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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 27, 2012

TO: Internal File

THRU: April Abate, Lead *AAA 8/1/2012*

FROM: James Owen, Engineer *JO*

RE: Phase II Bond Release, Plateau Mining Corporation, Willow Creek Mine, C/007/0038, Task #4094

SUMMARY:

On May 04, 2012, the Utah Division of Oil Gas & Mining received an application for approval of Phase II bond release for the Willow Creek Mine. A bond release inspection was conducted on June 19, 2012.

This memo addresses the application's compliance with the engineering (R645-301-500) and bonding (R645-301-800) sections of the Utah Coal Mining Rules.

Approval of Phase II bond release is recommended at this time. The Division has identified certain requirements that the operator must comply with before submittal of an application for Phase III bond release. These requirements are as follows:

- The Division requires that the applicant amend the MRP to commit to conduct annual shaft settlement surveys beginning at the approval of Phase II bond release and running through the time of application for Phase III bond release. The Division requests that the data be submitted in such a way as to demonstrate the amount of settlement (or lack thereof) of both shafts over time.
- Before applying for Phase III bond release, the applicant must provide the Division with documentation from the landowner confirming that the shaft safety fences and the shaft bridge are to be left in place, and that these facilities are not to be removed or reclaimed by the operator.

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TECHNICAL ANALYSIS:

RECLAMATION PLAN

**BACKFILLING, GRADING, AND APPROXIMATE ORIGINAL
CONTOUR RESTORATION**

Regulatory Reference: 30 CFR Sec. 784.15, 785.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, 301-537, -301-542, 301-552, -301-553, -301-731, -301-732, -301-733, -301-764.

Analysis:

Following the permanent cessation of operations in 2001, Plateau Mining Corporation began the reclamation of the Willow Creek Mine. By the fall of 2004 all demolition, earthwork, drainage construction and final seeding was completed on all but 1.17 acres referred to as the Load-out. In 2005 the demolition of the Load-out was completed and the area was reshaped and seeded in the spring of 2006.

During a bond release inspection held on June 19, 2012, Division staff observed that the areas in application for Phase II release have been backfilled, re-graded and restored to approximate original contour (AOC).

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

Analysis:

There are currently safety fences in place around the shaft areas that have not been removed or reclaimed. Also, there is a shaft bridge within the permit area that was not removed. The operator has expressed that the fences and shaft bridge will be left in place at the request of the landowner.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules. Before applying for Phase III bond release, the applicant must provide the Division with documentation from the landowner confirming that the shaft safety fences and the shaft bridge are to be left in place, and that these facilities are not to be removed or reclaimed by the operator

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

There are two backfilled shafts on the reclaimed site that were previously used for mine access. The shafts were both backfilled during initial reclamation in 2001-2002. The western most shaft experienced settlement and was re-filled and repaired in 2005. In 2007 the eastern most shaft experience significant settlement and was repaired and re-filled. Currently, both shafts are completely backfilled with additional volumes mounded on top of the shaft. Monitoring monuments are in-place to allow the operator to monitor for any additional settling. The shafts have been stable since they were last backfilled.

The application did not include annual monitoring data for shaft settlement. The Division requires that the applicant conduct annual shaft settlement surveys beginning at the approval of Phase II bond release and running through application for Phase III bond release. The Division requests that the data be submitted in such a way as to demonstrate the amount of settlement (or lack thereof) of both shafts over time.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

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The application included certified as-built maps of the reclamation treatment areas, and facilities area. As-built maps for the refuse pile, loadout, and gravel canyon areas are also included.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

A performance bond in the amount of \$1,424,514 is currently held by the Division to ensure that reclamation is accomplished. The application is requesting that with approval of Phase II, the bond will be reduced to \$489,166. The bond reduction calculations were included in attachment 6 of the application.

The current Willow Creek Mine Permit bond calculation worksheets can be found in the Willow Creek MRP in Volume 9, Exhibit 17. A copy of the summary page related to revegetation was included with the application. The bond calculations in Exhibit 17 were updated and incorporated into the permit in December of 2001 and are in 2001 dollars. Exhibit 17 shows the cost to re-vegetate which includes the cost of pocking. The costs used to calculate the amount of bond to be held by the Division after phase II bond release include all the direct revegetation cost from Exhibit 17 (except for the pocking cost) including a 25% reseeding rate, indirect cost which total 26.8% and escalation costs from 2001 dollars to 2012 dollars.

The cost to re-vegetate has been calculated to be from \$8,385/acre to \$8,447. The provided bond release calculation worksheet provides the details of the reseeding cost per acre calculation. Over time certain acres within the Disturbed Area Boundary (DAB) were removed from the permit as part of a change in the post mining land use to industrial, so acreages are currently accurate. Attachment #7 of the application included a detailed map of the acres remaining in the DAB and the acres actual disturbed and reclaimed and revegetated within the DAB. Utilizing the cost to re-vegetate per acre multiplied by the applicable acres in the permit, the bond amount after phase II release is calculated to be \$489,166. The current bond amount is \$1,424,514. Therefore the amount of bond release is calculated to be \$935,348. The application included a detailed and complete bond calculation worksheet as well as line-itemed unit costs for bond reduction estimation.

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The following summary was provided:

Current Bond, Bond Reduction and Bond Remaining After Phase II Bond Release

	Surface Facilities/Conveyor Corridor	Prep. Plant, Loadout and Refuse Pile	Gravel Canyon	Crandall Canyon	Totals
Current Bond	\$289,514 (C)	\$571,000	\$83,800	\$500,400	\$1,424,514
Bond to Remain After Phase II	<u>\$98,692</u>	<u>\$219,946</u>	<u>\$35,970</u>	<u>\$134,558</u>	<u>\$489,166</u>
Bond Reduction	\$190,822	\$351,054	\$27,830	\$365,842	\$935,348

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules. The Division agrees with the provided calculations and that approves the reduction of the bond from \$1,424,514 to \$489,166. The total approved reduction for Phase II release should be \$935,348.

RECOMMENDATIONS:

Approval of Phase II bond release is recommended at this time. The Division has identified certain requirements that the operator must comply with before submittal of an application for Phase III bond release. These requirements include:

- The Division requires that the applicant amend the MRP to commit to conduct annual shaft settlement surveys beginning at the approval of Phase II bond release and running through application for Phase III bond release. The Division requests that the data be submitted in such a way as to demonstrate the amount of settlement (or lack thereof) of both shafts over time.
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