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State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangertter
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

October 28, 1992

Mr. Richard E. Dawes, Chief
Division of Federal Programs
Office of Surface Mining
Brooks Towers
1020 15th Street
Denver, Colorado 80202

Dear Mr. Dawes:

Re: State Final Findings and Supporting Documentation, Incidental Boundary Change in Rilda Canyon, PacifiCorp, Deer Creek Mine, ACT/015/018-92F, Folder #2, Emery County, Utah

Enclosed please find Utah's Final Findings and Supporting Decision Document for PacifiCorp's Incidental Boundary Change (IBC) in the Rilda Canyon area.

If you have any questions, please call me or Pamela Grubaugh-Littig.

Best regards,

A handwritten signature in cursive script, appearing to read 'Dianne'.

Dianne R. Nielson
Director

jbe

Enclosure

cc: Lowell Braxton, DOGM
Ken Wyatt, DOGM
cc/enc: Robert Hagen, OSMRE
Val Payne, PacifiCorp
Pamela Grubaugh-Littig, DOGM
015018.92F

UTAH DIVISION OF OIL, GAS AND MINING
STATE DECISION DOCUMENT

PacifiCorp
Deer Creek Mine
Incidental Boundary Change
ACT/015/018
Emery County, Utah

October 28, 1992

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ADMINISTRATIVE OVERVIEW

PacifiCorp
Deer Creek Mine
Incidental Boundary Change
ACT/015/018
Emery County, Utah

October 28, 1992

PROPOSAL

PacifiCorp has proposed an Incidental Boundary Change in the Rilda Canyon area which would add approximately 120 acres (80 acres in a portion of Lease No. U-47977 and 40 acres in a portion of Lease No. SL-050862) to the current permit area. Mining will be developed and undertaken in the Blind Canyon seam and Hiawatha seam. This additional acreage is considered an amendment to the currently approved permit.

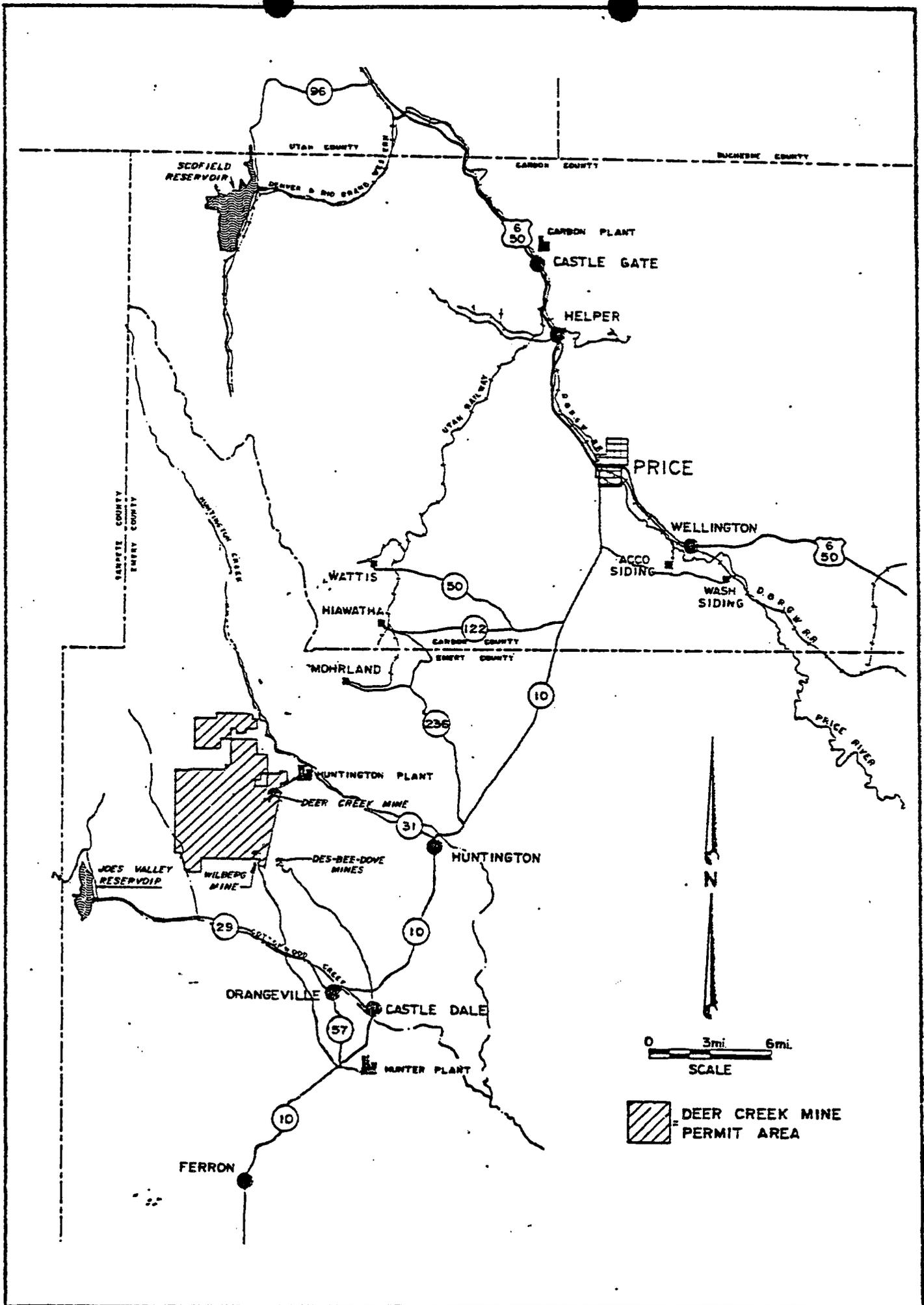
BACKGROUND

The original permit for the Deer Creek Mine was issued February 7, 1986 for approximately 14,620 acres. A Waste Rock Storage Facility was added September 1988. The permit was successively renewed on February 7, 1991. A reclamation surety bond in the amount of \$2,000,000 is currently posted for reclamation at the Deer Creek Mine.

PacifiCorp submitted an application for the "Rilda Canyon Extension Area" which included Leases U-7563, U-47977, U-06039, SL-050862, and U-014275 on February 12, 1990 for a revision to the Deer Creek Mine permit. PacifiCorp must submit more information to the Division before the revision can be determined complete.

RECOMMENDATION

The proposed incidental boundary change by PacifiCorp to add 120 acres to the current permit area has been reviewed by the Division and other appropriate state and federal agencies. It is recommended that this permitting action be approved.



 DEER CREEK MINE PERMIT AREA

PERMITTING CHRONOLOGY

PacifiCorp
Rilda Canyon
Incidental Boundary Change
ACT/015/018
Emery County, Utah

- September 18, 1992** PacifiCorp submits plans for a 120 acre Incidental Boundary Change (IBC) into the permit.
- The Division transmits copies of the IBC amendment to other reviewing agencies.
- September 24, 1992** The Division completes technical review of plan.
- October 28, 1992** The Division forwards State Decision Document to Office of Surface Mining Reclamation and Enforcement for concurrence and secretarial signature.

SL-050862

1400

1600

1800

NW 1/4 - SW 1/4
SEC 33
T. 16 S., R. 7 E
SL-050862
40 ACRES

EAST 1/2 SE 1/4
SEC 32
T. 16 S., R. 7 E
U-47977
80 ACRES

U-024319

FAULT ZONE

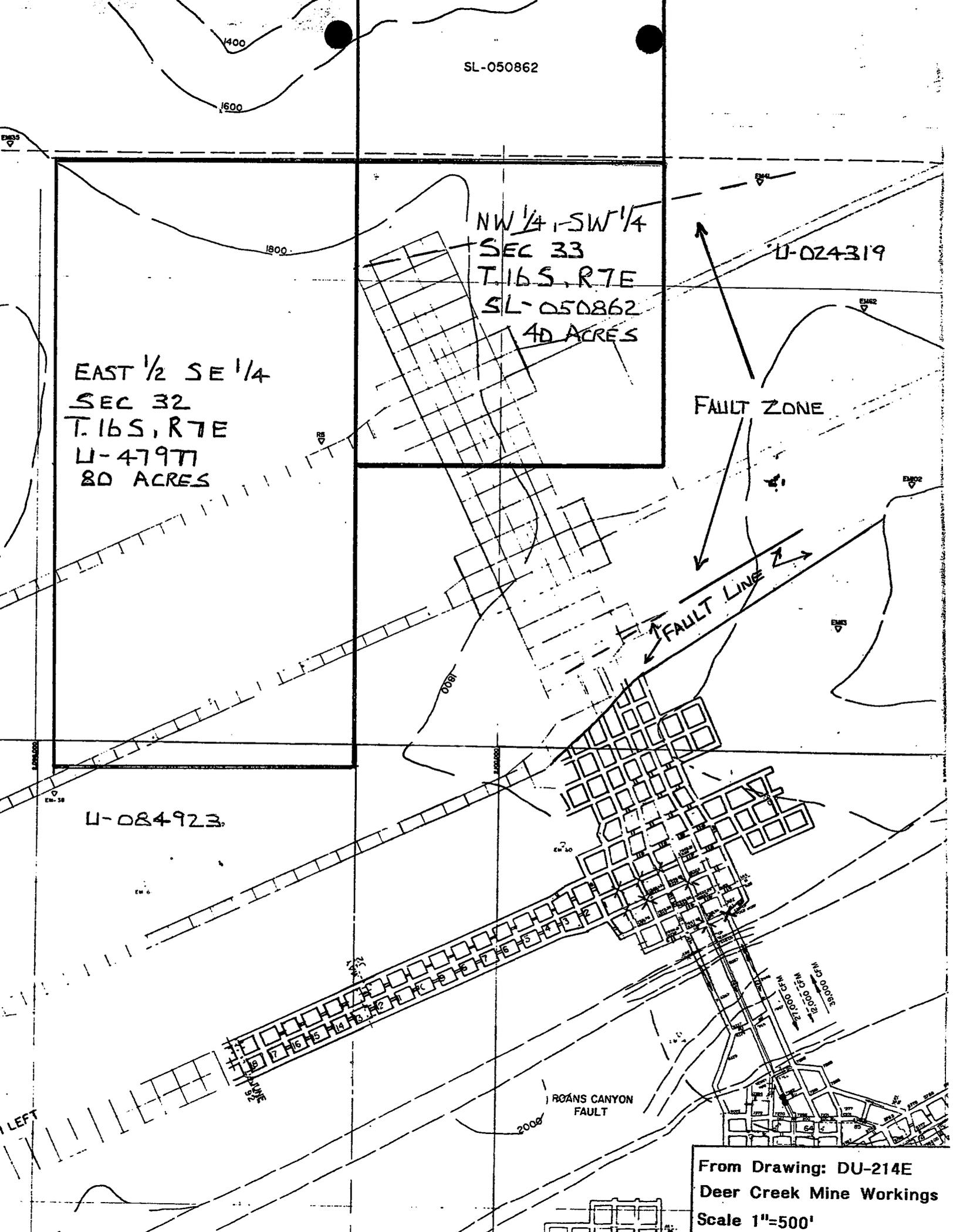
FAULT LINE

U-084923

ROANS CANYON FAULT

From Drawing: DU-214E
Deer Creek Mine Workings
Scale 1"=500'

LEFT



FINDINGS

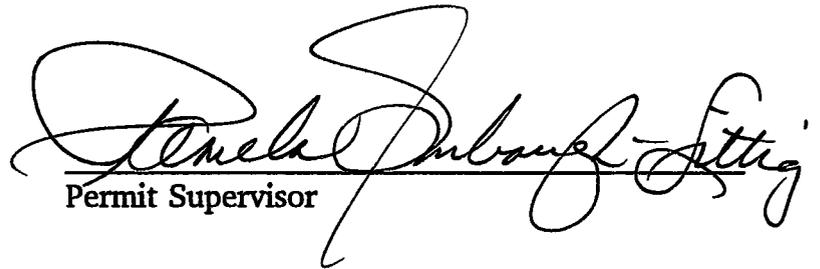
PacifiCorp
Deer Creek Mine
Incidental Boundary Change
Rilda Canyon
ACT/015/018
Emery County, Utah

October 28, 1992

1. The revised plan and the permit application are accurate and complete and all requirements of the Surface Mining Control and Reclamation Act, and the approved Utah State Program (the "Act") have been complied with (R645-300-133.100).
2. No additional surface reclamation is required since the additional permit area will be mined as an underground extension of the existing mine. There will be no new surface facilities (R645-300-133.710).
3. An assessment of the probable cumulative impacts of all anticipated coal mining and reclamation activities in the general area on the hydrologic balance has been conducted by the Division and no significant impacts were identified. The Mining and Reclamation Plan (MRP) proposed under the application has been designed to prevent damage to the hydrologic balance in the permit area and in associated off-site areas (R645-300-133.400 and UCA 40-10-11 {2}{c}). (The PHC is being modified per Division Order DO-90A.)
4. The proposed lands to be included within the permit area are:
 - a. Not included within an area designated unsuitable for underground coal mining operations (R645-300-133.220);
 - b. not within an area under study for designated lands unsuitable for underground coal mining operations (R645-300-133.210);
 - c. not on any lands subject to the prohibitions or limitations of 30 CFR 761.11 {a} (national parks, etc.), 761.11 {f} (public buildings, etc.) and 761.11 {g} (cemeteries);
 - d. not within 100 feet of the outside right-of-way of a public road (R645-300-133.220); and
 - e. not within 300 feet of any occupied dwelling (R645-300-133.220).

5. The Division's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800 and R645-300-133.600). See attached letter from State Historic Preservation Officer (SHPO) dated September 28, 1992.
6. The applicant has the legal right to enter and complete mining activities in the IBC through a federal coal lease issued by the Bureau of Land Management (See attached Lease UTU-47977, assignment effective July 1, 1986 and Lease SL-050862, assignment effective July 1, 1986) (R645-300-133.300).
7. A 510(c) report has been run on the Applicant Violator System (AVS), which shows that: prior violations of applicable laws and regulations have been corrected; neither PacifiCorp or any affiliated company, are delinquent in payment of fees for the Abandoned Mine Reclamation Fund; and the applicant does not control and has not controlled mining operations with demonstrated pattern of willful violations of the Act of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act (see memo from Joe C. Helfrich dated September 30, 1992) (R645-300-133.730).
8. Underground mining operations to be performed under the permit will not be inconsistent with other operations anticipated to be performed in areas adjacent to the proposed permit area.
9. The applicant has posted a surety bond for the Deer Creek Mine in the amount of \$2,000,000. No additional surety will be required, since there is no additional surface disturbance proposed (R645-300-134).
10. No lands designated as prime farmlands or alluvial valley floors occur on the permit area (R645-302-313.100 and R645-302-321.100).
11. The proposed postmining land-use of the permit area is the same as the pre-mining land use and has been approved by the Division and the surface land management agency, the United States Forest Service.
12. The Division has made all specific approvals required by the Act, the Cooperative Agreement, and the Federal Lands Program.

13. The proposed operation will not affect the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitats (R645-300-133.500). (See September 8, 1992 letter from U. S. Fish and Wildlife Service.)
14. All procedures for public participation required by the Act, and the approved Utah State Program have been complied with (R645-300-120).
15. No existing structures will be used in conjunction with mining of the underground right-of-way, other than those constructed in compliance with the performance standards of R645-301 and R645-302 (R645-300-133.720).


Permit Supervisor


Associate Director, Mining


Director

DECISION NOTICE
AND
FINDING OF NO SIGNIFICANT IMPACT
FOR THE READJUSTMENT OF
CONSOLIDATED FEDERAL COAL LEASE SL-050862/U-24069/U-24070

Price Ranger District
Manti-LaSal National Forest
Emery County, UT

On March 10, 1986, the Forest Service received notification from the Bureau of Land Management that consolidated Federal coal lease SL-050862/U-24069/U-24070 would be subject to readjustment of terms on August 5, 1987. This notification also requested an environmental assessment, recommendations for stipulations, and Forest Service consent, as appropriate.

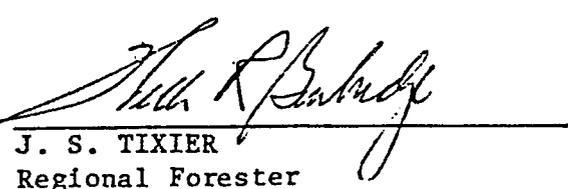
An Environmental Assessment (EA) approved December 29, 1986, adequately addressed the environmental conditions and effects of the proposed action. Copies of this and other pertinent process documentation are available for review at the Price Ranger District Office and the Manti-LaSal National Forest Supervisor's Office, both located in Price, Utah.

