

BEAVER CREEK Coal Company

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



May 25, 1989

Pamela Grumbaugh-Littig
Reclamation Engineer
Utah Division of Oil, Gas, and Mining
355 West Temple
3 Triad Center - Suite 350
Salt Lake City, Utah 84180-1203

RE: Notice of Intention to Explore (less than 250 tons),
Trail Mountain Exploration License (UTU-64233), Trail
Mountain No. 9 Mine, Beaver Creek Coal Co., Emery County,
Utah.

Dear Pamela,

Beaver Creek Coal Company hereby files with the Utah Division of Oil, Gas, and Mining a Notice of Intention to Explore for Less Than 250 Tons, for its Trail Mountain Exploration License, approved by the Bureau of Land Management Utah State Office on August 18, 1988. This Exploration License gives Beaver Creek permission to drill coal exploration drillholes on unleased Federal coal reserves to the south and west of the Trail Mountain No. 9 Mine. All surface lands involved in this License area are controlled by the U.S. Forest Service.

This document was not filed as required before drilling activities began last summer, because I believed, in error, that the Bureau of Land Management State Office had complete jurisdiction over Exploration License activities, and would take the lead role in notifying and advising the Division about the review, approval, and oversight of this License. No snub or bypass of State authority was intended.

Enclosed with this letter are a copy of the actual Notice of Intention to Explore, and a copy of the approved Exploration License itself, with approval letter. These documents should answer any questions you have about our exploration activities in the Trail Mountain Area. If I can be of further help in this matter, please call me at 637-5050, ex. 49.

Sincerely,

Kenneth S. Fleck
Kenneth S. Fleck
Geologist

K.S. Fleck
May 25, 1989
Page 2

Beaver Creek Coal Company
P.O. Box 1378
Price, Utah 84501

cc: J.L. Coffey
D.W. Guy

Enclosures



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangert
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

May 11, 1989

Mr. Dan Guy, Manager
Permitting and Compliance
Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501

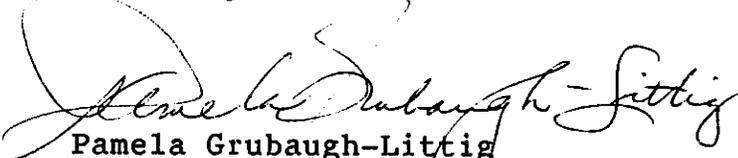
Dear Mr. Guy:

Re: Exploration Regulations, Beaver Creek Coal Company, Trail Mountain #9, ACT/015/009, Folder #2, Emery County, Utah

For clarification, this letter is for your information about coal exploration programs. Coal exploration outside of the permit area requires a "Notice of Intent" (UMC 776). If the coal exploration is located within the permit area, an amendment to the permit is required.

If you have any questions, please call me.

Sincerely,


Pamela Grubaugh-Littig
Reclamation Engineer

djh
cc: R. V. Smith, DOGM
AT4/53

NOTICE OF INTENTION TO EXPLORE
LESS THAN 250 TONS

TRAIL MOUNTAIN FEDERAL LEASE TRACT
COAL EXPLORATION LICENSE UTU-64233
EMERY COUNTY, UTAH

BEAVER CREEK COAL COMPANY
PRICE, UTAH
MAY, 1989

NOTICE OF INTENTION TO EXPLORE

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Beaver Creek Coal Company
Notice of Intention to Explore
Less Than 250 Tons

INTRODUCTION

This Notice of Intention to Explore has been prepared by Beaver Creek Coal Company (Beaver Creek) in accordance with the requirements of UMC 776.11, Parts a - d. The proposed exploration area covers Federally - owned coal lands in Emery County, Utah, within which Beaver Creek plans to conduct an exploration drilling program to evaluate reserves and quality of coal seams adjacent to the Trail Mountain No. 9 Mine.

The format used in UMC 776.11 is the format used for this Notice. This Notice will refer to the accompanying Exploration License Application and Exploration Plan.

NOTICE OF INTENTION TO EXPLORE

UMC 776.11 - General Requirements: Exploration of Less Than
250 Tons

(a) Any person who intends to conduct coal exploration during which less than 250 tons of coal will be removed in the area to be explored shall, prior to conducting the exploration, file with the Division a written notice of intention to explore.

(b) The notice shall include-

(1) The name, address, and telephone number of the person seeking to explore;

Beaver Creek Coal Company
P.O. Box 1378
1305 S. Carbon Ave.
Price, Utah 84501

(801) 637-5050

(2) The name, address, and telephone number of the representative who will be present at, and responsible for conducting the exploration activities;

Kenneth S. Fleck
Geologist

Beaver Creek Coal Company
P.O. Box 1378
1305 S. Carbon Ave.
Price, Utah 84501

(801) 637-5050 ex.49
(801) 637-9088 (Home)

(3) A precise description and map, at a scale of 1:24,000 or larger, of the exploration area;

A generalized location map of the Exploration License area is shown in Figure 1 of the accompanying Exploration Plan. A 1" = 1,000' scale map showing the locations of all approved drill sites and access roads is presented as Figure 4, in the map pocket. A legal description of the lands covered by the Exploration License is shown in Table 1 (Page 14 of the Exploration Plan).

(4) A statement of the period of intended exploration;

The Exploration License for this exploration program was approved by the Bureau of Land Management on August 18, 1988. Because of the brief duration of the drilling season (weather induced) on the top of Trail Mountain, access and drilling are only feasible during the months of June - September.

The term of the Exploration License as approved is from 8/18/88 to 8/18/90, and thus drilling and related activities will be taking place during June - September of 1989, and June - August of 1990.

(5) If the surface is owned by a person other than the person who intends to explore, a description of the basis upon which the person who will explore claims the right to enter such area for the purpose of conducting exploration and reclamation; and

The surface lands in question are owned by the U.S. Bureau of Land Management and managed by the U.S. Forest Service. Beaver Creek claims the right to enter onto these lands on the basis of the approved Exploration License, granted by the Bureau of Land Management with the concurrence of the U.S. Forest Service, which gives Beaver Creek permission to conduct the exploration activities outlined therein.

Beaver Creek Coal Company
Notice of Intention to Explore
Less Than 250 Tons

(6) A description of the practices proposed to be followed to protect the environment from adverse impacts as a result of the exploration activities.

Methods to be used to prevent adverse impacts to the surface and subsurface environment during construction, drilling, and reclamation activities are outlined in the accompanying Exploration Plan (pages 3 - 9). In addition, the U.S. Forest Service and Bureau of Land Management have included with the approved Exploration License (enclosed) 52 additional stipulations dealing with permitting, road construction and maintenance, fire control, adverse weather road use restrictions, hole plugging procedures, and reclamation procedures, all to ensure protection of the environment on Trail Mountain before, during, and after drilling activities.

(c) Any person who conducts coal exploration activities pursuant to this Section which substantially disturb the natural land surface shall comply with UMC 815.

Subpart 3484.1(a)(1) of Title 43 of the Code of Federal Regulations states that the operator shall comply with applicable requirements of the surface management agency (U.S. Forest Service), 30 CFR 815.15, or the approved State program (UMC 815). As stated in the Exploration Plan (Page 9, 3482.1(a)(3)(vii)), all applicable parts of the Federal and State Performance Standards for Coal Exploration have been covered in the preceding exploration and reclamation plans. Beaver Creek has reviewed, and will comply with, all applicable requirements of 30 CFR 815.15 and the Utah Mining Code as stated in UMC 815.15.

(d) The Division shall, except as otherwise

Beaver Creek Coal Company
Notice of Intention to Explore
Less Than 250 Tons

provided in Section UMC 776.17, place such notices on public file and make them available for public inspection and copying.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
324 SOUTH STATE, SUITE 301
SALT LAKE CITY, UTAH 84111-2303



3410
UTU-64233
(U-942)

AUG 18 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501

DECISION

:
:
Coal
:
UTU-64233

Coal Exploration License Issued
Bond Accepted

Coal exploration license UTU-64233 is hereby issued effective August 18, 1988 with an expiration date of August 19, 1990.

On August 16, 1988, a coal exploration bond in the amount of \$45,000 was filed in this office with Beaver Creek Coal Company as principal and United Pacific Insurance Company as surety. The bond (No. U632210) was submitted to provide coverage for coal exploration license UTU-64233 and is accepted effective August 18, 1988.

Chief, Minerals
Adjudication Section

Enclosure
Exploration License

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

COAL EXPLORATION LICENSE

Serial Number UTU-64233

Issue Date August 18, 1988

Expiration Date August 19, 1990

This license, entered into on August 18, 1988, by the United States of America, the licensor, through the Bureau of Land Management (BLM), and

Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501

the licensee, is hereby issued under the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended (30 U.S.C. Sections 181-263), and is subject to all applicable Federal, state, and local laws and regulations including, but not limited to, 43 CFR Group 3400.

