

0003



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

July 29, 1997

Mr. Mike Glasson, Sr. Geologist
Andalex Resources, Inc.
6750 Airport Road
P. O. Box 902
Price, Utah

Dear Mr. Glasson:

Re: State Final Findings and Supporting Documentation, Incidental Boundary Change for 160 Acres - Modified Federal Lease UTU-66060, Centennial Mine, Andalex Resources Inc., Centennial Project, ACT/007/019-97C, Folder # 3, Carbon County, Utah

Enclosed please find Utah's Final Findings and Supporting Decision Documentation for Andalex Resources' to extend mining into Federal Lease UTU-66060 for 160 acres through an incidental boundary change.

With this package there are two (2) copies of the revised permanent program mining and reclamation permit with one condition for the Centennial Mines Complex. Please read the permit, then have both copies signed and return one to the Division.

Please call if you have are any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read 'James W. Carter', written over a large, light-colored oval shape.

James W. Carter
Director

Enclosures

cc: Ranvir Singh, OSM

UTAH DIVISION OF OIL, GAS AND MINING
STATE DECISION DOCUMENT

Andalex Resources, Inc.
Centennial Project
Lease Modification of UTU-66060
Incidental Boundary Change (160 Acres)
ACT/007/019 - 97C
Carbon County, Utah

July 29, 1997

CONTENTS

- * Administrative Overview
- * Location Map
- * Mine Plan Information
- * Letters of Concurrence

Bureau of Land Management, March 17, 1997
U. S. Fish and Wildlife Service, March 11, 1997
Division of State History, July 8, 1997
AVS Memo from Pamela Grubaugh-Littig, July 29, 1997

- * Technical Analysis
- * Findings
- * Permit

ADMINISTRATIVE OVERVIEW

Andalex Resources, Inc.
Centennial Project
Lease Modification of UTU-66060
Incidental Boundary Change (160 Acres)
ACT/007/019 - 97C
Carbon County, Utah

July 29, 1997

PROPOSAL

Andalex Resources, Inc. (ARI) has proposed to add approximately 160 acres to the current permit area through an incidental boundary change. ARI is proposing this 160-acre addition to the lease to allow mining of the main entries north along the area where the "A" seam thickness pinches out, thus mining to the limits of the minable coal. Mining into the new lease modification will allow for the start-up development for the next longwall panel. This development is critical due to a major panel reconfiguration to protect from dangerous coal bounces. Mining would take place in the Lower A seam and would be done as an extension of current underground mining operations at the Aberdeen Mine.

Also at this time Andalex is dropping 80 acres from the permit area in lease U-52341. This lease was relinquished in December of 1987 and no mining occurred in this 80 acre area. (A 40 acre parcel of the lease still remains in the permit since it had been mined.)

BACKGROUND

The Mining and Reclamation Plan (MRP) for the Centennial Project was approved by the Office of Surface Mining in November of 1981 and by the Division of Oil, Gas and Mining (DOG M) in January of 1982. The originally approved MRP consisted of 2,240 acres of private and federal coal leases. On May 20, 1986, ARI was issued a permit by DOGM for a 120-acre federal emergency lease. On March 2, 1987, a new five-year permanent program permit was issued incorporating the emergency lease, for a total permitted acreage of 2,360 acres.

In October of 1981, Federal lease numbers U-010581, SL-063058 and SL-027304 were modified by the Bureau of Land Management to include an additional 436 acres. In March of 1988, ARI requested that these three lease modifications be incorporated into the permitted area. In August of 1988, ARI requested that one additional 320 acre federal lease (U-05067) and one 240 acre fee lease be added to the permitted area. The permit was revised to include these leases on May 4, 1989, which brought the total permitted acreage to 3,358 acres. Again on April 8, 1991, a permit revision was approved which incorporated Federal Lease UTU-66060 also known as the Graves

Lease into the permit area. The addition of this 933 acre lease brought the total lease holdings to 4,291 acres. This total combined with a 10 acre BLM right-of-way brought the total permit acreage to 4,301. On July 7, 1993 the addition of the AEP lease to the permitted area, which consisted of 801 acres brought the total permitted acreage to 5102 acres. This incidental boundary change adds approximately 160 acres to the permit. At this time Andalex is also dropping 80 acres from the permit associated with lease U-52341. This lease was relinquished in December of 1987 and is being dropped from the permit since the area was never mined. This permitting action brings the total permit area to 5186 acres. (NOTE: A 100-foot extension which was approved as part of this lease modification and incidental boundary change on March 18, 1997 included 6.06 acres.)

Currently ARI operates three mines, the Pinnacle, Apex and Aberdeen, in the Gilson, Lower Sunnyside and Aberdeen seams respectively. A fourth seam, the Centennial, is accessed through the Pinnacle Mine by driving rock slopes from the Gilson seam. This proposed incidental boundary change involves further development of the Aberdeen seam.

ANALYSIS

No additional surface disturbance is proposed in relation to the addition of the incidental boundary change. All mining will be done as an extension of current underground mining in the Aberdeen seam. There are existing commitments to repair subsidence cracks that could cause problems for wildlife or livestock if subsidence should occur. The Cumulative Hydrologic Impact Assessment indicates that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the proposed permit area.