Based on the analysis and evaluation described in the aforementioned documents, it is our decision that the special stipulations identified in the EA be included in the proposed readjustment of the subject lease. This alternative is viable under existing legislation and Forest Service policy, management decisions, and direction. The "No Action" alternative was evaluated and determined not to be viable.

This is not a major Federal action that would significantly affect the quality of the human environment; therefore, an Environmental Impact Statement is not needed. This determination was made considering the following factors:

1. All future proposed surface-disturbing activities will be site-specifically assessed through the NEPA process.
2. All identified impacts, including cumulative impacts, can be effectively mitigated to an acceptable level.
3. No known prime or unique farmlands, wetlands, timberlands or rangelands; floodplains, alluvial valley floors, paleontological or cultural resources; nor threatened, endangered, or sensitive floral or faunal species will be impacted by readjustment of this lease.
4. Readjustment of this lease is consistent with the direction and decisions of the Manti-LaSal National Forest Final Environmental Impact Statement and the Land and Resource Management Plan dated November 5, 1986.

Based on this assessment and evaluation, consolidated Federal Coal Lease SL-050862/U-24069/U-24070 should be readjusted to contain the enclosed stipulations. This decision is subject to administrative review (appeal) pursuant to Secretary of Agriculture Appeal Regulation 36 CFR 211.18.


J. S. TIXIER
Regional Forester

DATE Jan 30, 1987

ENVIRONMENTAL ASSESSMENT
FOR THE READJUSTMENT OF CONSOLIDATED
FEDERAL COAL LEASE SL-050862/U-24069/U-24070

Price Ranger District
Manti-LaSal National Forest
Emery County, Utah

December, 1986

Responsible Official: Reed C. Christensen
Forest Supervisor
Manti-LaSal National Forest
U.S. Department of Agriculture

For Further Information Contact: Ira W. Hatch
Price District Ranger
599 West Price River Drive
Price, Utah 84501

Prepared by: Walter E. Nowak, Price District Geologist

Approved by:


Forest Supervisor

Date

12/29/86

ENVIRONMENTAL ASSESSMENT
READJUSTMENT OF CONSOLIDATED FEDERAL COAL LEASE
SL-050862/U-24069/U-24070

I. INTRODUCTION

A. Purpose and Need for Action

The Bureau of Land Management sent notification to the Forest Service on March 10, 1986 that consolidated Federal Coal Lease SL-050862/U-24069/U-24070 (currently assigned to West Appa Land Company) would be subject to readjustment of terms by August 5, 1987. (See Appendix A)

As the surface managing agency for this lease, the Manti-LaSal National Forest is responsible for conducting an environmental analysis of the proposed action in accordance with the National Environmental Policy Act of 1969 (NEPA).

A Forest Service interdisciplinary (ID) team met on September 3, 1986 to evaluate the proposed lease readjustment. (See Appendix C).

B. Authorizing Actions

Leasing and development will be under the authority of the following authorizing actions: Mineral Leasing Act of February 25, 1920, as amended; Federal Land Policy and Management Act (FLPMA) of 1976; Surface Mining and Development Act of August 13, 1954; Department of Energy Operations Act of August 4, 1977; National Environmental Policy Act (NEPA) of 1969; Federal Coal Leasing Amendments Act of October 30, 1976, as amended; the Act of October 30, 1978 (92 Stat. 2073-2075); regulations: Title 30 CFR Part 700; Title 43 CFR Part 3400; and the Manti-LaSal National Forest Final Environmental Impact Statement and Land and Resource Management Plan, 1986.

C. Description of the Lease

The lease area is contained on Federal lands within the Price Ranger District, Manti-LaSal National Forest, Emery County, Utah (see map). It consists of 280 acres and is legally described as follows:

T16S, R7E, SLM, Emery Co., Utah
Section 28: W1/2 SW1/4
Section 29: E1/2 SE1/4
Section 33: W1/2 NW1/4, NW1/4 SW1/4

D. Background

Before consolidation, Coal Leases SL-050862, U-24069 and U-24070 were respectively issued on August 5, 1937, May 1, 1953 and May 1, 1960. On October 18, 1973 these leases were consolidated by the Bureau of Land Management on request of the original lessee, Malcolm N. McKinnon. On June 1, 1983, the Bureau of Land Management approved the assignment to the current lessee of record, West Appa Land Company.

The Old Helco Mine, lying within the lease along its northern edge in Rilda Canyon, was originally active in 1938. The Old Helco Mine was abandoned in 1969 and was one of four operating mines in Rilda Canyon that together produced less than 100,000 tons. Since then, three different companies have tentatively proposed to reactivate operations at the Old Helco Mine; but, all have dropped their proposals. Currently, West Appa Land Company is negotiating to sell the subject lease along with three other adjacent State and Federal coal leases.

E. Issues and Concerns

General public comments were solicited through local newspapers on 10/10/86. Specific comments on the proposed action were solicited directly from the Emery County Planning and Zoning Commission, the Utah Division of Wildlife Resources and the Southern Utah Association of Governments on 10/30/86. No comments or responses have been received to date.

The Interdisciplinary Team identified the following management concerns:

1. Surface disturbing activities and facilities could adversely affect surface water and wildlife.
2. Underground mining and subsidence could adversely affect surface and ground water, soils, vegetation, wildlife and North Emery Water Users Association's culinary water development.

F. Negative Declaration

The ID Team determined that this action after mitigation, would cause no impacts on the following; prime or unique rangeland, timberland or farmland; floodplains; cultural or paleontological resources; wetlands; alluvial valley floors; known Threatened, Endangered or Sensitive plant or animal species.

II. DESCRIPTION OF ALTERNATIVES

A. No Action Alternative

Consideration of the "No Action" alternative is required by Section 1502.14 (d) of the National Environmental Policy Act and by the Council on Environmental Quality guidelines as specified in the Federal Register on November 29, 1979. Under this alternative, the terms of the lease would not be changed.

Department of Interior Regulations 43 CFR 3451.1 (a) (1) Federal Coal Management Regulations require that all leases issued prior to August 4, 1976, be subject to readjustment at the end of the current 20 year period and at the end of each 10 year period thereafter. The present lease terms do not minimize the impacts to the surface resources to an acceptable level, and new management requirements are needed.

B. Readjustment of Terms Alternative

Department of Interior Regulations 43 CFR 3400.3-1 pertaining to Coal Management make provisions for the Surface Management Agency, the surface of which is under the jurisdiction of any Federal agency other than the Department of Interior, to consent to leasing and to prescribe conditions to insure the use and protection of the lands. This lease contains lands the surface of which are managed by the United States Department of Agriculture, Forest Service, Manti-LaSal National Forest.

The stipulations contained in Appendix B pertain to the Lessee responsibility for mining operations on the lease area and on adjacent areas as may be specifically designated on National Forest System lands.

III. AFFECTED ENVIRONMENT

The affected ~~environment~~ of the subject area has been generally described in numerous environmental documents and resource reports prepared for coal leasing and development in this and surrounding areas. A number of these documents are listed for reference in Section VI, Selected Tiering and Reference Documents. There are several resources on the lease for which an issue or concern was identified. These resources are essentially, unique to the proposal and are under consideration in this document.

A. General Setting

The lease lies along the south slope of Rilda Canyon. Rilda Creek traverses the north edge of the lease in an east-west

direction and a tributary to Rilda Creek, often called "Side Canyon", traverses the north half of the lease in a north-south direction. The southern portion of the lease includes a portion of the ridge which separates Rilda Canyon from the North Fork of Meetinghouse Canyon. The elevation within the lease area ranges from 7,600 feet at the north end in the canyon bottom to approximately 9,400 feet at the south end on the ridge.

B. Hydrology

A north-south trending intermittent side drainage traverses the lease area and drains into Rilda Creek. Rilda Creek flows eastward into Huntington Creek. Perennial flows in Rilda Creek are fed by springs which emerge along the canyon slopes.

Three spring areas which lie within the lease area have been developed by the North Emery Water Users Association (NEWUA) for culinary water. The North Spring and South Spring Collection Areas lie in the bottom of Rilda Canyon on both sides of the creek along the northern edge of the lease.

The Side Canyon Collection Area lies to the south of the other collection areas in the bottom of the side drainage. Collection system pipelines traverse the canyon bottom on both sides of the creek and merge into one pipe at the northeast corner of the lease. The pipe leads eastward along the north edge of the Rilda Canyon road.

No other perennial springs have been found in the lease area.

Vaughn Hansen Associates, Inc. prepared a detailed hydrologic study of the Rilda Canyon area for West Appa Coal Company's Mine and Reclamation Plan for the Rilda Canyon Mine, April, 1983, Chapter VII. Detailed information of the hydrology of the area can be found in this report.

C. Soils

The soils in the area were mapped in detail by Ford, Bacon and Davis, Inc. for West Appa Coal Company's Mine and Reclamation Plan for the Rilda Canyon Mine, April, 1983, Chapter VIII.

Typically, soils in area have brown or dark brown sandy loam surfaces 12-21 inches thick underlain by a pale brown sandy loam or loam subsoil to a depth of 60 inches or more. Soils generally contain a high amount of rock fragments ranging from small stones to massive boulders. Based on data from the Ford, Bacon and Davis report it appears that the soils located in the area have 2 major limitations which could adversely affect revegetation attempts:

- (1) Soil laboratory analysis shows a serious deficiency in the nutrient phosphorous.
- (2) Soils have a very high or high erosion potential if disturbed.

D. Wildlife and Fish

There is a variety of wildlife in the lease area due to the diversity of elevations and plant communities. The ridge tops are both summer and winter range for elk and deer. During the winter months, mule deer driven off of the higher elevations, utilize the south facing slopes of Rilda Canyon that stay relatively free of snow. The area may also be home for cougar and black bear. The bird population includes game birds, raptors and small nongame birds. Small nongame animals which inhabit the area include bobcat, coyote, fox, badger, beaver, porcupine, skunk, mink, weasel, marmot, gopher, chipmunk, several species of squirrels and mice.

Rilda Creek is not a fishery however, Huntington Creek is a valuable fishery in the area.

A detailed description of the wildlife in and adjacent to the lease area was prepared by Ford, Bacon & Davis, Inc., for West Appa Coal Company's Mine and Reclamation plan for the Rilda Canyon Mine, April 1983, Chapter X.

A raptor survey conducted by Ford, Bacon & Davis, Inc. in 1982 showed that there were no active nests within the lease area.

E. Vegetation

The dominant vegetation communities on north exposures and aspects is the alpine fir-Englemann spruce-ribes type with some aspen trees mixed in. The southern exposures and aspect are mostly covered with big sagebrush-grass types on the gentler lower slopes and mountain brush (Mahogany) types on the rockier, steeper slopes. Bunchgrass types (wildrye-wheatgrasses) dominate the more open windblown ridges and steep upper slopes. The canyon and stream bottoms are dominated by cottonwood trees, willows and several species of undershrubs, grasses and sedges.

There are presently no listed Threatened, Endangered or Sensitive plant species in the lease area.

IV. ENVIRONMENTAL CONSEQUENCES

A. Effects of Implementation

There would be no effects to the environment unless coal is produced from the lease and/or surface disturbing operations are conducted.

If the lease is mined, effects would result from deformation of the overburden and subsidence of the land surface. Additional effects would result from any surface disturbing activities such as coal exploration, construction of surface facilities for mining and the other activity associated with surface operations.

The environmental consequences for both alternatives will be essentially the same but may differ in magnitude. Under the terms and conditions contained in the existing lease (No Action Alternative) the environmental consequences may not be as thoroughly mitigated and potential operators may not receive advance notice of requirements for development of the lease.

If the lease is readjusted, the stipulations contained in Appendix B would be included in the lease and the anticipated effects would be mitigated to the maximum degree practical.

B. Short-Term and Residual Impacts

Surface disturbing operations would result in degradation of surface water quality, removal of vegetation and the associated disturbance to wildlife from human activities and presence.

If the lease is mined, subsidence would occur at the surface. The amount and extent of subsidence would depend on the mining method, configuration of the workings, number of seams mined and the geologic factors which control the strength of the overburden. Stresses and deformations produced in mine workings, other coal seams and the overburden may affect mine safety, extraction efficiency, ground water flow and the surface environment.

Subsidence begins almost immediately upon mining and may continue for many years after the workings are abandoned. The rate, extent and amount of subsidence will vary with the geologic conditions and mining operations.

It is expected that mining and subsidence will have an effect upon the natural ground water flow which may, in turn, result in effects to surface water, soils, vegetation, wildlife habitat and land uses.

C. Short-Term Use Vs. Long-Term Productivity

Construction of facilities and operations would involve long-term uses and disturbance. The duration would be dependent on the life of the mining operation and the additional time required for revegetation of the disturbed areas following reclamation.

Underground mining and subsidence could involve long-term alteration of the ground water flow and associated effects to surface resources.

The long-term productivity could be altered as drainages, soils and vegetation gradually adjust to any modified ground water conditions. The productivity could decrease or increase depending on the amount of available water.

D. Irreversible and Irretrievable Commitments of Resources

The resources that would be consumed in coal extraction would not be retrievable, and not available to be used elsewhere once expended. After the coal is mined, its use by future generations would be irreversibly lost, and the coal left in the ground would not be retrieved.

Subsidence may result in the irreversible commitment of some of the discussed resources.

E. Cumulative Effects

Cumulative effects could include the effects from subsidence, the effects associated with surface disturbing operations such as coal exploration and construction of mining facilities, and the human activity from continued operations.

Disturbance already existing in the lease area include the old Helco Mine facilities and workings the NEWUA water development, grazing and the Rilda Canyon road.

V. PERSONNEL AND PUBLIC INVOLVEMENT

A. I.D. Team Members and Consultants

See Appendix C

B. Public Involvement

See Section I.E.

VI. SELECTED TIERING AND REFERENCE DOCUMENTS

- A. Manti-LaSal National Forest Environmental Impact Statement and Land and Resource Management Plan, 1986.
- B. Manti-LaSal National Forest Environmental Assessment - Proposed Coal Lease Tract, Section 32, T16S, R7E, SLM, Emery County, Utah.
- C. West Appa Coal Co. Mine and Reclamation Plan for the Rilda Canyon Mine, April 1983.

Hydrology - Chapter VII, Hydrology, Prepared for West Appa Coal Co., Price, Utah by Marv Allen, Vaughn Hansen Associates, Inc., Salt Lake City, Utah, April 1983.

Soils - Chapter VIII, Soil Resources, Prepared for West Appa Coal Co., Price, Utah, Prepared by Randolph B. Gainer, Ford, Bacon and Davis, Salt Lake City, Utah, April 1983.

Wildlife - Chapter X, Fish and Wildlife Resources prepared for West Appa Coal Co., Price, Utah, Prepared by Jack A. Elder, Ph.D., Ford, Bacon and Davis, Inc., Salt Lake City, Utah, April 1983.

VII. APPENDICES

- A. BLM letter and copy of lease
- B. Recommended Stipulations
- C. F.S. I.D. Team

APPENDIX A



United States Department of the Interior

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

IN REPLY REFER TO
3451
SL-050862
U-24069
U-24070
(U-942)

FS. R-4
RECEIVED
MAR 12 1986
RL&M

MAR 10 1986

Mr. Stan Tixier
Regional Forester
Forest Service
324 25th Street
Ogden, Utah 84401

Dear Stan:

The following coal lands under the administration of the Forest Service will be subject to the readjustment of its terms and conditions on August 5, 1987.

Serial Number

Lessee

SL-050862 - U-24069
U-24070

W A Land Company

The regulations in 43 CFR 3451.1(c)(1) and (2), governing coal readjustments, state that:

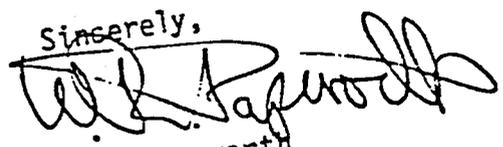
- (1) The authorized officer shall, prior to the expiration of the current or initial 20-year period or any succeeding 10-year period thereafter, notify the lessee of any lease which becomes subject to readjustment after June 1, 1980, whether any readjustment of terms and conditions will be made prior to the expiration of the initial 20-year period or any succeeding 10-year period thereafter...., and
- (2) In any notification that a lease will be readjusted under this subsection, the authorized officer shall prescribe when the notice of readjusted lease terms shall be transmitted to the lessee. This time shall be as soon as possible after notice that the lease shall be readjusted, but shall not be longer than 2 years after such notice. Failure to transmit the notice of readjusted lease terms in the specified period, shall constitute a waiver of the right to readjust, unless the delay is caused by events beyond the control of the Department.

