BEAVER CREEK Coal Company
Post Office Box 1378
Price, Utah 84501
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November 30, 1987

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

Re: Application for Excellence in
Surface Mining Award

Dear Dr. Nielson:

Please find enclosed an application by Beaver Creek Coal Company for the "Excellence in Surface Mining Award", as allowed by the Office of Surface Mining Reclamation and Enforcement. The application is submitted for the final reclamation and techniques employed at the Gordon Creek No. 3 and 6 Mines, (INA/007/017, 9/86). The application is submitted in accordance with the guidelines from OSMRE.

Beaver Creek Coal Company is of the opinion that the quality of the work performed and the innovative techniques employed during reclamation at this site should qualify us for consideration for this award.

We appreciate the assistance we received on this project from you and your staff. It is our hope that the result of this cooperative effort can once again be recognized at the federal level through this award.

Thank you for your consideration.

Sincerely,

R.D. Pick
President

RDP/rs

EXCELLENCE IN SURFACE MINING AWARDS APPLICATION

Beaver Creek Coal Company	Price	Utah
Company Name	City	State

Describe the work done and cite specific techniques or technologies employed:

See Attached Narrative

Summarize the basis and highlights of the exemplary performance:

See Attached Narrative

Gordon Creek No. 3 & 6 Mines
Final Minesite Reclamation
by
Beaver Creek Coal Company

Background

The Gordon Creek No. 3 and 6 Mines are located in Coal Canyon approximately 13 miles northwest of Price, Utah. The No. 3 Mine opened in 1975 and the No. 6 Mine opened in late 1978. Except for conveyors and coal stockpiles, both mines shared the same surface facilities. Diversions, sedimentation ponds and culverts were installed in compliance with Utah Interim Regulatory Program performance standards.

The No. 6 Mine was temporarily closed in November 1980, and permanently closed in September 1983. The No. 3 Mine was exhausted and also permanently closed in September 1983. All portals in both mines were then sealed and structures were removed.

All facilities, environmental controls, and reclamation were covered by an approved Mining and Reclamation Plan, Utah Division of Oil, Gas and Mining (UDOGM) approval INA/007/017, 9/86.

All major disturbance was performed prior the the enactment of P.L. 95-87, the Surface Mining Control and Reclamation Act of 1977, and and methods of site selection and preparation were not conducted per existing regulation. Roads and pads were constructed with the cut and fill technique commonly used in mountainous terrain and no topsoil was saved.

The permit area is located on the eastern edge of the Wasatch Plateau and is characterized by steep, narrow canyons containing conspicuous sandstone cliffs. The area is drained primarily by ephemeral drainages, and is extremely dry. The complex geological and geomorphological conditions have produced a variety of site specific soils that support the Oak Scrub and Great Basin Sagebrush vegetation types. The habitats in turn support a variety of wildlife. The permit area covered 640 acres. Disturbed areas (roads, pads, etc.) amounted to 8.0 acres with an additional 20 acres of affected area around the minesite.

The minesite is located on privately-owned surface in the Gordon Creek drainage area. Coal was mined from both fee ownership and State and County Leases.

Coal was mined by continuous miners, with shuttle car and conveyor haulage out of the mine. Coal was conveyed into an open storage pile. The coal from this pile was loaded by front-end loader onto trucks and hauled some 25 miles to the preparation facility.

The Gordon Creek No. 3 & 6 Mine ceased operations in September, 1983. Portals were sealed and surface facilities were removed during Late-1983 and Early-1984. In September 1986, the earthwork and revegetation portion of the final reclamation was started. The reclamation of the

minesite was completed in late November, 1986. The following is a general description of the reclamation performed.

Reclamation Work Performed

A. 7 Portals Sealed and Backfilled
   1. Backfilled a minimum of 35' with incombustible material.

B. Structure Removal
   1. Removal and salvage/disposal of all structures on site:
      a. Concrete broken up and buried along highwalls.

C. Coal Waste Removal
   1. 3800 tons of coal waste hauled 25 miles to approved disposal site.
   2. Coal loadout spillage on hillside removed and hauled to disposal site.

