



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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September 28, 1999

To: File

Thru: Daron Haddock, Permit Supervisor *PHH*  
Pamela Grubaugh-Littig, Permit Supervisor *PHH*

From: Peter Hess, Reclamation Specialist III *PHH*

RE: Notice of Intent to Conduct Minor Coal Exploration, Plateau Mining Corporation, Willow Creek Mine, ACT/007/038-99F, Folder #2, Carbon County, Utah

**SUMMARY:**

Plateau Mining Corporation is proposing to drill two exploration holes on the hillside SE of the Willow Creek drainage between Dry Canyon and Mathis Canyon, (Township 12 South, Range 10 East, Sections 28 and 29). The application was received in the PFO on September 16, 1999. Exploration hole P-E14 will be drilled in Section 28 on private land owned by the Melvin Frandsen trust. Exploration hole P-E15 (Section 29) is within US BLM jurisdiction and will not be discussed in this technical analysis.

The primary purpose of P-E14 is to provide geologic information from the "K" coal seam. A potential use for same also exists as a gob vent/degasification borehole. No water monitoring will be conducted from this borehole.

**TECHNICAL ANALYSIS:**

**MINOR COAL EXPLORATION**

**NOTICE OF INTENT TO CONDUCT**

Regulatory Reference: R645-201-210.

**Analysis:**

**Minor Coal Exploration**

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The exploration process will implement the drilling of one borehole to determine the chemical and physical coal characteristics of the "K" seam strata at the chosen location. Less than 250 tons of coal will be removed as a result of this single hole exploration.

This submittal, therefore, qualifies as a minor coal exploration application.

**Findings:**

ACT/007/038-99F qualifies as a minor coal exploration amendment.

**RESPONSIBILITIES FOR COAL EXPLORATION PLAN REVIEW**

Regulatory Reference: R645-201-100.

**Analysis:**

The single hole relative to this minor coal exploration will be drilled on land whose surface ownership is held by the Melvin V. Frandsen trust. Dennis Bettino is also a landowner in the area and a road easement still needs to be put in place to allow the applicant access to the fee ground owned by the Melvin V. Frandsen trust.

**Findings:**

The Utah Division of Oil, Gas and Mining is the sole party responsible for the review of this minor coal exploration application. All areas to be disturbed are on fee ground owned by the Melvin V. Frandsen trust or Mr. Dennis Bettino.

**NOTICE OF INTENT TO CONDUCT MINOR COAL EXPLORATION**

Regulatory Reference: R645-201-200; 210 through 225.

**Analysis:**

This Notice of Intent to Conduct Minor Coal Exploration includes the following information.

- 1) Regulation 201-221; the name, address, and telephone number of the applicant seeking to explore, (see page 2 of the submittal).

- 2) Regulation 201-222; the name, address, and telephone number of the applicant's representative responsible for conducting the exploration activities, (see page 2 of the submittal).
- 3) Regulation 201-223; a narrative and map describing the exploration area and indicating where exploration will occur, (see Map 1, and pages 2 and 3 of the submittal).
- 4) Regulation 201-224; a statement of the period of intended exploration (approximately four weeks) is included, (see page 3).
- 5) Regulation 201-225; a description of the method of exploration to be used, the amount of coal to be removed, and the practices that will be followed to protect the area from adverse impacts of the exploration activities and to reclaim the area in accordance with the applicable requirements of R645-202. (See pages 3 and 4 of the submittal).

**Findings:**

This notice of intent to conduct minor coal exploration includes sufficient information to adequately address the requirements of R645-201-210 through 225.

## **COAL EXPLORATION**

### **COMPLIANCE DUTIES**

Regulatory Reference: R645-202-100.

**Analysis:**

#### **Required Documents**

This notice of intent to conduct minor coal exploration includes a commitment to distribute copies of the approved finalized notice of intent to conduct minor coal exploration to those individuals (i.e., drillers, geologists, and other agents of the Company) directly associated with the exploration activities.

**Findings:**

The intent of R645-202-100, regarding distribution of required documents relative to this notice of intent to conduct minor coal exploration has been adequately met.

### **PERFORMANCE STANDARDS**

Regulatory Reference: R645-202-210.

