



Technical Analysis and Findings
Utah Coal Regulatory Program

November 6, 2015

PID: C0250005
TaskID: 4980
Mine Name: COAL HOLLOW
Title: PHASE I BOND RELEASE

Summary

Analysis:
This bond release application, task 4980, is for Phase 1 bond release on areas identified as BRP1-4 (3.2 acres) and BRP1-5 (9.8 acres), on Bond Release 15\_2/Figure 1, totaling 13 acres. The surface is owned by C. Burton Pugh. Original lease agreements were received on June 14, 2007 and a revision was received in December 2008. Reclamation of the site is referred to in Article 9.1 of the lease agreement.

Bond release Drawing 5-19 shows the polygons of bond release areas. The 13 acres includes final grading in portions of Pits 9, 20, and 21 on the west side of High Wall Trench 1 and HWT 2. (See Drawing 5-10 of the Mining and Reclamation Plan for Pit and HWT locations.) Figure 1-A shows BRP1-4 and BRP1-5 in more detail and provides cross section locations in plan view. Figure 1-B provides cross sections for BRP1-4 and BRP1-5.

The task 4980 bond release application was received on September 10, 2015. After the bond release inspection on October 6, 2015, maps were revised to show original contour. In addition, the update removed topographic lines from Drawing 5-17 (Overburden removal Ultimate Disturbance) and Drawing 5-19 (Bond Polygons). Drawing 5-18 was revised to remove calendar dates from the bond release phases. These revisions were received October 21, 2015, and revised again on 11/3/2015 to provide basic information such as identification of bond release areas and station locations for cross sections on the plan view. Errors in presentation still remain with the final maps, as the numbers of the station locations are presented backwards and the change in elevation from original to final reclamation is reported as a positive number, when the change was negative. But the Division has been able to interpret the information. The review of task 4980 considers all the information received pertaining to BRP1-4 and BRP1-5.

Deficiencies Details:

[Redacted]

pburton

The Permittee submitted erroneous sheets within the bond application of Task 4965 and 4980 that arrived at the Division October 21, 2015. The Division expedited the review and documented the critical errors in as promptly as time as possible given pressure from several other operator amendments. A complete detailed document was sent on November 4, 2015 to the Permittee outlining the problem with each error along with the fix. The document also included the complete electronic Division estimate to expedite the Permittee's response. The Division reached out to the Permittee's staff to offer assistance November 4th and 5th. The Permittee submitted revised cost estimates on November 6, 2015.

The current application cannot be finalized with the submitted information but the analysis of the Bond release was completed utilizing the Division's estimate, which was provided to the Permittee. The Permittee still needs to provide

corrected bond sheets, updated figures that display bond calculations, and chapter 8 with correct bond numbers and all references of the North Lease permit removed.

*Deficiencies Details:*

cparker

## Reclamation Plan

### Approximate Original Contour Restoration

*Analysis:*

**Analysis:**

The application meets the requirements of R645-301-553.110, to achieve approximate original contour, because the graded area closely resembles the surface configuration prior to mining and the land blends into the surrounding terrain. Figure 1-A shows BRP1-4 and BRP1-5 in more detail and provides cross section locations in plan view. Figure 1-B provides cross sections for BRP1-4 and BRP1-5. The cross sections show the depth of fill to be approximately 100 feet deep and the final contour is approximately 10 feet above the original land surface. Settling of the backfilled pits is expected and the ground surface may drop some over time. With the exception of an area in the middle of BRP1-5, shown on cross-section D-D', the land follows the original grade. The general direction of overland flow is to the southeast.

pburton

### Backfill and Grading General

*Analysis:*

The minimum requirements of R645-301-553 are met within the application as the application includes updated backfill and grading information if the Permittee address the errors in the application regarding volumes. The analysis below was conducted on the corrected sheets the Division supplied to the Permittee 11/5/2015.

Figures of the bond release areas were provided detailing the plan and profile view for Bond Release Submission 15\_2. The total bond release area was broken into two groups BRP 1-4 and BRP1-5. BRP 1-4 and BRP 1-5 includes Pits 20-A, 20-B, 21-B and HWTA for a total surface disturbance of 13 acres and approximately 1,288,771BCY of backfill. The application meets the minimum requirements for Phase I bond release.

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### Hydrological Information Reclamation Plan

*Analysis:*

The Phase I Bond Release application meets the State of Utah R645 hydrology requirements for reclamation.

The application provides multiple plan view maps and cross-sections of the reclaimed areas slated for Phase I bond release. The maps and cross-sections show the Permittee has achieved approximate original contour (AOC) of the land surface for all of the backfilled pits. In achieving AOC, the Permittee has met the minimum hydrology reclamation requirements of R645-301-762.100. Restoring the natural drainage patterns. During the Oct. 6th Bond Release inspection it was determined the post-mining drainage within the bond release area matches the pre-mining drainage of Watersheds 3 and 4.