RECOMMENDATION

The permittee, ARI, has demonstrated that mining of the Incidental Boundary Change can be done in conformance with the Surface Mining Control and Reclamation Act, and the corresponding Utah Act and performance standards. The Bureau of Land Management has approved the R2P2 for the federal lease modification and concurs with the decision to allow mining at this time. It is, therefore recommended that approval be given for the addition of the IBC to the permitted area and to the currently approved five year permanent program mining permit.

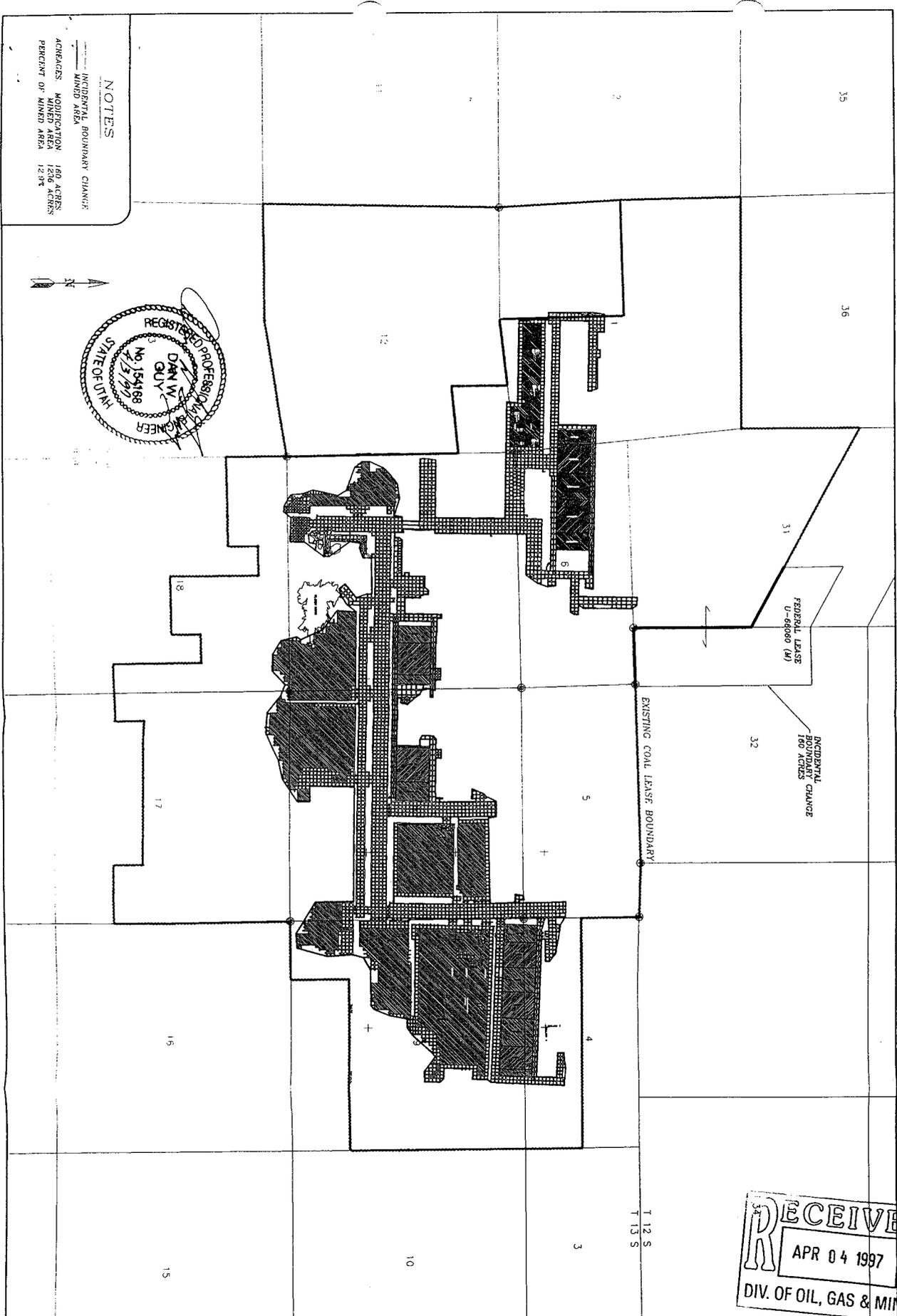
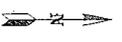
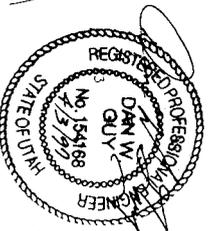
NOTES

--- INCIDENTL BOUNDARY CHANGE
 MIND AREA

--- MODIFICATION
 MIND AREA

--- 160 ACRES
 MIND AREA

--- 1276 ACRES
 PERCENT OF MIND AREA



RECEIVED
 APR 04 1997
 DIV. OF OIL, GAS & MINING

TOWER DIVISION
 INCIDENTAL BOUNDARY CHANGE

SCALE:
 500' 0' 1000' 2000'



ANDALEX
 RESOURCES, INC.
 Tower Division

OCTOBER 28, 1996

ACAD REF: ACREMAP

MINE PLAN INFORMATION

Mine Name: Centennial Project State ID: ACT/007/019
 Operator: Andalex Resources, Inc. County: Carbon

Controlled By: _____
 Contact Person(s): Mike Glasson Position: Resident Agent
 Telephone: (801) 637-5383

