

October 1, 2003

Dan Meadors, General Manager
Canyon Fuel Company, LLC.
HC 35 Box 380
Helper, Utah 84526

Re: Approval of South Fork Portal Reclamation, Canyon Fuel Company, LLC., Skyline Mine, C/007/0005, Task ID #1706, Outgoing File

Dear Mr. Meadors:

The above-referenced amendment is approved effective September 25, 2003. A stamped incorporated copy is enclosed for your copy of the Mining and Reclamation Plan.

If you have any questions, please feel free to call me at (801) 538-5268 or Stephen Demczak at (435) 613-5242.

Sincerely,

Pamela Grubaugh-Littig
Permit Supervisor

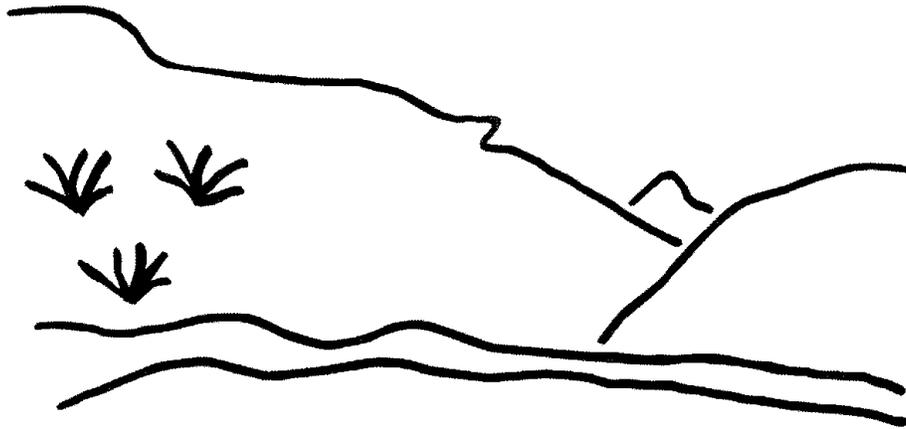
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Enclosure:

cc: Ranvir Singh, OSM
James Kohler, BLM, SLC
Alice Carlton, USFS
Mark Page, Water Rights, w/o
Dave Ariotti, DEQ, w/o
Derris Jones, DWR, w/o
Price Field Office

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State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Skyline Mine
South Fork Portals Reclamation
C/007/005
Task ID #1706
Technical Analysis
September 29, 2003

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TECHNICAL ANALYSIS

TECHNICAL ANALYSIS

The Division regulates the Surface Mining Control and Reclamation Act of 1977 (SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at <http://ogm.utah.gov/coal>

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference which describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

INTRODUCTION

INTRODUCTION

The permittee has submitted an amendment to change the process and procedures to reclaim the South Fork Portals for Mine #1. Coal waste will be used for backfilling the highwall. This will take the place of coal; which was mined from this area. The coal waste will be covered by five feet of soil.

Reclamation Cross Sections South Fork Portals Dwg 4.6.5-1 shows the placement of waste against the three portals of the #1 Mine. MRP Map 2.2.7.7 shows the Mine #1 breakout portals in the South Fork of Eccles Creek. The MRP Mine #1 Portal Breakout map 3.2.11-1 shows the disturbed area associated with the South Fork break out portals. The acreage of disturbance is 0.96 acres (Table 4.7-7 of the MRP). An additional 0.06-acre area will serve as a truck turnout at the mouth of the South Fork of Eccles Creek. And 1.0 acre of road will be reclaimed from the access gate to the truck turnout. The total area to be impacted by portal closure is 2.02 acres.

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GENERAL CONTENTS

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

The road accessing the South Fork Portals is within the permit area of Skyline Mine. The permittee will not need to get a special use road permit from the US Forest Service.

Findings

The permittee has met the minimum requirements of this section of the R645 Coal Rules.

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ENVIRONMENTAL RESOURCE INFORMATION

ENVIRONMENTAL RESOURCE INFORMATION

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

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

Analysis:

Map 2.2.1-1 adequately illustrates that the portals are located within the Blackhawk Formation and the dip is to the west indicating that any infiltration of the mine waste will be towards the portals and not toward the creek.

