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State of Utah
DEPARTMENT OF NATURAL RESOURCES

BRIAN C. STEED
Executive Director

Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

August 2, 2019

Rick Parkins, President
Bronco Utah Operations, LLC
P.O. Box 527
Emery, Utah 84522

Subject: Midterm Completion Response, Bronco Utah Operations, LLC, Emery Deep Mine, C/015/0015, Task #5966

Dear Mr. Parkins:

The Division has reviewed your application. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter.

The deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise. The plans as submitted are denied. Please resubmit the entire application by no later than September 3, 2019.

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

Sincerely,

Steve Christensen
Coal Program Manager

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Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Technical Analysis and Findings

Utah Coal Regulatory Program

PID:	**C0150015**
TaskID:	**5966**
Mine Name:	**EMERY DEEP MINE**
Title:	**MIDTERM COMPLETION RESPONSE**

Environmental Resource Information

Soils Resource Information

Analysis:

The application does not meet the State of Utah R645 requirements for Soil Survey, becauses Plate VII-1 does not correctly indentify the Emery 2 boxcut disturbed surface as affected after 8/3/77. This deficiency is repeated, since it was not addressed by Task 5966.

Chap VII.C.1, (p. 80 lists all soil surveys completed at the site.

The 4th East portal soil survey is found in Appendix VII-3. The Emery 2 box cut soil survey information found in App. VII-5 and App VII-6.

Prior to disturbing new area, soils will be surveyed and samples analyzed according to the field parameters outlined in Table 2 and the laboratory parameters outlined in Table 3 of The Division's 2008 Guidelines for Management of Topsoil and Overburden (Chap VII.C.4 (p. 83).

Deficiencies Details:

The applicaton does not meet the R645-301-222 requirements. The following deficiency must be addressed prior to final approval:

R645-301-222.100, Soil Map Plate VII-1 must indentify the Emery 2 boxcut disturbed surface as affected after 8/3/77.

pburton

Operation Plan

Topsoil and Subsoil

Analysis:

The application does not meet the requirements of R645-301-230 Operation Plan, because the as-built volumes of stockpiled topsoil and subsoil could not be found **in the narrative**. These deficiencies are repeated, since they were not addressed by Task 5966.

Chap II, page 17 lists the 4th East portal stockpile volume as 7,900 CY. No other topsoil or subsoil stockpiles are listed in Chap II Part A Structures and Facilities.

Soil stockpiles near the main mine facilities are shown on Plate II-1. Stockpiles at the 4th East portal are shown on Plate

IV-3b. As-built volumes some stockpiles are included in the bonding calculations Earthwork costs (App IV-9-B) as follows:

- 4th East Portal topsoil stockpile = 10,440 CY. Chap 2, p. 17 should be updated with this as-built information. i.e. 10,400 CY vs 7,900 CY).
- 4th East portal in-place topsoil (beneath excavated material) = the area of storage as stated in Table IV-1 on Chap IV, p. 8b as 108,900 sq ft or 2.5 acres. Estimated in Earthwork calculations as 12,100 CY (App IV-9-B, p. 17 of 21.
- Topsoil pile T2 (Emery 2 Boxcut and main facilities topsoil) = 18,500 CY entire permit subsoil topsoil. Chap II, pg 17i should be updated with this volume.

Topsoil storage is generally described in Chap VII.C.6. Topsoil stockpile volumes or dimensions could not be found **in the narrative**.

Deficiencies Details:

The application does not meet the R645-301-231 general soil operation plan requirements. The following deficiency must be addressed prior to final approval:

R645-301-231.400,

The MRP must be updated with the a narrative describing all topsoil and subsoil stockpile volumes, for those stockpiles shown on Plate II-1.

The 4th East portal volume presented in Chap II, p. 17 must be equivalent to that described in the Earthwork bonding sheet 17 of 21 in App IV-9-B.

The boxcut topsoil/subsoil stockpile volume should be equivalent to that described in Earthwork bonding sheet 18 of 21 in App IV-9-B (which is 18,500 CY).

pburton

Road System Other Transportation Facilities

Analysis:

The application meets the R645 requirements for Road Systems and Other Transportation Facilities.

Per the approval of the Emery No. 2 Mine (Task #5362), a disturbed drainage ditch (DD-5) was to be constructed to convey storm water runoff generated from the fan/water tank pad area located above the box cut down to sediment pond 3. The recently submitted as-built drawings did not depict a DD-5 on Plate VI-10E, Surface Drainage Control Map. During a field inspection conducted by Division staff on April 25th, 2019, it was observed that the drainage from the fan/water tank pad area is routed via grading and a berm on the outslope of the road. The drainage is effectively routed to Sediment Pond 3.

schriste

Spoil Waste Coal Mine Waste

Analysis:

The application does not meet the requirements of R645-301-528, handling of coal overburden, excess spoil, and coal mine waste, because Chap II, p. 17 and 17i require an update with the as-built information. Chap IV requires an update to the Table of contents to locate the 4th East portal as-builts, including Figure IV-15. These deficiencies are repeated, since they were not addressed by Task 5966.

There is 108,800 CY of excess box cut material stored at the waste disposal site (Chap III, p. 15g and Chapter IV, p. 8f). Chap II, p. 17i states the volume of waste stored at the box cut site as 89,000 CY. This was an estimated volume that needs to be updated with the as-built figure of 108,800 CY.Figure 1 in Chap IV.C4 should also be updated accordingly. (Figure 1 is currently found in the MRP Chap IV e-page 149).

