



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

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

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

January 16, 1995

Mr. Mike Glasson
Andalex Resources, Inc.
P.O. Box 902
Price, UT 84501

Re: Designation of Small Area Exemption's (SAE's) and Best Technology Currently Available (BTCA's) to Alternate Sediment Control Area's (ASCA's), Centennial Mine, Andalex Resources, Inc., ACT/007/019-94I, Folder #3, Carbon County, Utah

Dear Mr. Glasson:

The above-noted permit change is approved. Please submit three copies of the finalized map and pages for insertion into the Division's reformatted mining and reclamation plan (August 1994 version). Upon acceptance of the reformatted plan as the "approved" plan, necessary copies of the reformatted mining and reclamation volumes will be necessary for distribution to other agencies. This permit change must be included with the submittal of those volumes.

If you have any questions, please call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Pamela Grubaugh-Littig".

Pamela Grubaugh-Littig
Permit Coordinator

cc: Daron Haddock
Joe Helfrich





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Re: Designation of Small Area Exemption's (SAE's) and Best Technology Currently Available (BTCA's) to Alternate Sediment Control Area's (ASCA's), Centennial Mine, Andalex Resources, Inc., ACT/007/019-94I, Folder #3, Carbon County, Utah

Dear Mr. Glasson:

The above-noted permit change is approved. Please submit five more copies of the finalized map and pages for insertion into the currently approved plan. Please ensure that when the reformatted mining and reclamation plan (August 1994 version) is approved, these maps and pages will be included for distribution to other agencies.

If you have any questions, please call me.

Sincerely,

Pamela Grubaugh-Littig
Permit Coordinator

cc: Daron Haddock
Joe Helfrich



PERMIT CHANGE TRACKING FORM

DATE RECEIVED	7/2/14/94 PFD	PERMIT NUMBER	ACT/007/019
Title of Proposal:	SRE'S - BTCA'S →	PERMIT CHANGE #	941
Description:	ASCA'S	PERMITTEE	Andak
		MINE NAME	Catalina

	DATE DUE	DATE DONE	RESULT
<input type="checkbox"/> 15 DAY INITIAL RESPONSE TO PERMIT CHANGE APPLICATION			<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED
<input type="checkbox"/> Notice of Review Status of proposed permit change sent to the Permittee.			Permit Change Classification
<input type="checkbox"/> Request additional review copies prior to Division/Other Agency review.			<input type="checkbox"/> Significant Permit Revision
<input type="checkbox"/> Notice of Approval of Publication. (If change is a Significant Revision.)			<input type="checkbox"/> Permit Amendment
<input type="checkbox"/> Notice of request to modify proposed permit change prior to approval.			<input type="checkbox"/> Incidental Boundary Change

REVIEW TRACKING	INITIAL REVIEW		MODIFIED REVIEW		FINAL REVIEW AND FINDINGS	
DOGM REVIEWER	DUE	DONE	DUE	DONE	DUE	DONE
<input type="checkbox"/> Administrative _____						
<input type="checkbox"/> Biology _____						
<input type="checkbox"/> Engineering _____						
<input type="checkbox"/> Geology _____						
<input type="checkbox"/> Soils _____						
<input checked="" type="checkbox"/> Hydrology <u>JD</u>		12/14/94				
<input type="checkbox"/> Bonding _____						
<input type="checkbox"/> AVS Check _____						

COORDINATED REVIEWS	DUE	DONE	DUE	DONE	DUE	DONE
<input type="checkbox"/> OSMRE						
<input type="checkbox"/> US Forest Service						
<input type="checkbox"/> Bureau of Land Management						
<input type="checkbox"/> US Fish and Wildlife Service						
<input type="checkbox"/> US National Parks Service						
<input type="checkbox"/> UT Environmental Quality						
<input type="checkbox"/> UT Water Resources						
<input type="checkbox"/> UT Water Rights						
<input type="checkbox"/> UT Wildlife Resources						
<input type="checkbox"/> UT State History						
<input type="checkbox"/> Other						

