

**Centennial Project Mines, Andalex Resources, Inc.**  
**Carbon County, Utah**                      **February 1991**  
**Federal Lease UTU-66060**

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007/019

# **MINING PLAN DECISION DOCUMENT**

## **Centennial Project Mines Andalex Resources, Inc. Carbon County, Utah**



**U.S. Department of the Interior  
Office of Surface Mining Reclamation and Enforcement**

### **Federal Lease UTU-66060**

### **Prepared February 1991**

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United States Department of the Interior  
OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
WASHINGTON, D.C. 20240



MAR 7 1991

Memorandum

To: Assistant Secretary, Land and Minerals Management

From: Director *Gary W. Sawyer*

Subject: Recommendation for Approval of the Andalex Resources, Inc.'s Centennial Project Mine Mining Plan for Federal Lease UTU-66060, Carbon County, Utah

I recommend approval with a condition of the Andalex Resources, Inc.'s Centennial Project mine mining plan for Federal lease UTU-66060 pursuant to the Mineral Leasing Act of 1920, as amended. This mining plan supplements the Centennial Project mining plan and subsequent modifications for Federal leases U-010581, SL-063058, SL-027304, U-05067 approved on November 12, 1981, May 13, 1986 and May 5, 1989. My recommendation to approve the Centennial Project mine mining plan is based on: (1) Andalex Resources, Inc.'s complete permit application package (PAP), (2) compliance with the National Environmental Policy Act of 1969, (3) documentation assuring compliance with applicable requirements of other Federal laws, regulations, and executive orders, (4) comments and recommendations or concurrence of other Federal agencies, and the public, (5) the findings and recommendations of the Bureau of Land Management with respect to the resource recovery and protection plan and other requirements of the Federal lease and the Mineral Leasing Acts, and (6) review of the PAP by the Utah Division of Oil, Gas & Mining as required by the Utah State program and cooperative agreement.

The Secretary may approve a mining plan for Federal leases under 30 U.S.C. 207(c) and 1273(c). Pursuant to 30 CFR Chapter VII, Subchapter D, I find that the proposed mining plan will be in compliance with all applicable laws and regulations. The decision document for the proposed mining plan action is attached.

Attachment



# United States Department of the Interior

OFFICE OF SURFACE MINING  
RECLAMATION AND ENFORCEMENT  
BROOKS TOWERS  
1020 15TH STREET  
DENVER, COLORADO 80202



February 22, 1991

## MEMORANDUM

TO: Director  
Office of Surface Mining Reclamation and Enforcement

THROUGH: Deputy Director  
Operations and Technical Services

FROM: Assistant Director  
Western Support Center

SUBJECT: Recommendation for Approval with a Condition of the  
Andalex Resources, Inc.'s Centennial Project Mine  
Mining Plan for Federal Lease UTU-66060, Carbon  
County, Utah

### I. Recommendation

I recommend approval with a condition of the Centennial Project mine mining plan for Federal lease UTU-66060. This is a new mining plan for an underground mine being permitted under the Federal lands program and the approved Utah State Program and Cooperative Agreement. My recommendation is based on the complete permit application package (PAP) submitted by Andalex Resources, Inc. (ARI); an Environmental Assessment of the proposed mining plan and alternatives prepared by the Office of Surface Mining Reclamation and Enforcement (OSM); the Findings and Supporting Documentation prepared by the Utah Division of Oil, Gas & Mining (DOG M); comments and concurrences of other Federal agencies; and other documents in the administrative record.

Approval of this mining plan will authorize mining of about 8.8 million tons of Federal coal within 933 acres of Federal lease UTU-66060, as shown on the maps included with this decision document. The Utah Cooperative Agreement (30 CFR 944.30) requires that the reclamation bond revert to being payable to OSM if the Cooperative Agreement is terminated. The current bond does not contain such a provision. Therefore, a special condition is incorporated into the proposed mining plan approval document requiring that such a provision be added to the surety bond.

Utah Division of Oil, Gas & Mining (DOGGM) reviewed the permit (revision) application under the Utah State program, the Federal lands program (30 CFR Chapter VII, Subchapter D), and the Utah cooperative agreement (30 CFR 944.30). Pursuant to the Utah State program and the cooperative agreement, Utah DOGM is prepared to approve the permit revision application concurrently with the approval of the mining plan.

OSM has consulted with other Federal agencies for compliance with the requirements of applicable Federal laws, and their comments and concurrences are included in the decision document. The resource recovery and protection plan was reviewed by the Bureau of Land Management (BLM) for compliance with the Mineral Leasing Act of 1920, as amended, and 43 CFR Part 3480, and BLM recommended approval of the mining plan in a letter dated January 7, 1991. The U.S. Fish and Wildlife Service provided its final consultation comments under Section 7 of the Endangered Species Act in a letter dated February 4, 1991. The State Historic Preservation Officer concurred with OSM's assessment and recommendations for protection of cultural resources in a letter dated October 4, 1990.

I have determined that the proposed area of mining plan approval is not unsuitable for mining in accordance with section 522(b) of SMCRA. The permit revision area is not on any Federal lands within the boundaries of any national forest.

I have determined that approval of this mining plan will not have a significant impact on the quality of the human environment. The impacts of approval of this mining plan and alternatives are described in the Environmental Assessment included with the decision document.

The mining plan approval document included in the decision document is in conformance with the Mineral Leasing Act of 1920, as amended, and applicable Federal regulations. I recommend that you advise the Assistant Secretary, Land and Minerals Management, under 30 CFR Part 746, that the ARI's Centennial Project mine mining plan for Federal lease UTU-66060 is ready for approval.

## II. Background

The Centennial Project underground coal mine is located in Carbon County, Utah, 10 miles north of Price. The mine has been in operation since 1980. About 30 acres have been affected by surface disturbance to date. Including the 933-acre permit revision area, the total permitted area of the Centennial Project mine will contain about 4,291 acres. Mining is expected to continue for 18 years under Utah permit ACT/007/019 and the approved mining plan.

The original mining plan for the Centennial Project mine was approved under the Federal lands program on November 12, 1981 for Federal leases U-010581, SL-063058, SL-027304, U-05067. Since that approval there have been two other mining plan actions for the Centennial Project mine that were approved on May 13, 1986 and May 5, 1989. With this mining plan action, the approved mining plan area for the Centennial Project mine will contain a total of 3,731 acres, including the previously approved mining plan area for Federal leases U-010581, SL-063058, SL-027304, and U-05067.

The underground mining operations utilize room and pillar mining methods. The Lower Sunnyside, Gilson, and Aberdeen coal seams currently are mined from the three mines that comprise the Centennial Project: the Pinnacle, Apex and Aberdeen mines. A fourth seam, the Centennial, will be mined under this mining plan. It will be accessed through the Pinnacle mine by driving rockslopes from the Gilson seam. Other than mining-induced subsidence, no additional surface disturbance will result from this action. The current average production rate of about 1.5 million tons per year is not expected to change under this mining plan.

A chronology of events related to the processing of the PAP is included with the decision document. The information in the PAP, as well as other information identified in the decision document, has been reviewed by Utah DOGM staff in coordination with the OSM Project Leader.

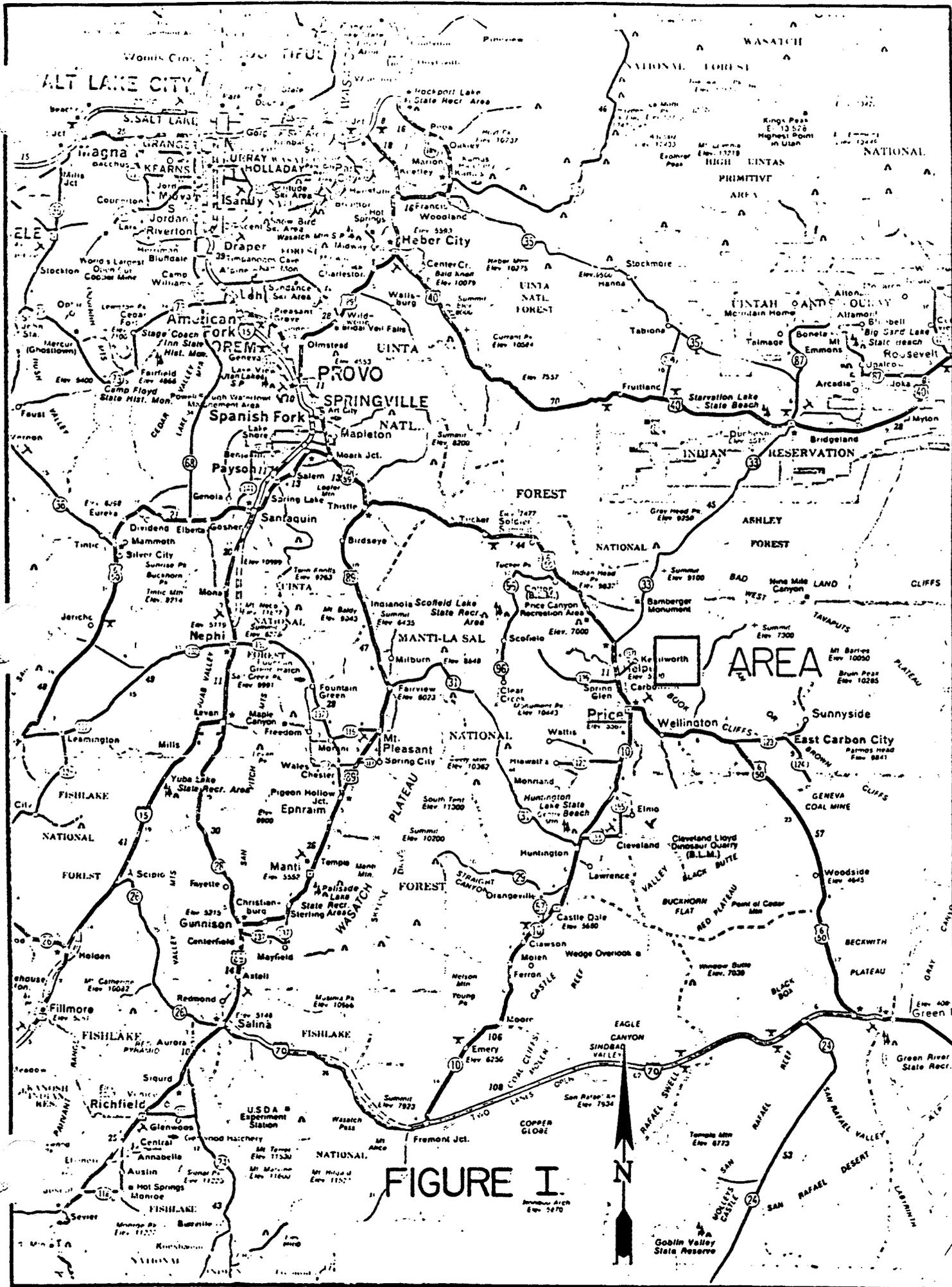
During the review of the PAP, no major issues were identified. The public was notified of the availability of the PAP for review by publication of newspaper notices for four consecutive weeks ending August 21, 1990. No comments on the PAP were received after the public notice was published.

Utah DOGM determined that a bond in the amount of \$1,080,839 is adequate for the State permit number ACT/007/019 associated with this mining plan action. The bond is payable to the State and OSM. However, the bond does not provide that it reverts to being solely payable to OSM if the Cooperative Agreement is terminated. Thus, a special condition is incorporated into the mining plan approval document requiring such a provision.

The PAP submitted by ARI and updated through October 1, 1990, Utah DOGM's Findings and Supporting Documentation provided to OSM under the cooperative agreement, the Environmental Assessment of the proposed action and alternatives prepared by OSM, other documents prepared by Utah DOGM, and correspondence developed during the review of the PAP are part of OSM's administrative record.

  
Raymond L. Lowrie

Attachments



## CHRONOLOGY

Centennial Project Mine  
Federal Lease UTU-66060  
Mining Plan Decision Document

DATE	EVENT
November 21, 1989	Andalex Resources, Inc. (ARI) submitted the permit application package (PAP) under the approved Utah State Program to the Utah Division of Oil, Gas & Mining (DOGM) for a permit revision for the Centennial Project mine.
July 31, 1990	Utah DOGM determined that the PAP was administratively complete for public review and comment.
August 21, 1990	ARI published in the Price Sun Advocate the fourth consecutive weekly notice that its complete PAP was filed with Utah DOGM.
October 1, 1990	The Office of Surface Mining Reclamation and Enforcement (OSM) received the PAP.
October 4, 1990	The State Historic Preservation Office provided final comments on the mining plan modification.
December 17, 1990	OSM received Utah DOGM's final Findings and Supporting Documentation.
January 7, 1991	OSM received final concurrence with the approval of the mining plan from the Bureau of Land Management.
February 4, 1991	OSM received final consultation comments on the mining plan modification from the U.S. Fish and Wildlife Service.
February 1991	OSM's Western Support Center recommended that the mining plan be approved.

T12S  
T13S

R10E

R11E

PERMIT BOUNDARY

SCALE: 1" = 2400'

T12E

T13S

U-010581

U-05067

U-05234

SL-063058

SL-027304

B.L.M. RIGHT-OF-WAY 62045

MINING PLAN APPROVAL AREA

Attachment A  
MINING PLAN APPROVAL AREA MAP  
Centennial Project Mine  
Carbon County, Utah

APEX MINE PORTAL & SURFACE FACILITIES

PINNACLE MINE PORTAL & SURFACE FACILITIES

ANDALEX RESOURCES, INC. ADMINISTRATIVE OFFICE  
ABERDEEN MINE PORTAL & SUPPORT FACILITIES

R10E  
R11E

32

33

5

9

12

13

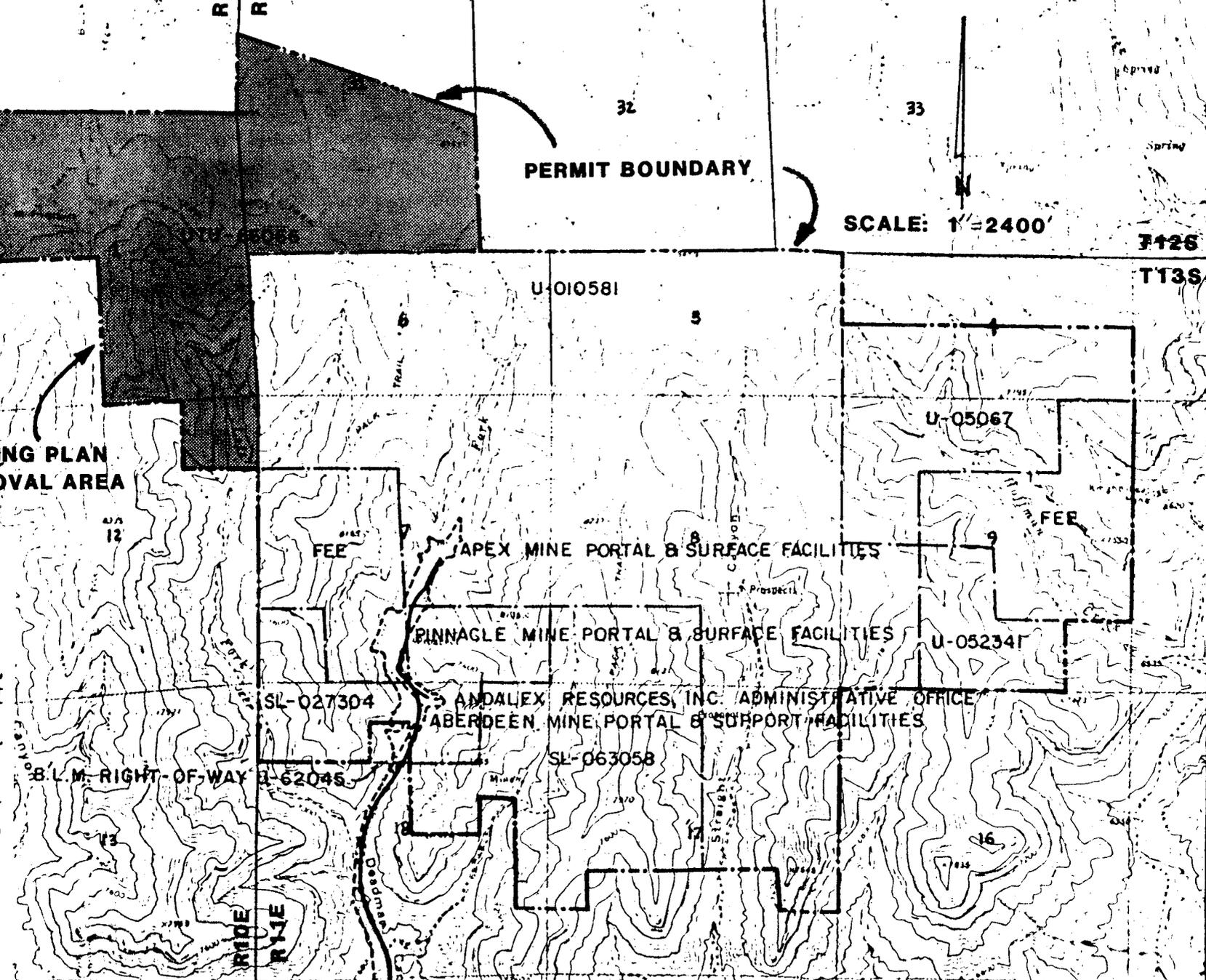
16

Deadman  
Canyon

6

FEE

FEE



## CHRONOLOGY

Centennial Project Mine  
Federal Lease UTU-66060  
Mining Plan Decision Document

<u>DATE</u>	<u>EVENT</u>
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January 7, 1991	OSM received final concurrence with the approval of the mining plan from the Bureau of Land Management.
February 4, 1991	OSM received final consultation comments on the mining plan modification from the U.S. Fish and Wildlife Service.
February 1991	OSM's Western Support Center recommended that the mining plan be approved.

U.S. DEPARTMENT OF THE INTERIOR  
OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT  
FINDING OF NO SIGNIFICANT IMPACT  
FOR  
Centennial Project Mine  
Federal Lease UTU-66060  
Mining Plan Decision Document

A. Introduction

Andalex Resources, Inc. submitted a permit application package (PAP) for a permit revision for the Centennial Project mine to the Utah Division of Oil, Gas & Mining (DOGM) under the Utah State program (30 CFR Part 944). The PAP proposes extending existing underground mining operations into about 933 acres of Federal lease UTU-66060 for the first time. The proposed operations would cause no new surface disturbance except that associated with mining-induced subsidence.

Under the Mineral Leasing Act of 1920, the Assistant Secretary, Land and Minerals Management must approve the mining plan for Federal lease UTU-66060 prior to the beginning of operations to mine Federal coal. Pursuant to 30 CFR Part 746, the Office of Surface Mining Reclamation and Enforcement (OSM) must make a recommendation to the Assistant Secretary for approval, conditional approval, or denial of the mining plan.

B. Statement of Environmental Significance of the Proposed Action

The undersigned person has determined that the approval with a condition of this mining plan would not have a significant impact on the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4332(2)(C), and therefore, an environmental impact statement is not required.

Environmental impacts associated with the extension of underground mining into the UTU-66060 lease area were analyzed by the Bureau of Land Management, with cooperation from OSM, in 1990 during the coal leasing process (see attached EA). The current mining proposal and its predicted impacts are essentially the same as the mining scenario and the resulting impacts identified in the original EA. No new impacts or changes in impact level have been identified during the current environmental review process.

This finding of no significant impact is based on the attached environmental assessment prepared by the Bureau of Land Management with cooperation from OSM, and on Utah DOGM's Findings and Supporting Documentation.

C. Summary of Impacts

Other than mining-induced subsidence, no additional surface disturbance would result from the proposed mining of Federal lease UTU-66060.

The average cover over the seams to be mined would be about 1000 feet. As pillars are mined during retreat, the overburden would cave into the void. These caves would appear as minor cracks at the surface if they are manifested at the surface at all. Likely, the overlying rock overburden would bridge over the caves resulting in minimal to no disturbance of the surface. No structures occur in the mining area.

Subsidence would result in the extension and expansion of the existing fracture system and upward propagation of new fractures. The aquifers associated with the Blackhawk Formation, where mining occurs, are perched and lenticular in nature. Pump test data in the Blackhawk Formation have indicated that no regional aquifer with a medium to high transmissivity exists in the area. Therefore, the Centennial Project mining activities would have little or no effect on ground water.

All drainages in the Centennial Project area are ephemeral and flow only in response to snowmelt runoff and rainfall events. Infiltration rates and runoff volumes would not be affected by the mining operations.

  
\_\_\_\_\_  
Chief, Federal Programs Division  
Western Support Center

2/22/91  
Date

ENVIRONMENTAL ASSESSMENT  
PRICE RIVER RESOURCE AREA

EA# UT-066-90-12  
FILE# UTU-66060

PROPOSED ACTION TITLE/TYPE: Coal Lease

APPLICANT: Andalex Resources, Incorporated

AGENCIES INVOLVED: Bureau of Land Management and Office of Surface Mining,  
Reclamation and Enforcement

NEED FOR THE PROPOSED ACTION:

Andalex Resources, Incorporated applied on September 22, 1989, for an emergency coal lease on federal lands located within the Price River Resource Area (PRRA). These lands are managed under a 1983 Management Framework Plan which cleared the lands requested for coal leasing consideration.

The coal lease application was submitted and will be processed and evaluated under the following authorities: Mineral Leasing Act of 1920, as amended; Federal Coal Leasing Amendments Act of 1976 (FCLAA); Federal Land Policy and Management Act of 1976 (FLPMA); Surface Mining Control and Reclamation Act of 1977 (SMCRA); National Environmental Policy Act of 1969 (NEPA); and Federal Regulations 43 CFR 3425.

The Bureau of Land Management (Utah State Office), in response to the application submitted by Andalex, is responsible for the following actions:

- 1) Preliminary evaluation of the application to determine if it meets the criteria for an emergency lease.
- 2) Notification of the Governor of the State of Utah of the application.
- 3) Preparation of the environmental documentation needed to comply with the National Environmental Policy Act (NEPA), determination of fair market value, and the tract delineation review report.
- 4) And, if appropriate, preparation for and holding of the lease sale and issuance of a lease for the mining of coal resources from the public lands involved.

The Office of Surface Mining Reclamation and Enforcement (OSM) has jurisdiction over any mining plan application that may result from BLM's leasing decision (see discussion below). As a result, OSM is participating in the preparation of this EA as a formal cooperating agency (40 CFR 1501.6).

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) gives OSM primary responsibility to administer programs that regulate surface coal mining operations and the surface effects of underground coal mining

operations. In January 1981, pursuant to Section 503 of SMCRA, the Utah Division of Oil, Gas and Mining (DOGGM) developed, and the Secretary of the Interior approved, a permanent program authorizing Utah DOGM to regulate surface coal mining operations and surface effects of underground coal mining on non-federal lands within the State of Utah. In March 1987, pursuant to Section 523(c) of SMCRA, Utah DOGM entered into a cooperative agreement with the Secretary of the Interior authorizing Utah DOGM to regulate surface coal mining operations and surface effect of underground coal mining on federal lands within the state.

Pursuant to the cooperative agreement, federal coal lease holders in Utah must submit permit application packages to OSM and DOGM for proposed mining and reclamation operations on federal lands in the state. Utah DOGM reviews the packages to ensure that the permit application complies with the permitting requirements and that the coal mining operation will meet the performance standards of the approved permanent program. If it does comply, Utah DOGM issues the applicant a permit to conduct coal mining operations. OSM, BLM, and other federal agencies review the permit application package to ensure that it complies with the terms of the coal lease, the Mineral Leasing Act of 1920, the National Environmental Policy Act of 1969, and other federal laws and their attendant regulations. OSM recommends approval, approval with conditions, or disapproval of the mining plan to the Assistant Secretary, Land and Minerals Management. Before the mining plan can be approved, BLM and the surface-managing agency (if other than BLM) must concur with this recommendation.

Utah DOGM enforces the performance standards and permit requirements during the mine's operation and has primary authority in environmental emergencies. OSM retains oversight responsibility for this enforcement. BLM has authority in those emergency situations where Utah DOGM or OSM inspectors cannot act before significant environmental harm or damage occurs.

During adjudication, the Utah State Office determined that this lease application should be processed under the procedures set forth under Federal Regulations 43 CFR 3425, Leasing by Application (LBA), rather than as an emergency lease.

The application area includes the area originally delineated as the Graves Tract and part of the area delineated as the Coal Creek Tract in the second round tract delineation effort for the Uinta-Southwestern Utah Coal Region. They were delineated following receipt of expressions of interest from private industry and evaluation by the Tract Delineation Team.

Two environmental assessments (EAs) were completed in June 1982 which cleared both tracts for further leasing consideration. The Uinta-Southwestern Utah Coal Region Round Two Final Environmental Impact Statement was completed on October 7, 1983. The Round Two leasing effort evaluated 27 tracts in Utah and Colorado. The Graves and Coal Creek Tracts were 2 of 22 tracts recommended for competitive leasing under the preferred alternative (Alternative Two, High Level). Due to a reevaluation and major changes in the federal coal management program in 1984, neither tract was offered for leasing.

In January of 1988, the Uinta-Southwestern Utah Coal Region was decertified and, as a result, new coal leasing within the Region will be conducted under the Lease by Application Process set forth in 43 CFR 3425. This application is the fourth submitted in the Region under this process since decertification of the Region. A Utah State Office tract delineation team has evaluated the lease configuration as submitted by Andalex in their application. The team recommended that lots 3 and 15 of section 31, T. 12 S., R. 11 E., SLM be added to the tract. The resulting tract will have a straight boundary to the northeast and still include any minable coal in the Centennial bed. This configuration is more acceptable because it allows maximum economic recovery of the coal reserves and still provides for adequate competitive interest for leasing. The amended tract configuration is being used for the proposed action.

#### CONFORMANCE LAND USE PLAN:

This proposed action is subject to the Price River Management Framework Plan, as amended. This plan has been reviewed to determine if the proposed action confirms with the land use plan terms and conditions as required by 43 CFR 1610.5.

#### DESCRIPTION OF THE PROPOSED ACTION

The Utah State Office has determined the following lands should be offered for competitive leasing in order to ensure efficient and effective use of the coal resource contained in the land legally described below:

T. 13 S., R. 10 E., SLM, Utah  
 sec. 1, lots 1-8, S1/2N1/2;  
 sec. 12, lot 1.

T. 12 S., R. 11 E., SLM, Utah  
 sec. 31, lots 3-6, 13-22.

Acreage 933.32

Andalex proposes, if they are the successful bidders for the coal lease on these lands, to access all coal seams from their operating Pinnacle Mine. Underground rock tunnels will be driven north from their existing mining operations to access the coal with continuous miners using the same room and pillar extraction technique. Recoverable coal reserves in the Aberdeen seam will be accessed from their Aberdeen Mine. All equipment and coal will be processed through the existing surface facilities. No surface-disturbing activities are proposed for lease UTU-66060.

The following conditions will be made part of any proposed lease, regardless of whom the lessee may be, and may be waived or amended only with the mutual consent of the lessor and lessee.

1. In accordance with Sec. 523(b) of the "Surface Mining Control and Reclamation Act of 1977," surface mining and 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, or as applicable, a Utah program equivalent approved under cooperative agreement in accordance with Sec. 523(c). The United States Government does not warrant that the entire tract will be susceptible to mining.

2. The permitting of any mining operations on the lease will be subject to the possible designation of any portion of the lease as unsuitable for some or all kinds of surface mining under the regulations of the Department under the Surface Mining Control and Reclamation Act of 1977 (SMCRA) in effect at the time of action on the mine plan permit.

3. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the lessee may be required to conduct a cultural resource inventory of the areas to be disturbed. These studies shall be conducted by a qualified, professional cultural resource specialist 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 resources.

If significant cultural resources are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the authorized officer who shall evaluate, or have evaluated, such discoveries and, within 5 working days, shall notify the lessee what action shall be taken with respect to such discoveries.

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

4. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the lessee may be required to conduct a paleontological appraisal of the areas to be disturbed. The appraisal shall be conducted by qualified paleontologists 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 paleontological resources.

If paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the authorized officer who shall evaluate, or have evaluated, such discoveries and, within 5 working days, shall notify the lessee what action shall be taken with respect to such discoveries. 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 necessary protective mitigating measures shall be borne by the lessee. The cost of salvage of paleontological remains (fossils) shall be borne by the United States.

*Paul*  
*FMI*  
*Paul*

lease are to conform with the requirements of this act and are subject to compliance with Office of Surface Mining regulations, or as applicable, a Utah program equivalent approved under cooperative agreement in accordance with Sec. 523(c). The United States Government does not warrant that the entire tract will be susceptible to mining.

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4. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the lessee may be required to conduct a paleontological appraisal of the areas to be disturbed. The appraisal shall be conducted by qualified paleontologists 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 paleontological resources.

If paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the authorized officer who shall evaluate, or have evaluated, such discoveries and, within 5 working days, shall notify the lessee what action shall be taken with respect to such discoveries. 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 necessary protective mitigating measures shall be borne by the lessee. The cost of salvage of paleontological remains (fossils) shall be borne by the United States.

5. If there is reason to believe that threatened or endangered (T&E) species of plants, animals, or migratory 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. A listing of migratory birds of high federal interest in this coal producing region is published by the Fish and Wildlife Service, Migratory Bird Management Office, Washington, D.C. 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 lessee shall conduct intensive raptor nesting surveys of all areas within one mile circumference of the outside edge of any proposed surface disturbance. Any surveys will be conducted by helicopter by qualified specialists approved by the Area Manager. The lessee shall arrange for helicopter services with both the pilot and helicopter carded by the Interior Office of Aircraft Safety so that federal employees may participate in the survey. The cost of conducting the inventory, preparing reports, and carrying out necessary protective mitigating measures shall be borne by the lessee.

No permanent surface disturbance or occupancy will be permitted within one-half mile of any raptor nests identified as being occupied within a three year period. Site-specific evaluations in coordination with the U. S. Fish and Wildlife Service may allow for modification of this requirement.

6. 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 interrelationship 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.

7. Powerlines on the lease area 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.

8. The lessee shall provide for the suppression and control of fugitive dust on haul roads and at coal-handling and storage facilities on the lease area. The migration of road surfacing and subsurface materials into streams and water courses shall be prevented.

9. 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 changeover 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.

No springs have been identified in the lease area. However, if a spring is located in the area and the BLM Area Manager determines that spring flow has been adversely impacted, the lessee would fund a water catchment project which would satisfactorily compensate for decreased flows or other adverse impacts. The project will be designed by the BLM and the timing of the project will be determined by BLM. The maintenance of the project will be the responsibility of the lease holder and their successor in interest.

10. 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.

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

12. Any support facilities, structures, equipment, or similar developments shall be removed from the lease within two years after the final termination of use of such facilities. Any disturbed areas or areas occupied by such facilities will be stabilized and rehabilitated with drainages reestablished and the area returned to a pre-mining land use.

#### DESCRIPTION OF THE NO ACTION ALTERNATIVE

The alternative to the proposed action would be to deny the lease application and not lease the tract for coal mining. No mining would be allowed within the tract boundaries until some unspecified future date when it was decided to allow leasing.

#### ENVIRONMENTAL IMPACTS:

<u>Critical element</u>	<u>Affected</u>		<u>Critical element</u>	<u>Affected</u>	
	<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
Air quality	___	X	T & E species	___	X
ACECs	___	X	Hazardous waste	___	X
Cultural resources	___	X	Water quality	___	X
Prime/unique farmland	___	X	Wetlands/riparian	___	X
Floodplains	___	X	Wild & scenic river	___	X
Nat. Amer. Religion	___	X	Wilderness/IMP	___	X

## DESCRIPTION OF IMPACTS:

Since the proposed action is to mine this lease by underground methods and utilize existing surface facilities for access and processing of the coal, the only impact identified to the human environment is that as many as twenty new mining jobs could be created. (If the successful bidder for this lease were other than Andalex, it is still probable that access would be underground from outcrops off lease and necessary surface facilities would be also located there.) In either case, impacts to the lease area would only be the removal of the estimated 24.8 million tons of coal from the three underground coal seams.

The no action alternative would prevent the mining of the 24.8 million tons of coal estimated to be within the tract boundaries, since it would not allow leasing. This would forego the collection of royalties and the possible creation of twenty new jobs. It could also lead to the earlier elimination of some existing jobs in the Pinnacle, Apex, and Aberdeen Mines, if mine life is shortened due to the lack of minable coal reserves.

## DESCRIPTION OF THE AFFECTED ENVIRONMENT

### SOCIOECONOMICS:

The area of influence for the Andalex's Pinnacle/Apex mining complex, which is being referred to as the Centennial Project, is confined to Carbon County. The complex has direct access from Price, Utah, located 10 miles from the mine via county road. The majority of economic impacts from the project are confined to Carbon County.

