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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

### Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

June 29, 2017

Kirt Tatton, General Manager  
Canyon Fuel Company, LLC  
P.O. Box 1029  
Wellington, Utah 84542

Subject: 2016 Annual Report Review Completion, Dugout Mine, C/007/0039, Task #5415

Dear Mr. Tatton:

The Division staff has completed the review of the 2016 Annual Report. Enclosed is a copy of the review with each reviewer's comments.

Thank you for your diligence in completing the Annual Report. If you have any questions, please call me at (801) 538-5350.

Sincerely,

Steve Christensen  
Permit Supervisor

SKC/sqs  
Enclosure  
O:\007039.DUG\WG5415 ANNUAL RPT\ReviewCompletionLetter.doc

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# Annual Report

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by the date specified in the cover letter. During a complete inspection an inspector will check and verify the information.

**GENERAL INFORMATION**

Company Name	Canyon Fuel Company, LLC	Mine Name	Dugout Mine
Permit Number	C/007/0039	Permit expiration Date	2018-03-03
Operator Name	Same	Phone Number	+1 (435) 637-6360
Mailing Address	P.O. Box 1029	Email	dspillman@bowieresources.com
City	Wellington		
State	Utah	Zip Code	84542

### DOGM File Location or Annual Report Location

Excess Spoil Piles	<input type="checkbox"/> Required	
	<input checked="" type="checkbox"/> Not Required	
Refuse Piles	<input checked="" type="checkbox"/> Required	
	<input type="checkbox"/> Not Required	
Impoundments	<input checked="" type="checkbox"/> Required	
	<input type="checkbox"/> Not Required	
Other:		

### OPERATOR COMMENTS

**REVIEWER COMMENTS**     Met Requirements     Did Not meet Requirements

The Permittee provided the sediment pond inspection reports in Appendix A of the Dugout Canyon Mine 2016 Annual Report. The certified inspection reports were provided for the primary sedimentation pond at the main mine facility as well as the sediment basin at the Pace Canyon Fan Facility as well as at the Refuse Pile site. The sedimentation pond at the main mine facility was inspection on 3/4/2016, 6/14/2016, 9/30/2016 and 11/21/2016. Additionally, the quarterly inspection reports of the Pace Canyon Sediment basin were also included (inspected on 3/21/2016, 6/17/2016, 9/7/2016 and 10/24/2016. The refuse pile sedimentation pond was inspection on 4/5/2016, 6/9/2016, 8/11/2016 and 11/05/2016.

# COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the Mining and Reclamation Plan and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If additional written response is required, it should be filed as an attachment to this report.

## Title: ANNUAL RAPTOR SURVEYS

**Objective:** To obtain baseline data prior to mining disturbances including subsidence of cliff habitat and any surface disturbances (construction, reclamation, or exploration). Conduct follow-up surveys within one year if nests were observed during the baseline surveys and if the nest or raptors could be impacted from mining (subsidence or proximity to surface facilities).

**Frequency:** Annually

**Status:** Ongoing

**Reports:** Annual

**Citation:** MRP, Chapter 3, Page 3-20

### Operator Comments

See Appendix D Confidential

Reviewer Comments  Met Requirements  Did Not Meet Requirements

Results from raptor surveys and monitoring in 2016 have been submitted. No hawks or eagles were observed at the known nest locations in the 2016 survey.

## Title: SUBSIDENCE MONITORING VISUAL INSPECTIONS

**Objective:** To check for surface subsidence features.

**Frequency:** Annually

**Status:** Ongoing

**Reports:** Annual

**Citation:** MRP, Volume 3, Chapter 5, Section 525.100, page 5-29

### Operator Comments

See Appendix C No subsidence occurs under Dugout's current and future mine plan.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

Annual subsidence surveys were completed parallel with water monitoring activities six times during 2016. No visible subsidence was present. JE

**Title: WASTE ROCK SAMPLING**

**Objective:** To protect ground and surface water and potentially substantiate lesser cover at the waste rock site.

**Frequency:** One sample per 5,000 cubic yards taken to the waste rock site. Acid/toxic material to be buried within 30 days and should be compacted, and isolated from water infiltration.

