



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 12, 2015

Kirk Nicholes, Resident Agent
Alton Coal Development, LLC
463 North 100 West, Suite 1
Cedar City, Utah 84720

Subject: Phase I Bond Release Application, Alton Coal Development, LLC, Coal Hollow Mine, C/025/0005, Task ID #4788

Dear Mr. Nicholes:

The Division reviewed the Phase I bond release application, received on January 28, 2015 and supplemental information received on April 22, 2015. The Division also conducted a bond release inspection on March 3rd which continued on March 24, 2015. The application and revisions are not acceptable.

The Division will consider a bond release application for the areas shown on the attached Figure A. Please provide topographic maps on a scale of 1:100 with 2 ft. cross-sections to allow interpretation of final elevations, slopes, and drainage for these distinct areas. Maps of this scale are customary in bond release application reviews and contemplated in R645-301-141 as well as outlined in Tech Directive #6.

Attached you will find the Division's Findings Form and Figure A which illustrates the bond release locations for which detailed cross-sections and maps are requested.

Sincerely,

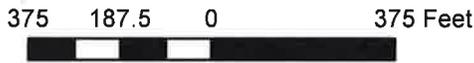
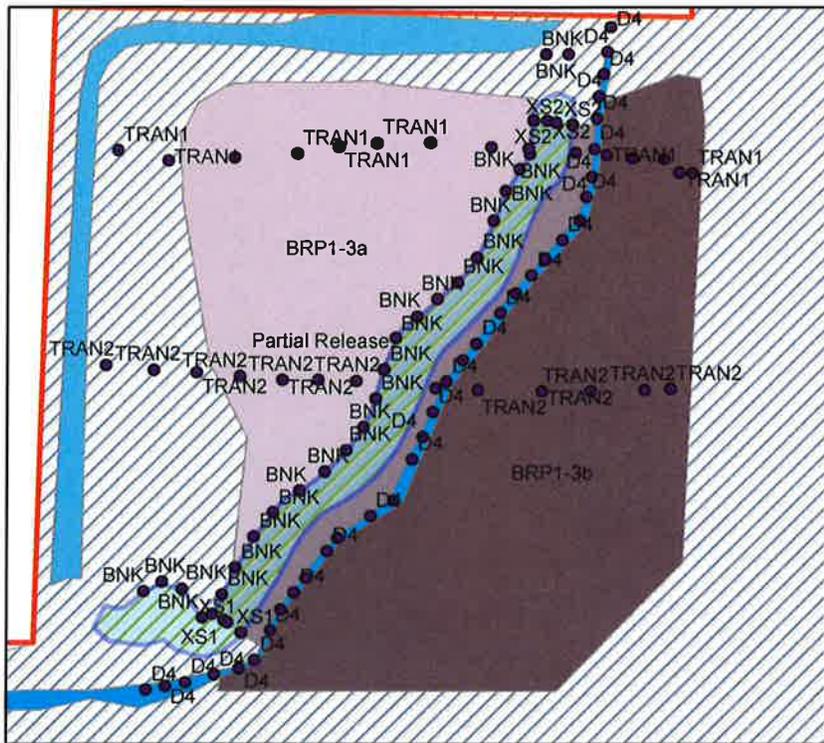
Dana Dean
Associate Director, Mining

PWB/CP/ss
Enclosures

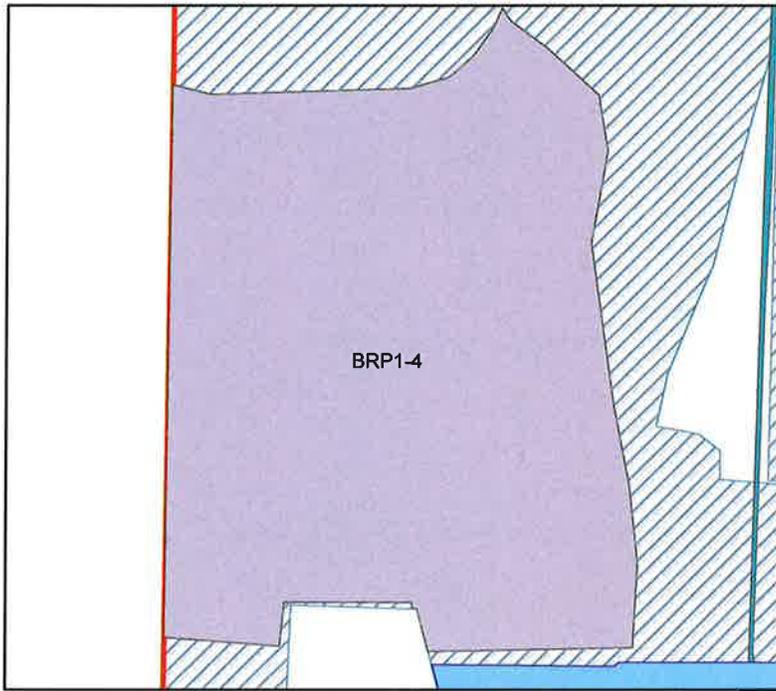
O:\025005.COL\WG4788 PHASE I BOND RELEASE\4788 Unacceptable.doc

