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

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August 7, 2001

TO: [redacted]

THRU: Gregg A. Galecki, Sr. Reclamation Specialist, Project Team Lead

FROM: Joseph C. Helfrich, Reclamation Specialist, Biologist

RE: Leach Field Addendum A-1, Canyon Fuel Company, LLC, Dugout Canyon Mine, C[redacted]AM01A-1

**SUMMARY:**


On March 26, 2001, the Division received an amendment to add a leach field to the surface facilities at the Dugout Canyon Mine. The field is designed for 175 employees using 35 gallons of water per day. The pipeline and associated leach field would add an additional 2.55 acres of disturbed area. The pipeline constitutes approximately 1.6 acres of disturbance and will be buried below the county road drainage ditch. The permittee has proposed to remove the pipeline corridor from the disturbed area once the pipe is in place. The proposed leach field will be located approximately one mile below the mine facilities on the East side of the county access road. A BLM right of way # UTU-77985 is provided with this application. This Technical Memo is a review of the applicant's response to the Division's initial technical analysis of the June 29, 2001 proposed leach field application.


**TECHNICAL ANALYSIS:**

# GENERAL CONTENTS

## IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

**Analysis:**

Chapter 1 of the federal lease application is an introduction describing where mining activities are currently located, and the location of the proposed leach field addition, (plate 1-4). Over all changes to the current operation and reclamation plan are relatively minor. The site is located approximately 1.2 miles southwest of the Dugout Canyon mine adjacent to the Carbon County access road.

Ownership and control information is in Chapter 1 section 112 of the application by reference to the corresponding chapter(s) of the approved MRP. The applicant/permittee is Canyon Fuel Company LLC. organized under the laws of the State of Delaware and is in good standing and has legal corporate existence. The application includes Canyon Fuel's address, telephone number, resident agent, and employer identification number. The list of officers and directors and corporate structure of Canyon Fuel Company in the MRP are current as of February 26, 2001. Current standing with the Applicant Violator System is pending final approval of the application. The Resident agent accepting service of process is C. T. Corporation Systems. The contact person is Reed Olsen and the abandoned mine fees will be paid by Richard D. Pick. The application includes by reference the MSHA numbers for the Dugout Canyon mine.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations

## VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

**Analysis:**

The application refers to the approved MRP. The information in the MRP is current as of February 26, 2001. Neither the applicant nor any of its subsidiaries, affiliates, or persons controlled by or under common control with the applicant has had a federal or state permit revoked or suspended, nor forfeited a bond in the last five years, and there are no outstanding notices of violation.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

## RIGHT OF ENTRY

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

**Analysis:**

The current application/MRP has been amended to provide the correct legal description of the leach field and pipeline located within the BLM right of way. The amendment was received by the Division on April 26, 2001 for incorporation into appendix1-3 of the MRP. The BLM is the surface owner of the property where the leach field is to be located. The right of way # UTU77895 provides Canyon Fuel Co. the right to construct, operate, maintain, and terminate a pipeline and leach field right of way on public lands.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

## LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

**Analysis:**

The application refers to the MRP. The legal description and status of unsuitability claims in the current MRP include the proposed leach field and pipeline.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

## PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

**Analysis:**

The application refers to the MRP. The permit term in the revised MRP does include the leach field and pipeline.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

## PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

**Analysis:**

The application refers to appendix 1-2 of the approved MRP. This appendix does not contain proof of publication for the proposed leach field and pipeline. The applicant has included proof of publication in the leach field application.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

## FILING FEE

Regulatory Reference: 30 CFR 777.17; R645-301-118.

**Analysis:**

This application does not require a filing fee.

**Findings:**

The information provided is adequate to meet the requirements of this section of the regulations.

## PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

**Analysis:**

The format of the application is sufficient and compatible with the current MRP. However, the content by referral to the approved MRP often times does not contain the required information. These deficiencies are addressed in the findings for the specific sections.

**Findings:**

The information provided is adequate to meet the requirements of this section of the regulations.

## REPORTING OF TECHNICAL DATA

Regulatory Reference: 30 CFR 777.13; R645-301-130.