**Analysis:**

**Conducting Minor Coal Exploration in Accordance With State Program**

This application commits the permittee to conduct this minor coal exploration according to the performance standards mandated by the R645 rules. Core samples will be recovered; the exploration activities will not substantially disturb the natural land surface. Drill sites will be reclaimed by backfilling mud pits, redistributing any soils removed, and by the scarifying and seeding of the area. Any minor drainages which have been affected will be reshaped and seeded. All seeding will utilize the permanent upland seed mixture previously approved from Table 5.3-2, Volume 3 of the Willow Creek MRP.

**Findings:**

This submittal's commitment to reclaim the drill sites according to the intent of the aforementioned regulation is adequate.

Regulatory Reference: R645-202-220.

**Analysis:**

**Minor Coal Exploration Performance Standards Mandate**

In this application, the permittee has made a commitment to conduct the minor coal exploration in accordance with the R645 performance standards relative to same.

**Findings:**

The submittal adequately addresses this requirement.

**OPERATIONAL STANDARDS**

Regulatory Reference: 202-231.

**Analysis:**

### **Habitats of Unique or Unusually High Value/Threatened and Endangered Species**

There are no known threatened or endangered species within the proposed area of exploration. This is verified on pages 5, 6, and 7 of the applicant's submittal.

#### **Findings:**

The submittal adequately addresses this requirement.

### **ROADS**

Regulatory Reference: 202-232.

#### **Analysis:**

##### **Roads**

The applicant plans to access hole P-E14 via State road 191, and a pre-SMCRA exploration road which was cut by McCulloch Oil to access MC-142. The permittee has a UDOT encroachment permit in place to allow this, a copy of which is included with this submittal.

In order to establish the pre-SMCRA road, it was necessary to cross the Willow Creek drainage. Plateau Mining Corporation has applied for and received a stream channel alteration permit from the Utah Division of Water Rights State Engineer. This was necessary to establish a traversable crossing in said drainage.

The pre-SMCRA road was extended approximately 1500 feet beyond MC-142 by the McCulloch crews. This is 1400 feet short of the proposed location for P-E14.

Construction of the additional 1400 feet of exploration road will utilize a side-casting technique to effectively remove topsoil or suitable plant growth medium. Any vegetation present will be removed at the same time, and all material will be deposited in a berm on the uphill side. About 600 feet of the new road, which will be cut to drill P-E15 (hole on BLM ground), continues on fee ground (past P-E14).

The permittee has committed to reclaim the ancillary road to hole P-E14 and the 600 feet of additional road which heads toward P-E15 but is on fee ground to a condition equal to

or better than the condition in which the road existed prior to commencement of the exploration activities, (page 18). All roads associated with this minor exploration application are ancillary; all R645 rules relative to primary roads are inapplicable.

**Findings:**

This submittal adequately addresses the requirements of R645-202-232.

**TOPSOIL**

Regulatory Reference: R645-202-233.

**Analysis:**

**Protection of Topsoil Resource**

The permittee has made a commitment in the application to remove and store the topsoil, which is in place at each exploration site. Topsoil removal during exploration road construction will be achieved by side-casting of the material. This is standard practice, as it assists in the rapid redistribution of the resource during reclamation activities. Page 9 of the submittal commits the permittee to the recovery and stockpiling of topsoil from the drill pad areas; this will prevent contamination of the resource by drilling activities. Redistribution of the soils will occur during the reclamation of the drill sites.

**Findings:**

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

**HYDROLOGY**

Regulatory Reference: R645-202-234.

**Analysis:**

**Diversions of Overland Flows and Streams**

The exploration site will be drilled on the hillside approximately 4000 feet up the canyon from Dry Canyon and 6000 feet down canyon from Mathis Canyon. Overland flows

are generally very small in nature; should any occur, they will be coursed about the drill site disturbance through the utilization of water bars, ditches, and/or culverts. The Willow Creek drainage is about 950 feet NW of the P-E14 site. No major diversions are necessary for this minor exploration project.

**Findings:**

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

Regulatory Reference: R645-202-235. and R645-301-356.300. through -301-356.400.

**Analysis:**

**Coal Exploration Activities Relative to Maintenance of Prevailing Hydrologic Balance  
Maintenance of Siltation Structures Revegetation of Sites**

This application commits the permittee to maintain all siltation structures until the reclamation (i.e., revegetation) of the sites has been completed.

