



Suzanne Steab <suzannesteab@utah.gov>

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## Skyline, 2017 Annual Report Review Completion

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**Suzanne Steab** <suzannesteab@utah.gov>  
To: Gregg Galecki <ggalecki@bowieresources.com>  
Cc: Justin Eatchel <jeatchel@utah.gov>

Tue, Jun 12, 2018 at 8:15 AM

The Division staff completed the review of the 2017 Annual Report for the Skyline Mine. Attached is a copy of the review with comments. **Please note: Subsidence monitoring data is to be submitted to the Division by no later than 7/31/18.**

No hard copy will follow.

Thank you for your diligence in completing the Annual Report.

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 **Skyline.pdf**  
59K

# 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	Skyline Mine
Permit Number	C/007/0005	Permit expiration Date	April 30, 2022
Operator Name	Gregg A. Galecki - Skyline Mine	Phone Number	+1 (435) 448-2636
Mailing Address	HC 35 Box 380	Email	ggalecki@bowieresources.com
City	Helper		
State	UT	Zip Code	84526

## DOG M 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	1st, 3rd, and 4th quarter inspection reports were sent electronically to the Division on 4/11/17, 11/15/17, and 2/5/18, respectively. The refuse pile
Impoundments	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	3rd and 4th quarter inspection reports were sent electronically to the Division on 11/2/17, and 2/5/18, respectively. The pond inspections for the
Other:		

## OPERATOR COMMENTS

**REVIEWER COMMENTS**     Met Requirements     Did Not Meet Requirements

# 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: WASTE ROCK SAMPLING

**Objective:** To document chemical characteristics and support reclamation plan using less than four feet of cover and to protect surface and groundwater.

**Frequency:** During periods of deposition at the waste rock site.

**Status:** Quarterly sampling, one sample per 2000 tons hauled to the disposal site.

**Reports:** Annual report

**Citation:** MRP, Volume 3, Section 4.4, page 4-30, 2nd paragraph and 1988 Soils Guidelines Table 6.

### Operator Comments

A total of 16,015 tons of waste rock was hauled to the Waste Rock site in 2017. Analysis for eight (8) samples WRS2017-1 through WRS2017-8 are attached to this report. Two (2) .pdf files titled, "SkylineS1801225-soil-1" and "SkylineS1803005-soil\_2-8" are attached to this report.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

## Title: RAPTOR SURVEYS

**Objective:** To monitor known nest locations and identify new raptor nests that could be impacted from subsidence or new surface facilities. Damaged nests will be replaced immediately with an artificial structure in consultation with DWR.

**Frequency:** Annually and according to the Division's Raptor Survey Guidelines

**Status:** Ongoing

**Reports:** As Available

**Citation:** MRP, Chapter 4, Section 4.18, page 4-103

### Operator Comments

The 2017 raptor and general wildlife survey report is titled, "2017 Subsidence Report\_wildlife" is attached to this report.

Reviewer Comments  Met Requirements

Did Not Meet Requirements

The 2017 raptor and general wildlife survey and report found no observations of special status species and no American three-toed woodpeckers were observed. The results of the survey included five visual (1 aural) observations of the common raven (*Corvus corax*), 1 visual observation of a red-tailed hawk (*Buteo jamaicensis*) soaring to the northeast of the survey, and an observation of elk cows and calves in the area of station #232, located on the slope of Winter Quarters canyon.

TM 4/20/18

### **Title: MACROINVERTEBRATE SURVEYS**

**Objective:** To determine if mining and mining related activities are impacting Eccles Creek.

**Frequency:** Conduct studies in the fall for two consecutive years then two years off.

**Status:** Surveys due for 2015/2016 then 2019/2020

**Reports:** Annual

**Citation:** MRP, Appendix A-3, Volume 2, Volume 1A, Section 2.8, pages 2-70-2-71C Section 2.8, table 2.8-1a

Operator Comments

The next macroinvertebrate surveys are due in 2019.

Reviewer Comments  Met Requirements

Did Not Meet Requirements

No macroinvertebrate surveys are required for 2017.