The county had an estimated 1988 population (Bureau of Census figures) of 21,600. This is a reduction of 2.6 percent from the 1980 population of 22,179. Population estimates by the State Population Estimates Committee indicate Carbon's population peaked in 1982 at 24,700. The decline since the peak has been a significant 8.6 percent or 2,521 people. The county has experienced outmigration annually since 1982.

Nonagricultural employment in the county in 1988 totaled 7,227. This is a significant 1,785 jobs or 20 percent decline from the 1982 peak year. Considering 1988 data, the major industry employment categories in Carbon County are:

Government .....	1,945	(26.9%)
Trade .....	1,622	(22.4%)
Mining .....	1,401	(19.4%)
Services .....	1,277	(17.7%)

Total.....7,227

This is a relatively well balanced economy for rural Utah. The dominance of the mining industry in the county, which is primarily coal mining, is not apparent

until you look at personal income and earning in the county for 1987 in order of importance:

Mining .....	\$65,633,000	(36.4%)
Government .....	32,302,000	(17.9%)
Services .....	27,030,000	(15 %)
Trade .....	22,758,000	(12.6%)
Trans/public Utils...	13,942,000	(7.7%)

Mining is the dominant industry in income generation contributing over 36 percent. Coal hauling and coal-fired electric generation is also the major factor in the trans/public utilities category. Coal mining likely generates more income than all other basic industry in the county.

Population projections for the county by the Utah Office of Planning and Budget show a very modest population increase of less than 5 percent by the year 2000.

A major factor influencing Carbon County is what has happened in Utah coal mining industry employment. Coal mining employment peaked in 1982 at 4,296. Within one year, coal mine employment fell to 2,707 (a 37 percent reduction). Moderate decline has continued in recent years until the 1989 projection which is 2,604, up 45 from 1988. Carbon County has over 50 percent of coal mine employment in Utah.

It is significant that in the period 1983 to 1989, Utah coal mine production has increased from 11,829,000 tons to a projected 19,210,000 in 1989, which is a 62 percent increase. The increased production was achieved with less employees in the industry. During this period, the productivity of Utah coal mines has increased significantly through cost controls and other efficiency factors, including installation of longwall mining equipment which reduces labor requirements.

#### EFFECTS OF IMPLEMENTATION (LEASING & DEVELOPMENT)

##### SOCIOECONOMIC:

The tract under application adjacent the Andalex Resources mining complex could be leased and developed by the applicant through the existing mine or by an adjoining property owner to add to currently undeveloped reserves. The most logical option is lease by the applicant and subsequent development as a part of the existing operation.

In 1989, Andalex mined 1.1 million tons, with an average total employment of 98. Maximum capacity at the mining complex when the construction project is complete is 1.4 million tons annually. With existing reserves of less than 28 million tons, coal market conditions will dictate whether capacity will be reached. Capacity production is not necessarily dependent on receiving the new lease of 11 million tons. The company indicates, however, that reserves

in the newly identified Centennial seam would not likely be developed without reserves in the lease application due to the small quantity on existing holdings. At capacity, projected employment is 120, or about 20 more than present. The new lease area would contribute toward reaching capacity, but is not a definite requirement and a direct result of the new lease.

In summary, the leasing and development of the tract will not have significant additional socioeconomic impact on Carbon County. Depending on market conditions, some 20 new mining jobs may develop. This expansion will be welcomed in the county, since it currently has relatively high unemployment of 7.4 percent. Any new jobs created reduce unemployment and underemployment in the county.

Over time, the new lease area will generate coal resources valued at \$286 million dollars, \$50 million dollars of direct and indirect wages and \$22 million dollars of royalties that will be paid to the Federal Government and shared equally with state and local government.

Under the no leasing alternative, it is doubtful that Andalex could come up with an alternative to meet their coal delivery contracts and would probably, after current reserves are depleted, close the mine and move elsewhere. The coal in the Centennial seam would be bypassed and would in all likelihood never be mined.

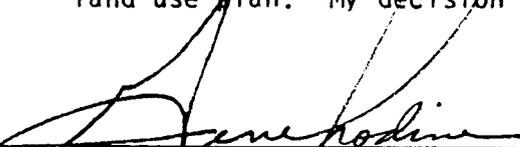
PERSONS/AGENCIES CONSULTED:

Floyd McMullen, Office of Surface Mining Reclamation and Enforcement, USDOJ  
 James F. Kohler, Geologist, BLM, Utah State Office  
 Jeff Clawson, Mining Engineer, BLM, Utah State Office  
 R. Max Nielson, Industrial Economist, BLM, Utah State Office  
 Bernice Sterin, Hydrologist, BLM, San Rafael Resource Area  
 Blaine Miller, Archaeologist, BLM, San Rafael Resource Area  
 David Mills, Wildlife Biologist, Price River Resource Area  
 Dennis Willis, Ranger Conservationist, Price River Resource Area  
 Jeff Cundick, Mining Engineer, Price River Resource Area

TEAM LEADER: Dean Nyffeler, Supervisory Geologist      February 8, 1990  
 NAME & TITLE      DATE

FINDING OF NO SIGNIFICANT IMPACT/DECISION RECORD

I have reviewed this environmental assessment, including the explanation and resolution of any potentially significant environmental impacts. I have determined the proposed action with the mitigation measures described below will not have any significant impacts on the human environment and that an EIS is not required. The proposed project is in conformance with the approved land use plan. My decision is to implement the project.

  
 DISTRICT MANAGER, MOAB

4/4/90  
 DATE

# OSMRE-WSC

1991 JAN -7 AM 9:45

WESTERN DISTRICT CENTER

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

3452  
(U-66060)  
(SL-027304)  
(U-065)

Daron R. Haddock, Permit Supervisor  
State of Utah  
Division of Oil, Gas, and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Mr. Haddock:

The Bureau of Land Management (BLM) received Andalex Resources' Graves lease tract addition to the Centennial Mine Permit Application Package (PAP) on October 10, 1990. This correspondence provides our comments regarding the PAP and affiliated resource recovery and protection plan.

The Graves tract is Federal coal lease U-66060 which contains 933 acres. Surface ownership is primarily private with the coal reserved to the United States. However, the BLM does manage the surface of the SE1/4, Section 1, and the NE1/4NE1/4, Section 12, T. 13 S., R. 10 E., SLBII.

Underground development of this lease is merely an extension of an existing operation and will not require construction of new surface facilities for access or coal processing. Because the environmental impacts are considered minimal, the BLM has no reclamation requirements related to postmining land uses. Additionally, no portion of the lease was found unsuitable for coal mining.

Deficiencies in the R2P2 were resolved directly with the company and the mine plan is now considered complete and technically adequate. We have determined that the R2P2 is also in compliance with the Mineral Leasing Act of 1920, as amended, the regulatory provisions of 43 CFR 3480, Federal lease terms and conditions, and the requirement for achievement of maximum economic recovery of Federal coal. Therefore, we recommend approval of the R2P2 and the inclusion of Federal coal lease U-66060 into the Centennial Mine Permit.



# State of Utah

Division of State History

(Utah State Historical Society)

Department of Community and Economic Development

Norman H. Bangerter  
Governor  
Max J. Evans  
Director

300 Rio Grande  
Salt Lake City, Utah 84101-1182  
801-533-5755

OCT 09 1990

4 October 1990

Daron R. Haddock  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

RE: Graves Lease Permit Revision, Andalex Resources Inc., Centennial Mines Complex, ACT/007/019, Folder #2, Carbon County, Utah.

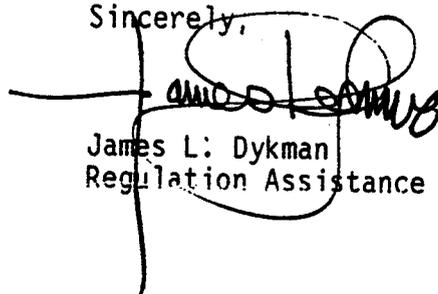
In Reply Please Refer to Case No. K439

Dear Mr. Haddock:

The Utah State Historic Preservation Office received the above referenced report on 25 September 1990. The report states that the majority of work will take place underground, and will not effect any known cultural resources. We, therefore, concur with your recommendation that no historic properties will be impacted by the project.

This information is provided on request to assist the Division of Oil Gas and Mining with its responsibilities as specified in Utah Code Annotated 63-18. If you have questions or need additional assistance, please contact me at (801) 533-7039.

Sincerely,

  
James L. Dykman  
Regulation Assistance Coordinator

JLD:K439 OSM/



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

SMRE-WSC  
1991 FEB -4 AM 10 58



In Reply Refer To

(FWE)

January 23, 1991

MEMORANDUM

TO: Shirley Lindsay, Wildlife Biologist, Office of Surface Mining,  
Denver, Colorado

FROM: Assistant Field Supervisor, Fish and Wildlife Enhancement, Salt  
Lake City, Utah

SUBJECT: Biological Assessment for the Centennial Project Mine

We have received your memo of January 9, 1990 containing the biological assessment for the proposed extension of the Centennial Project Mine underground workings in Carbon County, Utah. We concur with your determination of no adverse effects to listed species. No Colorado River drainage water depletion is anticipated at this time. No further consultation is required for this action.

UNITED STATES

DEPARTMENT OF THE INTERIOR

This mining plan approval document is issued by the United States of America to:

Andalex Resources, Inc.  
P.O.Box 902  
Price, Utah 84501

for the Centennial Project mine mining plan for Federal lease UTU-66060 subject to the following conditions. Andalex Resources, Inc. is hereinafter referred to as the operator.

1. Statutes and Regulations.--This mining plan approval is issued pursuant to Federal lease UTU-66060; the Mineral Leasing Act of 1920, as amended (30 U.S.C. 181 et seq.); and in the case of acquired lands, the Mineral Leasing Act for Acquired Lands of 1947, as amended (30 U.S.C. 351 et seq.). This mining plan approval is subject to all applicable regulations of the Secretary of the Interior which are now or hereafter in force; and all such regulations are made a part hereof. The operator shall comply with the provisions of the Water Pollution Control Act (33 U.S.C. 1151 et seq.), the Clean Air Act (42 U.S.C. 7401 et seq.), and other applicable Federal laws.
2. This document approves the Centennial Project mine mining plan for Federal lease UTU-66060, and authorizes coal development or mining operations on the Federal lease within the area of mining plan approval. This authorization is not valid beyond

T. 13 S., R. 10 E., SLM, Utah  
Sec 1: Lots 1-8, S1/2N1/2;  
Sec 12: Lot 1

T. 12 S., R. 11 E., SLM, Utah  
Sec 31: Lots 3-6 and Lots 13-22

as shown on the map appended hereto as Attachment A.

3. The operator shall conduct coal development and mining operations only as described in the complete permit application package, and approved by the Utah Division of Oil, Gas & Mining, except as otherwise directed in the conditions added to this mining plan approval.

4. The operator shall comply with the terms and conditions of the lease, this mining plan approval, the special conditions appended hereto as Attachment B, and the requirements of the Utah Permit number ACT/007/019 issued under the Utah State program, approved pursuant to the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.).
5. This mining plan approval shall be binding on any person conducting coal development or mining operations under the approved mining plan and shall remain in effect until superseded, cancelled, or withdrawn.
7. If during mining operations unidentified prehistoric or historic resources are discovered, the operator shall ensure that the resources are not disturbed and shall notify Utah Division of Oil, Gas & Mining and OSM. The operator shall take such actions as are required by Utah Division of Oil, Gas & Mining in coordination with OSM.

  
Assistant Secretary, Land and Minerals Management

3/12/91  
Date

T128  
T138

R10E  
R11E

PERMIT BOUNDARY

SCALE: 1" = 2400'

T126

U-010581

T136

MINING PLAN APPROVAL AREA

Attachment A  
MINING PLAN APPROVAL AREA MAP  
Centennial Project Mine  
Carbon County, Utah

APEX MINE PORTAL & SURFACE FACILITIES

PINNACLE MINE PORTAL & SURFACE FACILITIES

ANDALEX RESOURCES, INC. ADMINISTRATIVE OFFICE  
ABERDEEN MINE PORTAL & SUPPORT FACILITIES

SL-027304

SL-063058

U-05067

U-052341

B.L.M. RIGHT-OF-WAY 2-62048

R10E  
R11E

ATTACHMENT B

Special Condition

Within 60 days after mining plan approval, Andalex Resources, Inc. shall submit to Utah Division of Oil, Gas & Mining properly executed riders adding the following provision to any applicable bond instruments:

To the extent that Federal lands are involved, release of this surety bond also is conditioned upon compliance with applicable Federal laws and regulations and the provisions of the Utah State-Federal Cooperative Agreement at 30 CFR § 944.30. If the Utah State-Federal Cooperative Agreement is terminated, this surety bond shall revert to being payable only to the United States and the phrase "Utah Division of Oil, Gas and Mining" and the term "UDOGM" and "DOGM" and any other acronyms or abbreviations for the phrase "Utah Division of Oil, Gas and Mining" shall be interpreted to mean OSM to the extent that Federal lands are involved.



# 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

OSMRE-WSC

December 13, 1990

DEC 17 AM 11: 25

WESTERN SUPPORT CENTER

Mr. Peter A Rutledge, Chief  
Division of Federal Programs  
Western Field Operations  
Office of Surface Mining  
Brooks Towers  
1020 15th Street  
Denver, Colorado 80202

Dear Mr. Rutledge:

Re: State Final Findings and Supporting Documentation, Graves Lease, Andalex Resources Inc., Centennial Project, ACT/007/019-90(1), Folder No. 2, Carbon County, Utah

Enclosed please find Utah's Final Findings and Supporting Documentation Package (FSD) for Andalex Resources' Graves Lease.

This document has been reviewed by the technical/supervisory staff and the Associate Director for Mining as per the Divisions' quality control review policy. It has also undergone legal review as per Division policy.

The Division is satisfied that the Mining and Reclamation Plan (MRP) submitted by Andalex Resources for the Graves Lease is adequate to receive Final Permit Approval and that the FSD is complete and accurate. Please contact me or Daron R. Haddock of my staff if there are questions.

Best regards,

Dianne R. Nielson  
Director

DRH

cc: Mike Glasson, Andalex Resources  
Robert Hagen, OSM  
Lowell Braxton  
Dave Darby  
Joe Helfrich  
Daron Haddock

BT6091/1

UTAH DIVISION OF OIL, GAS AND MINING  
STATE DECISION DOCUMENT

Andalex Resources, Inc.  
Centennial Project  
Graves Lease Addition  
ACT/007/019  
Carbon County, Utah

December 13, 1990

CONTENTS

- \* Administrative Overview
- \* Location Map
- \* Permitting Chronology
- \* Mine Plan Information Form
- \* Findings
- \* Cumulative Hydrologic Impact Assessment (CHIA)
- \* Stipulations
- \* Letters of Concurrence and Other Attachments
  - Technical Review Memo, David Darby, Nov. 26, 1990
  - Bureau of Land Management
    - Coal Lease UTU-66060, September 13, 1990
  - Division of State History, October 4, 1990
  - Utah Department of Health, October 8, 1990
  - Affidavit of Publication, August 21, 1990
  - Memo from Joseph C. Helfrich -- Section 510(c) finding

## ADMINISTRATIVE OVERVIEW

Andalex Resources, Inc.  
Centennial Project  
Graves Lease Addition  
ACT/007/019  
Carbon County, Utah

December 13, 1990

### BACKGROUND

Andalex Resources, Inc. (ARI) has proposed a new underground lease addition to its currently approved permit area for the Centennial Project.

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 (DOGGM) 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 3358 acres. This Decision Document addresses the addition of the Graves federal lease to the permitted area, which consists of 933 acres.

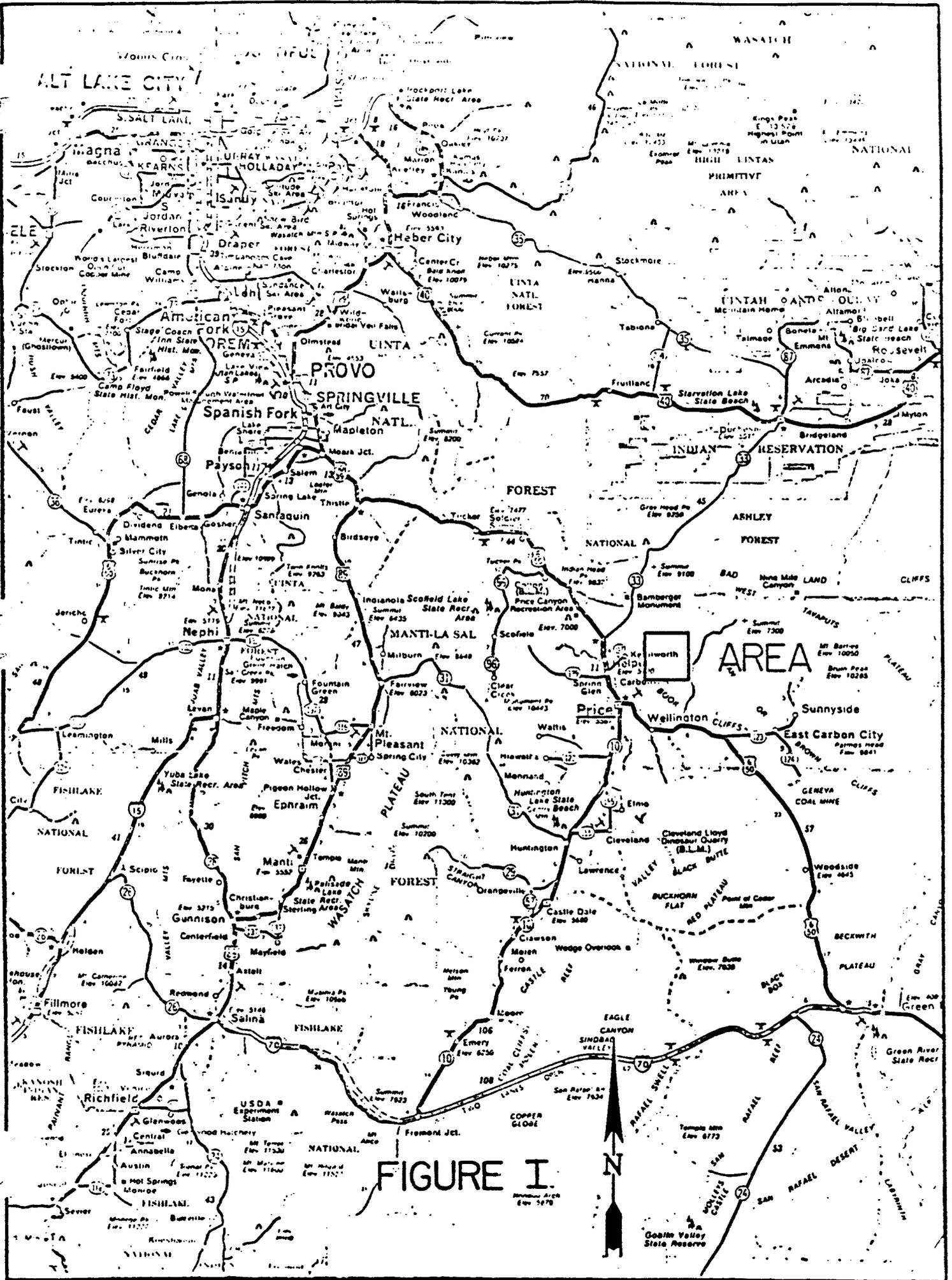
Currently ARI operates three mines, the Pinnacle, Apex and Aberdeen, in the Gilson, Lower Sunnyside and Aberdeen seams, respectively. A fourth seam, the Centennial, is planned to be accessed through the Pinnacle mine by driving rockslopes from the Gilson seam. Development of much of the Centennial seam requires the addition of the Graves lease to the permit.

## ANALYSIS

No additional surface disturbance is proposed in relation to the addition of this underground lease. Therefore, it is DOGM's opinion that the mining and reclamation practices and procedures which were approved in the five-year permit renewal and subsequent 1989 revision are adequate to address any effects related to the underground mining of the Graves lease. Technical compliance has been addressed in previous Technical Analysis' and will not be discussed further here.

## RECOMMENDATION

ARI has demonstrated that mining of the Graves lease 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 new federal lease effective October 1, 1990. The only issues raised during the review process or the public comment period are being included as stipulations to the permit and are currently being addressed by the operator (see Stipulations). It is therefore recommended that approval be given for the addition of the Graves lease to the permitted area and to the currently approved five year permanent program mining permit, with the stipulations delineated in this Decision Document.



PERMITTING CHRONOLOGY

Andalex Resources, Inc.  
Centennial Project  
Graves Lease Addition  
ACT/007/019  
Carbon County, Utah

- 11/21/89      ARI submitts plans for including the Graves Lease into the permit.
- 5/17/90      DOGM initial completeness review shows plans to be deficient. Additional information is requested.
- 7/6/90        ARI submitts additional information
- 7/31/90      DOGM determines that the submitted materials can be considered administratively complete.
- 8/2-21/90    ARI publishes notice of intent to add the Graves lease to the permit area weekly for four consecutive weeks in the Price Sun Advocate.
- 9/21/90      Comment period expires with no comments received.
- 9/24/90      DOGM forwards copies of ARI's updated Mining and Reclamation Plan which includes the Graves lease to other agencies.
- 12/10/90     ARI submits proof of right of entry on Lease UTU-66060
- 12/13/90     DOGM forwards State Decision Document to Office of Surface Mining Reclamation and Enforcement for concurrence and Secretarial signature.

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: \_\_\_\_\_  
 Telephone: (801) 637-5385

New/Existing: Both Mining Method: Room and Pillar

New Federal Lease No(s): UTU-66060 (Graves Lease)

Legal Description(s): T. 13S., R. 10E SLM, Utah  
Section 1: lots 1-8, S1/2 N1/2 ;  
Section 12, lot 1.  
T. 12S., R. 11 E., SLM, Utah  
Section 31, lots 3-6, and 13-22.

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: All but SE 1/4 SE 1/4  
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

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>2928</u>	<u>933</u>	<u>3861</u>
State			
Private	<u>440</u>		<u>440</u>
Other			
TOTAL	<u>3368</u>	<u>933</u>	<u>4301</u>

Coal Ownership (acres):

Federal	<u>2918</u>	<u>933</u>	<u>3851</u>
State			
Private	<u>440</u>		<u>440</u>
Other			
TOTAL	<u>3358</u>	<u>933</u>	<u>4291</u>

<u>Coal Resource Data</u>	<u>Total Reserves</u>	<u>Total Recoverable Reserves</u>
Federal	_____	_____
State	_____	_____
Private	_____	_____
Other	_____	_____
TOTAL	<u>52.5 Million Tons</u>	<u>33 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	_____	_____	_____
Seam	_____	_____	_____

Mine Life: 28 years  
Average Annual Production: 1.5 Million Percent Recovery: 68%  
Date Projected Annual Rate Reached: 1990  
Date Production Begins: 1980 Date Production Ends: 2008  
Reserves Recoverable By: (1) Surface Mining: \_\_\_\_\_  
(2) Underground Mining: X  
Reserves Lost Through Management Decisions: Unknown  
Coal Market: Unknown

## FINDINGS

Andalex Resources, Inc.  
Centennial Mines Project  
Graves Lease Addition  
ACT/007/019  
Carbon County, Utah

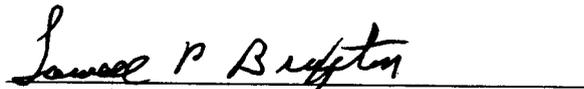
December 13, 1990

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 (R614-300-133.100).
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 (R614-300-133.710).
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 (R614-300-133.400 and UCA 40-10-11 {2}{c}) (See Cumulative Hydrologic Impact Analysis (CHIA) following this Findings Document).
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 (R614-300-133.220) (MRP, p. 17);
  - b. not within an area under study for designated lands unsuitable for underground coal mining operations (R614-300-133.210) (MRP, p. 17);
  - 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.(R614-300-133.220);
  - e. not within 300 feet of any occupied dwelling (R614-300-133-220).
5. The regulatory authority's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800) (R614-300-133.600). See attached letter from State Historic Preservation Officer (SHPO) dated October 4, 1990.
  6. The applicant has the legal right to enter and complete mining activities in the Graves lease through a federal coal lease issued by the Bureau of Land Management (See attached lease UTU-66060 effective October 1, 1990) (R614-300-133.300).
  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 Andalex Resources Inc. 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 (R614-300-133.730)
  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. The closest operating mine is the Soldier Canyon Mine.
  9. 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 (R614-300-134).
  10. No lands designated as prime farmlands or alluvial valley floors occur on the permit area (R614-302-313.100) (R614-302-321.100).

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 regulatory authority and the surface land management agency
12. The regulatory authority 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 (R614-300-133.500)
14. All procedures for public participation required by the Act, and the approved Utah State Program have been complied with (R614-300-120).
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 R614-301 and R614-302 (R614-300-133.720).

  
Permit Supervisor

  
Associate Director, Mining

  
Director

CUMULATIVE HYROLOGIC IMPACT ASSESSMENT  
Tower Resources, Inc.  
Centennial Project  
ACT/007/019  
Carbon County, Utah

December 4, 1990

I. Introduction

This report contains a Cumulative Hydrologic Impact Assessment (CHIA) for Tower Resources, Inc., Centennial Project located in Carbon County, Utah. The assessment encompasses the probable cumulative impacts of all anticipated coal mining on the hydrologic balance in and adjacent to Centennial's proposed and active underground mine complex, and evaluates whether the operations proposed in the application have been designed to prevent damage to the hydrologic balance outside the proposed mine plan area.

This report complies with federal legislation passed under the Surface Mining Control and Reclamation Act (SMCRA) and subsequent Utah and federal regulatory programs under R614-301-131.400 and 30 CFR 784.14(f), respectively.

This assessment incorporates the area identified by the mining company as the Graves Lease. The last revision to this CHIA took place October 28, 1988 and incorporated the Aberdeen leases.

Andalex Resources, Inc. submitted a proposal to obtain and incorporate the Graves Lease Tract (Federal Lease UTU 66066, 933 acres) (see Plate 1) into their existing mine permit on January 4, 1990. The Graves Lease is located northeast of the existing mine permit area in Sections 1 and 12 of T. 13S., R. 10E., SLM and Section 31 of T. 13S., R. 11E., SLM. The revision outlines plans to develop and mine the Aberdeen and Centennial coal seams within the lease. These seams are currently being mined in permitted areas. Mining strategy calls for mining the Centennial seam where reserves are greater than five feet thick. No coal will be mined from either the Lower Sunnyside seam or the Gilson seam in the lease area.

The Aberdeen revision exanded the permit area by 400 acres. The following federal leases were expanded, Federal Lease U-01581, by adding 162 acres, Federal Lease SL-063058, 162 acres and Federal Lease SL-02730, 74 acres. The reserves in these three leases are mined as an extention of the Aberdeen Mine.

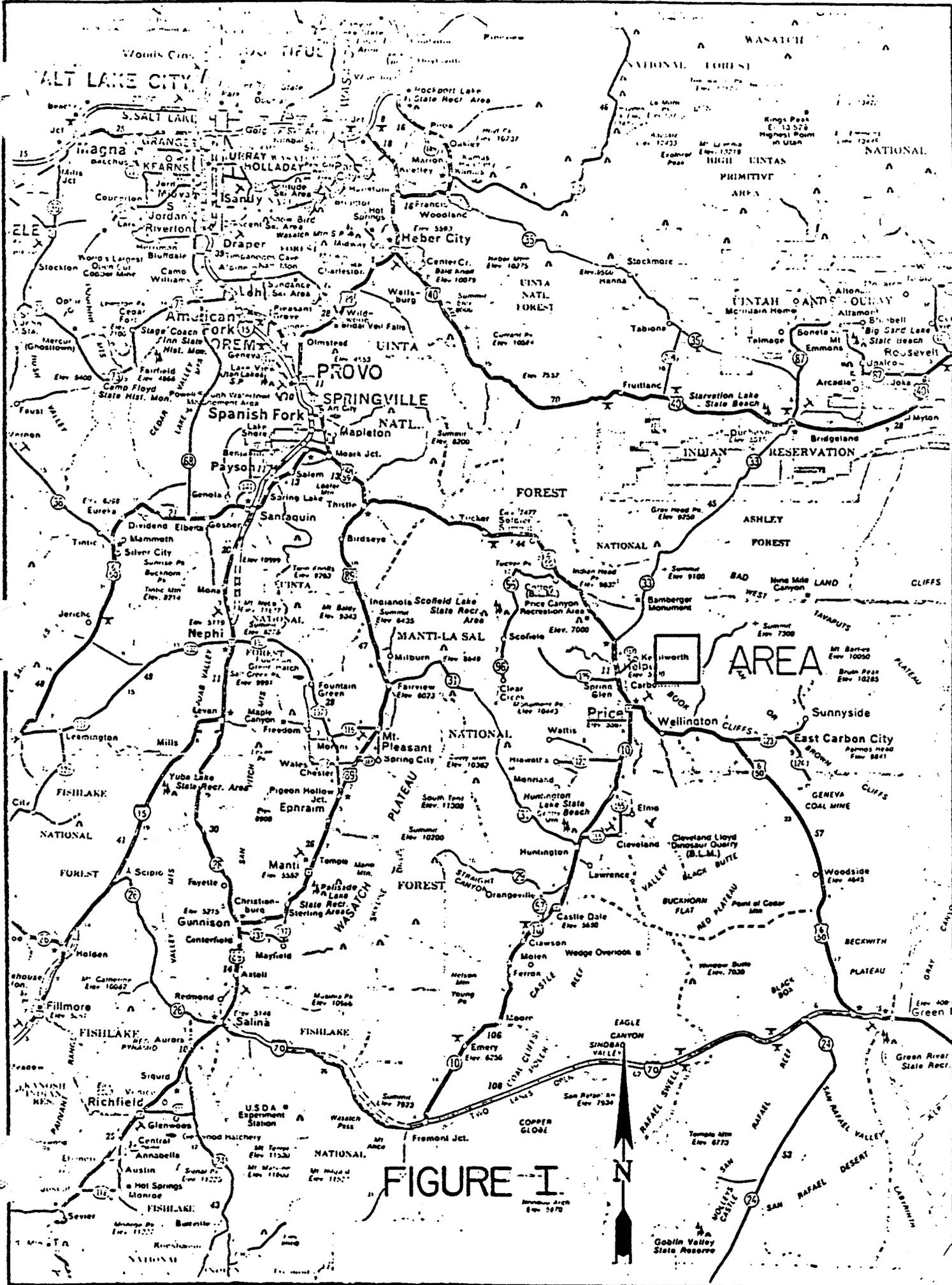


FIGURE I



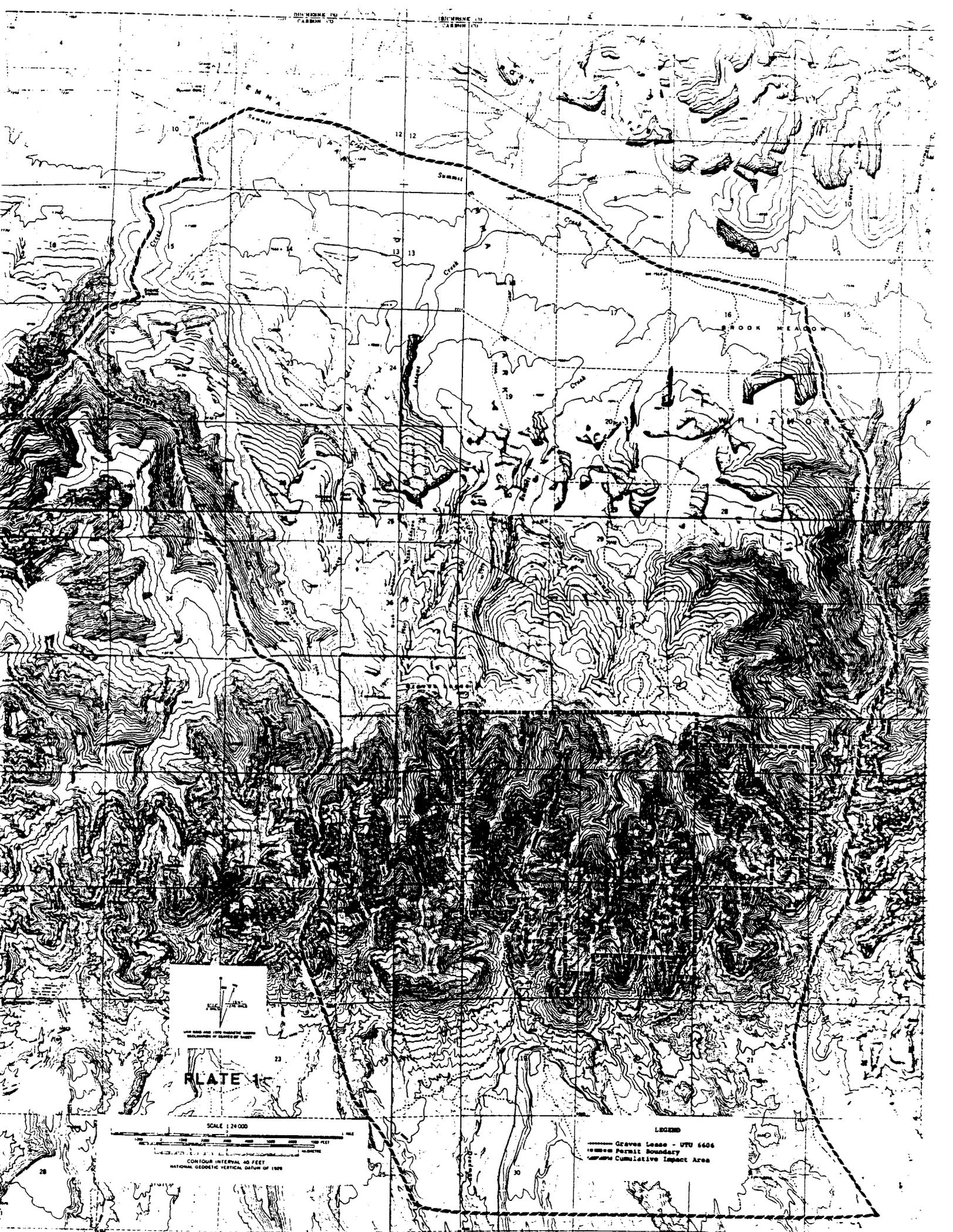


PLATE 1

SCALE 1:24,000

CONTOUR INTERVAL 40 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

LEGEND

- Graves Lease - UTU 5606
- - - - - Permit Boundary
- ▨▨▨▨ Cumulative Impact Area

This CHIA also includes the assessment of a former lease modification submitted on August 9, 1988 to incorporate a new mine permit for 560 acres on the north-east corner of the permit area which consist of a new federal lease (U-05067, 320 acres) and a lease from SUNEDCO (240 acres of fee property). The reserves in these two leases will be mined as an extension of the Pinnacle Mine.

