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ANDALEX RESOURCES, INC.

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Utah Division of Oil, Gas & Mining
Coal Program
P.O. Box 145801
Salt Lake City, Utah 84114-5801

C/007/0033

Attn: Pamela Grubaugh-Littig
Permit Supervisor

Re: Deficiencies Response, Division Order (DO-04) Wildcat Loadout, C007/0033, Task ID #2182

Dear Pam,

Enclosed are 5 copies of the Andalex Resources, Inc. response to the deficiencies listed for the Division Order (DO-04) for the Wildcat Loadout.

The requested information is submitted as an amendment to the M.R.P. A checklist and C_1/C_2 forms are enclosed.

If you have any questions, or need additional information, please let me know.

Sincerely,

Michael W. Glasson
Manager of Operations

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JAN 03 2006
DIV. OF OIL, GAS & MINING

Form DOGM - C1 (Last Revised December 20, 2005) File Folder # 3

APPLICATION FOR PERMIT PROCESSING

Permit Change X	New Permit ☐	Renewal ☐	Transfer ☐	Exploration ☐	Bond Release ☐	Permit Number: C/007/ 0033
Title of Proposal: Response to Division Order (DO-04) Deficiencies.						Mine: Wildcat Loadout
						Permittee: Andalex Resources, Inc.

Description, include reason for application and timing required to implement: Response to Deficiencies.

Instructions: *If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation*

☐ Yes	X No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres ☐ increase ☐ decrease.
X Yes	☐ No	2. Is the application submitted as a result of a Division Order? DO # DO-04
☐ Yes	X No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes	X No	4. Does application include operations in hydrologic basins other than as currently approved?
☐ Yes	X No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes	X No	6. Does the application require or include public notice/publication?
☐ Yes	X No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes	X No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes	X No	9. Is the application submitted as a result of a Violation? NOV #
X Yes	☐ No	10. Is the application submitted as a result of other laws or regulations or policies? Explain: DIVISION ORDER
☐ Yes	X No	11. Does the application affect the surface landowner or change the post mining land use?
☐ Yes	X No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
X Yes	☐ No	13. Does the application require or include collection and reporting of any baseline information?
☐ Yes	X No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes	X No	15. Does application require or include soil removal, storage or placement?
☐ Yes	X No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes	X No	17. Does the application require or include construction, modification, or removal of surface facilities?
☐ Yes	X No	18. Does the application require or include water monitoring, sediment or drainage control measures?
☐ Yes	X No	19. Does the application require or include certified designs, maps, or calculations?
☐ Yes	X No	20. Does the application require or include subsidence control or monitoring?
☐ Yes	X No	21. Have reclamation costs for bonding been provided for?
☐ Yes	X No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes	X No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

X Attach 5 complete copies of the application.

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. Glenn Sr. Geologist 12/28/05
Signed - Name - Position - Date

Subscribed and sworn to before me this 28th day of Dec, 20 05

Kristy Prettyman
Notary Public

My Commission Expires: 04/19, 2008
Attest: STATE OF Utah
COUNTY OF Carbon

KRISTY PRETTYMAN
NOTARY PUBLIC • STATE of UTAH
82 WEST MAIN
PRICE, UTAH 84501
COMM. EXPIRES 4-19-2008

Received by Oil, Gas & Mining
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DIV. OF OIL, GAS & MINING

ASSIGNED TRACKING NUMBER

Application for Permit Processing
Detailed Schedule of Changes to the MRP

Title of Application:	Permit Number: C/007/0033
Response to Division Order (DO-04) Deficiencies.	Mine: Wildcat Loadout
	Permittee: Andalex Resources, Inc.

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
☐ ADD	X REPLACE	☐ REMOVE	Table of Contents, page 1xvi
☐ ADD	X REPLACE	☐ REMOVE	Pages 4-9 and 4-10
☐ ADD	X REPLACE	☐ REMOVE	Page 4-11
☐ ADD	X REPLACE	☐ REMOVE	Page 5-110
X ADD	☐ REPLACE	☐ REMOVE	Appendix Q
☐ ADD	☐ REPLACE	☐ REMOVE	
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Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

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Checklist
for
Division Order DO-04

R645-301-526.220 *et seq* and R645-303-220 and R645-301-121.100, The permittee must clarify this statement on p. 4-9 that "the problem of coal fine accumulation on, and around, this area has been addressed," such that the Permittee does not present the problem as past tense. [jae]

Clarified on page 4-9.

