



Technical Analysis and Findings
Utah Coal Regulatory Program

June 17, 2016

PID: C0250005
TaskID: 5171
Mine Name: COAL HOLLOW
Title: 2015 ANNUAL REPORT AMENDMENT

Operation Plan

Topsoil and Subsoil

Analysis:

Analysis: The soils analysis and Figure 1 showing locations of sampling meet the requirements of R645-301-231.200, but do not meet the requirements of R645-301-121.200, since even printing at 100% magnification, the sample locations are not legible on Figure 1. Thus, it is impossible for the Division to interpret the results of the sampling. Figure 1 legend also designates a shading for August 2012, but no such locations could be found on Figure 1.

Figure 1 shows areas represented by each grab sample reported in the soils analysis. Grab samples were collected from a grid within a two acre area. The subsamples were combined, mixed and then a single sample was drawn for analysis to represent the 2 acre area. The samples were sent to Intermountain Labs (Sheridan, WY) for analysis.

Deficiencies Details:

The soils analysis and Figure 1 showing locations of sampling meet the requirements of R645-301-231.200, but do not meet the requirements of R645-301-121.200, since even printing at 100% magnification, the sample locations are not legible on Figure 1. Thus, it is impossible for the Division to interpret the results of the sampling. Figure 1 legend also designates a shading for August 2012, but no such locations could be found on Figure 1.

pburton

Reclamation Plan

General Requirements

Analysis:

Analysis: Updated Drawing 5-38 Reclamation Sequence is provided in partial fulfillment of R645-301-542.100 to provide "a detailed timetable for the completion of each major step in the reclamation plan." The drawing states that the total disturbed area is 342 acres and shows all the disturbed area reclaimed by the end of 2017. The drawing provides a running total of acres mined equal to 178 acres at the end of 2015.

This drawing requires some background knowledge to understand. For instance: the legend for the yellow shaded area states: "7 ac., 5.7 ac. re-disturbed due to relocation of Excess Spoils." The legend is referring to 5.7 acres that were reclaimed in 2012 that are no longer shaded yellow, because they were redisturbed in 2016 and are now shaded the 2016 color (pink).

The facilities are shown on drawing 5-38 as being reclaimed in 2017. Due to ongoing mining in Area 1 and proposed mining in Area 2 & 3 and the requested emergency lease, the Division does not believe this to be accurate.

The drawing estimates reclamation of 110 acres in 2016, including the former excess spoil pile and HWT 2. (It does not specify any further timeline than by year.)

The drawing outlines 136 acres currently backfilled and 42 acres of open pit related to HWT 2 and Pit 10 (the underground mine). The map does not specify a date for backfilling HWT 2, but the narrative, revised in accordance with NOV 21163 to state completion of backfilling by June 9, 2016. The drawing estimates reclamation of Pit 10 and the remainder of the facilities, including pond 3 in 2017. This drawing will need to be revised to include the borrow area for Pit 10, which is currently under review as Task 5070.

*Deficiencies Details:*

R645-301-121.100, Provide current information on Dwg 5-38 as follows:

- 1] Correct the timing for reclamation of the facilities yard which is shown as being reclaimed in 2017. Due to ongoing mining in Area 1 and proposed mining in Area 2 & 3 and the requested emergency lease, the Division does not believe this to be accurate.
- 2] Correct the legend. The legend describes 7.8 acres re-disturbed in green shading. Similarly, the legend describes 7 acres of yellow shading. These statements are no longer correct, since the green and yellow shading has been reduced in size and the former excess spoil pile is now pink in color.

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## Hydrological Information Reclamation Plan

*Analysis:*

The amendment meets the State of Utah R645 requirements for Reclamation Hydrology.

Map 5-38 correctly updates the timeline of Lower Robinson reconstruction. The section of the channel highlighted in blue was reestablished in 2015. The original plan was to re-establish this section of channel in 2017.

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The amendment does not meet the State of Utah R645 requirements for Hydrology Reclamation Requirements.

The amendment incorrectly outlines the timeline for removal and reclamation of temporary structures. Map 5-38 shows each pond (1-4) being reclaimed the same year as the watershed (or part of the watershed) draining to the pond. The siltation structure may not be removed sooner than two years after the last augmented seeding within the catchment draining to a pond. At this time it appears Pond 4 is the only siltation structure that may be slated for removal in 2018. Due to the patch work of reclamation across the watersheds draining to the other three ponds the earliest reclamation according to the map is 2019.

*Deficiencies Details:*

R645-301-763.100. The amendment does not meet the State of Utah R645 requirements for Reclamation of Siltation Structures.

Map 5-38 must be update the reclamation date of ponds within the permit area. Pond siltation structures may not be removed sooner than two years after the last augmented seeding with the catchment draining to a pond. Due to the patch work of reclamation across the catchments, the earliest reclamation appears to be 2018 for Pond 4 and 2019 for Ponds 1-3.

kstorrar

## Maps Reclamation BackFilling and Grading

*Analysis:*

The amendment does not meet the State of Utah R645 requirements for Reclamation Backfilling and Grading Maps.

The requirements of R645-301-542 are not met within the amendment due to text in the legend that was not removed with the drawing edits. The rest of the drawing details the total acres of reclamation to be completed within the stated year. The amendment includes changes to reclamation year of the following bonded areas detailed on Drawing 5-38:

- Excess spoil areas 1 through 6
- Pits 1-A, 1-B, 2, 4, 7, 8, 9-B, 9-C, HWT 1-A, HWT 1-B, HWT 2-A, HWT 2-B, HWT 3-A, and HWT 3-B
- Surface areas 4 and 5
- Robinson Creek

The majority of the changes included extending the excess spoil areas to 2016, which does not included the pending additional borrow area. Changes to the pits were from 2014 and 2015 reclamation to 2016. Changes to the surfaces were from 2015 to 2016 and Robinson creek was changed from 2017 to 2015. The total area backfilled has been updated from the original 88 acres to 136 acres, open pits acreage was changed from 65 acres to 42 acres, and total mined is now shown as 178 acres as of the 4/11/16 revision date of the drawing.

*Deficiencies Details:*

R645-301-542: The Permittee will remove the misleading text in the legend of Drawing 5-38.

cparker