<input type="checkbox"/> Public Notice/Comment/Hearing Complete (If the permit change is a Significant Revision)	<input checked="" type="checkbox"/> Permit Change Approval Form signed and approved effective as of this date. <input type="checkbox"/> Permit Change Denied.	
<input type="checkbox"/> Copies of permit change marked and ready for MRP.	<input type="checkbox"/> Notice of <input checked="" type="checkbox"/> Approval <input type="checkbox"/> Denial to Permittee.	1/16/95
<input type="checkbox"/> Special Conditions/Stipulations written for approval.	<input type="checkbox"/> Copy of Approved Permit Change to File.	1/16/95
<input type="checkbox"/> TA and CHIA modified as required.	<input type="checkbox"/> Copy of Approved Permit Change to Permittee.	
<input type="checkbox"/> Permit Change Approval Form ready for approval.	<input type="checkbox"/> Copies to Other Agencies and Price Field Office.	

941

PERMIT AMENDMENT APPROVAL

Title: <u>SAES and BTCA's to ASCA's</u>	PERMIT NUMBER: <u>ACT 007/019</u>
Description: <u>changing designation of SAE + BTCA to ASCA's</u>	PERMIT CHANGE #:
	MINE: <u>Centennial</u>
	PERMITTEE: <u>Andalex</u>

WRITTEN FINDINGS FOR PERMIT APPLICATION APPROVAL

	YES, NO or N/A
1. The application is complete and accurate and the applicant has complied with all the requirements of the State Program.	Yes
2. The proposed permit area is not within an area under study or administrative proceedings under a petition, filed pursuant to R645-103-400 or 30 CFR 769, to have an area designated as unsuitable for coal mining and reclamation operations, unless: <ul style="list-style-type: none"> A. The applicant has demonstrated that before January 4, 1977, substantial legal and financial commitments were made in relation to the operation covered by the permit application, or B. The applicant has demonstrated that the proposed permit area is not within an area designated as unsuitable for mining pursuant to R645-103-300 and R645-103-400 or 30 CFR 769 or subject to the prohibitions or limitations of R645-103-230. 	Yes Yes Yes
3. For coal mining and reclamation operations where the private mineral estate to be mined has been severed from the private surface estate, the applicant has submitted to the Division the documentation required under R645-301-114.200.	Yes
4. The Division has made an assessment of the probable cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance in the cumulative impact assessment area. The proposed operation has been designed to pre-	Yes
5. The operation would adversely modify or destroy any historic or prehistoric structures or objects (1531 et seq.).	Yes
6. The Division has taken into account the listing on the National Register of Historic Places and the Division has determined whether the proposed operation is likely to result in destruction or substantial damage to any such structure or object (16 U.S.C. 470).	Yes
7. The Applicant has determined whether the proposed operation is likely to result in destruction or substantial damage to any such structure or object (16 U.S.C. 470).	Yes
8. The Applicant has determined whether the proposed operation is likely to result in destruction or substantial damage to any such structure or object (16 U.S.C. 470).	Yes
9. The Applicant has paid the fee required by 30 CFR 120.10.	Yes
10. The Applicant has satisfied the applicable requirements of R645-302.	NA
11. The Applicant has, if applicable, satisfied the requirements for approval of a long-term, intensive agricultural postmining land use, in accordance with the requirements of R645-301-353.400.	NA

ROUTING - REQUEST

Post-It™ routing request pad 7664

Please

- READ
- HANDLE
- APPROVE
- FORWARD
- RETURN
- KEEP OR DISCARD
- REVIEW WITH ME

Date 1/13 From Dana

To Dana
This went to PFO. I don't think it received a permit change #

SPECIAL CONDITIONS OR STIPULATIONS TO THE PERMIT AMENDMENT APPROVAL

	YES	NO
1. Are there any variances associated with this permit amendment approval? If yes, attach.		X
2. Are there any special conditions associated with this permit amendment approval? If yes, attach. <u>see attached</u>	X	
3. Are there any stipulations associated with this permit amendment approval? If yes, attach.		X

The Division hereby grants approval for Permit Amendment to the Existing Permit by incorporation of the proposed changes described herein and effective the date signed below. All other terms and conditions of the Existing Permit shall be maintained and in effect except as superseded by this Permit Amendment.