**Findings:**

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

**IMPOUNDMENTS**

Regulatory Reference: R645-301-512.240; -301-513.200; -301-514.300; -301-515.200;  
-301-533.100 through -533.600

**Analysis:**

**P.E. Certification of Impoundment Designs  
MSHA pond requirements  
Impoundments  
Impoundment Hazards/Notification of DOGM  
Impoundments**

The construction of mud pits at the drill sites will be necessary to control the drilling

medium and keep it within the exploration site. The pits will be 12' x 12' x 6' in depth, (page 4 of submittal). These will be totally incised; the volumes contained will amount to .02 acre feet/pit. It is felt that these impoundments do not contain enough volume to warrant the application of the aforementioned regulations.

**Findings:**

The aforementioned regulations, as they relate to impoundments, are not applicable to this submittal.

**GROUND WATER**

Regulatory Reference: R645-301-731.100, -301-731.110, -301-731.111

**Analysis:**

**Hydrologic Balance Protection/Groundwater**

Page 12 of the submittal commits the applicant to implement methods for protection of ground water. Earth materials and runoff from the drilling activities will be handled in a manner which minimizes the impact of acid, toxic, or other harmful materials. Mud pits will allow evaporation of drilling water, minimizing the potential for this water to impact ground water systems. Preventive methods will be implemented to prevent the over-topping of mud pits. Borehole P-E14 will be plugged for its entire depth to prevent future contamination of ground water systems via surface influx upon a determination that said hole is not necessary for the venting of gob area gases, (i.e., a longwall panel degasification borehole).

**Findings:**

This submittal adequately addresses the requirements of R645-301-731.100 through R645-301-731.111.

Regulatory Reference: R645-301-731.112.

**Analysis:**

**Ground Water Protection Relative to Surface Coal Mining**

This regulation relates to surface coal stripping operations. Willow Creek Mine is an underground extraction operation.

**Findings:**

R645-301-731.112 is not applicable to this submittal.

**SURFACE WATER**

Regulatory Reference: R645-301-731.120; -301-731.121; -301-731.122

**Analysis:**

**Surface Water Protection  
Surface Water Quality and Quantity Protection**

These regulations have been previously addressed under R645-301-731.100-111.

**Findings:**

This submittal adequately addresses the requirements of R645-301-731.120 through R645-301-731.122.

Regulatory Reference: R645-301-731.200 through -301-731.210.

**Analysis:**

**Ground Water Monitoring**

The proposed drill hole will not be used for water monitoring purposes.

**Findings:**

Ground water monitoring will continue to be conducted by the permittee according to the plan which exists in the current mining and reclamation plan.

Regulatory Reference: R645-301-731.210; -301-731.211; -301-731.212; -301-731.213;  
-301-731.214; -301-731.214.1; -301-731.214.2; -301-731.215;  
-301-731.220; -301-731.221; -301-731.222

**Analysis:**

**Surface Water Monitoring Requirements**  
**Ground Water Monitoring Plan**  
**Quarterly Monitoring Reports**  
**Division Approval Requirements**  
**Ground Water Monitoring through Bond Release**  
**Minimizing Disturbance to Post Mining Land Use**  
**Monitoring No Longer Necessary**  
**Maintenance of Water Quality/Quantity Monitoring Equipment Required**  
**Surface Water Monitoring**  
**Implementation of Plan According to PHC**  
**Identification of Surface Monitoring Parameters, Frequency, and Locations**

This minor coal exploration application will be conducted on fee land within the currently approved Willow Creek Mine permit area. The Division approved surface water monitoring plan, as it exists within the mining and reclamation plan, adequately addresses the aforementioned R645 requirements.

**Findings:**

The aforementioned R645 rules, as they relate to surface and ground water monitoring regimes, have already been adequately addressed by the Cyprus Willow Creek mining and reclamation plan. They do not need to be addressed in this minor coal exploration application.

Regulatory Reference: R645-301-731.800.

**Analysis:**

**Water Rights and Replacement Relative to Surface Coal Mining**

This regulation is not applicable to this minor coal exploration application. Geologic data which will be obtained is relative to an underground extraction process.

**Findings:**

This regulation is not applicable to this minor coal exploration application.

## **SILTATION STRUCTURES**

Regulatory Reference: R645-301-742.200 through -742.214.

### **Analysis:**

#### **Siltation Structures**

The construction of siltation structures, as they relate to this minor coal exploration application, has been previously addressed on pages 9 and 10 of this submittal under R645-202-235 and R645-301-356.300 and -356.400. Same have been adequately addressed within this submittal.

### **Findings:**

These regulations have been adequately addressed in a previous section of this submittal.