Sec. 1. RIGHTS UNDER LICENSE. This license confers the right to perform exploration operations in accordance with the terms and conditions of this license, the approved exploration plan, and applicable regulations in the following-described lands situated in:

T. 17 S., R. 6 E., SLM, Utah
Sec. 26, W $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$,
W $\frac{1}{2}$ W $\frac{1}{2}$ SE $\frac{1}{4}$;
Sec. 27, S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{2}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$;
Sec. 34, NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$;
Sec. 35, lots 3, 4, W $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$,
SW $\frac{1}{4}$, W $\frac{1}{2}$ W $\frac{1}{2}$ SE $\frac{1}{4}$.

T. 18 S., R. 6 E., SLM, Utah
Sec. 1, lots 1-8, S $\frac{1}{2}$ N $\frac{1}{2}$;
Sec. 2, lots 1-8, S $\frac{1}{2}$ N $\frac{1}{2}$;
Sec. 3, lots 1, 2 and 8.

T. 18 S., R. 7 E., SLM, Utah
Sec. 6, lots 4-7, W $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$,
W $\frac{1}{2}$ E $\frac{1}{2}$ SW $\frac{1}{4}$.

Containing 2,730.81 acres

This license is for a period of two years; is not subject to extension or assignment, and shall confer no right to lease.

The issuance of this license shall not preclude the issuance of a coal lease under applicable regulations for the above-described lands. If a coal lease is issued, the lands embraced in such lease shall be eliminated from the license effective upon the date of issuance of such lease. A licensee may not remove for sale any coal from the deposits subject to his license, but may remove a reasonable amount of coal for analysis and study.

Sec. 2. EXPLORATION. The licensee shall diligently explore the lands by drilling, excavating or by geophysical and geochemical surveying or other acceptable methods. The licensee is entitled to use for exploration purposes so much of the surface of the licensed lands as is reasonably necessary for such operations in accordance with the approved exploration plan which is attached and made a part of this license.

Sec. 3. OPERATIONS. (a) Licensee shall comply with all regulations of the Secretary of the Interior and with all regulations and orders of the Secretary of Agriculture.

(b) Licensee shall comply with the provisions of the operating regulations under 43 CFR 3480 and all orders issued pursuant thereto. Copies of the operating regulations may be obtained from the authorized officer, Bureau of Land Management.

(c) Licensee shall allow inspection of the premises and operations by duly authorized representatives of the Department of the Interior, or other agency administering the lands, and shall provide for the free ingress or egress of Government officers and for users of the lands under authority of the United States.

Sec. 4. MULTIPLE USE. (a) The Government reserves the right to authorize other uses of the licensed lands by regulations or by issuing, in addition to this license, leases, licenses, permits, easements, or rights-of-way, including leases for the development of minerals other than coal under the Act. The Government may authorize any other uses of the licensed lands that do not unreasonably interfere with the exploration operations of the licensee, and the licensee shall make all reasonable efforts to avoid interference with such authorized uses.

(b) The Government reserves the right: (1) to sell or otherwise dispose of the surface of the licensed lands under existing law or laws hereafter enacted insofar as such disposal will not interfere with the rights of the licensee, or (2) to dispose of any resource in such lands if such disposal will not unreasonably interfere with the exploration operations of the licensee.

(c) If the licensed lands have been or shall hereafter be disposed of under laws reserving to the United States the deposits of coal therein, the licensee shall comply with all conditions as are or may hereafter be provided by the laws and regulations reserving coal.

Sec. 5. PROTECTION OF SURFACE, NATURAL RESOURCES, AND IMPROVEMENTS. The licensee agrees to take such reasonable steps as may be needed to prevent operations on the licensed lands from unnecessarily:

(a) causing or contributing to soil erosion or crop damage, including forage, and timber growth on the licensed lands or on Federal or non-Federal lands in the vicinity;

(b) polluting air and water; and

(c) damaging improvements owned by the United States or other parties.

Upon any partial or total relinquishment or the cancellation or expiration of this license, or at any other time prior thereto, when required, and to the extent deemed necessary, by the licensor, the licensee will fill and reclaim any pits, ditches and other excavations, remove all debris, and so far as reasonably possible, restore the surface of the licensed lands and access roads to their former condition, including the removal of structures as and if required. The licensor may prescribe the steps to be taken and restoration to be made with respect to the licensed lands and improvements thereon whether or not owned by the United States.

Sec. 6. RELINQUISHMENT OF LICENSE. The licensee may relinquish this license, in whole or in part, by filing in the proper BLM office a written relinquishment which shall be effective as of the date it is filed, subject to the continued obligation of licensee and his surety to comply with the terms and conditions and special stipulations of the license, the exploration plan, and the regulations, and, to provide for the preservation of any permanent improvements on the licensed lands.

Sec. 7. REVOCATION OF LICENSE. This license may be revoked for noncompliance with the terms and conditions of the license, the exploration plan, or the regulations, after the licensee has been notified of such violation in writing and the licensee has failed to correct the violation within the period prescribed by such notice.

Sec. 8. MODIFICATION OF LICENSE. When unforeseen conditions that could result in substantial disturbance to the natural land surface or damage to the environment or improvements are encountered, or where geological or other physical conditions warrant a modification, the authorized officer, after consultation with the surface management agency, may modify the license or adjust the terms and conditions of the exploration license.

Sec. 9. EQUAL OPPORTUNITY CLAUSE. This license is subject to the provisions of Executive Order No. 11246 of September 24, 1965, as amended, which sets forth the nondiscrimination clauses.

Sec. 10. USE OF DATA. The licensee shall furnish to the authorized officer copies of all data (including but not limited to, geological, geophysical and core drilling analyses) obtained during exploration. The licensee shall submit the data and, where appropriate, the methods by which the data were gathered, at such time and in such form as required by the authorized officer. The confidentiality of all data so obtained shall be maintained until after the areas involved have been leased or until such time as the authorized officer determines that making the data available to the public would not damage the competitive position of the licensee, whichever comes first. The applicant may be required to collect and report ground water data to the authorized officer.

Sec. 11. UNLAWFUL INTEREST. No member of, or Delegate to Congress, or Resident Commissioner, after his election or appointment, either before or after he has qualified and during his continuance in office, and no officer, or employee of the Department of the Interior, except as provided in 43 CFR 7.4(a)(3), shall hold any share or part in

this license or derive any benefit therefrom. The provisions of Section 3741 of the Revised Statutes, as amended, 41 U.S.C. Section 22, and the Act of June 25, 1948, 62 Stat. 702, as amended, 18 U.S.C. Sections 431-433, relating to contracts, enter into and form a part of this license insofar as they may be applicable.

Sec. 12. BOND. The licensee shall file with the appropriate BLM office a compliance bond in the amount of \$45,000 to ensure compliance with the terms and conditions of the license and regulations. Where the surface of the land being explored is in private ownership, the authorized officer shall not terminate the period of liability under the compliance bond until he has received written acknowledgement from the surface owner of his satisfaction with the reclamation of the surface. In the event the licensee and surface owners are unable to reach agreement on the adequacy of the reclamation, the authorized officer shall make the final determination. He will terminate the period of liability under the compliance bond after determining that the terms and conditions and special stipulations of the license, the approved plan, and the regulations have been met.

Sec. 13. SPECIAL STIPULATIONS. The address of the authorized officer is: District Manager, Moab District Office, Bureau of Land Management, 82 East Dogwood, P.O. Box 970, Moab, Utah 84532.

The address of the surface management agency is: Forest Supervisor, Manti-LaSal National Forest, 599 West Price River Drive, Price, Utah 84501. Telephone: (801) 637-2817.

1. A pre-work meeting including the responsible company representative(s), contractors, and the Forest Service must be conducted at the project location prior to commencement of operations. Site-specific Forest Service requirements will be discussed at this time.
2. A Road Use Permit must be obtained from the Forest Service before equipment is transported onto National Forest System lands.
3. All surface disturbing activities including reclamation must be supervised by a responsible representative of the licensee who is aware of the terms and conditions of the project permits. A copy of the appropriate permits must be available for review at the project site.
4. The Forest Service must be notified 48 hours in advance that heavy equipment will be moved onto National Forest lands and that surface disturbing activities will commence.
5. Establishment of campsites and staging areas on National Forest System lands in support of this project is subject to Forest Service approval.
6. The Forest Service must be notified of any proposed alterations to the plan of operations. Any changes to the existing plan are subject to Forest Service review and concurrence.