R645-301-526.220 *et seq* and R645-303-220 and R645-301-331, R645-301-333, The Permittee submitted a plan to remove accumulated coal fines within the permit area by vacuuming the surface. This technique, although commonly used in the past, is no longer acceptable to the Division. Vacuuming tends to re-deposit dust, disturb native soil surfaces, and impact local vegetation. The Permittee must provide a clean-up solution that will minimize re-distribution of dust and disturbance to the native soil and local plants. [jae]

As noted on page 4-10, vacuuming is still considered by ANDALEX and its consultants to be the best and least destructive option for removal of coal fine accumulations. The Division has been asked to offer suggestions for an acceptable alternative, and a meeting on this subject is imminent but has not yet occurred; therefore, at this time, Andalex retains the proposal for vacuuming.

R645-301-526.220 *et seq* and R645-303–220 and R645-301-322.100, R645-301-331, R645-301-333, The submittal includes a response to the DO from Patrick Collins (App.P). The primary point that the Permttee must focus on is that coal fines should not accumulate off the permit area. The Permittee must provide measures that will protect the area from further deposition. To adequately respond to item #3 of the Division Order, the Division requests that the Permittee proved baseline data of coal fine deposition (depth and area) on the non-permit area and provide a monitoring schedule. The Permittee must use the same monitoring method used to collect baseline. The Division considers the methods described in the Collins 2003 report as appropriate. Furthermore, the Division requests that the Permttee provide a report in the Annual Report that clearly defines the methods used for baseline and

monitoring as well as discusses the results. [jae]

Appendix Q.

R645-301-526.220 *et seq* and R645-303-220, • Control #11, as listed on p. 4-10 of the information received in response to the Division Order stipulates the following; "Coal moisture is maintained at a minimum of 6% overall." Based upon this moisture specification, the Division would like to know the following:

1. How does the Permittee confirm that this moisture specification is being maintained?
2. At what location and at what intervals are moisture analyses performed? Does the Permittee have automatic moisture analyzers located on stockpile conveyors to continuously monitor the moisture content of the coal reporting to these stockpiles?
3. Does the Permittee maintain records of these analyses? Does a Professional Engineer certify the analyses or does the Permittee take a sample to a State certified laboratory for verification? [phh]

Page 4-10, Control #11

• Control #12 (p. 4-10) states that "the moisture content of the material passing a #40 U.S. Standard Sieve (<0.635 MM in diameter) is at least 4% by weight."

The Division requires the following information from the Permittee:

1. What percentage of the coal volumes reporting to the open stockpile locations is smaller than 0.635 MM in diameter (i.e., <#40 U.S. Standard Sieve mesh)?
2. How does the Permittee maintain the <#40 mesh material at a 4% moisture content by weight?
3. How and where does the Permittee apply moisture to the coal to maintain the 4% moisture content? A schematic depicting moisture application points is required to adequately answer this question. Information on conveyor(s) capacity is also needed to determine what volume of water must be added to the coal volume conveyed to meet the 4% by weight moisture content requirement. [phh]

Page 4-10, Control #12

Along with the information requested above, the Permittee might want to include a general description of the penalty for excessive moisture in the coal being shipped from the Wildcat Loadout facility (specific contract information is not requested). [phh]

Page 4-10

•The Division requests that General Condition #19, p. 5 of DAQE-IN0113007-04 is included in Chap 4 of the MRP. [phh]

Page 4-10

•The Division requests that the Permittee establish specific relative humidity ranges and specific wind velocities to trigger watering of the stockpile areas. The Permittee must also provide the following information in the MRP:

1. How does the Permittee water the open stockpile storage areas? A description including text, schematics and drawings is necessary in order to adequately respond to this question.
2. Is sampling and moisture analysis of the coal within the stockpile performed? If so, are moisture content records maintained? Will they be available during Division inspections?
3. What criteria are used when determining whether or not it is necessary for the Permittee to water the storage piles? What range of relative humidity percentile is used to determine when watering is necessary? Is there a minimum wind velocity established to trigger watering of the stockpiles? [phh]

As indicated above, watering of coal stockpiles would only be done as a last resort. Aside from contract restrictions, such watering actually creates a safety hazard by promoting spontaneous combustion in piles. To date, coal stockpiles have not been watered at this site.

