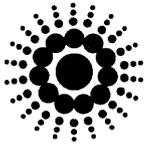


0067



ANDALEX
RESOURCES, INC.

P.O. BOX 902
PRICE, UTAH 84501
PHONE (435) 637-5385
FAX (435) 637-8860

November 16, 2005

Pamela Graubaugh-Littig
Permit Supervisor
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Incoming
C/007/0019

Re: Preliminary Soils & Vegetation Reports, Appendix X (Revised Oct. 2005), Gob Gas Vent Hole Amendment, Centennial Project, ACT/007/019, Carbon County, Utah

Dear Ms. Littig:

Enclosed are 5 copies of the preliminary soils and vegetation reports (Attachment 2-1 and 3-1, respectively) for the Gob Gas Vent Hole Amendment, Appendix X (Revised October 2005). These reports describe the studies completed for the new proposed vent holes and will be replaced by the final reports as soon as they are available.

A C₁/C₂ Form is also enclosed. If you have any questions, or need additional information, please let me know.

Sincerely,

Michael W. Glasson, P.G.
Senior Geologist

APPLICATION FOR PERMIT PROCESSING

<input checked="" type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: ACT/007/019
Title of Proposal: Preliminary Soils and Vegetation Reports for Appendix X, (Revised October 2005)						Mine: Centennial Project
						Permittee: Andalex Resources

Description, include reason for application and timing required to implement: **REQUEST BY DIVISION**

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

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

Michelle Burns *Senior biologist* *11/18/05*
Signed - Name - Position - Date

Subscribed and sworn to before me this 18th day of Nov, 2005.

My Commission Expires: April 4, 2005
Attest: STATE OF _____ COUNTY OF _____
Joelle Burns
Notary Public

 **JOELLE BURNS**
NOTARY PUBLIC - STATE OF UTAH
1594 W. NORTH TEMPLE, STE 1210
SALT LAKE CITY, UT 84116
My Comm. Exp. 04/04/2009

Received by Oil, Gas & Mining

ASSIGNED TRACKING NUMBER

**ATTACHMENT 2-1
SOIL INVENTORY AND ASSESSMENT**

(Preliminary Report)

EIS Environmental & Engineering Consulting
31 North Main Street, Helper, Utah 84526
Office-(435) 472-3814 : Fax-(435) 472-8780
eisec@preciscom.net

October 19, 2005

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

Dear Mike:

Enclosed is a preliminary soils report for proposed ventilation drill sites GVH 5A, 7, 8, and 9 at the Aberdeen Mine. This report has been prepared based on field information collected on October 10, 2005 and will be finalized upon receipt of the soil testing results from Inter-Mountain Laboratories, Inc.

I appreciate the opportunity to assist you with this project. Please contact me if you have any questions or comments. I want to assure that your soil resource information needs are met.

Sincerely,



Daniel M. Larsen
Professional Soil Scientist
EIS Environmental &
Engineering Consulting

**Soil Inventory and Assessment
Gas Ventilation Borehole Sites
GVH 5A, 7, 8, and 9
Aberdeen Mine
Carbon County, Utah**

Prepared For:

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

Prepared By:

**Daniel M. Larsen
Professional Soil Scientist**

EIS Environmental & Engineering Consulting
31 North Main Street, Helper, Utah 84526
Office-(435) 472-3814 : Fax-(435) 472-8780
eisec@preciscom.net

October 19, 2005
Preliminary Report

Andalex Resources, Inc.
Soil Inventory and Assessment
Gas Ventilation Borehole Sites GVH 5A, 7, 8, and 9
Aberdeen Mine

TABLE OF CONTENTS

INTRODUCTION

SETTING

BACKGROUND SOILS INFORMATION

DRILL SITE SOIL RESOURCES

GVH 5A

GVH 7

GVH 8

GVH 9

SOIL TESTING RESULTS

SUITABILITY ASSESSMENT

SITE SKETCHES

SOIL DESCRIPTIONS

PHOTOGRAPHS

Andalex Resources, Inc.