Tower Resources Inc., Centennial Project is located within the Book Cliffs Coal Field approximately 10 miles north-northeast of Price, Utah (Figure 1). The Book Cliffs form a rugged, southerly facing escarpment that delineates the Uintah Basin to the North from the San Rafael Swell to the south. Elevations along the Book Cliffs range from approximately 5,000 to 9,000 feet.

Outcropping rocks of the Book Cliffs range from Upper Cretaceous to Quaternary in age. The rock record reflects an overall fluctuating regressive sequence from marine (Mancos Shale) through littoral and lagoonal (Blackhawk Formation) to fluvial (Castlegate Sandstone, Price River Formation and North Horn Formation) and lacustrine (Flagstaff Formation) depositional environments. Oscillating depositional environments within the overall regressive trend are represented by members of the Blackhawk Formation. The major coal bearing unit within the Book Cliffs Coal Field is the Blackhawk Formation.

Precipitation varies from 20 inches at higher elevations to 5 inches at lower elevations. The Book Cliffs area may be classified as mid latitude steppe to desert.

Vegetation varies from the sagebrush/grass community type at lower elevations to the Douglas fir/aspen community at higher elevations. Other vegetative communities include mountain brush, pinyon-juniper, pinyon-juniper/sagebrush and riparian. These communities are primarily used for wildlife habitat and livestock grazing.

Surface runoff from the Book Cliffs area flows into the Price River drainage basin of east-central Utah. The Price River originates near Scofield Reservoir and flows southeasterly into the Green River, north of the town of Green River, Utah. Water quality is good in the mountainous headwater tributaries, but deteriorates rapidly as flow traverses the Mancos Shale. The shale lithology typically has low permeability, is easily eroded and contains large quantities of soluble salts that are a major contributor to poor water quality. Depending upon the duration of contact, water quality degrades downstream to where total dissolved solids (TDS) levels of 3,000 milligrams per liter (mg/l) are common. The predominant ion leached from the Mancos Shale is sulfate ( $SO_4$ ) with values over 1,000 mg/l common in the lower reaches of the Price River.

## II. Cumulative Impact Area (CIA)

Plate 1 delineates the CIA for current Centennial Project operations. The CIA was expanded to the north to incorporate any potential surface and subsurface effects to the hydrologic regime. The northern boundary of the CIA has been established at the natural stream channel of Summit Creek that runs westward in Whitmore Park. The flow from Summit Creek drains into Willow Creek and then into the the Price River below Castlegate, Utah. Although this area appears extensive, it reflects the maximum area for expected effects that mining could incur on the surface and ground waters.

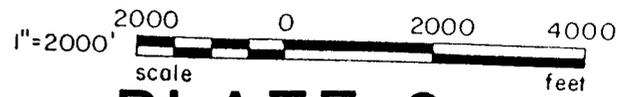
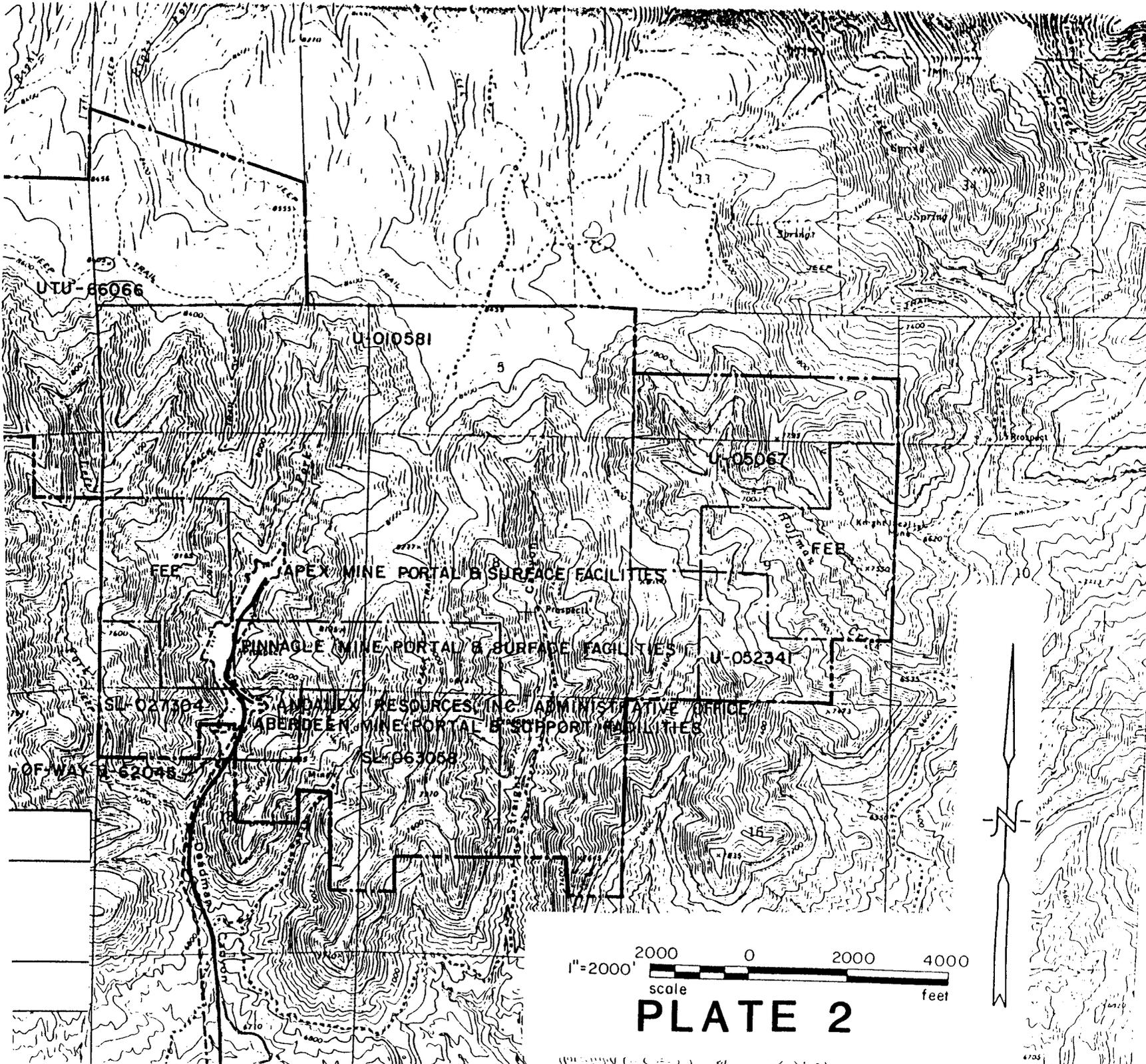
The southern and eastern portion of the CIA includes the Deadman Canyon drainage, the Straight Canyon drainage, the Hoffman Creek drainage and several other unnamed ephemeral drainages between Deadman Canyon and Hoffman Creek. Runoff from these drainages eventually unite and flow south into Deadman Creek and Coal Creek and eventually into the Price River.

The southern boundaries of the CIA are defined by the inclusion of major portions of Deadman and Coal Creeks, and arbitrarily drawn along the south parimeter to include the ephemeral dranages and pediements of the Mancos Shale.

The western extent of the CIA was drawn to include the drainages such as Alred Canyon, Mathis Canyon and Deep Canyon which are potentially within the influence of mining operations, or could be if future expansion occurs.

The surface facilities of the Centennial Project are located entirely within the watershed flowing to the south into Deadman Creek. The eastern boundary of the CIA is designated by Coal Creek, a perennial stream. Mining in the Centennial Project will not occur beneath Coal Creek and therefore the limits of the CIA do not extend to the east of Coal Creek.

Completion of the review at this level indicated that extensive hydrologic impacts do not exist within these limits. Therefore, further analysis was not conducted beyond these limits and the CIA was determined to be complete. The CIA encompasses approximately 44.8 square miles.



# PLATE 2

### III. Scope of Mining

Initial mining operations of the Centennial Project began in October, 1980 in the Pinnacle Mine on the Zions fee lease. The original Mining and Reclamation Plan was approved in January, 1982, and mining progressed onto the federal leases. In June, 1982 the Apex Mine was opened. In October, 1981 modifications to the federal leases were granted, thus adding 436 acres to the overall mine plan area.

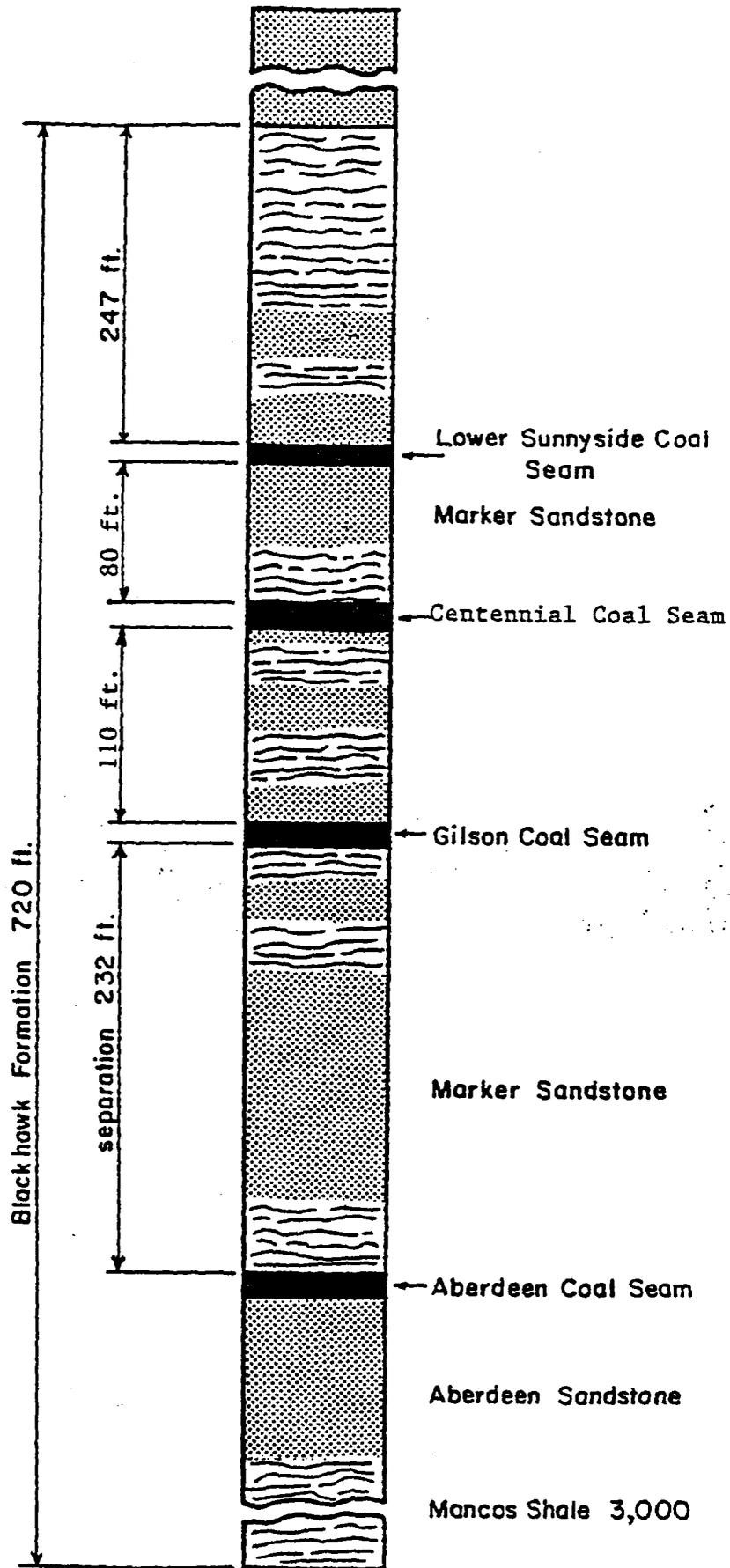
The 120 acre federal emergency lease was granted in November of 1983. The coal mined from the emergency lease will be extracted as an underground extension of the existing Pinnacle Mine operation.

With the addition of the Graves Lease tract (933 acres), the Federal holdings will total 3,851 acres and fee holdings will be 440 acres, a total of 4,291 acres. Andalex has also aquired a Right-of Way (UTU-62045) from the Bureau of Land Management consisting of ten acres below the enterance of the mine facilities. Recoverable coal reserves for the federal lease holdings are estimated at 33 million tons. To date 3.5 million tons have been mined. Although the more reserves should be included with the addition of the Graves leases, these reserves were offset by the loss of reserves from burns and decreased estimates. So the total reserves are estimated to be near the same as stated in the last CHIA (personnal communication with Mike Glasson December 5, 1990).

Surface disturbance will be contained within the Right Fork of Deadman Canyon adjacent to the mines. A total of 34.2 acres is planned for surface disturbance and reclamation.

Four seams (Figure 2) of mineable coal are located within the permit area. The approved Mining and Reclamation Plan for the Centennial Project calls for development of all four seams. Three mines, the Pinnacle Mine in the Gilson Seam and Apex Mine in the Lower Sunnyside Seam and the Aberdeen Mine in the Aberdeen seam have been developed and are currently operating. The Centennial seam will be accessed by rockslopes from the Gilson seam (Pinnacle Mine).

Production will be from room and pillar mining methods with secondary pillaring. Mine development will occur simultaneously in all of the seams. Longwall mining could be introduced if conditions prove favorable, however the operator has not stated that one would be used. Overburden thickness ranges from approximately 0 to 2400 feet. The overburden depths for the Centennial Mine range between 1500 feet to 2000 feet. The extensive amount of overburden and paucity of surface water resources present a low risk for surface waters being adversely affected.



Measured Section of the Blackhawk Formation

FIGURE II

Deadman Canyon

No Scale

#### IV. Study Area

##### A. Geology

The Book Cliffs are basically a homocline (dip slope) dipping into the Uintah Basin with the cliff front roughly paralleling the strike of the feature. The beds are mostly uniform with dips of 3° to 8° to the north and northeast. Occasional faults cut the coal measures in the Book Cliffs but are of small displacement and have been of little consequence in mining. There are no faults known to exist within the Centennial Project. No major faults exist in the area adjacent to the mine plan area, however, Doelling (1972) shows that one minor fault may exist about one-half mile south of the portal area.

Geologic formations exposed within the mine plan area are the Blackhawk and Price River Formation of the Mesa Verde Group and the North Horn and Flagstaff members of the Wasatch Formation. The Blackhawk Formation, which directly overlies the Mancos Shale in the vicinity of the Centennial Project (Doelling, 1972) is the middle and coal bearing unit of the Mesa Verde Group. The Blackhawk consists of a basal sandstone (the Aberdeen Sandstone) overlain by massive beds of gray to buff sandstone with alternating beds of sandy shale, shale and coal (Clark, 1928). In the vicinity of the Centennial Project, the Blackhawk Formation is approximately 1000 feet thick (Doelling, 1972).

Overlying the Blackhawk Formation is the Price River Formation. The Price River Formation is composed of a massive basal sandstone (referred to as the Castlegate Sandstone) and upper beds overlying the Castlegate (Clark, 1928). The Castlegate Sandstone consists of massive, fine-grained to medium-grained sandstone beds (Doelling, 1972) which are gray to buff and composed mainly of semi-rounded quartz grains (Clark, 1928). The Castlegate Sandstone is approximately 250 feet thick near the Centennial Project (Doelling, 1972). The upper portion of the Price River Formation consists of two or more thick beds of sandstone, interbedded with thin-bedded shale and sandy shale (Clark, 1928).

The North Horn Formation, the lower most member of the Wasatch Formation, consists of a series of shale, mudstone sandstone, minor conglomerate and freshwater limestone. Near the Centennial Project, the North Horn Formation is approximately 600 feet thick.

The Flagstaff Limestone, also a member of the Wasatch Formation, consists of thin-bedded limestones, shales, and sandstones (Doelling, 1972). The Flagstaff Limestone is exposed just north of the mine plan area on the Plateau.

## B. Topography and Precipitation

The southern topography of the Bookcliffs escarpment in the area is generally very steep and rugged, with elevations ranging from approximately 6400 feet to 8500 feet above sea level. Slopes vary from vertical cliffs to less than 2 percent. The south half of the CIA is characterized by a ephemeral drainage systems that originates above 8400 feet and progressively traverse nonmarine and marine Cretaceous rocks and alluvial fan deposits. The Right and Left Forks of Deadman Canyon and an unnamed ephemeral drainage drain the western portion of the CIA.

Straight Canyon, an unnamed ephemeral drainage and Hoffman Creek drain the southeastern portion of the CIA and are tributary to Coal Creek. Coal Creek and Deadman Canyon are both tributary to the Price River. The north half of the CHIA is a broad valley, Emma Park, formed between the dip slope of the Book Cliffs and the escarpment of the Roan Cliffs escarpment. The dip slope is dissected by the drainages of Deep Creek, Clearwater Creek and Coal Creek which have eroded through the thick soils deep into the underlying sandstone formations.

Precipitation in the Book Cliffs Coal Field ranges from 5 inches to a maximum of 20 inches annually. For the most part along the coal outcrops, 10 to 12 inches of rain are expected (Doelling, 1972).

## C. Vegetation

Mountain-Brush, Desert-Shrub, Pinyon-Juniper Woodland, Sagebrush-Grass, Conifer-Aspen and minor stream side vegetative types cover the total CIA. Most of the area is covered by the Mountain-Brush type while the Pinyon-Juniper Woodland type is predominant in the mine mouth area as well as the access routes and utility corridors.

## V. Hydrologic Resources

### A. Ground Water

The principle factor controlling the occurrence and availability of groundwater in any area is geology. As noted by Price and Waddell (1972), nearly all of the region in the CIA is underlain by rocks of continental and marine

origin, consisting predominantly of interbedded sandstones and shales. Although some of the sandstones in the region serve as the principle water-bearing strata, their ability to yield water for extended periods of time is largely controlled by the fact that the sandstone beds are relatively impermeable and by the existence of the impermeable interbedded shale layers, which prevent the downward movement of a significant amount of water. According to the U. S. Geological Survey (1979), groundwater in the region exists under water table, artesian and perched conditions. Water table conditions exist primarily in shallow alluvial deposits along larger perennial streams and in relatively flat lying sedimentary rocks. Artesian conditions exist at greater depths where a confining layer overlies a more permeable strata. However, pressures are generally not sufficient to produce flowing wells.

Snowmelt at higher elevations provides most of the groundwater recharge, particularly where permeable lithologies such as fractured or solution limestone are exposed at the surface. Vertical migration of groundwater occurs through permeable rock units and/or along zones of faulting and fracturing. Lateral migration initiates when ground water encounters impermeable rocks and continues until either the land surface is intersected (and spring discharge occurs) or other permeable lithologies or zones are encountered that allow further vertical flow.

The Kenilworth Member, Sunnyside Member and Upper Mudstone Member of the Blackhawk Formation, Castlegate Sandstone, Bluecastle Sandstone Member of the Price River Formation, undifferentiated North Horn/Flagstaff Formation, and Quaternary deposits are potential reservoirs or conduits for groundwater in the CIA. Reservoir lithologies are predominantly sandstone and limestone. Sandstone reservoirs occur as channel and overbank lenticular and tabular deposits, whereas limestone reservoirs have developed through solution processes and fracturing. Shale, siltstone and cemented sandstone beds act as aquacludes to impede ground-water movement. The Mancos Shale is a regional aquaclude that delimits downward flow within the CIA. Localized aquacludes include the Aberdeen Member and Lower Mudstone Member of the Blackhawk Formation, Lower Unnamed Member of the Price River Formation and relatively thin impermeable lithologies occurring within overlying units.

Well test data from two water wells completed in the Blackhawk Formation near the portal area have been obtained from pumping tests. Well #1 is 130 feet deep and had a static water level of 58 feet below land surface prior to testing. After four hours of pumping at 50 gallons per minute, the water level had been lowered to 67 feet below land surface. In January 1981, after about three months use, this well was almost dry. These facts indicate that the aquifer may yield up to 5.5 gallons per minute per foot of drawdown but cannot produce a sustained yield over a period of time.

Well #2 was initially drilled to a depth of 155 feet and had a static water level of 57 feet below land surface. After two hours of pumping at 30 gallons per minute, the water level was lowered to 88 feet below land surface. The well was then drilled to a depth of 230 feet and pumped again. After only one hour of pumping at a rate of 30 gallons per minute the water level was lowered from 57 feet to 100 feet below land surface. After three weeks of pumping, in February of 1981, this well also almost dried up. The test results from well #2 indicate that the water bearing zone is less transmissive than well #1 but like well #1, it is very limited in areal extent.

The testing program of wells #1 and #2 was very limited and as a result the data from these tests must be regarded as such. However, estimates of transmissivity and areal extent of the aquifers in which these wells were completed indicate zones of low to moderate transmissivity of limited areal extent. In general these facts substantiate the lenticularity of the Blackhawk Formation and the fact that the water bearing zones are perched with a limited amount of recharge.

Seeps and springs were inventoried within and adjacent to the Centennial Project. Two springs occur on the southern escarpment within and adjacent to the mine permit area. One spring was identified approximately one-half mile south of the portal area and the other spring is located at the mouth of Hoffman Canyon. Both of these springs occur at or near the contact of the Blackhawk Formation and the Mancos Shale. Average flow is estimated to be less than ten gallons per minute for each spring. Some small seeps were found on the escarpment slope. Water from these seeps provide stock water and is thought to be derived from shallow unconsolidate aquifers.

In 1983 Tower Resources encountered groundwater in an area of burned coal during mining operations adjacent to the emergency lease. The water exists in the burn area between the underlying and overlying sandstones. The burn area, consisting of burned coal and rubble, acts as a reservoir with limited storage capacity. Recharge is from direct infiltration of precipitation and runoff directly into the outcrop. Due to the permeable nature of the burned outcrop, water easily percolates into the strata, flowing downgradient until the maximum available storage capacity of the burn area is achieved. Further movement downgradient is prevented by the existence of the relatively impermeable unburned coal. Tower estimates that approximately seven million gallons of water are contained in the burn area.

Very little water has been encountered in the Pinnacle Mine. Water that has been encountered has been in the form of small roof leaks that dry up within a few days or weeks after mining progresses downdrift. Mine inflow is most likely attributed to localized zones of saturation in the Blackhawk Formation.

#### B. Surface Water

The Centennial Project CIA is situated in the Book Cliffs near the headwaters of the Price River Basin. In general, the chemical quality of water in the headwaters of the Price River Basin is excellent, with this watershed providing most of the domestic water needs of the people below. However, this quality rapidly deteriorates downstream as the streams cross shale formations (particularly the Mancos Shale in and adjacent to Castle Valley) and receive irrigation return flows from lands situated on Mancos-derived soils (Price and Waddell, 1973). Within the Price River Basin, for example, Mundorff (1972) reports that the Price River and its tributaries generally have a dissolved solids concentration of less than 400 milligrams per liter upstream from Helper. The water in this area is of a calcium-bicarbonate type. Between this point and the confluence with Miller Creek, most of the flows originate on or tranverse Mancos shales. Much of the flow is derived from irrigation return flows. The Price River at Wellington, which is near the center of the basin, has an average dissolved solids content of about 1700 milligrams per liter and is of a mixed chemical type (calcium-magnesium-sodium-sulfate). At Woodside, which is about 22 miles upstream from the confluence of the Price River with the Green River, the weighted average dissolved solids content has generally been between 2000 and 4000 milligrams per liter, with the water type being strongly sodium-sulfate.

Sediment yield from the upper portion of the basin is probably negligible (Mundorff, 1972). According to the U. S. Soil Conservation Service (1975), erosion rates in the Price and San Rafael River basins vary from 0.1 to 3.0 acre-feet per square mile per year. The bulk of the sediment yielded each year at the mouth of the Price River comes from limited areas covered with highly erodable shales (Mundorff, 1972).

The Centennial Project area is drained by ephemeral drainages heading primarily in a southerly direction. The Right and Left Forks of Deadman Canyon and an unnamed ephemeral drainage drain the western portion of the CIA including the area of the surface facilities. Straight Canyon, Hoffman Creek, and an unnamed ephemeral drainage drain the eastern portion of the CIA and are tributary to Coal Creek, a perennial stream. Coal Creek and Deadman Canyon are both tributary to the Price River.

Surface disturbances related to coal mining occurs only in the Right Fork of Deadman Canyon. Interaction between the surface disturbances and this ephemeral drainage are minimized due to sediment control facilities that are in place. Mining has occurred beneath the Right Fork of Deadman Canyon, two unnamed ephemeral drainages, and Straight Canyon. Mining in the Emergency Lease will continue under the Hoffman Creek drainage.

The ephemeral drainages flow in response to snowmelt and rainfall events. Water quality analyses of snowmelt runoff in the ephemeral drainages generally indicate major dissolved chemical constituents of magnesium, sodium, sulfate and bicarbonate.

## VI. Potential Hydrologic Impacts

### A. Ground Water

Dewatering and subsidence related to mining have the greatest potential for impacting groundwater resources in the CIA.

#### Dewatering

Minor inflows of water has been encountered in the mine within until the summer of 1990. Andalex Resources (Mike Glasson, Senior Geologist) stated that interception of burnt coal areas has produced 90% of the water which flows into the mine. Other sources that are encountered have been in the form of small roof leakers that dry up

within a few days or week after mining progresses downdrift. The inflows from burnt areas produce large volumes of water which is stored in the mine and then pumped out at irregular intervals. One such encounter produced around 100,000 gallons per day for about a month. Andalex has aquired a UPDES permit (UTG-040008, site 002) for the discharge.

The probable hydrologic impacts to the ground water are distinct and independent at the Centennial Project. There appears to be no hydrologic connection between the alluvial aquifer underlying local creeks and the operations at the Centennial Project. While the mining operations occur in the Blackhawk Formation, the aquifers associated with this formation is perched and lenticular in nature. Pump test data in the Blackhawk Formation and monitoring of ground water inflow at local mines has demonstrated the absence of a regional aquifer that contributes medium or high groundwater tranmissivities. The hydrologic impacts of the Centennial Project with respect to ground water will therefore not affect or be affected extensively by the mining activities at the Centennial Project.

#### Subsidence.

Subsidence impacts are largely related to extension and expansion of the existing fracture system and upward propagation of new fractures. Inasmuch as vertical and lateral migration of water appears to be partially controlled by fracture conduits, readjustment or realignment in the conduit system will inevitably produce changes in the configuration of groundwater flow.

Potential changes include increased flow rates along fractures that have "opened" and diverting flow along new fractures or permeable lithologies. Subsurface flow diversions may cause the depletion of water in certain localized aquifers, whereas increased flow rates along fractures would reduce groundwater residence time and potentially improve water quality.

#### B. Surface Water

The main concern in terms of impact to surface water is water quality deterioration downstream from the minesite. There will be no impact to the quantity of water due to the ephemeral nature of the drainages. All drainages in the CIA flow only in response to snowmelt runoff and rainfall events. Infiltration rate and runoff volumes will not be affected by the mining operations.

The area influenced by surface disturbance is of limited areal extent and confined only to the Right Fork of Deadman Canyon. Surface sediment controls currently are in place and will continue to be in place during reclamation. The water quality impacts associated with reclamation will be minimal or nonexistent due to the fact all drainage from the disturbed area will be routed through sediment controls and treated via the use of sedimentation ponds prior to any release of disturbed area drainage.

#### VII. Influence of Other Mining

The Centennial Project is the only active coal mine in the CIA. The Soldier Canyon Mine is located approximately six miles to the east in Soldier Canyon and the Price River Mine Complex is located approximately nine miles to the west in the Price River Canyon. With the latest additions the eastern border of the mine plan area is 2 1/4 miles from the western border of Soldier Creek Coal Company' mine plan area.

A Cumulative Hydrologic Impact Assessment prepared in December of 1984 for the Soldier Canyon Mine has addressed the hydrologic impacts for the anticipated mining in the Soldier Creek drainage. The greatest ground water concern with respect to the Soldier Canyon Mine is the undermining of Soldier Creek and the potential for streamflow to be lost into the mine via subsidence fractures through a minimum of 150 feet of overburden material. Three springs overlying the mine could be affected by subsidence associated with mining. These effects are possible but unlikely because the springs are located in the Flagstaff Limestone and the North Horn Formation and separated from the coal seams by approximately 900 feet of overburden. Additionally, approximately 100 gallons per minute currently enters the Soldier Canyon Mine from diffuse sources, from the lenticular sandstones, shales and coal of the Blackhawk Formation.

The probable hydrologic impacts to the ground water are distinct and independent at the Centennial Project and at the Soldier Canyon Mine. There is no hydrologic connection between the alluvial aquifer underlying Soldier Creek and the operations at the Centennial Project. While both mining operations occur in the Blackhawk Formation, the aquifers associated with this formation are perched and lenticular in nature. Pump test data in the Blackhawk Formation and monitoring of ground water inflow at each of the mines has demonstrated the absence of a regional aquifer in this Formation. The hydrologic impacts of the Centennial Project with respect to ground water will therefore not affect or be affected by the mining activities at the Soldier Canyon Mine.

The Cumulative Hydrologic Impact Assessment prepared for the Soldier Canyon Mine indicates that the greatest impacts to the surface water resource are related to changes in water quality caused by discharge of mine waters with a relatively high total dissolved solids (TDS) concentration. The Soldier Creek Coal Company has committed to limiting the volume of discharge so that the discharge TDS load will be less than the NPDES limits of 1.0 tons per day.

The Centennial Project has encountered very little water in the perched aquifers associated with the Blackhawk Formation. Water out of an area of burned coal was discharged in 1983. Andalex Resources, Inc. has obtained a UPDES Permit and submitted a monitoring plan in the event that any unexpected mine water is encountered and must be discharged from the mine. Hydrologic impacts resulting from any treated discharge will be minimized and will not affect or be affected by the mine water discharge at the Soldier Canyon Mine.

A Cumulative Hydrologic Impact Assessment prepared in July of 1984 for the Price River Mine Complex, west of the CHIA, has addressed the hydrologic impacts for the anticipated mining with respect to the Price River Basin. The CHIA has determined that the hydrologic effects of the Price River Coal Company (PRCC) mining operation will have no cumulative impacts with existing or proposed coal mining operations. Intercepted ground water from the Blackhawk Formation during mining operations has been determined to be approximately 0.64 to 0.96 cubic feet per second. This would reduce baseflow to springs and streams in the area by a lesser amount because water is discharged from the mine. Pump test data in the Blackhawk Formation and monitoring of ground water inflow into the mine at the PRCC Complex as well as at the Centennial Project demonstrate that there is no hydrologic connection in the Formation between the two mining operations. Therefore, the hydrologic impacts associated at the two mining operations will not affect each other.