TM 4/20/18

### **Title: NORTH LEASE VEGETATION SURVEY**

**Objective:** To determine the effects of longwall mining on riparian vegetation along Winter Quarters and Woods Canyon stream channels.

**Frequency:** Baseline survey of entire length of channels in 2005. Survey two years prior and during undermining of channel lengths and follow-up surveys two years after undermining.

**Status:** Ongoing, Please include a discussion of possible impacts from mining on riparian vegetation in report from qualified biologist.

**Reports:** Annual

**Citation:** MRP, Volume 1A, Section 2.7, pages 2-61d; A-2 volume 2, and A-3 Volume 2

Operator Comments

The final riparian vegetation study for the North Lease area surveying Woods Creek is titled, "canyon19.WQ17.rip.rpt.FINAL", is attached to this report.

Reviewer Comments  Met Requirements

Did Not Meet Requirements

According to the environmental engineer at Skyline Mine, mining has proceeded beyond the riparian plant communities that have been part of this study. As a result, the commitment for monitoring these riparian areas has been fulfilled and this will be the final report unless future mining moves under riparian communities. Also, due to the progression of mining, only Woods Canyon was studied in 2015, 2016, and 2017. The data and results from the 2017 study by Mt. Nebo Scientific, Inc. are included in the annual report.

TM 4/20/18

**Title: FISH SURVEY**

**Objective:** To determine if mining and mining related activities are impacting fish in Eccles Creek.

**Frequency:** In the fall every three years.

**Status:** Survey due 2016

**Reports:** Every three years

**Citation:** MRP, Volume 1A, Section 2.8, page 2-71d.

Operator Comments

The next fish survey is due in Eccles Creek in 2019.

Reviewer Comments  Met Requirements

Did Not Meet Requirements

No fish survey was required for 2017.

TM 4/20/18

**Title: Topsoil nutrient sampling during construction of the NOG Bleeder**

**Objective:** Determine N:P:K status of salvaged topsoils, because this analysis was not included with the soil survey

**Frequency:** once Fall 2015 or if construction is delayed, prior to construction

**Status:** Submit with 2015 annual report

**Reports:** Annual

**Citation:** Conditional approval of NOG Bleeder Shaft Task 4883. Outgoing folder 9212015.4883.doc

Operator Comments

The North of Graben (NOG) Bleeder was never constructed. This site will be taken out of the permit in a future application.

Reviewer Comments  Met Requirements

Did Not Meet Requirements

**Title: SUBSIDENCE MONITORING**

**Objective:** To document the amount of subsidence that has occurred.

**Frequency:** Annually

**Status:** Ongoing

**Reports:** Annual Update of Drawing 4.17.3-1 and digitized area survey information and results of on the ground visual inspection.

**Citation:** MRP, Chapter 4, page 4-97 thru 4-99a

Operator Comments

Submittal of the 2017 subsidence drawing will be delayed until approximately mid-April 2018 due to technical difficulties. The area of potential subsidence was flown in June 2017 by a new contractor (Aerographics). The 2012 baseline aerial survey data file (flown by Psomas) was determined to be corrupted in March 2018. Aerographics has acquired the original 2012 aerial photos and will re-digitize the baseline data. Skyline will then be able to submit the cumulative subsidence data through June 2017.

Reviewer Comments

Met Requirements

Did Not Meet Requirements

Complete review of this item pending receipt of subsidence data in April 2018 as committed. JE

**Title: SUBSOIL SAMPLING AT WASTE ROCK SITE**

**Objective:** To provide chemical characteristics of purchased subsoil.

**Frequency:** Once. Sample purchased subsoil for parameters in Table 1 of the Utah 1988 Guidelines.

**Status:** Ongoing with contemporaneous reclamation at the waste rock site.

**Reports:** None specified. Suggest verbal communication with Division and lab analysis to be included in bond release application.

**Citation:** MRP, Volume 3, Section 4.6.4.1, page 4-38a, 3rd paragraph, and page 4-38b.

Operator Comments

No contemporaneous reclamation was conducted in 2017 requiring any subsoil sampling at the Waste Rock site.

