

**UTAH DIVISION OF OIL, GAS AND MINING
STATE DECISION DOCUMENT**

For

**Phase I Bond Release
Plateau Mining Corporation
Star Point Mine
C/007/0006
Carbon County, Utah**

August 6, 2004

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ADMINISTRATIVE OVERVIEW

Plateau Mining Corporation
Star Point Mine
C/007/0006
Carbon County, Utah

August 6, 2004

ACTION

Plateau Mining Corporation (PMC), a subsidiary of RAG American Coal Holding, Inc., requested Phase I bond release (60% of \$7,796,000 or \$4,677,600) for all disturbed areas within the Star Point Mine permit boundaries. A public notice published between January 15, 2004 and February 5, 2004 PMC notified all parties about this request for phase I bond release.

The amount of bond after Phase I bond release must be enough to ensure that the Division can complete reclamation if PMC failed to meet the standards for Phase II and Phase III bond release standards. PMC already placed the topsoil/growth medium and conducted the initial seeding and planting, which are items associated with Phase II bond release. If the Division forfeited on the bond they would have \$3,118,400 to reclaim the 95.3 disturbed acres. The Division determined that \$3,118,400, \$32,722 per acres, would be adequate to reclaim the site to Phase III bond release standards.

The current bond is in 2004 dollars and R645-301-830.300 requires that the bond be escalated for 5 years. The Division escalates the bonds from midterm to midterm and the last midterm was in 2004, currently at the approved escalation factor of 2.59%.

To simplify the bond adjustment process the Division should reduce the bond from \$7,796,000 to \$3,118,400 upon finding that Phase I bond release standards were met and then escalate the bond by 2.59% for 5 years to \$3,543,000. Therefore, the bond amount released would be \$4,253,000.

The Star Point Mine contained 95.3 disturbed acres. There were seven subareas within the permitted boundaries, which are as follows:

- Lion Deck.
- Number 2 Mine.
- Number 1 Mine.
- Main Mine Facilities Area.
- Unit Train Loadout.
- Mudwater Canyon
- Corner Canyon

BACKGROUND

The Star Point Mine was located on and around Gentry Mountain, approximately 23 miles southeast of Price, Utah on the east side of the Wasatch Plateau Coal Field. The main portals were located in the Northeast Corner of Section 17, Township 15 South, Range 8 East. See the Wattis Quadrangle for the location of the surface facilities. The Star Point Mine contained 8820.86 acres of which 95.3 acres were disturbed.

According to H. H. Doelling, the Lion Coal Company owned and operated the coal mines that would evolve into the Star Point Mine from 1917 to 1964. He stated that the operation had several names including the Wattis Mine, Plateau Mine and Utah Chief Mine. The Plateau Mining Company renewed production in 1967 and the operation was from then on known as Star Point Mine.

PMC's records indicated that operations began in 1916 by the Wattis Brothers and Mr. Browning when they bought 160 acres from the Federal Government and began developing the property for coal production. The Lion Coal Company operated the Wattis No. 1 and No. 2 Mines until 1963.

According to H. H. Doelling, between 7,737,000 to 7,784,150 tons of coal were produced from 1917 to 1964 from the Wattis Seam. No coal production occurred at the site from 1964 to 1967.

Plateau Mining, Ltd. opened the Star Point No. 1 Mine in the Hiawatha Coal seam, and mined the Wattis No. 1 Mine, which was renamed the Star Point No. 2 Mine from 1967 through the fall of 1971. United Nuclear Corporation (UNC) acquired the operations in the fall of 1971. UNC updated the operations by expanding the Lion Deck area in 1977. They conducted operations until 1980.

Plateau Mining Corporation, a subsidiary of Cyprus Plateau Corporation, later acquired by RAG American Coal Holding, Inc. in 1999, operated the Star Point Mine until February 2000, when the mine when into permanent cessation. Production at the Star Point Mine came from the Hiawatha, Third and Wattis seams. According to H. H. Doelling, the Third Seam did not correlate to any other seams in the area.

Mining methods at the Star Point Mine were originally room and pillar, with longwall methods being added later. Production after 1967 ranged from 1 to 3 million tons per year.

PMC applied to reduce the bond from \$7,796,000 to \$3,118,400, a 60% reduction which is the maximum amount allowed under R645-301-880.130. On a per-acre basis, the new bond about would be \$32,722 per acre.

The chronology of reclamation activities was as follows:

2000

- Demolished the overland conveyor system and preparation plant.
- Removed equipment and machinery from underground.
- Demolished surface facilities, closed portals, backfilled and graded, and seeded at Mudwater Canyon and Corner Canyon.

2001

- Demolished, backfilled and graded, and seeded approximately 45.0 acres at the Main Mine Area.
- Demolished, backfilled and graded, and seeded approximately 10.0 acres at the Unit Train Loadout Area.