7. Fire suppression equipment must be available to all personnel working at the project site. Equipment must include at least one hand tool per crew member consisting of shovels and pulaskis, and one properly rated fire extinguisher per vehicle and/or internal combustion engine.
8. All gasoline, diesel and steam-powered equipment must be equipped with effective spark arresters and mufflers. Spark arresters must meet Forest Service specifications discussed in the USDA Forest Service Spark Arrester Guide, June 1981. In addition, all electrical equipment must be properly insulated to prevent sparks.
9. The licensee will be held responsible for damage and suppression costs for fires started as a result of operations. Fires must be reported to the Forest Service as soon as possible.
10. The Forest Service reserves the right to suspend operations during periods of high fire potential.
11. Water needed in support of operations must be properly and legally obtained according to state water laws. The location of diversion, if on National Forest System lands, is subject to Forest Service review and approval.
12. Unauthorized off-road vehicular travel is prohibited.
13. Section corners or other survey markers, including claim corners, in the project area must be located and flagged for preservation prior to commencement of surface disturbing activities. The removal, displacement, or disturbance of markers must be approved by the proper authority.
14. If cultural or paleontological resources are discovered during operations, all operations which may result in disturbance to the resource must cease and the Forest Service must be notified of the discovery.
15. Gates must be closed after entry unless otherwise notified.
16. The licensee will be held responsible for all damages to fences, cattleguards, resource improvements, roads, and other structures on National Forest System lands which result from operations. The Forest Service must be notified of damages as soon as possible.
17. All trees and brush must be cleared as the first step for new access and site construction. Topsoil must be stripped and stockpiled at a location where loss and contamination are minimized.
18. Disturbed areas must be reclaimed by the end of the field season. Exceptions require Forest Service approval.
19. Contaminated soil and gravel must be stripped and placed in the mud pit prior to site reclamation.
20. Mud pits must be allowed to dry before they are backfilled and reclaimed. They must be enclosed by a 4-strand barbed wire fence while they are left to dry.

21. When dry, mud pits must be reclaimed by selectively backfilling excavated materials, topsoil last, such that the disturbed area is replaced to approximate original contour. The disturbed area must be seeded with the following seed mix after the topsoil is replaced:

<u>Species</u>	<u>Pounds/acre</u>
Intermediate Wheatgrass	3
Slender Wheatgrass	2
Smooth Brome	1
Orchard Grass	2
Yellow Sweet Clover	.5
Ladak Alfalfa	.5
Fairway Crested Wheatgrass	2
Ephraim Crested Wheatgrass	2
Lewis Flax	.5
Small Burnet	.5
Mountain Big Sagebrush	.25
Bitterbrush	1
*Curleaf Mahogany	.25
*Birchleaf Mahogany	.25
Total	<u>15.75 lbs</u>

* If available

This seed mixture must be 99 percent pure live seed and applied at the rate of 15.75 pounds per acre.

22. The operator will control noxious weed invasion of disturbed sites associated with this project.
23. Roads to be obliterated must be reclaimed by ripping the surface, replacing the disturbed area to the approximate original contour, replacing stockpiled topsoil, and seeding with the specified seed mix. Seeding must take place when topsoil is replaced. Water diversions structures, if needed, must be constructed as specified by the Forest Service.
24. All disturbed drainages must be replaced to their approximate original configuration when the project area is reclaimed.
25. All significant water encountered during drilling must be reported to the Forest Service, including the depth and formation in which it was encountered, and an estimate of flow.
26. The operator must clean up and remove all drilling equipment, trash, garbage, flagging, vehicles, and other such materials from National Forest System lands.
27. All trash, garbage, and other refuse must be properly contained on the project site prior to disposal off the Forest.
28. All drill holes must be plugged in accordance with Federal and state regulations.

29. Operations must be coordinated with grazing permittees to prevent conflicts.
30. Harrassment of wildlife and livestock is prohibited.
31. All drilling fluids, mud, cuttings and water produced must be contained on site in mud pits or portable containers. Fluids must not be allowed to flow out over the ground or into drainages. The pits must not be used for disposal of garbage, trash, or other refuse.
32. Outside berms will not be constructed on any roads.
33. Two culverts installations will be required at the small springs which cross FDR 50034. This is located in the southwest quarter of Section 35, T. 17 S., R. 6 E. (See Map 2 for location.) The culverts will have rock energy dissapators constructed at the outlet end of the pipe. These culverts will be left in place at the conclusion of the project.
34. All newly constructed temporary roads will be closed as specified in stipulation No. 23. In addition, temporary roads for drill sites TMX 1, 3-9 that cross watershed treatment structures need to be repaired when the roads are no longer needed.
35. The licensee must comply with all rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights and regulations must be compiled with for (1) all use and occupancy of the NFS prior approval of a permit/operation plan by the Secretary of the Interior, (2) uses of all existing improvements, such as Forest Development Roads, within and outside the area licensed, permitted or leased by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by a permit/operating plan approved by the Secretary of the Interior.

The authorized representative of the Secretary of Agriculture is the Forest Supervisor.

36. Permission must be obtained from Utah State Division of Lands to cross state land in Section 36, T. 17 S., R. 6 E.
37. When it is necessary to fill in a watershed treatment furrow, the soil needs to be pushed into it from the downhill side.
38. There is a watershed trend study located adjacent to the access road in Section 35. The post and stakes for this study will be flagged and must not be disturbed. (See Map 2.)
39. All temporary access roads will be closed and blocked or reclaimed at the conclusion of the drilling season.
40. A culvert will be placed in the drainage leading to TMX-8. It will be removed after access to the hole is no longer needed.

41. Any damaged watershed treatment structures must be reconstructed and seeded with the seed mix listed in Stipulation No. 21.
42. To prevent disturbance of deer and elk on winter range, there will be no activity associated with this proposal between October 31 and May 15 unless these dates are modified by prevailing conditions with approval of the Forest Service.
43. The BLM Area Manager shall be notified 48 hours prior to start and completion of the program.
44. The licensee is responsible to see that all personnel contracted or otherwise doing work on the exploration program are aware of these approval requirements and abide by all regulations and stipulations governing this program. Any changes to the approved exploration plan must receive approval from the Area Manager prior to implementation.
45. When artesian flows or water horizons with possible development potential are encountered, the BLM Area Manager shall be notified immediately so that a determination may be made concerning their development potential. When possible, water samples shall be collected by the operator for analysis by the BLM. A written report is required upon completion of exploration as noted by Stipulation 51 H.
46. Upon completion of down-hole procedures, all drill holes shall be properly sealed from the bottom to the collar. Any variance from the procedures itemized below must be approved by the Area Manager.
 - A. Drill holes in coal deposits amenable to underground mining must be cemented from the bottom of the hole to at least 50 feet above the highest minable coal bed (4 feet thick or more) or aquifer.
 - B. The remainder of the hole to within 5 feet of the surface may be filled with a gel rather than cement which meets or exceeds the following standards:
 - 1) Ten-minute gel strength of 20 pounds/100 square feet.
 - 2) Filtrate volume should measure 13.5 cc on an API standard filter test.
 - 3) The marsh funnel viscosity should be a minimum of 50 seconds.
 - C. The 5-foot void at the surface will be plugged with cement except as required in stipulation 49.
47. Drill holes in tar sand deposits may be plugged with cement or plugging gels. Gels must meet the specifications identified in 46 B above. The 5-foot surface plug would still apply. Cementing aquifers would also be applicable as above.

48. If adverse downhole conditions prevent a completed drill hole from being properly plugged after attempting all standard industry plugging procedures, the Area Manager will be contacted immediately to make a determination as to a final plugging method.
49. The hole location is to be marked by placing an approved marker made of galvanized steel, brass, aluminum or similar non-corrosive metal in the concrete plug. Such markers are to show hole number, year drilled, licensee name, and as feasible, the section, township, and range in which the hole is located. Top of concrete plug, if located in cultivated field, must be set below normal plow depth (10-12 inches). In noncultivated areas, all marker caps should not protrude above the ground level.
50. The Area Manager shall be notified as to the time when the first hole is to be plugged so that a representative of the BLM may arrange to observe the plugging procedure. Subsequent observations of other holes being plugged will be arranged as appropriate.
51. Upon completion of exploration activities, a report as required by 43 CFR 3485.1 (formerly 30 CFR 211.62) shall be submitted to the Moab District Office. The report at a minimum must contain the following:
 - A. Location(s) and serial number(s) of lands under Federal lease or license on which exploration was conducted.
 - B. A description of the completed exploration operations that includes the number of holes drilled, total depth of each hole, and completion date of each hole.
 - C. A map showing the locations of all holes drilled, other excavations and the coal or tar sand outcrop lines as appropriate. The scale of the map shall not be less than 1 inch equals 1 mile.
 - D. Analysis of coal or tar sand samples and other pertinent tests obtained from exploration operations.
 - E. Copies of all in-hole mechanical or geophysical stratigraphic surveys or logs, such as electric logs, gamma ray-neutron logs, sonic logs, or any other logs. The records shall include a lithologic log of all strata penetrated and conditions encountered such as water, gas or any unusual conditions.
 - F. Status of reclamation of the disturbed areas.
 - G. Any other information requested by the District Manager.
 - H. Hydrologic reports using the attached form.
52. An individual lease or license bond in an amount to be determined by the Area Manager shall have been filed with the proper office before commencement of exploration activities. The bond shall be used as required to cover costs incurred by the BLM to correct any violation of this program.