## **SEDIMENTATION PONDS**

Regulatory Reference: R645-301-742.220; -301-742.221 through -742.240

### **Analysis:**

#### **Sedimentation Ponds**

There are no sedimentation ponds in close proximity to, nor will there be any constructed in association with, this minor coal exploration application.

### **Findings:**

These regulations are not applicable to this minor coal exploration application.

Regulatory Reference: R645-301-742.300.

### **Analysis:**

#### **Diversions**

These requirements have already been addressed within this submittal.

**Findings:**

These requirements have already been addressed within this submittal.

Regulatory Reference: R645-301-763-.100 and -763.200.

**Analysis:**

**Siltation Structures**

There are no siltation structures associated with this minor coal exploration application. These regulations are not applicable.

**Findings:**

R645-301-763.100 and -763.200 are not applicable to this minor coal exploration application.

**ACID/TOXIC MATERIALS**

Regulatory Reference: R645-202-236.

**Analysis:**

**Handling/Disposal of Acid-Toxic Forming Materials**

The requirements of R645-202-236 have been addressed on a partial basis under R645-301-731.110, (see page 12). The application commits the permittee to cleaning up and disposing of any fuel contamination, off property, in an approved manner.

**Findings:**

This submittal adequately addresses the requirements of R645-202-236.

**RECLAMATION STANDARDS**

Regulatory Reference: R645-202-240;-202-241; -202-242; -202-242.100; -202-242.200

**Analysis:**

**Return of Exploration Site to Approximate Original Contour  
Revegetation of Exploration Sites  
Revegetation/Utilization of Native Species  
Control of Erosion by Vegetation**

Page 18 of the submittal commits the applicant to the back filling of the associated mud pits during the reclamation process; approximate original contour will thus be achieved. The area will then be scarified and reseeded using the seed mix which has been previously approved in the Willow Creek mining and reclamation plan, (Table 5.3-2). This will occur in the first seeding window following completion of the exploration activities.

**Findings:**

ACT/007/038-99F adequately addresses the requirements of R645-202-241 thru -242.200.

Regulatory Reference: R645-202-243.

**Analysis:**

**Sealing of Exploration Boreholes**

Page 19 of this submittal commits the applicant to cementing the exploration hole from bottom to collar (for the entire depth) by the licensed driller, upon a determination which will be made by the applicant that said borehole is not needed for gob gas venting, (i.e., a degasification borehole). The machinery associated with the exploration will then be removed from the pad so that the remaining reclamation requirements (which have been previously addressed) can be initiated.

**Findings:**

The submittal adequately addresses the requirements of R645-202-243.

Regulatory Reference: R645-202-244; -202-244.100; -202-244.200; -202-244.300

**Analysis:**

**Removal of Drilling Apparatus  
Providing Additional Environmental Data**

**Reduce or Control Impacts Due to Exploration  
Facilitate Future Mining and Reclamation**

All equipment associated with the exploration activities will be removed from the site as soon as compilation of the geologic data is completed. Reclamation activities (as they have been previously addressed within this submittal) can then commence. The borehole will be cemented for its entire depth, upon the permittee's determination that same is not needed as a gob vent/degasification hole. The reduction of impacts due to exploration will not be necessary. If the permittee changes the evaluation of this borehole and same is needed in order to facilitate future mining and reclamation activities, the cement plug will either need removal, or another hole may need to be drilled at the P-E14 location.

The submittal adequately addresses the requirements of R645-202-244. through - 244.300.

**Findings:**

ACT/007/038-99F adequately addresses the requirements of R645-202-244 thru -244.300.

Regulatory Reference: R645-301-830.

**Analysis:**

**Determination of Bond Amount**

The permittee currently has \$11,949,205.00 worth of bond in place for the Willow Creek permit area. Based on the Division's 5% rule, there is sufficient bond in place for the reclamation of the disturbance associated with this exploration borehole.

**Findings:**

The current bond is adequate.

**CONCLUSIONS AND RECOMMENDATIONS**

ACT/007/038-99F adequately addresses the requirements of R645-201-100., -201-200., and R645-202.

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The applicant needs to have a road easement agreement in place from Mr. Dennis Bettino to access the drilling area.

It is recommended that this minor coal exploration application be approved pending the following stipulation:

- 1) a satisfactory legal agreement must be in place between Plateau Mining Corporation and Mr. Dennis Bettino, who is the private landowner having the access to the Melvin V. Frandsen trust property.

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