New/Existing: Lease Modification
 Mining Method: Longwall with Continuous Miner Room and Pillar Development
 New Federal Lease No(s): UTU-66060 (modification of existing lease)
 Legal Description(s): T. 12S., R. 11 E., SLM
Section 31: Lot 12
Section 32: W1/2SW1/4, SW1/4NW14

Current Permit Area Legal Description:

T. 13S., R. 11 E., SLBM

Section 4: S1/2
Section 5: All
Section 6: All
Section 7: All
Section 8: All
Section 9: N 1/2, N1/2 S1/2, SW1/4 SW1/4
Section 17: N 1/2, NE 1/4 SE 1/4, N 1/2 NW 1/4 SE 1/4,
N 1/2 NE 1/4 SW 1/4, NE 1/4 NW 1/4 SW 1/4,
W 1/2 NW 1/4 SW 1/4
Section 18: N 1/2 N 1/2, SW 1/4 NE 1/4, NW 1/4 SE 1/4 E 1/4,
E 1/2 SE 1/4 NE 1/4, E 1/2 NE 1/4 SE 1/4

T. 13S., R. 10 E., SLM, Utah

Section 1: All
Section 12: All

T. 12S., R. 11 E., SLM, Utah

Section 31: lots 3-6, and 13-22.

Ownership Data:

<u>Surface Resources (acres)</u>	<u>Existing Permit Area</u>	<u>Proposed Permit Area</u>	<u>Total Life Of Mine Area</u>
Federal	<u>4664.77</u>	<u>+160 (-80)</u>	<u>4744.77</u>
State	<u> </u>	<u> </u>	<u> </u>
Private	<u>441.5</u>	<u> </u>	<u>441.5</u>
Other	<u> </u>	<u> </u>	<u> </u>
TOTAL	<u>5106.27</u>	<u>+ 80</u>	<u>5186.27</u>

Coal Ownership (acres):

Federal	<u>4653.32</u>	<u>+160 (-80)</u>	<u>4733.32</u>
State	<u> </u>	<u> </u>	<u> </u>
Private	<u>440</u>	<u> </u>	<u>440</u>
Other	<u> </u>	<u> </u>	<u> </u>
TOTAL	<u>5093.32</u>	<u>+80</u>	<u>5173.32</u>

<u>Coal Resource Data</u>	<u>Total Reserves</u>	<u>Remaining Recoverable Reserves</u>
Federal	<u> </u>	<u>23 Million Tons</u>
State	<u> </u>	<u> </u>
Private	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>
TOTAL	<u>52.5 Millon Tons</u>	<u>23 Million Tons</u>

<u>Recoverable Reserve Data</u>	<u>Name</u>	<u>Thickness</u>	<u>Depth</u>
Seam	<u>Lower Sunnyside</u>	<u>4-6 ft.</u>	<u>0-1800 ft.</u>
Seam	<u>Centennial</u>	<u>5-7 ft.</u>	<u>800-2000 ft.</u>
Seam	<u>Gilson</u>	<u>4-8 ft.</u>	<u>0-2000 ft.</u>
Seam	<u>Aberdeen</u>	<u>4-13 ft.</u>	<u>0-2400 ft.</u>
Seam	<u> </u>	<u> </u>	<u> </u>
Seam	<u> </u>	<u> </u>	<u> </u>

Mine Life: 28 years

Average Annual Production: 1.9 to 2.5 Million Percent Recovery: 68%

Date Projected Annual Rate Reached: 1996

Date Production Begins: 1980 Date Production Ends: 2008

Reserves Recoverable By: (1) Surface Mining:
(2) Underground Mining: Longwall with continuous miner development

Reserves Lost Through Management Decisions: Unknown

Coal Market: Unknown

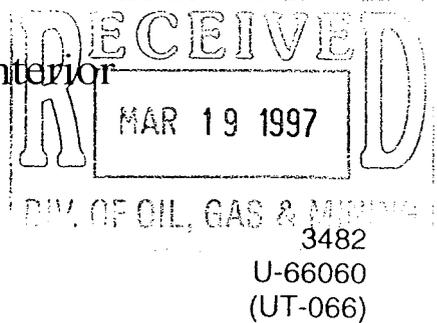
LETTERS OF CONCURRENCE



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
Price River/San Rafael Resource Area
125 South 600 West
Price, Utah 84501



Pamela Grubaugh-Littig
State of Utah
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

MAR 17 1997

Re: Incidental Boundary Change, 160 Acre Lease Modification, Centennial Mine, Andalex Resources, Inc., ACT/007/019-97B

Copy DAM

Dear Ms. Grubaugh-Littig:

#3

*for 022-97C
160 Ac IBC*

The Bureau of Land Management has received from your office a copy of the submission for the subject permit change. The addition of 160 acres to Federal coal lease U-66060 requires a modified resource recovery and protection plan (R2P2) as part of the permit modification. Our review of Andalex's submission follows:

The submission has been reviewed and it contains all necessary requirements of the R2P2. The 160-acre addition to the lease will allow Andalex to mine main entries north along the area where the "A" seam thickness pinches out, thus mining to the limits of the minable coal. This submission includes the mining plans for Andalex's immediate need to mine just into the new lease modification for the start-up development for the next longwall panel. This immediate development is critical due to a major panel reconfiguration to protect from dangerous coal bounces.