**Status:** Ongoing. **Please indicate the volumes or tonnage placed during the year into the refuse pile and the remaining capacity in the pile.**

**Reports:** Annual report, and to be included in RA attachment 5-4.

**Citation:** MRP, Chapter 5, Section 513.400, Section 528.300, Section 536 and Refuse Pile Amendment Volume, Section 536.200

Operator Comments

See Appendix C

Reviewer Comments  Met Requirements  Did Not Meet Requirements

PWB, 4/4/2017. Appendix C begins on electronic page 53 of the 2016 annual report. According to the certified engineer's report there was 670,391 cu ft (24,829 cu yd) placed at the site (density of compacted refuse = 105.5 lbs/cu ft). The remaining capacity is equivalent to 1,125,495 cu ft (41,685 cu yds or 61,902 Tons @110 lbs/cu ft).

Samples were received by Intermountain labs/Sheridan on January 22, March 7, September 12, November 2 and November 30, 2016. The samples are sand to loamy sand in texture, slightly alkaline and saline, but do not have boron or selenium toxicity and are not acid forming. Pyritic sulfur is the dominant form of sulfur in all samples, but there is adequate neutralization potential in the form of calcium carbonate to neutralize any acid formation. The samples were lacking sufficient amounts of the plant macronutrients: nitrogen and phosphorus and potassium for plant growth. If the waste remains within the surface four feet at reclamation, it will need adequate supplementation for vegetation growth.

**Title: SEALING OF WELLS**

**Objective:** Permanent casing and sealing of wells when no longer in use.

**Frequency:** Once upon termination of use.

**Status:** N/A

**Reports:** Report on status of wells

**Citation:** Chp. 6, Section 631, Chp. 7, Section 765

Operator Comments

Degas Wells G-2 through G-7, G-9 through G-14, G-16, G-18, G-19, G-22, G-25, G-26, G-30 and G-31 are sealed.

Reviewer Comments  Did Not Meet Requirements  Met Requirements

Wells and associated drill pads/access roads were inspected on November 19, 2014 during a bond release inspection. Phases 1 and 2 bond release was achieved on sites G-2 through G-7, G-10, G-12, G-13, G-14, G-18 and G-31. Phase 1 bond release was achieved on G-9, G-16 (& access road), G-19, G-22 (& access road), G-25, G-26, G-30, G-31 (& access road), and about 1,350 feet of the AMV road (AU)



# FUTURE COMMITMENTS AND CONDITIONS

The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicated by the "status" field. These commitments are included for information only, and do not currently require action. If you feel that the commitment is no longer relevant or needs to be revised, please contact the Division.

**Title: OVERBURDEN SAMPLING AND ANALYSIS****Objective:** Generate quality substitute topsoil**Frequency:** At Final Reclamation**Status:** long term**Reports:** at final reclamation**Citation:** MRP, Chapter 2, Section 224, Section 233.100, .300, and .400.**Title: NUTRIENTS AND AMENDMENTS****Objective:** Establishment of vegetation**Frequency:** At final reclamation**Status:** Long term**Reports:** At final reclamation**Citation:** MRP, Chapter 2, Section 243; Refuse Pile Amendment Volume, Section 243.**Title: VEGETATION MITIGATION PROJECT FOR BATS****Objective:** Permittee will plant additional willows along the channel where sufficient space allows.**Frequency:** At final reclamation**Status:****Reports:** At final reclamation**Citation:** Vol. Chap 3, Sec. 322, pp. 3-19 through 3-20.**OPERATOR COMMENTS (OPTIONAL)**

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**REVIEWER COMMENTS**

NA
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## **REPORTING OF OTHER TECHNICAL DATA**

Please list other technical data or information that was not included in the form above, but is required under the approved plan, which must be periodically submitted to the Division.

Please list attachments:

Reviewer Comments

# MAPS

Copies of mine maps, current and up-to-date, are to be provided to the Division as an attachment to this report in accordance with the requirements of R645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual subsidence map		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reviewer Comments  Met Requirements  Did Not Meet Requirements

Detailed and up-to-date mine maps and subsidence maps were provided. JE