2002

- Demolished, backfilled and graded, and seeded approximately 24.5 acres at the Lion Deck and Pond No. 1.
- Demolished, backfilled and graded, and seeded approximately 22.5 acres at the Overland Conveyor and Main Channel Areas.

2003

- Abandoned water monitoring wells and boreholes.
- Backfilled and fenced off subsidence cracks.
- Ceased subsidence monitoring.
- Transferred the Refuse Pile Area to Sunnyside Cogeneration Associates (SCA.)
- Received Phase III bond release for 11.77 acres that ConocoPhillips used for access to a natural gas well and for a utility corridor.

A summary of the reclamation activities at each of the subareas is as follows:

Mudwater Canyon

The portal breakouts at Mudwater Canyon are remote facilities. No roads or trails lead to the site. The facilities were developed for ventilation reasons. Neither PMC nor its predecessors generated excess spoil in Mudwater Canyon.

Reclamation work at Mudwater Canyon was difficult because the type and size of equipment that could be transported through the mine. PMC used the following equipment:

- D-3 dozer.
- Mine-scoops.
- Portable conveyor and hopper.

PMC's main concern was to eliminate as much of the highwalls as possible. Because PMC had to transport the equipment back through the mine, the portals had to remain open until the earthwork was completed. The conventional method was to leave the highwalls exposed and just backfill the portals from inside the mine.

PMC used an innovative technique to reclaim the highwall area, i.e. they built log fences above the portals. PMC transported backfill material above the portals with the conveyor and hopper. The log fences kept the material in place. After PMC took the equipment underground, they allowed the fences to collapse, the backfill material slid down partially covering the highwalls and completely covering the portals. The method was so successful that Division presented PMC with an Earth Day Award for the use of innovative technology.

The amount of fill material at the site was limited because breakouts were developed pre-SMCRA. The cut material was not salvaged. PMC used as much of the on site material as possible. However, some cutslopes and highwall remnants remained after reclamation due to lack of backfill material and equipment limitations.

The site does blend into the surrounding topography because:

- The drainages in the disturbed area complement those outside the disturbed areas.
- PMC feathered the reclaimed slopes into the undisturbed areas so that the transition appeared natural.
- The highwall remnants that remain are similar in size and shape to natural cliffs in the area.

PMC did not eliminate all the highwalls. Because the highwalls were pre-SMCRA specific rules apply to the reclamation of highwalls, see R645-301-553.500. The reasons the Division allowed highwall retention are:

- The amount of available material was insufficient to completely backfill the highwalls.
- The size and type of equipment that could be transported through the mine was limited.
- Because of the need to keep the portals open until all earthwork was completed, PMC was limited to the amount of backfill they could place against the highwalls.

Due to restraints of the size and type of equipment that could reach the site, PMC was unable to use pocking or other surface roughening techniques to stabilize the soil. They did apply mulch and seed the site, which minimize erosion.

All portals were sealed with concrete block and backfilled a minimum of 25 feet. Both MSHA and the Division approved the portal closures.

Corner Canyon

Corner Canyon is similar to Mudwater Canyon. Both sites were developed as portal breakouts before the enactment of SMCRA and were only accessible through the mine or by foot. PMC blended the site into the surrounding areas by restoring the natural drainages and feathering the edges into the natural ground.

PMC constructed log fences above the portals. Behind the fences, PMC placed backfill material. After PMC finished using the equipment, they took it underground. PMC collapsed the fences and the backfill side down covering the portals and part of the highwalls. PMC then seeded the site so that vegetation would be established and stabilize the soil.

Again, PMC was unable to eliminate all the highwalls. Because the highwalls were pre-SMCRA, the R645-301-553.500 rules applied. The Division allowed the allowed highwall retention because:

- The amount of available material was insufficient to completely backfill the highwalls.
- The size and type of equipment that could be transported through the mine was limited.
- Because of the need to keep the portals open until all earthwork was completed, PMC was limited to the amount of backfill they could place against the highwalls.

All portals were sealed with concrete block and backfilled a minimum of 25 feet. Both MSHA and the Division approved the portal closures.

Lion Deck, Number 2 Mine, Number 1 Mine, and Main Mine Facilities Area

Those sites were developed before the enactment of SMCRA. Neither PMC nor the Division was aware of any excess spoil at the Star Point Mine.

Most of the surface disturbance at Star Point Mine occurred before the passage of SMCRA. Therefore, premining topographic maps are not available. The Division cannot determine how closely the postmining slopes resemble the premining slopes. What the Division could do was determine if the postmining slopes blended into the undisturbed areas. The Division made that finding as part of the July 22, 2002 technical analysis that designs for the reclaimed slopes will blend into the surrounding area.

