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DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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December 28, 2000

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor *DRH*

FROM: Gregg A. Galecki, Reclamation Specialist *GAG*

RE: Minor Coal Exploration, Lodestar Energy, Inc., White Oak Mine, C/007/001-EX00F

**SUMMARY:**

Lodestar Energy, Inc., is proposing to drill six exploration holes within the Slaughter House Canyon, Sheep Canyon, and potentially the Boardinghouse Canyon drainage basins located in the SE/SE 1/4 Section 19, T13S R7E and the E1/2 Section 30, T13S, R7E. The application was received at the Bureau of Land Management (BLM) on December 6, 2000 and at the Division office on December 19, 2000. Proposed Exploration holes P01-19-01 and P01-30-01 through P01-30-05 will be drilled on private land owned by Ms. Della Madsen. The coal is federally-owned and managed by the BLM. The following review was requested by BLM personnel.

The primary purpose of boreholes P01-19-1 and P01-30-1 through P01-30-05 is to provide geologic information from the upper and lower O'Connor coal seams. Prior to abandonment of the holes, it will be determined whether any of the holes will be developed as monitoring well.

Information found in the proposal is not considered adequate to meet the requirements for Coal Exploration Approval based on Division requirements. It is at the discretion of BLM personnel whether the outlined changes are requisite for Federal approval.

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## COAL EXPLORATION

Regulatory Reference: R645-200.

### SCOPE AND RESPONSIBILITIES

Regulatory Reference: 30 CFR 772.1; 30 CFR 772.10; 30 CFR 772.11; R645-100-400; R645-200-100; R645-200-200; R645-201-100.

#### Analysis:

##### Minor Coal Exploration

The exploration process will implement the drilling of six boreholes to determine the chemical and physical coal characteristics of the "O'Connor" seam strata at the chosen location. Less than 250 tons of coal will be removed as a result of this exploration activity. The area proposed for drilling is not on 'lands designated unsuitable' for exploration, but does 'substantially disturb the land surface due to mud pit, drill pad, and possible road construction. The submittal received December 19, 2000, qualifies as a minor coal exploration application.

#### Findings:

Relative to R645-200-122, -202-200, this amendment qualifies as a minor coal exploration amendment.

## REQUIREMENTS FOR NOTICE OF INTENTION TO CONDUCT MINOR COAL EXPLORATION

Regulatory Reference: 30 CFR 772.10; 30 CFR 772.11; R645-100-412; R645-201-200

#### Analysis:

The applicant has addressed the requirements of R645-201-200 et al. with regard to names and addresses of applicant, the authorized representative of same, the exploration time period, method of exploration, and the methods used to negate adverse environmental impacts to the area.

No roads, either described or visually shown, were included with the Notice of Intent. The submitted 'Drill Hole Location' map (cited 1:1000 scale but is closer to 1:2000 scale) shows no access roads to the proposed drill sites. Based on USGS 1:24,000 map coverage, two sources

of access are possible. The sites can be accessed via SR 96, south to an existing unimproved road in Slaughter House Canyon, west up Slaughter House Canyon to another existing unimproved road trending northeast-southwest that extends along the ridge accessing drill holes P01-19-01 and P01-30-01 through P01-30-03. The other access is using ancillary roads from the existing mine site. It is also assumed access to drill holes P0-30-04 and P0-30-05 will be via the existing pipeline corridor (if a trail exists), or along the top of the ridge. Access along the ridge would require approximately 3000 ft. of trail access/construction. The Division recommends the permittee provide a detailed explanation of what access route is planned.

To protect the area from adverse impacts the permittee commits to minimize both new road and drill construction, use adequately-sized mud pits, and control site drainage with berms, straw bales, and/or silt fencing.

In an effort to demonstrate practices that will be followed to protect the area from adverse impact of the exploration activities, the Division recommends the permittee must provide a detailed estimate of the cost of reclamation for the proposed exploration. The exploration reclamation estimate should include appropriate calculations and costs for recontouring, seeding, mulching or fertilizing, and contingency factor.

**Findings:**

**R645-201-223**, The road access to the drill sites needs to be defined in detail.

**R645-201-225**, Provide a cost estimate for reclamation of the proposed exploration activities.

## **COMPLIANCE DUTIES**

Regulatory Reference: 30 CFR 772.13; R645-202.

## **PERFORMANCE STANDARDS**

Regulatory Reference: 30 CFR 772.13; R645-202-100; -202-200

**Analysis:**

### **Responsibilities for Coal Exploration Plan Review**

The six boreholes described in this minor coal exploration will be drilled on land whose surface ownership is held by Ms. Della Madsen. Although access has not been identified, it is assumed access will come from Slaughter House Canyon. The applicant needs to demonstrate a road easement or right-of-way through Mr. Milton Oman' property. 43 CFR 3482.1(a)(3)(ix) on

Page 17 is supposed to address this requirement but it has not been done in a clear and concise manner.

**Findings:**

**R645-200-210**, Adequately demonstrate approved access through Oman' property.

## OPERATIONAL STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-100; -202-200

**Analysis:**

**Biology**

There are no known threatened or endangered species within the designated area of exploration. T&E evaluations included consultations under the Utah Natural Heritage Program and discussions with local botanists of both the BLM and USDA-Forest Service. The one species of potential concern, Canyon Western Sweetvetch (Hedysarum occidentale *canoe*), has not been found in the project area.

A source of concern exists for the Division concerning the Time table (Table 3). Late May and early June are prime fawning and calving periods in areas containing aspen vegetation. It is recommended that if these areas exist near any drill sites, that these sites be drilled earlier in the program or a prescribed buffer zone be established for the affected drill sites.