The BLM has determined that the R2P2 changes for the 160-acre lease modification, including the immediate main entry development, meets the requirements of the Mineral Leasing Act of 1920, as amended, the regulations at 43 CFR 3480. the lease terms and conditions. and will achieve maximum economic recovery of the Federal coal. If you have any questions, please contact Stephen Falk of my staff at 636-3600.

Sincerely,

Mark E. Bailey
Act. Area Manager

cc: UT-921, Utah State Office
Andalex Resources, Inc.
P. O. Box 902
Price, Utah 84501



United States Department of the Interior

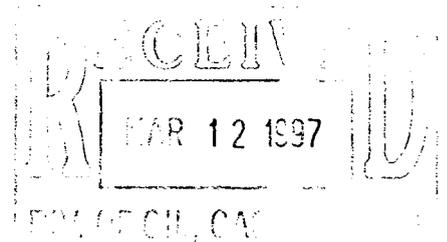
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE
LINCOLN PLAZA
145 EAST 1300 SOUTH, SUITE 404
SALT LAKE CITY, UTAH 84115

In Reply Refer To

(CO/KS/NE/UT)

March 11, 1997



Pamela Grubaugh-Littig
Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, UT 84114-5801

RE: Centennial Mine, Andalex Resources, Inc., ACT/007/019-97B

Dear Ms. Grubaugh-Littig:

We have received and reviewed your letters of February 10 and 21, 1997 concerning the incidental boundary change of 160 acres for Centennial Mine, Andalex Resources, Inc. located in Carbon County, Utah. No threatened or endangered species are known to occur at the project site. Please contact us, if we can be of any further assistance.

Sincerely,

Robert D. Williams
Assistant Field Supervisor

cc: Daron Haddock, State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, Box 145801, Salt Lake City, UT 84114-5801



State of Utah

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



Michael O. Leavitt
Governor
Max J. Evans
Director

300 Rio Grande
Salt Lake City, Utah 84107-1182
(801) 533-3500 • FAX: 533-3503 • TDD: 533-3502
cehistory.ushs@email.state.ut.us

July 8, 1997

Mike Glasson
Andalex Resources, Inc.
Tower Division
P. O. Box 902
Price Ut 84501

RE: Tower Mine, Carbon County

In Reply Please Refer to Case No. 97-0917

Dear Mr. Glasson:

The Utah State Historic Preservation Office received the above referenced request on June 26, 1997. After review of the map material provided, the Utah Preservation Office recommends that there would be **No Effect** upon cultural resources by the project.

This information is provided on request to assist Andalex Resources with its Section 106 responsibilities as specified in 36CFR800. If you have questions, please contact me at (801) 533-3555, or Barbara L. Murphy at (801) 533-3563. My email address is: jdykman@history.state.ut.us

ACT/007/019 #3
Copy From: Aaron

As ever,

James L. Dykmann
Compliance Archaeologist

JLD:97-0917 OSM

FACULTURALJIM97-0917.wpd



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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1594 West North Temple, Suite 1210
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Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

July 29, 1997

To: File

From: Pamela Grubaugh-Littig, Permit Supervisor 

Re: Compliance Review for Section 510 (c) Findings, Centennial Project, Andalex Resources, Inc., ACT/007/019-97C, Folder #3, Carbon County, Utah

As of the writing of this memo, there are no NOVS or COs which are not corrected or in the process of being corrected. There are no finalized Civil Penalties which are outstanding and overdue in the name of Andalex Resources, Inc. Andalex Resources, Inc. does not have a demonstrated pattern of willful violations, nor have they been subject to any bond forfeitures for any operation in the state of Utah.

The OSM recommendation from the Applicant Violator System (AVS) denotes an "issue."

State : UT	Permit No : ACT007019	Appl No : ACT007019
Applicant : 123355(ANDALEX RESOURCES INC / TOWER DIVISION)		Seqno : 0

SYSTEM RECOMMENDATION IS BASED ON ENTITY OFT		
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SYSTEM RECOMMENDATION	: ISSUE	07/29/97
PREVIOUS SYSTEM RECOMMENDATION	: ISSUE	01/09/97

RCM_MNT(F7) PERMIT/APPL(F8)
 PRV_SCR(F3) EVOFT(F5) REPORTS(F9) CHOICES(F10)

■ avsdg

14:38

State : UT	Permit No : ACT007019	Appl No : ACT007019
Applicant : 123355(ANDALEX RESOURCES INC / TOWER DIVISION)		Seqno : 0

SYSTEM RECOMMENDATION IS BASED ON ENTITY OFT		
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SYSTEM RECOMMENDATION	: ISSUE	07/29/97
PREVIOUS SYSTEM RECOMMENDATION	: ISSUE	01/09/97

RCM_MNT(F7) PERMIT/APPL(F8)
 PRV_SCR(F3) EVOFT(F5) REPORTS(F9) CHOICES(F10)

■ avsdg

14 38

State : UT	Permit No : ACT007019	Appl No : ACT007019
Applicant : 123355(ANDALEX RESOURCES INC / TOWER DIVISION)		Seqno : 0

SYSTEM RECOMMENDATION IS BASED ON ENTITY OFT		
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State of Utah
Division of Oil, Gas and Mining
Utah Coal Regulatory Program



Technical Analysis and Findings
160 acre Lease Modification
Centennial Mine
ACT/007/019-97C
July 22, 1997

TECHNICAL ANALYSIS

Last revised - July 22, 1997

INTRODUCTION

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. As the deficiencies are addressed through the review and modification process, the text of the TA is revised and the deficiencies no longer appear. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

TECHNICAL ANALYSIS

Last revised - July 22, 1997

ADMINISTRATIVE INFORMATION

OWNERSHIP AND CONTROL AND RIGHT OF ENTRY INFORMATION

Regulatory Reference: R645-301-112 and R645-301-114

Analysis:

The current mining and reclamation plan contains ownership and control information required by R645-301-112. Plate 2 shows surface owners of land within and adjacent to the permit area, Plate 3 shows coal ownership information, and Plate 4 shows the boundaries of coal leases. The lists of owners of surface and mineral lands within and contiguous to the current permit area do not need to be updated for this proposed incidental boundary change.

