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DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

July 17, 2017

Corey Heaps, Mine Manager
Skyline Mine
HC 35, Box 380
Helper, Utah 84526

Subject: 2016 Annual Report Review Completion, Canyon Fuel Company, LLC, Skyline Mine, Task ID #5425, C/007/005

Dear Mr. Heaps:

The Division has completed the review of the 2016 Annual Report. Please forward a copy of the fourth quarter refuse inspection report. It could not be found in the Division's records.

The waste rock sampling commitment required by the approved Mining and Reclamation Plan has been identified as outstanding. Enclosed is a copy of the review where a more detailed discussion of the outstanding commitment is provided.

Please submit the requested additional information by August 18, 2017.

If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/PWB/sqs
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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	Skyline Mine
Permit Number	C/007/0005	Permit expiration Date	April 30, 2017
Operator Name	Skyline Mine - Gregg Galecki	Phone Number	+1 (435) 448-2636
Mailing Address	HC 35 Box 380	Email	ggalecki@bowieresources.com
City	Helper		
State	Utah	Zip Code	84526

		DOGM File Location or Annual Report Location
Excess Spoil Piles	☐ Required ☒ Not Required	
Refuse Piles	☒ Required ☐ Not Required	Submitted quarterly in electronic format on 4/4/16, 8/8/16, 11/17/16, and 2/10/17, respectively.
Impoundments	☒ Required ☐ Not Required	Submitted quarterly in electronic format on 4/4/16, 8/8/16, 11/17/16, and 2/7/17, respectively.
Other:		

OPERATOR COMMENTS

REVIEWER COMMENTS ☐ Met Requirements ☒ Did Not meet Requirements

7/17/2017, PB. The file dates for the refuse and sediment pond inspections are different than those reported above, as follows:
REFUSE: 3/24/2016, 6/16/2016, 09/29/2016. The fourth quarter refuse inspection could not be found in the OGM records.
POND: 2/17/2016, 4/13/2016, 8/6/2016, 10/20/2016,

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: 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 approximately 42, 562 tons of material were hauled to the waste rock site in 2016. A total of 21 samples were collected. Fourteen (14) samples have been analyzed by Inter-Mountain labs (attached) with the remaining seven (7) samples remaining to be analyzed. The remaining lab analysis will be submitted as an addendum as they are received. A .pdf file titled, "WRS Soil Samples.pdf" contains the fourteen (14) samples (WRS2016-1 through WRS2016-14). Skyline plans to make a modification to the M&RP to decrease the sampling frequency from 2000 tons to 5000 tons hauled to the disposal due to inert quality of the samples.

Reviewer Comments ☐ Met Requirements ☒ Did Not Meet Requirements

7/17/2017, PB. Analysis of the 7 samples taken during the third quarter are now overdue.
The waste rock site was active during the second and third quarters. In the second quarter, 29,300 tons were placed. In the third quarter, 13, 262 tons were placed. Analysis of 14 samples taken during the second quarter are provided in the WRS Soil Sample section, found on e-pg 119 of the Annual Report. Samples WRS2016-1 through WRS2016-14 were received by InterMountain Labs/Sheridan WY on Aug 15, 2016 . Most samples were loamy sand in texture. Electrical conductivity values are equal to or below 1.5 dS/m. pH values are slightly alkaline (7.9 to 8.2) . SAR values are equal to or below 3.81. Calcium and magnesium concentrations (meq/L) were equally balanced in each sample. Where SAR values were above three, sodium (meq/L) dominates. Available potassium is low for plant growth, but comparable to the topsoil samples taken from Swen's Canyon in 2016, see review of these samples below.

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

A .pdf file report titled, "2016 Subsidence Report 8.15.16" outlines the raptor and wildlife surveys in the mining areas affected by

subsidence in 2016.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

LR 5/5/17. A raptor survey was conducted above panels planned to be mined in 2016 and 2017. Red-tailed hawk was the only raptor species observed and there were no active nests documented within the survey area. There were no aural or visual observations of American three-toed woodpecker.

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

A .pdf file report titled, "FINAL_Eccles_Creek_2016", outlines the macroinvertebrate and fish studies conducted in 2016.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

LR 5/5/17. Bio-West, Inc conducted fish and macroinvertebrate surveys on September 29 and 30 2016 as required by the MRP. Overall, and at this point, "the fish community in Eccles Creek appears to be healthy and the stream is habitable by various size classes of fish year-round. The macroinvertebrate data suggest that there is an available food source, albeit with limited diversity." Fish and Macroinvertebrate Assessment on Eccles Creek, 2016, p. 16.