We are providing this opportunity for the Forest Service to develop recommendations for stipulations you feel would be appropriate for this readjusted lease. A copy of the current lease form is enclosed to assist in the completion of the environmental assessment.

[Handwritten signature]

ons from our Washington Office require that we notify the lessee of
ed readjustment terms no later than February 5, 1987. Therefore, we
sting that the E.A. and recommended stipulation be available to this
that date. If you anticipate any problems please advise.

Sincerely,



W. R. Papworth
Deputy State Director,
Operations

sure
of Lease

APPENDIX B

SPECIAL STIPULATIONS

Federal Regulations 43 CFR 3400 pertaining to Coal Management make provisions for the Surface Management Agency, the surface of which is under the jurisdiction of any Federal agency other than the Department of Interior, to consent to leasing and to prescribe conditions to insure the use and protection of the lands. All or part of this lease contain lands the surface of which are managed by the United States Department of Agriculture, Forest Service - Manti-LaSal National Forest.

The following stipulations pertain to the Lessee responsibility for mining operations on the lease area and on adjacent areas as may be specifically designated on National Forest System lands.

Forest Service Stipulation #1.

Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the Lessee may be required to conduct a cultural resource inventory and a paleontological appraisal of the areas to be disturbed. These studies shall be conducted by qualified professional cultural resource specialists or qualified paleontologists, as appropriate, and a report prepared itemizing the findings. A plan will then be submitted making recommendations for the protection of, or measures to be taken to mitigate impacts for identified cultural or paleontological resources.

If cultural resources or paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the Lessee prior to disturbance shall immediately bring them to the attention of the appropriate authority. Paleontological remains of significant scientific interest do not include leaves, ferns or dinosaur tracks commonly encountered during underground mining operations.

The cost of conducting the inventory, preparing reports, and carrying out mitigating measures shall be borne by the Lessee.

Forest Service Stipulation #2.

If there is reason to believe that threatened or endangered (T&E) species of plants or animals, or migratory bird species of high Federal interest occur in the area, the Lessee shall be required to conduct an intensive field inventory of the area to be disturbed and/or impacted. The inventory shall be conducted by a qualified specialist and a report of findings will be prepared. A plan will be prepared making recommendations for the protection of these species or action necessary to mitigate the disturbance.

The cost of conducting the inventory, preparing reports and carrying out mitigating measures shall be borne by the Lessee.

Forest Service Stipulation #3

The Lessee shall be required to perform a study to secure adequate baseline data to quantify the existing surface resources on and adjacent to the lease area. Existing data may be used if such data is adequate for the intended purposes. The study shall be adequate to locate, quantify, and demonstrate the inter-relationship of the geology, topography, surface hydrology, vegetation and wildlife. Baseline data will be established so that future programs of observation can be incorporated at regular intervals for comparison.

Forest Service Stipulation #4.

Powerlines used in conjunction with the mining of coal from this lease shall be constructed so as to provide adequate protection for raptors and other large birds. When feasible, powerlines will be located at least 100 yards from public roads.

Forest Service Stipulation #5.

The limited area available for mine facilities at the coal outcrop, steep topography, adverse winter weather, and physical limitations on the size and design of the access road, are factors which will determine the ultimate size of the surface area utilized for the mine. A site specific environmental analysis will be prepared for each new mine site development and for major improvements to existing developments to examine alternatives and mitigate conflicts.

Forest Service Stipulation #6.

The Lessee shall be required to establish a monitoring system to locate, measure and quantify the progressive and final effects of underground mining activities on the topographic surface, underground and surface hydrology and vegetation. The monitoring system shall utilize techniques which will provide a continuing record of change over time and an analytical method for location and measurement of a number of points over the lease area. The monitoring shall incorporate and be an extension of the baseline data.

Forest Service Stipulation #7.

The Lessee shall provide for the suppression and control of fugitive dust on haul roads and at coal handling and storage facilities. On Forest Development Roads (FDR), Lessees may perform their share of road maintenance by a commensurate share agreement if a significant degree of traffic is generated that is not related to their activities.

Forest Service Stipulation #8.

Except at specifically approved locations, underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: (1) cause the creation of hazardous conditions such as potential escarpment failure and landslides, (2) cause damage to existing surface structures, and (3) damage or alter the flow of perennial streams. The Lessee shall provide specific measures for the protection of escarpments, and determine corrective measures to assure that hazardous conditions are not created.

Forest Service Stipulation #9.

In order to avoid surface disturbance on steep canyon slopes and to the need for surface access, all surface breakouts for ventilation shall be constructed from inside the mine, except at specific locations.

Forest Service Stipulation #10.

The coal contained within, and authorized for mining under this lease extracted only by underground mining methods.

Forest Service Stipulation #11.

In order to protect big game wintering areas, elk calving and de areas, sagegrouse strutting areas, and other critical wildlife habi activities, specific surface uses outside the mine development a curtailed during specified periods of the year.

Forest Service Stipulation #12.

Support facilities, structures, equipment, and similar developme removed from the lease area within two years after the final termin of such facilities. Disturbed areas and those areas previously such facilities will be stabilized and rehabilitated, drainages re- and the areas returned to a premining land use.

Forest Service Stipulation #13.

The Lessee, at the conclusion of the mining operation, or at o surface disturbance related to mining may occur, will replace disturbed or displaced corner monuments (section corners, 1/4 c their accessories and appendages (witness trees, bearing tre restore them to their original condition and location, or at o that meet the requirements of the rectangular surveying syste shall be conducted at the expense of the Lessee, by a pro surveyor registered in the State of Utah, and to the standards found in the Manual of Surveying Instructions, United States De Interior.

Forest Service Stipulation #14.

The Lessees, at their expense, will be responsible to replace a identified for protection, that may be lost or adversely aff operations, with water from an alternate source in sufficie quality to maintain existing riparian habitat, fishery habita wildlife use, or other land uses.

STIPULATION FOR LANDS OF THE NATIONAL FOREST SYSTEM
UNDER JURISDICTION OF
DEPARTMENT OF AGRICULTURE

The licensee/permittee/lessee must comply with all the 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 granted by the Secretary of the Interior in the license/prospecting permit/lease. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to 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.

All matters related to this stipulation are to be addressed

to Forest Supervisor
Manti-LaSal National Forest
at 599 West Price River Drive
Price, Utah 59801

Telephone No.: (801) 637-2817

who is the authorized representative of the Secretary of Agriculture.

Signature of Licensee/Permittee/Lessee

APPENDIX C

Reply to: 2820 Leases and Permits

Date: August 20, 1986

Subject: Request for Preliminary I.D. Team Meeting,
Eight Proposed Coal Lease Readjustments, Price District

To: Forest Supervisor

The Price District has initiated the process to environmentally assess eight Federal coal leases that will soon be due for readjustment of terms (see attached list). The Forest's E.A. with stipulations are due in the R.O. during the next twelve months.

I am proposing a single preliminary I.D. Team meeting to identify the need, if appropriate, for a field review and/or additional meetings and, any new major issues and concerns. The following S.O. personnel are requested to attend the proposed meeting to be held on 9/3/86 at 0800 in the Conference Room:

Jim Jensen
Dennis Kelly
Brent Barney
Dan Larsen
Bob Thompson
Lee Foster
Carter Reed

Visual Resources
Hydrology
Engineering
Soils
T. & E.
Environmental Coordinator
S.O. Coordinator

The following D-3 personnel will also be in attendance:

Ira Hatch
Leland Matheson
Gary Say
Jo Ellis
Walt Nowak

District Ranger
Range/Wildlife
Timber/Recreation
Co-team Leaders

Arrangements will be made to meet with any individuals that cannot attend the meeting as scheduled.

/s/ Ira W. Hatch

IRA W. HATCH
District Ranger

cc: I. D. Team Members

WNowak:kh

Serial No.	Lessee	Lease Readjustment Due Date	Forest Notified By RO	EA & Stips Due in RO
U-46484	Northwest Carbon	05/01/88	5/16/86	08/01/87
U-024316	C.O.P. Coal	05/01/88	5/16/86	08/01/87
U-020668	Nevada Electric	05/01/88	5/16/86	08/01/87
U-024317	Utah Power & Light	05/01/88	5/16/86	08/01/87
U-38727	Nevada Electric	05/01/88	6/16/86	08/01/87
SL-050862	W.A. Land Co	08/05/87	04/07/86	01/05/87
U-2810	Smith-Holladay	10/01/87	10/17/85	02/01/87
U-022918	C.W. & J.O. Kingston	04/01/88	03/24/86	07/01/87

U-47977

ENVIRONMENTAL ASSESSMENT

40 CFR 1500
43 CFR 3521, 1-4

Proposed Coal Lease Tract

Section 32, T. 16 S., R. 7 E. SLM
Emery County, Utah

Responsible Agency: USDA, Forest Service
Manti-LaSal National Forest
350 East Main Street
Price, Utah 84501

Responsible Official: Reed C. Christensen
Forest Supervisor

For Further Information Contact: Ina W. Hatch
District Forest Ranger
Price Ranger District
10 North Carbon Avenue #2
Price, Utah 84501

Prepared By *James H. Oldfield* Date 15 Sept 1980
Geologist

Approval Recommended By *Walter E. Merrill* Date 9/15/80
District Geologist

Ina W. Hatch Date 9/17/80
District Ranger

W. R. Bailey Date 10/7/80
Forest Engineer

Approved By *Reed C. Christensen* Date 10/8/80
Forest Supervisor

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I. PURPOSE AND NEED FOR ACTION

- A. Under the new coal leasing program, the Department of the Interior has combined all major Federal coal management responsibilities into one unified program in order to:
1. Give the Nation a greater assurance of being able to meet its national energy objectives.
 2. Provide a means to promote a desirable pattern of coal development with adequate environmental protection.
 3. Assure that State governments and local communities participate in decisions about where and when Federal coal production will take place.
 4. Increase competition in the western coal industry.
- B. The Secretary of Interior's new coal program has resulted in a leasing target of 322 million tons for the Uinta-Southwestern Utah Coal Region. To help meet this goal, a proposal to lease the Section 32 Tract will be analyzed by this environmental assessment and the Uinta-Southwestern Coal Region Environmental Statement. This document assesses the impacts of leasing with subsequent development of the delineated tract.

II. ALTERNATIVES INCLUDING THE PROPOSED ACTION

A. Proposed Action

The proposed action is to lease the Section 32 Tract which is part of a Logical Mining Unit (LMU - as defined in 43 CFR 3400.0-5 (cc)). The reserves would be mined within a forty year period, at the yearly production rate used to develop the LMU under a "generic" or "typical" mining and reclamation plan for the type of mine that is representative of the local area. Plans are discussed in sub section C of this section.

1. Description of the Tract.

A. Tract Locators and Descriptors

The tract has been delineated by the Tract Delineation Team. It is bounded on the east, west and partially on the north by leases owned by the Estate of Malcom W. McKinnon with options to Northwest Carbon Corporation (hereinafter called Northwest). Additionally, the tract is bounded on the north, south and partially on the east by leases owned or controlled by Utah Power and Light Company (hereinafter called UP&L). (See Map 2)

The lease is described as follows:

Section 32, T. 16 S., R. 7 E., SLM; Emery County, Utah,
640.0 acres.

The surface and mineral rights are federally owned.

B. Description of the Coal

The entire tract is underlain by at least two minable beds of coal. According to the ERPA report, only the Blind Canyon and Hiawatha beds were considered in establishing the coal reserves, estimated at 18,700,000 tons. Another bed, the Bear Canyon bed outcrops in Section 27 and 28, but its economic potential has not been evaluated. Of these reserves, about 40% is considered to be recoverable using room and pillar mining, and up to 70% with longwall mining. The amount actually recovered will vary with the mining methods used, underground conditions and amount of coal that is to be left to protect the escarpments and boundaries between other company leases.

The coal is ranked as a high volatile A-3 bituminous coal having average characteristics as shown in Table 1.

Table 1

Average characteristics of coal in the Section 32 tract (as received from both seams from Doelling)

Moisture	5.0%
Volatile Matter	42.2%
Fixed Carbon	45.5%
Ash	7.3%
Sulfur	0.5%
Energy Content	13,900 BTU/LB

Coal of this grade is suitable for steam or metallurgical purposes.

C. Mining Considerations

(1) Conceptual Mine Plan for Northwest

Map No. 2 shows Northwest's leases in relation to Section 32. According to the U.S. Geological Survey's Receiving Potential Analysis and Northwest's Conceptual Mine Plan, both for Section 32, the access and portal site would be at the old Helco Mine in Rilda Canyon. The existing entries would be improved and new entries would be driven westward to their State lease in Section 2, T. 6 S., R. 7 E., SLM. Northwest would then back-mine to the east, utilizing both conventional and long wall mining methods.

Northwest would sell the coal on contract for domestic or export use.

Northwest would plan to mine their leases with Section 32 in twenty years, at a rate of 1 to 1.5 million tons per year. This rate of production would require about thirty acres, for portal facilities, load-out facilities for shipping and settling ponds. The coal would either be transported from the mine by truck or conveyed down the canyon to a load-out facility and trucked from there. Based on production of 1.5 million tons per year and operating 300 days per year; 125 40-ton trucks per day would be required. A slurry pipeline or conveyor are possibilities as alternatives to hauling.

Power and telephone lines would be brought up Rilda Canyon from trunk lines in Huntington Canyon. Water for mining and other purposes would have to be obtained on-site by drilling wells or buying water rights from the North Emery Water Users Association.

If Section 32 is leased and Northwest is successful in obtaining the lease, they could be expected to submit a mine plan shortly after obtaining the lease. This information is based on discussions with Mr. Robert Johnson, Senior Mining Engineer for Northwest.

(2) Conceptual Mine Plan for Utah Power and Light Company

Map No. 2 shows UP&L's leases in relationship to Section 32. The configuration of these leases, plus UP&L's existing workings to the west and south, allow UP&L several options for mining Section 32. These options are:

- (a) Mine Section 32 through their existing Deer Creek Mine.
- (b) Open a mine in the North Fork of Meetinghouse Canyon and transport the coal to their power plant by conveyor.
- (c) Open a mine in Rilda Canyon and truck the coal to their power plant. The location of a mine in Rilda Canyon would depend on whether or not UP&L also obtained Northwest's leases. If these leases were obtained, UP&L would probably use the old Helco Mine for entry.

Option (a) is viable but unlikely for the following reasons. Although the lease is only $2\frac{1}{2}$ miles from the Deer Creek portal, UP&L holds leases that are north of Section 32, making a new portal more accessible to these holdings. Second, their conveyor at the Deer Creek Mine is at capacity. Unless a larger conveyor or second conveyor were to be built, UP&L would have to alter their mine plan because of diligence requirements for the Section 32 tract. All of the coal mined would be used for generating electricity at their Huntington or Hunter power plant complexes.

Options (b) and (c) are the most viable if UP&L obtains the tract. Option (b) would allow UP&L to transport their coal by conveyor down Meetinghouse Canyon to their power plant. Option (c) has the advantage of a more central location to their holdings. Both options would require about thirty acres of surface facilities. Option (b) would require about five miles of phone and power lines; option (c) about two and one-half miles of phone and power lines.

If UP&L obtains the lease to Section 32, they will probably not submit a mine plan as quickly as Northwest would because of their existing ongoing operations. A mine plan involving Section 32 would eventually have to be submitted because the lease would be competitive and contain a diligent development clause. This information is based solely on an analysis of UP&L's present mining situation and plans for power plant expansion.

D. Other Considerations

The surface and all minerals of the Section 32 tract are federally owned. The tract is within the boundary of the Manti-LaSal National Forest. The coal mined from this tract could be used to generate steam for electricity, heat or mechanical purposes in Utah, other states, and Japan.

Reclamation potential of the mine sites will depend largely on location. Locating the portal on an existing disturbed site enhances reclamation potential because these sites were not reclaimed in the past, and the entries were left open. Post mining use of the lands will revert to premining uses, ie recreation and wildlife habitat.

E. Maps

Map 1 shows the location of the tract in relation to the cities of Huntington and Price as well as its location on Manti-LaSal National Forest. Map 2 shows the tract in relation to surrounding leases and mines.

F. Documentation

Assumptions, guidelines and decisions used in the tract delineation and ERPA preparation are found in the Final Environmental Statement For Central Utah, prepared in 1979 and the Final Environmental Statement For The Ferron-Price Land Management Plan prepared in 1979.

