



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

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August 24, 2001

Chris Hansen, Environmental Manager  
Canyon Fuel Company, LLC  
HC 35 Box 380  
Helper, Utah 84526

Re: Conditional Approval of Revised Permit Maps, Canyon Fuel Company, LLC, Gordon  
Creek Mine # 2, # 7 & # 8, ~~0007016~~ AM99C-4, O ~~0007016~~

Dear Mr. Hansen:

The above-referenced amendment is conditionally approved upon receipt of three clean copies prepared for incorporation. Once we receive these copies, we will send a stamped incorporated copy to you for insertion into your copy of the Mining and Reclamation Plan. A copy of our Technical Analysis is enclosed for your information.

If you have any questions, please call me at (801) 538-5268 or Susan White at (801) 538-5258.

Sincerely,

*Pamela R. Grubaugh-Littig*  
for Pamela Grubaugh-Littig  
Permit Supervisor

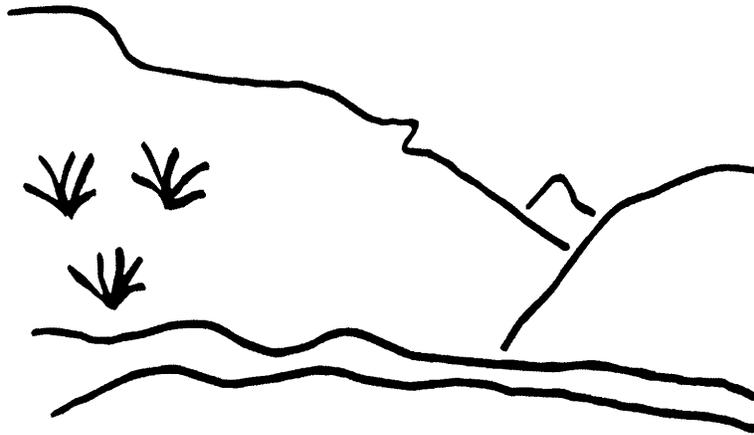
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Enclosure:

cc: Price Field Office

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# State of Utah



## Utah Oil Gas and Mining

### Coal Regulatory Program

Gordon Creek # 2 # 7 & # 8  
Revised Permit Maps  
C/007/016-AM99C-4  
Technical Analysis  
August 22, 2001

**TABLE OF CONTENTS**

**INTRODUCTION** ..... 1

**ADMINISTRATIVE INFORMATION** ..... 3

    RIGHT OF ENTRY ..... 3

**ENVIRONMENTAL RESOURCE INFORMATION** ..... 5

    MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION ..... 5

        Permit Area Boundary Maps ..... 5

        Surface and Subsurface Ownership Maps ..... 5

**OPERATION PLAN** ..... 7

    SUBSIDENCE CONTROL PLAN ..... 7

        Performance Standards for Subsidence Control ..... 7

    HYDROLOGIC INFORMATION ..... 7

**RECLAMATION PLAN** ..... 9

    GENERAL REQUIREMENTS ..... 9

    POSTMINING LAND USES ..... 9

INTRODUCTION

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**TECHNICAL ANALYSIS**

**INTRODUCTION**

This amendment revises the permit area boundaries since right-of-entry expired with coal lease relinquishment.

Page 2  
C/007/016-AM99C-4  
August 22, 2001

**INTRODUCTION**

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ADMINISTRATIVE INFORMATION

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## ADMINISTRATIVE INFORMATION

### RIGHT OF ENTRY

Regulatory Reference: R645-301-114

#### **Analysis:**

Right of entry information is found in section 4.3.4 of the permit. All coal leases have been relinquished (1999) and therefore only surface right of entry remains. Surface use agreements are with Calvin Jacob and Sons, Robert and Linda Jewkes and E. E. Peirce.

This permit change does not remove all of the information in the plan concerning reduction of the permit area. Some of the information should remain as a reference and history of the mining.

Page 4-47 of the amendment states the previous permit area was approximately 2286.05 acres and the revised permit area is 180 acres.

#### **Findings:**

This section meets the minimum regulatory requirements.

Page 4  
C/007/016-AM99C-4  
August 22, 2001

ADMINISTRATIVE INFORMATION

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ENVIRONMENTAL RESOURCE INFORMATION

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## ENVIRONMENTAL RESOURCE INFORMATION

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

### MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

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

#### **Analysis:**

##### **Permit Area Boundary Maps**

The current permit area boundary is shown on Figures 4-1, 4-2, and 4-3.