Table A:

Coal Hollow Bond Amount					
Item	Amount	Area (Acres)	Volume (CY)	% Volume	
Current Bond Estimate	\$ 35,325,457	342	-	-	
Bond Release Application	\$ 10,748,693	38.7	8229000	-	
BRP1-3	\$ 7,554,637	27.2	4864838	-	
BRP1-4	\$ 3,194,056	11.5	3364000	-	
Divison Witheld	\$ 8,799	\$ 4	\$ 6,736	0.082%	
Ditch 4	\$ 1,422	0.8	1089	0.013%	
Robinson Creek	\$ 7,376	3.5	5647	0.069%	
Division Approved	\$ 10,739,894	37.7	8222000	-	
BRP1-3a,b	\$ 7,553,214	26.2	4863749	-	
BRP1-4	\$ 3,186,680	11.5	3358353	-	



area	name
9.3	BRP1-3a
13.4	BRP1-3b
11.5	BRP1-4
3.5	Partial Release



Legend

- Statewide GPS Network Points
- Permit Area
- ▨ AsBuilt Robinson Reconstruct
- Bond Release Area for Division**
- BRP1-3a
- BRP1-3b
- BRP1-4
- Partial Release
- Diversion Ditches**
- Diversion Ditch 1
- Diversion Ditch 2
- Diversion Ditch 3
- Diversion Ditch 4
- RC Diversion
- Ponds
- ▨ Bonded Area As of 2015

NOTES

- ALL SHAPEFILES ARE MANUAL DIGITIZED OFF MRP FIGURES. BOUNDARIES FOR PHASE 1 BOND RELEASE WERE DETERMINED BY THE STATE CADASTRAL SURVEYOR DIVISION AND PROVIDED CENTIMETER PRECISION THROUGHOUT THE BOUNDARY.
- HORIZONTAL POSITIONS ARE IN NAD 83 UTM ZONE 12N METERS AND THE VERTICAL UNITS ARE IN US SURVEY FEET, DERIVED FROM GEOID MODEL 12A.

REFERENCE

2014 COAL HOLLOW MRP
 JANUARY 28, 2015 BOND RELEASE APPLICATION
 05/05/2015 SURVEY WITH SEAN FERNANDEZ, KEENAN STORRAR, & RACHEL WILLIAMS

CLIENT
 ALTON COAL DEVELOPMENT

PROJECT
 COAL HOLLOW
 C/025/005

TITLE
**PHASE I BOND RELEASE
 TASK #4788**

YYYY-MM-DD	2015-05-11
PREPARED	CHERYL PARKER
DESIGN	CHERYL PARKER
REVIEW	PRISCILLA BURTON
APPROVED	####



UTAH COAL PROGRAM

PROJECT	MINE	Ref.	FIGURE
Coal Hollow	Alton Coal Development	C/025/005	A

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM



GARY R. HERBERT
Governor
GREG BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Technical Analysis and Findings

Utah Coal Regulatory Program

May 12, 2015

PID: C0250005
TaskID: 4788
Mine Name: COAL HOLLOW
Title: PHASE I BOND RELEASE

Summary

The application for Phase 1 bond release, Task 4788, was submitted in January 28, 2015 and revised April 22, 2015. (The bond release application is directly affected by information subsequently received in response to Division Order 15, under review as task 4796 received on March 31, 2015, April 6, 2015, and April 28, 2015.) A bond release inspection was begun on March 3rd and was continued on March 24th, after the snow had melted. These Findings request further information prior to consideration of Phase 1 bond release in areas shown on Division's Figure A attached.