D. Backfilling and Grading
   1. After sealing of the portals and removal of all structures, a backhoe (Cat 231) was brought to the upper (No. 6 portal) terrace.
   2. The backhoe began by reaching down over the fill bank and retrieving as much material as could be reached. This material was placed on the terrace.
   3. A dozer (Komatsu K-155A) worked with the backhoe, taking the retrieved material and spreading and compacting it from the highwall outward to reach the final configuration. Compaction of 90% or greater was accomplished by spreading the material in lifts not to exceed 24" and tracking over it with the dozer. The top 12"-18" was left in a roughened, loose condition to promote water infiltration and promote plant growth. Maximum, usable pad area was left at the landowner's request.
   4. Approximately 1500' feet of 48" culvert was removed, and replaced with a restored channel, engineered to carry a 100 year-24 hour precipitation event.
   5. The sedimentation ponds were reconstructed as permanent ponds to maximize water retention for stock and wildlife use.
   6. All roads were narrowed and regraveled. Note: Roads in the mine area serve as access to private land in the Beaver Creek area and for the Utah Power and Light Company power lines.

E. Revegetation
   1. Entire disturbed and affected area hydroseeded or drill-seeded and mulched according to plan.

2. Approximately 1500 oak seedlings and 150 Aspen, Mountain Maple and Chokecherry saplings were planted. In addition, approximately 3000 willows were planted along the reclaimed channel area.
3. Planted 100 additional Alpine Fir and Blue Spruce.

F. Fencing
1. Fence designed to preclude vehicle and stock access from the reclaimed area while allowing for wildlife access.

G. Final Site Inspection - 11/26/86
1. UDOGM Staff

H. Application for Phase I Bond Release - 1/5/87

I. Bond Release Inspection - 4/28/87
1. UDOGM
2 Utah State Land Board

J. Phase I Bond Release
1. UDOGM approved 60% bond release ($207,600) on June 26, 1987.

Specific Techniques

The reclamation of the Gordon Creek No. 3 and 6 Mine Site was the second steep slope, permanent mine reclamation performed by Beaver Creek Coal Company. Valuable information and successful techniques learned from the previous reclamation effort were employed in this project. The main difference in the projects was that the No. 3/6 Mine area is extremely dry, and special efforts were made here to maximize water retention and riparian area to enhance wildlife and stock utilization.

The original reclamation plan for the Gordon Creek No. 3 and 6 Mines included a commitment to restore 5 acres of riparian area during reclamation. A careful evaluation (by the agency and the operator) of the mine site and surrounding ephemeral drainages revealed that establishment of even 1/2 acre of riparian area here would be a major accomplishment. As a result of this study, Beaver Creek Coal Company set out to meet its commitment of establishing 5 acres of riparian area in a variety of ways:

(1) The Company contributed $8,600 to the construction of a new 3.5 acre marsh area at the Desert Lake Waterfowl Management Area;

(2) Beaver Creek Coal Company also initiated and funded a project to enhance beaver population and establish a cuthroat trout population in the North Fork of Gordon Creek near the #3/6 Mine area; This area has never been known to support a fish population, but after 2 years of work with the Utah Division of Wildlife Resources, shows a remarkable survival and growth rate for cuthroat trout;

(3) Although we had met our obligation in the above projects, we still made an effort to maximize riparian area at the reclaimed site by creating permanent sedimentation ponds for storage, and establishing a natural holding pond and subterranian drainage in the restored channel area to assist the riparian vegetation.

The Sedimentation ponds were redesigned and constructed to contain the runoff from a 100 year-24 hour precipitation event. The pond is a 2-celled system, in series, separated by a semi-permeable filter dike. This system was designed to allow for long-term water retention with minimal maintenance - the upper cell serves as a settling basin, the dike as a filter medium, and the lower cell as clean water storage for wildlife (and later for stock) watering. The system is equipped with adequately sized overflows, and is designed to allow the landowner the option of filling the ponds at his discretion upon bond release.

Another "natural" holding pond was created at the point where the natural drainage entered the 48" culvert. The culvert was removed, and the inlet area was covered with large rip-rap leading into the restored channel. The culvert had a 12' headwall, and once removed and replaced with a rip-rapped bank, a ponding area of approximately 1/4 acre was created in the natural incised drainage. This water now builds up near the overflow into the restored channel and then appears to slowly percolate through the channel area, creating a sub-terranian drainage and supplying water to the willows, saplings and other riparian vegetation.

The system appears to be working well at this point. After nearly a year, water has never flowed openly in the restored channel; however, water has been retained in the ponds throughout the year, and the willows and saplings show a survival rate of more than 75% and 90% respectively. Wildlife usage of the area has been commonly noted since reclamation.

No. 3 Overview

(Active Mining)

No. 3 Overview
(after Reclamation)

Permanent Ponds and
Restored channel

Restored Main Channel
and Riparian Vegetation

Holding Pond in
Natural Drainage

Restored Main Channel
Below Holding Pond
(85% Willow Survival)