Since this is an amendment rather than a significant revision, updated information about the officers and directors is not required. The Division also does not require updated violation information.

In Section R645-301-114, the applicant has added the legal description for the area proposed to be added to the permit area. This area is a modification to lease UTU-66060, also known as the Graves Lease, and it was modified on October 3, 1994. The lease increased from 933 to 1093 acres.

Findings:

Information provided in this section of the proposal is considered adequate to meet the requirements of this section of the regulations.

TECHNICAL ANALYSIS

Last revised - July 22, 1997

ENVIRONMENTAL RESOURCE INFORMATION

PERMIT AREA

Regulatory Requirements: 30 CFR Sec. 783.12; R645-301-521.

Analysis:

Federal Lease U-66060 has been enlarged by 160 acres and Andalex Resources has requested an Incidental Boundary Change (IBC) to include the additional 160 acres in the permit area. The additional lease tract is described on page 21-A and is shown on maps in the IBC submittal. The modified coal lease that included the additional 160 acres was issued by BLM in October 1994. The lease addition brings the total acreage in Lease U-66060 to 1,094 (1093.32) acres.

Findings:

Description of lands subject to surface coal mining operations is considered adequate to meet the requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

The IBC submittal contains updated versions of Plates 1, 2, 3, 21, 22, 25, 26, 27, 28, 29, and 34 that include Tract 2 of lease U-66060 in the permit area. Tract 2 (160 acres) is in Sections 31 and 32, T. 12 S., R. 11 E.

Coal Resource and Geologic Information Maps

The IBC submittal contains updated versions of Plates 26, 27, 28, and 29 that include the area of the Tract 2 lease addition. These maps show the isopach thickness of the lower Sunnyside, Centennial, Gilson, and Aberdeen coal seams, coal crop lines, overburden thickness, and strike and dip. Only the Aberdeen seam is shown as having minable reserves within Tract 2, but this is based on information from drill-holes to the south. No seam thicknesses have been

TECHNICAL ANALYSIS

Last revised - July 22, 1997

projected for the lower Sunnyside, Centennial, and Gilson seams in the Tract 2 area or adjacent areas on Plates 26, 27, and 28. Information, including that on Plates 26, 27, and 28, does not indicate minable reserves would be anticipated in the Sunnyside, Centennial, and Gilson seams in Tract 2 and adjacent areas.

Mine Workings Maps

The IBC submittal contains an updated Plate 29 that shows where the Aberdeen seam has been mined up through 1994 and where mining is planned, which includes mining in the Tract 2 lease addition. Plates 26, 27, and 28 show present extent of mined areas and mining projections for the lower Sunnyside, Centennial, and Gilson seams respectively. Based on current knowledge of coal thickness and minability in these three seams there is no anticipation that they will be mined within the Tract 2 addition.

Permit Area Boundary Maps

The IBC submittal contains updated versions of Plates 1, 2, 3, 21, 22, 25, 26, 27, 28, 29, and 34 that show the permit boundary to include Tract 2 of lease U-66060. Tract 2 (160 acres) is in Sections 31 and 32, T. 12 S., R. 11 E.

Surface And Subsurface Ownership Maps

Surface Ownership Map (Plate 2) and Mineral Ownership Map (Plate 3) have been updated to show the area included in the IBC submittal.

Findings:

Resource information provided on maps, plans, and cross sections is considered adequate to meet the requirements of this section.

HISTORIC AND CULTURAL RESOURCES INFORMATION

Regulatory Reference: R645-301-411.140

Analysis:

No cultural or historic resources information was included in the application, and none relating to the proposed incidental boundary change could be found in the current mining and reclamation plan. The 1990 decision document for the Graves Lease does not indicate there was any cultural resources information, however, based on the lack of surface disturbance, the Division of State History concurred with allowing mining.

TECHNICAL ANALYSIS

Last revised - July 22, 1997

Correspondence from State History dated July 8, 1997, concerning the current proposal says the Utah Preservation Office recommends that there would be no effect upon cultural resources by the project.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: R645-301-321

Analysis:

The current mining and reclamation plan contains general descriptions of the vegetation in the area. The proposed addition to the permit area is on a plateau with mainly grass/sagebrush and aspen communities.

Since there will be no surface disturbance other than possible surface effects of subsidence, detailed vegetation information is not required. The information in the plan is considered to be adequate.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: R645-301-322

Analysis:

Plate 34 in the current mining and reclamation plan is a map showing wildlife habitat in the area. The proposed addition to the permit area contains critical deer winter range but does not appear to have other habitat of unusually high value.

There are several known raptor nests within the permit area, and they are all on cliffs. The surface of the proposed incidental boundary change is almost entirely a relatively flat

TECHNICAL ANALYSIS

Last revised - July 22, 1997

plateau. The 1994 raptor survey included part of the plateau where there are groves of aspens, but no raptor nests were found.