**Analysis:**

The technical data provided in this application is accompanied by the names of persons or organizations that collected and analyzed the data.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

## MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

**Analysis:**

There are several maps that need to be revised or updated with additional information. They are noted within the specific sections of this review.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

## COMPLETENESS

Regulatory Reference: 30 CFR 777.15; R645-301-150.

**Analysis:**

This type of application (amendment) does not require an initial completeness review.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

# ENVIRONMENTAL RESOURCE INFORMATION

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

## VEGETATION RESOURCE INFORMATION

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

**Analysis:**

Vegetation in the proposed addition to the permit area is very similar to that in portions of the current permit area. The application and current Mining and Reclamation Plan, (MRP) provide the vegetative information for the Leach Field project. The location of the proposed leach field is approximately one mile below the entrance to the mine facilities yard on the east side of the access road. The vegetation map, (plate 3-1) of the MRP and Attachment 3-1 of the application describe the plant communities of the proposed site as Pinyon/Juniper and Greasewood/Sagebrush with a grass, forb understory. Plate 3-1 and the vegetation inventory map provided for in attachment 3-1 accurately characterize the vegetation of the drain field. The information in the MRP and proposal is adequate to predict the potential for revegetation.

**Findings:**

The information provided is adequate to meet the requirements of this section of the regulations.

## FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

**Analysis:**

The Fish and Wildlife Information is located in chapter 3, section 322, of the application and is discussed in chapter 3 section 322.100 through 322.200 of the approved MRP. According to the submittal dated June 29, 2001, Plates 1-5 has been revised to include the proposed addition in the permit area. This map shows the proposed disturbed area boundary changes that identify the proposed leach field and pipeline as disturbed areas. The legend includes identification of the disturbed area boundary.

The raptor nest survey that did encompass the proposed leach field area was conducted in 1998 by the Utah Division of Wildlife resources. Plate 3-2 of the current MRP has been revised to include the 2001 survey, the proposed leach field and pipeline, and a legend that defines EHWT, DHWT, EHYL and DCSU. However, the raptor survey does not correctly identify the status of the nests that were surveyed in 2001.

**Findings:**

Information in the application is not adequate to meet this section of the regulations. Prior to final approval the applicant must supply the following in accordance with:

**R645-301-322,** Plate 3-2 needs to be revised to include the status and correct year in which the 2001 survey was conducted. The legend also needs to correspond to the appropriate year in which the survey was conducted, (2001), to correctly follow suit with the legend of the previous surveys.

## 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.

### Vegetation Reference area Maps

**Analysis:**

The text on page 3-3 of the proposed application refers the reviewer to the approved MRP. Section 323.100, Page 3-21 of the approved MRP states that "Reference area(s) are not designated on any plate or figure within this M&RP". However, Plate 3-1, (vegetation) of the current MRP does depict two reference areas. The proposed application and the approved MRP have been revised to include Plate 3-1.

**Findings:**

Information in the application is adequate to meet this section 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:**

### Protection and Enhancement Plan

Appendix 3-3 provides for a mitigation plan that could be implemented for the proposed pipeline and leach field. The application has been revised to include a reference to the mitigation plan contained in Appendix 3-3 section 3.1.1. Plate 3-2 indicates that the area is a high use area for deer and elk at certain times throughout the year. The legend on plate 3-2 has been clarified as referenced in the wildlife information of the environmental resource section. There are also several raptor nests within one mile of the proposed leach field. Paul Baker accompanied Chris Colt on the recent 2001 raptor survey. Their preliminary findings indicated that there was an

active Prairie Falcon nest and an active Golden Eagle nest within one mile of the proposed leach field. Therefore, a raptor mitigation plan would be required.

**Endangered and Threatened Species**

The Fish and Wildlife Service has provided a list of proposed and listed threatened and endangered species for Carbon and Emery County for the Horizon Mine. The Division analyzed the potential for each species on this list to be affected by the proposed addition to the permit area, and, except for potential effects to the threatened and endangered fish of the upper Colorado River basin (see discussion below), there should be no effects. Species on the list are:

| | |
|---|---|
| Graham Beardtongue | Razorback Sucker |
| Bald Eagle | Humpback Chub |
| Peregrine Falcon | Colorado Pikeminnow |
| Black-footed ferret | Bonytail Chub |

The peregrine falcon is no longer listed, but it is still protected. Raptor surveys have failed to locate peregrine falcon scrapes in the permit area or the federal lease addition although they have been found nearby. If the current survey indicates that there are raptors within one mile from the proposed disturbed area, mitigation will be required.