Attached to this license and made a part hereof is a map showing the drill hole locations and the exploration plan approved August 12, 1988.

BEAVER CREEK COAL COMPANY

THE UNITED STATES OF AMERICA

Kenneth S. Fleck

Signature of Licensee

Attorney-in-fact

Title

8/18/88

Date

[Signature]

Signature of Licensor

Chief, Minerals
Adjudication Section

Title

AUG 18 1988

Date

memorandum

DATE:

REPLY TO
ATTN OF:

Area Manager, San Rafael Resource Area

3410
U-64233

SUBJECT:

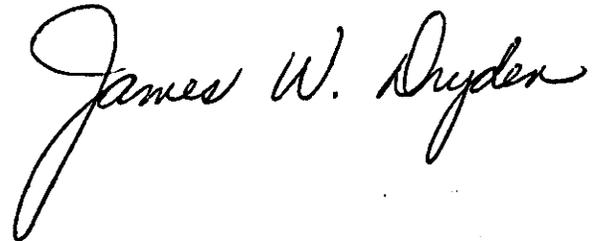
Coal Exploration License Application, U-64233, Beaver
Creek Coal Company

TO:

District Manager, Moab (U-065)

Attached for your signature is a memorandum to the Utah State Office
Minerals Adjudication Office recommending, with stipulations, issuance of
the subject license and approving the exploration plan.

Attachment:
As stated



AUG 12 1988

FEDERAL COAL
EXPLORATION LICENSE APPLICATION
AND
EXPLORATION PLAN

TRAIL MOUNTAIN LEASE AREA

EMERY COUNTY, UTAH

EXPLORATION PLAN APPROVED BY
BUREAU OF LAND MANAGEMENT

Recommended By:

Stephen W. Felt Mining Eng. 8/11/88
Name & Title (Date)

Approved By:

Gene Rodine 8/12/88
Area Manager (Date)
District

BEAVER CREEK COAL COMPANY

PRICE, UTAH

APRIL, 1988

INTRODUCTION

This Exploration License Application has been prepared by Beaver Creek Coal Company (Beaver Creek) in accordance with the requirements of the Code of Federal Regulations, Title 43, Chapter II, Subpart 3410. The proposed exploration area covers lands in Emery County, Utah, within which Beaver Creek plans to conduct an exploration drilling program, as described herein, to evaluate the reserves and quality of coal seams within the Blackhawk Formation.

The format used in 43 CFR 3410 is used as the format for this Exploration License Application. The exploration plan outlined within this Exploration License Application complies with the requirements of 43 CFR, Chapter II, Subpart 3482, as required by Section 3410.2-1(a)(3). The exploration plan format designated for Bureau of Land Management has been followed in this Exploration License Application.

The information contained in this Exploration License Application demonstrates that environmental protection and reclamation are integral parts of the proposed exploration program, and that reclamation will be performed in tandem with exploration activities. Sufficient information is provided in the Exploration Plan to demonstrate the effectiveness of Beaver Creek's proposed reclamation method.

FEDERAL COAL EXPLORATION LICENSE APPLICATION
TRAIL MOUNTAIN LEASE AREA

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FEDERAL COAL EXPLORATION LICENSE APPLICATION

(AS OUTLINED IN 43 CFR, CHAPTER II, SUBPART 3410)

3410.2 - "PRELICENSING PROCEDURES."

3410.2-1 - "APPLICATION FOR AN EXPLORATION LICENSE."

3410.2-1(a) - "EXPLORATION LICENSE APPLICATIONS SHALL BE SUBMITTED AT THE BUREAU OF LAND MANAGEMENT STATE OFFICE HAVING JURISDICTION OVER THE LANDS COVERED IN THE APPLICATION (43 CFR SUBPART 1821)."

This Exploration License Application is submitted to the Bureau of Land Management District Office in Salt Lake City, Utah, which has jurisdiction over the lands covered in this Application.

"THE APPLICATIONS SHALL BE SUBJECT TO THE FOLLOWING REQUIREMENTS:"

3410.2-1(a)(1) - "NO SPECIFIED FORM OF APPLICATION IS REQUIRED."

3410.2-1(a)(2) - "AN AREA IN A PUBLIC LAND SURVEY STATE FOR WHICH AN APPLICATION IS FILED SHALL BE DESCRIBED BY LEGAL DESCRIPTION OR, IF ON UNSURVEYED LANDS, BY METES AND BOUNDS, IN ACCORDANCE WITH 3471.1-1(D)(1) OF THIS TITLE. AN APPLICATION FOR AN EXPLORATION LICENSE ON ACQUIRED LANDS SHALL DESCRIBE THE AREA ACCORDING TO THE DESCRIPTION IN THE DEED OR DOCUMENT BY WHICH THE UNITED STATES ACQUIRED THE TITLE IN ACCORDANCE WITH 3471.1-1(D)(2) OF THIS TITLE."

The following table (Table 1) lists the legal description of the lands outlined in this Application, according to coal plat records maintained by the Bureau of Land Management.

TABLE 1

LEGAL DESCRIPTION
TRAIL MOUNTAIN 1988
EXPLORATION LICENSE APPLICATION AREA

T. 17 S., R. 6 E., Salt Lake Meridian, Emery County, Utah.

Section 26, W1/2 SW1/4 NE 1/4, S1/2 NW1/4, SW1/4,
W1/2 W1/2 SE1/4; (300.00 Ac)

Section 27, S1/2 NE1/4, SE1/4 NW1/4, E1/2 SW1/4, SE1/4;
(360.00 Ac)

Section 34, NE1/4, E1/2 NW1/4, E1/2 SW1/4, SE1/4;
(480.00 Ac)

Section 35, Lots 3 and 4, W1/2 SW1/4 NE1/4, S1/2 NW1/4,
SW1/4, W1/2 W1/2 SE1/4. (380.49 Ac)

T. 18 S., R. 6 E., Salt Lake Meridian, Emery County, Utah.

Section 1, Lots 1 through 8, and S1/2 N1/2; (447.66 Ac)

Section 2, Lots 1 through 8, and S1/2 N1/2; (451.36 Ac)

Section 3, Lots 1, 2, and 8. (106.35 Ac)

T. 18 S., R. 7 E., Salt Lake Meridian, Emery County, Utah.

Section 6, Lots 4 through 7, and W1/2 SE1/4 NW1/4,
W1/2 E1/2 SW1/4. (204.95 Ac)

Containing 2,730.81 Acres, more or less.

3410.2-1(a)(3) - "EACH APPLICATION SHALL CONTAIN THREE COPIES OF AN EXPLORATION PLAN WHICH COMPLIES WITH THE REQUIREMENTS OF 3482.1(A) OF THIS TITLE."

Three copies of the entire Exploration Permit Application are enclosed. The Exploration Plan makes up the second section of this Application. As required in 3482.1(a)(2), five copies of the Exploration Plan have been submitted to the authorized officer.

3410.2-1(a)(4) - "EACH APPLICATION AND ITS SUPPORTING DOCUMENTS SHALL BE FILED WITH A NONREFUNDABLE FILING FEE (43 CFR 3473.2)."

Enclosed is the non-refundable filing fee of \$250.00.

3410.2-1(a)(5) - "EXPLORATION LICENSE APPLICATIONS SHALL NORMALLY COVER NO MORE THAN 25,000 ACRES IN A REASONABLY COMPACT AREA AND ENTIRELY WITHIN ONE STATE. AN APPLICATION FOR AN EXPLORATION LICENSE COVERING MORE THAN 25,000 ACRES MUST INCLUDE A JUSTIFICATION FOR AN EXCEPTION TO THE NORMAL ACREAGE LIMITATION."