Deficiencies Details:

None

pburton

Operation Plan

Road System Plans and Drawings

Analysis:

Analysis:
The reclamation plan describes replacement of the County road through the permit area. A portion of that road has been roughly graded in the southern end of the bond release area. However the road has not been constructed to design outlined in Dwg. 5-22 F. The agreement with Kane County for re-constructing the road is found in Appendix 1-7. Mr. Lou Pratt was present at the bond release inspection on March 24, 2015. Mr. Pratt requested compaction testing of the reclaimed road prior to bond release. On April 22, 2015, Alton Coal Development provided documentation that the road compaction had met Kane County requirements. ACD will install road ditches this fall (personal communication with Kirk Nicholes, 4/29/2015).

Findings:

The bond release application meets the requirements for coordination with Kane County on road reclamation in accordance with R645-300-142 and R645-301-541.100.

pburton

Reclamation Plan

Backfill and Grading General

Analysis:

The following sections within Chapter 5 of the MRP describe how the excess spoil pile was to be graded: 521.143, 528.200, 532.200, 535, 542.720, 553, 553.110, 553.130, 553.200, 553.700, and 553.810-553.830. The spoil was to be placed following Talyor Geo-Engineering (TGE)'s report in Appendix 5-1:

- Haul trucks end dumping
- Compacted to 85% standard Procter
- Four feet lifts placed by a dozer.
- The final side slopes will be graded to a maximum slope of 3H:1V
- Top of the fill sloped to approximately 2% to prevent pooling

There are varying volume estimates of the excess spoil pile depending on the mining operations utilized. Section 535 of the MRP detailed earthwork specification information that would be provided to the Division related to the excess spoil:

- Clearing and grubbing activities observed by a professional engineer
- Fill compacted to 85% of the maximum density as compared to ASTM D698
- A qualified professional engineer with experience in the design of earth and rock fills will periodically observe the placement of fill and conduct in-place field density test on the fill to check for adequate moisture and relative compaction. The compaction tests will be conducted as part of the periodic inspections required in R645-301-514.100, 514.311, and 514.120.

- High precision GPS systems will be regularly utilized to check grades and appropriate life thickness.
- Permanent slopes will not exceed 3H:1V
- The excess spoil will be grade to provide drainage similar to original flow patterns, the top of the fill sloped to approximately 2% to prevent pooling

The application failed to meet the minimum requirements of R645-301-535 and -553 by not supplying relevant data demonstrating that the above specification have been met.

Deficiencies Details:

The in the previous application the Permittee failed to meet the minimum requirements of R645-301-535 and -301-553. The Permittee failed to supply relevant data demonstrating that the above specifications have been met. Extensive maintenance has been required to repair subsoil slides on and around the excess spoil pile on the south, north, and northwest slopes along with seeps present at the toe of the excess spoil pile. These conditions have caused the Division concern about the construction of excess spoil pile.

In the response letter dated April 22, 2015 Response to Technical analysis and request for information, the Permittee withdrew the area associated with the excess spoil from the current bond release application.

The updated application for bond release now only contains the areas listed as BRP1-3 and BRP1-4. The updated application still fails to meet the minimum requirements of R645-301-553 as there are several sections within BRP-3 that require future grading and cut/fill operations before final reclamation actives are completed in BRP1-3 and Phase I bond release can be applied.

- The area detailed as BRP1-3 on Figure 1 within the application contains the Lower Robinson Reconstruct. The Lower Robinson Reconstruct is currently still being built and is tied to a pending abatement plan for NOV#16149. The current design has yet to be approved by the Division. The abatement design also has additional work tied to it to meet the R645-301-552 Permanent features regulations. In addition there is earthwork associated with the removal of the northern "plug" at final reclamation. The section of BRP1-3 that contains Lower Robinson Creek reconstruct does not meet the requirements of R645-301-553 for phase I bond release. R645-301-880.310 states "At the Completion of Phase I, after the operator completes the backfilling and regrading and drainage control of a bonded area in accordance with the approved reclamation plan, 60 percent of the bond or collateral for the applicable area". Again, Robinson creek reconstruction is still under construction, backfilling, and regrading actives of the area will directly impact the bond release area adjacent to the construction site. The Division staff on May 5, 2015 determined the area to be disturbed during the final construction of Robinson creek and found the area to be approximately 3.5 acres, as shown on Figure A and Table A.

- Ditch 4 is also currently in the process of being reconstructed as designed in the MRP. The area associated with the ditch location will also need to be removed from the original BRP1-3 area. The section of BRP1-3 that contains Ditch 4 does not meet the requirements of R645-301-553 for phase I bond release due to the site not being at final backfilling and grade. An estimated area of 0.4 acres and 1,089 cubic yards is associated with the regrading and backfill of Ditch 4. The

MRP cost estimate states that volume of 1, 089 cubic yards will be required in the final grading of Ditch 4 disturbing an area of 0.8 acres, as shown on Table A.