While the plan is adequate for the current proposal, there is no plan for continued monitoring for raptor nest activity in other parts of the permit area. It appears that nests found in the 1994 survey have now all been undermined, and there is probably little potential for damage to nests in canyons in the east side of the permit area. On the west side of the permit area, only one nest was found in the Left Fork of Deadman Canyon, and no nests were found in Alrad Canyon. However, Wildlife Resources has record of one raptor nest on the west side of Alrad Canyon just outside the permit area.

Both Alrad Canyon and the Left Fork of Deadman Canyon have potential habitat for cliff-nesting raptors, and the applicant plans to continue longwall mining under portions of both of these canyons. For these reasons, the applicant needs to commit to doing ongoing raptor surveys in these canyons as long as there is a potential for cliff habitat to be adversely affected.

The application contains no information about threatened or endangered species that might occur within the proposed incidental boundary change. The Fish and Wildlife Service provided a letter to the Division stating there are no threatened or endangered species known to occur in the area. However, as discussed below, there is a potential for negative effects to threatened and endangered fish of the upper Colorado River basin.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this sections of the regulations.

TECHNICAL ANALYSIS

Last revised - July 22, 1997

OPERATION PLAN

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Same as for Resources Section.

Findings:

Same as for Resources Section.

FISH AND WILDLIFE RESOURCE PROTECTION

No raptor nests were found in the aspens on top of the plateau during the 1994 survey, but tree nests are more difficult to find than cliff nests. Accipiters usually nest in wooded areas, but they prefer a nearby source of perennial water. This makes it unlikely there are accipiter nests within the proposed incidental boundary change although they could be in nearby areas. Red-tailed hawks, however, commonly build tree nests, and they prefer areas with forest edges similar to the discontinuous aspen groves on the plateau.

While there could be some raptor nests within the incidental boundary change, it is very unlikely any nests would be affected by mining for the following reasons:

1. Mining would mostly be under more than 2000 feet of cover, and there will probably be no surface expression of subsidence. Even if there are surface effects, they should be minimal. According to information in the 1995 annual report, no vertical or lateral movement has ever been detected at this mine.
2. Tree nests are less susceptible to damage from subsidence than cliff nests. Subsidence sometime causes trees to fall, but the more normal scenario is a broad, gentle lowering of the area. Cliffs sometimes spall, and this has led to loss of some eagle nests, but the Division is unaware of tree nests lost through subsidence.

TECHNICAL ANALYSIS

Last revised - July 22, 1997

The Fish and Wildlife Service has determined that water depletions to the Upper Colorado River drainage may adversely affect certain threatened or endangered fish. A one-time mitigation payment is required where projects use over 100 acre feet of water per year.

Water is lost through evaporation from the mined area due to mine ventilation. However, according to information in the probable hydrologic consequences document, the ground water encountered within the mine is anticipated to be associated with a localized perched system that has no known surface expression. Therefore, there should be no effect on surface water caused by evaporation losses.

The mining and reclamation plan indicates the applicant has water rights in four wells and an abandoned mine for 0.7 cubic feet per second of water. If all of this water was utilized, the mine would be using about 507 acre feet of water each year from these sources.

However, according to information received from the applicant, about 54 acre feet is actually used in mining operations. This is based on 200 gallons per minute being used for four hours each day when coal is actually being cut. Since a few years ago, all of this water has been produced in the mine, and, as with evaporation losses, it is all from perched aquifers with no known surface expressions.

In 1990 when the Graves Lease was permitted, the Fish and Wildlife Service said in a memorandum to the Office of Surface Mining, "No Colorado River drainage water depletion is anticipated at this time." This 160-acre addition to the 933-acre Graves Lease will not change the situation that existed in 1990.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR Sec. 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

General

R645-301-521 requires that the Permittee submit plans that show the size, sequence and timing of for the areas that they anticipate to mine. Plate 29 shows the anticipated mining plan from 1995 to 1999. The plate shows the Permittee will extend the mine working 1,600 feet into the new lease in 1997.

TECHNICAL ANALYSIS

Last revised - July 22, 1997

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit change for the addition of the 160-acre.

COAL RECOVERY

Regulatory Reference: 30 CFR Sec. 817.59; R645-301-522.

Analysis:

In a letter dated January 13, 1997 to the Division from Andalex, they state that "Andalex has no specific knowledge that recoverable coal resources exist on this lease modification. However, the Bureau of Land Management (BLM) allowed Andalex to modify the lease so that if recoverable coal is found through our normal mining sequence in this area the coal would not be bypassed. Andalex has the only access to this coal."

Plate 29 show the projected mining workings into the new lease. It appears from this plate that the Permittee has developed detailed plans to mine the new lease addition. The Division realizes that actual mining conditions could be different from those assumed and that the Permittee may have to modify the mine plan. Based on the current plan the Division has determined that the Permittee can maximize coal recovery.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit change for the addition of the 160-acre.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR Sec. 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Subsidence control plan.

The Permittee will establish one subsidence monitoring station in the 160-acre IBC. They show the subsidence buffer zone on Plate 25. All projected subsidence will occur within the permit area and the subsidence buffer zones.

TECHNICAL ANALYSIS

Last revised - July 22, 1997

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit change for the addition of the 160-acre.