The Division analyzed the slope stability information as part of the July 22, 2002 technical analysis. In that analysis, the Division found that the slope designs were adequate to ensure PMC would construct slopes that have a minimum safety factor of 1.3.

In the July 18, 2002 application, PMC stated that the angle-of-repose for the backfill material is 1.5 H to 1.0 V. None of the reclaimed slopes are steeper than 1.5 H to 1.0 V; therefore, the reclaimed slopes will not exceed the angle-of-repose.

The reclaimed slopes usually do not exceed a slope angle of 2.0 H to 1.0 V. PMC had the slopes pocked during reclamation. The Division found that slopes at that steepness that have been roughened control erosion until vegetation can be established.

The Star Point Mine was constructed pre-SMCRA. Therefore specific rules apply to the reclamation of highwalls, see R645-301-553.500.

The Division approved the retention of highwall remnants at the Lion Deck area because of the need to preserve County Road 290. There was a tradeoff between eliminating the highwall remnants and preserving the County Road 290. The Division made findings about highwall retention during the permit process and when PMC submitted amendments. The Division's findings were scattered in several documents. The Division summarized the findings and provided them to PMC, who incorporated the findings into the bond release package.

On April 8, 2004, the Division received cross sections that showed the operational surface, the proposed reclamation surface and the as-built surface. The as-built drawings are similar to the reclamation designs. The as-built designs show the following:

- PMC reclaimed the pre-SMCRA highwalls to the standards in the approved reclamation plan.
- PMC covered all coal seams with a minimum of four feet of cover.
- PMC reclaimed the cutslopes according to the approved reclamation plan.

The Division found that the Main Mine Site meet the AOC requirements because the site meet the general requirement of blended into the surrounding area and the specific requirements for handling excess spoil, highwall elimination and erosion control were meet.

All portals were sealed with concrete block and backfilled a minimum of 25 feet. Both MSHA and the Division approved the portal closures.

While not technically a mine opening the stope hole was backfilled with noncombustible materials from the bottom to the top and PMC monitored the settling of the fill material. When needed, PMC placed additional material in the stope hole. PMC monitored the stope hole and found area to be stable for past eighteen months. PMC will monitor the site until Phase III bond release. If additional settling should occur, the Division will require PMC to fix the problem.

Carbon County wanted the road to remain open because it provides access to radio relay towers that are used by the County's emergency response agencies. In addition, the road provides access to public and private property on Gentry Mountain. In a letter dated April 7, 2004, the County agreed to take over road maintenance.

Unit Train Loadout Facility

The Unit Train Loadout Facility was built pre-SMCRA. None of the operators generated any excess spoil at the site and there is no evidence anyone placed spoil at the loadout. Therefore, no excess spoil piles exist at the loadout.

The Division analyzed the slope stability information as part of the July 22, 2002 technical analysis. In that analysis, the Division found that the slope designs were adequate to ensure PMC would construct slopes that have a minimum safety factor of 1.3 or greater.

In the July 18, 2002 application, PMC stated that the angle-of-repose for the backfill material was 1.5 H to 1.0 V. The reclaimed slopes are gentler than 1.5 H to 1.0, thus the V reclaimed slopes did not exceed the angle-of-repose.

Because the loadout was built pre-SMCRA, there are no maps that show the pre-disturbed topography. Therefore, the Division cannot evaluate how well PMC restored the site to the original topography. Instead, the Division determined if the reclaimed site blended into the surrounding area then the general AOC requirement would be met.

When PMC started backfilling and grading at the Unit Train Loadout Facility, they discovered that the reclamation plan was inadequate because:

- The reclamation plan was based on maps with ten-foot contours.
- The large contour interval did not show stream channels in the correct locations.
- Cutslopes were not well defined.

PMC modified the reclamation plans to fit the site conditions. The significant changes to the reclamation plan included:

- The as-built drawing for cross section H-3 to H-3' is much different than the design because the cutslopes were covered with ten feet more fill than originally scheduled. The placement of additional material required that PMC modify the surface configuration.
- The area that sloped towards channel SPRD-35 was steeper than shown in the reclamation plan. The field changes resulted in PMC placing more cover on the cutslopes.
- PMC moved the location of SPRD-36B so that the ditch would intercept more surface flow.
- PMC did not construct SPRD-37 when they discovered that they would build the ditch in Mancos Shale. Flows over Mancos Shale would result in high sediment loads that would clog the channel. Instead of building a channel, PMC built energy dissipaters at the base of the slopes, therefore eliminating the need for SPRD-37.

PMC showed the topography of the loadout on Map 542.200c. The contours in the reclaimed area blend into the surrounding lands. The drainage patterns outside the disturbed area appear to complement those inside the disturbed area.

No mining occurred at the loadout, so no highwalls exist at the site.

