

#4320
OK

TECHNICAL MEMORANDUM

Coal Regulatory Program

June 1, 2013

TO: Internal File

THRU: James Owen, Engineer/Team Lead *JO*

FROM: Priscilla Burton, Environmental Scientist III/Soils *PWB by SRS*

RE: Phase III Bond Release Application, Plateau Mining Corporation, Star Point Mine, C/007/006, Task ID #4320

SUMMARY:

The Plateau Mining Corp (PMC) Phase III Bond Release application for 87 acres at the Star Point Mine was received April 13, 2013. The application replaces page 800-2 in volume 5 of the MRP and adds Exhibit 800.200 Vegetation Analysis and Sediment Yield.

Bond Release Directive Tech-006 and Utah Regulation R645-301-880.330 guided my review of this submittal.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

GENERAL CONTENTS

RECLAMATION PLAN

REQUIREMENT TO RELEASE PERFORMANCE BOND

Regulatory Reference: 30 CFR Sec. 800.40; R645-301-880.

Analysis:

Bond release is being sought for 87 acres of the Star Point Mine, including the Lions Deck, Mine #1, Unit Train Loadout, associated roads, ponds and facilities and the reconstructed channel of Serviceberry Creek, and remote breakout portals in Mudwater and Corner Canyons. Exhibit 800.200 provides the history of the site.

This site received Phase I bond release in 2004 and Phase II bond release in 2008. As-built Reclamation Topography and Treatment Maps (five sheets: Maps 542.200 a, a1, a2, a3, b, and c and Maps 542.200g (Mudwater Canyon) & h (Corner Canyon), As Built Reclamation Cross-sections (six sheets: Maps 542.200d1, d2, d3, e1, e2, & f), and As-Built cut and fill balance for the site (Table 542.200a).

The Seeley fire that raged in the Manti La Sal National Forest in June and July 2012 caused flash flooding and erosion that required repair and augmented seeding in Serviceberry Creek, SPRD-31, and a tributary SPRD-30. A site visit was conducted on May 23, 2013. There were no soils or erosion issues noted on the reclaimed site or in the recently repaired section of SPRD-31 or SPRD-30. The vegetation on Mine #1, Mine #2 sites provide good coverage for wildlife use. The sediment yield analysis in Appendix 2 of Exhibit 800.200 demonstrate through the use of the Revised Universal Soil Loss Equation (RUSLE 2), that soil loss from this site is less than the reference area. The enhanced soil protection is due to increased cover over that of the reference area and shorter slopes created by surface roughening.

The County road remains through the Lion's Deck to access communications towers above the site. The application included 2011 photographs and complimentary comments on the reclamation of Mudwater canyon by the NRCS.

The following is a review of the reclamation information for the site. As-built Table 542.200a indicates that 419,764 yd³ of coal mine waste was cut from the main channel and lower facilities area and placed in the fill at the Lion's Deck or on the refuse pile.

Final logistics of the waste placement is indicated on as-built Maps 542.200 a, b, and c, received April 8, 2004. These maps also indicate the dates that the work was accomplished.

Sidecast soils and pad soils were used in the reclamation of Mine #1. Soil was harvested from the Lion Deck out slope and the areas surrounding the Main Channel for use as in the rooting zone (footnote to Table 233.100) and from pond embankments (page 200-18). The Mudwater Canyon Fan Portal site was reclaimed in the fall 2000 with existing fill as growth media (page 200-22). The Corner Canyon Fan Portal site was reclaimed using the stockpiled topsoil and subsoil (page 200-22). Soils were salvaged and replaced to a depth of six inches during reclamation of the Unit Train Loadout conveyor (page 200-21 and 200-22). Characteristics of these soils are found in the MRP Tables 230.200a, c, d, e, & f and Exhibit 241a.

The Soil Redistribution Plan (MRP, Section 241, pp 200-21 through 200-25) indicates:

- Four feet of cover was placed on top of acid/toxic material.
- All coal waste at the site was used as backfill.
- Seventeen inches of substitute soils was placed over all other areas.
- In-place fill materials were used as substitute soils.
- Re-exposed, buried topsoil was used wherever possible.

As laid out in Table 233.100 Reclamation Soil Balance for Coal Waste Cover (MRP, Section 233, page 200-19), UEI placed approximately 135,305 cy³ of material at the Lion Deck and the Main Channel in order to meet the four foot cover requirement.

The Lion Deck was backfilled with 113,532 cy³ of coal mine waste from the Main Channel and covered with four feet of material. Plate 542.200a indicates that all of the cover for the coal refuse placed on the Lion's Deck (69,202 cy³) came from the out slope of the Lion Deck pad. The "Introduction" to the Phase I bond release application verifies that Table 233.100 and page 200-24 of the MRP contain outdated information concerning the cover for the Lion Deck.

Coal mine waste was used as fill in the Main Channel side slopes (MRP, Section 240, page 200-25). This MRP information is confirmed by the as-built Map 542.200c. The coal mine waste was covered with four feet of soil. To accomplish reclamation of the Main Channel and Lower Facilities area, the volume of cover required was approximately 116,468 cy³. This material came from the adjacent operations pad areas, the borrow area was not disturbed.

TECHNICAL MEMO

The plan indicates that a fertilizer was applied (page 200-26), however the "Introduction" that accompanies the Phase I bond release application indicates that this did not occur.

The MRP, page 200-26 and 200-27, indicates that the regraded soils were ripped or otherwise scarified prior to topsoil placement. MRP, page 200-27 and page 500-78, reports that after topsoil placement 2 Tons per acre of hay and/or straw mulch was incorporated into the soil with plowing or gouging. Both pages add that another 1.5 to 2 Tons per acre of straw mulch were spread over the area after seeding and crimped in or sprayed on with a tackifier. Maps 542.200a, b, and c confirm this scarification and addition of hay and straw by outlining areas receiving the treatments. In addition, the "Introduction" accompanying the Phase I bond release application indicates that the straw was bound to the soil with an application of 500 lbs/acre of [wood fiber] hydromulch and tackifier.

Technical Directive 006 requires in item II B 3 that the postmining contour topographic maps show detail including important topographic features such as: dates of backfilling and grading activities, dates of topsoil replacement and topsoil replacement depths. The maps received with this application indicate that the Lion Deck and Main Channel areas were deep gouged with hay and straw mulch in the fall of 2002. A note on the map details the dates of earlier reclamation. The maps outline burial sites for coal mine waste, and indicate a four-foot cover depth over coal mine waste.

The "Introduction" that accompanied the Phase I bond release application indicated that suitable growth media was identified and placed concurrently with the backfilling and grading to an "appropriate depth," which is further defined in the MRP as seventeen inches (MRP, Section 241, pp 200-21 through 200-25).

Findings:

The information provided in the MRP and the Phase III bond release application meets the requirements of Tech Directive 006 for soils and overburden chemical analyses results, erosion control and the requirements of this section of the regulations.

RECOMMENDATIONS:

Phase III bond release is recommended for 87 acres. The reclamation work was completed in years 2000 through 2002.