RECLAMATION PLAN

REVEGETATION

Regulatory Reference: R645-301-341

Analysis:

Since there will be no surface disturbance other than possible effects of subsidence, there are no specific revegetation plans for the proposed incidental boundary change. The existing mining and reclamation plan contains commitments to repair subsidence cracks that could cause problems for wildlife or livestock.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Same as for Resources Section.

Findings:

Same as for Resources Section.

TECHNICAL ANALYSIS

Last revised - July 22, 1997

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR Sec. 784.14, UCA R645-301-729

Analysis:

A Cumulative Hydrologic Impact Assessment (CHIA) was prepared December 4, 1990 and re-evaluated on April 20, 1993 for the addition of lease UTU-66066 (the "AEP" lease) to the permit. The proposed Tract 2 addition is within the Cumulative Impact Area (CIA) of that original 1990 CHIA. The probable cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance in the cumulative impact area has been assessed and it has been determined that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the proposed permit area.

Finding:

The Division has determined that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the proposed permit area.

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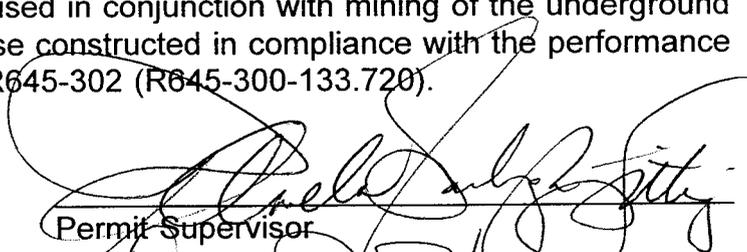
FINDINGS

Andalex Resources, Inc.
Incidental Boundary Change (160 Acres)
Federal Lease UTU-66060 Modification
ACT/007/019 - 97C

July 29, 1997

1. The amended 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). See Technical Analysis dated July 22, 1997.
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. The 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 regulatory authority 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}) (See July 22, 1997 TA).
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);
 - e. not within 300 feet of any occupied dwelling (R645-300-133-220).
5. The regulatory authority's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800) (R645-300-133.600). (See attached letter from State Historic Preservation Officer (SHPO) dated July 8, 1997.)
6. The applicant has the legal right to enter and complete mining activities through a federal coal lease issued by the Bureau of Land Management (lease UTU-66060 modified effective October 3, 1994) (R645-300-133.300).

7. 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. The closest operating mine is the Soldier Canyon Mine.
8. The applicant has posted a surety bond for the Centennial Mines Complex in the amount of \$1,080,839.00. No additional surety will be required, since there is no additional surface disturbance proposed (R645-300-134).
9. No lands designated as prime farmlands or alluvial valley floors occur on the permit area (R645-302-313.100) (R645-302-321.100).
10. The regulatory authority has made all specific approvals required by the Act, the Cooperative Agreement, and the Federal Lands Program.
11. 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 March 11, 1997 letter from USFW).
12. No existing structures will be used in conjunction with mining of the underground lease addition other than those constructed in compliance with the performance standards of R645-301 and R645-302 (R645-300-133.720).



Permit Supervisor



Permit Supervisor



Associate Director of Mining



Director

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84180-1203

This permit, ACT/007/019, is issued for the state of Utah by the Utah Division of Oil, Gas and Mining (DOGGM) to:

Andalex Resources, Inc.
P. O. Box 902
Price, Utah 84501
(801) 637-5385

for the Centennial Project. Andalex Resources Inc. is the lessee of federal coal leases SL-027304, SL-063058, U-010581, U-05067, U-52341, UTU-66060, U-69600, and the lessee of fee-owned parcels, Zion's fee lease and the Sunedco fee lease. A performance bond is filed with the DOGM in the amount of \$1,080,839.00, payable to the state of Utah, Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement (OSMRE). DOGM must receive a copy of this permit signed and dated by the permittee.

Sec. 1 STATUTES AND REGULATIONS - This permit is issued pursuant to the Utah Coal Mining and Reclamation Act of 1979, Utah Code Annotated (UCA) 40-10-1 et seq, hereafter referred to as the Act.

Sec. 2 PERMIT AREA - The permittee is authorized to conduct underground coal mining activities on the following described lands within the permit area at the Centennial Mines Complex situated in the state of Utah, Carbon County, and located in:

Township 13 South, Range 11 East, SLBM

Section 4: S1/2,

Section 5: All,

Section 6: All,

Section 7: All,

Section 8: All,

Section 9: N 1/2, N1/2 S1/2, SW1/4 SW1/4

Section 17: N1/2, NE1/4SE1/4, N1/2NW1/4SE1/4, N1/2NE1/4SW1/4,
NE1/4NW1/4SW1/4, W1/2NW1/4SW1/4, and,

Section 18: N1/2N1/2, SW1/4NE1/4, NW1/4SE1/4NE1/4,
E1/2SE1/4NE1/4, E1/2NE1/4SE1/4 and Lot 2,
NE1/4SW1/4 (a portion containing 1.45 acres, more or
less).

Township 13 South, Range 10 East, SLBM

Section 1: All,
Section 12: All, and
Section 13: Lot 1 (Portions of BLM ROW UTU-64158).