PMC left the road that provides access to Utah Railway's tracks. Utah Railway not only uses the road for access to their equipment but ConocoPhillips uses the road for access to natural gas wells in the area. The road is in good condition and on Utah Railway's property.

The Division found that the Unit Train Loadout Facility meet the AOC requirements because the site meet the general requirement of blended into the surrounding area and the specific requirement for erosion control. Excess spoil and highwalls were not present at the site.

CHRONOLOGY FOR PHASE I BOND RELEASE

Plateau Mining Corporation
Star Point Mine
C/007/0006
Carbon County, Utah

August 6, 2004

November 6, 2003

PMC submitted Phase I bond release application for the Star Point Mine for all disturbed areas with the exception of the refuse pile and associated topsoil stockpile areas that are part of the Star Point Waste Fuel permit, the well pad and associated utility corridor associated with the ConocoPhillips natural gas well .

November 18, 2003

The Office of Surface Mining wrote the Division a letter stating that the PMC's request for Phase I bond release is not a mine plan modification.

January 15, 22, 29, and February 5, 2004

The phase I bond release is published for four consecutive weeks in the Sun Advocate.

February 5, 2004

Affidavit of publication signed by Ken B. Larson, publisher for the Sun Advocate, that the public notice for the Phase I bond release for the Star Point Mine was published for four consecutive weeks.

March 29, 2004

End of 60-day public comment period, the Division did not receive any public comments about the proposed Phase I bond release.

March 30, 2004

PMC informed surface and subsurface owners by letter that PMC applied for Phase I bond release at the Star Point Mine.

April 7, 2004

Letters from Evan Hansen, Carbon County Engineer and Ray Hanson, Carbon County Road Supervisor to Carbon County Board of Commissioners state that the County Road 290 is in good repair and PMC did the required maintenance.

May 26, 2004

The Division sent letters to all potentially interested parties stating the location and time of the Phase I bond release inspections.

June 23, 2004

The inspection team left the meeting site, intersection of Highway 10 and Highway 122, at 9:15 AM and proceeded to the overview for Corner Canyon. Mike Smith declined to go on the hike. The inspection team arrived at the trailhead at 10:30 AM and hiked to the site. They arrived at 11:15 AM, stayed until noon and returned to the trailhead at 1:30 PM. In attendance were:

Mitch Rollings, OSM
Johnny Pappas, Plateau Mining Corporation
Layne Jensen, Earth Fax Engineering
Mike Smith, USFS
Wayne Western, DOGM

June 23, 2004

The Mudwater Canyon bond release inspection began the hike to the site at 2:00 PM, the inspection party reaching the site at 3:00 PM, the inspection concluded at 3:45 PM and the inspection party returned to the trailhead at 5:30 PM. In attendance were:

Johnny Pappas, Plateau Mining Corporation
Layne Jensen, Earth Fax Engineering
Wayne Western, DOGM

June 24, 2004

The inspection party arrived at the Lion Deck at 9:30 AM on June 24, 2004 and ended at 4:20 PM at the Unit Train Loadout. The weather was partly cloudy when the inspection began, thunderstorms began around 11:00 AM and light rain began about 2:30 PM and lasted until 3:30 PM. In attendance were:

Angela Wadman, Geologist, BLM, Price Office
Sue Burger, Physical Scientist, BLM, Price Office
Mitch Rollings, OSM, Denver Office
Johnny Pappas, Plateau Mining Corporation

Layne Jensen, P.E., Earth Fax Engineering
Pam Grubaugh-Littig, Permit Supervisor, DOGM
Priscilla Burton, Soil Scientist, DOGM
Wayne Western, Engineer, DOGM

SUMMARY OF FINDINGS

Plateau Mining Corporation
Star Point Mine
C/007/0006
Carbon County, Utah

August 6, 2004

SUMMARY OF FINDINGS

The Phase I bond release findings for Star Point Mine were part of the technical analysis dated March 25, 2004 that the Division did for the bond release application. The technical analysis refers to findings that the Division made about highwall remnant and cut slope retention were in a memo dated July 19, 2002.

PMC advertised the request for Phase I bond for four consecutive weeks in the Sun Advocate on January 15, 22, 29 and February 5, 2004. The Division did not receive any comments during the public comment period.

On June 23, 2004 and June 25, 2004 bond OSM, BLM, USFS and the Division conducted release inspections. During the on site inspections no problems were identified.

PHASE I BOND RELEASE RECOMMENDATION

The Division recommended that Phase I bond release at the Star Point Mine be granted for \$4,677,600, with the new bond being \$3,118,400. The current bond was escalated to the year 2004. R645-301-830.300 requires that bond have an escalation factor, which the Division does at midterm (currently). The Division determined that the bond amount escalated to 2009 dollars would be \$3,542,502 at the currently escalation rate of 2.59%. The Division rounds the bond amount to the nearest \$1,000 so the new bond should be \$3,543,000.