Soil Inventory and Assessment

Gas Ventilation Borehole Sites GVH 5A, 7, 8, and 9

Aberdeen Mine

INTRODUCTION

This soil inventory and assessment was conducted by Daniel M. Larsen, Soil Scientist, Environmental Industrial Services, for Andalex Resources, Inc. The project consists of four gas ventilation borehole sites above the Aberdeen Mine located about 15 miles northeast of Price, Utah. Each drill site is about one acre in size and marked with a stake at the center. The sites are identified as GVH 5A, GVH 7, GVH 8, and GVH 9. They are located in Section (Sec.) 31, Township (T.) 12 South (S), Range (R.) 10 East (E) and Sec, 36, T.12S, R.11E.

The objective was to determine the characteristics of the soil resources and assess the suitability for reclamation at each site. Soil limitations and specific management concerns were to be noted. Specifically, the amount of soil to be salvaged as topsoil was to be identified, including the thickness and distribution at each site. Subsoils and underlying materials were also to be

evaluated for potential salvage, segregation from topsoil, and limitations as plant growth material.

Topsoil, in the general sense, is considered as the dark colored (mollic) surface soil layer for this project area. It includes the A-horizon and suitable dark colored B-horizon soils. Some of the B-horizons are similar to the dark colored A-horizons but often show an increase in clay and have a more blocky structure.

SETTING

The drill sites are located at about 8,300 to 8,500 feet in elevation on a general northwest back slope of the Book Cliffs. Slopes at the sites range from about 5 to 10 percent gradient. The general vegetation consists of sagebrush openings with patches and strips of aspen. Annual precipitation is about 18 to 20 inches.

Soil parent materials are composed of sandstone and shale (clay layer).

The area is at the transition of frigid and cryic soil temperature régimes. Where aspen is present it is clearly cryic, but in the openings it is either frigid or cryic.

PROCEDURES

Fieldwork was conducted on October 10, 2005. A total of 17 backhoe pits were excavated at the four sites. A pit was located near each center stake, along with four to five additional pits within each 200 X 200 foot drill site area. Some spot-checking was also done by use of a soil spade.

Soil descriptions, photographs, soil samples, and notes were obtained at each site. A full soil description and soils samples were taken at each soil pit located near the center of the sites. Soil samples were identified by the drill site numbers (GVH 5A, 7, 8, and 9) and the depth interval that the sample was taken. These were primarily from the central soil pit, Pit No.1, at each site. Two additional soil samples were obtained where suitable soil extended to greater depths in outlying soil pits than was present at the representative soil pit at the center.

The soil samples each consisted of about six pounds of soil and were collected in one gallon size plastic zip-lock freezer bags. A small portion of each sample was used to determine soil colors, texture by feel, plasticity, and reaction. The remainder was sent to Inter-Mountain Laboratories, Inc., Sheridan, Wyoming for analysis of parameters required by the Utah State Division of Oil, Gas, and Mining.

BACKGROUND SOILS INFORMATION

Table 1: Soil map units of the Carbon Area Soil Survey, Order 3 mapping by the NRCS:

Site	Map Unit	Description
GVH 5A	117	Trag – Beje - Senchert Complex
GVH 7	105	Senchert Family – Senchert Complex
GVH 8	63	Midfork Family – Podo Association
GVH 9	7	Beje – Trag Complex

Classification Description:

Trag	Fine-loamy, mixed, Typic Argiborolls
Beje	Loamy, mixed, Lithic Argiborolls
Senchert	Fine-loamy, mixed, Pachic Argicryolls
Midfork	Loamy-skeletal, mixed, Typic Haplocryolls
Podo	Loamy, mixed, calcareous, frigid Lithic Ustorthents

DRILL SITE SOIL RESOURCES

Some general features apply to the soils in the project area. They have all formed from sandstone and shale and are well drained. The surface soils are dark colored and commonly have silt loam and silty clay loam textures. The upper 3 to 5 inch layer typically has fine granular structure. The soil then changes to a more blocky structure, although the color remains about the same as the upper 5 inches. An increase in clay with depth coincides with stronger and larger blocky structure. The dark colored soil includes both A and B-horizon materials. Lighter brown subsoils are patchy and thin over very stony and/or clayey substrata. Sandstone and clay layers are commonly at about 24 to 40 inches in depth. The soils have moderate to moderately slow permeability and have moderate erodibility. The clayey substrata is slowly permeable.