PB. 7/17/2017. In addition to the anthropogenic activities mentioned in the report, the Eccles pad and culvert removal project (White Oak Mine) took place in October and November 2015. Sediment control was in place during construction, but erosion off the reclaimed slopes during the Spring 2016 may have influenced macro-invertebrate populations sampled Fall 2016. Also, the clogged culvert in Whiskey Creek was removed and replaced with a swale in June 2016. This removed a source of sediment to Eccles. However there was severe erosion of the Whiskey Creek bank, downstream of the swale, which occurred during the spring runoff in 2017 and is mentioned for the purpose of future reporting.

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

A .pdf file titled, "Canyon17.WQ16.rip.rpt.final.pdf" provides the survey information for the 2016 riparian survey in Woods Canyon. Skyline plans to discuss with the DOGM biologist that the Vegetation Survey is now complete.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

LR 5/5/17. Mt. Nebo Scientific, Inc completed the surveys as required by the MRP.

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

A .pdf file report titled, "FINAL_Eccles_Creek_2016", outlines the macroinvertebrate and fish studies conducted in 2016.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

LR 5/5/17. Bio-West, Inc conducted fish and macroinvertebrate surveys on September 29 and 30 2016 as required by the MRP. Overall, and at this point, "the fish community in Eccles Creek appears to be healthy and the stream is habitable by various size classes of fish year-round. The macroinvertebrate data suggest that there is an available food source, albeit with limited diversity." Fish and Macroinvertebrate Assessment on Eccles Creek, 2016, p. 16.

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

A .pdf file titled, "Swens Soil Samples.pdf" contains a total of four (4) soil samples collected from the NOG Bleeder shaft from the approximate locations of the soil survey. The samples are identified as 15SKY14-16A, 15SKY14-16B, 15SKY15-15A and 15SKY15-15B representing their respective horizons.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

7/17/2017, PB. Samples were received by InterMountain Labs/Sheridan WY on Aug 15, 2016 . The texture of the soil is silty loam to sandy loam. The pH is acidic 5.8 - 6.5. EC and SAR values are good. There is little carbonate content. Nitrogen, phosphorus and potassium nutrient status appears very low for topsoil. Could there be a laboratory reporting error?

Swens Canyon topsoil and subsoil stockpiles were seeded in September 2016. The seed mix is included in the 2016 Annual Report, , e-pg. 114. Mountain brome, bluebunch wheatgrass, Palmer penstemon, slender wheatgrass, Sandberg bluegrass and western yarrow were seeded.

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

See "2016 Subsidence Survey" for details of the Subsidence Monitoring Program conducted in 2016.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

In the Fall of 2016 a tension crack was located on Winter Quarters Ridge via helicopter survey. The crack was mitigated within 30 days of discovery. The aerial photogrammetric portion of the Subsidence Monitoring Program was not conducted in 2016 due to an internal miscommunication within the contractor (Psomas) who performs Skyline's annual flyover surveys. Discussions with Psomas management have occurred to insure this situation does not happen again. The omission of the aerial portion of the program was discussed with DOGM management, and it was determined that the absence of data for 2016 was not an issue so long as the final effects of underground mining activities were quantified with future surveys. 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 2016 at the waste rock site. No subsoil sample was collected.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

7/13/2017, PB. The Coal refuse pile was active (inspection report 5710, 11/17/2016), but no contemporaneous reclamation occurred in 2016.

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 inflows in excess of 800 gpm were encountered in the Mine in 2016.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

This corresponds with the North Lease area as it typically does not see significant inflows in excess of 800 gpm. [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 placement in abandoned underground workings was conducted in 2016.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

The Permittee met the requirement. [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

This is a hold-over from a previous Annual report. 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."

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

LR 5/8/17. This commitment has been removed from future annual reports. The MRP was updated 9/2/2016 and removed the commitment to monitor reference areas every 5 years and instead will evaluate the reference areas during the last 2 years of mining and prior to initial restoration to ensure the adequacy of the reference area for reclamation success standards.

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.

OPERATOR COMMENTS (OPTIONAL)

Page 4-30 addresses waste material generated from construction of the Winter Quarters Ventilation Facility (WQVF), which was completed in 2011. Independent of that, no temporary stockpiles in excess of 2,000 tons have been stored longer than three (3) months on any of mine facilities.

REVIEWER COMMENTS

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:

2016 Subsidence Report 8.15.16, 2016 Subsidence Survey, canyon17.WQ16.rip.rpt.final, Swens Canyon Shaft - Interim seeding, FINAL_Eccles_Creek_2016, Swens Soil Samples, and WRS Soil Samples.

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
2017 5-year Mine Plan		☒	☐	☐	☒
2016 As-Mined Map		☒	☐	☐	☒
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

Please note that mine maps are not confidential per R645-300-124.300. Confidentiality is limited to the information specified in R645-300-124.310, R645-300-320, and R645-300-124.330.

A map illustrating mined out longwall panels and gateroad development in 2016 is included. Also included is a mine map detailing projected mining until 2021. These maps fulfill the Division's requirements. JE