**Findings:**

**R645-202-231**, Identify aspen vegetation areas and, if necessary, identify a plan to reduce impact to fawning and calving areas during late May and early June.

**Roads**

No access roads to the drill sites were included in the plan, which is necessary to evaluate the permit. Existing ancillary roads apparently exist for access to boreholes P0-19-01 and P0-30-01 through P0-30-03. It is anticipated that construction of approximately 3000 ft. of ancillary road/trail will be needed to access borehole sites P0-30-04 and P0-30-05. No drainage crossings are anticipated in the ancillary road construction and a pipeline access trail may already exist.

Actual road construction should be held to a minimum to minimize reclamation. The road maintenance and reclamation plans may need to be altered dependant on whether either of the boreholes will remain as groundwater monitoring sites.

**Findings:**

**R645-202-232**, A map showing all road access, classification of roads, and road improvements needs to be provided.

**Topsoil**

A generalized soils map referenced as being contained in the appendix (Pg.7 ) was not included in the Division' copy of the Notice of Intent (NOI), but is not requested at this time. 'Topsoil will only be removed where required and will be stockpiled for redistribution during site reclamation (Pg. 11).' 'Stockpiled soil will be protected from erosion loss by containment berms or silt fencing. Wind erosion is not anticipated, but if it becomes a problem tarps will be placed over the stockpiles. Weathered rock and/or subsoils excavated from mud pits will be stockpiled separately from the topsoil and will be used to backfill the mudpits after activities are complete. Mud pits will not be backfilled until drilling fluids are either pumped out or evaporated dry (Pg. 12)'.

**Findings:**

This submittal adequately addresses the requirements of R645-202-233.

**Diversions of Overland flows and streams**

It is anticipated that no diversions will be necessary for the duration of this project. The nearest perennial stream is Boardinghouse Creek which is located approximately 2200 ft downstream of P0-30-05. It is recommended that any excess water/overland flow, if encountered at boreholes P0-30-04 or P0-30-05 be directed toward Slaughter House Canyon. With the possible exception of P0-30-04 and P0-30-05, all the other boreholes are located within the Mud Creek perennial drainage which is approximately 5300 ft. east at its nearest point. Water for the drilling will be pumped from local springs or streams but not without prior written permission of the owner of the water rights. It is recommended that the written permission for water use will need to be available upon request at the drill site. An estimated total of 10,000 gallons per borehole will be needed.

**Findings:**

This submittal adequately addresses the requirements of R645-202-234.

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**Hydrologic Balance**

The proposed exploration activities poses minimal impacts to the hydrologic balance. This application commits the permittee to maintain all sediment controls until the reclamation of the sites has been complete.

**Findings:**

This submittal adequately addresses the requirements of R645-202-235 and R645-301-356.300 through -301-356.400.

**Acid- or toxic forming materials**

This regulation has been addressed by the permittee committing to adhere to R645-301-731.100 through R645-301-731.122. Any fuel spill contamination will be contained, collected and disposed of, off property, in an approved manner (page 13).

**Findings:**

The submittal meets the minimum regulatory requirements for R645-202-236.

**RECLAMATION STANDARDS**

Regulatory Reference: 30 CFR 772.13; R645-202-200;

**Analysis:**

**Approximate original contour**

Page 13 of the submittal commits to returning the drill pads and roads to the contour configuration existing prior to the exploration activity in a timely manner. This will be achieved by the commitment to backfill mud pits, scarify and re-seed the area to the same seasonal native variety, remove trash and debris, and control erosion with vegetative cover.

**Findings:**

The submittal meets the minimum regulatory requirements for R645-202-241.

**Revegetation**

Table 2 (Pg. 12) commits to conform to R645-202-242. The Division recommends

substituting Artemisia tridentata vaseyana for Artemisia tridentata wyomingensis and omitting the use of Cercocarpus ledifolius due to the elevation of the sites to be reclaimed.

**Findings:**

**R645-202-242.100**, Consider changing the seed mixture to reflect recommendations made by the Division.

**Boreholes**

The submittal commits to plugging **all** exploration holes with cement for their entire depth upon completion of the drilling and geologic logging activities unless requested as a Groundwater monitoring well. This will be performed by the licensed driller.

**Findings:**

The submittal meets the minimum regulatory requirements of the R645-202-243.

**Facilities and Equipment**

The submittal commits to removing all drilling equipment from all sites and reclaiming as per R645-202-244 .

**Findings:**

The minimum regulatory requirements for R645-202-244, -244.100, -244.200, and -244.300 have been met.

## **COAL EXPLORATION: PUBLIC AVAILABILITY OF INFORMATION**

Regulatory Reference: 30 CFR 772.15;R645-203.

**Analysis:**

Request has been made by the applicant to keep portions of the submittal confidential, pursuant to 43 CFR 3485.1.

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**Findings:**

The project data will be copied and transferred to the appropriate personnel at the BLM offices for review and confidential storage, pursuant to 43 CFR 3485.1.

**RECOMMENDATIONS:**

Submittal C/007/001 - EX00F does not adequately address the Division' minimum regulatory requirements for performance standards relative to coal exploration and reclamation activities based on the following items:

1. The road access to the drill sites needs to be defined in detail.
2. Provide a cost estimate for reclamation of the proposed exploration activities.
3. Adequately demonstrate approved access through Oman' property.
4. Identify aspen vegetation areas and, if necessary, identify a plan to reduce impact to fawning and calving areas during late May and early June.
5. A map showing all road access, classification of roads, and road improvements needs to be provided.
6. Consider changing the seed mixture to reflect recommendations made by the Division.

The above-mentioned items are solely recommendations to the BLM based on the State requirements. It is to the discretion BLM personnel whether to recommend that this submittal be classified as deficient until the permittee can adequately address the aforementioned R645 rules.