Table 2: Summary of Topsoil Available at Gas Ventilation Drill Sites (over a 200X200 foot pad site)

Site	Representative Topsoil	Range in Thickness	Average	Depth Determining Factor	Approx. volume (cu. yds.)
GVH 5A	Very dark grayish brown silt loam. Low rock fragment content	14-24	20	High rock fragment content, bedrock, or clay.	2470
GVH 7	Very dark grayish brown and dark brown silt loam. Low rock fragment content	24-30	26	High rock fragment content	3210

GVH 8	Nearly black to very dark grayish brown heavy silt loam to silty clay loam. About 20 to 35 percent rock fragments (Gr, Co, ST).	8-32	20	Very high rock content, bedrock, and/or clay	2470 (including rock fragments)
GVH 9	Very dark grayish brown and dark brown silt loam and silty clay loam. Mostly low rock fragment content. Up to 40 percent rock fragment in spots on north side.	12-36	22	Heavy, dense, clay	2716

GVH 5A

This site has soils which range from about 14 to 40 inches over sandstone bedrock. Dark colored topsoils are 14 to 24 inches thick. The site averages about 20 inches of salvageable topsoil.

The thinner soils (14 to 18 inches) are along the southern third of the site where the vegetation is mostly grass compared to dense sagebrush over most of the site.

Surface soils are very dark grayish brown silt loam grading to silty clay loam. Subsoils consist of both clayey layers (shale) and stony sandstone layers. The clay layer is discontinuous as noted in the soil pits, but may be present at greater depths below sandstone lenses where it was not observed.

The typical soils are similar to the Senchert soil family. These soils classify as fine loamy, mixed, Pachic Argicryolls. Inclusions consist of soils less than 20 inches to bedrock, soils with thinner dark colored surface layers, and soils with higher rock fragment content.

GVH 7

This site supports a dense sagebrush stand has thick dark colored silt loam surface soils. Subsoils are silt loam to silty clay loam with an increase in rock fragments over sandstone bedrock, which is at about 30 to 40 inches in depth. The upper 24 to 30 inches has about 5 to 10 percent rock fragments while the lower part of the soil profile has about 30 to 50 percent above the bedrock.

This site is similar to GVH 5A but has a thicker dark colored surface layer, deeper soils, and less clay in the subsoil and substrata.

The soils are of, or similar to, the Senchert family; fine-loamy, mixed, Pachic Argicryolls.

GVH 8

This site is in an aspen stand on a 10 percent slope. It is on a slight convex knoll having a northwest aspect. The surface is relatively stone free, however, the soils have gravel to boulder

sized rock fragments. Surface soils are very dark colored heavy silt loam to silty clay loam. Underlying materials consist of sandstone and clay layers.

Topsoils are generally 18 to 30 inches thick. On the northwest corner only 8 to 15 inches of dark colored soil was present over a very stony layer. The soils are similar to Midfork (loamy-skeletal, mixed, Typic Haplocryolls) and Senchert (fine-loamy, mixed, Pachic Argicryolls).

GVH 9

This site is located in a sagebrush opening along a slight ridge with a shallow dip along the south half and a higher spot along the north edge. The soils are relatively stone free except for stony spots along the north side of the site. The soils typically have a dark colored heavy silt loam surface layer that is about 19 to 30 inches thick over lighter colored clay. The clay substrate is extremely hard when dry and very firm moist.

SOIL TESTING RESULTS

This section will be completed upon receipt of the soil testing results by Inter-Mountain Laboratories, Inc.

The report to this point (October 19, 2005) has been based on field data and estimates. Soil textures were estimated by feel and they were often questionable between a heavy silt loam or silty clay loam. The laboratory analysis will help in this determination.