Findings

The information provided adequately addresses the minimum requirements of the Environmental Resource Information – Geologic Resource Information section 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:

Map 2.2.1-1 adequately illustrates that the portals are located within the Blackhawk Formation and the dip is to the west indicating that any infiltration of the mine waste will be towards the portals and not toward the creek.

Findings

The information provided adequately addresses the minimum requirements of the Environmental Resource Information – Geologic Resource Information section of the regulations.

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September 29, 2003 **ENVIRONMENTAL RESOURCE INFORMATION**

OPERATION PLAN

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

It is estimated that there will be 150 round trip truck trips up the canyon to transport the sediment from Electric Lake to be used in portal closure; two trips to transport blocks; and 100 trips to transport waste rock for fill (personal communication with Chris Hansen September 10, 2003).

Topsoil will be removed from the 0.06-acre flat area at the mouth of the South Fork of Eccles Creek that will be used as a passing area for transport trucks. The soil will be removed to a depth of twelve inches and stored (page 4-43). Soils on the roadway between the portals and the knob will be graded to eliminate existing water bars. The loose soil created by the grading will be cast aside and recovered as topdressing during reclamation of the roadway (personal communication with Chris Hansen on September 18, 2003). The subsoil is stored along the roadway just downstream from the land bridge will be used as a roadway during transport of the fill and then used as cover over the waste rock during reclamation (page 4-42).

As required by Regulation R645-301-242 all salvaged and stockpiled soils will be redistributed within the permit area.

Findings:

The information provided is adequate for the topsoil and subsoil operation plan.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Refuse Piles

Section 4.16 of the MRP describes placement of underground development waste either in the mined out workings or at the Scofield Waste Rock site. Refuse that is transported to the Waste Rock site will be tested as outlined in Section 4.4.5 of the MRP. One sample will be taken for every 2,000 Tons hauled. There will be 450 cu yds of Electric Lake sediments that will be hauled to the site for backfill inside the portals (p 4-41). The chemical characteristics of the lake sediments are reported in Appendix A-2. The contractor will use a 12-yard truck and this translates to approximately 40 round trips over the ancillary road to haul lake sediments.

During a site visit on September 9, 2003, Mr. Doug Johnson indicated that waste to be used as fill was mined in 1994 and stored underground until now. The application includes analyses of the waste to be used as fill in Appendix A-2. The waste is non-acid/non-toxic forming according to the Division's 1988 Guidelines for Topsoil and Overburden. Even so, the Permittee has committed to covering the waste with five feet of substitute topsoil and topsoil (p 4-41a).

Findings:

The information provided meets the requirements of the Regulations.

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:

Groundwater Monitoring

No springs or wells exist in the vicinity of the South Fork Portals that would be affected by the current activity. Although waste rock has been included in the fill, it has tested negative for acidic and toxic properties. The dip of the geology is into the mine so any infiltration of the waste rock will flow into the mine.

OPERATION PLAN

Surface Water Monitoring

Stream monitoring site CS-15 is located approximately 600-feet downstream of the South Fork Portal area and encompasses the majority of the proposed disturbance. Two stream monitoring sites exist on the South Fork of Eccles Creek (CS-15 and VC-10, respectively). Based on flow records since 1990, CS-15 accounts for approximately 10-12 percent of the flow in the South Fork of Eccles Creek. The middle branch of South Fork of Eccles Creek (where the portals are located) is an ephemeral channel. Flow records since 1990 indicate flows range from 0 to 138 gpm, with an average recorded value of approximately 45 gpm. Skyline's sampling frequency is typically June-August-October and flow has only been observed in June indicating flow is typically in response to snowmelt and individual storm events. Should any localized adverse conditions arise at the reclamation site, CS-15 should adequately document any changes.

Acid- and Toxic-Forming Materials and Underground Development Waste

Acid and toxic-forming materials generation to the point that it causes environmental harm is unlikely. The waste has been tested and will continue to be tested prior to placement as backfill. The portals are located approximately 25-feet vertically and 70-feet horizontally from the middle branch of the South Fork of Eccles Creek that is an ephemeral drainage (in that stretch) indicating communication between the two is unlikely. The portals are located on a well-vegetated slope with no drainages leading through the portal site, indicating sheet flow of water will be minimal through the site. The waste rock will also be covered by a minimum of 4-feet of topsoil and subsoil, highly reducing the infiltration of water through the waste rock.