2. Relationship to Land Use Planning

The tract is located in the Huntington Canyon Management Unit (A-3) of the Coal Lands Management Area as described in Ferron-Price Land Management Plan. This plan underwent extensive public review including public meetings when prepared as a draft Environmental Statement. Among the Management Directions of the plan is: (to) "provide for coal leasing and development, where appropriate, in a logical, sequential manner to minimize impacts."

US 6 & 50



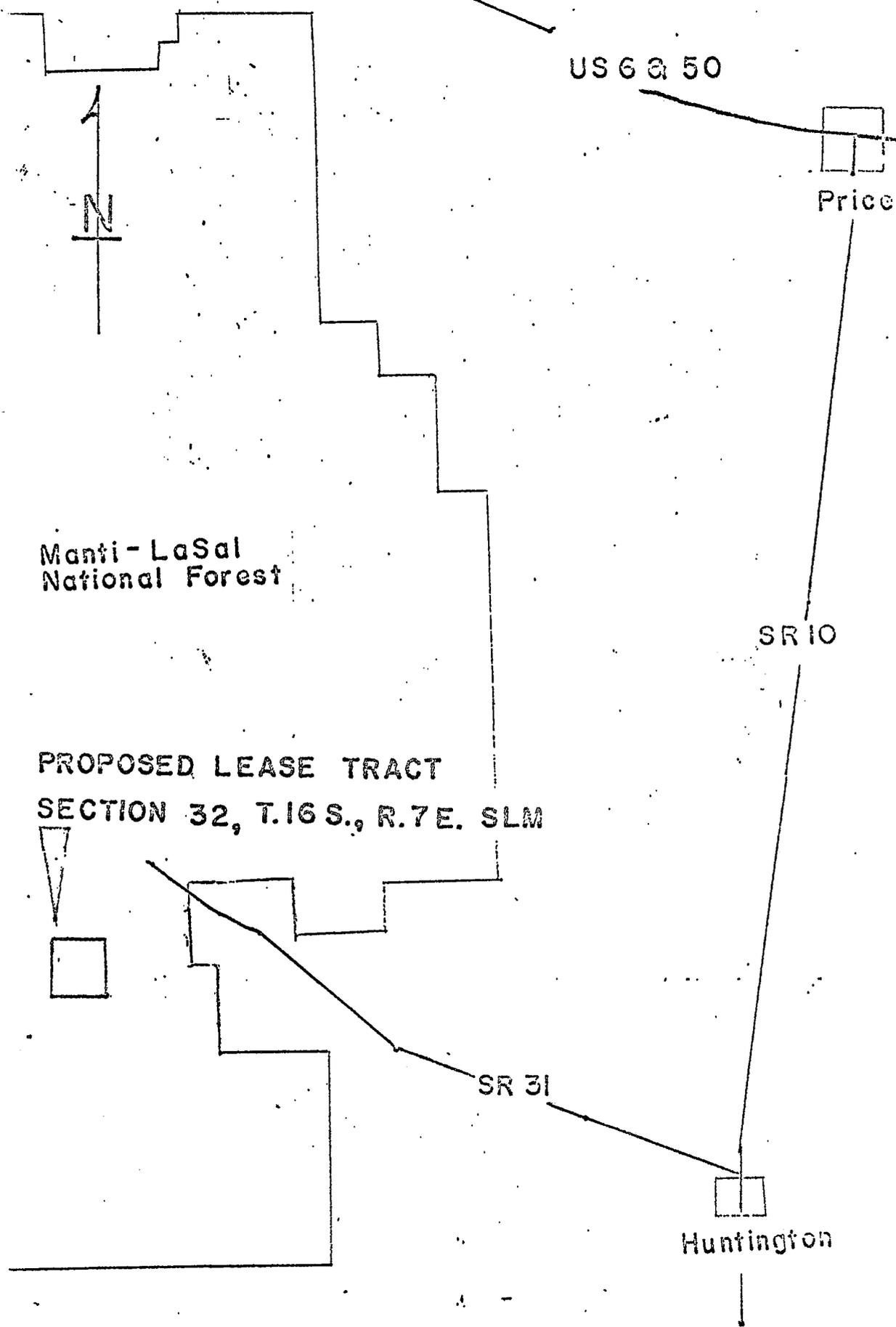
Price



Manti - LaSal
National Forest

SR 10

PROPOSED LEASE TRACT



Manti-LaSal
National Forest

PROPOSED LEASE TRACT
SECTION 32, T.16 S., R.7 E. SLM

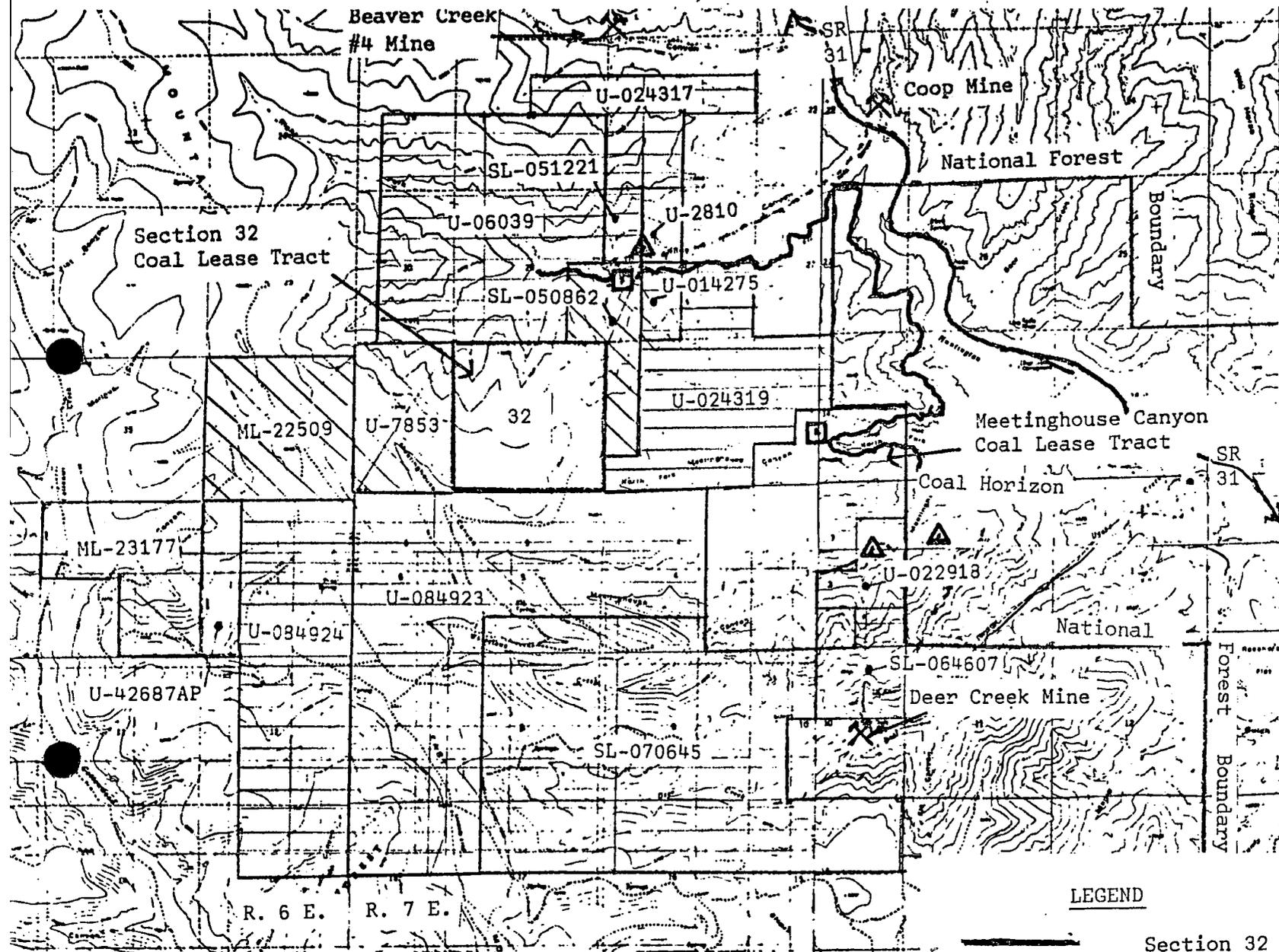
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Price

SR 10

SR 31

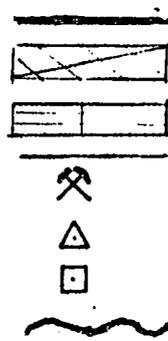
Huntington



SR 31
T. 16 S.
T. 17 S.

To
Huntington

LEGEND



- Section 32 Tract
- Leases Owned or Controlled by Northwest Carbon
- Leases Owned or Controlled by UF&L
- National Forest Boundary
- Portal Sites of Existing Mines
- Portal Sites of Former Mines
- Potential Site for Mining Coal from Section 32
- Coal Horizon

The only Unsuitability Criteria that apply are: Criteria #2 (Rights-of-way and Easements), #9 (Federally Listed Endangered Species), #11 (Bald and Golden Eagle Nests), #14 (Migratory Birds), #16 (Flood Plains), and #17 (Municipal Watersheds). The remaining 12 criteria do not apply. After the exceptions were applied to the six remaining criteria, only criteria #17 applied. Proper procedures will have to be adhered concerning the municipal watershed. The situation requires an evaluation in regard to the North Emery Water Users Association municipal water collection and transmission system in Rilda Canyon.

3. Relationship of the Tract to Other Uses

The Section 32 tract is within three miles of UP&L's Deer Creek Mine, the Co-op Mine and ARCO's Beaver Creek #4 Mine (see Map 2). These mines are currently in production. Additionally, the tract is within one mile of the former Romminger Mine and a conceptual mine site in the North Fork of Meetinghouse Canyon for the Meetinghouse Tract (see Map 2). The Romminger Mine is owned by the Eagle Mining Company which is exploring options of reopening the mine.

The tract is located about ten miles north west of Huntington, the city where most of the construction workers and miners would probably reside. A culinary water collection and transmission system is located in Rilda Canyon, north of the tract.

4. Authorizing Actions

Leasing and development will be under the authority of the following laws: The Mineral Leasing Act of February 25, 1920, as amended; the Federal Land Policy and Management Act (FLPMA) of 1976; the Surface Mining Control and Reclamation Act (SMCRA) of 1977; the Multiple Minerals Development Act of August 13, 1954; the Department of Energy Organization Act of August 4, 1977; the National Environmental Policy Act (NEPA) of 1969; the Federal Coal Leasing Amendments Act of 1976, as amended; the Act of October 30, 1978 that further amended the Mineral Leasing Act of 1920, and regulations: Title 43 CFR Part 3041, Part 3500, Part 2800 and Title 30 Part 211, Part 700.

5. Mitigation Measures Included as Part of the Proposed Action and Alternatives

If leased, the successful lessee will have to comply with all Federal, State and local regulations, laws and policies, as they affect the leasing and development of coal. For a complete and detailed listing of laws affecting coal leasing and development, please refer to the Final ES on the Federal Coal Management Program (pp. 1-15 through 1-25).

6. Further Environmental Assessment Points

The successful lessee or lessees must also submit a plan, within three years after leasing, for mining and reclamation to the Secretary of the Interior, Office of Surface Mining, for approval. The mining plan will be reviewed and an environmental assessment or environmental statement will be prepared prior to the approval of the mine plan. Additional site specific environmental assessments may be required before the development of coal on this tract.

B. Alternatives

The only alternative to the "Proposed Action" is the "No Action" alternative. Recommending no lease is the "No Action" alternative as defined by CEQ guidelines.

II. AFFECTED ENVIRONMENT AND ANTICIPATED TRENDS

A. Climate

Annual precipitation ranges between 23 inches and 27 inches, of which nearly 65 percent is snowfall from October to March. (Figure 1) Snow is redistributed by wind action and redeposited behind trees, on the north and east side of ridges, and other areas where the wind velocity is decreased by an obstruction. The mean annual temperature of sites having similar elevations as this tract, range from 36 degrees Fahrenheit to 40 degrees Fahrenheit. The frost-free period ranges from forty days on the ridge tops to one hundred days in the valley bottoms. (Figure 2)

B. Air Quality

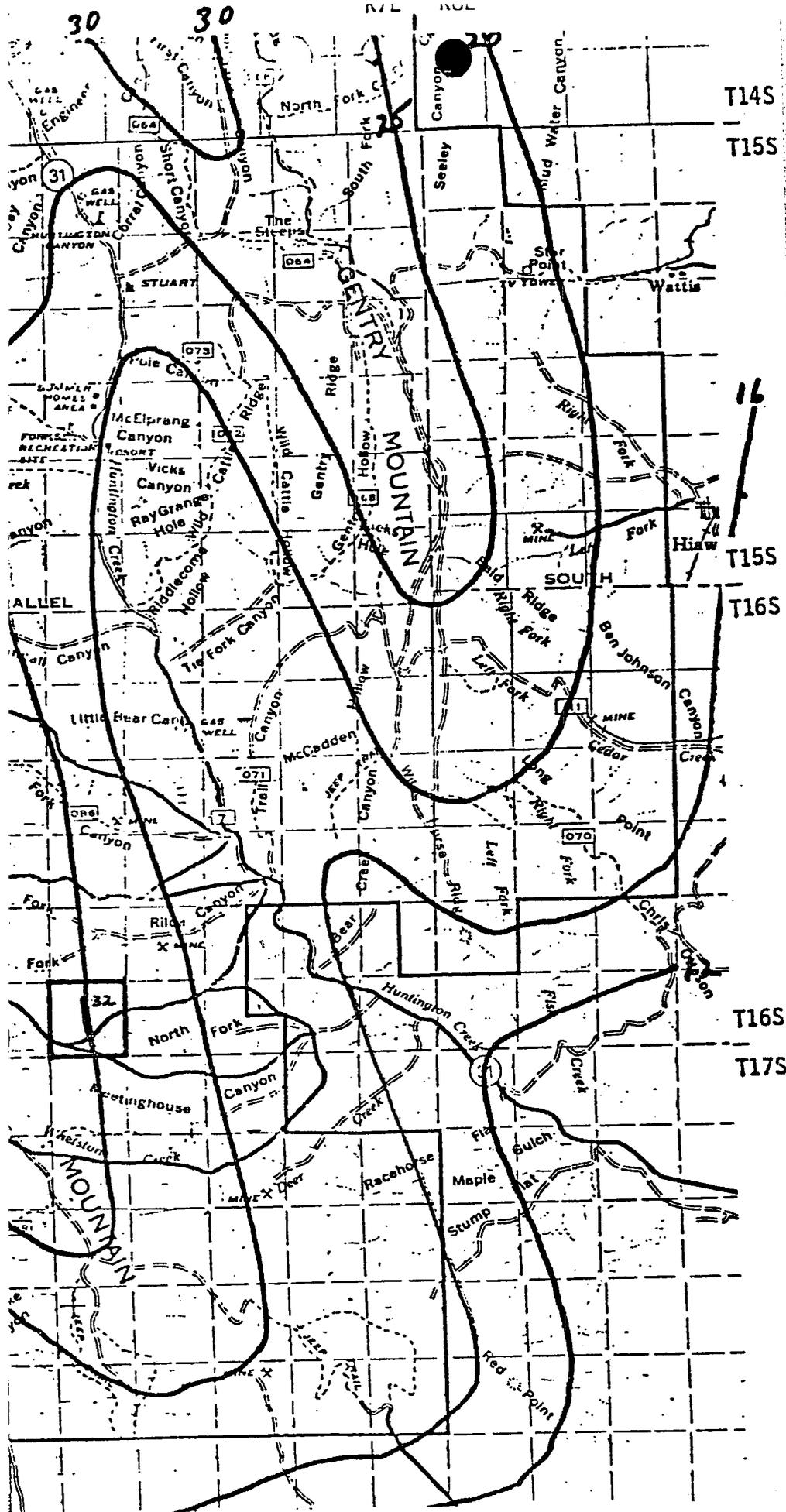
The state of Utah has been monitoring total suspended particulates (TSP), sulfur dioxide (SO_2), and nitrogen dioxide (NO_2) at Castle Dale and Huntington, Utah. Ozone (O_3) has been monitored at Salt Wash for the Intermountain Power Project. However, the levels of carbon monoxide (CO), and lead (Pb) have not been monitored but need to be. The total suspended particulate concentrations approach the National Ambient Air Quality Standards. It is expected that a major portion of the particulates was associated with windblown soil. Concentrations of sulfur dioxide were well within the National Air Ambient Quality Standards. High concentrations of ozone (O_3) have been measured at rural locations, but this was thought to be from natural sources. No carbon monoxide or lead concentrations are available for the region, but levels are expected to be low. Air quality is expected to remain well within standards, although no measurements have been made at the tract.

