

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

April 4, 2005

TO: Internal File

THRU: Pamela Grubaugh-Littig, Permit Supervisor

THRU: Wayne Western, Team Lead

FROM: Jerriann Ernstsens, Ph.D., Environmental Specialist, Biologist

RE: GOB Gas Vent Hole, Andalex Resources, Inc., Centennial Mine, Permit C/007/0019, Task ID # 2161

SUMMARY:

The Division received an amendment from the Centennial Mine to drill degas holes. This memo refers to holes drilled in April 2005 - these include holes 1, 5, and 6. The Permittee should know they are held responsible for any stipulations or requirements if the project extends into May.

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TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION_[Sheila Mo1]

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

The MRP meets R645-301-411 regulations pertaining to historic resources. The MRP (see Confidential Files in Division PIC room after June 2005) includes an evaluation of historic resources that focus on the permit area in Deadman Canyon (1976).

For the GOB hole project (April 2005), Senco-Phenix states that cultural resources are unlikely for the project area. The area is currently under snow, therefore, the Permittee cannot conduct a Class III survey. SHPO considered the project and recommended that Permittee conduct a monitoring evaluation in the summer (2005) for the holes drilled in April 2005. The Permittee will conduct a Class III survey for future hole projects and will also conduct the monitoring evaluation for the holes drilled in April 2005.

It is important for the Permittee to understand that workers must avoid all historic resources during the life of the project. In the event that construction or operations uncover historic resources, the Permittee must stop all work near the resources and notify the Division. At that time, DCM, DOGM, and other appropriate parties will develop a strategy to avoid the site or mitigate the impacts.

Findings:

Information provided in the plan meets the minimum Environmental -Historic and Archeological Resource Information requirements of the regulations.

VEGETATION RESOURCE INFORMATION_[Sheila Mo2]

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

The MRP meets R645-301-321 because there is adequate information of plant communities observed within the permit area. The MRP contains supporting documents on vegetation for permit area. Volume 1 (Chap. 3) provides a brief discussion of plant communities within the permit and adjacent area, which is support by community vegetation maps (Vol. 4, Plates 19, 19A, and 20). The plant communities within the permit area include: sagebrush-grass, conifer, quaking aspen, oak brush, mountain brush, and pinyon-juniper. Volume 2 contains vegetation surveys for the main mine facilities and adjacent areas (App. M) and for the left fork fan project (App. V).

The amendment also includes vegetation analysis needed for assessing reclamation potential and success as well as productivity values for the surface area affected by mining operations.

For the GOB hole project (April 2005), the Permittee provides minimal vegetation information. Plate 19A (Vol. 4) illustrates the community types for the project sites. The Permittee provides productivity values, ecological site descriptions (ESD), and determinations that the sites are fair to better condition as estimated from ESD (NRCS).

The Permittee will use the Range Site method (Division's Vegetation Guidelines) for the standard of success. The Division, therefore, does not require baseline data for the sites prior to disturbance. The Division considered this project exceptional in nature and, therefore, is allowing the Range Site method only for the holes drilled in April 2005.

The Permittee will select at least a one-acre range site with the same ESD for each hole drilled in April 2005. The Permittee will plan to use these sites as the standards of success during reclamation monitoring. The Permittee plans to conduct qualitative vegetation analysis of the range sites during the summer of 2005 providing it is a normal precipitation year (refer to Vegetation Guidelines for explicit definition). This survey will at least provide the Permittee with baseline for the areas planned for the success standard. The Permittee will take pictures at identified and repeatable photo locations of the project sites prior to disturbance. These picture will be added to the MRP by June 2005.

Findings:

Information provided in the plan meets the minimum Environmental - Vegetation Resource Information requirements of the regulations.

FISH AND WILDLIFE RESOURCE INFORMATION[Sheila Mo3]

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Analysis:

GENERAL WILDLIFE

The MRP meets R645-301-322 because there is discussion, supporting documentation, and maps on fish and wildlife resource for the permit and adjacent areas. There is information to design the protection and enhancement plan. The MRP provides narrative, supporting documentation, or maps.

Volume 2, App. A is a DWR report (1981) for the Centennial mine that provides mitigation recommendations, habitat resources, and species specifics on vertebrates, aquatics, birds, that may inhabit the permit area. It also provides the "Vertebrate Species of Southeaster Utah" report and a recommended plant species list. Volume 2, App. D provides an old and undated raptor analysis and the 2004 raptor survey. Volume 4, Plates 34 (May 2002) and 34 (August 2004).

Ungulates

For the GOB hole project (April 2005), DWR does not consider that traffic or construction will impact the ungulates (phone Leroy Mead 3/2005).

Fish or other aquatics

For the GOB hole project (April 2005), the Division has no concerns that the project will impact aquatic species because the sites do not include stream channels.

Raptors

The Permittee will relocate the raptor data to the confidential files as of June 2005. There are 22-raptor nest within the permit and adjacent areas. The results of the 2004 survey show that two golden eagle nest were active, with one containing young.