Sediment Control Measures

There are two primary sediment control treatments that will be employed on the South Portal reclamation site. In Section 4.6 Topsoil/Subsoil Handling Plan of the MRP the Operator commits to deep gouging of the reclaimed surfaces. The deep gouging will eliminate any potential concentration of flow coming off the slopes while vegetation is being established. The gouges immediately adjacent to the 80-foot section of stream channel being re-established will be comprised of a durable mixture of materials. This will include a combination of increased straw, rock, and/or high-clay soil in an effort to make the stream banks more durable while vegetation is being established.

During reclamation of the portal area, the existing road will have extensive traffic from trucks bringing in materials. Minor improvements need to be done to the road prior to being used, such as leveling existing berms and widening the road in key locations, and sloping the road inward. The Operator has made the commitment to place straw bales or silt fences in areas where water concentrates prior to entering the creek. Following reclamation of the portals, sections of road being reclaimed will also be deep gouged to eliminate any concentration of flow running into the stream channel.

Findings:

The information provided adequately addresses the minimum requirements of the Operation Plan – Hydrologic Information section of the regulations.

RECLAMATION PLAN

RECLAMATION PLAN

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The permittee has submitted cross-sections and existing contours of the South Fork Portals. The permittee has indicated that the highwalls will be eliminated. This will meet the requirements of approximate original contours.

Findings:

The permittee has met the requirements of this section.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

Backfilling and Grading On Steep Slopes

The backfilling and grading of the highwall slopes will not exceed 2:1. The permittee will use a track hoe and dozer to backfill the South Fork Portals. The Mining and Reclamation addresses the compaction intervals of the material. The compaction will be in two-foot intervals.

Findings:

The permittee has met the minimum requirements of this section.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The sealing and backfilling of the portals has been approved in the Mining and Reclamation Permit and is not addressed in this amendment. The permittee must follow the approved plan as it pertains to sealing and backfilling the portals. If there is a change to the approved plan, the permittee must seek Division and MSHA approval.

Findings:

The permittee has met the requirements of this section.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Redistribution

Section 4.6.5 of the MRP describes the South Fork breakout and its reclamation. The three portals of Mine #1 shown on Mine #1 Portal Breakout, Map 3.2.11.1, will be reclaimed using 1,300 Tons of waste rock as fill underneath five feet of subsoil/topsoil (page 4-41 and Dwg 4.6.5-1).

Page 4-40 of the MRP details 2,840 cu yd topsoil and 2,840 cu yds subsoil were salvaged and stored on site. The Division calculates that there is 444 cu yds of topsoil stored along the road (600 ft x 4ft x 5 ft) upstream of the site. The remainder of the topsoil (2,400 cu yds) must be stored in the topsoil pile at the mouth of the canyon, downstream from the site. The Division calculates that there is approximately 2,066 cu yds of subsoil stored in the land bridge. The remainder of the subsoil is stored along the roadway just downstream from the land bridge.

RECLAMATION PLAN

The MRP in Table 4.7-7 indicates that the South Fork Breakout encompasses 0.96 acres. This includes the portal area and the road downstream to the topsoil pile and upstream to end of topsoil storage (personal communication with Chris Hansen on September 10, 2003). The ancillary road from the topsoil pile to the highway, including the truck turnout, accounts for another 1.06 acres to be reclaimed (4-41d).

The Division calculates that the area to receive five feet of cover on the south fork portal pad is approximately 0.2 acres. To cover the 0.2-acre area with five feet of subsoil/topsoil will require about 1,000 cu yds of subsoil (three foot depth) and 645 cu yds of topsoil (two foot depth). The Permittee has enough stored topsoil and subsoil to accomplish this task.

The truck turnout will be ripped (12 inches), and topsoil (12 inches) will be replaced, and then the entire site will be gouged (4-41c). All reclaimed areas will be pocked to a depth of about twelve inches, except the road from the access gate to the truck turnout that will be ripped and seeded only (4-41a, b, c).