The Cumulative Hydrologic Impact Assessment prepared for the PRCC indicates that there will be minimal impact to the surface water quantity and quality due to mining operations. The surface water control plan in place at the PRCC Complex is sufficient to prevent additional sediment from disturbed areas from entering streams or drainages in the permit area. Mine water discharge is controlled by an NPDES Permit and is therefore not contributing to the degradation of the existing surface water quality.

The Centennial Project has and will continue to treat surface water runoff from disturbed areas and any unexpected mine water discharge. The hydrologic impacts of the Centennial Project with

respect to the surface water will therefore not affect or be affected by mining operations at the PRCC Complex.

The operational design proposed for the Centennial Project is herein determined to be consistent with preventing damage to the hydrologic balance outside the mine plan area.

WPO-79

REFERENCES

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December 10, 1990

**STIPULATIONS  
Andalex Resources, Inc.  
Centennial Project  
Graves Lease Addition  
ACT/007/019  
Carbon County, Utah**

**UDOH-(1)**

**Within 30 days of permit issuance ARI will provide a detailed description of the mine water system, particularly the collection of surface water for use underground which will include schematic diagrams, flow rates, volumes and etc.**

**UDOH-(2)**

**Within 30 days of permit issuance, ARI, in conjunction with the State Health Department will determine the need for upgrading the septic system.**

**UDOH-(3)**

**Within 30 days of permit issuance, ARI will provide plans for the proper disposal of waste oil generated at the mine site. References to disposal of waste oil in the county landfill will be deleted from the plan.**

**UDOH-(4)**

**Within 30 days of permit issuance, ARI will submit for insertion to the mine plan the latest revision of all environmental permits; including Discharge (UPDES), Construction (sediment ponds), Sewage Disposal (Septic Tank), Air Quality, and Potable Water System permits or approvals.**



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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November 26, 1990

To: File

From: David W. Darby, Geologist ~~DD~~

RE: Revision, Technical Review, Graves Lease, Centennial Project, Andalex Resources, Inc., ACT/007/019, Carbon County, Utah

## Synopsis

On January 4, 1990, Andalex Resources, Inc. submitted a proposal to obtain and incorporate a new federal lease tract into their existing mine permit. The Graves Lease Tract (Federal Lease UTU 66066, 870 acres) is located northeast of the existing mine permit area in Sections 1 and 12 of T. 13S., R. 10E., SLM and Section 31 of T. 13S., R. 11E., SLM. The modification outlines plans to develop and mine the Aberdeen and Centennial coal seams within the lease. These seams are currently being mined in permitted areas. Mining strategy calls for mining the Centennial seam where reserves are greater than five feet thick. No coal will be mined from either the Lower Sunnyside seam or the Gilson seam.

## Analysis

Andalex incorporated new information concerning the Graves Lease in their Mining and Reclamation Plan (MRP) submitted September 10, 1989. A Probable Hydrologic Consequences (PHC) report was submitted February 15, 1990 (see Appendix L). Updated information to address deficiencies was submitted July 4, 1990.

The text and maps submitted by the applicant provides the information necessary to assess the potential environmental impacts from mining. The applicant has conducted baseline hydrologic inventories on springs and streams on and adjacent to the proposed mine area.

The existing subsidence monitoring plan has been expanded to include the Graves Lease area. Sites will be monitored to detect areas of the most likely surface disturbance from mining. Continuous miners, room and pillar method, will be used in both seams. It is anticipated that diminution to resources will not occur. Overburden isopleths shown on the proposed mine maps (Map 31 and Map 41) indicate that overburden depths will be between 1500 feet to 2000 feet above the escarpments and a minimum of 1000 feet in the area of the stream channel of the Left Fork of Deadman Canyon. Mining at these depths have not disturbed surface features in Utah currently. No faulting has been mapped in the Graves Lease area. This geologic feature will provide extra continuity, strength and protection to the overlying structure after mining. This feature is also thought one of the reasons for the low inflows of groundwater into the mine.

Page 2  
Andalex Resources, Inc.  
Graves Lease Review  
November 20, 1990

The applicant has will carry out a surface water monitoring plan and has committed to notify the Division if any substantial amounts of groundwater are contacted during the mining process.

The applicant has sampled for acid and toxic materials in the coal, roof and floor of the current mine. A commitment was made to establish a sampling program to identify acid or toxic roof, seam and floor material over the proposed lease area. The sampling program will be designed to collect samples at selected intervals throughout the mine which reflect the lateral extent of the seam. The program will include a commitment to readily sample roof and floor material for the constituents outlined in the Division's Guidelines for Management of Soils and Overburden, Table 6.

Recommendation

This proposal is recommended for approval.

dwd/DWD

cc. Daron Haddock  
B Team



# 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:  
3425  
UTU-66060  
(U-942)

SEP 13 1990

CERTIFIED MAIL-Return Receipt Requested

AMCA Coal Leasing, Inc.  
Box 902  
Price, Utah 84501

DECISION

:  
:  
:

Coal Lease  
UTU-66060

Bond Accepted  
Lease Issued

RECEIVED

DEC 10 1990

DIVISION OF  
OIL, GAS & MINING

On September 11, 1990, coal lease bond SU1393259 in the amount of \$1,329,800 with AMCA Coal Leasing, Inc., as principal, and Utica Mutual Insurance Company, as surety, was filed in this office to provide bond coverage for coal lease UTU-66060. The bond has been examined, found to be satisfactory, and is accepted effective September 11, 1990, the date of filing.

Pursuant to the Lease By Application Coal Sale held June 28, 1990, the bid of AMCA Coal Leasing, Inc. for the Centennial Tract, assigned Serial No. UTU-66060, was determined to be the high bid. Satisfactory evidence of the qualifications and holdings of AMCA Coal Leasing, Inc. has been filed; therefore, coal lease UTU-66060 is hereby issued effective October 1, 1990.

*[Signature]*  
Chief, Minerals  
Adjudication Section

Enclosure  
Coal Lease UTU-66060

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Serial Number

UTU-66060

COAL LEASE

PART I. LEASE RIGHTS GRANTED

This lease, entered into by and between the UNITED STATES OF AMERICA, hereinafter called lessor, through the Bureau of Land Management, and (Name and Address)

AMCA Coal Leasing, Inc.

Box 902

Price, Utah 84501

hereinafter called lessee, is effective (date) **OCT 1 1990**, for a period of 20 years and for so long thereafter as coal is produced in commercial quantities from the leased lands, subject to readjustment of lease terms at the end of the 20th lease year and each 10-year period thereafter.

Sec. 1. This lease is issued pursuant and subject to the terms and provisions of the:

- Mineral Lands Leasing Act of 1920, Act of February 25, 1920, as amended, 41 Stat. 437, 30 U.S.C. 181-287, hereinafter referred to as the Act;
- Mineral Leasing Act for Acquired Lands, Act of August 7, 1947, 61 Stat. 913, 30 U.S.C. 351-359;

and to the regulations and formal orders of the Secretary of the Interior which are now or hereafter in force, when not inconsistent with the express and specific provisions herein.

Sec. 2. Lessor, in consideration of any bonuses, rents, and royalties to be paid, and the conditions and covenants to be observed as herein set forth, hereby grants and leases to lessee the exclusive right and privilege to drill for, mine, extract, remove, or otherwise process and dispose of the coal deposits in, upon, or under the following described lands:

- T. 13 S., R. 10 E., SLM, Utah  
Sec. 1, lots 1-8, S $\frac{1}{2}$ N $\frac{1}{2}$ ;  
Sec. 12, lot 1.
- T. 12 S., R. 11 E., SLM, Utah  
Sec. 31, lots 3-6, and 13-22.

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containing **933.32** acres, more or less, together with the right to construct such works, buildings, plants, structures, equipment and appliances and the right to use such on-lease rights-of-way which may be necessary and convenient in the exercise of the rights and privileges granted, subject to the conditions herein provided.

PART II. TERMS AND CONDITIONS

Sec. 1. (a) RENTAL RATE - Lessee shall pay lessor rental annually and in advance for each acre or fraction thereof during the continuance of the lease at the rate of \$ **3.00** for each lease year.

(b) RENTAL CREDITS - Rental shall not be credited against either production or advance royalties for any year.

Sec. 2. (a) PRODUCTION ROYALTIES - The royalty shall be **12 1/2 & 8** percent of the value of the coal as set forth in the regulations. Royalties are due to lessor the final day of the month succeeding the calendar month in which the royalty obligation accrues.

(b) ADVANCE ROYALTIES - Upon request by the lessee, the authorized officer may accept, for a total of not more than 10 years, the payment of advance royalties in lieu of continued operation, consistent with the regulations. The advance royalty shall be based on a percent of the value of a minimum number of tons determined in the manner prescribed by the advance royalty regulations in effect at the time the lessee requests approval to pay advance royalties in lieu of continued operation.

Sec. 3. BONDS - Lessee shall maintain in the proper office a lease bond in the amount of \$ **\*\***. The authorized officer may require an increase in this amount when additional coverage is determined appropriate. **\*\* \$1,329,800.00**

Sec. 4. DILIGENCE - This lease is subject to the conditions of diligent development and continued operation, except that these conditions are excused when operations under the lease are interrupted by strikes, the elements, or casualties not attributable to the lessee. The lessor, in the public interest, may suspend the condition of continued operation upon payment of advance royalties in accordance with the regulations in existence at the time of the suspension. Lessee's failure to produce coal in commercial quantities at the end of 10 years shall terminate the lease. Lessee shall submit an operation and reclamation plan pursuant to Section 7 of the Act not later than 3 years after lease issuance.

The lessor reserves the power to assent to or order the suspension of the terms and conditions of this lease in accordance with, inter alia, Section 39 of the Mineral Leasing Act, 30 U.S.C. 209.

Sec. 5. LOGICAL MINING UNIT (LMU) - Either upon approval by the lessor of the lessee's application or at the direction of the lessor, this lease shall become an LMU or part of an LMU, subject to the provisions set forth in the regulations.

The stipulations established in an LMU approval in effect at the time of LMU approval will supersede the relevant inconsistent terms of this lease so long as the lease remains committed to the LMU. If the LMU of which this lease is a part is dissolved, the lease shall then be subject to the lease terms which would have been applied if the lease had not been included in an LMU.

**Sec. 6. DOCUMENTS, EVIDENCE AND INSPECTION** - At such times and in such form as lessor may prescribe, lessee shall furnish detailed statements showing the amounts and quality of all products removed and sold from the lease, the proceeds therefrom, and the amount used for production purposes or unavoidably lost.

shall keep open at all reasonable times for the inspection of any authorized officer of lessor, the leased premises and all surface and underground improvements, works, machinery, ore stockpiles, equipment, and all books, accounts, maps, and records relative to operations, surveys, or investigations on or under the leased lands.

Lessee shall allow lessor access to and copying of documents reasonably necessary to verify lessee compliance with terms and conditions of the lease.

While this lease remains in effect, information obtained under this section shall be closed to inspection by the public in accordance with the Freedom of Information Act (5 U.S.C. 552).

**Sec. 7. DAMAGES TO PROPERTY AND CONDUCT OF OPERATIONS** - Lessee shall comply at its own expense with all reasonable orders of the Secretary, respecting diligent operations, prevention of waste, and protection of other resources.

Lessee shall not conduct exploration operations, other than casual use, without an approved exploration plan. All exploration plans prior to the commencement of mining operations within an approved mining permit area shall be submitted to the authorized officer.

Lessee shall carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health, or property, and prevention of waste, damage or degradation to any land, air, water, cultural, biological, visual, and other resources, including mineral deposits and formations of mineral deposits not leased hereunder, and to other land uses or users. Lessee shall take measures deemed necessary by lessor to accomplish the intent of this lease term. Such measures may include, but are not limited to, modification of proposed design of facilities, timing of operations, and specification of and final reclamation procedures. Lessor reserves to itself the right to lease, sell, or otherwise dispose of the surface or other mineral deposits in the lands and the right to continue existing uses and to authorize future uses upon or in the leased lands, including issuing leases for mineral deposits not covered hereunder and approving easements or rights-of-way. Lessor shall condition such uses to prevent unnecessary or unreasonable interference with rights of lessee as may be consistent with concepts of multiple use and multiple mineral development.

**Sec. 8. PROTECTION OF DIVERSE INTERESTS, AND EQUAL OPPORTUNITY** - Lessee shall: pay when due all taxes legally assessed and levied under the laws of the State or the United States; accord all employees complete freedom of purchase; pay all wages at least twice each month in lawful money of the United States; maintain a safe working environment in accordance with standard industry practices; restrict the workday to not more than 8 hours in any one day for underground workers, except in emergencies; and take measures necessary to protect the health and safety of the public. No person under the age of 16 years shall be employed in any mine below the surface. To the extent that laws of the State in which the lands are situated are more restrictive than the provisions in this paragraph, then the State laws apply.

Lessee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and the rules, regulations, and relevant orders of the Secretary of Labor. Neither lessee nor lessee's subcontractors shall maintain segregated facilities.

**Sec. 15. SPECIAL STIPULATIONS** -

**Sec. 9. (a) TRANSFERS**

- This lease may be transferred in whole or in part to any person, association or corporation qualified to hold such lease interest.
- This lease may be transferred in whole or in part to another public body or to a person who will mine the coal on behalf of, and for the use of, the public body or to a person who for the limited purpose of creating a security interest in favor of a lender agrees to be obligated to mine the coal on behalf of the public body.
- This lease may only be transferred in whole or in part to another small business qualified under 13 CFR 121.

Transfers of record title, working or royalty interest *must* be approved in accordance with the regulations.

(b) **RELINQUISHMENT** - The lessee may relinquish in writing at any time all rights under this lease or any portion thereof as provided in the regulations. Upon lessor's acceptance of the relinquishment, lessee shall be relieved of all future obligations under the lease or the relinquished portion thereof, whichever is applicable.

**Sec. 10. DELIVERY OF PREMISES, REMOVAL OF MACHINERY, EQUIPMENT, ETC.** - At such time as all portions of this lease are returned to lessor, lessee shall deliver up to lessor the land leased, underground timbering, and such other supports and structures necessary for the preservation of the mine workings on the leased premises or deposits and place all workings in condition for suspension or abandonment. Within 180 days thereof, lessee shall remove from the premises all other structures, machinery, equipment, tools, and materials that it elects to or as required by the authorized officer. Any such structures, machinery, equipment, tools, and materials remaining on the leased lands beyond 180 days, or approved extension thereof, shall become the property of the lessor, but lessee shall either remove any or all such property or shall continue to be liable for the cost of removal and disposal in the amount actually incurred by the lessor. If the surface is owned by third parties, lessor shall waive the requirement for removal, provided the third parties do not object to such waiver. Lessee shall, prior to the termination of bond liability or at any other time when required and in accordance with all applicable laws and regulations, reclaim all lands the surface of which has been disturbed, dispose of all debris or solid waste, repair the offsite and onsite damage caused by lessee's activity or activities incidental thereto, and reclaim access roads or trails.

**Sec. 11. PROCEEDINGS IN CASE OF DEFAULT** - If lessee fails to comply with applicable laws, existing regulations, or the terms, conditions and stipulations of this lease, and the noncompliance continues for 30 days after written notice thereof, this lease shall be subject to cancellation by the lessor only by judicial proceedings. This provision shall not be construed to prevent the exercise by lessor of any other legal and equitable remedy, including waiver of the default. Any such remedy or waiver shall not prevent later cancellation for the same default occurring at any other time.

**Sec. 12. HEIRS AND SUCCESSORS-IN-INTEREST** - Each obligation of this lease shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

**Sec. 13. INDEMNIFICATION** - Lessee shall indemnify and hold harmless the United States from any and all claims arising out of the lessee's activities and operations under this lease.

**Sec. 14. SPECIAL STATUTES** - This lease is subject to the Clean Water Act (33 U.S.C. 1252 et. seq.), the Clean Air Act (42 U.S.C. 4274 et. seq.), and to all other applicable laws pertaining to exploration activities, mining operations and reclamation, including the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et. seq.).

This coal lease is subject to termination if the lessee is determined at the time of issuance to be in noncompliance with Section 2(a)2(A) of the Mineral Leasing Act.

-SEE ATTACHED STIPULATIONS -

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THE UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR  
Bureau of Land Management

AMCA Coal Leasing, Inc.  
Company or Lessee Name

By

*Lawrence J. Fennell*  
(Signature of Lessee)

*Robert H. [Signature]*  
(Signing Officer)

Secretary  
(Title)

Chief, Minerals Adjudication Section  
(Title)

8/31/90  
(Date)

SEP 12 1990  
(Date)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

This form does not constitute an information collection as defined by 44 U.S.C. 3502 and therefore does not require OMB approval.

The following stipulations made part of this lease may be waived or amended with the mutual consent of the lessor and lessee.

1. In accordance with Sec. 523(b) of the "Surface Mining Control and Reclamation Act of 1977," surface mining and 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, or as applicable, an equivalent Utah program approved under cooperative agreement in accordance with Sec. 523(c). The United States Government does not warrant that the entire tract will be susceptible to mining.

2. The permitting of any mining operations on the lease will be subject to the possible designation of any portion of the lease as unsuitable for some or all kinds of surface mining under the regulations of the Department under the Surface Mining Control and Reclamation Act of 1977 (SMCRA) in effect at the time of action on the mine plan permit.

3. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the lessee may be required to conduct a cultural resource inventory of the areas to be disturbed. These studies shall be conducted by a qualified professional cultural resource specialist 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 resources.

If significant cultural resources are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the authorized officer who shall evaluate or have evaluated such discoveries and, within 5 working days, shall notify the lessee what action shall be taken with respect to such discoveries.

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

4. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the lessee may be required to conduct a paleontological appraisal of the areas to be disturbed. The appraisal shall be conducted by qualified paleontologists 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 paleontological resources.

If paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the authorized officer who shall evaluate or have evaluated such discoveries brought to his attention and, within 5 working days, shall notify the lessee what action shall be taken with respect to such discoveries. Paleontological remains of significant scientific interest do not include leaves, ferns, or dinosaur tracks commonly encountered during underground mining operations.

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The cost of conducting the inventory, preparing reports, and carrying out necessary protective mitigating measures shall be borne by the lessee. The cost of salvage of paleontological remains (fossils) shall be borne by the United States.

5. If there is reason to believe that threatened or endangered (T&E) species of plants or animals, or migratory 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. A listing of migratory birds of high Federal interest in Federal coal producing regions is published by the Fish and Wildlife Service, Migratory Bird Management Office, Washington, D.C. 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 necessary protective mitigating measures shall be borne by the lessee.

6. 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.

7. Powerlines on the lease area 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.

8. The lessee shall provide for the suppression and control of fugitive dust on haul roads and at coal handling and storage facilities on the lease area. The migration of road surfacing and subsurface materials into streams and water courses shall be prevented.

9. 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.

10. 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, or 3) damage or alter the flow of perennial streams.

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

12. Support facilities, structures, equipment, and similar developments will be removed from the lease area within 2 years after the final termination of use of such facilities. This provision shall apply unless the requirement of Section 10 of the lease form is applicable. Disturbed areas and those areas occupied by such facilities will be stabilized and rehabilitated, drainages reestablished, and the areas returned to a premining land use.

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State of Utah  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

Norman H. Bangertter  
Governor

Suzanne Dandoy, M.D., M.P.H.  
Executive Director

Kenneth L. Alkema  
Director

East Main  
P.O. Box 800  
Price, Utah 84501

October 8, 1990

Mr. Daron R. Haddock  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Mr. Haddock:

Re: Graves Lease Permit Revision, Andalex Resources Inc.,  
Centennial Mines Complex, ACT/007/019, Folder #2, Carbon  
County, Utah

We have completed our review of the referenced permit revision and offer the following comments:

1. We request the applicant describe in more detail the mine water system, particularly the collection of surface water for use underground. Details should include schematic diagrams, flow rates, volumes and etc.
2. The existing septic tank and drainfield was designed for 45 hourly employees. The current work force is listed at 75 hourly employees. Exceeding the design capacity may result in a failure of the system. We request the applicant work with the local health department to determine if upgrading of the system is necessary.
3. The permit section of the MRP includes a letter from Carbon County dated August 19, 1981 which grants the mine permission to dispose of waste oil at the Carbon County landfill. We strongly discourage disposal of recoverable quantities of waste oil, particularly used oil at any landfill. We recommend recoverable quantities of waste oil be recycled.

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OCT 11 1990

Division of  
OIL, GAS & MINING

Daron Haddock  
October 4, 1990  
Page Two

4. We recommend the Permits Section and Other Approvals Section of the MRP include the latest revision of all environmental permits. More specifically, for the Centennial Mine this would include Discharge (UPDES), Construction (sediment ponds), Sewage Disposal (Septic Tank), Air Quality, and Potable Water System permits or approvals.

If you have any questions or I can be of further assistance you may contact me at 637-3671.

Sincerely,

  
David R. Ariotti, P.E.  
Southeast District Engineer

cc: Kiran Bhayani, Water Pollution Control  
Claron Bjork, Southeastern Utah Dist. Health Dept.



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Bangert  
Governor

Dee C. Hansen  
Executive Director

Dianne R. Nielson, Ph.D.  
Division Director

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

December 14, 1990

TO: Daron Haddock, Permit Supervisor *DH*

FROM: Joseph C. Helfrich, Regulatory Program Coordinator *JCH*

RE: Compliance Review for Section 510(c) Finding, Andalex Resources, Inc.,  
Centennial Project, ACT/007/019, Carbon County, Utah

As of the writing of this letter, there are no NOV's or CO's which are not corrected or in the process of being corrected. Any NOV's or CO's that are outstanding are in the process of administrative or judicial review. There are no finalized Civil Penalties which are outstanding and overdue in the name of Andalex Resources, Inc.

Finally, they do 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.

jbe  
C007019.1

**TOWER**

Tower Resou. , Inc.

P.O. Box 1027  
Price  
Utah 84501  
801-637-5385

FILE ACT/007/019  
Folder No. 5  
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August 18, 1983

DIVISION OF  
OIL, GAS & MINING

JIM

AUG 22 1983

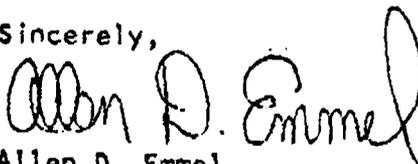
Mr. James W. Smith, Jr.  
Coordinator of Mined Land Development  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Dear Mr. Smith:

Attached is the certification of liability insurance for Tower's mining operations as per your request.

If you have any questions, please contact me.

Sincerely,



Allen D. Emmel  
Environmental Planning Coordinator

ADE/as

Attachment

cc: File

Revised February 1990  
Exhibit "D" - STIPULATION TO REVISE RECLAMATION AGREEMENT

Permit Number ACT007/019  
Expiration Date July 1992

COAL  
STIPULATION TO REVISE RECLAMATION AGREEMENT

--000000--

This STIPULATION TO REVISE RECLAMATION AGREEMENT entered into by and between the OPERATOR and DIVISION incorporates the following revisions or changes to the RECLAMATION AGREEMENT: (Identify and Describe Revisions Below)

In accordance with this STIPULATION TO REVISE RECLAMATION AGREEMENT, the following Exhibits have been replaced by the OPERATOR and are approved by the DIVISION:

- Replace the RECLAMATION AGREEMENT in its entirety.
- Replace Exhibit "A" - SURFACE DISTURBANCE.
- Replace Exhibit "B" - BONDING AGREEMENT.
- Replace Exhibit "C" - LIABILITY INSURANCE.

The BONDING amount is revised from (\$ 381,000) to (\$ 1,080,000).

The SURFACE DISTURBANCE is revised from 30.1 acres to 34.2 acres.

The EXPIRATION DATE is revised from July 1987 to July 1992.

Revised February 1990  
Exhibit "D" - STIPULATION TO REVISE RECLAMATION AGREEMENT

IN WITNESS WHEREOF the OPERATOR has hereunto set its signature and seal  
this 3rd day of July, 1990.

Andalex Resources, Inc.

OPERATOR

By: *John Paul*

Title: VP Finance

ACCEPTED BY THE STATE OF UTAH:

*Danniel R. 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 OPERATOR is a corporation, the Agreement shall be executed by its duly authorized officer.

# UTICA MUTUAL INSURANCE COMPANY

NEW HARTFORD, NEW YORK

No. 137

## POWER OF ATTORNEY

Know all men by these Presents, the UTICA MUTUAL INSURANCE COMPANY, a New York Corporation, having its principal office in the Town of New Hartford, County of Oneida, State of New York, does hereby make, constitute and appoint

Bruce L. Ferguson, Bruce W. Ferguson, Gary A. Mongilutz, Thomas R. Koller, and Patricia S. Lee  
Louisville, Kentucky

its true and lawful Attorney(s)-in-fact in their separate capacity if more than one is named above to make, execute, sign, seal and deliver for and on its behalf as surety and as its act and deed (without power of redelegation) any and all bonds and undertakings and other writings obligatory in the nature thereof (except bonds guaranteeing the payment of principal and interest of notes, mortgage bonds and mortgages) provided the amount of no one bond or undertaking exceeds FIVE HUNDRED THOUSAND AND 00/100 Dollars (\$ 500,000.00).

The execution of such bonds and undertakings shall be as binding upon said UTICA MUTUAL INSURANCE COMPANY as fully and to all intents and purposes as if the same had been duly executed and acknowledged by its regularly elected officers at its Home Office in New Hartford, New York.

This Power of Attorney is granted under and by authority of the following resolution adopted by the Directors of the UTICA MUTUAL INSURANCE COMPANY on the 27th day of November, 1961.

"Resolved, that the President or any Vice-President, in conjunction with the Secretary or any Assistant Secretary, be and they are hereby authorized and empowered to appoint Attorneys-in-fact of the Company, in its name and as its acts, to execute and acknowledge for and on its behalf as Surety any and all bonds, recognizances, contracts of indemnity and all other writings obligatory in the nature thereof, with power to attach thereto the seal of the Company. Any such writings so executed by such Attorneys-in-fact shall be as binding upon the Company as if they had been duly acknowledged by the regularly elected Officers of the Company in their own proper persons.

"Now Therefore, the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney by a facsimile, and any such Power of Attorney bearing such facsimile signatures or seal shall be valid and binding upon the Company."

In Witness Whereof, the UTICA MUTUAL INSURANCE COMPANY has caused these presents to be signed by its Authorized Officers, this 22nd day of October, 1985.

UTICA MUTUAL INSURANCE COMPANY

John P. Sullivan  
Secretary



J.B. Riffle  
President

STATE OF NEW YORK }  
COUNTY OF ONEIDA } ss:

On this 22nd day of October, 1985, before me, a Notary Public in and for the State of New York, personally came J. B. RIFFLE and JOHN P. SULLIVAN to me known, who acknowledged execution of the preceding instrument and, being by me duly sworn, do depose and say, that they are *President* and *Secretary* respectively of UTICA MUTUAL INSURANCE COMPANY; that the seal affixed to said instrument is the corporate seal of UTICA MUTUAL INSURANCE COMPANY; that said corporate seal is affixed and their signatures subscribed to said instrument by authority and order of the Board of Directors of said Corporation.

In Testimony Whereof, I have hereunto set my hand at New Hartford, New York, the day and year first above written.



Rosemary Wadas  
Notary Public

STATE OF NEW YORK }  
COUNTY OF ONEIDA } ss:

I, John D. Yonkers Assistant Secretary of the UTICA MUTUAL INSURANCE COMPANY do hereby certify that the foregoing is a true and correct copy of a Power of Attorney, executed by said UTICA MUTUAL INSURANCE COMPANY, which is still in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the Seal of the said Corporation at New Hartford, New York, this 22nd day of September, 1986.

John D. Yonkers  
Assistant Secretary

(COAL)

CERTIFICATE OF LIABILITY INSURANCE  
Issued to: State of Utah  
Department of Natural Resources  
Division of Oil, Gas, and Mining

THIS IS TO CERTIFY, That the Old Republic Insurance Co.  
of Greensburg, PA (Name of Insurance Company)  
has issued to Tower Resources, Inc., etc (Home Office Address of Company)  
P.O.Box 1027, Price, UT 84501 (Name of Permit Applicant) of  
P.O.Box 1027, Price, UT 84501 (Address of Permit Applicant) Policy No. ZC-41694

effective from July 1 19, 83 and continuing until cancelled,  
nonrenewed, or changed as provided herein, which policy provides personal  
injury and property damage insurance covering the obligations imposed upon  
such permit applicant with regard to Permit No. ACT/007/019 according  
to provisions of the coal mining and reclamation program of Utah, (Utah Code  
Annotated 40-10-1 et seq.), specifically Section UMC/SMC 806.14.

Underwriting Agent: Chesley W. Riddle, Sr.

Company Name: Anderson & Riddle Insurance Phone: (502)821-3122

Address: P.O.Box 549, Madisonville, KY 42431

The above-named insurance company agrees to notify the Division in writing  
of any substantive change in the above coverage, including cancellation,  
failure to renew, or other material change. No change shall be effective  
until at least thirty (30) days after such notice is received by the Division.

The undersigned affirms that the above information is true and complete to  
the best of his or her knowledge and belief, and that he or she is an  
authorized representative of the above-named insurance company.

8/15/83  
Chesley W. Riddle Agent  
(Date, Signature, and Title of Authorized Representative of Insurance Company)

Signed and sworn to before me by Chesley W. Riddle this the 15th  
day of August, 19 83.

Alice James  
(Notary)

My Commission Expires: Jan. 21, 1984

# UTICA MUTUAL INSURANCE COMPANY

NEW HARTFORD, NEW YORK

No. 137 - \_\_\_\_\_

## POWER OF ATTORNEY

Know all men by these Presents, the **UTICA MUTUAL INSURANCE COMPANY**, a New York Corporation, having its principal office in the Town of New Hartford, County of Oneida, State of New York, does hereby make, constitute and appoint **Bruce L. Ferguson, Jean Young, Bruce W. Ferguson, Gary A. Mongilutz and Patricia S. Lee**

**Louisville, Kentucky** its true and lawful Attorney(s)-in-fact in their separate capacity if more than one is named above to make, execute, sign, seal and deliver for and on its behalf as surety and as its act and deed (without power of redelegation) any and all bonds and undertakings and other writings obligatory in the nature thereof (except bonds guaranteeing the payment of principal and interest of notes, mortgage bonds and mortgages) provided the amount of no one bond or undertaking exceeds FIVE HUNDRED THOUSAND AND 00/100 Dollars (\$500,000.00).

The execution of such bonds and undertakings shall be as binding upon said **UTICA MUTUAL INSURANCE COMPANY** as fully and to all intents and purposes as if the same had been duly executed and acknowledged by its regularly elected officers at its Home Office in New Hartford, New York.

This Power of Attorney is granted under and by authority of the following resolution adopted by the Directors of the **UTICA MUTUAL INSURANCE COMPANY** on the 27th day of November, 1961.

"Resolved, that the President or any Vice-President, in conjunction with the Secretary or any Assistant Secretary, be and they are hereby authorized and empowered to appoint Attorneys-in-fact of the Company, in its name and as its acts, to execute and acknowledge for and on its behalf as Surety any and all bonds, recognizances, contracts of indemnity and all other writings obligatory in the nature thereof, with power to attach thereto the seal of the Company. Any such writings so executed by such Attorneys-in-fact shall be as binding upon the Company as if they had been duly acknowledged by the regularly elected Officers of the Company in their own proper persons."

Now Therefore, the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney by a facsimile, and any such Power of Attorney bearing such facsimile signatures or seal shall be valid and binding upon the Company.

In Witness Whereof, the **UTICA MUTUAL INSURANCE COMPANY** has caused these presents to be signed by its Authorized Officers, this 23rd day of August, 1976.

**UTICA MUTUAL INSURANCE COMPANY**

  
Secretary pro tem



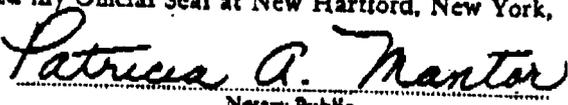
  
President

STATE OF NEW YORK } ss:  
COUNTY OF ONEIDA

On this 23rd day of August, 1976, before me, a Notary Public in and for the State of New York, personally came **J. B. RIFFLE** and **GEORGE L. RUTHERFORD** to me known, who acknowledged execution of the preceding instrument and, being by me duly sworn, do depose and say, that they are **President** and **Secretary pro tem** respectively of **UTICA MUTUAL INSURANCE COMPANY**; that the seal affixed to said instrument is the corporate seal of **UTICA MUTUAL INSURANCE COMPANY**; that said corporate seal is affixed and their signatures subscribed to said instrument by authority and order of the Board of Directors of said Corporation.