To meet R645-301-512.260 Post Mining topography drawings are required show the as-built topography of the BRP1-3 and BRP1-4. The map should be on a scale of 1:500 or larger and include contours, elevations, slope, and drainage controls around the bond release areas, according to R645-301-141 and as stated in the Division Tech memo 006.

The site BRP1-3 was surveyed by Division staff to determine the new area that meets the R645-301 on May 5, 2015 utilizing equipment accurate to within a centimeter. The Division approves the release of 26.2 acres and withholds approximately \$8,799 for the reclamation of Ditch 4 and Robinson Creek Reconstruction.

cparker

Hydrological Information Reclamation Plan

Analysis:

The refuse pile located in BRP1-1 area has failed at multiple locations, which will need backfilling and grading prior to bond release. A large gully has formed where the south-west edge of the refuse pile adjoins with the undisturbed local topography. On the north-east corner of the refuse pile there is a large subsoil slough off of the underlying waste rock pile.

The gully erosion and slope failure were likely caused by lateral subsurface flow increasing the hydraulic pore pressure at the surface and soil profile interfaces within the refuse pile. The increased hydraulic pore pressure reduced the inter-granular effective soil stress causing quick conditions at these two locations. On the south side of the refuse pile, the quick conditions at the surface significantly decreased the soil shear stress allowing the relatively low energy snow melt runoff to carve a large gully in the refuse pile. The slope failure on the north end of the pile was probably due to quick conditions reducing the shear strength at the subsoil-waste rock pile soil interface causing the subsoil to slough off along this contact plain.

Findings:

BRP1-1 area was withdrawn from the bond release application on April 22nd, 2015, so this area is no longer an issue.

kstorrar

Stabilization of Surface Areas

Analysis:

Alton coal Development removed the bond release request on BRP1-1 and BRP1-2 as shown on Figure 1.

cparker

Maps Reclamation Final Surface Configuration

Analysis:

The Permittee did not provide a high level as built contour map detailing the grade of the bond release areas.

Deficiencies Details:

The application does not meet the minimum requirements of R645-301-542.200 and the Division Tech Memo 006 as the Permittee failed to supply a as built map of the bond release reclamation areas in detail that matches any of the Final Surface configuration drawings within the MRP, Drawings 5-37 and 5-37A.

The Permittee will supply a series of maps necessary to show the individual bond release areas BRP1-3 and BRP1-4 at 1:500 including contours, elevations, slope, and drainage controls around and within the bonded areas. The Permittee's response to Division's request for a map reference state said information was presented on Drawing 5-37. Drawing 5-37 is a figure that details how the bond release sites were supposed to be regraded as part of the R645-301-550 requirements and does not reflect actual elevations at the site. The Division is requesting as-built maps that show that site conditions match Drawing 5-37.

cparker

Bonding Determination of Amount

Analysis:

The Permittee submitted an application for Phase I bond release on an 50 total acres. The bond release application is for a surety bond reduction of \$10,748,693 of the Coal Hollow Mine. Division staff conducted site inspection on March 3rd and 24th. Each of the bond areas was walked and inspected for grading and stability. The Division requested additional bond information which was supplied in the April 22, 2015 response letter. Said letter also contained approval from the Kane County DOT for the reconstruction of the county road meeting the required compaction. The area associated with the county road reconstruction now meets the Division's requirements for bond release. The Permittee withdrew areas BRP1-1 and BRP1-2, the area associated with the excess spoil in the April 22 letter.

Division staff work in joint with the the State Cadastral Surveyor group, part of the Stat of Utah AGRC/DTS, to obtain high level survey of area BRP1-3 to be able to remove the sections of the bond release area associated with Robinson Creek reconstruction and Ditch 4.

Deficiencies Details:

R645-301-830 and -301-880.310 are not met in in Area BR1-3 of the application. The Permittee failed to update the application letter with the new areas and relevant bond release amount. The Division will only approve a portion of the applied for area due the construction still required around Robinson Creek reconstruct and Ditch 4 at reclamation. Ditch 4 has an area 0.4 acres and 1,089 cubic yards in regrading associated with it and cannot be included in the bond release area due to this outstanding grading still required. Figure A and Table A detail the area, volumes, and cost associated with Ditch 4 and Robinson creek that do not meet the Division approval for bond release. The Permittee will provide updated as built maps and reflect this new areas within their bond release application.

cparker