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DEPARTMENT OF NATURAL RESOURCES

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Technical Analysis and Findings
Utah Coal Regulatory Program

October 27, 2015

PID: C0070016
TaskID: 5016
Mine Name: GORDON CREEK 2, 7 & 8 MINES
Title: REPAIR DESIGNS

Reclamation Plan

Hydrological Information Reclamation Plan

Analysis:

The amendment meets the State of Utah R645 requirements for Hydrologic Information - Reclamation Plan.

In September of 2015, the lower section of channel SD-6 eroded following a major rain event. This channel has been repaired numerous times, including repair work earlier in 2015. With the damage to the channel that occurred with this event, the Permittee has done a slight re-design of the channel to hopefully prevent this from happening again. SD-6 is designed to convey a peak flow of 7.08 cfs, resulting from a 100 year, 6 hour rainfall event. It has very little slope at the upper section of the channel and then slopes steeply downward with a slope of about 40%. This steep lower section of the channel is where most of the erosion took place.

The new channel has a trapezoidal design, with a 5 foot base, with 2H:1V side slopes and will be 1.5 feet deep. The channel will (from the base up) contain 4"-8" of sandy gravel, 4"-8" of gravel, and 30" of riprap (D50=18").

The Permittee should provide an as-built cross-section upon completion of work.

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Maps Reclamation Final Surface Configuration

Analysis:

The application meets the minimum requirements of R645-301-540. The engineering design review was completed by the UT DOGM hydrologist and found the be satisfactory in meeting water shed design requirements. The new channel has a trapezoidal design, with a 5 foot base, with 2H:1V side slopes and will be 1.5 feet deep.

To meet the minimum requirements of R645-301-542.100 the MRP needs to be updated to include a figure that details the extent and dates of any reseeding done related to the current or previous repair work.

To meet he minimum requirements of R645-301-550 As-builts of the creek repair will be supplied to the Division for incorporation into the final MRP.

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