Township 12 South, Range 11 East, SLBM

Section 31: Lots 3-6 and Lots 12-22, and
Section 32: W1/2 SW1/2, SW1/4 NW1/4

This legal description is for the permit area of the Centennial Mines Complex. The permittee is authorized to conduct underground coal mining activities connected with mining on the foregoing described property subject to the conditions of the leases, the approved mining plan, including all conditions and all other applicable conditions, laws and regulations.

- Sec. 3 COMPLIANCE** - The permittee will comply with the terms and conditions of the permit, all applicable performance standards and requirements of the State program.
- Sec. 4 PERMIT TERM** - This permit expires on January 6, 2002.
- Sec. 5 ASSIGNMENT OF PERMIT RIGHTS** - The permit rights may not be transferred, assigned or sold without the approval of the Director, DOGM. Transfer, assignment or sale of permit rights must be done in accordance with applicable regulations, including but not limited to 30 CFR 740.13(e) and R645-303.
- Sec. 6 RIGHT OF ENTRY** - The permittee shall allow the authorized representative of the DOGM, including but not limited to inspectors, and representatives of OSMRE, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay to:
- (a) have the rights of entry provided for in 30 CFR 840.12, R645-400-110, 30 CFR 842.13 and R645-400-220; and,
 - (b) be accompanied by private persons for the purpose of conducting an inspection in accordance with R645-400-100 , R645-400-200 and 30 CFR 842, when the inspection is in response to an alleged violation reported by the private person.
- Sec. 7 SCOPE OF OPERATIONS** - The permittee shall conduct underground coal mining activities only on those lands specifically designated as within the permit area on the maps submitted in the mining and reclamation plan and permit application and approved for the term of the permit and which are subject to the performance bond.

Sec. 8 ENVIRONMENTAL IMPACTS - The permittee shall minimize any adverse impact to the environment or public health and safety through but not limited to:

- (a) accelerated monitoring to determine the nature and extent of noncompliance and the results of the noncompliance;
- (b) immediate implementation of measures necessary to comply; and
- (c) warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.

Sec. 9 DISPOSAL OF POLLUTANTS - The permittee shall dispose of solids, sludge, filter backwash or pollutants in the course of treatment or control of waters or emissions to the air in the manner required by the approved Utah State Program and the Federal Lands Program which prevents violation of any applicable state or federal law.

Sec. 10 CONDUCT OF OPERATIONS - The permittee shall conduct its operations:

- (a) in accordance with the terms of the permit to prevent significant, imminent environmental harm to the health and safety of the public; and
- (b) utilizing methods specified as conditions of the permit by DOGM in approving alternative methods of compliance with the performance standards of the Act, the approved Utah State Program and the Federal Lands Program.

Sec. 11 EXISTING STRUCTURES - As applicable, the permittee will comply with R645-301 and R645-302 for compliance, modification, or abandonment of existing structures.

Sec. 12 RECLAMATION FEE PAYMENTS - The operator shall pay all reclamation fees required by 30 CFR Part 870 for coal produced under the permit, for sale, transfer or use.

Sec. 13 AUTHORIZED AGENT - The permittee shall provide the names, addresses and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.

- Sec. 14 COMPLIANCE WITH OTHER LAWS** - The permittee shall comply with the provisions of the Water Pollution Control Act (33 USC 1151 et seq.) and the Clean Air Act (42 USC 7401 et seq), UCA 26-11-1 et seq, and UCA 26-13-1 et seq.
- Sec. 15 PERMIT RENEWAL** - Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit in accordance with the Act, the approved Utah State Program and the Federal Lands Program.
- Sec. 16 CULTURAL RESOURCES** - If during the course of mining operations, previously unidentified cultural resources are discovered, the permittee shall ensure that the site(s) is not disturbed and shall notify DOGM. DOGM, after coordination with OSMRE, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by DOGM within the time frame specified by DOGM.
- Sec. 17 APPEALS** - The permittee shall have the right to appeal as provided for under R645-300.
- Sec. 18 SPECIAL CONDITIONS** - There are special conditions associated with this permitting action as described in Attachment A.

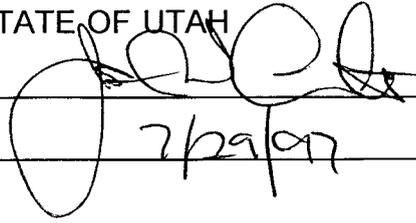
The above conditions (Secs. 1-18) are also imposed upon the permittee's agents and employees. The failure or refusal of any of these persons to comply with these conditions shall be deemed a failure of the permittee to comply with the terms of this permit and the lease. The permittee shall require his agents, contractors and subcontractors involved in activities concerning this permit to include these conditions in the contracts between and among them. These conditions may be revised or amended, in writing, by the mutual consent of DOGM and the permittee at any time to adjust to changed conditions or to correct an oversight. DOGM may amend these conditions at any time without the consent of the permittee in order to make them consistent with any new federal or state statutes and any new regulations.

ACT/007/019
July 29, 1997
Page 5

THE STATE OF UTAH

By: _____

Date: _____

Handwritten signature and date. The signature is written over the 'By:' line, and the date '7/29/97' is written over the 'Date:' line.

I certify that I have read, understand and accept the requirements of this permit and any special conditions attached.

Authorized Representative of
the Permittee

Date

ACT/007/019
July 29, 1997
Page 6

Attachment A

SPECIAL CONDITIONS

Condition #1 - Mining in the 160 acres of modified federal lease UTU-66060 is conditioned upon receiving federal mining plan approval.