Signed Dana R. Haddock 1/13/95
 Division of Oil, Gas and Mining EFFECTIVE DATE

941

PERMIT AMENDMENT APPROVAL

Title: SAES and BTCAS to ASCAS	PERMIT NUMBER: ACT/007/019
Description: changing designation of SAE + BTCA to ASCAS	PERMIT CHANGE #:
	MINE: Centennial
	PERMITTEE: Andalox

WRITTEN FINDINGS FOR PERMIT APPLICATION APPROVAL

YES, NO or N/A

1. The application is complete and accurate and the applicant has complied with all the requirements of the State Program.	Yes
2. The proposed permit area is not within an area under study or administrative proceedings under a petition, filed pursuant to R645-103-400 or 30 CFR 769, to have an area designated as unsuitable for coal mining and reclamation operations, unless:	Yes
A. The applicant has demonstrated that before January 4, 1977, substantial legal and financial commitments were made in relation to the operation covered by the permit application, or	Yes
B. The applicant has demonstrated that the proposed permit area is not within an area designated as unsuitable for mining pursuant to R645-103-300 and R645-103-400 or 30 CFR 769 or subject to the prohibitions or limitations of R645-103-230.	Yes
3. For coal mining and reclamation operations where the private mineral estate to be mined has been severed from the private surface estate, the applicant has submitted to the Division the documentation required under R645-301-114.200.	Yes
4. The Division has made an assessment of the probable cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance in the cumulative impact area and has determined that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.	Yes
5. The operation would not affect the continued existence of endangered or threatened species or result in destruction or adverse modification of their critical habitats, as determined under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.).	Yes
6. The Division has taken into account the effect of the proposed permitting action on properties listed on and eligible for listing on the National Register of Historic Places. This finding may be supported in part by inclusion of appropriate permit conditions or changes in the operation plan protecting historic resources, or a documented decision that the Division has determined that no additional protection measures are necessary.	Yes
7. The Applicant has demonstrated that reclamation as required by the State Program can be accomplished according to information given in the permit application.	Yes
8. The Applicant has demonstrated that any existing structure will comply with the applicable performance standards of R645-301 and R645-302.	Yes
9. The Applicant has paid all reclamation fees from previous and existing coal mining and reclamation operations as required by 30 CFR Part 870.	Yes
10. The Applicant has satisfied the applicable requirements of R645-302.	NA
11. The Applicant has, if applicable, satisfied the requirements for approval of a long-term, intensive agricultural postmining land use, in accordance with the requirements of R645-301-353.400.	NA

SPECIAL CONDITIONS OR STIPULATIONS TO THE PERMIT AMENDMENT APPROVAL

YES NO

1. Are there any variances associated with this permit amendment approval? If yes, attach.		X
2. Are there any special conditions associated with this permit amendment approval? If yes, attach. see attached	X	
3. Are there any stipulations associated with this permit amendment approval? If yes, attach.		X

The Division hereby grants approval for Permit Amendment to the Existing Permit by incorporation of the proposed changes described herein and effective the date signed below. All other terms and conditions of the Existing Permit shall be maintained and in effect except as superseded by this Permit Amendment.

Signed W. Owen R. Haddock 1/13/95
 _____, Division of Oil, Gas and Mining EFFECTIVE DATE

CONDITION TO APPROVAL

ASCA Amendment
Andalex Resources, Inc.
ACT/007/019

Andalex must submit 3 copies of the revised map and pages for insertion to the Reformatted Mining and Reclamation Plan (August 1994 version). Andalex must ensure that when the reformatted MRP is approved and copies are submitted for distribution to other agencies, those copies contain the updated information pertaining to ASCA's.

8 copies required



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December 14, 1994

TO: Joe Helfrich, Permit Supervisor 
From: Stephen Demczak, Reclamation Specialist III 
RE: Amendment to update ASCA in Andalex Resources MRP,
Centennial Project, ACT/007/019

Enclosed is a copy to update ASCA areas of Centennial Project, Andalex Resources, to be inserted in the Mining and Reclamation Plan. It has been found to be complete and adequate. It is my recommendation that this information can be inserted into the plan. If you have any question please contact me.