For the GOB hole project (April 2005), the Division has no concerns that the project will impact raptor nests because there are no nests within 0.5-mile buffer zone of the sites.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL/PLANT SPECIES

In order for a person to conduct official surveys, they must fulfill the following sequential requirements: belong to the permit holding corporation, pass the species-specific course and exam, submit the application for permit to the USFWS, and record name to the corporate permit records.

The MRP meets R645-301-322 because there is discussion, supporting documentation, or maps on TES species that could occur within or adjacent to the permit area. The Permittee provides a current TES species list for Carbon County.

For the GOB hole project (April 2005), the USFWS informally consulted on this project and no concerns for the holes drilled in April 2005. (Diana at MSO training 3/2005).

Plants

For the GOB hole project (April 2005), the Permittee provides a letter from Patrick Collins stating that he considers there is little probability that there are federally listed threatened or endangered species within or near the proposed project area. Mr. Collins will provide a vegetation survey in 2005 that will include an on the ground evaluation for TES plant species.

Mexican Spotted Owl (MSO)

For the GOB hole project (April 2005), the Mel Coonrod (EIS) provides documentation stating that the models and other criteria do not support there is suitable habitat for MSO within the drill hole sites. The Utah Heritage Group supports that there are no known observations of MSO within the project area. (Division communication 3/2005 email).

Findings:

Information provided in the plan meets the minimum Environmental - Fish and Wildlife Resource Information requirements of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Archeological Site Maps[Sheila Mo4]

The MRP meets R645-301-411.141 because there are archeological maps showing known resource locations within the permit area. These maps are in the Confidential Files (Division PIC room after June 2005).

Vegetation Reference Area Maps[Sheila Mo5]

The MRP meets R645-301-323.100 because vegetation maps illustrate community types within the main facilities and adjacent areas. The Division typically requests two vegetation

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maps: one that shows the entire area (Plate 3-1 is adequate) and one that details the reference and disturbed areas.

For the GOB hole project (April 2005), the Permittee plans to use range sites (range site method) for the GOB project.

For the GOB hole project (April 2005), the Permittee will need to submit a map that details the locations of the reference areas for the main facilities site and all other projects areas (refer to R645-301-323.100; see Environmental - Vegetation Information section for more details). The Division request for the Permittee to illustrate the reference areas on a single map if possible. The most important criteria is to make sure locations are clearly defined.

Findings:

Information provided in the plan meets the minimum Environmental - Maps, Plans, and Cross Section Resource Information requirements of the regulations.

OPERATION PLAN

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

GENERAL WILDLIFE

The MRP meets R645-301-333, R645-301-342, and R645-301-358 because the Permittee plans to use the best technology available to minimize impacting wildlife and its critical habitat.

For the GOB hole project (April 2005), the Permittee plans to access the drill hole sites using a dirt road starting near the mine facilities area. This choice will avoid any impact that construction and operations would have on sage grouse on the "Park" that will be strutting at that time. There are no raptor nest within the 0.5-mile buffer zone for any of the three drill hole sites.

Findings:

Information provided in the plan meets the minimum Operations - Fish and Wildlife Information requirements of the regulations.

VEGETATION_[Sheila Mo6]

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

The MRP meets R645-301-330, R645-301-331, and R645-301-332 because the Permittee provided measures to disturb the smallest area possible and to apply interim reclamation practices when applicable.

For the GOB hole project (April 2005), the Permittee plans to revegetate topsoil piles with an interim seed mix. The Permittee will use the adjusted final seed (recommendations made during this review by Priscilla) for the contemporaneous and final reclamation of the drill sites.

Findings:

Information provided in the plan meets the minimum Operations - Vegetation requirements of the regulations.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

For the GOB hole project (April 2005), the plan includes to remove all structures, recontour the site to approximate premining contours, rip the soil, and replace salvaged/stored topsoil. The reclamation plan does not include irrigation.

Findings:

Information provided in the plan meet the minimum Reclamation - General Requirements of the regulations.

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PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

The MRP meets R645-301-342 and R645-301-358.

For the GOB hole project (April 2005), the Permittee provided enhancement and protection measures that includes reseeding the drill sites with a seed mix that is suitable for fish, wildlife, and habitat.

Findings:

Information provided in the plan meets the minimum Reclamation - Protection of Fish, Wildlife, and Related Environmental Values requirements of the regulations.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements

The MRP meets R645-301-353 through R645-301-356 because the Permittee provided a reclamation plan and discussion of how the reclamation measures will meet the performance standards.

For the GOB hole project (April 2005), the Permittee plans to use seed and apply mulch. The seed mixes for interim and final reclamation are not the same. The interim seed mix will include a blend of native grasses. For final reclamation, the Permittee will use the final seed mix. The Permittee will apply a wood fiber mulch at 2,000 pounds per acre. The Permittee will use the "Range site method" for measuring the standard of success. The NRCS will assign range site Ecological Site Descriptions and productivity values for the drill sites.

Findings:

Information provided in the plan meets the minimum Reclamation - Revegetation requirements of the regulations.

RECOMMENDATIONS:

Approve the amendment.

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