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File Act/007/019 #3

ANDALEX
RESOURCES, INC.
Tower Division

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July 5, 1989

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DIVISION OF
OIL, GAS & MINING

Dr. Dianne R. Nielson
Director
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

Attention: Susan Linner, Permit Supervisor

Dear Dr. Nielson:

Enclosed for inclusion into our PAP are two copies each of replacement pages which answer permit stipulations 817.48-(1) and 817.52-(1). These are in response to your May 4th, 1989 permit approval and Andalex's request for a 30 day extension.

Permit stipulation 817.52-(2) will be responded to by August 5th, 1989.

If you have any questions feel free to call.

Sincerely,

Michael W. Glasson
Senior Geologist

MWG/nc

cc: File

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PRICE, UTAH

Andalex has also acquired lithologic logs of two drill holes completed by North American Coal Corp., in 1948 and one by Pacific Gas & Electric in 1980. Although these holes are not located within the permit area, but to the west and east of its boundary, the information has been utilized in estimating reserves. Pertinent information is given in Table III-3. Complete lithologic logs are included in Appendix E and their location is indicated on Plates 26, 27, and 28.

3.2-2.2-2 Laboratory Analyses - Chemical Acidity, Toxicity, Alkalinity, and Physical (Erodibility and Compaction) Properties

Complete laboratory analysis is included in Appendix E.

3.2-2.2-3 Identification of Potential Acid, Toxic or Alkaline Producing Horizons

Refer to Appendix E for the laboratory analyses. Andalex has committed to sampling roof and floor material in all three coal seams in the most recently mine areas. This material will be analyzed for identification of Potential Acid, Toxic or Alkaline Producing Horizons. As this material is collected it will be placed into Appendix E with the rest of the laboratory data.

3.2-2.2-4 Location of Subsurface Water at Face-Up Areas

No water was encountered at face-up areas.

3.3 Description of Coal Seams and Overburden - Mine Plan Area

3.3-1 General Description

3.3-1.1 Stratigraphy

There are three coal seams of minable thickness in the mine plan area. All three are part of the Blackhawk Formation of the Cretaceous Mesa Verde Group. The Blackhawk consists of three members. Stratigraphically, from bottom to top, they are the Aberdeen Member, the Kenilworth Member, and the Sunnyside Member (see Figure III-2 on page **32**).

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Andalex commits to monitoring surface water stations over the next two year period with an emphasis on storm events occuring during this time period. These samples will be considered a priority and every effort will be made to collect samples during runoff, should runoff occur on a quarterly basis. These samples will be added to our permit as they are collected to suppliment Andalex's baseline data. Also please note that Andalex will maintain a permanent rain guage at the minesite. It will be a continual recording device. If this devise is not functioning then a standard 8" rain guage will be employed.

3.1-2 Parameters to be Monitored

The sample reports will contain the following information:

1. Date and time of sample
2. Date of analysis
3. Cation - anion balance
4. Distinction for total or dissolved analysis
5. Field parameters
6. Parameter units
7. Sampler's initials or name

All samples will be collected and preserved in accordance with E.P.A. standards. Analyses of all samples will be written allowable holding times as given in the E.P.A. guidelines.

The following field parameters will be measured on all samples:

1. Flow
2. Field pH
3. Specific Conductivity
4. Field Temperature

The following parameters will be measured of samples taken from the monitoring points:

Acidity	Manganese - Total
Alkalinity	Nitrate
Ammonia	Oil & Grease
Bicarbonate	Potassium
Calcium	Sodium
Carbonate	Sulfate
Chloride	TDS

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