Excess boxcut materials have been graded. They will be seeded, if necessary (cover letter Task 5864 2202019), in accordance with Section VIII.C.6. and Chap II , p. 17, to meet the requirements of R645-301-234.230, protection of stockpiled materials from erosion.

The volume of excavated material at the 4th E portal is stated in the Earthwork costs as 113,711 CY (App IV-9-B, p. 17 of 21). However, Chap II p. 17 states the volume of the excavated material stockpile at the 4th E portal as 128,000 CY. Chap II p. 17 should reflect the Earthwork cost volume which is based on the as-built. The location of the 4th East portal as-built volumes could not be found. The 4th East portal as built should be included in the Chap IV table of contents.

If acid/toxic forming material is encountered, it will be disposed of within 30 days at the waste rock site (Chap IV-A, pg 6).

Deficiencies Details:

The application does not meet the R645-301-528, handling of coal overburden, excess spoil, and coal mine waste. The following deficiency must be addressed prior to final approval:

R645-301-528,

Update App IV-9-B page 17 4th E portal excavated material volume and page 17i Emery 2 boxcut excess volume (stored at the waste disposal site) to reconcile with the as-built volumes that are reflected in the App. IV-9-B Earthwork bond costs.

Update Chap IV.C4 Figure 1 to illustrate the 108,800 CY stockpiled at the waste rock site.

Update Chap IV table of contents to **locate the 4th East portal as-builts and Figure IV-15**, **which could not be found**.

pburton

Hydrologic Diversion General

Analysis:

The application does not meet the State of Utah R645 reqruirements for Hydrologic Diversions General.

During the previous review (Task ID #5864), the Permittee was directed to revise Table VI-18, Summary of Operational Diversion Ditches and Culverts). Based on field observations by the Division on April 25th, 2019, it was determined there are features identified in Table VI-18 that were not constructed or are now labeled differently (e.g. undisturbed berm UB-3).

The Permittee must revise Table VI-18, Summary of Operational Diversion Ditches and Culverts to reflect those features that were constructed and remove those drainage features that were not.

During the previous review (Task ID #5864), the Permittee was also directed to provide a justification/narrative as to why the undisturbed berms (UB-1 and UB-2) were not rirapped as previously designed and approved. In Table 2 of Appendix VI-21, Emery 2 Surface Facility As-Built Hydrology Design Report, a footnote has been provided that discusses that velocities below 5 feet per second (fts) do not require rock lining per U.S. DOT Hydraulic Engineering Circular No. 11.

Deficiencies Details:

The application does not meet the State of Utah R645 reqruirements for Hydrologic Diversions General. The following deficiency must be addressed prior to final approval:

R645-301-731, -740 and -742.400: The Permittee must revise Table VI-18, Summary of Operational Diversion Ditches and Culverts to reflect those features that were constructed and remove those drainage features that were not. Upon review of the amendment, it does not appear that Table VI-18 were not provided.

R645-301-731, -740 and -742.400: The Permittee must provide the flared end culvert detail (as previously approved per Task #5362) on Plate VI-11B and call out on the plate what culvert inletse/outlets this design detail applies to. During the field inspection on April 25th, 2019, the flared end culvert was observed (e.g. inlet to UC-1). As such, it must be

provided in the MRP and clearly identify the diversions it applies to.

schriste

Hydrologic Impoundments

Analysis:

The application meets the State of Utah R645 requirements for Hydrologic Impoundments.

During the field inspection on April 25th, 2019, sediment pond 3 was observed. The previously approved design for sediment pond 3 (as shown on Plate VI-15B, Pond 3 Modifications) depicted a riprap detail for both inlets. The recently submitted as-built drawing and accompanying Plate VI-15B did not show a riprap detail for the two inlets. The Permittee directed to revise Plate 15-B to show the riprap detail for both inlets to sediment pond 3. Upon review of the recently submitted Plate VI-15B, a riprap detail is provided in the drawing.

Additionally, the previously approved design included a sediment marker installed in sediment pond 3. The previously submitted as-built drawings (Task #5864) had not shown the sediment marker on Plate VI-15B. The previous task directed the Permittee to revise Plate 15-B to show the installed sediment marker and provide sufficient detail as to how the sediment marker delineates the 60% accumulated sediment clean out level. Upon review the recently submitted Plate VI-15B, the sediment marker location is identified on the plate as well as a note that indicates the 60% and 100% cleanout elevations are marked.

The revised Appendix VI-21 discusses the utilization of a “sediment basin” to control the storm water generated from the 1.25 acres of disturbed area in the area of the Fan/Water tank pad area located above the box cut. The sediment basin is described as a 3’foot earthen berm located along the northeast side of the pad. The appendix further describes the sediment basin as being designed to safely detain the runoff generated from a 10-year, 24-hour storm event. During the previous review, the Permittee was directed to provide additional information for the impoundment/sediment basin located on the fan/water tank pad above the box-cut. Additionally, the Permittee was to clearly depict the impoundment on Plate VI-10E, Surface Drainage Control Map. The design calculations for the impoundment were requested to be provided in Appendix VI-21. Additionally, detailed design drawings of the impoundment were requested for incorporation into the MRP.

The design calculations for the impoundment are provided in the Hydro CAD modeling run provided in Appendix VI-21. The impoundment is identified in the model as “S1”. A 10-year, 24-hour event was utilized in designing the impoundment. The approximate location of the impoundment is provided on Plate VI-10E.

schriste