

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

August 10, 2009

TO: Internal File

THRU: Priscilla Burton, Lead *PB km SOS*

FROM: Ingrid Wieser, Environmental Scientist II *UW*

RE: Reduce Water Monitoring Requirements, Canyon Fuel Company, LLC., Skyline Mine, C/007/0005 and Task #3356

SUMMARY:

On July 22, 2009, the Division received an application to reduce water-monitoring commitments within the Skyline Mine permit area. The proposed monitoring sites included Well W99-28-1, F-9, F-10, CS-4, NL-13, and NL-14. In the application, Canyon Fuel Company included a letter explaining why each commitment should be modified or deleted and updated text and maps for incorporation to the approved Mining and Reclamation Plan.

No deficiencies were identified.

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TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

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

FISH AND WILDLIFE RESOURCE INFORMATION

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

Analysis:

Fish surveys have been conducted in several stream reaches within the project area since 2000. All fish survey requirements have been fulfilled as of fall 2007 except for in Eccles Creek, which has no determined end date. Macroinvertebrate sampling has also been conducted in the same reaches since 2000 and will be completed in 2011. The following describes the location and purpose of the water sampling locations that Canyon Fuel Company has proposed to modify or delete and their relation to the fish/macroinvertebrate sampling sites.

Well W99-28-1: This well is located in Swens Canyon. Baseline water level monitoring was conducted in 1999, and quarterly monitoring began in 2002. In 2008, mine personnel experienced difficulty probing this well due to breaching of the well casing. Canyon Fuel Company believes that surrounding wells W20-28-1 and W99-21-1 provided sufficient data for the area. No fish or macroinvertebrate surveys were required in the area around these wells. No fish or wildlife resources were identified in the area that could be affected by mining. From a biology standpoint, the Division should approve the relinquishment of this monitoring site.

F-9& F-10: These stream monitoring sites are located in James Canyon downstream from the mine water Discharge JC-3. Canyon Fuel Company established a fish and macroinvertebrate monitoring program in this canyon prior to undermining the lower portion. The fish surveys were conducted starting in 2000 and every three years until 2007, which was at least two years following undermining (according to the stipulation in the MRP.) The macroinvertebrate studies were conducted beginning in 2000 and continued twice a year for two years and then every three years until all agencies agree to end the surveys. The sites were established to monitor stream flow while the canyon was being undermined and the JC-1 outfall was being constructed. Both of these events were completed years ago. The JC-1 discharge site is a UPDES discharge point and is required to be monitored for several parameters in addition to flow. Canyon Fuel Company proposes to discontinue monitoring of F-9 and to modify the monitoring of F-10 to quarterly flow and field parameters with water analysis collected every five years. From a biology standpoint, the only remaining surveys in this canyon are

macroinvertebrate surveys, which do not use the information from the sampling locations to do the analyses. The surveys have additional water quality and Biotic Condition Index that are used to study the population fluxes. From the information provided by Canyon Fuel Company, it is apparent that F-9 is not contributing additional information from f-10, and can be discontinued.

CS-4: Monitoring point CS-4 is located on the upper left fork of Eccles Creek above the water tank. It was established to monitor flow impacts related to mining and the water tank. CS-11 is located downstream from this point but before the eccles creek confluence. Figure C, provided in the application, is a comparison between monitoring results for TDS between 1981 and 2008 for CS-4 and CS-11. The monitoring sites have very similar trends with CS-11 being slightly higher due to its downstream location. Macroinvertebrates and fish surveys are conducted in Eccles Creek approximately every three years. CS-4 is located in the upper left fork and should not affect these surveys. Many other monitoring points are located along Eccles Creek.

NL-13 and NL-14: These sites are located over a mined section of the North Lease in the left fork of Winter Quarters Canyon. NL sites were designed to monitor stream flow in perennial streams before, during and after undermining to observe impacts related to subsidence. The panel under these two sites was mined in 2006. Provided in the application, Figures D-1 through D-6 illustrate the flows from 2006 to 2008. Winter Quarter Canyon has had previous Fish Survey requirements that were completed in 2002. Riparian vegetation monitoring of winter Quarter Canyon has been conducted yearly since 2005 to monitor the affects from subsidence. This canyon is located North of these two water monitoring points. Approximately five other water monitoring points are upstream from the vegetation sampling area in winter quarters canyon. The water monitoring commitments have been completed for these sites and do not affect fish or vegetation surveys.

NL sites Overall: It is estimated that recent mining has resulted in about four feet of subsidence. Canyon Fuel Company proposes in this application to reduce the water sampling points to the center of each panel, increasing the distance between each sampling point from 425 feet to 850 feet. This should accurately portray the affects of longwall mining to the stream flow and show any results of subsidence. The vegetation surveys conducted in Woods and Winter Quarter Canyon will not be affected by fewer monitoring points.

Findings:

The information provided is considered adequate to meet the minimum regulatory requirements for this section.

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RECOMMENDATIONS:

The amendment should be approved.

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