1. **This has not been done at this site.**

2. **Samples are taken just prior to stockpiling, loading and/or shipping, but not normally from stockpiles.**

3. **As required by the Air Quality Permit, General Condition #19, watering of storage piles would only be employed as dry conditions warrant or as determined necessary by the Executive Secretary. Since establishing what "dry conditions warrant" is a very subjective procedure, Andalex prefers to rely on**

the judgement of the Executive Secretary to initiate such watering.

Appendices:

Appendix A . . . . . Archaeological Survey

Appendix B . . . . . Permits, Violations, Insurance & Bond

Appendix C . . . . . Soil and Foundation Investigation

Appendix D . . . . . Soil Survey

Appendix E . . . . . Wildlife Enhancement Project

Appendix F . . . . . Wildlife Resources Information

Appendix G . . . . Garley Canyon Spring Water Rights/Analyses

Appendix H . . . . Sediment Pond Certifications and R-69 Forms

Appendix I . . . . . Vegetation Survey

Appendix J . . . Probable Hydrologic Consequences of Operations at the Wildcat Loadout

Appendix K . . . . . NPDES Permit

Appendix L . . . . . Grade Control Structures

Appendix M . . . . . Water Monitoring Data

Appendix N . . . . . Vegetation Test Plot Monitoring

Appendix O . . . . . Coal Processing Waste Pile

Appendix P . . . . . Response to Division Order DO-04

Appendix Q . . . . . Monitoring Plan for Coal Fine Deposition (Non-Permit Area)

PSD Permit and Compliance with Air Quality Laws

The Environmental Protection Agency has determined that this project does not require a PSD Air Quality Permit. The loadout is not subject to the PSD regulations because of the new definition of a major source.

R645-301-421. CLEAN AIR ACT AND OTHER APPLICABLE LAWS

See R645-301-420.

R645-301-422. UTAH BUREAU OF AIR QUALITY

See R645-301-420.

R645-301-423. SURFACE COAL MINING AND RECLAMATION ACTIVITIES EXCEEDING 1,000,000 TONS PER YEAR

See R645-301-420.

R645-301-423.100. COMPLIANCE WITH FEDERAL AND UTAH AIR QUALITY STANDARDS

See R645-301-420.

R645-301-423.200. FUGITIVE DUST CONTROL PLAN

The Wildcat Loadout and surrounding area were impacted by a previous pre-law operator. This operation left a fair amount of the existing permit area, as well as an unknown amount of the adjacent, undisturbed area, impacted by accumulations of coal fines. After Andalex Resources, Inc. took over the site, the operation was permitted under SMCRA and obtained an Air Quality Approval Order. Andalex has worked on, and continues to work on the problem of coal fine accumulation on, and around, the Wildcat Loadout operation, including remedial measures such as scraping coal off previously impacted areas to salvage topsoil, and vacuuming coal fines from undisturbed, impacted areas to protect soils and vegetation. In addition, Andalex Resources, Inc. has implemented a considerable number of dust control measures at the Wildcat Loadout to reduce fugitive dust and wind-blown coal fines. The following are some of the measures incorporated into the design and operation of the facility to reduce dust emissions:

(1) All roads are paved or gravel surfaced;