In Testimony Whereof, I have hereunto set my hand and affixed my Official Seal at New Hartford, New York, the day and year first above written.



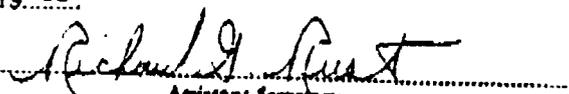
  
Notary Public

STATE OF NEW YORK } ss:  
COUNTY OF ONEIDA

I, Richard G. Rust

**Assistant Secretary of the UTICA MUTUAL INSURANCE COMPANY** do hereby certify that the foregoing is a true and correct copy of a Power of Attorney, executed by said **UTICA MUTUAL INSURANCE COMPANY**, which is still in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the Seal of the said Corporation at New Hartford, New York, this 16th day of May, 1983.

  
Assistant Secretary

BOND ACT 007/019  
FILE

CHANGE OF NAME RIDER

To be attached to and form part of Bond No. SU 34593  
issued by the UTICA MUTUAL INSURANCE COMPANY OF UTICA, NEW YORK,

in favor of Utah Department of Natural Resources and Energy

effective as of May 16, 1983

In consideration of the premium charged for the attached bond, it is agreed that:

1. The Surety hereby gives its consent to the change of the name of the Principal from

Tower Resources, Inc.

to

Andalex Resources, Inc.

PROVIDED, however, that the attached bond as changed by this rider shall be subject to all its agreements, limitations and conditions, and that the liability of the Surety under the attached bond and under the attached bond as changed by this rider shall not be cumulative.

2. This rider shall become effective as of the 22nd day of September, 1986.

Signed, sealed and dated this 22nd day of September, 1986.

UTICA MUTUAL INSURANCE COMPANY

By Thomas R. Koller

Thomas R. Koller Attorney-in-fact

RECEIVED  
OCT 02 1986

DIVISION OF  
OIL, GAS & MINING



**RECEIVED**

JUL 31 1990

DIVISION OF  
OIL, GAS & MINING

RECLAMATION AGREEMENT

(COAL)

CONTENTS:

Reclamation Agreement

Exhibit "A"  
Surface Disturbance

Exhibit "B"  
Bonding Agreement  
Surety Bond  
Collateral Bond

Exhibit "C"  
Liability Insurance

Exhibit "D"  
Stipulation to Revise Reclamation Agreement

Affidavits of Qualification

Power of Attorney

Revised June 1990  
RECLAMATION AGREEMENT

Permit Number ACT007/019  
Date Permit Issued 5-4-89  
Effective Date of Agreement 7-6-90

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  
(801) 538-5340

COAL RECLAMATION AGREEMENT  
--oo00oo--

For the purposes of this RECLAMATION AGREEMENT the terms below are defined as follows:

"PERMIT" (Mine Permit No.) ACT007/019 (County) Carbon

"MINE" (Name of Mine) Centennial

"OPERATOR" (Company or Name) ANDALEX Resources, Inc.  
(Address) P.O. Box 902  
Price, UT 84501

"OPERATOR'S REGISTERED AGENT" (Name) CT Corporation  
(Address) P.O. Box 1544  
(Phone) New York, N.Y. 10161

"COMPANY OFFICERS":  
Bruce J. Ferriell  
John Bradshaw

"BOND TYPE" (Form of Bond)	<u>surety bond</u>	<u>surety bond</u>
"BOND" (Bond Amount-Dollars)	<u>\$699,000</u>	<u>\$381,839</u>
(Year-Dollars)	<u>1995</u>	<u>1995</u>
INSTITUTION (Bank or Agency)	<u>Utica Mutual Insurance Co.</u>	<u>Utica Mutual Ins. Co.</u>
POLICY OR ACCOUNT NUMBER		

"LIABILITY INSURANCE" (Exp.) Life of permit  
(Insurance Company) Old Republic Insurance Company

"STATE": Utah (Department of Natural Resources)

"DIVISION": Division of Oil, Gas and Mining

"DIVISION DIRECTOR" Dianne R. Nielson

EXHIBITS:

"SURFACE DISTURBANCE"	Exhibit "A"	_____	_____	_____
"BONDING AGREEMENT"	Exhibit "B"	_____	_____	_____
"LIABILITY INSURANCE"	Exhibit "C"	_____	_____	_____
"STIPULATION TO CHANGE BOND"	Exhibit "D"	_____	_____	_____

## RECLAMATION AGREEMENT

This RECLAMATION AGREEMENT (hereinafter referred to as "Agreement") is entered into by the Operator.

WHEREAS, on May 4<sup>th</sup>, 1989, the Division approved the Permit Application Package, hereinafter "PAP", submitted by ANDALEX Resources, Inc., hereinafter "Operator"; and

WHEREAS, prior to issuance of a permit to conduct mining and reclamation operations on the property described in the PAP, hereinafter "Property", the Operator is obligated by Title 40-10-1, et seq., Utah Code Annotated (1953, as amended), hereinafter "Act", to file with the Division a bond ensuring the performance of the reclamation obligations in the manner and by the standards set forth in the PAP, the Act, and the State of Utah Division of Oil, Gas and Mining Rules pertaining to Coal Mining and Reclamation Activities, hereinafter "Rules"; and

WHEREAS, the Operator is ready and willing to file the bond in the amount and in a form acceptable to the Division and to perform all obligations imposed by the Division relating to the reclamation of the Property; and

WHEREAS, the Division is ready and willing to issue the subject a mining and reclamation permit upon acceptance and approval of the bond.

NOW, THEREFORE, the Division and the Operator agree as follows:

1. The provisions of the Act and the Rules are incorporated by reference herein and hereby made a part of this Agreement. Provisions of the Act or Rules shall supercede conflicting provisions of this Agreement.
2. The Operator agrees to comply with all terms and provisions of the PAP, the Act and the Rules, including the reclamation of all areas disturbed by surface coal mining and reclamation operations despite the eventuality that the cost of actual reclamation exceeds the bond amount.
3. The Operator agrees to provide a legal description of the property including the number of acres approved by the Division to be disturbed by surface mining and reclamation operations during the permit period. The description is attached as Exhibit "A", and is incorporated by reference and shall be referred to as the "Surface Disturbance".
4. The Operator agrees to provide a bond to the Division in the form and amount acceptable to the Division ensuring the performance of the reclamation obligations in the manner and by the standards set forth in the PAP, the Act and the Rules. Said bond is attached as Exhibit "B" and is incorporated by reference.

## RECLAMATION AGREEMENT

5. The Operator agrees to maintain in full force and effect the public liability insurance policy submitted as part of the permit application. The Division shall be listed as an additional insured on said policy.
6. In the event that the Surface Disturbance is increased through expansion of the coal mining and reclamation operations or decreased through partial reclamation, the Division shall adjust the bond as appropriate.
7. The Operator does hereby jointly and severally agree to indemnify and hold harmless the State of Utah and the Division from any claim, demand, liability, cost, charge, or suit initiated by a third party as a result of the Operator or Operator's agent or employees failure to abide by the terms and conditions of the approved PAP and this Agreement.
8. The terms and conditions of this Agreement are non-cancellable until such time as the Operator has satisfactorily, as determined by the Division, reclaimed the Surface Disturbance in accordance with the approved PAP, the Act, and the Rules. Notwithstanding the above, the Division may direct, or the Operator may request and the Division may approve, a written modification to this Agreement.
9. The Operator may, at any time, submit a request to the Division to substitute the bonding method. The Division may approve the substitution if the bond meets the requirements of the Act and the Rules, but no bond shall be released until the Division has approved and accepted the replacement bond.
10. Any revision in the Surface Disturbance, the bond amount, the bond type, the liability insurance amount coverage, and/or the liability insurance company, or other revisions affecting the terms and conditions of this Agreement shall be submitted on the form entitled "Stipulation to Revise Reclamation Agreement" and shall be attached hereto as Exhibit "D" (other exhibits as appropriate).
11. This Agreement shall be governed and construed in accordance with the laws of the state of Utah. The Operator shall be liable for all costs incurred by the Division to enforce this agreement, including any attorney fees.
12. Any breach of the provisions of this Agreement, the Act, the Rules, or the PAP may, at the discretion of the Division, result in an order to cease coal mining and reclamation operations, revocation of the Operator's permit to conduct coal mining and reclamation operations and/or forfeiture of the bond.

RECLAMATION AGREEMENT

- 13. In the event of forfeiture, the Operator agrees to be liable for additional costs in excess of the bond amount which may be incurred by the Division in order to comply with the PAP, the Act, and the Rules. Any excess monies resulting from the forfeiture of the bond amount upon compliance with this contract shall be refunded to the appropriate party.
- 14. Each signatory below represents that he/she is authorized to execute this Agreement on behalf of the named party. Proof of such authorization is provided on a form acceptable to the Division and is attached hereto.

SO AGREED this 6<sup>th</sup> day of July, 19 70

STATE OF UTAH:

*Dianne R. Nielson*  
 Dianne R. Nielson, Director  
 Division of Oil, Gas and Mining

OPERATOR:

*Obad VP Finance*  
 Company Officer - Position

\_\_\_\_\_  
 Company Officer - Position

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 Principal is a corporation, the Agreement shall be executed by its duly authorized officer.

EXHIBIT "A"  
SURFACE DISTURBANCE  
LEGAL DESCRIPTION

Revised February 1990  
Exhibit "A" - SURFACE DISTURBANCE

Permit Number ACT007/019  
Effective Date 7/6/90  
Bond Number SU 1354086

SURFACE DISTURBANCE  
--oo00oo--

In accordance with the RECLAMATION AGREEMENT, the OPERATOR intends to conduct coal mining and reclamation activities on or within the surface DISTURBANCE as described hereunder:

Total acres of SURFACE DISTURBANCE 34.2

Legal Description of SURFACE DISTURBANCE:

SEE ATTACHED

IN WITNESS WHEREOF the SURETY has hereunto set its signature and seal this 15th day of August, 19 90.

Utica Mutual Insurance Company  
SURETY

By: Patricia S. Lee

Title: Attorney-in-Fact

## Description of Bonded Area:

## Portions of:

Sec 7: E 1/2 SE 1/4 SW 1/4  
NW 1/4 SW 1/4 SE 1/4  
W 1/2 NW 1/4 SE 1/4  
NE 1/4 NW 1/4 SE 1/4  
SE 1/4 SW 1/4 NE 1/4

Sec 8: E 1/2 NE 1/4 NW 1/4  
NE 1/4 SE 1/4 NW 1/4  
W 1/2 NW 1/4 NE 1/4

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

Bond SU 1354086

Revised February 1990  
Exhibit "B" - BONDING AGREEMENT  
SURETY BOND

Permit Number ACT007/019  
Expiration Date July 1992

SURETY BOND  
(FEDERAL COAL)  
--oo00oo--

THIS SURETY BOND entered into and by and between the undersigned OPERATOR, 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 (OSMRE) in the penal sum of (\$ 699,000) (Surety Bond Amount) for the timely performance of reclamation responsibilities of the surface disturbance described in Exhibit "A" of this Reclamation Agreement.

This SURETY BOND shall remain in effect until all applicable rules and the OPERATOR's reclamation obligation have been met and released by the DIVISION.

This bond may be cancelled by the Surety Company after ninety (90) days following receipt by the Division and the Principal of written certified notice (return receipt requested) of such cancellation. The Surety Company's liability shall then, at the expiration of said ninety (90) days, cease and terminate except that the Surety Company will retain liability for any outstanding reclamation obligation of the Principal existing prior to the termination of the Bond.

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

The SURETY will give prompt notice to the OPERATOR and to the DIVISION and OSMRE of any notice received or action alleging to insolvency or bankruptcy of the SURETY, or alleging any violations or regulatory requirements which could result in suspension or revocation of the SURETY's license.

Terms for release or adjustment of this BOND are as written and agreed to by the DIVISION and the OPERATOR in the RECLAMATION AGREEMENT incorporated by reference herein, to which this SURETY AGREEMENT has been attached as Exhibit "B".

Revised February 1990  
Exhibit "B" - BONDING AGREEMENT  
SURETY BOND

IN WITNESS WHEREOF the OPERATOR has hereunto set its signature and seal  
this 3rd day of July, 19 90.

Andalex Resources, Inc.  
OPERATOR

By: [Signature]

Title: VP Finance

IN WITNESS WHEREOF the SURETY has hereunto set its signature and seal  
this 3rd day of July, 19 90.

Utica Mutual Insurance Company  
SURETY

By: [Signature]  
Patricia S. Lee

Title: Attorney-in-Fact

ACCEPTED BY THE STATE OF UTAH:

[Signature]  
Director - Division of Oil, Gas and Mining

**COUNTERSIGNATURE ENDORSEMENT**

IT IS AGREED THAT this policy and all endorsements attached hereto are hereby  
countersigned for the State of Utah

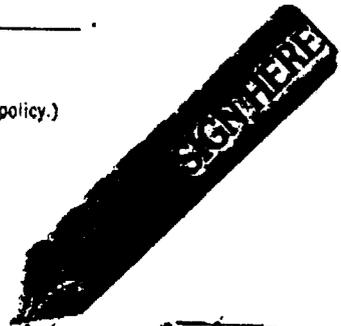
(The Attaching Clause need be completed only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement, effective July 3, 1990 forms a part of policy No. SU1354086  
(12:01 A.M., standard time)

Issued to Andalex Resources, Inc.

by Utica Mutual Insurance Company

Producer Underwriters Safety & Claims, Inc. Number [Signature]



[Signature]

(Authorized Representative)

# UTICA MUTUAL INSURANCE COMPANY

NEW HARTFORD, NEW YORK

## POWER OF ATTORNEY

No. 137

Know all men by these Presents, the UTICA MUTUAL INSURANCE COMPANY, a New York Corporation, having its principal office in the Town of New Hartford, County of Oneida, State of New York, does hereby make, constitute and appoint

Bruce L. Ferguson, Bruce W. Ferguson, Gary A. Mongilutz, Thomas R. Koller, and Patricia S. Lee  
Louisville, Kentucky

its true and lawful Attorney(s)-in-fact in their separate capacity if more than one is named above to make, execute, sign, seal and deliver for and on its behalf as surety and as its act and deed (without power of redelegation) any and all bonds and undertakings and other writings obligatory in the nature thereof (except bonds guaranteeing the payment of principal and interest of notes, mortgage bonds and mortgages) provided the amount of no one bond or undertaking exceeds UNLIMITED Dollars (\$ UNLIMITED).

The execution of such bonds and undertakings shall be as binding upon said UTICA MUTUAL INSURANCE COMPANY as fully and to all intents and purposes as if the same had been duly executed and acknowledged by its regularly elected officers at its Home Office in New Hartford, New York.

This Power of Attorney is granted under and by authority of the following resolution adopted by the Directors of the UTICA MUTUAL INSURANCE COMPANY on the 27th day of November, 1961.

"Resolved, that the President or any Vice-President, in conjunction with the Secretary or any Assistant Secretary, be and they are hereby authorized and empowered to appoint Attorneys-in-fact of the Company, in its name and as its acts, to execute and acknowledge for and on its behalf as Surety any and all bonds, recognizances, contracts of indemnity and all other writings obligatory in the nature thereof, with power to attach thereto the seal of the Company. Any such writings so executed by such Attorneys-in-fact shall be as binding upon the Company as if they had been duly acknowledged by the regularly elected Officers of the Company in their own proper persons.

"Now Therefore, the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney by a facsimile, and any such Power of Attorney bearing such facsimile signatures or seal shall be valid and binding upon the Company."

In Witness Whereof, the UTICA MUTUAL INSURANCE COMPANY has caused these presents to be signed by its Authorized Officers, this 22nd day of October, 1985.

UTICA MUTUAL INSURANCE COMPANY

John P. Sullivan  
Secretary



J.B. Riffle  
President

STATE OF NEW YORK }  
COUNTY OF ONEIDA } ss:

On this 22nd day of October, 1985, before me, a Notary Public in and for the State of New York, personally came J. B. RIFFLE and JOHN P. SULLIVAN to me known, who acknowledged execution of the preceding instrument and, being by me duly sworn, do depose and say, that they are *President* and *Secretary* respectively of UTICA MUTUAL INSURANCE COMPANY; that the seal affixed to said instrument is the corporate seal of UTICA MUTUAL INSURANCE COMPANY; that said corporate seal is affixed and their signatures subscribed to said instrument by authority and order of the Board of Directors of said Corporation.

In Testimony Whereof, I have hereunto set my hand at New Hartford, New York, the day and year first above written.



Rosemary Wados  
Notary Public

STATE OF NEW YORK }  
COUNTY OF ONEIDA } ss:

I, John D. Yonkers Assistant Secretary of the UTICA MUTUAL INSURANCE COMPANY do hereby certify that the foregoing is a true and correct copy of a Power of attorney, executed by said UTICA MUTUAL INSURANCE COMPANY, which is still in full force and effect.  
In Witness Whereof, I have hereunto set my hand and affixed the Seal of the said Corporation at New Hartford, New York, this 3rd day of July, 1980.

John D. Yonkers  
Assistant Secretary

# UTICA MUTUAL INSURANCE COMPANY

NEW HARTFORD, NEW YORK

No. 137

## POWER OF ATTORNEY

Know all men by these Presents, the **UTICA MUTUAL INSURANCE COMPANY**, a New York Corporation, having its principal office in the Town of New Hartford, County of Oneida, State of New York, does hereby make, constitute and appoint

**Bruce L. Ferguson, Bruce W. Ferguson, Scott C. Ferguson, Patricia S. Lee & Susan L. Osborn**  
Louisville, Kentucky

its true and lawful Attorney(s)-in-fact in their separate capacity if more than one is named above to make, execute, sign, seal and deliver for and on its behalf as surety and as its act and deed (without power of redelegation) any and all bonds and undertakings and other writings obligatory in the nature thereof (except bonds guaranteeing the payment of principal and interest of notes, mortgage bonds and mortgages) provided the amount of no one bond or undertaking exceeds FIVE HUNDRED THOUSAND AND 00/100 Dollars (\$ 500,000.00).

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"Now Therefore, the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney by a facsimile, and any such Power of Attorney bearing such facsimile signatures or seal shall be valid and binding upon the Company."

In Witness Whereof, the **UTICA MUTUAL INSURANCE COMPANY** has caused these presents to be signed by its Authorized Officers, this 28th day of February, 1989.

**UTICA MUTUAL INSURANCE COMPANY**

John P. Sullivan  
Secretary



W. Craig Heston  
President

STATE OF NEW YORK }  
COUNTY OF ONEIDA } ss:

On this 28th day of February, 1989, before me, a Notary Public in and for the State of New York, personally came **W. CRAIG HESTON** and **JOHN P. SULLIVAN** to me known, who acknowledged execution of the preceding instrument and, being by me duly sworn, do depose and say, that they are *President* and *Secretary* respectively of **UTICA MUTUAL INSURANCE COMPANY**; and that the seal affixed to said instrument is the corporate seal of **UTICA MUTUAL INSURANCE COMPANY**; that said corporate seal is affixed and their signatures subscribed to said instrument by authority and order of the Board of Directors of said Corporation.

In Testimony Whereof, I have hereunto set my hand at New Hartford, New York, the day and year first above written.



Rosemary W. Adams  
Notary Public

STATE OF NEW YORK }  
COUNTY OF ONEIDA } ss:

I, John D. Yonkers Assistant Secretary of the **UTICA MUTUAL INSURANCE COMPANY** do hereby certify that the foregoing is a true and correct copy of a Power of Attorney, executed by said **UTICA MUTUAL INSURANCE COMPANY**, which is still in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the Seal of the said Corporation at New Hartford, New York, this 15th day of August, 1990.

John D. Yonkers  
Assistant Secretary

February 1990  
FEDERAL

**ACKNOWLEDGEMENT OF CORPORATION - OPERATOR**

On this 3rd day of July, 1990, before me, a Notary Public in and for the County of Jefferson, in the state of Kentucky, appeared John Bradshaw to me personally known who, being by me duly sworn, did say that he/~~she~~ is Vice President Finance of ANDALEX Resources, Inc. the corporation (operator) 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.

My Commission Expires: 3/31/93

Penelope Shubert Ferrell  
Notary Public in and for said  
County and State

**ACKNOWLEDGEMENT OF ISSUING INSTITUTION**

On this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, before me, a Notary Public in and for the County of \_\_\_\_\_, in the state of \_\_\_\_\_, appeared \_\_\_\_\_ to me personally known who, being by me duly sworn, did say that he/she is \_\_\_\_\_ of \_\_\_\_\_ the Issuing Institution named in and which executed the within instrument, and that the seal affixed to said instrument is the corporation seal of said Issuing Institution, 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.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public in and for said  
County and State

Bond No 34593

MR FORM 5

*Approved 1/31/83*

(Revised January 1983)

*Received*

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES AND ENERGY  
DIVISION OF OIL, GAS AND MINING  
4241 State Office Building  
Salt Lake City, Utah 84114

*3/16/83*

JUN 09 1983

THE MINED LANDS RECLAMATION ACT

*Tower Resources Inc.*

BOND  
\*\*\*\*\*

The undersigned Tower Resources, Inc. as principal, and Utica Mutual Insurance Company as surety, hereby jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns unto the State of Utah, Division of Oil, Gas and Mining, and the U. S. Department of the Interior, Office of Surface Mining in the penal sum of Three Hundred Eighty-One Thousand Eight Hundred Thirty-Nine dollars (\$381,839.00). Such sum shall be payable to one, but not both, of the above-named agencies.

The principal estimated in a "Notice of Intention to Commence Mining Operations and a Mining and Reclamation Plan," filed with the Division of Oil, Gas and Mining on the 19th day of January 19 81, that 30.7 acres of land will be affected by this mining operation in the State of Utah. A description of the affected land is attached hereto as Exhibit "A."

If the principal shall satisfactorily reclaim the above-mentioned lands affected by mining by the said principal in accordance with the Mining and Reclamation Plan and shall faithfully perform all requirements of the Mined Land Reclamation Act, and comply with the Rules and Regulations adopted in accordance therewith, then this obligation shall be void; otherwise it shall remain in full force and effect until the reclamation is completed as outlined in the approved Mining and Reclamation Plan.

If the approved plan provides for reclamation of the land affected on a piecemeal or cyclic basis, and the land is reclaimed in accordance with such plan, then this bond may be reduced periodically.

In the converse, if the plan provides for a gradual increase in the area of the land affected or increased reclamation work, then this bond may accordingly be increased with the written approval of the surety company.

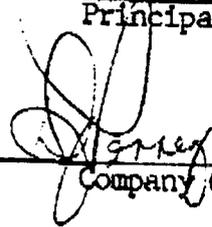
MR FORM 5  
Page Two

NOTE: Where one signs by virtue of Power of Attorney for a surety company, such Power of Attorney must be filed with this bond. If the principal is a corporation, the bond shall be executed by its duly authorized officers with the seal of the corporation affixed.

Tower Resources, Inc.

Principal (Company)

By



Controller

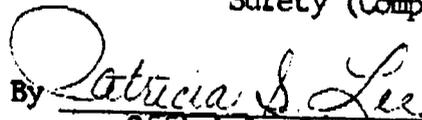
Company Official - Position

Date: May 17, 1983

Utica Mutual Insurance Company

Surety (Company)

By



Official of Surety - Position

Patricia S. Lee, Attorney-in-Fact

DATE: 5/16/83

**CENTENNIAL PROJECT    ANDALEX RESOURCES, INC.**

**CARBON COUNTY, UTAH    JANUARY 1992**

**SL-027304, SL-063058, U-010581, U-07067, UTU-66060**

**MINING PLAN DECISION DOCUMENT**

**CENTENNIAL PROJECT  
ANDALEX RESOURCES, INCORPORATED  
CARBON COUNTY, UTAH  
ACT/007/019**



**Utah Department of Natural Resources  
Division of Oil, Gas, and Mining**

**FEDERAL COAL LEASES:           SL-027304, SL-063058, U-010581,  
  U-05067, UTU-66060**

**JANUARY 1992**



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter

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

January 6, 1992

Mr. Sam Quigley  
Andalex Resources, Inc.  
P. O. Box 902  
Price, Utah 84501

Dear Mr.  Quigley:

Re: Five-Year Permit Renewal, Andalex Resources, Inc., Centennial Project, ACT/007/019, Folder #3, Carbon County, Utah

Enclosed is a renewed permanent program mining permit for the Centennial Project. The expiration date for this permit is January 5, 1997, five years from the expiration date of the original permit. Also, enclosed is a copy of the State's Decision Document for the permit renewal.

Please note that two copies of the permit are included. Please read the permit to be sure you understand the requirements of the permit and Stipulations, then have both copies signed and return one to the Division.

Thank you for your cooperation during the permitting process.

Best regards,



Dianne R. Nielson  
Director

#### Attachments

cc: P. Rutledge, OSM  
R. Hagen, OSM  
L. Braxton, DOGM  
B-Team

COVELETT.AND

UTAH DIVISION OF OIL, GAS AND MINING  
STATE DECISION DOCUMENT

for  
PERMIT RENEWAL

Andalex Resources, Inc.  
Centennial Project  
ACT/007/019  
Carbon County, Utah

January 3, 1992

CONTENTS

- \* Administrative Overview
- \* Location Map
- \* Permitting Chronology
- \* Mine Plan Information Form
- \* Findings
- \* Letters of Concurrence and Consultation
  - Division of State History, November 15, 1991
  - Affidavit of Publication, November 21, 1991
  - Memo from Joseph C. Helfrich -- Section 510(c) finding
  - Memo from Paul Baker -- Technical Review, December 31, 1991
  - Memo from Priscilla Burton -- Technical Review, January 2, 1992

## ADMINISTRATIVE OVERVIEW

Andalex Resources, Inc.  
Centennial Project  
Permit Renewal  
ACT/007/019  
Carbon County, Utah

January 3, 1992

### BACKGROUND

Andalex Resources, Inc. (ARI) has made application to the Division of Oil Gas and Mining for a five year permit Renewal for the Centennial Project. This renewal encompasses the same permit area and disturbance as currently approved in the present permit.

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 (DOGM) 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 3358 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 4291 acres. This total combined with a 10 acre BLM right-of-way brings the total permit acreage to 4301 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 to be accessed through the Pinnacle mine by driving rock slopes from the Gilson seam.

## ANALYSIS

No additional permit area or surface disturbance is being proposed with this permit renewal. No significant changes have occurred since the addition of the Graves Lease in April 1991. Therefore, it is DOGM's opinion that the mining and reclamation practices and procedures which were approved in the 1987 five-year permit and subsequent 1989 and 1991 revisions are acceptable during the next 5 year renewal period.

## RECOMMENDATION

ARI has demonstrated that mining of the Centennial project can be done in conformance with the Surface Mining Control and Reclamation Act and the corresponding Utah Act and performance standards. Approval for permit renewal is recommended based on the current MRP with updated cross reference; a review of the current permit, including all conditions, amendments, and revisions approved to date; and conformance with criteria for approval of permit renewal applications (R645-303-230 thru 235) (see attached Permit Renewal Findings document). All issues raised during the review process which are pertinent to the term of renewal have been resolved, or will be attached as conditions to permit approval. No other issues were raised during the public comment period.

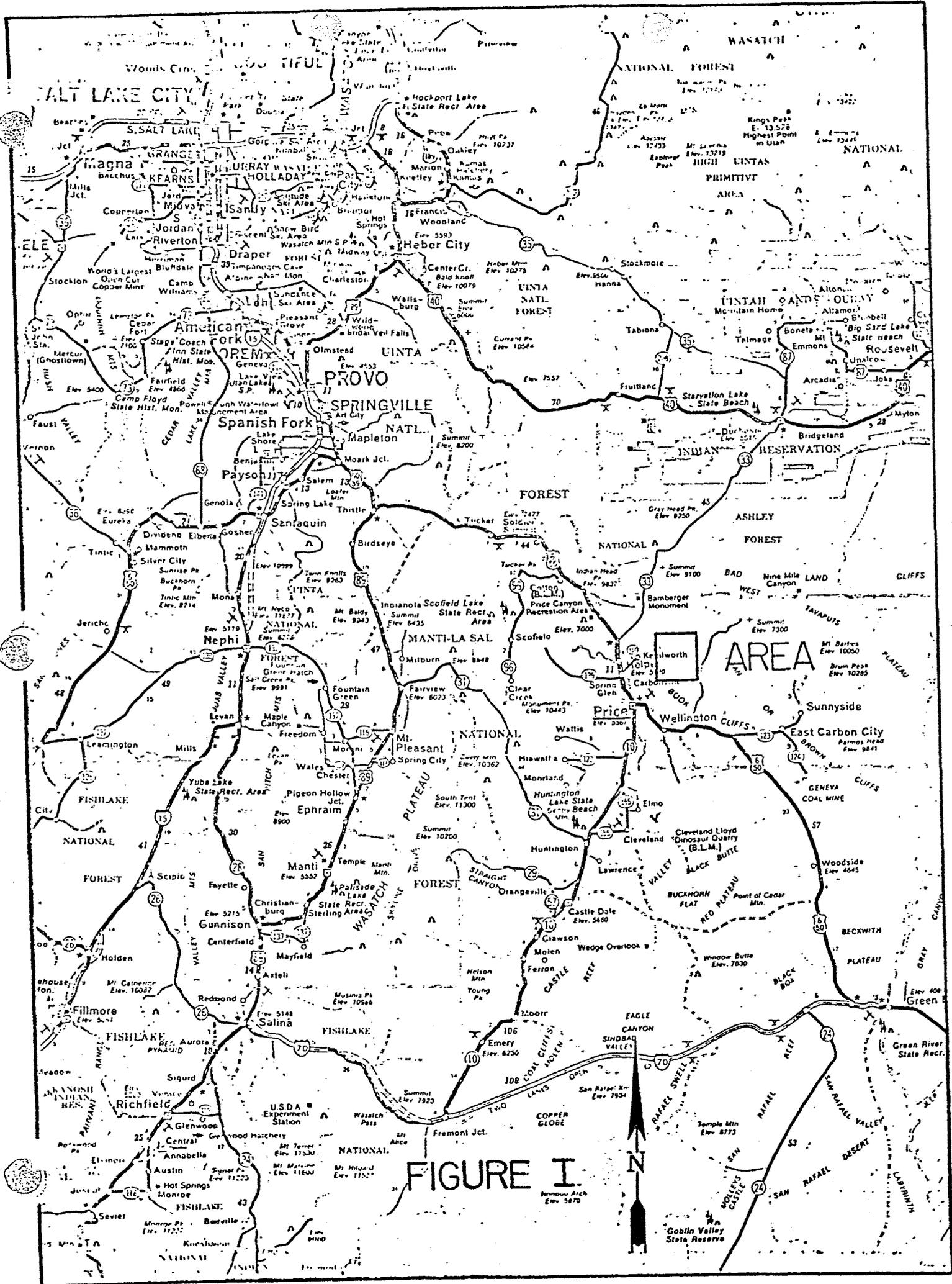
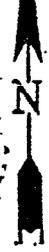


FIGURE I



## PERMITTING CHRONOLOGY

Permit Renewal  
Andalex Resources, Inc.  
Centennial Project  
ACT/007/019  
Carbon County, Utah

- 09/24/91 DOGM issues NOV N91-39-9-1 for failure to submit an application for renewal at least 120 days prior to the expiration of the existing permit.
- 09/25/91 ARI submits application for permit renewal.
- 10/24/91 DOGM initial completeness review shows plans to be deficient. Additional information is requested.
- 10/29/91 ARI submits additional information. DOGM determines that the plan can now be considered administratively complete.
- 10/31/91 ARI publishes notice of intent to renew the Centennial Permit weekly for four consecutive weeks in the Price Sun Advocate.
- 11/07/91 DOGM notices other agencies of ARI's intent to renew the Centennial Permit.
- 12/17/91 DOGM sends the results of a technical review to ARI requiring the technical deficiencies to be corrected by December 31, 1991.
- 12/21/91 Comment period expires with no comments received.
- 12/31/91 ARI submits response to technical deficiency review.
- 01/03/92 DOGM issues renewed permit which will expire January 5, 1997.





## PERMIT RENEWAL FINDINGS

Andalex Resources, Inc.  
Centennial Mines Project  
ACT/007/019  
Carbon County, Utah

January 3, 1992

1. The permit renewal term will not exceed the original permit term of five years (R645-303-234).
2. The terms and conditions of the existing permit are being satisfactorily met (R645-303-233.110).
3. The present underground coal mining activities are in compliance with the environmental protection standards of the Act and the Utah State Program (R645-303-233.120).
4. The requested renewal will not substantially jeopardize the operator's continuing responsibility to comply with the Act and the Utah State Program (R645-303-233.130).
5. The operator has provided evidence of having liability insurance (R645-303-233.140).
6. The operator has posted a reclamation surety in the required amount and has provided evidence that the surety will remain in full effect for the additional permit period. No additional surface disturbances are proposed at this time (R645-303-233.150).
7. The operator has submitted all updated information as required by the Division at this time (R645-233.160).