C. Topography and Geology

1. Geologic Setting

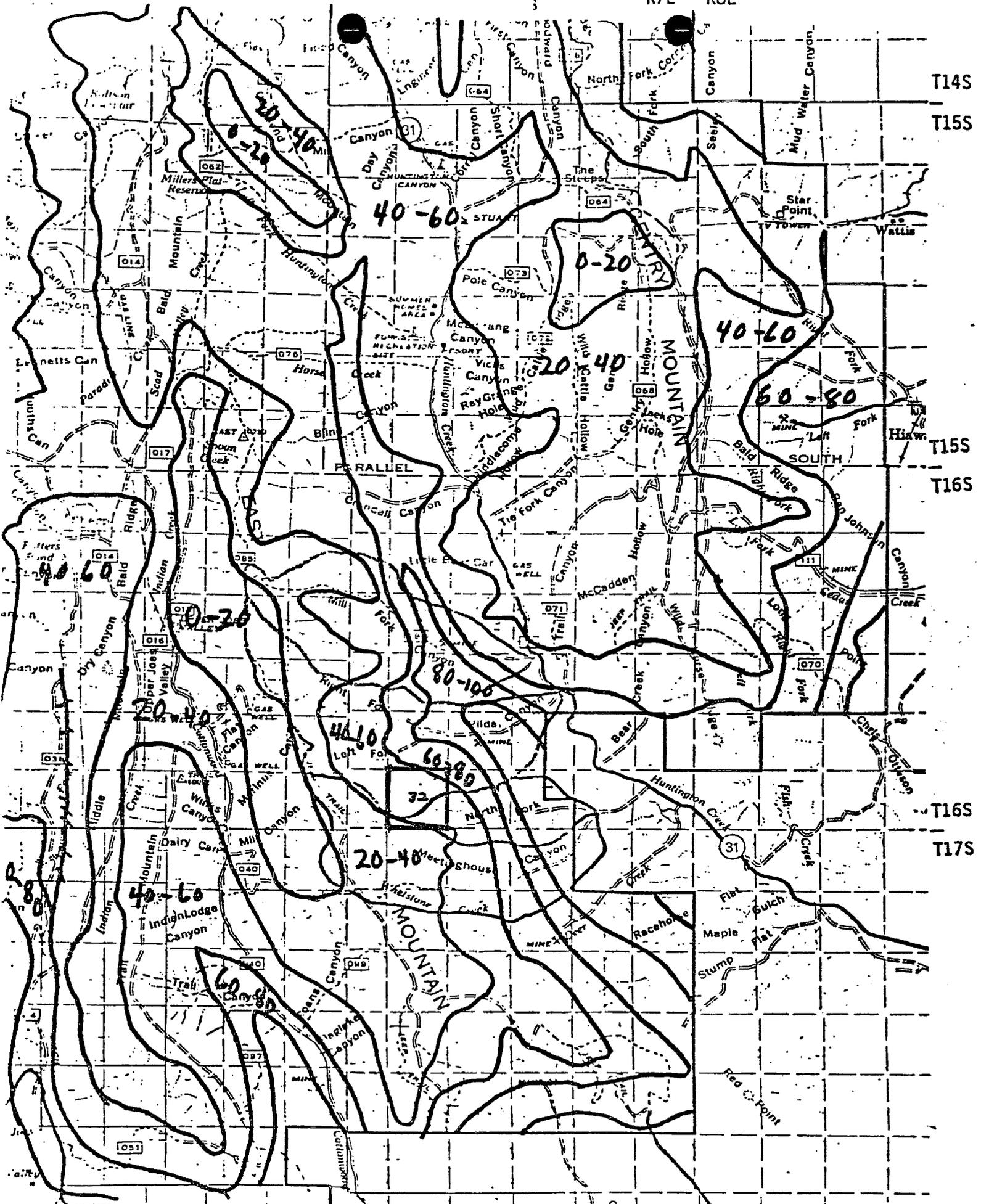
The tract is located on the eastern edge of the Wasatch Plateau, subsection of the High Plateau Section of the Colorado Plateau Physiographic Province. The Wasatch Plateau is a north-south trending feature formed by uplifted sedimentary rock of late Cretaceous - early Tertiary age (Figure 3). The coal of interest is found in several seams near the base of the Blackhawk formation.

The eastern side of the plateau is characterized by steep slopes and escarpments incised and dissected by perennial and intermittent streams. Slopes vary, but are typically over 55 percent except in the narrow canyon bottoms where the gradients are normally less than 20 percent. These steep, rocky slopes with numerous rock outcrops indicate shallow soil development.



Mean Annual Precipitation (inches)
 Source: Utah Hydrologic Atlas

FIGURE 1



Mean Annual Freeze-Free Season (days)
 Source: Utah Hydrologic Atlas

FIGURE 2

After Doelling

System	Series	Stratigraphic Unit	Thickness (feet)	Description	
TERTIARY	Eocene	Green River Formation		-	Chiefly greenish lacustrine shale and siltstone.
		Wasatch Group	Colton Formation	300-1,500	Varicolored shale with sandstone and limestone lenses, thickest to the north.
	Flagstaff Limestone		200-1,500	Dark yellow-gray to cream limestone, evenly bedded with minor amounts of sandstone, shale and volcanic ash, ledge former.	
	North Horn Formation (Lower Wasatch)		500-2,500	Variegated shales with subordinate sandstone, conglomerate and freshwater limestone, thickens to north, slope former.	
CRETACEOUS	?				
	Maestrichtian	Mesaverde Group	Price River Formation	600-1,000	Gray to white gritty sandstone interbedded with subordinate shale and conglomerate, ledge and slope former.
			Castlegate Sandstone	150- 500	White to gray, coarse-grained often conglomeratic sandstone, cliff former, weathers to shades of brown.
			Blackhawk Formation MAJOR COAL SEAMS	700-1,000	Yellow to gray, fine- to medium-grained sandstone, interbedded with subordinate gray and carbonaceous shale, several thick coal seams.
	Campanian		Siar Point Sandstone	90-1,000	Yellow-gray massive cliff-forming sandstone, often in several tongues separated by Masuk Shale, thickens westward.
	Santonian	Mancos Shale	Masuk Shale	300-1,300	Yellow to blue-gray sandy shale, slope former, thick in north and central plateau area, thins southward.
			Emery Sandstone COAL (?)	50- 800	Yellow-gray friable sandstone tongue or tongues, cliff former, may contain coal (?) in south part of plateau if mapping is correct, thickens to west and south. Coal may be present in subsurface to west.
	Coniacian		Blue Gate Member	1,500-2,400	Pale blue-gray, nodular and irregularly bedded marine mudstone and siltstone with several arenaceous beds, weathers into low rolling hills and badlands, thickens northerly.
	Turonian		Ferron Sandstone Member MAJOR COAL SEAMS	50- 950	Alternating yellow-gray sandstone, sandy shale and gray shale with important coal beds of Emery coal field, resistant cliff former, thickens to the south.
			Cenomanian	Tununk Shale Member	400- 650
Albian	Dakota Sandstone		0- 60	Variable assemblages of yellow-gray sandstone, conglomerate shale and coal. Beds lenticular and discontinuous.	
		MINOR COAL			

Generalized section of rock formations, Wasatch Plateau coal field.

Figure 3

The tract ranges in elevation from 8100 to 9825 feet. If adjacent leases are included, a logical mining unit including this tract would range in elevation from 7000 to over 10,000 feet.

2. Geologic Structure

The eastern half of the Wasatch Plateau consists of rock structures that lie nearly horizontal or have regional dips up to five degrees to the east and south. North-South trending faults dissect the plateau with displacements ranging from a few feet to several hundred feet. There have been no faults mapped on Section 32. The nearest faults cross the southeast part of Section 33 and southwest part of Section 34. These are down thrown to the southeast and are part of the Pleasant Valley fault zone. It is likely that the rock strata are jointed, however, the extent is unknown.

The tract is within seismic zone 2 according to the Uniform Building Code for Utah. This means that the potential for major seismic activity is moderate to high and that there is better than a 50 percent chance of a major seismic event in 100 years.

3. Paleontology

All formations exposed on the tract contain fossils; however, significant fossils are likely to be found only in the Blackhawk and North Horn Formations. Significant vertebrate fossils include: Crocodile, turtle, fish and dinosaur bones of various species (Robison, 1977). Some minor plant fossils have also been found in the Blackhawk Formation.

D. Minerals

1. Coal

The proposed action and the Tract Delineation report adequately describes the quality and tonnages of coal in the Section 32 Tract. Existing and proposed coal mines have also been discussed earlier in this report.

The tract has not been drilled for coal, although Northwest has obtained a Coal Exploration License from the BLM to explore the tract. An operating plan has been submitted by Northwest to drill one hole on the tract along with holes in contiguous state and federal leases. Holes have been drilled by UP&L in adjacent and nearby leases.

2. Other Minerals

The tract is leased for oil and gas under Federal Lease U-15210. There has been no drilling or other exploration and seismic work even though the tract is within three miles of the Flat Canyon KGS. Wells drilled within the KGS have been dry or capped for recharge and future use.

E. Soils

Soils consist of sandy, silty clay to clay and vary in depth from zero to several feet. Soils are unstable and saturated as evidenced by micro-contouring, small slumps and geotropism of vegetation. Areas showing the greatest instability are in Sections 32 and 33. These shale outcrops, in the North Horn Formation, weather to a fine clay that is very unstable when wet.

The soils can be grouped on the basis of those found on north-facing slopes and those found on south-facing slopes. The south-facing slopes are generally 20 degrees warmer. About half are composed of rock outcrop and shallow soil (less than 20 inches deep). The remaining area (50 percent) have moderately deeper soils (20 to 40 inches). The soil is light colored, which is indicative of little organic matter present. The soil on the north-facing slopes have formed on sandstone and shale colluvium, and are usually deeper than 40 inches. Textures range from cobbly loam to clay loam.

Erosion has been very extensive in the past and is occurring at an appreciable rate today. The reclamation potential where soils are shallow is low.

F. Hydrology

Section 32 is located across the divide separating Meetinghouse Canyon, North Fork of Meetinghouse Canyon and Rilda Canyon. All are within the Huntington Creek Watershed. Huntington Creek is tributary through the San Rafael to the Green and Colorado Rivers, and the drainage pattern is classified as dendritic. Meetinghouse, North Meetinghouse and Rilda Creeks are formed from springs and seeps as well as run off from snow melt and thunderstorms. Water usage of each of the creeks is described as follows:

1. Meetinghouse Creek

This creek is a perennial creek originating in adjacent Section 31. It is used primarily for agricultural and wildlife uses. A stock pond that contains all of the summer flow is located about one mile down stream from the source in Section 3, T. 17 S., R. 6 E., SLM. Any overflow along with runoff caught below the pond flows into Huntington Creek for agricultural, wildlife and recreational uses.

Meetinghouse Creek does not flow through Section 32, but a major portion of its watershed is on Section 32.

2. North Fork of Meetinghouse Creek

North Fork of Meetinghouse Creek originated near the tract in Section 33. This is an ephemeral stream depending on snowmelt and storms for its water. The water is channeled to Huntington Creek, where it is used for agriculture, wildlife and recreation. A large portion of the originating watershed for North Fork of Meetinghouse Creek is on the Section 32 Tract.

3. Rilda Creek

Rilda Creek is a perennial creek fed by springs, snowmelt and storms. It forms near the old Helco Mine from the left and right forks. Neither fork nor the creek itself is on the tract, but the tract is part of the watershed. Four springs, two in each fork are used by the North Emery Water Users Association for culinary water. The exact source of these springs is not known; however, preliminary investigations show that three of springs are surface springs from colluvium and one originates from the Starpoint Sandstone. In addition to supplying culinary water, Rilda Creek supports riparian vegetation. Water from Rilda Creek flows into Huntington Creek, where it is used for agriculture, wildlife and recreation uses.

There are two known aquifers on the tract. They are, from lower to upper, the Starpoint Sandstone and the Castlegate Sandstone. These aquifers are separated by the nearly 1000 foot thick Blackhawk formation. Little is known of the structure of these aquifers and their influence on the springs in Rilda Canyon. Northwest Carbon is undertaking a study of the surface and subsurface hydrologic regimen. This study should be finished in 1981.

G. Vegetation

Rilda Canyon is a rugged mountainous tributary to Huntington Canyon. Life zones and vegetative communities vary with elevation, exposure, slope and aspect. These conditions combine to form a complex vegetation mosaic. Predominant vegetation is Englemann spruce and alpine fir. The spruce/fir association is invading aspen communities throughout the area. Windblown ridge tops and dry hillsides are obvious in the tract. A bunchgrass association of native wildryes and wheatgrasses occupies these slopes. Mountain brush communities occur on the driest rocky areas and sagebrush occurs on dry sites with deeper soils. Small canyon bottoms are lined with bluegrass and carex species. Some cottonwoods can be found in the lower reaches of these small canyons. No endangered, threatened or sensitive plant species are known to occur on Section 32.

H. Range

The acreage within this tract is within two cattle allotments, Gentry Mountain and East Mountain. Cattle use in the area is restricted by topography. The area is classified as nonrange due to the rugged terrain, steep slopes and water availability for cattle.

I. Wildlife

Section 32 is located within Utah Division of Wildlife Resources Deer Herd Unit #34 and Elk Herd Unit #12. Mule deer and Rocky Mountain elk use the tract primarily in the spring, summer and fall. Big game animals move into the canyons and south-facing slopes during normal winters.

Several species of mammals occupy the area. Also, many migratory and transient avian species occur there. Along with several passerine species, this area is home to numerous raptors including goshawks and sharp-shinned hawks. A raptor survey has been completed for this area. Section 32 does not contain habitat critical for bald eagle or any other known endangered wildlife species.

The leasing of this tract poses no threat to any wildlife species in the area. However, surface disturbance in the area will have impacts on all wildlife species present. Elk and deer occupying the tract use this area for calving and fawning activities. Any disturbance in the tract could significantly alter local big game populations.

This area has not been intensively surveyed for threatened or endangered flora or fauna. None are known to exist here.

J. Cultural and Historic Resources

There is evidence of Fremont and Ute Cultures in the area, but no sites have been found within two miles of the tract. The old Helco portal has been cleared under BLM contract for the Coal Task Force.

K. Visual

All of the A-5 Unit (Ferron-Price Land Management Plan) is at the Retention-Visual Quality level. Section 32 and Rilda, Meetinghouse and Deer Creek Canyons outside the A-5 unit are Modification or Partial Retention visual quality levels. Each of these canyons have been disturbed with mining or drilling activity.

L. Recreation

There are no recreation sites in Deer Creek, Meetinghouse and Rilda Canyons as well as on the Section 32 Tract. The canyons are used for fishing, big game hunting and gathering forest products. Section 32 and the adjacent areas on the ridge may be occupied by campers and hunters for short duration. Vehicle access to the tract is through private land, which may restrict potential users.

State Route 31 is a major recreation corridor to campgrounds, roads and other areas of the National Forest. There are three BLM and one Emery County recreation sites on State Route 31 between Meetinghouse and Rilda Canyons.

M. Land Use

Grazing, hunting and coal drilling are the only known uses of the surface of Section 32. Meetinghouse Canyon is virtually unused because entrance to the canyon is blocked by a gate controlled by UP&L. Rilda Canyon has several uses. Its primary use is the culinary water collection and transmission system for the North Emery Water Users Association. Other present uses involve recreation. The canyon formerly was used for coal mining and hauling.

N. Transportation and Noise

The existing road in Rilda Canyon is a single lane road with native surfacing. The roadway follows the stream with an average grade of six percent. The road ends at about the 1/4 corner between Sections 28 and 29. The road was constructed to serve the existing portals near its end. The road has been used for access to the water collection system for North Emery Water Users Association. A water transmission line has been constructed above the road on the north side to carry the water from the collection system. The road could be extended up the canyon approximately 2,000 feet and then further extended 4,000 feet into the left fork, or 6,000 feet into the right fork. Four-wheel drive trails exist along portions of these routes. The extension of the road would, however, bring the road to an elevation above the coal outcrops. Any further extension of the road beyond these limits would require road construction on 50 percent plus side slopes with full bench sections.