Most of the soils pHs are expected to be near neutral or slightly acid. The clayey subsoils noted at GVH 8 showed higher carbonates and would be expected to have the highest pH soil materials observed in the project area. Soil pH was not determined in the field since it would be part of the laboratory analysis.

SUITABILITY ASSESSMENT

The sites have identifiable topsoils of a dark color (mollic) typical of what would be considered topsoil. These dark colored soils would rate good to fair. Soil texture of silty clay loam, which is common in the lower portion of the topsoil layer, would give the soil a rating of fair; which silt loam is rated as good. A K-factor of 0.37 is considered the break between fair and good or poor. Some of the soils may rate as fair based on a K-factor of 0.37 however none of the soils are expected to have a higher value (poor).

Underlying materials would rate as poor to unacceptable based on high rock fragment content or high clay content.

Soil Samples for Andalex Resources, Inc.

Gas Ventilation Borehole Sites

October 10, 2005

Aberdeen Mine, Carbon County, Utah

1	GVH 5A	0-9 inches
2	GVH 5A	9-19 inches
3	GVH 5A	26-36 inches
4	GVH 5A	24-33 inches (Pit 3)
5	GVH 7	0-6 inches
6	GVH 7	6-12 inches
7	GVH 7	12-24 inches
8	GVH 7	24-33 inches
9	GVH 8	0-6 inches
10	GVH 8	6-18 inches
11	GVH 8	18-32 inches
12	GVH 8	37-65 inches
13	GVH 9	0-9 inches
14	GVH 9	9-21 inches
15	GVH 9	22-36 inches
16	GVH 9	22-38 inches (Pit 4)

**ATTACHMENT 3-1
VEGETATION INVENTORY
NRCS LETTER**

(Preliminary Report)

VEGETATION SAMPLING
GAS VENT HOLE SITES
2005

**A Summary
of the
Field Work Accomplished**

by
Patrick D. Collins, Ph.D.

MT. NEBO SCIENTIFIC, INC.
330 East 400 South, Suite 6
Springville, Utah 84663
(801) 489-6937

for
ANDALEX RESOURCES
Post Office Box 902
Price, Utah 84501

November 2005

INTRODUCTION

The following is a brief description of the field work conducted on the plant communities proposed for disturbance by drilling activities in the growing season of 2005 at the Centennial Mine in eastern Utah. A final report is currently being prepared and will be submitted in the near future.

Recently, Andalex Resources has been drilling "gob" gas vent holes as a safety requirement necessary to conduct their coal mining operations within the plateaus of the Book Cliffs mountain range. Emergency gas holes were drilled in the winter of 2005. Initially, emergency drill holes numbered GVH-01, GVH-02, GVH-03 were proposed for drilling (GVH-02 was later dropped for the plan). Following these drilling activities, additional emergency drilling was necessary in the late-winter/early spring months the same year (sites: GVH-05 and GVH-06).

More gas holes were necessary for venting in the spring of 2005 beginning with GVH-04. Prior to disturbance by the drill rig, the plant communities to be impacted by the drilling operations were quantitatively sampled including the proposed access road and drill pad. Additionally, a reference area with the same plant community was sampled. The reference area will be used for comparisons at this time as well as later for standards of final revegetation success.

The next proposed gob gas holes were numbered GVH-05A, GVH-07, GVH-08, and GVH-09. The plant communities that would be impacted by these drilling operations were quantitatively sampled later in the growing season of 2005. Reference areas were also chosen and sampled for these communities during the same time period.

Finally, because the aforementioned emergency drill sites GVH-01, GVH-03, GVH-05 and GVH-06 were constructed in the winter months, or before vegetation sampling could be conducted, reference areas for them were also chosen in the growing season of 2005. These reference areas could be used later as standards for final revegetation success at these sites.

METHODS

Quantitative sampling methods to measure total living cover, cover by species, composition and woody species density were employed within the plant communities proposed to be impacted by the drilling operations and reference areas chosen as revegetation success standards. A detailed description of the sampling methods will be provided in the final report.

RESULTS

The data for vegetation sampling is currently being summarized. A final report presenting the results of the sampling will be submitted in the winter of 2005-06.