  
\_\_\_\_\_  
Permit Supervisor

  
\_\_\_\_\_  
Associate Director, Mining

  
\_\_\_\_\_  
Director  
Division of Oil, Gas & Mining



Norman H. Bangertter  
Governor  
Max J. Evans  
Director

# State of Utah

Division of State History  
(Utah State Historical Society)  
Department of Community and Economic Development

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

*Warren - needs to see*

**RECEIVED**

NOV 19 1991

DIVISION OF  
OIL GAS & MINING

November 15, 1991

Lowell P. Braxton  
Associate Director, Mining  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

RE: Permit Renewal Application, Andalex Resources, Inc., Centennial Mines  
Project, ACT/007/019, Folder #2, Carbon County, Utah

In Reply Please Refer to Case No. K439

Dear Mr. Braxton:

The Utah State Historic Preservation Office received information on the project referenced above on November 12, 1991. We understand this action requires no new ground disturbing activities. We have previously concurred with your recommendations for the project, and have no additional comment at this time. We appreciate being informed as to the progress of the project and will be adding this information to the case file.

This information is provided on request to assist the Division of Oil, Gas and Mining in identifying historic properties, as specified in 36 CFR 800, for Section 106 consultation procedures. If you have questions or need additional assistance, please contact me at (801) 533-7039.

Sincerely,

James L. Dykman  
Regulation Assistance Coordinator

JLD:K439 OR

**AFFIDAVIT OF PUBLICATION**

**TATE OF UTAH)**

**ss.**

**County of Carbon,)**

**NOTICE**

Andalex Resources Inc., P.O. Box 902, Price, Utah has filed an application for a five-year permit renewal (ACT 007/019) for its Centennial Mines with the Utah Division of Oil, Gas and Mining. The permit area, as shown on the map below, is located on U.S. Geological Survey 7.5 minute quadrangle maps as follows:

Township 13 South, Range 11 East, SLBM, Section 4: S 1/2, Section 5: All, Section 6: All, Section 7: All, Section 8: All, Section 9: All but SE 1/4 SE 1/4, 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 NE 1/4, E 1/2 SE 1/4 NE 1/4, E 1/2 NE 1/4 SE 1/4

Township 13 South, Range 10 East, SLBM, Section 1: Lots 1-8, S 1/2 N 1/2, Section 12: Lot 1

Township 12 South, Range 11 East, SLBM, Section 31: Lots 3-6 and Lots 13-22

I, Dan Stockburger, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for Four (4) consecutive issues, and that the first publication was on the

31st day of October, 1991

and that the last publication of such notice was in the issue of such newspaper dated the

21st day of November, 1991

*Dan Stockburger*

Subscribed and sworn to before me this

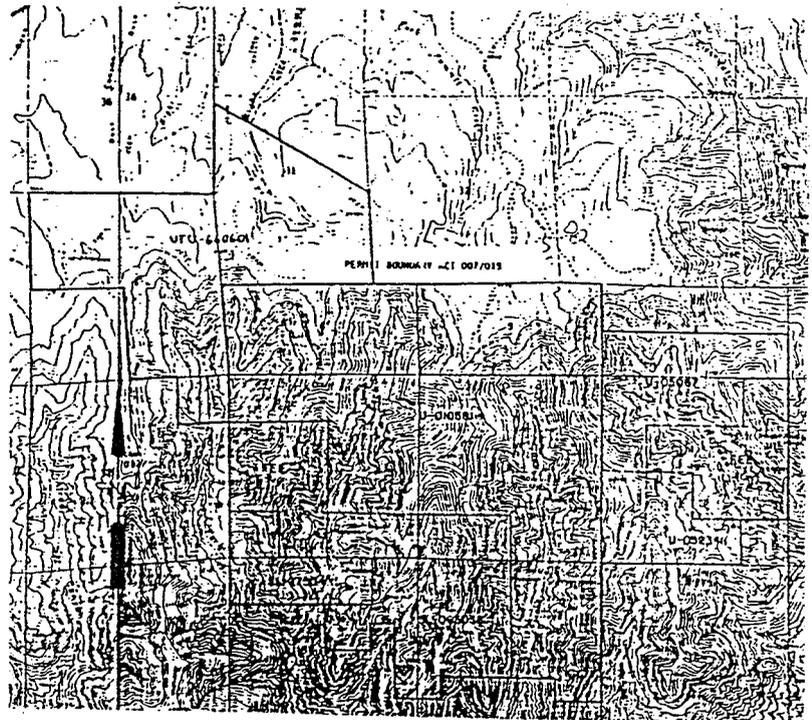
21st day of November, 1991

*Linda Gunn*  
Notary Public

My Commission expires January 10, 1995

Residing at Price, Utah

Publication fee, \$ 136.80



Copies of the application for this permit are available for inspection at:

Carbon County Recorders Office, 120 East Main, County Courthouse, Price, UT 84501.

Division of Oil, Gas & Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, UT 84180-1203.

Written comments, objections or requests for informal conferences on the application should be addressed to the Division of Oil, Gas and Mining at the above address.

Published in the Sun Advocate October 31, November 7, 14 and 21, 1991.



# 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

January 4, 1992

TO: Daron R. Haddock, Permit Supervisor

FROM: Joseph C. Helfrich, Regulatory Program Coordinator *JCH*

RE: Compliance Review for Section 510(c) Findings, Andalex Resources/  
Tower Division, Pinnacle Mine, ACT/007/019, Folder #5, Carbon County,  
Utah

As of the writing of this letter, there are no NOV's or CO's which are not corrected or in the process of being corrected. Any NOV's or CO's that are outstanding are in the process of administrative or judicial review. There are no finalized Civil Penalties which are outstanding and overdue in the name of Andalex Resources/Tower Division.

Finally, they do 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.

jbe  
A:\510(C)

01.07

TO: Joe Helfrich, AVS Representative, UT

FROM: AVS Office

SUBJECT: OSM Recommendation

DATE: January 7, 1992

Pending Applications ACT007019 and ACT007033, ANDALEX RESOURCES INC., have been researched, and the OSM recommendation is ISSUE. Kentucky late violations CO 021409 and CO 031876 have been resolved. The AVS database will be updated to reflect the current status.

TO: Gary Fritz, Albuquerque Field Office  
Richard Smith, TVA

DOC ID 20:DOI370068:08621]

DATE for 152G22 10:13 MST 07-Jan-92 Message 846-207 [64]

Question?:

Find for Attention, Home to Switch : Capture Off : Numeric



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

TO: Daron Haddock, Permit Supervisor  
 FROM: Paul Baker, Reclamation Biologist *PRO*  
 DATE: December 31, 1991  
 RE: Permit Renewal Application, Land Use and Air Quality Sections, Andalex Resources, Inc., Centennial Project, ACT/007/019, Carbon County, Utah

**SUMMARY**

Very few problems were encountered in a review of this section of Andalex's permit renewal application. There are some changes that need to be made in the cross reference, and Andalex needs to obtain written comments concerning the proposed use by legal or equitable owners of record of the surface of the permit area and Utah and local government agencies which would have to initiate, implement, approve or authorize the proposed use of the land following reclamation.

**ANALYSIS**

**R614-301-411. Environmental Description**

Applicant's Proposal:

The historic use of the land has been for coal mining, grazing, and for recreation and wildlife. Grazing has been limited primarily to the canyon bottoms and the extreme tops because of the roughness of the terrain.

Coal mines were begun in the area in the 1920's. There were three mines in the lease area. These were the Zion, Olsen, and Sutton (Blue Flame) Mines which produced 240,000, 18,000, and between 216,000 and 720,000 tons of coal respectively. Production was from the Gilson and Aberdeen seams.

The permit and adjacent areas are zoned by Carbon County for mining and grazing.

The application contains the results of two archaeological surveys in Appendix C. The first was performed in 1976, and the second study was performed in 1980 under the direction of the Assistant Utah State Archaeologist. No prehistoric sites were identified; nearly all sites identified were associated with historic mining operations. Two sites were identified which should be protected, and these were both in Straight Canyon. One was the ruins of a log cabin, and the other was a rock with "J A Peterson May 11, 1901" pecked in.

Page 2.  
December 31, 1991.  
ACT/007/019.

There are no cemeteries, no lands within the boundaries of the National System of Trails or the Wild and Scenic Rivers System, no public parks, and no cultural or historical sites eligible for listing in the National Register of Historic Places within the permit area.

Correspondence from the Division of State History to the Bureau of Land Management states that necessary BLM forms have been distributed to the Price area office and to the Utah State office. This correspondence also states that an Historic Archaeologist determined that the sites would not impede development.

Analysis:

The plan contains a statement that for recreational purposes, the land is only suitable for deer hunting. Although deer hunting is probably the predominant recreational use, the area can also be used for hiking, rock climbing, photography, wildlife viewing, and other recreational activities.

The cross reference says that the cultural and historic resources information is provided in Appendix A, but the two reports discussed above are in Appendix C. The Division of State History has provided a letter concerning the renewal stating that they have no additional comments on the project.

The two historic archaeological sites identified in the 1980 archaeological survey are not in areas that are likely to be disturbed, but if disturbance is to occur in the area, these sites must be avoided or appropriate mitigative actions taken after consultation with the Division of State History. Since this area is not now proposed for surface disturbance and since the only effects from mining would be through subsidence which is highly unlikely, no commitment is presently required.

Although no prehistoric archaeological sites were found, June 15, 1988, correspondence from the Division of State History indicates that there is a potential of finding rock shelters and rock art. If found, these must be reported to the Division of State History.

Compliance:

The applicant is not in compliance with this section.

The statement that deer hunting is the only suitable recreational use must be deleted, and other possible uses must be included.

The cross reference must be corrected to give the correct appendix reference for the archaeological studies.

Any prehistoric or historic archaeological sites that have not been identified that are found must be reported to the Division of State History.

Page 3.  
December 31, 1991.  
ACT/007/019.

**R614-301-412.**

### **Reclamation Plan**

**R614-301-413.**

### **Performance Standards**

#### Applicant's Proposal:

No changes in post-mining land use are proposed other than coal mining being absent. After reclamation, the land will be used for grazing, wildlife, and recreation.

The cross reference says under R614-301-412.200. that land owner or surface manager comments are not applicable. Land owners in the area with surface disturbance are Zion Securities and the BLM. Other land owners within the permit area identified on Plate 2 are J. and S. Critchlow, R. and E. Nelson, Sunedco, and D. Mathis.

#### Analysis:

The cross reference refers to parts of the plan that should deal with alternate post-mining land uses under R614-301-413.310. and -320, but no alternate post-mining land uses are proposed. These references to the plan do not apply and need to be corrected.

R614-301-412.200. requires that a copy of comments concerning proposed post-mining land uses by the legal or equitable owners of record of the surface of the proposed permit area and Utah and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation be included in the plan.

#### Compliance:

The applicant is not in compliance with this section.

The references to the plan in the cross reference under R614-301-413.310. and -320. must be corrected.

The application must include a copy of comments concerning the proposed post-mining land uses by the legal or equitable owners of record of the surface of the proposed permit area and Utah and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation.

**R614-301-420.**

### **Air Quality**

#### Applicant's Proposal:

Appendix F contains an emissions inventory which has been reviewed and approved by the Utah Bureau of Air Quality. Andalex has been issued a new approval order for the mines and the Wildcat loadout which allows for production of up to 1.5 million tons per year. These were inspected and met compliance during the summer of 1989.

#### Compliance:

The applicant is in compliance with this section.

Page 4.  
December 31, 1991.  
ACT/007/019.

## RECOMMENDATIONS

The following stipulations should be included with the permit:

### Stipulation R614-301-411.-PBB

By February 4, 1991, Andalex must correct the plan to include recreational uses other than deer hunting for which the permit area is suited and correct the cross reference to give the correct appendix for archaeological studies.

### Stipulation R614-301-412.-PBB

By March 5, 1991, Andalex must furnish copies of comments concerning the proposed post-mining land uses by the legal or equitable owners of record of the surface of the proposed permit area and Utah and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation. These must be insertable into the plan, and the text and the cross reference must be updated to cite these comments.

### Stipulation R614-301-413.-PBB

By February 4, 1991, Andalex must correct the cross reference under sections R614-301-413.310. and -320. which contain criteria for alternative postmining land uses.



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Bangert  
Governor

Dee C. Hansen  
Executive Director

Dianne R. Nielson, Ph.D.  
Division Director

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

TO: Daron Haddock, Permit Supervisor  
FROM:  Priscilla Burton, Reclamation Specialist  
DATE: January 2, 1992  
RE: PERMIT RENEWAL, TECHNICAL DEFICIENCIES. CENTENNIAL MINE.  
ANDALEX RESOURCES. ACT/007/019. CARBON COUNTY. UTAH.  
FOLDER #2.

## SUMMARY:

The Soils section of Andalex Resource's Centennial Mine Plan requires some updating. The plan received on September 14, 1990 does not record events that have transpired since the original mine plan was written. i.e., records of waste-rock sampling, records of roof and floor sampling. The mine will have a deficiency of topsoil upon reclamation. Testplots on substitute topsoil medium were referred to in the plan, but no observations have been presented with this submittal.

## TECHNICAL DEFICIENCIES:

R645-301-224. Substitute Topsoil. Where the applicant proposes to use selected overburden materials as a supplement or substitute for topsoil, the application will include results of analyses, trials, and tests as described under R614-301-232.100 through R614-301-232.600, R614-301-234, R614-301-242, and R614-301-243. The Division may also require the results of field-site trials or greenhouse tests as required under R614-301-233.

## Applicant's Proposal:

On page 114 of the MRP, there is a discussion of test plot locations for substitute topsoil. The reader is referred to Plate 7. Page 74, sec 2.2 also refers to the "new substitute topsoil pile plan." Sediment control for the area is discussed here.

## Technical Analysis:

Plate 7 does not show the location of the substitute topsoil pile. Plate 6 does not show this location either. There is no

summary of evaluation or observations of the test plots on the substitute topsoil.

Stipulation R645-301-224 (PWB):

On or before February 29, 1992, revise Plate 7 to indicate the location of the substitute topsoil storage, provide the Division with the amount of substitute material located in the storage pile, with copies of the design, implementation and evaluation of test trials, and with the results of analyses performed on the substitute topsoil medium.

230. Operation Plan.

231.300. Testing plan for evaluating the results of topsoil handling and reclamation procedures related to revegetation; and

231.400. Narrative that describes the construction, modification, use and maintenance of topsoil handling and storage areas.

Applicant's Proposal:

Topsoil storage areas are shown on Plate 6 and are outlined on page 114. Plates 36 and 37 provide volumes for each of the topsoil piles, except storage pile J.

Technical Deficiency:

The plan describes six topsoil storage areas on page 114: A, B, C, F, G, J. Plate 6 shows all topsoil storage areas except storage area B (approximately 13,000 cubic ft of soil). It is possible that storage pile B was added to an existing storage pile (perhaps G?). If this is the case, the narrative must be updated on page 114.

Stipulation R645-301-231.400 (PWB):

On or before February 29, 1992, Plate six will be amended to show the location of topsoil storage area B and the MRP will be amended on page 114 to state the location of topsoil storage area B as well.

232.200. Where the topsoil is of insufficient quantity or poor quality for sustaining vegetation, the materials approved by the Division in accordance with R614-301-233.100 will be removed as a separate layer from the area to be disturbed, and segregated.

Applicant's Proposal:

Page 114 of the MRP indicates that the substitute topsoil is

Jan 3, 1992  
Technical Deficiency  
Renewal ACT/007/019  
P Burton  
Page 3

located in a pad in the area of the shop at the APEX mine.

Technical Deficiencies:

The storage of substitute topsoil material in a facilities pad is unacceptable.

Stipulation R645-301-232.200 (PWB):

On or before February 29, 1992, provide the Division with the location of the substitute topsoil and place a sign on the storage area so that it will be protected.

120. Permit Application Format and Contents.

121. The permit application will:

121.100. Contain current information, as required by R614-200, R614-300, R614-301 and R614-302.

122. If used in the permit application, referenced materials will either be provided to the Division by the applicant or be readily available to the Division. If provided, relevant portions of referenced published materials will be presented briefly and concisely in the application by photocopying or abstracting and with explicit citations.

Applicant's Proposal:

On page 193 of the plan, there is a brief description of the Spill Prevention Control and Countermeasure Plan. Listed as a countermeasure is adherence to the local requirements for the treatment of oil and fuel contaminated soils.

Technical Deficiencies:

Please provide concise plans for the treatment of oil and fuel contaminated soils as required by the locality. The SPCC plan required by Federal law is mentioned, but not included for review.

Stipulation R645-301-122 (PWB):

On or before February 29, provide the Division with an update to page 193, providing a clear and concise plan for the treatment of oil and fuel contaminated soils and include a notarized copy of the Spill Prevention Control and Countermeasure plan as an appendix to the MRP.

Jan 3, 1992  
Technical Deficiency  
Renewal ACT/007/019  
P Burton  
Page 4

528.350. The permit application will include a description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with R614-301-528.330, R614-301-537.200, R614-301-542.740, R614-301-553.100 through R614-301-553.600, R614-301-553.900, and R614-301-747 and a description of the contingency plans which have been developed to preclude sustained combustion of such materials; and

Applicant's Proposal:

Page 43 of the MRP states that roof and floor samples will be provided in Appendix E for all seams mined. Page 192 of the MRP states that mid-seams of all four coal seams will be analyzed on an annual basis.

Technical Deficiencies:

Sampling of the roof and floor of the Centennial seam cannot be found in Appendix E. Results of the annual sampling of the roof and floor of current mining area must be included in the MRP.

Stipulation R645-301-528.350 (PWB):

On or before February 29, 1992, update Appendix E to include sampling of the roof and floor of the Centennial seam and include recent sampling of roof and floor from active mine locations for all four seams.

- 528.340. Underground Development Waste. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES the permit application must include a description of the proposed disposal methods for placing underground development waste and excess spoil generated at surface areas affected by surface operations and facilities according to R614-301-211, R614-301-212, R614-301-412.300, R614-301-512.210, R614-301-512.220, R614-301-514.100, R614-301-528.310, R614-301-535.100 through R614-301-535.130, R614-301-535.300 through R614-301-535.500, R614-536.300, R614-301-536.600, R614-301-542.720, R614-301-553.240, R614-301-745.100, R614-301-745.300, and R614-301-745.400.
- 536.500. Disposal of Coal Mine Waste in Special Areas.

Jan 3, 1992  
Technical Deficiency  
Renewal ACT/007/019  
P Burton  
Page 5

- 536.510. Coal mine waste materials from activities located outside a permit area may be disposed of in the permit area only if approved by the Division. Approval will be based upon a showing that such disposal will be in accordance with R614-301-512.230, R614-301-515.200, R614-301-528.320, R614-301-536 through R614-301-536.200, R614-301-536.500, R614-301-542.730, and R614-301-746.100.
- 536.300. Coal mine waste may be disposed of in excess spoil fills if approved by the Division and, if such waste is:
- 536.310. Placed in accordance with applicable portions of R614-301-210, R614-301-513.400, R614-301-514.200, R614-301-528.322, R614-301-536.900, R614-301-553.250, and R614-301-746.200;
- 536.320. Nontoxic and nonacid forming; and

Applicant's Proposal:

Pages 191 and 192 of the MRP discuss the disposal of underground development waste. Rock which is associated with lump coal is being taken to the applicant's WildCat Loadout (ACT/007/033).

Technical Deficiency:

In correspondence relating to the mid-term review of ACT/007/033, the applicant was found to be deficient in providing the Division with analyses as described on page 23 of the ACT/007/033 plan.

Stipulation R645-301-536.300 to 320 (PWB):

On or before February 29, 1992, provide the Division with copies of the analyses as requested by H. Sauer in correspondence dated 11/22/91, and provide an appendix to the ACT/007/019 plan which summarizes the operation and reclamation plan for the waste stored at Wild Cat.

xc: H Sauer

H:\bteam\Centenni.TD  
A:\Centenni.TD

RECOMMENDATIONS FOR STIPULATIONS ON THE  
CENTENNIAL PERMIT ACT/007/019  
PRISCILLA BURTON, RECLAMATION SPECIALIST  
JANUARY 2, 1992

Stipulation R645-301-224 (PWB):

On or before February 29, 1992, revise Plate 7 of the Mining and Reclamation Plan to indicate the location of all substitute topsoil storage; and, revise the mining and reclamation plan to provide the Division with 1) the yardage of all substitute topsoil located in storage areas 2) copies of the design, implementation and evaluation of test trials on the substitute topsoil, and 3) the results of analyses performed on the substitute topsoil medium.

Stipulation R645-301-231.400 (PWB):

On or before February 29, 1992, Plate 6 of the Mining and Reclamation Plan will be amended to show the location of topsoil storage area B; and, the MRP will be amended on page 114 to state the location of topsoil storage area B as well.

Stipulation R645-301-232.200 (PWB):

On or before February 29, 1992, inform the Division of the location of the substitute topsoil (see stipulation R645-301-224, above) and place a sign on the substitute topsoil storage area so that it will be protected.

Stipulation R645-301-122 (PWB):

On or before February 29, provide the Division with an update to page 193 of the Mining and Reclamation Plan, providing a clear and concise plan for the treatment of oil and fuel contaminated soils; and, include a notarized copy of the Spill Prevention Control and Countermeasure plan as an additional appendix to the MRP.

Stipulation R645-301-528.350 (PWB):

On or before February 29, 1992, update Appendix E of the Mining and Reclamation Plan to include sampling of the roof and floor of the Centennial seam; and, provide in Appendix E, the results of recent sampling of roof and floor from active mine locations for all four seams.

Stipulation R645-301-536.300 to 320 (PWB):

On or before February 29, 1992, provide the Division with copies of the analyses which are referred to on page 23 of ACT/007/033 Mining and Reclamation plan for the waste rock located at Wild Cat Loadout; and, provide an appendix to the ACT/007/019 plan which includes these analyses, which summarizes the operation and reclamation plan for the waste stored at Wild Cat, and which provides an accounting of the bond for the reclamation of the waste stored at Wild Cat Loadout.

FEDERAL

Permit Number ACT/007/019, January 5, 1992

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  
(801) 538-5340

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) 637-5383

for the Centennial Project. Andalex Resources Inc. is the lessee of federal coal leases SL-027304, SL-063058, U-010581, U-05067, U-52341 and UTU-66060, 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 (as shown on the map appended as Attachment B) within the permit area at the Centennial Mines Complex situated in the state of Utah, Carbon County, and located:

Township 13 South, Range 11 East, SLBM

- Section 4: S 1/2  
Section 5: All  
Section 6: All  
Section 7: All  
Section 8: All  
Section 9: All but SE 1/4 SE 1/4  
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 NE 1/4, E 1/2 SE 1/4 NE 1/4, E 1/2 NE 1/4 SE 1/4

Township 13 South, Range 10 East, SLBM

Section 1: Lots 1-8, S 1/2 N 1/2,

Section 12: Lot 1

Township 12 South, Range 11 East, SLBM

Section 31: Lots 3-6 and Lots 13-22

This legal description is for the permit area (as shown on Attachment B) 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 PERMIT TERM - This revised permit is effective on January 5, 1992 and expires on January 5, 1997.
- Sec. 4 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. 5 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. 6 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. 7 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. 8 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. 9 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. 10 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. 11 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. 12 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. 13 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. 14 APPEALS - The permittee shall have the right to appeal as provided for under R645-300.

Sec. 15 SPECIAL CONDITIONS - In addition to the general obligations and/or requirements set out in the leases, the federal mining plan approval, and this permit, the permittee shall comply with the special conditions appended hereto as Attachment A.

The above conditions (Secs. 1-15) 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.

~~THE STATE OF UTAH~~

By: Don R. Nelson

Date: 1-6-92

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: \_\_\_\_\_

ATTACHMENT A

STIPULATIONS  
Permit Renewal  
ANDALEX RESOURCES INC.  
Centennial Mines Complex  
ACT/007/019  
Carbon County, Utah

January 3, 1992

Stipulation R645-301-411 (PBB)

By February 4, 1992, Andalex must correct the plan to include recreational uses other than deer hunting for which the permit area is suited and correct the cross reference to give the correct appendix for archaeological studies.

Stipulation R645-301-412 (PBB)

By March 5, 1992, Andalex must furnish copies of comments concerning the proposed post-mining land uses by the legal or equitable owners of record of the surface of the proposed permit area and Utah and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation. These must be insertable into the plan, and the text and the cross reference must be updated to cite these comments.

Stipulation R645-301-413 (PBB)

By February 4, 1992, Andalex must correct the cross reference under sections R645-301-413.310 and -320 which contain criteria for alternative postmining land uses.

Stipulation R645-301-121 (DRH)

By no later than the mid-term of this permit (July 5, 1994), Andalex Resources Incorporated will supply an updated and reformatted Mining and Reclamation Plan which incorporates the new R645 regulations.

Stipulation R645-301-224 (PWB)

On or before February 29, 1992, revise Plate 7 of the Mining and Reclamation Plan to indicate the location of all substitute topsoil storage; and, revise the mining and reclamation plan to provide the Division with 1) the yardage of all substitute topsoil located in storage areas 2) copies of the design, implementation and evaluation of test trials on the substitute topsoil, and 3) the results of analyses performed on the substitute topsoil medium.

Page 2  
Attachment A  
Stipulations  
January 3, 1992

Stipulation R645-301-231.400 (PWB)

On or before February 29, 1992, Plate 6 of the Mining and Reclamation Plan will be amended to show the location of topsoil storage area B; and, the MRP will be amended on page 114 to state the location of topsoil storage area B as well.

Stipulation R645-301-232.200 (PWB)

On or before February 29, 1992, inform the Division of the location of the substitute topsoil (see stipulation R645-301-224, above) and place a sign on the substitute topsoil storage area so that it will be protected.

Stipulation R645-301-122 (PWB)

On or before February 29, provide the Division with an update to page 193 of the Mining and Reclamation Plan, providing a clear and concise plan for the treatment of oil and fuel contaminated soils; and, include a notarized copy of the Spill Prevention Control and Countermeasure plan as an additional appendix to the MRP.

Stipulation R645-301-528.350 (PWB)

On or before February 29, 1992, update Appendix E of the Mining and Reclamation Plan to include sampling of the roof and floor of the Centennial seam; and, provide in Appendix E, the results of recent sampling of roof and floor from active mine locations for all four seams.

Stipulation R645-301-536.300 to 320 (PWB)

On or before February 29, 1992, provide the Division with copies of the analyses which are referred to on page 23 of the ACT/007/033 Mining and Reclamation plan for the waste rock located at Wildcat Loadout; and, provide an appendix to the ACT/007/019 plan which includes these analyses, which summarizes the operation and reclamation plan for the waste stored at Wildcat, and which provides an accounting of the bond for the reclamation of the waste stored at Wildcat Loadout.



# 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

January 24, 1992

Mr. Sam Quigley  
Andalex Resources, Inc.  
P. O. Box 902  
Price, Utah 84501

Dear *Sam* Mr. Quigley:

Re: Division Order #92A, Andalex Resources, Inc., Centennial Project, ACT/007/019,  
Folder #3, Carbon County, Utah

During a review of your MRP and recent spillway amendment a number of permit defects were encountered relative to Pond C. Enclosed is a Division Order requiring correction of those permit defects. Please note that the deadline for completing the Division Order is March 9, 1992.

The review was conducted by Rick Summers, Senior Reclamation Hydrologist, and we encourage you to contact him for further detail on the defects encountered.

Thank you for your cooperation during the permitting process.

Best regards,

Dianne R. Nielson  
Director

#### Attachments

cc: R. Hagen, OSM  
L. Braxton, DOGM  
B-Team  
ANDAPOND.DO

**STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING**

---

**PERMITTEE**

Mr. Sam Quigley  
General Manager  
Andalex Resources, Inc.  
P. O. Box 902  
Price, Utah 84501

Centennial Mines Project  
Carbon County, Utah

Permit Number ACT/007/019  
Division Order # 92-A

**DIVISION ORDER AND FINDINGS  
of  
PERMIT DEFICIENCY**

---

PURSUANT to R645-303-212, the DIVISION hereby ORDERS the PERMITTEE, Andalex Resources Inc., to make the permit changes enumerated in the FINDINGS OF PERMIT DEFICIENCY in order to be in compliance with the State Coal Program. These Findings of Permit Deficiency are to be remedied in accordance with the requirements of R645-303-220.

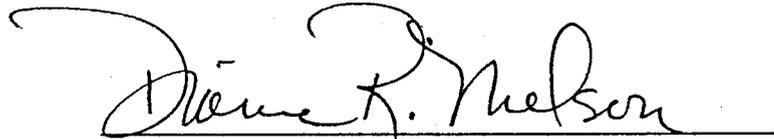
**FINDINGS OF PERMIT DEFICIENCY**

Based on a review of Andalex's MRP and amendment ACT/007/019-91A there appear to be discrepancies relative to the assumptions and calculations for Pond C designs. Values presented are not consistent and cannot be accepted by the Division. Andalex Resources, Inc. will be required to correct the permit defects relative to Pond C and demonstrate compliance with R645-301-733 and R645-301-742.220.

**ORDER**

It is hereby ORDERED that Andalex Resources, Inc. make the requisite permit changes in accordance with R645-303-220 and submit a complete application for permit change, addressing the FINDINGS OF PERMIT DEFICIENCY by no later than March 9, 1992.

So ORDERED, this 23rd day of January, 1992, by the Division of Oil, Gas and Mining.



Dianne R. Nielson, Director  
Division of Oil, Gas and Mining

36

R10E

R11E

T12S  
T13S

32

33

PERMIT BOUNDARY

DTU 85066

SCALE: 1"=2400'

3126

U-010581

TT3S

MINING PLAN APPROVAL AREA

U-05067

Attachment B  
MINING PLAN APPROVAL AREA MAP  
Centennial Project Mine  
Carbon County, Utah

FEE

APEX MINE PORTAL & SURFACE FACILITIES

FEE

PINNACLE MINE PORTAL & SURFACE FACILITIES

U-05234

SL-027304

AMALLEX RESOURCES, INC. ADMINISTRATIVE OFFICE

ABERDEEN MINE PORTAL & SUPPORT FACILITIES

SL-063058

8 L.M. RIGHT-OF-WAY

SL-52045

R10E

R11E

Ossama

16

# **MINING PLAN DECISION DOCUMENT**

**Andalex Resources, Inc.**

**Centennial Mine**

**Federal Leases U-69600**

**Carbon County, Utah**



**U.S. Department of the Interior  
Office of Surface Mining Reclamation and Enforcement**

**Prepared July 1994**

Approved 8/11/94

## CONTENTS

Centennial Mine  
Federal Lease U-69600  
Mining Plan Decision Document

1. Memoranda
  - a. Memorandum from the Director to the Assistant Secretary, Land and Minerals Management
  - b. Memorandum from the Assistant Director, Western Support Center, through the Deputy Director, to the Director
2. Location Maps
3. Chronology
4. National Environmental Policy Act Compliance Documents
5. Letters of Concurrence and Consultation:
  - a. Bureau of Land Management
  - b. U.S. Fish and Wildlife Service
  - c. State Historic Preservation Office
6. Mining Plan Approval Document
7. Utah Division of Oil, Gas and Mining's Findings and Supporting Documentation



# United States Department of the Interior

## OFFICE OF SURFACE MINING

Reclamation and Enforcement

Washington, D.C. 20240

AUG - 5 1994

### MEMORANDUM

To: Assistant Secretary, Land and Minerals Management

From: Robert J. Uram *[Signature]*  
Director, Office of Surface Mining Reclamation and Enforcement

Subject: Recommendation for Approval of the Andalex Resources, Inc.'s Centennial Mine Mining Plan Modification for Federal Lease U-69600, Carbon County, Utah

I recommend approval of the Andalex Resources, Inc.'s Centennial Mine mining plan modification for Federal lease U-69600 pursuant to the Mineral Leasing Act of 1920, as amended. This mining plan modification supplements the Centennial mining plan for Federal lease U-69600, approved on July 7, 1993. My recommendation to approve the Centennial Mine mining plan modification is based on: (1) Andalex Resources, Inc.'s complete permit application package (PAP), (2) compliance with the National Environmental Policy Act of 1969, (3) documentation assuring compliance with applicable requirements of other Federal laws, regulations, and executive orders, (4) comments and recommendations or concurrence of other Federal agencies, and the public, (5) the findings and recommendations of the Bureau of Land Management with respect to the resource recovery and protection plan and other requirements of the Federal lease and the Mineral Leasing Act, and (6) the findings and recommendations of the Utah Division of Oil, Gas and Mining with respect to the PAP and the Utah State program.