Terry R. Brotherson Excavating (Mount Pleasant) will conduct the work using twelve-yard (10 wheel) dump trucks to haul the waste. A Sumatomo 200 trackhoe and a 3 yd rubber tire front-end loader will also be used at the site. A D-6 dozer will be used to respread topsoil and a Case 580 backhoe will be used for utility work. Keith Zobell will oversee the topsoil/subsoil handling and revegetation work (personal communication with Doug Johnson on September 9, 2003).

The location of the topsoil storage area will be returned to the approximate original contour (p 4-41a) that was a foot trail (email communication from Tom Lloyd (U.S. Forest Service) September 11, 2003).

Findings:

The information provided meets the regulatory requirements for Topsoil/Subsoil Reclamation plan.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

This is a pre-law road. The topsoil and some of the subsoil have been removed. No topsoil has been saved from this area. The permittee used this road to haul coal and to construct the South Fork Portals. The inspection of this area indicates that plants have started to encroach on to the road. The permittee now plans to use this road to transport material for sealing the portals and refuse materials for backfilling the highwall. The permittee will rip and seed the road after mining and reclamation operations are completed.

Findings:

The permittee has addressed the requirements of this section.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Hydrologic Reclamation Plan

In Section 2.4.4 of the MRP the Applicant commits to continuing sampling ‘throughout the post-mining period until the reclamation effort is determined successful by the regulatory authority’. This adequately covers the Hydrologic Reclamation Plan.

Findings:

The information provided adequately addresses the minimum requirements of the Reclamation Plan – Hydrologic Information section of the regulations.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

RECLAMATION PLAN

Analysis:

Reseeding and mulching at the South Fork Breakout is described on page 4-50. After topsoil redistribution, 2,000 lbs/ac straw mulch will be evenly scattered over the surface and then incorporated into the soil with gouging.

The truck turnaround will be ripped before being topsoiled and then gouged (one foot) and seeded. The remaining reclaimed ground will be gouged to a depth of one foot (page 4-41a - c). The access road from the gate to the truck turnaround will not be gouged, but will be ripped and seeded. Areas to be raked are those that cannot be reached by the equipment (p 4-41b and cover letter dated Sept. 19, 2003).

Table 4.7-4 and Table 4.7-5 for Aspen (portals) and spruce and fir (roadway) seed mixes will be used on the site, except that *Melilotus officianalis* will be omitted from both tables.)

Gravel may be applied to roadways to a depth of three inches in select locations to minimize the offsite sediment transport (personal communication with Chris Hansen on September 10, 2003).

Findings:

The information provided meets the requirements of the Regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Affected Area Boundary Maps

The permittee has an approved affected area boundary map (See Plate 3.2.11-1).

Reclamation Backfilling And Grading Maps

The permittee has submitted cross-sections of final reclamations and existing surface configurations. However, the Mining and Reclamation Plan in Volume 3, Backfilling and Grading 4.4, does address the compaction intervals of the material. It is recommended that the material used to reclaim the highwall should be compacted at maximum of two-foot intervals.

Final Surface Configuration Maps

The permittee has submitted operation contours and final cross-sections. This can be seen on Map 4.6.5-1. The cross-section showed that the permittee would reclaim the South Fork portal highwalls. The coal rules give the permittee a choice to either submit cross-sections or final contours (See R645-301-542.200).

Reclamation Cross Sections South Fork Portals Dwg 4.6.5-1 was submitted with this application. The map shows the placement of waste against the three portals of the #1 Mine. Map 2.2.7.7 shows the Mine #1 breakout portals in the South Fork of Eccles Creek. The Mine #1 Portal Breakout, map 3.2.11-1 shows the 0.96 acre disturbed area of the South Fork break out portals. (A copy of Map 3.2.11-1 was provided with this application.)

The reclaimed slope will be a 2h:1v.

Reclamation Treatments Maps

A reclamation treatment map will be provided to the construction management team and the field inspector. This map will outline areas of ripping, gouging, raking, sediment control, topsoil placement depths, seeding treatments, and transplants.

Certification Requirements.

The permittee certified map 4.6.5-1.

Findings:

The permittee has met the minimum requirements of this section.