(2) Road speed limits are posted at 5 mph;
(3) Roads are chemically treated and watered on a regular basis;
(4) Truck dump hoppers are located below ground and equipped with sprays;
(5) Coal is recovered from stockpiles via underpile reclaim systems;
(6) All surface conveyors are covered;
(7) Conveyor transfer points are enclosed;
(8) Radial stackers load at the highest point of the pile to minimize drop distances;
(9) Railcars are loaded from an enclosed bin and extendable chute;
(10) Refuse pile is regularly compacted and watered as needed;
(11) Coal moisture is maintained at a minimum of 6% overall;
a) Moisture is analyzed nearly every day and on each train shipped from the site;
b) Samples are taken at various locations, including mine sites and loadouts, using cross-belt samplers, and analyzed by an independent laboratory.
c) The analyses are performed using approved ASTM Methods and records are kept of all analyses. Coal analyses are not typically P.E. or State Certified.
(12) Moisture content of minus 40 mesh coal is at least 4.0% by weight;
a) This requirement is per the Air Quality Permit and is implemented <u>only</u> if requested by the Director - this has not happened and the minus 40 mesh quality information is not available.
b) Moisture is not applied to the coal, except through sprays at transfer points where required for dust control.
(13) All disturbed areas are drained to sedimentation ponds;
(14) Runoff from ASCA areas is controlled by containment, vegetation, silt fences and/or straw bales;
(15) Wind fences are employed along the eastern edge of the largest stockpile, near Pond B;
(16) The location of stockpiles (more to the west) helps confine the wind-blown coal fines within the permit area.

The designs of the various controls listed above have been provided in the following sections of this permit:

(1) Impoundments/Hydrology - R645-301-512.240
(2) Roads - R645-301-512.250
(3) Operations - R645-301-520
(4) Coal Handling - R645-301-521.

General Condition #19 of the Air Quality Permit states the following:

"The storage piles shall be watered to minimize generation of fugitive dusts, as dry conditions warrant or as determined

necessary by the Executive Secretary. Recrds of water and/or chemical treatment shall be kept for all periods when the plant is in operation. The total combined area of all storage piles shall not exceed 20.0 acres."

It should be noted that, although the Air Quality Permit requires watering of stockpiles if necessary, every effort is made to avoid that scenario for the following reasons:

(1) Excessive moisture in stockpiles coal is a major factor in spontaneous combustion of piles;

(2) Excessive moisture reduces the heating value (B.T.U.) of the product, and may result in contract penalties.

To date, coal stockpiles have not been watered at this site.

While the above controls and practices are designed to minimize fugitive dust and wind-blown coal fines, it is impossible to completely eliminate them. As a result, some soils and vegetation will be impacted by dust accumulations in the future. To minimize these impacts, Andalex Resources, Inc. proposes vacuuming of coal fine accumulations on undisturbed areas within the permit area either prior to salvage of the topsoil or prior to reclamation/reseeding. Vacuuming is considered by Andalex as the best and least destructive option for removal of coal fine accumulations.

There is also some potential for coal dust to be blown beyond the permit boundary under extreme wind conditions. There is evidence of coal dust outside the permit area, but the time and source of these accumulations are unknown. Andalex Resources, Inc. is therefore proposing to conduct a program to monitor coal fine deposition outside the permit area, specifically east of the permit boundary. The proposed monitoring plan is described in Appendix Q, and is based on the plan suggested in Appendix P by Patrick D. Collins, Ph.D.

R645-301-424. FUGITIVE DUST CONTROL - SURFACE COAL MINING AND RECLAMATION OPERATIONS LESS THAN 1,000,000 TONS PER YEAR

N/A - Greater than 1,000,000 ton/yr.

R645-301-425. AIR QUALITY MONITORING - SURFACE COAL MINING AND RECLAMATION OPERATIONS LESS THAN 1,000,000 TONS PER YEAR

N/A

R645-301-526.116.1 MINING OPERATIONS WITHIN 100 FEET OF THE RIGHT-OF-WAY OF A PUBLIC ROAD

N/A

R645-301-526.116.2 RELOCATING A PUBLIC ROAD

N/A

R645-301-526.200. UTILITY INSTALLATION AND SUPPORT FACILITIES

See R645-301-520.

R645-301-526.210. DESCRIPTION

See R645-301-520.

R645-301-526.220. COMPLIANCE REQUIREMENTS

See R645-301-520.

R645-301-526.221. PROTECTION

See R645-301-520.