According to Ben Franklin of the Utah Natural Heritage Program, there is a historical collection of Graham beardtongue from the extreme northeastern corner of Carbon County a few hundred feet from the county line. It is an endemic that occurs almost exclusively on the Green River Formation in Uintah and Duchesne counties. There is virtually no likelihood the mine would affect this species.

There have been no confirmed sightings of black-footed ferrets in Carbon County in several years, so there should be no effect on this species.

Through water use, the mine could adversely affect threatened and endangered fish of the upper Colorado River basin. The Fish and Wildlife Service requires mitigation when annual water use exceeds 100 acre-feet. According to the revised Probable Hydrologic Consequences document, the increased acreage will not result in increased water use, which is currently estimated at 46.5 acre-feet per year. The water use by the personnel for the leach field is estimated at an additional 6.6 acre-feet per year. Therefore, no mitigation should be required.

The Division received a letter from the Fish and Wildlife Service dated March 28, 2000, concurring with the Division's findings on threatened and endangered species. Although water depletions are considered to jeopardize the continued existence of the threatened and endangered fish of the upper Colorado River basin, depletions are addressed by existing inter-agency Section 7 agreements. Therefore, no additional action or mitigation is required at this time. If the mine causes additional depletions, it will be necessary to reassess this determination.

The existing mining and reclamation plan contains information about threatened, endangered, and sensitive species. According to Section 322.200, no threatened or endangered plant or wildlife species were discovered in recent inventories by Wildlife Resources, the Forest

Service, or other qualified personnel. Appendix 3-1 contains a letter from Robert Thompson, Forest Service botanist, indicating the area contains no threatened or endangered plant species.

A June 24, 1995 survey for canyon sweetvetch found this sensitive species along Dugout Creek approximately one-half mile below the gate. The Division is aware of a fairly extensive population in the permit area in Fish Creek Canyon, and it could occur in other parts of the permit area and proposed addition.

Section 322.200 says two listed species, the bald eagle and black-footed ferret, could potentially inhabit the area. There have been no confirmed sightings of black-footed ferrets in Carbon County in several years, but bald eagles probably occur within the permit area during the winter.

Dugout Creek is within the drainage of the Green River, which is habitat for certain threatened and endangered fish of the upper Colorado River basin. Through effects on water quantity and quality, the mine could potentially adversely affect these species.

**Bald and Golden Eagles**

Although bald eagles are common winter residents, there are no nests or concentrated roosting sites within either the current permit area or the proposed addition. As required by R645-301-358.100, the permittee must promptly report to the Division any state or federally listed endangered or threatened species within the permit area of which it becomes aware. Seasonal or migrating bald eagles are expected and would not need to be reported.

**Wetlands and Habitats of Unusually High Value for Fish and Wildlife**

A letter from Robert Thompson (USDA, Forest Service Botanist, 1995) states that a site inventory was conducted and no wetlands were found within the then proposed disturbed area. Although Mr. Thompson is not certified by the Army Corp of Engineers to make this statement, he is a respected professional and his statement is enough not to require a wetlands survey. A site investigation to the proposed pipeline and leach field site by this reviewer on May 9, 2001 would also support Mr. Thompson's findings.

Plate 3-2 indicates that the area is a high use area for deer and elk during the winter months. The legend on plate 3-2 has been clarified. The revised text on page 3-3 of the proposal states "The Leach Field site is within an area considered as high value winter habitat for elk and deer". The response to the initial review provides for the inclusion of appendix 3-3. This appendix contains a mitigation plan that can be implemented for the new disturbance associated with the leach field.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of these

sections of the regulations.