The road in Rilda Canyon has the potential for transporting coal from Section 32, plus other leases in the canyon. The road could be upgraded horizontally, vertically, and widened without severe impacts to the terrain.

A twenty-four foot long single lane I-stringer bridge crosses Huntington Creek near the juncture with SR-31. The decking has recently been repaired and the bridge is adequate for carrying most traffic. The juncture of the road to SR-31 is at an eight percent grade and requires a 300 degree turn to enter the road towards Huntington.

State Route 31 is a 45 mile paved highway connecting the cities of Huntington and Fairview, Utah. The road is designed to carry volumes of 680 average daily traffic (ADT) and 100 daily hour volume (DHV). Current usage is already near the designed capacity.

A transportation study for State Route 31 is in progress and should be completed in 1981.

O. Socio-Economic

The USGS's Economic Recovery Potential Analysis states that the construction and mining of Section 32 over forty years would require 50 to 55 people. Inasmuch as the lease would probably be mined in less time and in conjunction with other leases, a larger work force will be required.

Construction workers and miners can be expected to be drawn from the local work force and recruited from areas of high unemployment. Workers can be expected to live within a 50 mile radius of the mine with most, probably, taking up residence in Huntington.

New workers moving into an area can be expected to be married with a family.

P. Trends in the Affected Environment

The leasing of the tract will result in the submission of a mine plan within three years of leasing. Considering that one to two years may be required for the approval of the mine plan and one to five years for site preparation, a five to ten year span could spread between leasing and mining.

Within that time span, demands for recreation and water will increase due to an expanding population drawn to the high paying jobs of the energy industries. An increased population will mean greater usage of State Route 31, campgrounds and forest roads. These increased uses will cause an increase in noise and possible degradation in air quality.

Mining and hauling in narrow canyons such as Rilda and Meetinghouse has the potential to severely impact existing uses. In the past, there have been requests by mining companies to close these canyons to all uses not related to mining.

IV. ENVIRONMENTAL CONSEQUENCES

A. Impact Analysis of Alternatives Including the Proposed Action

1. The "No Action" Alternative

Coal development would not take place and ancillary facilities would not be constructed. Use of the surface and other resources such as wildlife, grazing and recreation would continue in the present manner. There would be no degradation of air, water or visual quality. This "No Action" alternative would be most favorable for oil and gas exploration and development. There effectively would be no traffic increase on State Route 31.

2. The "Proposed Action"

There are two groups of impacts associated with the "Proposed Action." The first group are these impacts associated with the tract. The second group are those impacts associated with a portal site to mine the coal.

Impacts associated with the tract may include subsidence, soil instability and movement and disruption of the surface and subsurface hydrologic regime. Whether or not these impacts occur and their extent will depend on such factors as condition of the overburden, the location and site of the voids left by mining and the method and rate of coal extraction. If subsidence should occur, oil and gas exploration and development could be limited or curtailed.

Impacts associated with the portal site depend on portal location, construction of a new portal or use of existing facilities, method of transportation and the amount of new disturbance. There are three concepts for a portal location for the "Proposed Action".

a. Mine the Tract from the Deer Creek Mine

Coal development would take place, but ancillary facilities would not need to be constructed for a mine extension. There may be some expansion and enlargement of existing facilities, such as a conveyor. Use of the surface resources on Section 32 could continue unchanged, as well as the uses in Meeting-house and Rilda Canyons. There would not be a behavioral avoidance problem with elk and deer winter range. There would not be an increase in the traffic congestion associated with Huntington Canyon. Air quality would decrease but still remain within standards.

- b. Mine the Tract through New Portal facilities in North Fork of Meetinghouse Canyon.

Coal development would take place and a new portal, transportation system and ancilliary facilities would be needed. There would be a behaviorial avoidance problem with elk and deer winter range as about 40 acres of this range would be eliminated. New construction would require a rapid increase of demand for new people. This could have an impact on housing, schools and other municipal services if these people and their families move into the surrounding communities. The air quality would decrease but still remain within quality standards. The hydrologic regimen could be affected. Recreation in the canyon could be limited or curtailed.

- c. Mine the Tract Through New or Existing Facilities in Rilda Canyon.

Coal development would take place and new portal, transportation and ancillary facilities would be needed. Portal acreage would be the same for a new or former site, however, there would be less new disturbance utilizing a formerly disturbed site. There would be a behaviorial problem with elk and deer winter range in Rilda Canyon. New construction would require a rapid increase of demand for new people. This could have an impact on housing, schools and other municipal services if these people and their families were to move into one city. This impact would be lessened depending on the number of actual new employees needed. The reconstruction of the road in Rilda Canyon could interrupt water service to the North Emery Water Users Association costumers should the line require reconstruction or relocation of the water transmission pipeline. Dust from hauling and portal activities could impact the riparian zone and creeks in Rilda Canyon. Traffic would increase on State Route 31 from hauling and shift changes. Safety on State Route 31 will decrease if the junction between State Route 31 and Rilda Canyon road is not improved.

- B. Other Committed Mitigation Measures Not Included in the Proposed Action or Alternatives.

1. The "No Action" Alternative

There are no mitigation measures that would be required to be committed to the adoption of this alternative.

2. The "Proposed Action"

- a. The following mitigation measures are recommended if the "Proposed Action" is adopted regardless of where the portal site is located.
- (1) Surface occupancy of the tract is restricted to exploration and monitoring purposes only.
 - (2) Prior to any surface disturbance, clearances for threatened and endangered plants, paleontology or cultural and historic resources are required.
 - (3) Floodplains, if any, will be determined prior to approval of any mine plan. The occupation of channels and floodplains shall be allowed only if no suitable alternative is available in accordance with Executive Order 11983.
 - (4) Prior to mining, the leasee shall perform a study to secure adequate baseline data to quantify the existing surface uses on and adjacent to the tract. The study will be established in consultation with and be contingent upon concurrences by the surface managing agency. The study shall be adequate to locate, quantify and demonstrate the inter-relationships of the geology, topography, surface hydrology, vegetation and wildlife. The baseline data will be established so that future programs of observation can be incorporated at regular intervals for comparison.
 - (5) The leasee shall establish a monitoring system to locate, measure and quantify the progressive and final effects of underground mining activities on the topographic surface, surface and subsurface hydrologic regimen, soils and vegetation. The monitoring system shall utilize techniques which will provide a continuing record of change over time and an analytical method for location and measurement of an infinite number of points over the base area. The monitoring shall be an extension of the base line data and shall be conducted by a method approved by the Office of Surface Mining (OSM) in consultation with and concurrence by the surface managing agency.
 - (6) All support facilities structures, equipment, and similar developments will be removed from the lease area within two years after the final termination of use of such facilities. All disturbed areas and those areas occupied by such facilities will be rehabilitated in accordance with an approved reclamation plan, and the "Surface Mining Control and Reclamation Act of 1977" as applicable.

- (7) All operations shall be conducted so as to comply with the Federal Water Pollution Control Act (33 U.S.C. 1151-1175) and the Clean Air Act (42 U.S.C. 1857 and the following.)
 - (8) In accordance with Section 523 (b) of the "Surface Mining Control and Reclamation Act of 1977," reclamation operations conducted on this lease are to conform with the requirements of this Act and are subject to compliance with Office of Surface Mining Regulations.
 - (9) If removal of timber is required for clearing of construction sites, etc., such timber shall be removed in accordance with Forest Service regulations.
 - (10) The lessee will be required to maintain a mine development and operation of a size that is compatible with the physical environment. The limited area available for mine facilities at the coal outcrop, steep topography, adverse winter weather, and physical limitations on the size and design of the access road, are factors which will determine the ultimate mine size.
 - (11) Mining will be done in a manner to protect the escarpments.
 - (12) Additional stipulations may be added as necessary upon conclusion of the hydrologic and transportation studies.
- b. The following additional mitigation measures are recommended if the "Proposed Action" is adopted and the portal site is planned for Rilda Canyon.
- (1) Any road, portal or facility construction in Rilda Canyon will be coordinated with the existing facilities of North Emery Water Users Association.
 - (2) The entrance and exit of coal hauling trucks onto and from State Route 31 and Rilda Canyon will be relocated or reconstructed to permit the safe and smooth merging with and departure from other traffic on State Route 31 as recommended by the Utah Department of Transportation and the surface managing agency.

C. Residual Unavoidable Adverse Impacts

The most significant impact will depend on the portal location. If the portal is located at Deer Creek, the greatest impact will be subsidence on the tract. If the portal is located in North Fork of Meetinghouse Canyon, the greatest impact will be the behavioral avoidance of wildlife, especially deer and elk. If the portal is in

Rilda Canyon, the greatest impact will be the additional traffic to a steep, narrow, curvy section of State Route 31 as well as possible disturbance of the water collection and transmission system.

Other adverse impacts include the degradation of the riparian zone in Rilda and Huntington Canyons, reduction of recreational activities due to increased mining use of Huntington and other canyons and visual degradation of the portal site and increased traffic.

D. Relationship Between Short Term Uses of Man's Environment and the Maintenance and Enhancement of Long Term Productivity.

There would be a gain of approximately nine million tons of coal available for market along with the creation of long term - well paying jobs for about 55 persons. Federal, state and local governments will benefit from royalties and taxes from the miners.

The coal that is mined is a nonrenewable resource and once it is mined, it is gone forever. Reclamation of disturbed areas can return them to equal or better use. The visual impact of a mine cut into steep canyon walls is considered permanent. Once the mining activity is finished, wildlife will migrate or can be transplanted to its former habitat.

E. Irreversible and Irretrievable Commitments of Resources

Irreversible and irretrievable commitment of resources are:

(1) the coal tract is mined, (2) the energy used to mine the coal and transport miners, machinery and coal, (3) the precise contour of area prior to construction of the portal and roads and (4) loss of life due to mine accidents, black lung and traffic accidents.

F. Net Energy Analysis: Coal Leasing

NET ENERGY SUMMARY SHEET

Site: Rilda Canyon (Section 32) Preliminary Tract with 195,000 ton annual production from tract portion of proposed large mining unit.

<u>All Numbers: Billion Btu</u>	<u>Annual</u>	<u>Life of Mine(40)</u>
1. Energy Output, Btu	4,950.0	198,000.0
2. Energy Input, (direct & indirect),Btu		
2.1 Production/Transportation		
Direct Operations		
Petroleum	26.2	1,048.0
Natural Gas	--	--
Coal	34.5	1,380.0
Hydro Power	--	--
Nuclear	--	--
Other	--	--
	<hr/>	<hr/>
Total	60.7	2,428.0
Ratio Output/Input	<hr/>	<hr/>
		81.5
Equipment, Facilities, & Supplies		
Petroleum	2.0	80.0
Natural Gas	11.4	456.0
Coal	5.0	200.0
Hydro Power	1.6	64.0
Nuclear	1.5	60.0
Other	--	--
	<hr/>	<hr/>
Total	21.5	860.0
Ratio Output/Input	<hr/>	<hr/>
		60.2

2.2 Infrastructure	<u>Annual</u>	<u>Life of Mine(40)</u>
Production Area		
Petroleum	18.4	736.0
Natural Gas	20.8	832.0
Coal	15.1	604.0
Hydro Power	--	--
Nuclear	--	--
Other	--	--
Total	<u>54.3</u>	<u>2,172.0</u>
Ratio Output/Input		<u>91.2</u>
Equipment and Supplies		
Petroleum	13.9	556.0
Natural Gas	12.1	484.0
Coal	3.8	152.0
Hydro Power	1.3	52.0
Nuclear	1.1	44.0
Other	--	--
Total	<u>32.2</u>	<u>1,288.0</u>
Ratio Output/Input		<u>153.7</u>
Total Infrastructure	86.5	3,460.0
Ratio Output/Input		<u>57.2</u>
2.3 Total 2.1 + 2.2		
Petroleum	60.5	2,420.0
Natural Gas	44.3	1,722.0
Coal	58.4	2,336.0
Hydro Power	2.9	116.0
Nuclear	2.6	104.0
Other	--	--
Total	<u>168.7</u>	<u>6,748.0</u>
Ratio Output/Input		<u>29.3</u>
Unrecovered Resource, Btu	<u>7,430</u>	<u>297,200</u>

Recommendations:

The Forest Service recommends that final determination on the proposed action be contingent upon information presented in the body of this report and the results of the following special studies.

An analysis of the hydrologic regime of Rilda Canyon and surrounding area to be conducted by Northwest Carbon Corporation and a detailed transportation analysis for State Route 31 to be completed by the Forest Service. Both these studies are to be completed in 1981.

V. CONSULTATION AND COORDINATION

This environmental Assessment has been prepared with input provided by Forest Service Interdisciplinary Team.

A. This team consisted of the following:

Robert Oldfield, Geologist, Team Leader
Ira W. Hatch, District Ranger
Walter E. Nowak, District Geologist
Brent Barney, Civil Engineer
Dan Larsen, Forest Soil Scientist
Dennis Kelly, Forest Hydrologist
Jim Duncan, Civil Engineer
Carol Morrison, Wildlife Biologist
Steve Spencer, Range Conservationist
William Keis, Physical Science Technician
Gale Madyun, Physical Science Technician

B. Others Consulted for this Project:

John Niebergall, District Ranger, Ferron Ranger District
Ron Dickemore, District Range Conservationist
Sam Hotchkiss, Geologist
Dwain McGarry, Geologist
Gerry Liebing, Geologist, USGS
Al Anundson, Engineer, Northwest Carbon
Bob Johnson, Mining Engineer, Northwest Carbon
Candance Clark, Geologist, USGS
Sid Vogopohl, Geologist, BLM

APPENDIX A

Bibliography

- A. Cassidy, S.M., Elements of Practical Coal Mining, 1973, The Society of Mining Engineers.
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- E. Doelling, H.H., and Others, Central Utah Coal Fields: Sevier, Sanpete, Wasatch Plateau and Book Cliffs and Emery, 1972, Utah Geological and Mineralogical Survey; Monograph Number 3.
- F. Pearson, E.W., "Economic Recovery Potential Analysis and Proposed Action for Section 32, T16S, R7E, SLM, Coal Delineation Tract," 1980, U.S. Geological Survey Report.
- G. Spieker, E.M., The Wasatch Plateau Coal Field, Utah, 1931, U.S. Geological Survey Bulletin 819.
- H. USDA Forest Service, Ferron-Price Land Management Plan, 1979, USFS, Region 4, Manti-LaSal National Forest.
- I. Environmental Assessment/Technical Examination, Readjustment of Federal Coal Lease No. U-022918, March 1979, prepared by U.S. Forest Service.
- J. Environmental Assessment/Technical Examination, Readjustment of Federal Coal Lease No. U-024319, 1979, prepared by U.S. Forest Service.
- K. Mining and Reclamation Plan for the Proposed Rilda Canyon Mine, Lease No. U-7653, SL-050862, ML-22509, ML019342, November 1976, prepared by Sanders Associates, Inc.
- L. Coal Lease Modification for Federal Lease No. U-02664, October 1978, prepared by U.S. Forest Service.
- M. Mine Plan Modification for Federal Lease No. U-02664, January 1980, prepared by U.S. Forest Service.
- N. Coal Lease Readjustment for Federal Lease No. SL-070645, 1976, Prepared by U.S. Forest Service.

- O. Environmental Assessment for the Proposed Meetinghouse Canyon Tract, July 1980. Prepared by the U.S. Forest Service.
- P. Situation Statement for Section 32, T16S, R7E, SLM, June 1980. Prepared by the U.S. Forest Service.
- Q. The Central Coal II Project: A Class II Inventory of Selected Portions of Carbon, Emery, and Sevier Counties, Utah, by New World Research Inc., 1980.
- R. Final Environmental Statement, Central Utah E.S., 1979.

mhc

Home file -
SL-070645 with
mine corresp.

3482
SL-070645
U-02292
(U-065)

Moab District
P.O. Box 970
Moab, Utah 84532

File

FEB 25 1991

Pamela Grubaugh-Littig, Permit Supervisor
State of Utah
Division of Oil, Gas and Mining
355 West North Temple Street
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Ms. Grubaugh-Littig:

On February 21, 1990, the Bureau of Land Management (BLM) received PacifiCorp's proposed Rilda Canyon Lease Tract addition for the Deer Creek Mine Permit Application Package (PAP). The BLM was asked to review the resource recovery and protection plan (R2P2) and submit our findings which are discussed below.

PacifiCorp plans to enlarge the Deer Creek Mine Permit Area (Act/015/018) by adding an adjacent tract to the north. The tract includes one State of Utah coal lease (ML-22509), three Federal coal leases (U-7653, U-47977, and SL-050862) and the southern portion of Federal coal lease U-06039.