Enclosures



APPLICATION FOR PERMIT CHANGE

Title of Change:

Revision of SAE and BTCA areas to ASCA's

Permit Number: ACT / 007 / 019

Mine: Centennial

Permitter: Andalex

Describe, include reason for change and timing required to implement

Areas previously designated as small area exemptions are actually treated with alternate sediment control and are designated as such. Timing is immediate.

- Yes No 1. Change in the size of the Permit Area? _____ acres increase decrease.
- Yes No 2. Change in the size of the Disturbed Area? _____ acres increase decrease.
- Yes No 3. Will permit change include operations outside the Cumulative Hydrologic Impact Area?
- Yes No 4. Will permit change include operations in hydrologic basins other than currently approved?
- Yes No 5. Does permit change result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes No 6. Does permit change require or include public notice publication?
- Yes No 7. Permit change as a result of a Violation? Violation # _____
- Yes No 8. Permit change as a result of a Division Order? D.O.# _____
- Yes No 9. Permit change as a result of other laws or regulations? Explain: _____
- Yes No 10. Does permit change require or include ownership, control, right-of-entry, or compliance information?
- Yes No 11. Does the permit change affect the surface landowner or change the post mining land use?
- Yes No 12. Does permit change require or include collection and reporting of any baseline information?
- Yes No 13. Could the permit change have any effect on wildlife or vegetation outside the current disturbed area?
- Yes No 14. Does permit change require or include soil removal, storage or placement?
- Yes No 15. Does permit change require or include vegetation monitoring, removal or revegetation activities?
- Yes No 16. Does permit change require or include construction, modification, or removal of surface facilities?
- Yes No 17. Does permit change require or include water monitoring, sediment or drainage control measures?
- Yes No 18. Does permit change require or include certified designs, maps, or calculations?
- Yes No 19. Does permit change require or include underground design or mine sequence and timing?
- Yes No 20. Does permit change require or include subsidence control or monitoring?
- Yes No 21. Have reclamation costs for bonding been provided or revised for any change in the reclamation plan?
- Yes No 22. Is permit change within 100 feet of a public road or perennial stream or 500 feet of an occupied dwelling?
- Yes No 23. Is this permit change coal exploration activity inside outside of the permit area?

Attach 3 complete copies of proposed permit change as it would be incorporated into the Mine and Reclamation Plan.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Michael W. ... Sr. Geologist 12/13/94
Signed - Name - Position - Date

Subscribed and sworn to before me this 13 day of Dec 1994
Notary Public
My Commission Expires July 22, 1997
STATE OF UTAH
COUNTY OF ...



Notary Public
JANA K. O'HEAPRON
830 North 100 East
Price, Utah 84501
My Commission Expires
July 22, 1997
State of Utah

Received by O&M Dept. & Mining

ASSIGNED PERMIT CHANGE NUMBER

MINESITE

The water flowing into the mines is strictly from surface runoff, and the quantity is thus highly variable. Because this is such a dry canyon, it is necessary to capture as much water as possible to allow for underground mining operations. The water is directed into storage sumps in the mine, where it is settled and used for dust suppression. Any water going into the mine is used in sprays or remains in the sumps. Water flowing into the mines is strictly from surface runoff, and the quantity is thus highly variable. Because this is such a dry canyon, it is necessary to capture as much water as possible to allow for underground mining operations. The water is directed into storage sumps in the mine, where it is settled and used for dust suppression. Any water going into the mine is used in sprays or remains in the sumps.

Andalex owns the rights to this water.

Hydrologic Balance:

Water Quality Standards and Limitations.

Sediment control for Office Facilities

The office facilities area is a small paved parking area and runoff from a portion of this area will report to Sediment Pond "E" as shown on Plate 8. The remaining portion is classified as a B.T.C.A. Area (2.19-2).

Natural runoff from above the office area is diverted to the south of the pad, and flows in an open ditch down to the lower (road) level where it enters an 18" culvert going into the 42" culvert carrying undisturbed drainage off site. Straw bales are maintained in the open ditch to minimize sediment in the undisturbed flow.