R645-301-526.222. MINIMIZATION OF ENVIRONMENTAL IMPACT AND COMPLIANCE WITH EFFLUENT LIMITATIONS

See Appendices P & Q and R645-301-423.200 for details, and R645-301-512.240, R645-301-512.250, R645-301-520, and R-645-301-521 for designs.

R645-301-526.300. WATER POLLUTION CONTROL FACILITIES

See R645-301-520.

R645-301-526.400. AIR POLLUTION CONTROL FACILITIES

Appendix B - DAQE-013-03 Air Quality Permit.

Appendix Q

Monitoring Plan
for
Coal Fine Deposition
(Non-Permit Area)

MONITORING PLAN
FOR
COAL FINE DEPOSITION
(NON-PERMIT AREA)

Introduction

This appendix will describe the monitoring plan for coal fine deposition on the non-permit area to be employed at the Andalex Resources, Inc. Wildcat Loadout.

This plan will follow the general procedures outlined in Appendix P, and monitoring results will be summarized in the Annual Report for the site.

The initial part of the plan will be to establish a baseline for coal fine deposition (depth and area) for the non-permit area adjacent to the site.

Baseline Determination

A baseline determination for depth and area of coal fine deposition on the non-permit area adjacent to the Wildcat Loadout will be made in the spring of 2006. This will be a visual determination made by a qualified soil or vegetation specialist. The baseline determination will be made as follows:

(1) The perimeter of the permit area will be walked and any visible coal fine deposition outside the permit boundary will be noted as to approximate depth and area, and marked on a map of the site;

(2) The above procedure will be repeated at 200' intervals away from the permit area;

(3) Examination and mapping will continue outward from the permit area at the specified intervals up to 1/4 mile, or until no visible coal fines are found, but not less than 400' from the permit boundary;

(4) A baseline map will be generated showing all areas of visible coal fine deposition outside the permit area.

If this baseline evaluation shows such deposition areas, then the proposed monitoring plan described in the next section can be implemented with sampling on specific areas of concern.

Monitoring Plan

If it is determined from the baseline evaluation that there are specific areas of concern outside the permit area where coal fine deposition has occurred, the following staged monitoring plan will be implemented:

Air Sampling

Following visual baseline observations, if it is then decided that quantitive data are needed to determine the amount and extent of the coal dust dispersal patterns outside the permit area, simple air sampling techniques will be employed to make this determination. These samplers will be placed at specific distances moving away from the permit boundary, in the direction of the prevailing wind. They will be placed at a 3' height above the ground surface. Collections will be made monthly. This monitoring method will adequately determine the extent, pattern and volume of the coal dust dispersed at the site.

Plant Collections

If it is determined that coal fines do indeed reach the undisturbed plant communities in amounts that may impact these communities, leaf and stem collections could be taken and analyzed to determine how much of the dust is accumulation on the plant materials. These plant parts could be washed and the solution could then be analyzed for carbon (coal dust) content.

If the coal dust has reached the native, undisturbed plants outside the permit area and is also accumulating on these plants, studies could be done to determine the impact on these plants.

Another option in this situation would be to increase the

size of the permit area so that reclamation and revegetation designs would be required.

Soil Sampling

Finally, if it is determined from numbers 2 and 3 above that coal dust is reaching the native, undisturbed plants outside the permit area, but not accumulating on plants, it would be a logical conclusion that the fines are ending up in the soils underneath the plants. To test this assumption, soil samples could be taken and analyzed for toxicities.

The option to increase the permit area is a viable option in this situation too. Results of the lab analyses would dictate the reclamation techniques to then be employed. If the area was deemed unsuitable for use as a growing medium, the affected soils could be mixed with more suitable media or buried to a depth determined suitable by reclamation specialists and approved by DOGM.

Summary

A visual baseline determination of past coal fine deposition beyond the Wildcat Loadout permit boundary will be made in the spring of 2006. If this baseline evaluation indicates that quantitative data are needed to determine dispersal patterns outside the permit area, the staged monitoring plan will be implemented.

All monitoring information, including the baseline determination will be summarized and included withe the Annual Report for the site.