The permanent diversion of miscellaneous flows under Dame's road meets the State of Utah R645 hydrology requirements. The culvert installed under Dame's access road receives miscellaneous flow from ~62 acres of watershed 4. The Permittee has provided culvert sizing calculations showing it will safely and adequately pass runoff from a 10 year-6 hour storm event as required by R645-301-742.333.

kstorrar

### Stabilization of Surface Areas

*Analysis:*

On September 10, 2015 the Division received an application for phase I bond release on certain areas within the Coal

Hollow mine permit area. This memo will include a review of that information. The amendment meets the State of Utah R645 requirements for R645-301-357. The application includes areas that have been backfilled and graded and some of which have also been topsoiled and seeded. The Division clearly realizes that topsoil redistribution and seeding are not required for phase I bond release. However if there are areas that have received these treatments and they are included in the phase I application pertinent information such as acreages, locations, volumes, seed mixes and times of seeding are typically provided in order to determine when the 10 year liability period will begin. The permittee (Alton Coal Development) needs to include that information for those revegetated areas included in the phase one bond release application and a statement regarding when the last augmented seed has or has not occurred as well as a request to start or not start the 10 year liability bond clock on those areas. [JCH]

jhelfric

## Maps Affected Area Boundary

### Analysis:

The minimum requirements of R645-301-542 are met within the application as Figure 1 of Bond Release submission 15\_2 was updated to reflect the application for Phase I Bond release of 13 acres. The remaining total Phase I Bond release area is 228.5 acres.

Excavated areas were expanded a total of 2.1 acres since the figure was updated in March 2015. The 2.1 acres were originally considered part of the surface disturbance associated with the facilities. The Permittee will engage with Division to establish documentation to justify the changes in area with no changes to the volumes associated with the individual pits in a timely manner after permit renewal.

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## Maps Bonded Area

### Analysis:

The minimum requirements of R645-301-800 are met within the application as the bonded area map was updated in Figure 1. Figure 1 of Bond Release submission 15\_2 was updated to reflect the application for Phase I Bond release of 13 acres. The remaining total Phase I Bond release area is 228.5 acres.

The Permittee will engage with Division to establish documentation to justify the changes in area with no changes to the volumes associated with the individual pits in a timely manner after permit renewal.

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## Maps Reclamation BackFilling and Grading

### Analysis:

The minimum requirements of R645-301-542 are met within the application as updated backfilling and grading areas were provided. Additional scaled profile views of bond release areas BRP 1-4 and BRP 1-5 were provided in Figure 1-B to demonstrate how AOC was achieved in restoring the historic drainage patterns at the site. The profile also demonstrates where areas were backfilled vs undisturbed. The largest variance from AOC in BRP 1-4 within the provided profiles is 9.92 feet below AOC. These variances from AOC are within acceptable tolerances of the Division.

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## Maps Reclamation Final Surface Configuration

### Analysis:

The minimum requirements of R645-301-542 are met within the application detailed figures were included within the bond release application that show final surface configuration back to AOC. Additional scaled plan views of bond release areas BRP 1-4 and BRP 1-5 were provided in Figure 1-A to demonstrate how AOC was achieved in restoring the historic drainage patterns at the site.

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## Bonding Form of Bond

*Analysis:*

The application meets the minimum requirements of R645-301-860.100 as the applicant currently maintains a surety bond amount of \$12,750,000 which is held by Lexon Insurance Co with a rider held by Ironshore Indemnity Inc.

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## **Bonding Determination of Amount**

*Analysis:*

The Permittee submitted a complete updated Chapter 8 of the MRP to reflect the change in areas, pit release sequencing, and titles utilized to call out each bond release application. The complete Chapter 8 includes information pertaining to the North Lease permit area that is currently within the Division for review under Task 4942. These references should have been removed prior to submission to the Division, but due to a lack of response in a timely manner by the Permittee the Division had no recourse but to review the Chapter 8 and disregard all North Lease permit area. The approval of this amendment does not endorse any and all the North Lease permit area verbiage within the submitted Chapter 8. The Permittee will provide clean copies with the North Lease permit area removed for final approval.

The application meets the minimum requirements of R645-301-830.140 if the Permittee address the errors in the application regarding escalation. The analysis below was conducted on the corrected sheets the Division supplied to the Permittee 11/5/2015.

As a result of this a formal new submission for Phase I bond release was received by the Division and a new site inspection was conducted October 6, 2015. The current bond application is for a release on 13 acres within the permitted area for a surety bond reduction of \$1,966,694. The site inspection verified that the following pits within the application have achieved approximate original contour: Pits 20-A, 20-B, 21-B and HWT 1-A.

The remaining bond required for the Coal Hollow Mine is \$11,248,000.

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## **Bonding Terms and Conditions Liability Insurance**

*Analysis:*

The application meets the minimum requirements of R645-301-850 as the applicant currently holds liability insurance through American Mining Insurance Company, effective until 12/10/15. The insurance includes the required Marsh from, explosives and claims made per occurrence.

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