The total number of acres in the proposed exploration area is 2,731.35. The Exploration License Application area is reasonably compact, and well within the 25,000 acre size limitation.

3410.2-1(b) - "NOTHING IN THIS SUBPART SHALL PRECLUDE THE AUTHORIZED OFFICER FROM ISSUING A CALL FOR EXPRESSIONS OF LEASING INTEREST IN AN AREA CONTAINING EXPLORATION LICENCES OR APPLICATIONS FOR EXPLORATION LICENSES."

3410.2-1(c) - "APPLICANTS FOR EXPLORATION LICENSES SHALL BE REQUIRED TO PROVIDE AN OPPORTUNITY FOR OTHER PARTIES TO PARTICIPATE IN EXPLORATION UNDER THE LICENSE ON A PRO RATA COST SHARING BASIS."

3410.2-1(c)(1) - "IMMEDIATELY UPON THE FILING OF AN APPLICATION FOR AN EXPLORATION LICENSE THE APPLICANT SHALL PUBLISH A "NOTICE OF INVITATION," APPROVED BY THE AUTHORIZED OFFICER, ONCE EVERY WEEK FOR 2 CONSECUTIVE WEEKS IN AT LEAST ONE NEWSPAPER OF GENERAL CIRCULATION IN THE AREA WHERE THE LANDS COVERED BY THE LICENSE APPLICATION ARE SITUATED. THIS NOTICE SHALL CONTAIN AN INVITATION TO THE PUBLIC TO PARTICIPATE IN THE EXPLORATION UNDER THE LICENSE AND SHALL CONTAIN THE LOCATION OF THE BUREAU OF LAND MANAGEMENT OFFICE IN WHICH THE APPLICATION SHALL BE AVAILABLE FOR INSPECTION. COPIES OF THE NOTICE OF INVITATION SHALL BE FILED WITH THE AUTHORIZED OFFICER AT THE TIME OF PUBLICATION BY THE

APPLICANT, FOR POSTING IN THE PROPER BUREAU OF LAND MANAGEMENT OFFICE AND FOR BUREAU OF LAND MANAGEMENT'S PUBLICATION OF THE NOTICE OF INVITATION IN THE FEDERAL REGISTER.

A copy of the "Notice of Invitation" to be published in the local newspapers and the Federal Register is included at the end of this section.

3410.2-1(c)(2) - "ANY PERSON WHO SEEKS TO PARTICIPATE IN THE EXPLORATION PROGRAM CONTAINED IN THE APPLICATION SHALL NOTIFY THE AUTHORIZED OFFICER AND THE APPLICANT IN WRITING WITHIN 30 DAYS AFTER THE PUBLICATION IN THE FEDERAL REGISTER. THE AUTHORIZED OFFICER MAY REQUIRE MODIFICATION OF THE ORIGINAL EXPLORATION PLAN TO ACCOMODATE THE LEGITIMATE EXPLORATION NEEDS OF PERSONS SEEKING TO PARTICIPATE, AND TO AVOID THE DUPLICATION OF EXPLORATION ACTIVITIES IN THE SAME AREA, OR MAY NOTIFY THE PERSON SEEKING TO PARTICIPATE THAT THE PERSON SHOULD FILE A SEPARATE APPLICATION FOR AN EXPLORATION LICENSE."

3410.2-1(d) - "AN APPLICATION TO CONDUCT EXPLORATION WHICH COULD HAVE BEEN CONDUCTED AS A PART OF EXPLORATION UNDER AN EXISTING OR RECENT COAL EXPLORATION LICENSE MAY BE REJECTED."

NOTICE OF INVITATION TO PARTICIPATE
IN COAL EXPLORATION PROGRAM;
BEAVER CREEK COAL CO.

Beaver Creek Coal Company is inviting all qualified parties to participate in its proposed exploration of certain Federal coal deposits in the following described lands in Emery County, Utah:

T. 17 S., R. 6 E., Salt Lake Meridian, Emery County, Utah.

Section 26, W1/2 SW1/4 NE 1/4, S1/2 NW1/4, SW1/4,
W1/2 W1/2 SE1/4; (300.00 Ac)

Section 27, S1/2 NE1/4, SE1/4 NW1/4, E1/2 SW1/4, SE1/4;
(360.00 Ac)

Section 34, NE1/4, E1/2 NW1/4, E1/2 SW1/4, SE1/4;
(480.00 Ac)

Section 35, Lots 3 and 4, W1/2 SW1/4 NE1/4, S1/2 NW1/4,
SW1/4, W1/2 W1/2 SE1/4. (380.49 Ac)

T. 18 S., R. 6 E., Salt Lake Meridian, Emery County, Utah.

Section 1, Lots 1 through 8, and S1/2 N1/2; (448.20 Ac)

Section 2, Lots 1 through 8, and S1/2 N1/2; (451.36 Ac)

Section 3, Lots 1, 2, and 8. (106.35 Ac)

T. 18 S., R. 7 E., Salt Lake Meridian, Emery County, Utah.

Section 6, Lots 4 through 7, and W1/2 SE1/4 NW1/4,
W1/2 E1/2 SW1/4. (204.95 Ac)

TOTAL 2,731.35 Ac.

Any party electing to participate in this exploration program must send written notice of such election to the Bureau of Land Management, Utah State Office, 324 S. State Street, Suite 301, Salt Lake City, Utah, 84111-2303, and to Kenneth S. Fleck, geologist, Beaver Creek Coal Company, P.O. Box 1378, Price, Utah, 84501. Such written notice must be recieved within thirty days after publication of this notice in the Federal Register.

FEDERAL COAL
EXPLORATION LICENSE APPLICATION
EXPLORATION PLAN

TRAIL MOUNTAIN LEASE AREA
EMERY COUNTY, UTAH

BEAVER CREEK COAL COMPANY
PRICE, UTAH
APRIL, 1988

INTRODUCTION

This Exploration Plan has been prepared by Beaver Creek Coal Company (Beaver Creek) in accordance with the requirements of the Code of Federal Regulations, Title 43, Chapter II, Subparts 3482 (Exploration Plans) and 3484 (Performance Standards) as well as CFR Title 30, Chapter VII, Part 815 (Permanent Program Performance Standards - Coal Exploration) and Utah State Rules for Coal Exploration UMC 776.11 (General Requirements: Exploration of Less than 250 Tons) and UMC 815 (Permanent Program Performance Standards - Coal Exploration).

This Exploration Plan has been prepared by Beaver Creek to accompany the Federal Coal Exploration License Application filed in April, 1988.

The format used in this Exploration Plan follows the format of 43 CFR, Chapter II, Subpart 3482.1 (Exploration and resource recovery and protection plans).

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EXPLORATION PLAN

3482.3(a)(3) i, ii - Names and Addresses of Applicant,
Operator, and Lessee of Record:

APPLICANT:

Beaver Creek Coal Company
P.O. Box 1378
1305 S. Carbon Ave.
Price, Utah 84501

(801) 637-5050

OPERATOR:

Beaver Creek Coal Company
(Operator for W.K. Minerals, Inc.)
(Address and Number same as above)

LESSEE OF RECORD:

(There is no Operator/Lessee of Record for the Trail Mountain
Federal Tract.)

ADJACENT LEASES:

W.K. Minerals, Inc.
555 17th Street
Denver, Colorado 80202

Federal Coal Lease U-082996
Federal Coal Lease U-49332
Utah State Coal Lease ML-22603

REPRESENTATIVE OF APPLICANT:

Kenneth S. Fleck
Geologist

Beaver Creek Coal Company
P.O. Box 1378
1305 S. Carbon Ave.
Price, Utah 84501

(801) 637-5050 ext. 25

EXPLORATION PLAN

3482.1(a)(3)(iii) - Narrative Description of Exploration Area:

The proposed exploration area is located approximately 11 miles northwest of Orangeville, Utah (See Figure 1).

The proposed exploration area lies within the unleased Federal Coal Tract known as the Trail Mountain Tract (delineated in 1982), to the west and northwest of the existing Trail Mountain Mine and leases (U-49332 and U-082996, and State Lease ML-22603). The proposed exploration area is outlined on Figure 4, and a Legal Description of the proposed exploration area is presented in Table 1.

SURFACE TOPOGRAPHY:

All exploration activities will take place on top of Trail Mountain, between 8,400 and 9,200 feet elevation. The top of Trail Mountain consists of gently rolling terrain bounded by steep escarpments of the Castlegate Sandstone.

GEOLOGY:

The proposed Trail Mountain Exploration License Application area lies near the center of the Wasatch Plateau Coal Field within the Mahogany Point and Joes Valley Reservoir U.S.G.S. 7 1/2 minute quadrangle maps (see Figure 4).

