



State of Utah

DEPARTMENT OF NATURAL RESOURCES

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Technical Analysis and Findings

Utah Coal Regulatory Program

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PID: C0250005
TaskID: 5504
Mine Name: COAL HOLLOW
Title: PHASE I BOND RELEASE

Reclamation Plan

Topsoil and Subsoil

Analysis:

The application does not meet the requirements of R645-301-252, because Appendix 2-7 is missing analytical results for spoil sample locations 4, 5, & 7; and the volume of subsoil reported in Appendix 2-7 as being replaced over BRP1-12 is inadequate to provide a four foot cover depth over the acid/toxic forming spoil.

The Phase 1 bond release application is for North Lease pits 4-6 (BRP1-12) and South Lease Pit B1 (BRP1-11).

BRP1-12 is 16.2 acres. The Spoil was analyzed at locations shown on Dwg 5-76A. Spoil sample analysis was received for sites 6, 8, 9, 10, and 11. Sample analysis indicated locations 9, 10 and 11 were unacceptable for use in the surface four feet of the reclamation due to either SAR or Acid/Base Accounting values. These areas were reportedly covered by four feet of subsoil and topsoil cover (Dwg 5-76A). Dwg 7-56A further indicates that a 1.2 acres area in the location of spoil sample location 4 received lesser cover than the rest of BRP1-12 due to the spoil analytical results. The results for spoil pit 4 were missing from the application, but Mr. Nichols had the results on hand (personal communication 9/28/2017) and stated that the surface six inches at spoil sample location 4 had a texture of clay loam, an SAR of 13.3, and an acid/base accounting of +55 which meets the "Poor" suitability category (Table 4 of the Division's Management of Topsoil and Overburden, 2008). Below the depth of six inches, the spoil at location 4 was unacceptable. Therefore, the Permittee utilized the surface six inches of spoil as the lowest 0.5 ft of the total four foot of cover required over acid/toxic forming spoils (R645-301-553.223 and by reference R645-301-553.250).

Appendix 2-7 states that 29,173 CY topsoil and 65,329 CY subsoil were replaced placed on BRP1-12. Taken together, this would provide a cover depth of 3.6 feet over the 16.25 acres. The volume of topsoil replaced is equals 1.1 ft depth over the 16.25 acres. The volume of subsoil falls short of remainder required to cover BRP1- 12 with four feet, even when accounting for the fact that the amount of subsoil required was reduced over 1.2 acres by 0.5 ft. The Division calculates that the volume of subsoil required to make a total of four feet was 77,440. The volume replaced (65,329 CY) is 84% of that required. The Permittee must confirm the depth of cover in acid/toxic spoil locations represented by spoil sample locations 9, 10, & 11 and possibly locations 5 and 7 after that data is received and reviewed by the Division.

BRP1-11 is 14.2 acres. During mining 6,061 CY were salvaged from Pit B1 and placed in Topsoil stockpile #6. This is less than half the volume estimated to be recovered in Appenidix 2-4 Table 2-4.13 and consequently less than half that available for final reclamation of Pit 10 (Table 2-4.14). Appendix 2-7 states that a volume of 99,897 CY subsoil was replaced over the 14.2 acre area. This volume is 8,000 CY greater than that described in Table 2.4-13 and may account in part for the lesser volume of topsoil recovered.

The volume of subsoil replaced over BRP1-11 was intended for redistribution over the entire Pit 10 borrow area of 36.2 acres (MRP App. 2-4, pg. 12, Placement of Subsoil for Interim Reclamation). Either the Appendix 2-7 Table mis-

represents the placement of the 99,897 CY of subsoil or the subsoil placed over 14.2 acres of BRP1-11 must be regraded over the 36.2 acres Pit 10 borrow area in accordance with the MRP (App. 2-4, pg. 12), prior to treatment with mulch and seeding this Fall as described in Sections 230, 232.720, 232.200, 231.200 and App 2-4, pg. 12. In addition, Table BRP1-11 should indicate whether subsoil accounting includes the redistribution of subsoil in berms around the former excess spoil pile working area and the access road to pond #3.

Sampling of the final graded overburden surface in BRP1-11 was not done at this time, but will be conducted at final grading (MRP Sections 231.300 and 232.500 and Appendix 2-4, p. 7, Subsoil Salvage from beneath the spoil stockpile).

Deficiencies Details:

The application does not meet the R645-301-252 requirements. The following deficiency must be addressed prior to final approval:

R645-301-252, For BRP1-11: Provide missing analytical results for spoil sample locations 4, 5, & 7 in Appendix 2-7. Update the Title page for App. 2-7 to reflect current information. Correct the notation to Table BRP1-12 in App. 2-7 to state " **Suitable Spoil: Surface 6 inches of **1.2 acres** represented by **Spoil Sample** Location 4." For BRP1-11: Evaluate whether Appendix 2-7 Table correctly represents the placement of the 99,897 CY of subsoil over 14.2 acres and either correct the Table or regrade the 99,897 CY of subsoil over the 36.2 acres of Pit B1 and surrounding excess spoil pile area in accordance with the MRP, Appendix 2-4, pg. 12, prior to treatment with mulch and seeding this Fall. In addition, Table BRP1-11 should indicate whether subsoil accounting includes the redistribution of subsoil in berms around the former excess spoil pile working area and the access road to pond #3.

R645-301-252 and R645-301-553.223, Confirm the total depth of cover in acid/toxic spoil locations represented by spoil sample locations 9, 10, & 11 (and possibly locations 5 and 7 after that data is received and reviewed by the Division) and add cover as required to achieve 4 foot cover depth over acid/toxic forming areas. Update Dwg 5-76A accordingly where lesser cover is noted and allowed based on spoil sampling (possibly at spoil locations 5 and 7).

pburton

Bonding Determination of Amount

Analysis:

The amendment meets the State of Utah R645 requirements for Determination of Bond Amount.

This application proposes Phase 1 Bond Release pertaining to two different areas on the Permit Area. In the North Private Lease, former pits 4, 5, and 6 comprising 16.251 acres have been reclaimed to final grade, subsoil placed, and drainage control established. In the South Private Lease, former pit B1 has achieved final grade, subsoil placed, and shaping for drainage control established. On August 29th, several agents from the Division met at the mine site and collaborated with mine personnel regarding the progress of reclamation efforts. A walking GPS survey was conducted by several Division staff to confirm area measurements, and numerous photos were taken documenting successful earthwork and revegetative efforts on site.

This Phase 1 bond release application is proposing a liability reduction of \$2,130,418 from the current disturbance liability of \$11,816,451, although the current bond for the Coal Hollow Mine will remain at \$12,750,000.

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