The Secretary may approve a mining plan modification for Federal leases under 30 U.S.C. §§ 207(c) and 1273(c). Pursuant to 30 CFR Chapter VII, Subchapter D, I find that the proposed mining plan will be in compliance with all applicable laws and regulations. The decision document for the proposed mining plan action is attached.

Attachment



# United States Department of the Interior

## OFFICE OF SURFACE MINING

Reclamation and Enforcement  
1999 Broadway, Suite 3320  
Denver, Colorado 80202-5733

IN REPLY REFER TO:

### MEMORANDUM

TO: Director

THROUGH: Deputy Director

FROM: Acting Assistant Director, Western Support Center

SUBJECT: Recommendation for Approval of the Andalex Resources, Inc.'s Centennial Mine Mining Plan Modification for Federal Lease U-69600, Carbon County, Utah

#### I. Recommendation

I recommend approval of the Centennial Mine mining plan modification for Federal lease U-69600. This is a mining plan modification for a underground coal mine being permitted under the Federal lands program and the approved Utah State program and cooperative agreement. My recommendation to approve the Centennial Mine mining plan modification is based on: (1) Andalex Resources, Inc.'s (ARI) complete permit application package (PAP), (2) compliance with the National Environmental Policy Act of 1969, (3) documentation assuring compliance with applicable requirements of other Federal laws, regulations, and executive orders, (4) comments and recommendations or concurrence of other Federal agencies, and the public, (5) the findings and recommendations of the Bureau of Land Management with respect to the resource recovery and protection plan and other requirements of the Federal lease and the Mineral Leasing Act, and (6) the findings and recommendations of the Utah Division of Oil, Gas and Mining with respect to the PAP and the Utah State program.

Approval of this modification will authorize mining of approximately 1.9 million additional tons of Federal coal from the Aberdeen seam of Federal lease U-69600 within the approved 802-acre mining plan area, as shown on the maps included with this decision document. The review of the PAP indicated that ARI's proposal would not require special conditions to be included in the mining plan approval document to comply with Federal law.

Utah Division of Oil, Gas and Mining (DOGGM) reviewed the PAP under the Utah State program, the Federal lands program (30 CFR Chapter VII, Subchapter D), and the Utah cooperative agreement (30 CFR § 944.30). Pursuant to the Utah State program and the cooperative agreement, Utah DOGM is prepared to approve the permit revision concurrent with mining plan approval.

The Office of Surface Mining Reclamation and Enforcement (OSM) has consulted with other Federal agencies for compliance with the requirements of applicable Federal laws, and their comments and concurrences are included in the decision document. The resource recovery and protection plan was reviewed by the Bureau of Land Management (BLM) for compliance with the Mineral Leasing Act of 1920, as amended, and 43 CFR Part 3480, and BLM recommended approval of the mining plan modification in a memorandum dated May 6, 1994. The U.S. Fish and Wildlife Service provided its final consultation comments under Section 7 of the Endangered Species Act in a memorandum dated July 6, 1994. The State Historic Preservation Office (SHPO) provided its comments in a letter dated July 7, 1994.

I have determined that the proposed area of mining plan approval is not unsuitable for mining in accordance with section 522(b) of SMCRA.

The permit revision area is not on any Federal lands within the boundaries of any national forest.

OSM has determined that approval of this mining plan modification will not have a significant impact on the quality of the human environment. The impacts of approval of this mining plan modification and alternatives are described in the environmental assessment attached to the Finding of No Significant Impact (FONSI) included with the decision document.

The mining plan approval document included in the decision document is in conformance with the Mineral Leasing Act of 1920, as amended, and applicable Federal regulations. I recommend that you advise the Assistant Secretary, Land and Minerals Management, under 30 CFR Part 746, that the ARI's Centennial Mine mining plan modification for Federal lease U-69600 is ready for approval.

## II. Background

The Centennial underground coal mine is located in Carbon County, Utah, 10 miles north of Price. The mine has been in operation since 1980. About 32 acres have been affected by surface disturbance to date. The total permitted area of the Centennial Mine contains about 5102 acres. Mining is expected to continue for 14 years under Utah Permit No. ACT/007/019 and the approved mining plan modification.

The original mining plan for the Centennial Mine was approved under the Federal lands program on November 12, 1981, for Federal leases U-010581, SL-063058, SL-027304, U-050067. The mining plan for Federal lease UTU-66060 was approved on March 12, 1993.

The mining plan for Federal lease U-69600 was approved on July 7, 1993. It authorized mining in the Centennial seam. Approval of this modification will authorize mining in the stratigraphically-lower Aberdeen seam in the same area.

The Centennial mine consists of three separate mining operations, the Apex, Pinnacle, and Aberdeen, in three seams, the Lower Sunnyside, Gilson, and Aberdeen seams, respectively (stratigraphically from top to bottom). A fourth seam, the Centennial, is accessed from the Pinnacle mine by a rock slope up from the Gilson seam underground workings. The underground mining operations utilize longwall and room and pillar mining methods. The four coal seams are mined at an average production rate of about 1.5 million tons per year. No additional surface disturbance except possible subsidence in the mining plan area will result from this action.

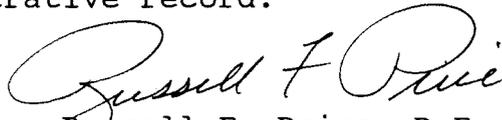
A chronology of events related to the processing of the PAP is included with the decision document. The information in the PAP, as well as other information identified in the decision document, has been reviewed by Utah DOGM staff in coordination with the OSM Project Leader.

During the review of the PAP, no major issues were identified.

The public was notified of the availability of the PAP for review by publication of newspaper notices for four consecutive weeks, with a last publication date of May 31, 1994. No public comments on the PAP were received after the public notice was published.

Utah DOGM determined that a bond in the amount of \$1,080,839 is adequate for the Utah Permit No. ACT/007/019 associated with this mining plan action. The bond is payable to the State and the United States.

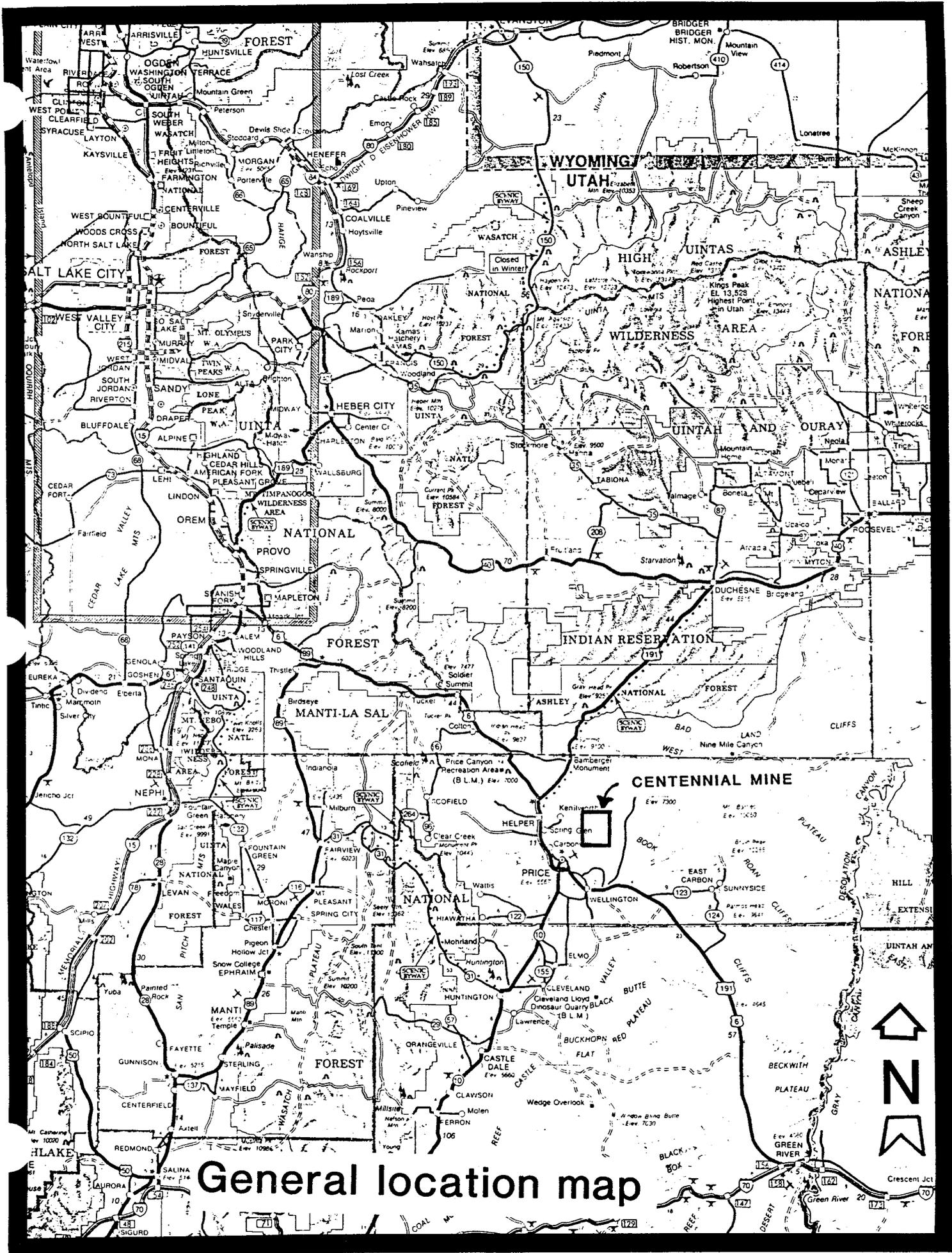
The PAP submitted by ARI and updated through March 21, 1994, Utah DOGM's Findings and Supporting Documentation provided to OSM under the cooperative agreement, the environmental assessment and FONSI of the proposed action and alternatives prepared by OSM, other documents prepared by Utah DOGM, and correspondence developed during the review of the PAP are part of OSM's administrative record.

  
Russell F. Price, P.E.

7/28/94

Date

Attachments



General location map

MAP(S)

Mining Plan Approval Area  
 Mine  
 County,

Each map must be a stand-alone document. All maps must be clearly labeled and legible with all boundaries clearly delineated. A Legend is highly recommended.

OVERVIEW MAP: The following items should be shown on the Overview Map:

The State boundary.  
 The mine location.  
 Town nearest to the mine.

MINING PLAN APPROVAL AREA MAP: You may chose one of the below noted means to prepare the Mining Plan Approval Area Map:

- A small hand-drawn map using USGS 7 ½ minute quadrangle maps as a base and copied to fit on an 8 ½ x 11 page.
- A small map prepared by the operator and sized to fit an 8 ½ x 11 page.
- A large map prepared using EarthVison or AutoCad.

The following items should be shown on the Mining Plan Approval Area Map regardless of its size:

-Title block containing:

Federal Mine No., if applicable

Name of mine *Centering Mine*

County and State *Carbon County, W.V.*

Month and year of Decision Document preparation *September 2004*

-North direction

-Scale: [1" = 2000' for instance]

-Section numbers and section lines.

-Township and Range

? The current mining plan area → P P

-The proposed NEW mining plan or mining plan MODIFICATION area - P

-Boundary of the State's permit area →

← -Boundaries of and ID's for current and proposed Federal leases

-Major highways/roads

-Major towns, if any

-Major streams/rivers

-Other important features that are discussed in the Regional Director's

memorandum

**STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801**

This permit, C/007/0019, is issued for the state of Utah by the Utah Division of Oil, Gas and Mining (DOGM) 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 and U-69600, and UTU-79975 and the lessee of fee-owned parcels, Mathis fee lease, 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 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 coal mining and reclamation operations on the following described lands within the permit area at the Centennial Mines Complex situated in the state of Utah, Carbon County, and located:

**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: N1/2, W1/2SW1/4, NE1/4SW1/4, N1/2SE1/4;
- Section 17: N1/2, NE1/4SE1/4, N1/2NW1/4SE1/4, N1/2NE1/4 SW1/4, NE1/4NW1/4SW1/4, W1/2NW1/4SW1/4; and
- Section 18: N1/2N1/2, SW1/4NE1/4, NW1/4SE1/4NE1/4, E1/2 SE1/4NE1/4, E1/2NE1/4SE1/4 and Lot 2, NE1/4SW1/4 (a portion containing

1.45 acres, more or less.), and a portion of  
NE1/4NE1/4SE1/4NW1/4 containing 1.5 acres, more or less.

**Township 13 South, Range 10 East, SLBM**

Section 1: All;  
Section 12: All;  
Section 13: Lot 1 (Portions of BLM ROW64158).

**Township 12 South, Range 11 East, SLBM**

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

**Township 12 South, Range 10 East, SLBM**

Section 36: S1/2S1/2, S1/2N1/2S1/2

**New Federal Summit Creek Lease UTU-79975**

Beginning at the NW corner of Section 31 (T12S, R11E)  
thence S 00°24'W 2675.8' ;  
thence S 61°52'E 743.0' to point of beginning;  
thence due East 3867.5' to the East section line of said Section 31;  
thence due South 735.0' along the East section line of said Section 31;  
thence N 61°62'W 1553.2';  
thence due South 1334.3' to the Southeast corner of Lot 11;  
thence N 61°52'W 2832.3' to point of beginning.

Beginning at the NW corner of Section 32 (T12S, R11E)  
thence due South 592.0' along the West section line of said Section 32 to point of  
beginning;  
thence due East 1320';  
thence due South 747.6';  
thence due West 1320';  
thence due North 747.6' along the West section line of said Section 32 to point of  
beginning.  
Containing 72.32 acres, more or less.

This legal description is for the permit area of the Centennial Mines Complex. The permittee is authorized to conduct coal mining and reclamation operations 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, 2007.
- Sec. 5 ASSIGNMENT OF PERMIT RIGHTS** - The permit rights may not be transferred assigned or sold without the approval of the Division Director. 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 R645-303-300.
- Sec. 6 RIGHT OF ENTRY** - The permittee shall allow the authorized representative of the Division, including but not limited to inspectors, and representatives of the Office of Surface Mining Reclamation and Enforcement (OSM), 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, R645-400-220, 30 CFR 842.13 and R645-400-110;
  - (b) Be accompanied by private persons for the purpose of conducting an inspection in accordance with R645-400-100 and R645-400-200 when the inspection is in response to an alleged violation reported to the Division by the private person.
- Sec. 7 SCOPE OF OPERATIONS** - The permittee shall conduct coal mining and reclamation operations only on those lands specifically designated as within the permit area on the maps submitted in the approved plan and approved for the term of the permit and which are subject to the performance bond.
- Sec. 8 ENVIRONMENTAL IMPACTS** - The permittee shall take all possible steps to minimize any adverse impact to the environment or public health and safety resulting from noncompliance with any term or condition of the permit, including, but not limited to:
- (a) Any accelerated or additional monitoring necessary 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 the Division 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 area 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 the Division of Oil, Gas, and Mining. The Division, after coordination with OSM, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by the Division within the time frame specified by the Division.

- Sec. 17 APPEALS** - The permittee shall have the right to appeal as provided for under R645-300-200.
- 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 the Division and the permittee at any time to adjust to changed conditions or to correct an oversight. The Division may amend these conditions at any time without the consent of the permittee in order to make them consistent with any federal or state statutes and any regulations.

**THE STATE OF UTAH**

By: \_\_\_\_\_

Date: \_\_\_\_\_

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

\_\_\_\_\_  
**Authorized Representative of  
Permittee**

Date: \_\_\_\_\_

Attachment A

**SPECIAL CONDITIONS**

1. Andalex Resources, Inc. will submit water quality data for the Centennial Project in an electronic format through the Electronic Data Input web site, <http://hlunix.hl.state.ut.us/cgi-bin/appx-ogm.cgi>.
  
2. Andalex Resources, Inc. may not commence mining in lease UTU- 79975 until Mining Plan Approval is signed by the Secretary of the Interior.

E1/2NE1/4SE1/4 and Lot 2, NE1/4SW1/4 (a portion containing 1.45 acres, more or less.), and a portion of NE1/4NE1/4SE1/4NW1/4 containing 1.5 acres, more or less.

**Township 13 South, Range 10 East, SLBM**

Section 1: All;  
Section 12: All;  
Section 13: Lot 1 (Portions of BLM ROW64158).

**Township 12 South, Range 11 East, SLBM**

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

**Township 12 South, Range 10 East, SLBM**

Section 36: S1/2S1/2, S1/2N1/2S1/2

**New Federal Summit Creek Lease UTU-79975**

Beginning at the NW corner of Section 31 (T12S, R11E)  
thence S 00°24'W 2675.8' ;  
thence S 61°52'E 743.0' to point of beginning;  
thence due East 3867.5' to the East section line of said Section 31;  
thence due South 735.0' along the East section line of said Section 31;  
thence N 61°62'W 1553.2';  
thence due South 1334.3' to the Southeast corner of Lot 11;  
thence N 61°52'W 2832.3' to point of beginning.

Beginning at the NW corner of Section 32 (T12S, R11E)  
thence due South 592.0' along the West section line of said Section 32 to point of beginning;  
thence due East 1320';  
thence due South 747.6';  
thence due West 1320';  
thence due North 747.6' along the West section line of said Section 32 to point of beginning.  
Containing 72.32 acres, more or less.

This legal description is for the permit area of the Centennial Mines Complex. The permittee is authorized to conduct coal mining and reclamation operations connected with mining on the foregoing described property subject to the conditions of the leases, the

Keep?

Pam-

8/12

I added the New Federal Summit info to the permit. Do I need to add the Mathis Tract info too? I left the other info in - not sure if I should delete?

es Lease) is subject to the terms and in the Federal Coal Lease issued by the ement October 3, 1994. Specifically, Part I, se "grants and leases to the Lessee the privilege to drill for, mine, extract, remove ss and dispose of the coal deposits in, upon, escribed below" as Tract 1 (Original Lease ation).

es that there are approximately 518,000 luded within the 160 acre lease modification. erable tons however is subject to the oal. That is, The Aberdeen coal seam pinches rly direction. Also, the depth of cover increases dramatically to the north which could restrict recovery.

New Federal Summit Creek Lease UTU-79975

Please update permit.

Beginning at the NW Corner of Section 31 (T12S, R11E) thence S 00°24'W 2675.8'; thence S 61°52'E 743.0' to point of beginning; thence due East 3867.5' to the east section line of said Section 31; thence due South 735.0' along the East section line of said Section 31; thence N 61°62'W 1553.2'; thence due South 1334.3' to the Southeast corner of Lot 11; thence N 61°52'W 2832.3' to point of beginning.

Beginning at the NW corner of Section 32 (T12S, R11E) thence due South 592.0' along the West section line of said Section 32 to point of beginning; thence due East 1320'; thence due South 747.6'; thence due West 1320'; thence due North 747.6' along the West section line of said Section 32 to point of beginning. Containing 72.32 acres, more or less.

The private fee leases are described as follows:

The Mathis Tract - Fee Lease

T.12S., R.10E., SLM, Utah  
Section 36: S1/2S1/2, S1/2N1/2S1/2, containing 240 acres.  
New I.B.C.: Section 36: N1/2NW1/4SW1/4, containing 20 acres.

T.13S., R.11E., SLM, Carbon County, Utah  
Sec. 7: S1/2 NW1/4  
N1/2 SW1/4  
SE1/4 SW1/4 containing 200 acres, more or less

UTU-66060 (Graves Lease) is subject to the terms and conditions set forth in the Federal Coal Lease issued by the Bureau of Land Management October 3, 1994. Specifically, Part I, section 2 of the lease "grants and leases to the Lessee the exclusive right and privilege to drill for, mine, extract, remove, or otherwise process and dispose of the coal deposits in, upon, or under the lands described below" as Tract 1 (Original Lease) and Tract 2 (Modification).

ANDALEX estimates that there are approximately 518,000 recoverable tons included within the 160 acre lease modification. This number of recoverable tons however is subject to the mineability of the coal. That is, The Aberdeen coal seam pinches out in a north-easterly direction. Also, the depth of cover increases dramatically to the north which could restrict recovery.

New Federal Summit Creek Lease UTU-79975

Beginning at the NW Corner of Section 31 (T12S, R11E)  
thence S 00°24'W 2675.8';  
thence S 61°52'E 743.0' to point of beginning;  
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Containing 72.32 acres, more or less.

The private fee leases are described as follows:

★  
7  
+  
The Mathis Tract - Fee Lease

T.12S., R.10E., SLM, Utah

Section 36: S1/2S1/2, S1/2N1/2S1/2, containing 240 acres.

+ New I.B.C.: Section 36: N1/2NW1/4SW1/4, containing 20 acres.

T.13S., R.11E., SLM, Carbon County, Utah

Sec. 7: S1/2 NW1/4

N1/2 SW1/4

SE1/4 SW1/4 containing 200 acres, more or less

LI

*Pam,  
still need  
to check w/ Joe  
on SHPO*

August 6, 2004

Mr. Ranvir Singh  
Denver, Colorado 80202

Dear Mr. Singh:

Re: State Final Findings and Supporting Documentation, Summit Lease Tract - Incident Boundary Change, Andalex Resources Inc., Centennial Mine, C/007/0019, Outgoing File

Enclosed please find the Division's Decision Document for Andalex Resources' incidental boundary change of the Summit Tract at the Centennial Mine .

The permit has been conditioned that no mining can occur until the Secretary signs the Mining Plan Approval for this permitting action at the Summit Tract.

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

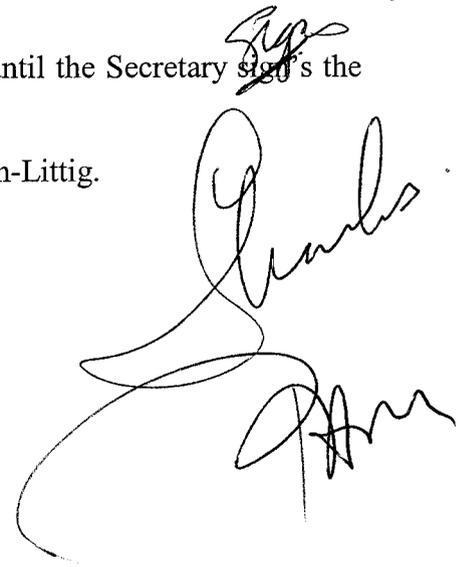
Sincerely,

Lowell P. Braxton  
Director

Enclosures

cc: Jim Kohler, BLM  
others...

*\$9*  
*I circled in red some places that need some data etc.*



UTAH DIVISION OF OIL, GAS AND MINING  
STATE DECISION DOCUMENT

Andalex Resources, Inc.  
Centennial Project  
Incidental Boundary Change  
Summit Lease Tract  
C/007/0019  
Carbon County, Utah

August 16, 2004

CONTENTS

- \* Administrative Overview
- \* Location Map
- \* Permitting Chronology
- \* Mine Plan Information Form
- \* Findings
- \* Environmental Assessment
- \* BLM Lease Document
- \* Letters of Concurrence and Other Attachments
  - R2P2, Bureau of Land Management, March 12, 1993
  - U. S. Fish and Wildlife Service, April 6, 1993
  - Division of State History, March 5, 1993
  - Memo from James D. Smith, CHIA, April 20, 1993
  - Affidavit of Publication, March 23, 1993
  - Memo from Pamela Grubaugh-Littig -- Section 510(c) finding

## PERMITTING CHRONOLOGY

Andalex Resources, Inc.  
Centennial Project  
Incidental Boundary Change  
Summit Lease Tract  
C/007/0019  
Carbon County, Utah

August 16, 2004

May 5, 2004	Andalex Resources, Inc. submit the incidental boundary change application for the Summit Lease Tract at the Centennial mine.
May 24, 2004	Determination by OSM that this permitting action is a mining plan modification.
June 18, 2004	Division deficiency review sent to Andalex Resources, Inc.
June 24, 2004	BLM holds lease sale for Summit Lease Tract.
June 30, 2004	BLM accepts bid from Andalex Resources, Inc.
July 2, 2004	Andalex Resources, Inc. submits additional information.
July 29, 2004	Division completes technical review of the application.
August 16, 2004	BLM issued lease for Summit Tract
August 16, 2004	Division issues permit with a condition that mining may not commence until Mining Plan Approval is received from Secretary for this permitting action.
August 16, 2004	Division forwards State Decision Document to Office of Surface Mining Reclamation and Enforcement for concurrence and Secretarial signature.

## FINDINGS

Andalex Resources, Inc.  
Centennial Project  
Incidental Boundary Change  
Summit Lease Tract  
C/007/0019  
Carbon County, Utah

August 5, 2004

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). See attached Technical Analysis dated

???

July 27, 2004; task ID # 1979

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 Cumulative Hydrologic Impact Analysis [CHIA], updated August 12, 2004). Aug 16, 2004 (Noyce Fully)

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 ???.

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 (See attached lease UTU-??? effective ) (R645-300-133.300). 79975

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 Andalex Resources Inc., 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 (R645-300-133.730). (See attached memo dated August 5, 2004).

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. The closest operating mine is the Dugout Mine.

9. The applicant has posted a surety bond for the Centennial Mines Complex in the amount of \$1,080,839.00. (Bond #SU34593 in the amount of \$381,839 and bond #SU1354086 in the amount of \$699,000 both issued by Utica Mutual Insurance. 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) (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 regulatory authority and the surface land management agency

12. The regulatory authority 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 letter from US Fish and Wildlife Service, dated ???).

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 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, Mining

Director



# Centennial Project Mine

ACT0070019

June 29, 2004

File: N:\gis\coal\coalareamaps\C0070019-area.pdf

*OLD MAP*

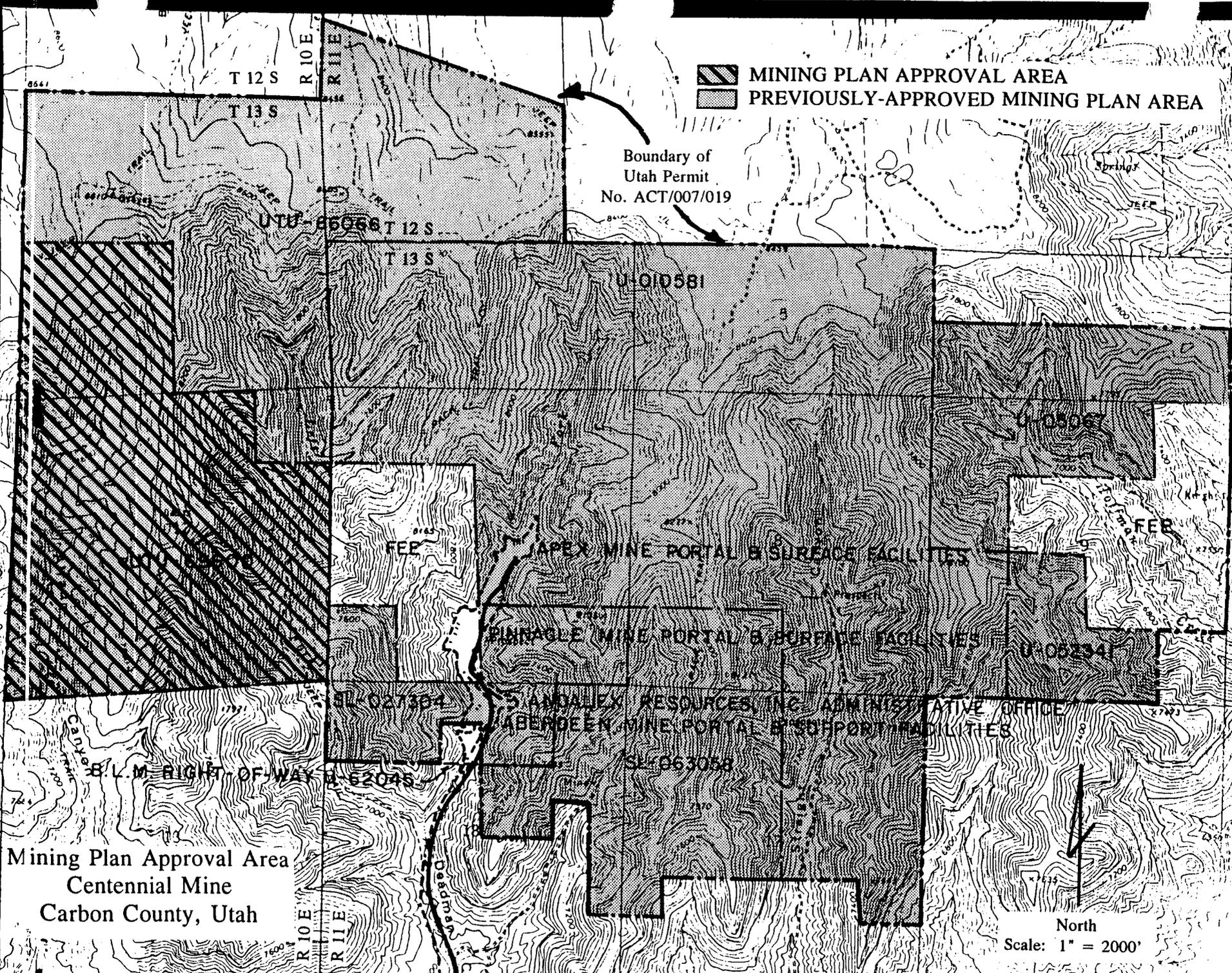


0 0.2 0.4 0.8 1.2 1.6 Miles

1:48,000

 MINING PLAN APPROVAL AREA  
 PREVIOUSLY-APPROVED MINING PLAN AREA

Boundary of  
Utah Permit  
No. ACT/007/019



Mining Plan Approval Area  
Centennial Mine  
Carbon County, Utah

North  
Scale: 1" = 2000'

## CHRONOLOGY

Centennial Mine  
Federal Lease U-69600  
Mining Plan Decision Document

DATE	EVENT
March 14, 1994	Andalex Resources, Inc. (ARI) submitted the permit application package (PAP) under the approved Utah State Program to the Utah Division of Oil, Gas and Mining (DOGM) for a permit revision for the Centennial Mine.
March 21, 1994	The Office of Surface Mining Reclamation and Enforcement (OSM) received the PAP.
May 6, 1994	The Bureau of Land Management provided its findings and recommendations on the approval of the mining plan.
May 24, 1994	Utah DOGM determined that the PAP was administratively complete for public review and comment.
May 31, 1994	ARI published in the Price Sun Advocate the fourth consecutive weekly notice that its complete PAP was filed with Utah DOGM.
July 6, 1994	The U.S. Fish and Wildlife Service provided its final consultation comments on the mining plan.
July 7, 1994	The State Historic Preservation Office provided its comments on the mining plan.
July 8, 1994	OSM received Utah DOGM's final Findings and Supporting Documentation.
July 1994	OSM's Western Support Center recommended that the mining plan modification be approved.

U.S. DEPARTMENT OF THE INTERIOR  
OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT  
FINDING OF NO SIGNIFICANT IMPACT  
FOR  
Centennial Mine  
Federal Lease U-69600  
Mining Plan Decision Document

A. Introduction

Andalex Resources, Inc. submitted a permit application package (PAP) for a permit revision for the Centennial Mine to the Utah Division of Oil, Gas and Mining (DOG M) under the Utah State program (30 CFR Part 944). The PAP proposes extending underground mining operations in the Aberdeen coal seam into about 802 acres of Federal lease U-69600. The proposed mining plan would cause no new surface disturbance in the mining plan area except possible mining-induced subsidence.

Under the Mineral Leasing Act of 1920, the Assistant Secretary, Land and Minerals Management, must approve, approve with conditions, or disapprove the mining plan modification for Federal lease U-69600. Pursuant to 30 CFR Part 746, the Office of Surface Mining Reclamation and Enforcement (OSM) is recommending approval of this mining plan modification.

B. Statement of Environmental Significance of the Proposed Action

The undersigned person has determined that the above-named proposed action would not have a significant impact on the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4332(2)(C), and therefore, an environmental impact statement is not required.

This finding of no significant impact is based on the attached environmental assessment prepared by OSM which identifies and discusses the environmental impacts of the proposed action and which provides sufficient evidence and analysis for this finding of no significant impact.



---

Chief, Federal Programs Division  
Western Support Center

7/26/94  
Date

ENVIRONMENTAL ASSESSMENT

Centennial Mine  
Federal Lease U-69600  
Mining Plan Modification  
Carbon County, Utah

Prepared by  
U.S. Department of the Interior  
Office of Surface Mining Reclamation and Enforcement  
Western Support Center

July 1994

## CHAPTER I INTRODUCTION

### A. Purpose and Need for the Action

Andalex Resources, Inc. (ARI) submitted a permit application package (PAP) for a permit revision for the Centennial Mine to the Utah Division of Oil, Gas and Mining (DOG M) under the Utah State program (30 CFR Part 944). The PAP proposes an extension of underground mining operations in the Aberdeen seam of Federal lease U-69600. About 1.9 million additional tons of Federal coal would be mined.