Previous geological work has been done in this area by Spieker (1931), Ellis and Frank (1981), and Kitzmiller (1982). The U. S. Geological Survey and the Utah Geological and Mineral Survey have conducted previous exploration drilling programs in and adjacent to the proposed exploration area.

The general stratigraphy of the area consists of members of the Mancos Shale and Mesaverde Group of the Cretaceous System, and the overlying Wasatch Group of Tertiary age (see Figure 2).

The Masuk Shale member of the Mancos Shale outcrops lowest in the area. About 0 - 500' of this unit are exposed along the lower reaches of Straight Canyon and Cottonwood canyon.

Overlying the Mancos Shale are the Mesaverde Group beds, which consist of, in ascending order, the Star Point Sandstone, the Blackhawk Formation (coal bearing), and the

Price River Formation, itself consisting of the lower massive Castlegate Sandstone member and the Upper Price River member. Mesaverde Group outcrops form the steep canyon walls in the area.

The North Horn Formation and overlying remnants of the Flagstaff Limestone of Tertiary age cap the top of Trail Mountain.

The Blackhawk Formation of the Mesaverde Group is the major coal-bearing formation of the area. The only known mineable coal at Trail Mountain is the Hiawatha Seam, which is found immediately on top of the Star Point Sandstone, at the contact of the Star Point Sandstone and the overlying Blackhawk Formation. Other seams are present in the Blackhawk Formation, but all are too thin to be of economic importance in the Trail Mountain area.

The strata in the Trail Mountain area dip generally at 2 - 5 degrees to the southwest. No faults have been identified in the exploration area, but minor faulting related to the Joes Valley fault system is likely to occur along the western extent of the Trail Mountain Tract.

WATER RESOURCES:

The climate in the Trail Mountain area is considered semi-arid, receiving 10 - 20 inches of precipitation annually, depending on elevation (precipitation increases as elevation increases).

Major streams in the area include Cottonwood Creek to the east of the Application Area, and Straight Canyon Creek to the south, which is supplied year-round by Joes Valley reservoir.

Ground water aquifers are known to exist in the North Horn Formation, in sandstones of the Blackhawk Formation, and the Star Point Sandstone. Several springs originating from the North Horn Formation supply water to stock and wildlife ponds on the top of Trail Mountain.

VEGETATION:

Vegetation in the exploration area consists of Aspen, Conifer, Pinyon and Juniper trees, and various grasses and mountain shrubs. No threatened or endangered plant species have been identified in the exploration area.

SOILS:

Soils in the exploration area are mainly derived from

the North Horn formation and have a high clay content. By limiting the size of drill sites and retaining topsoil for reclamation purposes, revegetation should not be a problem in this area.

WILDLIFE:

Trail Mountain is a deer and elk winter range. Other animals in the area include cougar, bobcat, rabbit, squirrel, mice and other rodents, reptiles and amphibians. The proposed exploration program will be scheduled to avoid conflicts with the deer and elk on winter range.

THREATENED OR ENDANGERED SPECIES:

No threatened or endangered plant or animal species have been identified within the proposed exploration area.

LAND USE:

The present land use of the proposed exploration area consists of domestic grazing, wildlife habitat, watershed, timber lands, recreational lands, and intensive big game hunting. Beaver Creek is presently mining coal underground in a lease area adjacent to the proposed exploration area.

CULTURAL RESOURCES:

As specified in 43 CFR II Subpart 3482 (a)(3)(viii), Beaver Creek will conduct a cultural resource survey of the proposed drilling locations and access roads. This study will be conducted as soon as ground conditions permit access to the proposed locations. After archaeological studies are concluded, results will immediately be reported to the appropriate regulatory agencies. (See Attachment 1 for previous cultural resource surveys of nearby areas). There are no known structures or sites eligible for listing on the National Register of Historic Places within the proposed exploration area.

PROPOSED ACCESS ROUTES:

U.S. Forest Service roads #50040 and #50034 will be the main access routes to the proposed exploration area. There are also approximately six miles of non-system roads in the proposed exploration area. These roads are used for watershed and range management projects, as well as for ranching and recreation. The proposed drill sites have been located as near to existing roads as possible. Several temporary roads, to be constructed and reclaimed as they are used, will be needed for access to some of the drill sites

(see Figure 4 and Table 3). Special-Use and Road-Use permits will be obtained from the U.S. Forest Service prior to any drilling activities.

3482.1(a)(3)(iv) - Construction, Exploration, and Reclamation Methods:

PRE-DRILLING ACTIVITIES:

Prior to any construction or drilling activities, an on-site inspection of all proposed drill sites and access routes will be conducted with representatives from all appropriate regulatory agencies present, to discuss site-specific concerns.

Proper Road-Use and Special-Use permits will be obtained prior to use of U.S. Forest Service Roads.

U.S. Forest Service, Bureau of Land Management, and State regulatory personnel will be notified at least 48 hours before any construction or drilling equipment is moved into the project area. All construction and drilling activities will be supervised by an authorized representative of the Applicant. A copy of the Exploration License and all pertinent permit documents will be available for inspection on site at all times.

Campsites and staging areas to be used by the drilling contractor will be reviewed with and approved by the U.S. Forest Service prior to use.

Any proposed changes in the Exploration Plan after the approval of this License will be reviewed with the appropriate regulatory agencies before the changes take effect.

ROAD CONSTRUCTION:

Existing roads and trails will be used whenever possible, and movement of equipment across undisturbed land will be kept to a minimum. When necessary, brush will be cleared for a 12' wide path to the drill site. Trees over 8" in diameter will be cut down and skidded to a site designated by the Forest Service. New or additional roads will be constructed only when necessary and only as the drilling program progresses. Any top soil removed during road construction will be stockpiled and redistributed when the roads are reclaimed. Erosion control structures such as water bars will be installed in newly constructed roads as required by the U.S. Forest Service. Rehabilitation of existing trails and reclamation of constructed roads will be done in accordance with U.S. Forest Service and State

regulations and stipulations.

DRILLING SITES:

All drill sites have been located close to existing roads. (see Figure 4). Each drill site will be approximately 100'x150' in size, or the minimum size necessary for efficient drilling operations. Top soil that is present will be stripped from the drill sites and stockpiled to prevent contamination. A mud pit or pits will be dug at each site to contain drill cuttings and drilling fluids. Water for drilling operations will be obtained at a site determined in cooperation with the U.S. Forest Service and the Cottonwood Creek Irrigation Co. The average depth of the holes to be drilled is about 2,000 feet (see Table 2).

METHODS AND EQUIPMENT FOR DRILLING:

Site preparation will be done with one D-7 sized bulldozer or equivalent and one backhoe. Brush and/or trees will be cleared from the site, then the top soil will be pushed aside before pad construction is begun. Each drill site will be approximately 100' x 150' to allow sufficient space for all necessary drilling equipment.

Rotary Drilling and coring will be done by a rubber-tired truck-mounted drilling rig at 9 locations on Trail Mountain. Drill sites are shown on Figure 4. Support equipment will consist of one or two water trucks, one rig-up or support truck, and 4x4 pickups for the crews and company representatives. Stationary equipment for each site will consist of a pipe truck or trailer, one or more truck-mounted air compressors or boosters and a doghouse/supply trailer. One truck mounted geophysical logging unit will be used on each hole location.

Each hole will be rotary drilled to a point approximately 50' above the top of the Hiawatha Seam. Casing will be installed in the hole as necessary to keep the hole open and to prevent drilling and circulation problems if possible. Cuttings will be sampled and logged every 10 feet when circulation is present. After the core is retrieved from the hole, the hole will be logged with a standard suite of geophysical coal logs. As much casing as possible will be retrieved from the hole. The hole will then be plugged according to the standards set forth in 43 CFR II 3484.1(a).

The initial diameter of each drill hole will be approximately 10 inches. The core retrieved from the hole will be 2.4 inches or 3 inches in diameter. The primary drilling medium will be compressed air with mist/foam injection to aid in the circulation of cuttings to the surface. If air and foam prove to be an insufficient drilling medium, drilling mud and lost circulation materials

will be used.

Care will be taken to ensure that the the prevailing hydrologic balance will not be adversely affected by the drilling methods used in this program. Biodegradable drilling soap is the only chemical anticipated for use during drilling, and any other potentially toxic materials used will be handled and disposed of in accordance with State and Federal regulations.