Most of the office pad and access road are paved. Runoff from a portion of the pad and road flow down a grouted ditch along the north and south sides of the road, through a culvert and then down the east side of the main paved road. From here the runoff flows into Pond E. See Plate 8. Sediment contributions from the office facilities area are negligible (if any) due to the pavement and concrete grouted ditch. Straw bales are also maintained along the main haul road to minimize sediment loading from this area.

Disturbed Area Drainage not Reporting to Sediment Ponds

Please refer to Plate 8 in Volume II of the PAP for exempt "Alternate Sediment Control Area" or (ASCA) (areas not reporting to sedimentation ponds). There are 2 ASCA's shown on Plate 8 with a total area of 0.99 acres or 2.8% of the Disturbed Area:

Revised 11/07/94

(1) ASCA #1 - 0.72 acres - near the office, which includes a topsoil storage pile, UD-2, a portion of the main office pad and a portion of the weather station outslope.

(a) Treatment: As a result of a 10 year - 24 hour storm, there would potentially be a discharge of 2,462 cubic feet of runoff from this area. Alternate sediment controls consist of straw dikes, vegetation on the topsoil pile, chemically treated gravel parking areas and paved parking areas.

(2) ASCA #2 - 0.27 acres - Substation area.

(a) Treatment: A 10 year - 24 hour storm will potentially have a discharge of 923 cubic feet of runoff from this area. Alternate sediment controls on this site consist of a graveled surface, a straw dike and snow fences.

These two areas are exempt from the requirement that the drainage report to a sedimentation pond (817.42a) as provided for in 817.42b. The drainage from these areas will meet the effluent standards of 817.42 and State and Federal water quality standards for the receiving waters. In order to assure this, any discharge from these ASCA's will be monitored for suspended solids, total suspended solids and total dissolved solids.

There are three additional undisturbed diversions constructed just inside the disturbed area boundary (UD-1, UD-3 and UD-4). These ditches carry only undisturbed runoff from the areas above, are well vegetated, and discharge directly to the main channel undisturbed drainage without further treatment. Only undisturbed diversion UD-2 is included as a ASCA (#1), due to the fact that it also picks up drainage from a topsoil storage pile and a portion of the office pad as described on the previous page.

NPDES Permit

Three point sources are included in Andalex's new UPDES Permit issued in May of 1989. Quarterly reports are submitted to the Utah Department of Health and the EPA.

Revised 11/07/94, 11/17/94

TYPICAL

SCS - TR55 Method of Diversion Calculation

1. Find Drainage Area - Plate 8 or 9
- *2. Find Runoff from Appropriate Event:
$$Q = \frac{(P-0.2S)^2}{(P+0.8S)}$$
 where: P = Precip. in inches
$$S = \frac{1,000}{CN} - 10$$

CN = 70 for Undisturbed
CN = 90 for Disturbed
3. Find Hydraulic Length of Watershed - Plate 8 or 9
4. Find Land Slope - Plate 8 or 9
5. Calculate Lag Time; $t_L = \frac{L^{0.8}(S+1)^{0.7}}{1900 y^{0.5}}$

where: t_L = Lag Time in Hrs.
L = Hydraulic Length in ft.
S = $\frac{(1,000}{CN} - 10)$
y = Land Slope in %
6. Find Time of Concentration; $t_c = \frac{t_L}{0.6}$
- **7. Find Peak Flow (qp) from: $qp = qp^1 AQ$

where qp = Peak Flow in cfs
 qp^1 = Peak Discharge from Figure 2.40, page 115***.
A = Drainage Area in Square Miles
Q = Runoff (from #2 above)
- **8. Find Velocity of Flow from:
$$V = \frac{1.49 R^{0.67} S^{0.5}}{n}$$

where: V = Velocity in fps
n = Manning's Number for ditch
R = Hydraulic Radius in ft. = $\left(\frac{\text{Area}}{\text{Wetted Perim.}} \right)$
S = Slope in ft./ft.
- **9. Find Required Ditch Area by dividing peak flow by the velocity.
$$Q = AV; A = \frac{Q}{V}$$