Reviewer Comments

Met Requirements

Did Not Meet Requirements

**Title: AGE-MONITORING OF WATER**

**Objective:** To understand the possible sources of groundwater inflows.

**Frequency:** When inflows of 800 gpm are encountered.

**Status:** No significant inflows in the North Lease.

**Reports:** Immediately notify Division

**Citation:** MRP, Volume 1, page 2-35b, paragraph 2.

Operator Comments

No significant inflows of greater than 800 gpm have encountered anywhere in the Skyline Mine in 2017.

Reviewer Comments

Met Requirements

Did Not Meet Requirements

No significant inflows in the North Lease area were observed therefore no age dating is required [AU]

**Title: SAMPLING PRIOR TO SLURRY PLACEMENT IN ABANDONED UNDERGROUND WORKINGS**

**Objective:** Protection of groundwater

**Frequency:** Every 450 feet of advance

**Status:** Report if placed slurry in abandoned underground workings.

**Reports:** Notification if parameters are out of compliance with Guidelines for Topsoil and Overburden.

**Citation:** MRP, Volume 2, Incorporation of 97K-1 and Section 1.2 (at the end of section 3.2).

Operator Comments

No slurry was placed in abandoned underground workings in 2017.

Reviewer Comments

Met Requirements

Did Not Meet Requirements

The Permittee has met the requirement. Sampling not required because no slurry was placed. [AU]

**Title: MONITORING OF REFERENCE AREAS**

**Objective:** Determine condition class of reference site to ensure the site is still appropriate for "reference"

**Frequency:** Every 5 years

**Status:** Overdue

**Reports:** Submit evaluation of all reference areas with determination of condition class as established by the NRCS.

**Citation:** MRP, Chapter 4, Page 4-47, paragraph 4.

Operator Comments

Page 4-47 of the M&RP was modified in 2016 to more accurately reflect evaluation of reference areas. "During the last two years of mining, prior to the initiation of final restoration efforts, reference areas will be evaluated to determine the adequacy of the reference area vegetative parameters." This is the second annual report with this response. This item should be removed from the Annual Report.

Reviewer Comments

Met Requirements

Did Not Meet Requirements

Section 4.7.5 of the MRP (page 4-47) was modified in 2016 to amend the reference area monitoring commitment. The MRP now requires evaluating the reference areas during the last two years of mining and before any initial restoration is begun in order to ensure the adequacy of the reference areas for establishing reclamation success standards. The commitment to submit reference area evaluations every 5 years is to be removed from future annual report requirements and the new requirements are to be included as a future commitment.

TM 4/20/18

# 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: TOPSOIL SAMPLING**

**Objective:** To determine fertilizer application rate.

**Frequency:** At final reclamation sample redistributed topsoil for N, P, K, Fe, Mg, Mn, Zn, Ca and pH.

**Status:** At final reclamation

**Reports:** None specified. Suggest verbal communication with Division and lab analyses to be included in bond release application.

**Citation:** MRP, Volume 3, Section 4.5, page 4-32, 2nd paragraph.

**Title: SAMPLING OF WASTE ROCK IN TEMPORARY STOCKPILES**

**Objective:** Protection of surface and groundwater

**Frequency:** one sample per 2000 tons of temporary stockpiled material if remains in temporary location longer than three months.

**Status:** Ongoing

**Reports:** Not specified. Assumed to be the same as disposal site sampling (previous paragraph on same page.)

**Citation:** MRP, Volume 3, page 4-30, 3rd paragraph, and 1988 Soils guidelines, table 6.

## 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:

1st and 2nd Quarter Pond Inspection reports; 2nd Quarter Refuse Pile Report; 2017 Subsidence Report\_wildlife; Woods Canyon Riparian report (canyon18.WQ17.rip.rpt.FINAL); and Waste Rock analysis (SkylineS1801255\_soil-1 and Skyline S1803005\_soils\_2-8).

Reviewer Comments