PROPOSED DRILL HOLE PLUGGING METHODS:

The hole plugging method described in 43 CFR II 3484.1(a) will be used for all holes. The hole will be plugged with cement from bottom to 50 feet above the uppermost thick coal seam and from 50 feet below to 50 feet above any aquifers encountered in the hole (see Figure 3). The rest of the hole will be filled either with an approved completion mud or gel or cement to within 5 feet of the surface. A 5 foot cement surface plug will be set, and an appropriately labeled monument marker will be cemented into the surface plug. Surface casing will be cut off at or below the level of the soil surface.

ESTIMATED SIZE AND DEPTH OF HOLES:

Below the surface casing (approximately 12 inches in diameter), each hole will be started with a 9 or 10 inch rotary bit. This larger diameter hole will be drilled as far as possible to allow 8 inch diameter casing to be set through the North Horn and upper Price River formations, both of which are known for poor drilling conditions. Below this casing, a smaller (6 1/2 inch) diameter rotary hole will be drilled to core point (50 feet above the Hiawatha seam) The 6 1/2 inch rotary hole will be cased if necessary. The outer diameter of the cored portion of the hole will be 4 inches or less. The average depth of the holes will be about 2,000 feet. A complete listing of the locations and depths of the proposed drill holes appears on Table 2.

MODIFICATION OF DRILL HOLES TO SURVEILLANCE OR WATER WELLS:

If significant aquifers are encountered in any of the proposed drill holes, regulatory officials will be notified. They may direct Beaver Creek to complete such a hole as a water monitoring well. Since Beaver Creek does not anticipate penetrating any significant aquifers in any of the holes, no plans are being made for water well completions.

RECLAMATION PLAN:

Reclamation activities will follow as closely as

possible the drilling of each location.

1. Upon completion of drilling activities at a given site, all debris, trash, and drilling related equipment will be removed from the site.
2. When the mud pit is sufficiently dry, it will be filled with stored soil material and compacted to minimize later settling.
3. A backhoe and a bulldozer will redistribute material on and around the drill pad to achieve as closely as is practicable the original contour of the site.
4. Stored top soil will be distributed as evenly as possible over the disturbed pad area.
5. The entire drill pad area will be re-seeded using a U.S. Forest Service approved seed mix at the rate specified.
6. The access road will be restored as closely as possible to the original contour and re-seeded as above.
7. The drill pad and access road reclamation procedure outlined above will apply only to those areas newly disturbed for this proposed exploration. Existing roads will be left in a condition equal to or better than that observed on Beaver Creek's entry into the area.

3482.1(a)(3)(v) - Estimated Timetable for Construction, Drilling, and Reclamation Activities:

Because access to the proposed exploration area is dependent on the weather and ground conditions, the estimated startup date for construction and drilling activities will be on or around July 1, 1988.

At this time, Beaver Creek intends to drill 4 to 6 of the 9 proposed holes during the 1988 drilling season and still leave sufficient time for reclamation activities to be completed by October 31, 1988. The remaining holes are presently scheduled to be drilled during the 1989 drilling season, during the second year of the term of the Exploration License.

3482.1(a)(3)(vi) - Amount of Coal to be Removed:

Coal to be removed during this exploration will be in the form of 2 to 3 inch diameter cores. Using a total coal thickness of 12 feet in each hole and a core diameter of 3", total weight of coal to be removed will be less than 350 pounds. This coal will be tested for a wide range of quality

parameters by a qualified laboratory.

3482.1(a)(3)(vii) - Measures to be Used to Comply with Performance Standards for Exploration (43 CFR II 3484.1(a), 30 CFR 815.15, and Utah State Permanent Program Rules):

3484.1(a)(1) - (Operator shall comply with applicable requirements of surface management agency, 30 CFR 815.15, or approved State program)

All applicable parts of the Federal and State Performance Standards for Coal Exploration have been covered in the preceding exploration and reclamation plans. Beaver Creek has reviewed, and will comply with, all applicable requirements of 30 CFR 815.15 and the Utah Mining Code as stated in UMC 815.15.

3484.1(a)(2) - (Installation of casing and blowout preventers in drillholes in known oil, gas, and geothermal areas)

No known oil, gas, or geothermal resources are known or anticipated in the proposed exploration area, therefore, blowout preventers will not be used. Casing will be set in each hole as necessary to maintain circulation of cuttings to the surface.

3484.1(a)(3) - (Drillhole plugging requirements)

Each drillhole will be plugged according to the requirements outlined in this section: The hole will be plugged with cement from 50 feet below to 50 feet above any coal bed over 4 feet thick and any aquifer.

The remainder of the hole will be filled with a completion mud (bentonite gel) and drill cuttings or cement to within 5 feet of the surface. A cement surface plug will be set, capped with an appropriately marked brass or aluminum monument, at or below ground level.

3484.1(a)(4) - (Retention of drill and geophysical logs by applicant)

Beaver Creek will retain in its files all drill and geophysical logs for at least 1 year, and will make them available for inspection by any authorized officer. All un-analyzed drill cores will be kept in Beaver Creek's possession for at least 1 year if requested, and will be available for inspection by any authorized officer.

3484.1(a)(5) - (Utilizing drill holes as water monitoring wells)

Beaver Creek does not anticipate encountering any significant aquifers during this drilling program. Beaver Creek does not intend to complete any of these holes as water monitoring wells.

3482.1(a)(3)(viii) - Map of Exploration Area:

A map of the proposed exploration area at a scale of 1:12,000 (1" = 1,000'), showing all drill hole locations, existing roads and access roads to be constructed is included as Figure 4 of this plan.

3482.1(a)(3)(ix) - Surface Owners and Subsurface Owners of Record:

SURFACE OWNERS:

U.S. Department of Agriculture
U.S. Forest Service
Manti-LaSal National Forest
Ferron District Office
Ferron, Utah 84532

State of Utah
Division of State Lands
Department of Natural Resources
105 State Capital Building
Salt Lake City, Utah 84114

SUBSURFACE OWNER:

U.S. Department of the Interior
Bureau of Land Management
Utah State Office
324 S. State Street Suite 301
Salt Lake City, Utah 84111-2303