The R2P2 calls for the development of main entries in a north-northwest direction beyond the Roan's Canyon Fault. Longwall panels are projected on both sides of these main entries. A number of longwall panels located along the south side of Rilda Canyon will undermine portions of the canyon escarpments (see enclosed highlighted map). This has prompted an in-depth review of potential escarpment failure.

The Manti-LaSal National Forest (FS) has asked BLM to evaluate the R2P2 and determine if the mining plan provides adequate protection of surface resources in accordance with the Federal lease terms and conditions. The BLM is currently working on a response to the FS regarding our analysis of the escarpment issue. Final approval of mining zones that may affect sensitive escarpment areas is contingent on the completion of the technical studies currently underway. Because the mine plan provides adequate flexibility for any necessary future adjustments in these areas, development as proposed for the remainder of the R2P2 is recommended for approval.

We have determined that the R2P2 as submitted is complete and technically adequate. The R2P2 is also in compliance with the Mineral Leasing Act, as amended, the regulatory provisions of 43 CFR 3480, Federal lease terms and conditions, and will achieve maximum economic recovery (MER) of the Federal coal. Therefore, we recommend partial approval of the R2P2 for this permit action.

Sincerely yours,

Mary Johnson
for

Assistant District Manager
Mineral Resources

Enclosure:
Mine Projection Map

cc: SD, Utah (U-921), w/enclosure
DM, Moab (U-065), w/enclosure
Office of Surface Mining, Denver, w/enclosure
PacifiCorp, SLC, Utah, w/enclosure
Manti-LaSai NF, Price, Utah, w/enclosure

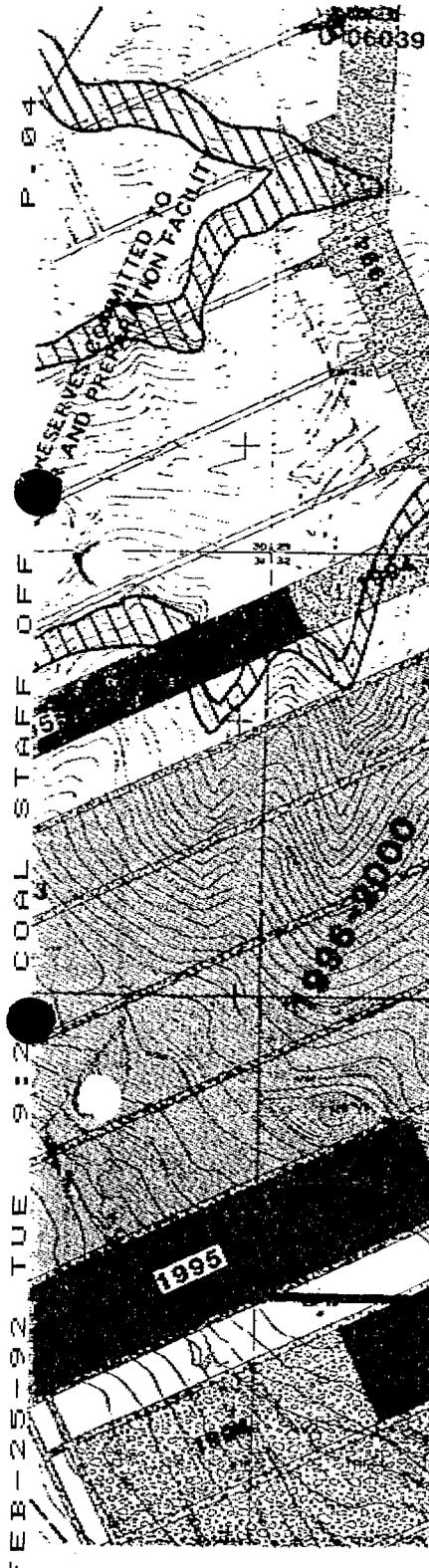
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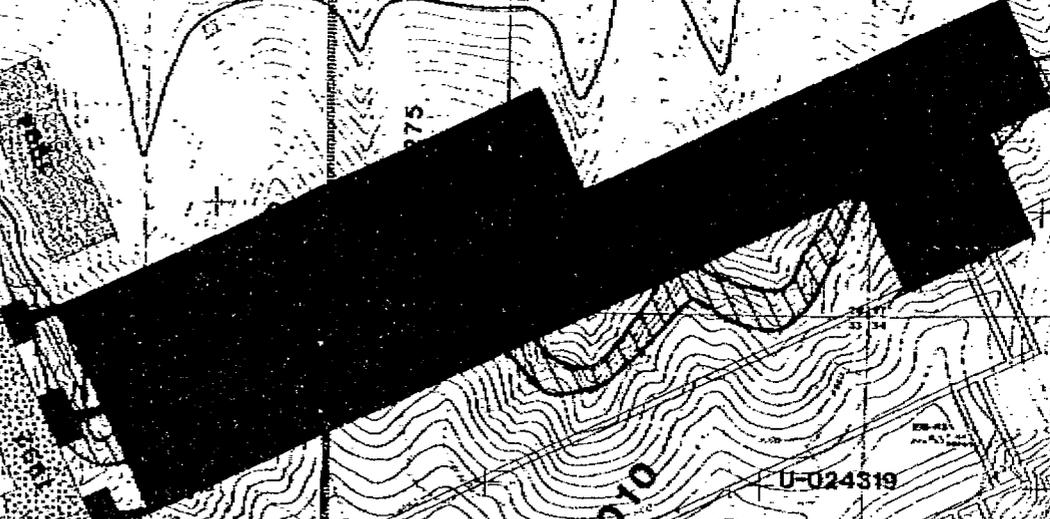
U-06039



U-05

U-28

REDA CANYON



2008-2010

U-024319

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Roans Ca

PLEASANT VALLEY FACILITY



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangarter
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

October 13, 1992

TO: File

FROM: Pamela Grubaugh-Littig, Permit Supervisor *PGL*

RE: R2P2, Incidental Boundary Change, Rilda Canyon, Deer Creek Mine, PacifiCorp, ACT/015/018-92F, Folder #2, Emery County, Utah

Mr. Barry Grosely, BLM, Price, telephoned me today to notify the Division about the adequacy of the R2P2 for the Rilda Canyon Incidental Boundary Change. He said that the R2P2 approved on February 28, 1992 would be adequate for this permitting action.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH AND WILDLIFE ENHANCEMENT
UTAH STATE OFFICE
2078 ADMINISTRATION BUILDING
1745 WEST 1700 SOUTH
SALT LAKE CITY, UTAH 84104-5110



In Reply Refer To

(FWE)

October 8, 1992

RECEIVED

OCT 09 1992

DIVISION OF
OIL, GAS & MINING

Pamela Grubaugh-Littig, Permit Supervisor
Utah Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Dear Ms. Grubaugh-Littig:

We have received your letter of September 17, 1992 concerning the proposed Incidental Boundary Change to extend underground mining at PacifiCorp's Deer Creek Mine.

The U.S. Fish and Wildlife Service (Service) advises that no listed or proposed threatened or endangered species are known to occur in the area of the proposed project. Since this proposal is for underground entry development only, there should be no subsidence impacts to nesting raptors. If PacifiCorp decides at a later date to proceed with full extraction mining, then a raptor survey of the surface should be performed to determine if there are nests which could be impacted.

If you have any questions please contact Susan Linner, Fish and Wildlife Biologist, at (801) 524-5630.

Sincerely,

Robert D. Williams
State Supervisor



State of Utah

Department of Community & Economic Development
Division of State History
Utah State Historical Society

300 Rio Grande
Salt Lake City, Utah 84101-1182
(801) 533-5755
FAX: (801) 364-6436

Robert H. Bangertter
Governor
Max J. Evans
Director

RECEIVED

OCT 02 1992

DIVISION OF
OIL GAS & MINING

September 28, 1992

Pamela Grubuagh-Littig
Permit Supervisor
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

RE: Application for Incidental Boundary Change, Rilda Canyon, PacifiCorp,
Deer Creek Mine, ACT/015/018-92F, Folder #2, Emery County, Utah

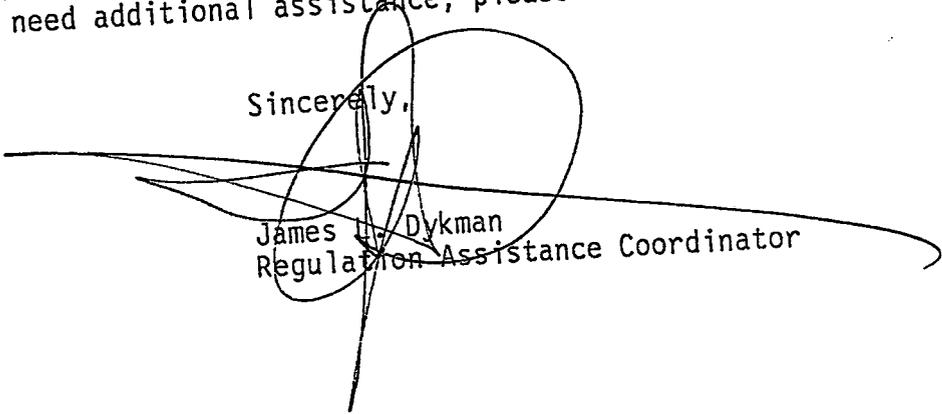
In Reply Please Refer to Case No. 90-1579

Dear Ms. Grubaugh-Littig:

The Utah State Historic Preservation Office has received further information on the above referenced project. Our office has no additional comments.

The above is provided on request as outlined by 36CFR800, or Utah Code, Title 63-18-37. The Utah SHPO makes no regulatory requirement in this matter. If you have questions or need additional assistance, please contact me at (801) 533-7039.

Sincerely,


James L. Dykman
Regulation Assistance Coordinator

JLD:90-1579 OSM



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES

RECEIVED

OCT 05 1992

DIVISION OF
OIL GAS & MINING

Norman H. Bangertter
Governor
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Executive Director
Timothy H. Provan
Division Director

1596 West North Temple
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801-538-4700
801-538-4441 (Fax)

October 2, 1992

Ms. Pamela Grubaugh-Littig
Permit Supervisor
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180

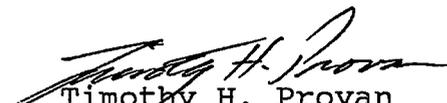
Dear Pam:

The Division of Wildlife Resources (DWR) has reviewed the proposed Incidental Boundary Change (IBC) for PacifiCorp's Deer Creek Mine (ACT/015/018-92F) in Emery County. We have the following comments and recommendations regarding this proposed change.

The area of the proposed boundary change provides habitat for a wide variety of wildlife species. DWR's primary concern is that subsidence caused by underground mining may impact wildlife habitat. Val Payne, UP&L's environmental engineer, indicated that no second mining would occur, only the development of the entries. The potential for subsidence would be greatly minimized under these conditions. In addition, UP&L's current subsidence monitoring covers the area of the proposed IBC. Any impacts to wildlife habitat due to subsidence would be detected under this program and appropriate action initiated. DWR supports this monitoring program.

We appreciate the opportunity to comment on this action. If you have any questions concerning our comments, please contact Ken Phippen, Regional Habitat Manager (637-3310).

Sincerely,


Timothy H. Provan
Director



STATE OF UTAH
NATURAL RESOURCES
Water Rights

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Robert L. Morgan, State Engineer

Southeastern Area • 453 S. Carbon Avenue • P.O. Box 718 • Price, UT 84501-0718 • 801-637-1303

ACT 1015/018 #2
Copy ~~PAM~~

October 14, 1992

Division of Oil, Gas & Mining
Attn: Pamela Grubaugh-Littig, Permit Supervisor
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Re: Incidental Boundary Change, Rilda Canyon
Deer Creek Mine

Dear Pam:

The above referenced application for the Deer Creek Mine has been reviewed. At the present time, this office does not have any comments regarding the mine permit boundary change.

Sincerely,

William A. Warmack

William A. Warmack
Assistant Regional Engineer

cc: Val Payne - Energy West Mining Co.

WAW/mjk

RECEIVED

OCT 15 1992

DIVISION OF
OIL, GAS & MINING

United States
Department of
Agriculture

Forest
Service

Manti-La Sal
National Forest

599 West Price River Dr.
Price, Utah 84501

Reply to: 2820

Date: October 28, 1992

Lowell Braxton
State of Utah Department of Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

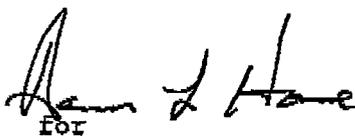
RE: Application for Incidental Boundary Change, Rilda Canyon, PacifiCorp, Deer
Creek Mine, ACT/015/018-92F, Folder #2, Emery County, Utah.

Dear Mr. Braxton:

We reviewed the incidental boundary change proposed by PacifiCorp that would add 120 acres of leased Federal land (U-47977 and SL-050862) to the permit area for the Deer Creek Mine. The Manti-La Sal National Forest hereby consents to approval of the proposed incidental boundary change by the Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement, subject to conditions already included in the mine plan and permit.

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

Sincerely,



For
GEORGE A. MORRIS
Forest Supervisor

cc: D-3



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangarter
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

September 24, 1992

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Ken Wyatt, Reclamation Hydrologist *KW*

RE: Incidental Boundary Change, Pacificorp Electric Operations, Deer Creek Mine, ACT/015/018, Folder # 3, Emery County, Utah

SYNOPSIS

On September 17, 1992, Pacificorp submitted an application requesting an incidental boundary change (IBC) to two leases, U-47977 and SL-050862. The application involves driving development entries into these two lease areas in an attempt to explore a faulted zone recently encountered. This memo serves to review this submittal.

ANALYSIS

The application for the boundary change must meet three criteria to be considered a permit amendment and not a significant permit revision. This is described in R645-302-223 which reads:

The Application for Permit Change will identify the proposed change, or changes, and include the information required under, R645-301, and R645-302 to the extent applicable to the proposed change or changes. The Application for Permit Change will be categorized as a Significant Permit Revision if it involves any of the changes or circumstances set forth in R645-303-224. **All other Applications for Permit Change, including Incidental Boundary Changes, will be categorized as Permit Amendments.**

The criteria requiring a significant permit revision are found in R645-303-224.

1. An increase in the size of the surface or subsurface disturbed area in an amount of 15 percent, or greater, than the disturbed area under the approved permit.

The proposed amendment includes 120 acres of subsurface disturbance in two leases. Federal lease U-47977, involves 80 acres and SL-050862 involves 40 acres. The mine currently has an underground disturbance of 4000 acres, therefore the proposed IBC is 3 percent of the subsurface disturbance. This criteria allows for a permit amendment review.

2. Engaging in operations outside of the cumulative impact area as defined in the Cumulative Hydrologic Impact Assessment (CHIA).

The Cumulative Hydrologic Impact Area (CIA) covering the Deer Creek Mine is the East Mountain CIA which is bounded by Huntington Creek to the east, Cottonwood Creek to the West, Crandall Canyon to the north and Straight Canyon to the south. This CIA includes the Crandall Canyon and the Huntington 4 Mine to the north and the Cottonwood/Wilberg and Des-Bee-Dove Mines to the south. The proposed IBC is located just north of the current Deer Creek Mine workings beneath East Mountain in the NW1/4 SW1/4 Section 33, T16S, R7E, SLBM and on the E1/2, SE1/4 Section 32 T16S, R7E, SLBM. The proposed change is within the CIA, therefore criteria 2 is met for review as a permit amendment.

3. Engaging in operations in hydrologic basins other than those authorized in the approved permit.

The proposed IBC is located in the headwaters of the North Fork of Meetinghouse Canyon which is located in the approved permit. See Figure 6 of the East Mountain CIA. Springs are also monitored in this area.

4. When required by an order issued under R645-303-212 and R645-303-213; This proposal did not result from a Division Order.

The proposal does not meet the criteria for a significant permit revision and can be reviewed as a permit amendment. The operator's cover letter indicates that only entry development will take place therefore the non coal resources will not be impacted. Surface impacts from this IBC are probably minimal since no subsidence should be caused from this change.

Pacificorp needs to commit to informing the Division if groundwater flows are encountered and commit to monitoring these flows under the baseline parameters set for the Deer Creek Mine permit. If, during entry development, sustained quantities of groundwater greater than 5 gallons per minute from a single source in an individual entry are encountered, and these flows continue after operational activities have progressed beyond the area of inflow, then PacificCorp will inform the Division within 24 hours of the groundwater flows encountered and begin monitoring these flows for quality and quantity under the approved baseline parameters.