## VEGETATION

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

**Analysis:**

The vegetation map, (Plate 3-1) of the MRP and Attachment 3-1 of the application describe the plant communities of the proposed site as Pinyon/Juniper and Greasewood/ Sagebrush with a grass, forb understory. Plate 3-1 and the vegetation inventory map provided for in attachment 3-1 accurately characterize the vegetation of the leach field. The leach field has been designed to disturb the smallest area possible and still meet the requirements of the Department of Health. The application refers to the approved MRP and the MRP only makes reference to the current disturbed area. Appendix 3-3 section 3.1.1 of the approved MRP provides a detailed description of protective enhancement measures to be taken prior to topsoil removal. In contrast, the application states "*soil removal will take place after all vegetation that could interfere with salvaging the soils has been removed and burned or saved to be used as mulch during reclamation of the site.*" These practices are again in conflict with the rock and woody vegetation stockpiling methods described in appendix 3-3. The term "W*here feasible*" in section 232.600 of the application should be deleted as it also conflicts with the stockpiling methodology described in appendix 3-3.

**Findings:**

Information provided in the proposal is not adequate to meet the requirements of this section of the regulations. Prior to final approval the applicant must supply the following in accordance with:

**R645-301-330, -301-331, -301-332**, Section 232.600 of the application needs to be revised so as not to conflict with Appendix 3-3 section 3.1.1 of the approved MRP.

# 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.

## PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

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

**Analysis:**

The application refers to the approved MRP. Control and mitigation measures provided for in section 333 of the MRP are general and do not provide the specificity required to address the protection of wildlife and related environmental values for the pipeline and leach field. The application should include a reference to Appendix 3-3. This appendix provides a site-specific protection and enhancement plan for the vegetative and wildlife communities located in the proposed leach field area. The current raptor survey will also require mitigation.

The application refers the reviewer to the approved MRP in section 342. Section 342, page 3-46 of the MRP states *"habitats of high value will be restored and enhanced beyond their pre-mining conditions."* This refers to the current disturbed area and does not make reference to or appear to include the pipeline and leach field proposal. The application should include a reference to Appendix 3-3. The final reclamation seed mix in the MRP is adequate to provide cover and nutritional value for wildlife. The application also contains an interim seed mix to establish a shallow rooting cover of grasses and alfalfa.

**Findings:**

Information provided in the proposal is adequate to meet the requirements of this section of the regulations. The requirement to provide a raptor mitigation plan is addressed in the operation plan requirements.

## CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284.

**Analysis:**

The permittee has committed to reclaiming the disturbed area contemporaneously with construction.

**General**

Upon completion of the laterals, the trenches will be back-filled and the area covered with the requisite amount of topsoil. An interim seed mix of grasses and alfalfa will be applied to achieve interim reclamation success. This seed mix will provide forage for deer and elk.

**Findings:**

The information provided in this section of the application is adequate to meet the requirements of this section 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:**

The applicant has addressed the revegetation requirements for the leach field in section 353 of the application and by reference to corresponding sections of the approved MRP. The vegetation map, (Plate 3-1) of the MRP and Attachment 3-1 of the application describe the plant communities of the proposed site as Pinyon/Juniper and Greasewood/Sagebrush with a grass, forb understory. Plate 3-1 and the vegetation inventory map provided for in attachment 3-1 accurately characterize the vegetation of the leach field. Reclamation techniques, timing, mulch, and standards for success are provided for and discussed following this analysis. To avoid interference in the leach field by deeper rooting plants, the permittee has proposed an interim seed mix of grasses and alfalfa. Shrubs and pinyon and juniper trees will eventually invade the area and are included in the final reclamation seed mix.

**General requirements**

The permittee has committed to establishing a vegetative cover on all reclaimed areas to allow for the designated post mining land-use of wildlife habitat.

**Timing**

The applicant has committed to following the vegetative guidelines set forth by the Division. Planting is to commence during the first favorable planting season.

**Mulching and other soil stabilizing practices**

The application refers to the approved MRP. The MRP indicates that mulch will be used on all areas that have been regraded and topsoiled.

**Standards for success**

The permittee has committed to applying the standards of success in accordance with the approved post mining land use. The approved MRP section 356 page 3-50 outlines the success standards for the Pinyon/Juniper vegetative community.

**Findings:**

The information provided in this section of the application is adequate to meet the requirements of this section 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:**

The permittee has not provided or referred to any maps associated with the reclamation of the leach field.

**Findings:**

Information provided in the proposal is not adequate to meet the requirements of this section of the regulations. Prior to final approval the applicant must supply the following in accordance with:

**R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731,** the application needs to address and meet the requirements of these sections of the regulations.

**RECOMMENDATIONS:**

The amendment is not recommended for approval in its present form.

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