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Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

March 15, 2019

John Byars, General Manager
Canyon Fuel Company, LLC
597 South SR24
Salina, Utah 84654

Subject: Conditional Approval to Add Infrared Vegetation Monitoring 2018, Canyon Fuel Company, LLC, Sufco Mine, C/041/0002, Task #5849

Dear Mr. Byars:

The above-referenced amendment is approved conditioned upon receipt of 2 clean copies prepared for incorporation. Please submit these copies by April 12, 2019. Once we receive these copies, final approval will be granted.

A stamped incorporated copy of the approved plans will also be returned to you at that time, for insertion into your copy of the Mining and Reclamation Plan.

If you have any questions, please call me at (801) 538-5350.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Christensen".

Steve Christensen
Permit Supervisor

SKC/sqs



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Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0410002
TaskID: 5849
Mine Name: SUFCO MINE
Title: ADD INFRARED VEG MONITORING 2018

Operation Plan

Vegetation

Analysis:

The amendment meets the State of Utah R645-301-331 requirements for vegetation. Chapter 3, pages 3-45 and 3-45A, of the MRP contains a commitment from the operator to use color infrared photography (CIR) to document changes to vegetation over time. This CIR coverage began in 1987 and is updated every 5 years. A CIR report was sent to the Division in 2013, and this amendment represents the 2018 CIR imaging. The report includes photography from 2013 as well as 2018 in order to compare and contrast the vegetation to help determine whether subsidence may play a role in vegetation conditions. The vegetation in 2018 appears similar to the 2013 images although drier conditions, including lack of water in stock ponds, can be seen in 2018. Subsidence is not the only reason vegetation may change in the region; drought conditions have persisted in the area throughout the 5 year period, and even before. Annual precipitation percentage of normal never reached 100% from 2014 to 2018, the highest (wettest) year being 2014 when annual precipitation was recorded at 90% of normal. The lowest (driest) year was in 2017 when annual precipitation was only 38% of normal. The percentage did not get higher than 59% in any of the last 3 years (2016-2018). These drought conditions are likely much more responsible than subsidence for the dry conditions in the study area observed over the last 5 years.

tmiller