RECOMMENDATION

I recommend that the permit revision be approved with the above mentioned commitment from the operator regarding groundwater.



United States Department of the Interior

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

3453
SL-050862
U-7653
(U-942)

CERTIFIED MAIL
RETURN RECEIPT REQUEST

JUN 20 1986

DECISION

Utah Power and Light Company	:	Coal
P.O. Box 899	:	SL-050862- U-24069- U-24070 and
Salt Lake City, UT 84110	:	U-7653

Assignment Approved
Assignment of Sublease Approved
Bonds Accepted

On September 3, 1985, an assignment of coal lease SL-050862-U-24069-U-024070 and an assignment of a sublease of U-7653, dated August 27, 1985, between Utah Power and Light Company, as assignee, and WA Land Company, as assignor, were filed in this office.

Satisfactory evidence of the qualifications and holdings of Utah Power and Light Company has been filed, and the lease accounts are in good standing. The assignments appear to meet the requirements of the regulations and are hereby approved effective July 1, 1986. Approval of these assignments does not constitute approval of any of the terms therein which may be in violation of the lease terms.

On June 13, 1986 two lease bonds were filed (Nos. 9291562 and 9291563) in the amounts of \$10,000 and \$5,000 covering coal leases U-7653 and SL-050862, respectively, with Utah Power and Light Company, as principal and American Casualty Company, as surety. These bonds have been examined, found to be satisfactory, and are accepted effective the date of filing.

ACTING *William D. Buzg*
Chief, Minerals
Adjudication Section



United States Department of the Interior

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

3453
U-47977
(U-942)

DWT

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

JUN 17 1986
RECEIVED
JUN 18 1986
SYS. & RES. PLANNING

DECISION

Utah Power and Light Company : Coal Lease
P.O. Box 899 : U-47977
Salt Lake City, UT 84110 :

Assignment Approved
Bond Accepted

On September 3, 1985, an assignment of coal lease U-47977 dated August 17, 1985, between Utah Power and Light Company, as assignee, and W.A. Land Company, as assignor, was filed in this office.

Satisfactory evidence of the qualifications and holdings of Utah Power and Light Company has been filed, and the lease account is in good standing. The assignment appears to meet the requirements of the regulations and is hereby approved effective July 1, 1986. Approval of the assignment does not constitute approval of any of the terms therein which may be in violation of the lease terms.

As required by the regulations in 43 CFR 3472.2(a), a lease bond (No. 928 47 99) in the amount of \$1,048,200 covering coal lease U-47977, with Utah Power and Light Company, as principal, and American Casualty Company, as surety was filed in this office on June 10, 1986. The bond has been examined, found to be satisfactory and is accepted effective as of the date of filing.

[Signature]
Chief, Minerals
Adjudication Section

Bond No. 9272158
Permit Number: ACT/015/018
Deer Creek Mine

EXHIBIT "B"

SURETY BOND (FEDERAL COAL)

THIS SURETY BOND entered into and by and between the undersigned PERMITTEE, and SURETY company, hereby jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns unto the State of Utah, Division of Oil, Gas and Mining (DIVISION), and the U.S. Department of Interior, Office of Surface Mining Reclamation and Enforcement (OSM) in the penal sum of \$2,000,000.00 ~~\$ Two Million and No/100 Dollars-----~~ for the timely performance of reclamation responsibilities of the permit area described in Exhibit "A" of this Reclamation Agreement.

This SURETY BOND will remain in effect until all of the PERMITTEE's reclamation obligation have been met and released by the DIVISION and is conditioned upon faithful performance of all of the requirements of the Act, the applicable rules and regulations, SMCRA, the approved permit and the DIVISION.

The SURETY will not cancel this bond at any time for any reason, including non-payment of premium or bankruptcy of the Principal during the period of liability.

The SURETY and their successors and assigns, agree to guarantee the obligation and to indemnify, defend, and hold harmless the DIVISION and OSM from any and all expenses which the DIVISION and OSM may sustain as a result of the PERMITTEE's failure to comply with the condition(s) of the reclamation obligation.

The SURETY will give prompt notice to the PERMITTEE and to the DIVISION and OSM of any notice or action involving insolvency or bankruptcy of the SURETY, or alleging any violations of regulatory requirements which could result in suspension or revocation of the SURETY's license in this state. In the event the Cooperative Agreement between the DIVISION and OSM is terminated, then the portion of the bond covering the Federal Lands will be payable only to the United States, Department of Interior, Office of Surface Mining.

Terms for release or adjustment of this BOND are as written and agreed to by the DIVISION and the PERMITTEE in the RECLAMATION AGREEMENT incorporated by reference herein, to which this SURETY AGREEMENT has been attached as Exhibit "B". The obligee, in accepting this bond, acknowledges that this bond replaces and supercedes all previous bonds and riders issued under this number, and that this bond is the sole obligation of the surety in connection with the captioned permit.

IN WITNESS WHEREOF, the PERMITTEE has hereunto set its signature and seal
this 11th day of September, 19 92.

Corporate Seal

PacifiCorp

PERMITTEE

By: J. Brett Harvey

Title: Vice President

IN WITNESS WHEREOF, the SURETY has hereto set its signature and seal
this 11th day of September, 19 92.

American Casualty Company

SURETY

By: Gary W. Manville

Title: Gary W. Manville Attorney-in-Fact

ACCEPTED BY THE STATE OF UTAH
this 11th day of September, 19 92.

Dianne Nielson

Dianne Nielson, Director

Division of Oil, Gas and Mining

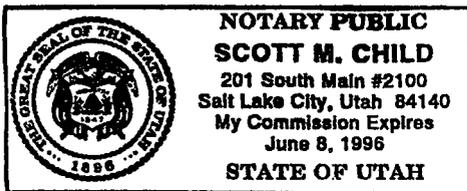
NOTE:

An Affidavit of Qualification must be completed and attached to this form for each authorized agent or officer. Where one signs by virtue of Power of Attorney for a company, such Power of Attorney must be filed with this Agreement. If the PERMITTEE is a corporation, the Agreement shall be executed by its duly authorized officer.

ACKNOWLEDGEMENT OF CORPORATION - PERMITTEE

On this 11 day of September, 1992, before me, a Notary Public in and for the County of Salt Lake, in the state of Utah, appeared J. Brett Harvey to me personally known who, being by me duly sworn, did say that he/she is Vice President of PacifiCorp, the corporation (PERMITTEE) named in and which executed the within instrument, and that the seal affixed to said instrument is the corporation seal of said corporation, and that said instrument was signed, sealed and delivered in behalf of said corporation by authority of its Board of Directors, and he/she as such officer, acknowledged said instrument to be the free act and deed of said corporation for the uses and purposes of said instrument as therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on the day, month, and year aforesaid.



[Signature]
Notary Public in and for said
County and State

My Commission Expires:

6-8-96

AFFIDAVIT OF QUALIFICATION
FOR SURETY COMPANIES

STATE OF UTAH }
COUNTY OF SALT LAKE } SS

Gary W. Manville BEING FIRST DULY SWORN, ON OATH DE-
POSES AND SAYS THAT HE IS THE ATTORNEY-IN-FACT OF SAID COMPANY,
(OFFICER OR AGENT)
AND THAT HE IS DULY AUTHORIZED TO EXECUTE AND DELIVER THE
FOREGOING OBLIGATIONS: THAT SAID COMPANY IS AUTHORIZED TO EXE-
CUTE THE SAME AND HAS COMPLIED IN ALL RESPECTS WITH THE LAWS OF
UTAH IN REFERENCE TO BECOMING SOLE SURETY UPON BONDS, UNDER-
TAKINGS AND OBLIGATIONS.

SUBSCRIBED AND SWORN TO BE-
FORE ME, THIS 11th DAY OF
September, A.D., 1992

Sharron Rushton
(SIGNATURE OF NOTARY PUBLIC)

(SEAL) Sharron Rushton
MY COMMISSION EXPIRES:

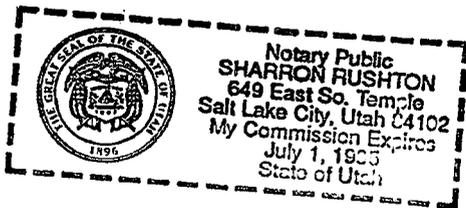
July 1, 1995
649 East South Temple
Salt Lake City, Utah 84102

Gary W. Manville
(SIGNATURE OF OFFICER OR AGENT)

649 East South Temple
Salt Lake City, Utah 84102
(RESIDENCE)

(SURETY SEAL)

(THIS FORM REQUIRED TO BE FILLED
OUT BY SECTION 31-24-3, UCA 1953)





POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men by these Presents, That AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, a corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania, and having its principal office in the City of Chicago, and State of Illinois, does hereby make, constitute and appoint Edward B. Moreton, Edward F. Folland,

L. Kent Bills, Jean M. Lambourne, Gary W. Manville, Joyce R. Hartley,
William R. Moreton, Individually

of Salt Lake City, Utah

its true and lawful Attorney-in-Fact with full power and authority hereby conferred to sign, seal and execute in its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA thereby as fully and to the same extent as if such instruments were signed by the duly authorized officers of AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA and all the acts of said Attorney, pursuant to the authority hereby given are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the Board of Directors of the Company:

"Article VI—Execution of Obligations and Appointment of Attorney-in-Fact

Section 2. Appointment of Attorney-in-fact. The President or Vice President may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Company in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority, shall have full power to bind the Company by their signature and execution of any such instruments and to attach the seal of the Company thereto. The President or any Vice President or the Board of Directors may at any time revoke all power and authority previously given to any attorney-in-fact."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 11th day of November, 1966:

"Resolved, that the signature of the President or a Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted pursuant to Section 2 of Article VI of the By-Laws, and the signature of the Secretary or an Assistant Secretary and the seal of the Company may be affixed by facsimile to any certificate of any such power, and any power or certificate bearing such facsimile signatures and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company."

In Witness Whereof, AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed this 2nd day of March, 19 89.

State of Illinois)
County of Cook) ss



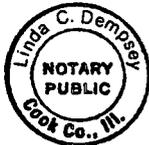
AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA

J. E. Purtell
J. E. Purtell

Vice President.

On this 2nd day of March, 19 89, before me personally came

J. E. Purtell, to me known, who, being by me duly sworn, did depose and say: that he resides in the Village of Glenview, State of Illinois; that he is a Vice-President of AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, the corporation described in the which executed the above instrument; that he knows the seal of said Corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.



Linda C. Dempsey
Linda C. Dempsey

Notary Public.

CERTIFICATE My Commission Expires November 12, 1990

I, Robert E. Ayo, Assistant Secretary of AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, do certify that the Power of Attorney herein above set forth is still in force, and further certify that Section 2 of Article VI of the By-Laws of the Company and the Resolution of the Board of Directors, set forth in said Power of Attorney are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said Company this 11th day of September, 19 92



Robert E. Ayo
Robert E. Ayo

Assistant Secretary.

INV. NO. G-57442-B

CERTIFICATE OF INSURANCE

Act 1015/018

File Original Question Copy #1

02/19/92

PRODUCER
MARSH & McLENNAN, INC.
 900 S. W. FIFTH, SUITE 1100
 PORTLAND, OR
 97204-
 PHONE 503-226-9500

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE.

- COMPANY LETTER A **AEGIS INSURANCE SERVICES, LTD.**
- COMPANY LETTER B
- COMPANY LETTER C
- COMPANY LETTER D
- COMPANY LETTER E

INSURED
PacifiCorp, DBA PacifiCorp
 Electric Operations
 920 SW Sixth
 Portland,, OR
 97204-

> COVERAGES <=====
 THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL TERMS, EXCLUSIONS, AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFF DATE	POLICY EXP DATE	ALL LIMITS IN THOUSANDS	
	GENERAL LIABILITY				GENERAL AGGREGATE	35000
A	<input checked="" type="checkbox"/> COMMERCIAL GEN LIABILITY	XO296A1A92	02/24/92	02/24/93	PRODS-COMP/OPS AGG.	
A	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> CLAIMS MADE [] OCC.	retro date:			PERS. & ADVG. INJURY	
	[] OWNER'S & CONTRACTORS PROTECTIVE	12-24-86			EACH OCCURRENCE	35000
A	<input checked="" type="checkbox"/> XCU				FIRE DAMAGE (ANY ONE FIRE)	
	[]				MEDICAL EXPENSE (ANY ONE PERSON)	
	AUTOMOBILE LIAB				CSL	
	[] ANY AUTO				BODILY INJURY (PER PERSON)	
	[] ALL OWNED AUTOS				BODILY INJURY (PER ACCIDENT)	
	[] SCHEDULED AUTOS				PROPERTY	
	[] HIRED AUTOS					
	[] NON-OWNED AUTOS					
	[] GARAGE LIABILITY					
	[]					
A	EXCESS LIABILITY				EACH OCC	AGGREGATE
	[] UMBRELLA FORM	XO296A1A92	02/24/92	02/24/93	35000	35000
	<input checked="" type="checkbox"/> OTHER THAN UMBRELLA FORM	(SEE ATTACHED)				
	WORKERS' COMP AND EMPLOYERS' LIAB				STATUTORY	EACH ACC DISEASE-POLICY LIMIT DISEASE-EACH EMPLOYEE
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

DEERCREEK ACT/015/018

Damage due to explosives is covered. Insurance Company will notify State of Utah of changes or cancellation

> CERTIFICATE HOLDER <=====
STATE OF UTAH, DEPT OF NATURAL RESOURCES, DIV. OF OIL & GAS
 355 W. NORTH TEMPLE
 SALT LAKE CITY, UT
 84180-1203

CANCELLATION <=====
 = SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ADVISE BY MAIL 45
 = DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BY FAX
 = FAX NUMBER TO MAIN SUEN NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES
 = AUTHORIZED REPRESENTATIVE

Andrea J. Johnson

ACORD 25-S (3/88)

Certificate Number: **No. 22306**

ASSOCIATED ELECTRIC & GAS INSURANCE SERVICES LIMITED
Hamilton, Bermuda

CERTIFICATE OF INSURANCE

(~~EXCESS~~ Liability)
Primary

This Certificate is furnished to the Certificate Holder named below as a matter of information only. Neither this Certificate nor the issuance hereof modifies the policy of insurance identified below (the "Policy") in any manner. The Policy terms are solely as stated in the Policy or in any endorsement thereto. Any amendment, change or extension of the Policy can only be effected by a specific endorsement issued by the Company and attached to the Policy.

The undersigned hereby certifies that the Policy has been issued by Associated Electric & Gas Insurance Services Limited (the "Company") to the Named Insured identified below for the coverage described and for the policy period specified.

Notwithstanding any requirements, terms or conditions of any contract or other document with respect to which this Certificate may be issued or to which it may pertain, the insurance afforded by the Policy is subject to all of the terms of the Policy.

NAME OF INSURED: PacifiCorp, PacifiCorp dba PacifiCorp Electric Operations
920 SW Sixth
PRINCIPAL ADDRESS: Portland, Oregon 97204

POLICY NUMBER: X0296A1A92 POLICY PERIOD: From: 2-24-92 To: 2-24-93

RETROACTIVE DATE: 12-24-86 Primary

DESCRIPTION OF COVERAGE: Claims-First-Made ~~EXCESS~~ Liability Policy covering claims for Bodily Injury, Property Damage and Personal Injury arising from the operations described below.

LIMIT OF LIABILITY: \$ 35,000,000 per occurrence and in the aggregate, where applicable.

ADDITIONAL INSURED: The Certificate Holder is an additional Insured under the Policy but only (i) to such extent and for such Limits of Liability (subject always to the terms and Limits of Liability of the Policy) as the Named Insured has agreed to provide insurance for the Certificate Holder under the following contract:
DEERCREEK ACT/015/018

and (ii) with respect to the following operations:
Damages due to explosives is covered. Insurance Company will notify State of Utah of changes or cancellation

Should the Policy be cancelled, assigned or changed in a manner that is materially adverse to the Insured(s) under the Policy, the undersigned will endeavor to give 45 days advance written notice thereof to the Certificate Holder, but failure to give such notice will impose no obligation or liability of any kind upon the Company, the undersigned or any agent or representative of either.

DATE: 2-24-92

ISSUED TO: State of Utah ("Certificate Holder")

ADDRESS: Department of Natural Resources
Division of Oil, Gas and Mining
356 West North Temple
Salt Lake City, Utah 84180-1203

AEGIS INSURANCE SERVICES, INC.

BY: Sandra J. Johnson