



State of Utah

Department of
Natural Resources

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Division of
Oil, Gas & Mining

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December 9, 2004

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Mike Glasson, Environmental Coordinator
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6750 Airport Road
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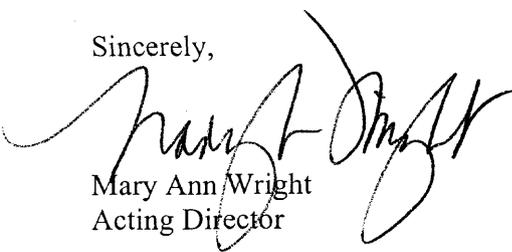
Re: Division Order (DO-04), Wildcat Loadout, C/007/0033, Task ID #2031,
Outgoing File

Dear Mr. Glasson:

The Division has determined that the Wildcat Loadout Mining and Reclamation Plan (MRP) lacks information on the controls in place to minimize coal fine accumulations from wind blown sources. The attached Division Order DO-04, Task ID #2031 explains the issue further and requests specific information be incorporated into the narrative of the MRP.

If you have any questions, please call Pamela Grubaugh-Littig at (801) 538-5268.

Sincerely,


Mary Ann Wright
Acting Director

Pwb/an
Enclosure
cc: Ranvir Singh, OSM
Jim Kohler, BLM
Price Field Office
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**STATE OF UTAH
DIVISION OF OIL, GAS AND MINING**

<p>PERMITTEE</p> <p>Mike Glasson, Environmental Coordinator Andalex Resources Inc. Wildcat Loadout P.O. Box 902 Price, Utah 84501</p> <p>PERMIT NUMBER <u>C/007/0033</u></p> <p>TASK ID # <u>2031</u></p>	<p>ORDER & FINDINGS OF PERMIT DEFICIENCY</p>
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PURSUANT to R645-303-212, the DIVISION ORDERS the PERMITTEE, Andalex Resources Inc., to make the requisite permit changes enumerated in the Findings of Permit Deficiency in order to be in compliance with the State Coal Regulatory Program. These findings are to be remedied in accordance with R645-303-220.

FINDINGS OF PERMIT DEFICIENCY

Accumulations of wind blown coal fines and road dust have been an issue of concern at this site for quite sometime. In 1994, the Division of Oil Gas and Mining (DOGM) issued a notice of violation (N94-34-1-3) for accumulations of coal fines on the ground surface east of the disturbed area. In 1999, DOGM received a letter from the Division of Wildlife Resources (DWR) concerning the effects of coal fines on vegetation and wildlife habitat in adjacent areas. DOGM and DWR Biologists confirmed an effect on vegetation (June 18, 1999 Memo to File from Paul Baker). Recently, coal fines have accumulated to depths greater than three inches on undisturbed soils east of the coal stockpiles between sediment ponds A and B (Patrick Collins report March 2003, Division Incoming Record 0001).

The effect of dust on the productivity and diversity of vegetation has been documented in several studies. Coal dust varies from 3 – 100 microns in diameter (Rao, 1971). Plants are affected most by dust grains less than 10 microns in diameter (Sharifi, et al. 1997). Physically, accumulations of dust on vegetation affects gas exchange, water use efficiency and water balance of plants, making the plant more susceptible to environmental stresses and resulting in a reduction in vegetative growth and reproduction (Farmer, 1993). The most sensitive species of plants are the lichens, a component of biological soil crust (Farmer, 1993). However, reduced rates of photosynthesis and increased leaf temperatures resulting in lower productivity of *Atriplex canescens* (Four-wing saltbush) has also been documented as a result of dust accumulation (Sharifi et al. 1997). In addition, accumulations of coal fines can alter soil

chemistry affecting species establishment (Rao, 1971). Ultimately changes in plant productivity and diversity, affect wildlife.

The Division of Oil, Gas and Mining derives its regulatory authority relative to the control of coal fine accumulation from wind blown sources from R645-301-526.220 *et seq.* This Regulation requires design drawings and specifications of each support facility sufficient to demonstrate how each facility will comply with applicable performance standards, including the protection of fish, wildlife, and related environmental values; and minimization of contributions of suspended solids to stream flow or runoff outside the permit area. These design drawings are lacking in the Mining and Reclamation Plan (MRP).

The MRP indicates in Section R645-301-212, page 2-4 that coal fines will be vacuumed if deemed necessary. It is the Division's opinion that vacuuming is disruptive to undisturbed soils and may allow small particles to re-enter the atmosphere to be deposited again at some distance from the vacuuming site.

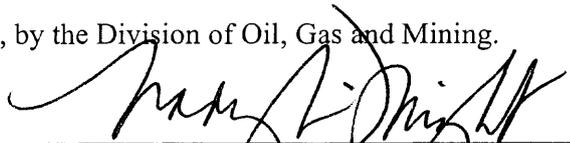
To remedy the permit deficiency and effects of coal fine accumulation on undisturbed soils within the permit area, the Division requires that:

- 1) The Mining and Reclamation Plan must include design specifications of measures already in place and/or to be put into use to control wind blown coal fine accumulation and coal particles blown from stockpiles, roadways, and other disturbed areas associated with the mine. This information must be provided separately from the Air Quality Approval Order DAQE-005-00 found in Appendix B.
- 2) The Mining and Reclamation Plan must describe removal of accumulations of coal fines on undisturbed soils within the permit area after consultation with the Division. Describe the method of coal fine removal to be followed by seeding. Vacuuming is not acceptable.
- 3) The Mining and Reclamation Plan must address or include a plan for monitoring of coal fine deposition outside the permit area, specifically east of the permit boundary (since the prevailing winds are from west to east).

ORDER

Andalex Resources Inc., is hereby ordered to make the requisite permit changes in accordance with R645-301-526.220 *et seq.* and R645-303-220 and to submit a complete, and adequate application for permit change to address the findings of permit deficiency within 60 days of the date of receipt of this order.

Ordered this 9th day of December 2004, by the Division of Oil, Gas and Mining.



Mary Ann Wright, Acting Director
Division of Oil, Gas and Mining

References Cited

Farmer, Andrew M. 1993. The Effects of Dust on Vegetation – A Review. *Environ Poll* 79 (1993):63-75.

Rao, D.N. 1971. A study of the Air Pollution Problem Due to Coal Unloading in Varanasi, India. pp. 273-6, In. Proceedings of the Second International Clean Air Congress. H.M. Englund and Y. W.T. Beery, Eds. (Academic Press: New York).

Sharifi, M.R., A.C. Gibson, P.W. Rundel. 1997. Surface Impacts on Gas Exchange in Mohave Desert Shrubs. *J. Applied Ecology* 34:837-846.

Thompson J.R., P.W. Meuller, W. Fluckinger and A.J. Rutter. 1984. The Effects of Dust on Photosynthesis and its significance for Roadside Plants. *Environmental Pollution Series A*, 34: 171-190.

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