Under the Mineral Leasing Act of 1920, the Assistant Secretary, Land and Minerals Management, must approve, approve with conditions, or disapprove the mining plan modification for Federal lease U-69600. Pursuant to 30 CFR Part 746, the Office of Surface Mining Reclamation and Enforcement (OSM) must recommend to the ASLMM approval, approval with conditions, or disapproval of the mining plan.

### B. Project Background and General Information

The Centennial underground coal mine is located in Carbon County, Utah, 10 miles north of Price. The mine has been in operation since 1980. About 32 acres have been affected by surface disturbance to date. The total permitted area of the Centennial Mine contains about 5102 acres of which 3662 acres are in the current mining plan approval area. Mining is expected to continue for 13 more years.

The Centennial mine consists of three separate mining operations, the Apex, Pinnacle, and Aberdeen, in three seams, the Lower Sunnyside, Gilson, and Aberdeen (aka Castlegate "A" seam) seams, respectively (stratigraphically from top to bottom). A minable thickness of a fourth seam, the Centennial, is accessed from the Pinnacle mine by a rockslopes up from the Gilson seam underground workings. The underground mining operations utilize longwall and room and pillar mining methods. The four coal seams are mined at an average production rate of about 1.5 million tons per year. The mine employs about 115 persons. About 90 percent live in Carbon County; the remainder live in Emery and Utah Counties.

Existing surface facilities are accessed by an existing paved county road which is also used for transporting coal from the mine by truck. Facilities at the site consist of mine offices and shop buildings, bath houses, storage areas for mining equipment and coal, conveyors and truck loading equipment. The total disturbed area is about 32 acres.

C. Related Environmental Documents

Environmental studies related to the Centennial mine and surrounding area include:

1993, Utah DOGM and OSM, Environmental Assessment, Centennial Project Mine, Federal Lease UTU-69600.

1990, BLM, Environmental Assessment, Centennial Project Mine, Federal Lease UTU-66060.

1990, Utah DOGM, State Decision Document and Cumulative Hydrologic Impact Assessment, Graves Lease, Centennial Project Mine.

1983, BLM, Environmental Assessment, Federal Lease U-52341.

1981, BLM, Environmental Assessment, Federal Lease Nos. SL-27304, SL-063058, and U-010581.

CHAPTER II  
DESCRIPTION OF THE ALTERNATIVES

A. Primary Alternatives Under Analysis

**1. Alternative 1: Approval of the Proposed Mining Plan Modification without Special Federal Conditions (The Proposed Action).**

Under this alternative, the Assistant Secretary, Land and Minerals Management, would approve the mining plan modification for Federal lease U-69600 proposed by Andalex Resources, Inc. (ARI) without special conditions.

The mining plan modification proposed by ARI would allow mining of the Aberdeen seam in 802 acres of Federal lease U-69600. The proposed mining plan would cause no new surface disturbance except for possible mining-induced subsidence. The mine would continue to produce about 1.5 million tons per year for about 14 years.

With this mining plan action, the approved mining plan area for the Centennial Mine would not change and would contain a total of 3662 acres, including the previously approved mining plan area for Federal leases U-010581, SL-063058, SL-027304, U-050067, U-66060, and U-69600.

**2. Alternative 2: Disapproval of the Proposed Mining Plan Modification (The "No Action" Alternative).**

Under this alternative, the Assistant Secretary, Land and Minerals Management, would disapprove the mining plan modification for Federal lease U-69600.

If disapproved, about 1.9 million tons of Federal coal would not be mined. Operations at the Centennial Mine would continue to be conducted under the currently approved mining plans.

B. Other Alternatives Considered But Eliminated From Detailed Analysis

**Approval of the Proposed Mining Plan Modification with Special Federal Conditions.**

No special Federal conditions are required to satisfy the requirements of Federal laws, Executive orders, and regulations, and the analysis of approval without special Federal conditions did not result in the identification of any impacts that could or should be mitigated beyond that

mitigation proposed in the PAP and by Utah DOGM's conditions of approval.

C. NEPA Section 102(2)(E) Alternatives.

This proposed action does not involve unresolved conflicts concerning alternative uses of available resources. Therefore, consideration of alternatives pursuant to Section 102(2)(E) of NEPA, 42 U.S.C. §§ 4332(2)(E), is not required.

CHAPTER III  
THE AFFECTED ENVIRONMENT

A. General Setting

The Centennial Project is located within the Book Cliffs coal field approximately 10 miles north-northeast of Price, Utah. The Book Cliffs form a rugged, southerly facing escarpment that delineates the Uintah Basin to the north from the San Rafael Swell to the south. Elevations along the Book Cliffs range from 5,000 feet to 9,000 feet.

The Aberdeen coal seam, the coal seam to be mined in the proposed mining plan modification, occurs as the lowermost minable coal seam in the area of the lease. Overburden, consisting of massive sandstones and shales, ranges from about five hundred feet to over 2000 feet, but generally is in excess of 1500 feet thick in the proposed mining area.

Precipitation ranges from 20 inches at higher elevations to 5 inches at lower elevations. The Book Cliffs area may be classified as mid-latitude steppe to desert.

Vegetation varies from the sagebrush/grass community type at lower elevations to the Douglas fir/aspen community at higher elevations. Other vegetative communities include mountain brush pinyon-juniper, pinyon-juniper/sagebrush and riparian. These communities are primarily used for wildlife habitat and livestock grazing.

The permit area consists of a variety of habitat types and wildlife. Economically important and high interest species include elk, mule deer, black bear, coyote, mountain lion, mountain cottontail, and several fur bearing species. Bird species of interest that may be present in the area include the golden eagle, blue grouse, ruffed grouse, western bluebird, and Grace's warbler.

B. Critical Elements

1. Cultural, paleontological, or historic resource values

Southeastern Utah and particularly the Book Cliffs area contains numerous sites of importance with respect to the Fremont and Anasazi Indian cultures. The majority of those located in the Book Cliffs are east of the proposed permit area and lease area. No sites within the lease were identified by the State Historic Preservation office.

## 2. Water quality/supply values

The ground water regime is dependent upon geologic and climatic parameters that establish systems of recharge, movement and discharge. Snow melt at higher elevations provides most of the ground water recharge. Vertical migration of ground water occurs based on permeability and fracturing of the rock strata. Lateral migration may occur when ground water encounters impermeable layers.

Based on information from existing mine workings it is anticipated that the regional water table lies at some elevation deeper than the coal seams being mined. Very little water has been encountered during the mining process, usually minor drips or some seepage, however an occasional exception to this rule has occurred when the mine has encountered old workings. In 1981, the mine cut into some old works releasing a surge of water that had to be discharged from the mine. Again in 1983 the mine encountered ground water in an area of burned coal. These instances indicate that water may accumulate in areas of high permeability, but these areas are generally very localized and have limited storage capacity.

The entire Centennial Project area is drained by ephemeral drainages heading primarily in a southerly direction and tributary to the Price River. The lease is located in drainage which would only flow in direct response to snow melt or direct precipitation. An inventory of seeps and springs, conducted by Andalex personnel in May 1992, indicated that there are no surface water sources on the lease. No water rights or surface facilities indicating water use were identified during the recent survey.

## 3. Wetland values

The lease is located on high mountain desert terrain. No wetland values occur in the area.

## 4. Floodplains, Areas of Unstable Geology, and Natural Hazards

No floodplains, areas of unstable geology, or natural hazards occur within the lease area.

## 5. Threatened or endangered plant/animal species

No threatened or endangered plant or animal species have been found in the lease area, although certain raptors may migrate through the area.

6. Migratory birds of high Federal interest

Although golden eagles frequent this area, an inventory conducted in conjunction with the Utah Division of Wildlife Resources failed to identify any active raptor nests on the lease area.

7. Renewable resource/ unique agricultural values

The lease area is considered wildlife habitat with very limited grazing access. There are stands of Pinyon and Juniper which have some value as firewood or fencing material. There are no prime farmlands present.

8. Recreational resource values

The land comprising the lease area has been historically used for deer hunting. Other recreational uses for the permit area could include hiking, cross-country skiing, four wheeling, camping, and snowmobiling. There are no existing or proposed wilderness areas or areas of environmental concern in the vicinity of the Centennial mine.

9. Social and economic values

Coal mining is one of the major industries in the Carbon County area. The economy of the area is reflected in the viability of the mines. The Centennial mine currently employs about 115 persons.

10. Conformance with Federal, State, Regional, and/or local land use plans, programs, and policies

County zoning regulations (1974) indicate all lands involved in the lease area are within zone M and G1 which is for mining and grazing. Current land use consists of mining and wildlife habitat with limited grazing.

## CHAPTER IV IMPACT ANALYSIS

### Impacts of Alternative 1. Approval without special federal conditions.

Mining operations within the lease would not encompass additional surface disturbance. Thus, only mining-induced subsidence would potentially impact surface resources. Based on past history of subsidence effects at mines in the Wasatch coal field and Book Cliffs coal fields, including the Centennial Mine, there is little likelihood of surface expression of subsidence as a result of mining this lease. In its review of the resource recovery and protection plan, BLM concluded no surface impacts are anticipated due to subsidence other than ground lowering and some possible surface cracks.

#### 1. Cultural, paleontological, or historic resource values

No known cultural, paleontological, or historic resources occur within the lease area.

#### 2. Water quality/supply values

Subsidence may result in the extension and expansion of the existing fracture system and the upward propagation of new fractures. Ground water may be intercepted by these new fractures. Dewatering of localized aquifers is possible during the life of mine operations.

Currently the Centennial Mine discharges approximately 100,000 gallons of water per day from mine inflow. This volume is not anticipated to increase since previous mining in the lease found completely dry conditions.

All surface drainages in the area of the lease are ephemeral in nature, responding only to rain or snowfall events. Effects of subsidence, if any, should be limited to shallow surface cracks in surface tensile zones that would quickly fill with sediments during runoff events and produce no impact to ephemeral stream flow.

#### 3. Wetland values

No wetlands occur in the area.

#### 4. Floodplain/unstable geology concerns

No floodplains, areas of unstable geology, or natural hazards occur within the lease area.

5. Threatened or endangered plant/animal species

No threatened or endangered species occur in the lease area or would be affected by the proposed mining operation (U.S. Fish and Wildlife Service, July 6, 1994).

6. Migratory birds of high Federal interest

There are no active nests in the lease area. Surface subsidence would not affect use of the area by migratory birds.

7. Renewable resource/unique agricultural values

The lease does not contain renewable resources or and unique agricultural values.

8. Recreational resource values

The capability of the lease area to support the current recreational activities would not change.

9. Social and economic values

No changes in employment are anticipated as a result of the proposed lease addition.

10. Conformance with Federal, State, regional, and/or local land use plans, programs, and policies

No changes in the land use for this area would occur as a result of the lease addition.

Impacts of Alternative 2, Disapproval

If the mining plan for the lease addition is disapproved, the impacts described for Alternative 1, Approval Without Special Federal Conditions, would not occur. The Centennial Mine would continue to operate under the terms and conditions of the currently approved mining plan. About 1.9 million tons of Federal coal in the Aberdeen seam would not be mined.

**CHAPTER V**  
**CONSULTATION AND COORDINATION**

A. Preparer:

This Environmental Assessment was prepared by:

Richard Holbrook, Senior Project Manager, OSM  
Floyd McMullen, Senior Environmental Project Manager, OSM



# United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
Moab District  
P. O. Box 970  
Moab, Utah 84532

IN REPLY REFER TO:

3482  
U-69600  
SL-027304  
(UT-066)

**RECEIVED**

MAY 9 1994

MAY - 6 1994

DIVISION OF  
OIL GAS & MINING

ACT/007/019 #3

Copy from

Ms. Pamela Grubaugh-Littig  
Utah Coal Regulatory Program  
State of Utah  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Re: Addition of Aberdeen Seam Reserve to Lease UTU-69600, Andalex Resources, Inc.,  
Centennial Mine, ACT/007/019

Dear Ms. Grubaugh-Littig:

The Bureau of Land Management (BLM) received from your office a copy of the subject mining plan revision for our review. In addition, Andalex has submitted to our Price River Resource Area office, a copy of a resource recovery and protection plan (R2P2) for the subject revision. Our comments follow:

Andalex has submitted mining plans for the Aberdeen ("A") Seam in the portion of Federal coal lease SL-048442-050115 (Blackhawk Coal Company, lessee) that was previously acquired by Andalex for the Centennial Seam only. This area was given a new lease number of UTU-69600. Andalex is now obtaining the rights to the "A" Seam for this same area.

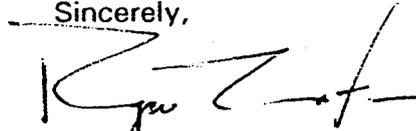
The mining plan submitted by Andalex for this lease addition calls for extending the planned east-west longwall panels further west into the new area to the limits of the minable thickness of coal. The plan uses standard industry panel layouts and follows the projected minable thickness limits of the coal. The southeast section of the lease will be mined by room-and-pillar methods, as the configuration of the minable coal is not conducive to longwall panels.

The R2P2 for the "A" Seam in lease UTU-69600 is an extension of underground mine workings, and no additional surface facilities will be built. Subsidence above the mined-out longwall panels will occur, but to what extent is not predictable. Normally, ground lowering will occur soon after mining is completed. The maximum subsidence will be located in the center of the trough formed by mined-out longwall panels. The amount of subsidence will be a percentage of the actual height of the coal mined, roughly 50 - 70 percent. However, little subsidence has occurred from mining in the Book Cliffs in the past. Also, where Andalex has mined full extraction room-and-pillar panels, there has been no surface disturbance. We anticipate no surface impacts to occur due to subsidence other than ground lowering and some possible surface cracks.

We have determined that the R2P2 for this lease area is complete and technically adequate. The plan is in compliance with the Mineral Leasing Act of 1920, as amended, the regulations at 43 CFR 3480, Federal lease terms and conditions, and will achieve maximum economic recovery of the Federal coal. The area to be mined will not result in any surface impacts. Therefore, we recommend approval of the R2P2 and inclusion of the "A" Seam on Federal coal lease U-69600 to the Centennial Project Mining and Reclamation Plan, conditioned on the finalization of the lease transfer from Blackhawk Coal to Andalex.

If you have any questions, please contact Stephen Falk in our Price Coal Office at (801) 637-4584.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stephen Falk', written over a horizontal line.

District Manager

cc: UT-065, DM, Moab  
UT-921, SD, Utah  
Office of Surface Mining  
Western Technical Center  
Brooks Towers  
1020 15th Street  
Denver, CO 80202  
Andalex Resources  
P. O. Box 902  
Price, UT 84501



# 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:  
3453  
SL-048442-050115  
UTU-69600  
(UT-920)

JUN 28 1994

CERTIFIED MAIL—Return Receipt Requested

AMCA Coal Leasing, Inc.  
c/o Andalex Resources, Inc.  
P. O. Box 902  
Price, Utah 84501

DECISION

- : Coal Leases
- : SL-048442-050115
- : UTU-69600

*Daron's for  
Copy to  
ACT 1002/019 #2  
Copy to Amendment file 94B.  
Sig, Reb.*

Partial Assignment Approved  
Partial Sublease Agreement Terminated

On May 9, 1994, a partial assignment of coal lease SL-048442-050115, entered into on May 6, 1994, between AMCA Coal Leasing, Inc., as assignee, and Blackhawk Coal Company, as assignor, was filed in this office.

Coal lease bond SU1515581 (BLM Bond No. UT0898) in the amount of \$5,000 with AMCA Coal Leasing, Inc., as principal, and Utica Mutual Insurance Company, as surety, is currently on file to provide coverage for coal lease UTU-69600 and has been determined to be adequate coverage at this time.

Satisfactory evidence of the qualifications and holdings of AMCA Coal Leasing, Inc., has been filed. The lease account appears to be in good standing inasmuch as the lease is not shown on the Minerals Management Service (MMS) list of leases with unpaid assessments. The assignee has agreed to be liable for any delinquent rent/royalty payments discovered through an MMS audit. Therefore, the assignment appears to meet the requirements of the regulations and is hereby approved effective July 1, 1994.

A partial assignment of coal lease SL-048442-050115 pertaining to the Centennial Coal Seam only, with AMCA Coal Leasing, Inc., as assignee, and Blackhawk Coal Company, as assignor, created a new lease which was assigned Serial No. UTU-69600 and became effective May 1, 1991. With the approval of this assignment, all the lands and coal seams in coal lease UTU-69600 are now assigned to AMCA Coal Leasing, Inc., and are described as follows:

T. 13 S., R. 10 E., SLM, Utah  
Sec. 1, SW4;  
Sec. 12, lots 2-11, W2W2, NESW.  
Containing 801.84 Acres; Carbon Cour

Post-It™ brand fax transmittal memo 7671 # of pages 12

To: <i>MIKE GLASSON</i>	From: <i>Dolly Willis</i>
Co: <i>ANDALEX</i>	Co: <i>BLM</i>
Dept.:	Phone # <i>801 539-4113</i>
Fax # <i>801-637-8860</i>	Fax #

2

On June 24, 1994, a partial termination of the sublease agreement between Cyprus Western Coal Company, as sublessee, and Blackhawk Coal Company, as sublessor, entered into on May 31, 1994, was filed in this office. In accordance with the termination agreement, effective with the approval of partial assignment UTU-69600, the sublease agreement is terminated as to the lands in UTU-69600 only.

The lands remaining in coal lease SL-048442-05011 are described as follows:

T. 13 S., R. 10 E., S1M, Utah  
Sec. 3, S2N2, S2;  
Sec. 4, lots 1-4, S2N2, N2S2;  
Sec. 10, N2, NWSW;  
Sec. 11, E2, NW4.

Containing 1,802.88 Acres; Carbon County

A four percent (4%) overriding royalty is reserved in the approval of this assignment; whereas, forty (40) cents per ton for each ton in excess of 250,000 tons was retained in the previously approved assignment of the Centennial Coal Seam under UTU-69600.



G. William Lamb  
Acting State Director

Enclosure  
Assignment (5pp)

cc Blackhawk Coal Company  
Box 700  
Lancaster, OH 43130

John S. Kirkham  
Stoel, Rives, Boley, Jones & Grey  
201 South Main Street, Suite 1100  
Salt Lake City, UT 84111-4904



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

July 6, 1994

Pamela Grubaugh-Littig  
Utah Coal Regulatory Program  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

Re: **Addition of Aberdeen Seam to Lease UTU-69600, Centennial Mine, Andalex Resources, Inc., ACT/007/019-94B, Folder #2, Carbon County, Utah**

Dear Ms. Grubaugh-Littig:

This is in response to your letter of March 15, 1994 concerning the subject application to add the Aberdeen Seam to Lease UTU-69600.

The Fish and Wildlife Service has reviewed the material provided and believes no significant impacts to wildlife resources would be expected. This is based on the fact that the "Centennial" Seam was approved to be mined as part of this lease last year. There is no addition to the lease area, only the addition of the Aberdeen Seam to mine.

Sincerely,

Robert D. Williams  
Assistant Field Supervisor



# 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 84101-1102  
 (801) 533-3500  
 FAX: (801) 533-3503

July 7, 1994

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

RE: Addition of Aberdeen Seam to Lease UTU-69600, Centennial Mine, Andalex Resources, Inc., ACT/007/019-94B, Folder #2, Carbon County, Utah

In Reply Please Refer to Case No. K439

Dear Ms. Grubaugh-Littig:

The Utah State Historic Preservation Office received information on the project referenced above. We have previously concurred with your recommendations for the project, and have no additional comment at this time. We appreciate being informed as to the progress of the project, and will be adding this information to the case file.

This information is provided on request to assist DOGM with its Section 106 responsibilities as specified in 36CFR800. If you have questions, please contact me at (801) 533-3555.

Sincerely,

Wilson G. Martin  
 Associate Director and  
 Deputy State Historic Preservation  
 Officer

WGM:K439 NP/NE

UNITED STATES

DEPARTMENT OF THE INTERIOR

This mining plan approval document is issued by the United States of America to:

Andalex Resources, Inc.  
P.O. Box 902  
Price, Utah 84501

for the Centennial Mine mining plan modification for Federal lease U-69600 subject to the following conditions. Andalex Resources, Inc. is hereinafter referred to as the operator.

1. Statutes and Regulations.--This mining plan modification approval is issued pursuant to Federal lease U-69600; the Mineral Leasing Act of 1920, as amended (30 U.S.C. 181 et seq.); and in the case of acquired lands, the Mineral Leasing Act for Acquired Lands of 1947, as amended (30 U.S.C. 351 et seq.). This mining plan modification approval is subject to all applicable regulations of the Secretary of the Interior which are now or hereafter in force; and all such regulations are made a part hereof. The operator shall comply with the provisions of the Water Pollution Control Act (33 U.S.C. 1151 et seq.), the Clean Air Act (42 U.S.C. 7401 et seq.), and other applicable Federal laws.
2. This document approves the Centennial Mine mining plan modification for Federal lease U-69600, and authorizes coal development or mining operations on the Federal lease within the area of mining plan modification approval. This authorization is not valid beyond

T. 13 S., R. 10 E., Salt Lake Meridian

Sec. 1: SW1/4;

Sec. 12: Lots 2-11, W1/2W1/2, NE1/4SW1/4

as shown on the map appended hereto as Attachment A.

3. The operator shall conduct coal development and mining operations only as described in the complete permit application package, and approved by the Utah Division of Oil, Gas and Mining, except as otherwise directed in the conditions of this mining plan modification approval.

4. The operator shall comply with the terms and conditions of the lease, this mining plan modification approval, and the requirements of the Utah Permit No. ACT/007/019 issued under the Utah State program, approved pursuant to the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.).
5. This mining plan modification approval shall be binding on any person conducting coal development or mining operations under the approved mining plan and shall remain in effect until superseded, cancelled, or withdrawn.
6. If during mining operations unidentified prehistoric or historic resources are discovered, the operator shall ensure that the resources are not disturbed and shall notify Utah Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement (OSM). The operator shall take such actions as are required by Utah Division of Oil, Gas and Mining in coordination with OSM.



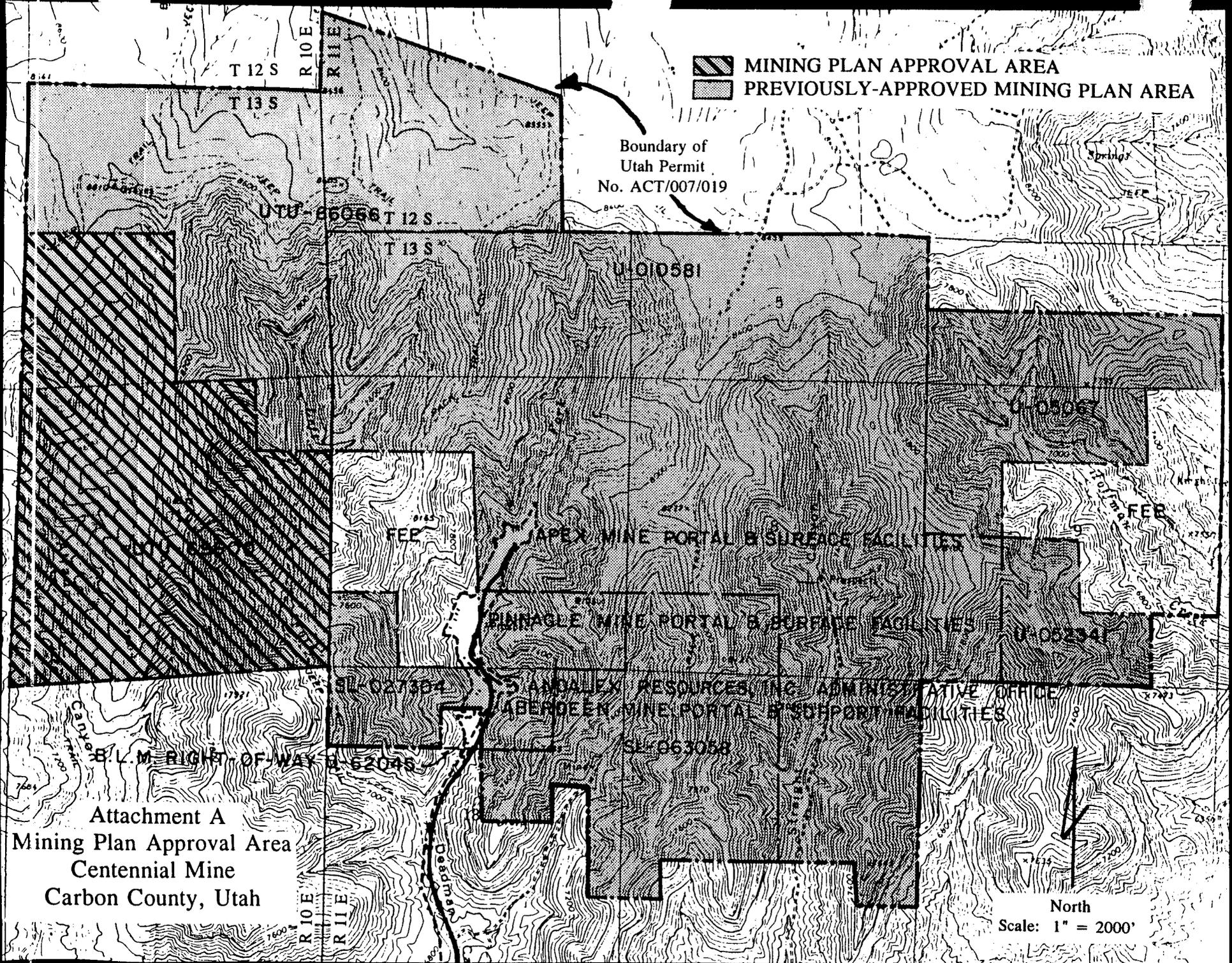
Assistant Secretary, Land and Minerals Management

AUG 11 1994

Date

-  MINING PLAN APPROVAL AREA
-  PREVIOUSLY-APPROVED MINING PLAN AREA

Boundary of  
Utah Permit  
No. ACT/007/019



Attachment A  
Mining Plan Approval Area  
Centennial Mine  
Carbon County, Utah

North  
Scale: 1" = 2000'

UTAH DIVISION OF OIL, GAS AND MINING  
STATE DECISION DOCUMENT

Andalex Resources, Inc.  
Centennial Project  
Aberdeen Seam- AEP Lease Addition  
ACT/007/019  
Carbon County, Utah

July 7, 1994

CONTENTS

- \* Administrative Overview
- \* Location Map
- \* Permitting Chronology
- \* Mine Plan Information Form
- \* Findings
- \* Environmental Assessment
- \* BLM Lease Document
- \* Letters of Concurrence and Other Attachments
  - Bureau of Land Management, May 9, 1994
  - U. S. Fish and Wildlife Service, July 6, 1994
  - Division of State History, March 5, 1993 and July 7, 1994
  - Memo from James D. Smith, CHIA, April 20, 1993 and July 7, 1994
  - Determination of Completeness, dated May 24, 1994
  - Affidavit of Publication, May 31, 1994
  - Memo from Joseph C. Helfrich -- Section 510(c) finding
- \* Bond

## ADMINISTRATIVE OVERVIEW

Andalex Resources, Inc.  
Centennial Project  
Aberdeen Seam - AEP Lease Addition  
ACT/007/019  
Carbon County, Utah

July 7, 1994

### PROPOSAL

Andalex Resources, Inc. (ARI) is proposing to add mining of the Aberdeen seam (approximately 1.9 million tons of coal) to Federal Lease UTU-69600, (approximately 801.48 acres which is already included in the currently approved mine permit area). Mining of the Centennial seam of Federal Lease UTU-69600 was approved July 2, 1993 by the Secretary.

### 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 (DOGGM) 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. The Centennial Seam of the AEP lease (UTU-69600), which consisted of 801.48 acres, was approved and added to the permit area on July 2, 1993. Total permitted acreage is currently 5102.48 acres.

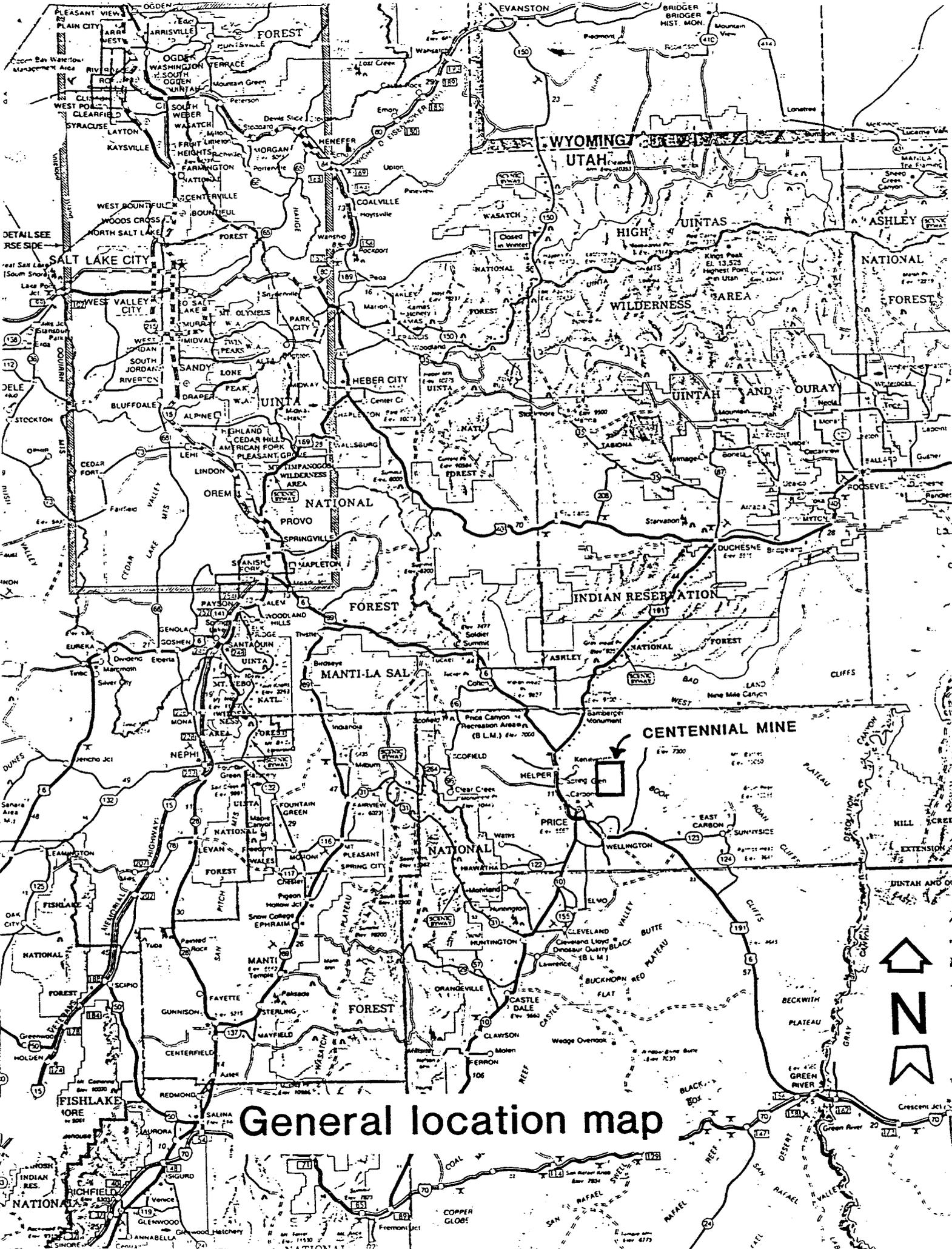
Currently ARI operates three mines, the Pinnacle, Apex and Aberdeen, in the Gilson, Lower Sunnyside and Aberdeen seams respectively. A fourth seam, the Centennial, is accessed through the Pinnacle Mine by driving rock slopes from the Gilson seam. The AEP lease involves mining in the Centennial seam and the proposed Aberdeen seam.

### ANALYSIS

No additional surface disturbance is proposed with the addition of the Aberdeen seam in the AEP lease. All mining will be done as an extension of current underground mining in the Aberdeen seam. Therefore, it is DOGM's opinion that the mining and reclamation practices and procedures which were approved in the five-year permit renewal are adequate to address any effects related to the underground mining of the AEP lease. An Environmental Assessment has been prepared which indicates that mining in the AEP lease will have no significant impact to the environment or the public.

### RECOMMENDATION

ARI has demonstrated that mining of the AEP lease 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 AEP federal lease and concurs with the decision to allow mining at this time. It is, therefore, recommended that approval of mining in the Aberdeen seam of the AEP lease be approved.



General location map