's response and notify the Division of its adequacy by April 4, 1988, if possible. If you need additional information, please contact me or Kent Wheeler, Reclamation Hydrologist, at your earliest convenience.

Sincerely,

Susan C. Linner
Reclamation Biologist/
Permit Supervisor

jr
Enclosures
cc: K. Wheeler
0028R/70

RECEIVED
FEB 29 1988

DIVISION OF
OIL, GAS & MINING

INSERTION GUIDE
FOR 1988 SUBSIDENCE
REVISIONS

VOLUME 5

Replace page 3 with page 3 & 3A
Revised February 1988

Spring #1 was developed by the U.S. Forest Service for livestock use and has a flow of approximately three gallons per minute. Spring #2 has an intermittent flow; Spring #3 is created by mine discharge water NPDES point 001.

Two small run-off water catchment ponds are located in the area as well as unmeasurable seeps along sandstone outcrops in the canyons.

The mine is located in the Upper Hiawatha bed in the Blackhawk Formation. The Blackhawk is overlain by the Castlegate Sandstone and underlain by the Starpoint Sandstone. The Starpoint is approximately 200 feet thick and the Castlegate ranges from 100 to 200 feet in thickness. Both of these sandstones are the primary cliff-forming members showing in the canyons.

The Blackhawk Formation is made up of sandstones, siltstones, shales, coals, and other carbonaceous material interbedded to varying degrees. Thickness of the formation in the mine area is approximately 700 feet. The mineable coal seam varies from 4.5 to 12 feet in thickness with in-place thicknesses of 18 feet in isolated areas. It dips 2° to the northwest. A general strata cross-section is shown on Figure 1.

LANDS AFFECTED BY SUBSIDENCE

Most of the area bounded by Southern Utah Fuel Company's permit lines will eventually be affected by subsidence. The anticipated subsidence area is shown on Map 80-10B (revised 1986). The area where Quitchupah Creek crosses the leases will be protected from subsidence by the establishment of a stream buffer zone within the mine in which only limited recovery will take place. Except at specifically approved locations, underground mining operations will be conducted in a manner to prevent surface subsidence that would cause the creation of hazardous conditions; such as, escarpment failure and landslides. Subsidence will not be experienced over the pre-1977 workings known as the "Old Mine" in Lease SL-062583.

Mining in such a manner to leave support pillars is planned under the bottom of Quitchupah Canyon. Quitchupah Creek is the only perennial stream in the area, and the establishment of these buffer zones will ensure that the flow will not be disrupted.

Southern Utah Fuel Company monitors the stream flow of Quitchupah Creek as part of its hydrologic monitoring program. Flows of the stream above and below the permit area are measured. This data is submitted to the regulatory authority annually.

To keep the steep side slopes of Convulsion and Quitchupah Canyons stable, low recovery mining or controlled full extraction mining in specifically approved areas is planned in the zone from the plateau rim to the outcrop. Where low recovery mining is used, the coal will be fully extracted to a point where a line from the workings, upward along the draw angle, intercepts the canyon rim. Continuing from this point to the outcrop, coal pillars of sufficient size will be left to support the overburden.