##### **Surface and Subsurface Ownership Maps**

Surface and subsurface ownership maps are shown on Figures 4-1 and 4-2.

#### **Findings:**

The information provided in this section meets the minimum regulatory requirements of this section.

Page 6  
C/007/016-AM99C-4  
August 22, 2001

**ENVIRONMENTAL RESOURCE INFORMATION**

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OPERATION PLAN

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## OPERATION PLAN

### SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR Sec. 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

#### Analysis:

##### Performance Standards for Subsidence Control

Subsidence monitoring above the Gordon Creek No. 2, No. 7, & No. 8 mines began in 1986 and was ended in 1998. The permittee reports the measured amount of subsidence in Appendix 3-11 of the July 25, 2000 submittal. Only minor amounts of subsidence occurred above the No. 7 and No. 8 mines. The subsidence features that were seen at those sites included measured surface subsidence of up to 4.1 feet, minor slumps and small subsidence troughs. All of those subsidence features have since been repaired or self-healed.

Subsidence was more substantial above the No. 2 mine. Minor fractures are present in the Right Fork above the No. 2 Mine workings. The fractures may have occurred in the 1960s or 1970s. They have self-healed and are now barely visible.

The Division determined in 1998 that subsidence had stabilized and that there were no subsidence features that posed a hazard or an environmental problem. After that determination was made, the Division approved the permittee to stop the subsidence monitoring program.

#### Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit change for the permit reduction request.

### HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

#### Analysis:

The application states that a subsidence monitoring network has been in place during and after mining operations to identify any changes to water resources. No ponds, streams or springs exist above the areas where subsidence has been identified. Beaver Creek Coal Company conducted mining

**OPERATION PLAN**

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operations under Beaver Creek, however surveys conclude no adverse impacts from subsidence have not taken place. Mining ended in November 1990, all subsidence should have occurred within a few years after mining stopped. There is no indication of stream alteration or other mining related effects to the stream. Subsidence has been monitored from 1986 to 1998.

The applicant concludes that no off site impacts to the hydrologic regime have occurred from either subsidence or disturbance over the past 6 1/2 years of monitoring. The notable subsidence features have not changed the flows or quality of springs or streams, they still meet the post-mining land use of grazing and wildlife habitat.

Hydrologic resource monitoring has also been conducted by the operator. Appendix 7-8 and Attachment A to Appendix 7-8 provide an assessment of hydrologic data. The hydrology of the area has been examined and monitored over the life of the project. The applicant submitted a hydrologic impact analysis containing monitoring information in Appendix 7-8. All of the monitoring sites were evaluated with respect to monitoring results. Water monitoring sites were surveyed from 1980 to 2001 to assess impacts. The applicant states that water monitoring analysis indicate no diminished flows at monitoring sites as a result of mining.

The operator describes other industrial operations conducting operations in the area. Their operations and land practices are not regulated. Grazing and logging activities are known to have caused impacts to the hydrologic system, however their impacts are hard to quantify. It has been noted and recorded in DOGM files that grazing and logging have had adverse impacts on Beaver Creek. The operator has no control over such operations.

Graphs in Attachment C indicate the TSS and Specific Conductivity have been increasing since 1995. This could be the result of a combination of factors, including removal of beaver dams, increased grazing, siltation of streams by logging. Mine water has never been discharged from the Gordon Creek #2, #7 and #8 Mines. The operator states that no adverse effects to the hydrologic regime have taken place as a result of mining.

The applicant has submitted information to show that mining has not caused adverse impacts on or off the mine plan area. Other activities such as grazing and logging have impacted areas above the mine which confuse the baseline and trends of the outcome of the mines water monitoring plan. Subsidence, water quality and water quality data submitted by the operator. Identify no mining impacts on or off the area proposed for permit release.

**Findings:**

The applicant has addressed the requirements of this section.

RECLAMATION PLAN

## 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:

The application states that all drill holes have been cemented and plugged. No wells were associated with this property.

#### Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed permit change for the permit area reduction.

### POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

#### Analysis:

The Operator has evaluated the effects of mining on the stated postmining land use of livestock grazing and wildlife. The primary effects of the mining on the surface lands above mined areas would be in the form of subsidence or water flows. The Operator claims that the utility and capacity of the land above the mining have been unaffected by the mining. Section 4.5.1 of the permit gives the following evidence for the land being unaffected.

- Twelve years of subsidence monitoring has occurred. The results indicate no damage to structures or renewable resources.
- Field examinations and monitoring results of the hydrology of the area indicate no adverse effect to the hydrology or watershed. (This section of the application is deficient. This may be modified as a result of future submittals.)
- Noxious weeds are being controlled within the disturbed area.
- All drill holes have been plugged and sealed.
- Landowners have not given any adverse comment when given the opportunity.

**Findings:**

The information provided in this section meets the minimum regulatory requirements of this section.

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## Hydrology Working Group

### Meeting Notes

9:00 to 11:00 am, August 16, 2001

### Room A

Lead – Mike Suflita

Note Taker – Susan White

**Team Members Present:** Dave Darby, Gregg Galecki, Pam Grubaugh-Littig, Daron Haddock, Pete Hess, James Smith, Susan White, Ken Wyatt

1. **Water Quality Data Processing Protocol** Protocol Team  
Action: Pam will follow-up with Mary Ann and will e-mail HWG as to the decision or outcome.  
  
**Outcome:** Pam has not received a reply from MAW. We will go ahead and do it. Pam will make the protocol generic and change title to Water Monitoring Protocol. The document is located in:  
O:\TEAMS\HydroWorkingGrp\DivisionProcProtocol.doc
2. **Letters to the Operators** Gregg 15 min  
Action: Gregg will refine the letter based on member input.  
  
**Outcome:** HWG members input:
  - Should add comment on sampling flows for ephemeral channels (crest gauge).
  - Need occasional quality sample to characterize the flow in ephemeral channels.
  - Suggestion to edit Directive 4 and add comment on diligence.
  - Gregg to make changes to letter.
3. **Ken's Leaving and Transition**  
  
**Outcome:**
  - Each hydrologist will need to "flip switch" to allow the data in the pipeline to be put in the database.
  - Training maybe needed – see Gregg
  - Susan will leave team after next meeting.
4. **UPDES Permit Infractions**  
Action: Everyone should have read Pete's draft and a second draft is ready.  
  
**Outcome:**
  - Pam to discuss with DEQ during interviews for the OSM evaluation.
  - Susan will scan DEQ MOU and put in PDF format.
  - Only write if environmental damage.
5. **Treatment Utilized to Meet UPDES Parameters**  
Action: A. Dave Johnson and Ken Wyatt have created a list of mines and their UPDES

discharge points.

B. Hydrologists and inspectors need to take Mike's form to the mines and get answers to the questions regarding water discharge. Use the list in A. as a guide to covering all the discharge points.

Files are: O:\TEAMS\HydroWorkingGrp\UPDES\NPDESsum.doc Questions to ask.  
O:\TEAMS\HydroWorkingGrp\UPDES\updessites.xls List of sites at each mine.

Outcome:

- Jim asked the questions during his Bear Canyon inspection.
- Mike will make a folder for sediment ponds and mine water discharge in the HydroWorkingGrp folder where the information can be placed.

**6. When to Issue Water Monitoring NOV's - further discussion.**

Action: Tabled until 8/16 HWG meeting.

Outcome:

- The group felt that this should be left open and that a review of the operators history should be evaluated when issuing.
- If data is missing then we have to issue. If it's late or they didn't submit but have the data then discuss with Supervisor and/or hydrologist and use discretion.

**7. Hydrology Evaluation at Bond Release - draft**

Action: Everyone is to have read Dave Darby's document and gotten comments to him by 20 April.

Outcome:

- Joe was only one to comment.
- Use this document in Property Boundary reduction.
- Add to bond release directive as appendix
- Dave to finalize and put in O:\Teams\hydroworkinggrp\

**8. Stream alteration permits**

Action: Daron, Mike, and Gregg to report on discussion with Daron Rasmussen.

Outcome:

The group did not meet with Daren Rasmussen. They will meet and report at next meeting.

**9. Next Meeting**

<b>Lead and Agenda Maker</b>	Susan White
<b>Note taker</b>	Dave Darby
<b>Date and Time</b>	TBA