FIGURES

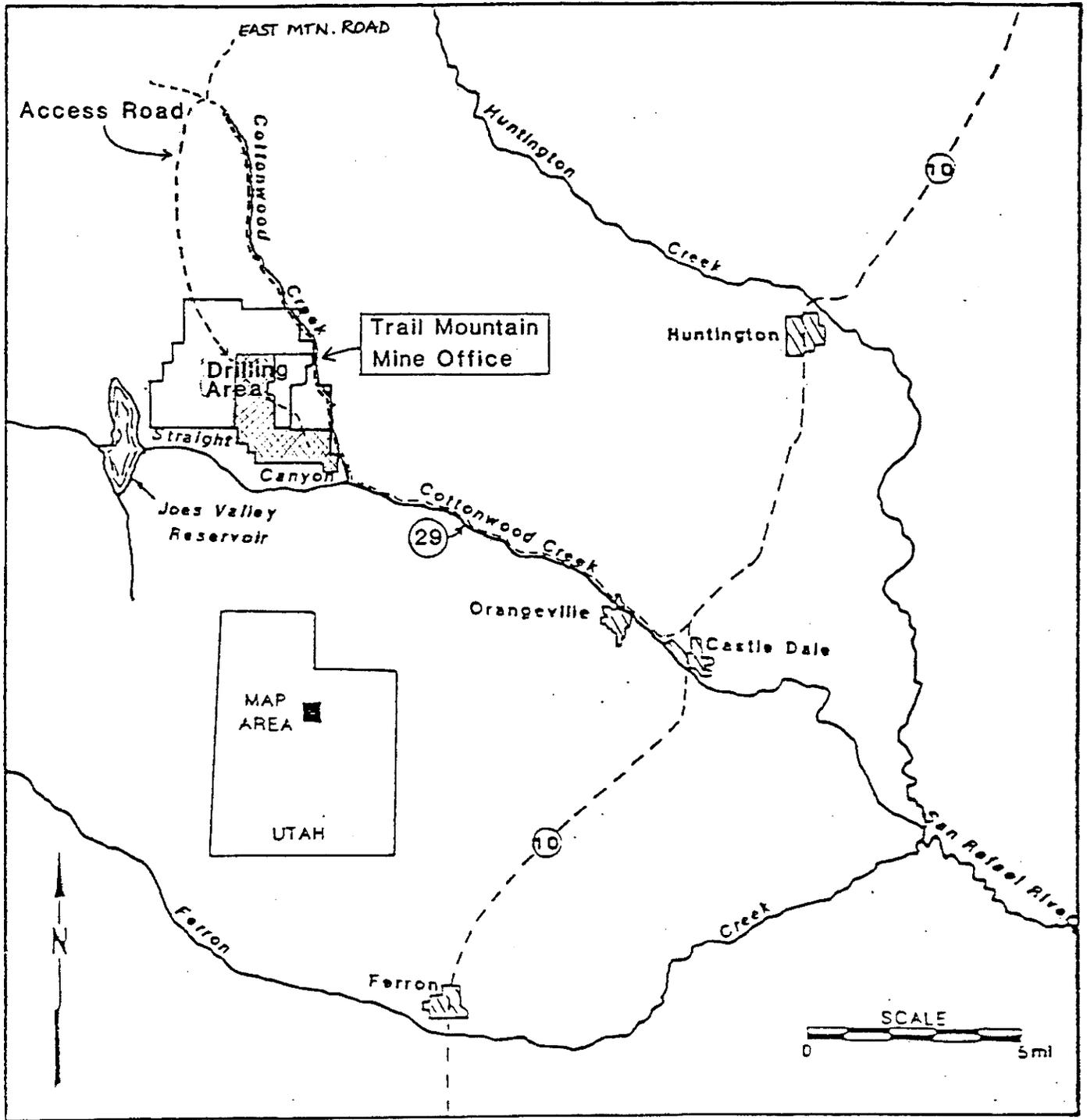


Figure 1. Location of Proposed Exploration Area.

System	Group	Formation		Thickness (feet)	Description
Tertiary	Wasatch	Flagstaff Limestone		100-1,000	Light gray to cream limestone; thin and even bedded; dense; fossiliferous; ledge- and cliff-forming.
		North Horn Formation		900-2,000	Mostly red-, brown-, and salmon-colored shales; varying thicknesses of sandstone, freshwater limestone and conglomerate; slope-forming.
Cretaceous	Mesaverde	Price River Fm.	Upper Price River Member	400-800	Mostly tan and gray, medium- to coarse-grained sandstone; some gray shale and conglomeratic sandstone; ledge- and slope-forming.
			Castlegate Sandstone Member	150-500	Light gray, yellowish brown, and white, medium- to coarse-grained sandstone and conglomeratic sandstone; cliff-forming.
		Disconformity			
		Blackhawk Formation		400-1,100	Light to medium gray sandstones; gray to black shales; gray siltstones; important coal beds in lower half; sandstones weather tan, brown, yellowish brown; ledge- and slope-forming.
	Star Point Sandstone		200-1,000	Tan, light gray, and white massive sandstones separated by one or more shale tongues; cliff-forming.	
	Mancos Shale	Masuk Shale		300-1,300	Light gray to blue gray sandy marine shale; thins to west and south; slope-forming.

Figure 2. Generalized stratigraphic column of rock units exposed in the Wasatch Plateau Coal Field (Davis and Doelling, 1977).

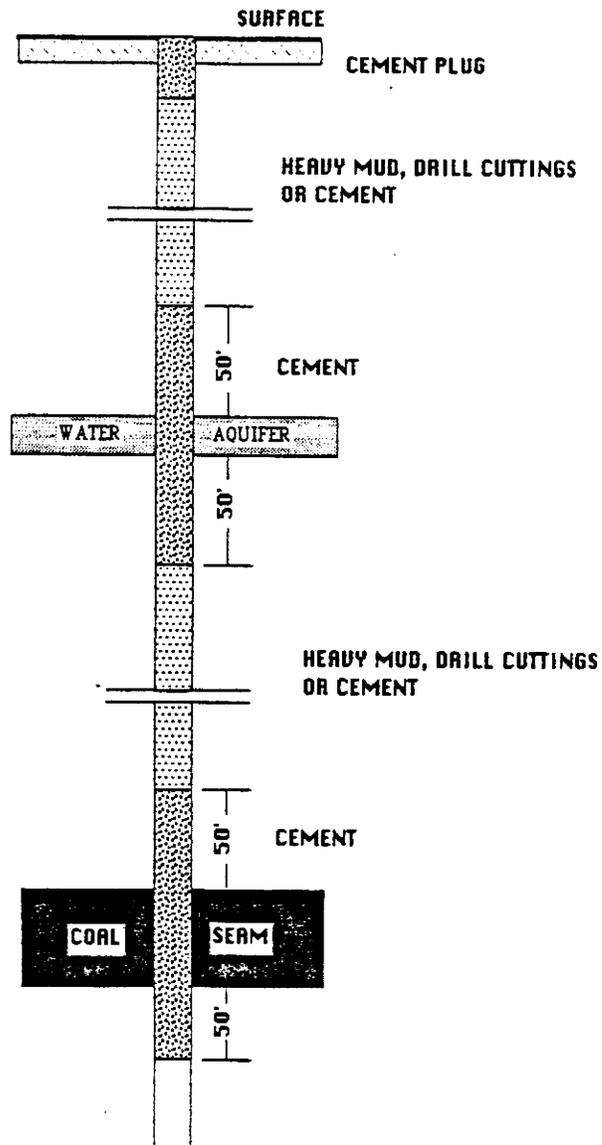


Figure 3. Drill hole plugging method.

TABLES

TABLE 1

LEGAL DESCRIPTION
TRAIL MOUNTAIN 1988
EXPLORATION LICENSE APPLICATION AREA

T. 17 S., R. 6 E., Salt Lake Meridian, Emery County, Utah.

Section 26, W1/2 SW1/4 NE 1/4, S1/2 NW1/4, SW1/4,
W1/2 W1/2 SE1/4; (300.00 Ac)

Section 27, S1/2 NE1/4, SE1/4 NW1/4, E1/2 SW1/4, SE1/4;
(360.00 Ac)

Section 34, NE1/4, E1/2 NW1/4, E1/2 SW1/4, SE1/4;
(480.00 Ac)

Section 35, Lots 3 and 4, W1/2 SW1/4 NE1/4, S1/2 NW1/4,
SW1/4, W1/2 W1/2 SE1/4. (380.49 Ac)

T. 18 S., R. 6 E., Salt Lake Meridian, Emery County, Utah.

Section 1, Lots 1 through 8, and S1/2 N1/2; (447.66 Ac)

Section 2, Lots 1 through 8, and S1/2 N1/2; (451.36 Ac)

Section 3, Lots 1, 2, and 8. (106.35 Ac)

T. 18 S., R. 7 E., Salt Lake Meridian, Emery County, Utah.

Section 6, Lots 4 through 7, and W1/2 SE1/4 NW1/4,
W1/2 E1/2 SW1/4. (204.95 Ac)

Containing 2,730.81 Acres, more or less.

TABLE 2.

LOCATIONS AND DEPTHS OF PROPOSED DRILLHOLES:

HOLE NO.	LOCATION	EST. ELEV.	EST. TOTAL DEPTH*
TMX-1	NE1/4NE1/4 SEC. 1 T18S R6E	8600'	1530'
TMX-2	NW1/4SW1/4 SEC.26 T17S R6E	9160'	2370'
TMX-3	NE1/4NW1/4 SEC.35 T17S R6E	9020'	2250'
TMX-4	SW1/4SE1/4 SEC.35 T17S R6E	8920'	2175'
TMX-5	SW1/4NE1/4 SEC.34 T17S R6E	8410'	2010'
TMX-6	SE1/4SW1/4 SEC.27 T17S R6E	8970'	2425'
TMX-7	SE1/4SW1/4 SEC.34 T17S R6E	8040'	1595'
TMX-8	NW1/4NE1/4 SEC. 2 T18S R6E	8440'	1770'
TMX-9	SE1/4NW1/4 SEC. 1 T18S R6E	8280'	1390'

* Hole depths include a 30' "rat hole" at the bottom of the hole to ensure complete geophysical logging.

TABLE 3.

AREAS OF DISTURBANCE ASSOCIATED WITH ACCESS ROAD
AND DRILL SITE CONSTRUCTION:

Hole No.	Constructed Road Length	Acres of Road Disturbance	Total Disturbance (Road + 100'x150' Pad)
TMX-1	3800'	1.04	1.48 ACRES
TMX-2	200'	.06	.40
TMX-3	1800'	.50	.84
TMX-4	400'	.11	.45
TMX-5	200'	.06	.40
TMX-6	3400'	.94	1.28
TMX-7	5200'	1.43	1.77
TMX-8	5500'	1.52	1.86
TMX-9	1600'	.44	.78
TOTAL	22,100'	6.10	9.26 ACRES

(Assume 12' disturbed width associated with road construction and 100'x150' disturbed area for drill pads.)

ATTACHMENTS:

CULTURAL RESOURCE SURVEYS

1980-1987

SEE CONFIDENTIAL