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

February 16, 2016

PID: C0070020
TaskID: 4986
Mine Name: HORIZON MINE
Title: PERMIT REVISION

Summary

February 2015, Hidden Splendor Resources (HSR) submitted the first permit amendment application in which many commitments were removed without justification and the technical team found the application to be deficient and denied it in March 2015. (Task #4797)

April 10th, 2015, the permit amendment was submitted a second time and the major deficiencies were still not adequately addressed. On April 27th, the Division denied the permit again. (Task #4866)

May 29th, 2015, a third amendment was submitted in which the post mining land use is proposed to be changed. The division found this amendment to be incomplete and did not complete a technical analysis. (Task #4902)

On September 18th, 2015, a fourth application was submitted. Again, the application is to change the post mining land use from undeveloped to recreational use, for “dispensed, private recreational activity”.

HSR asserts the change in land use will facilitate private recreational activity by the “lessee, Utah State Senator David Hinkins”. As such, the Permittee proposes to retain a large portion of the facility pad for parking, camping, and staging. Portions of the pad not to be used for recreational use would be scarified, top soiled, and revegetated but would not be restored to the Approximate Original Contour. Backfilling and grading to a natural contour is not proposed. Existing diversions and hydrological features wouldl remain in place and natural drainages would not be restored. Remaining structures, equipment, and foundations would be removed from the site. All mine portals and shafts would be sealed.

Deficiencies Details:

lreinhart

General Contents

Identification of Interest

Analysis:

The amendment does not meet the State of Utah R645 requirements for Identification of Interests.

Most of the information currently presented in the approved Mining and Reclamation Plan (MRP) has not changed as a result of the proposed post-mining land use change (PMLU). In Section 112.200, the MRP indicates that Hidden Splendor Resources, Inc is the permit applicant and mine operator. It further indicates that Hidden Splendor Resources, Inc. is incorporated under the laws of the State of Nevada. Section 112.340 on page 2-2 of the MRP states, "Hidden Splendor Resources, Inc., is a wholly-owned subsidiary of America West Resources, Inc." On page 2-2a, the officer and director information for Hidden Splendor Resources, Inc. and America West Resources, Inc. is provided.

The Wildcat Loadout mining and reclamation plan (MRP) identifies Wild West Equipment & Hauling, LLC as the operator of the facility and Dan Baker as the Vice President of the company (DOGM Permit C/007/0033, Chapter 1, page 1-2). Per the requirements of R645-301-112.340, the application must be revised to identify Mr. Baker and his capacity as the operator at the Wildcat Loadout within the last five years. Additionally, the application must be revised per the requirements of R645-301-112.400.

The name, address and phone number of the applicant is provided on page 2-2 of the approved MRP. Alexander WAlker III is identifed as the resident agent on page 2-2 as well. Mr. Walker's address and phone number are provided. Mike Tomlin is identified as the individual responsible for paying the abandoned mine land reclamation fee. Mr. Tomlin's address and phone number are provided on page 2-2 of the approved MRP.

The legal or equitable owners of the surface and mineral properties are listed on page 2-3 of the approved MRP. The names and addresses for these individuals and companies are provided. The contiguous owners of record for property contiguous to the proposed permit area is provided on page 2-4 of the approved MRP. Page 2-5 has been revised with the proposed amendment to reflect the termination of Federal Coal Lease UTU-74804.

The MSHA numbers issued for the mine-site are provided on page 2-5 of the approved MRP.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Identification of Interests. The following deficiency must be addressed prior to final approval:

R645-301-112.340, -112.400 thru -112.420: The Permittee must revise the application to identify Mr. Baker and his capacity as the operator at the WildCat Loadout. Additionally, the application must be revised with the information required by R645-301-112.400 thru -112.420.

schriste

Violation Information

Analysis:

The amendment does not meet the State of Utah R645 requirements for Violation Information.

The Permittee has revised Section 113, Violation Information, on page 2-5. The revision directs the reader to Appendix 2-7, Violation Information, for the summary of violations connected to the Horizon Mine (Permit number C/007/0020). Additional information is required.

R645-301-113.300 requires the listing of all violation notices and unabated cessation orders received prior to the date of the application. Cessation Order #12147 (CO #12147) is not included in the table of violation history in Appendix 2-7. CO #12147 was issued for failing to abate Notice of Violation #10141 (NOV #10141) within the time specified in the citation. NOV #10141 was issued for failure to maintain the primary sediment pond at the mine-site as designed and approved in the current Mining and Reclamation Plan (MRP). CO #12147 is entered into the status column for Notice of Violation #10141. However; CO #12147 is a separate stand-alone enforcement action as noted in the Office of Surface Mining Reclamation and Enforcement Applicant/Violator System (OSMRE AVS) and must identified as such. Additionally, Additionally, two NOV's have been issued to the Wildcat Loadout in the last three years. Notice of violation N10129 (NOV #10129) was issued on June 20th, 2013 for non-permitted oil trans-loading activities that occurred on the Wildcat Loadout site. Notice of violation N10132 (NOV #10132) was issued on November 26th, 2013 for failure to prevent additional contributions of suspended solids to stream flow outside the permit area.

R645-301-113.310 through 113.350 outlines the information that must be provided for each violation notice or cessation order reported. Upon review of the NOV history in Appendix 2-7, additional information is required.

R645-301-113.310 requires that the name of of the person to whom the violation notice was issued and the name of the issuing regulatory authority.

R645-301-113.330 requires the date, location and type of any administrative or judicial proceedings initiated concerning the violations.

R645-301-113.340 requires the current status of the proceedings and of the violation notice.

R645-301-113.350 requires the actions, if any, taken by any person identified in R645-301-113.300 to abate the violation.

The Permittee must provide the additional information for the violation history information provided in Appendix 2-7.

In Section 113 on page 2-5, the approved MRP indicates that "Neither America West Resources, Hidden Splendor nor any subsidiary, affiliate, member or manager, or persons controlled by or under common control with the applicant has had a federal or state mining permit suspended or revoked in the last five years; nor forfeited a mining bond or similar security deposited in lieu of bond".

Deficiencies Details:

R645-301-113.300: The Permittee must revise Appendix 2-7, Violation Information. The compliance history provided in Appendix 2-7 must identify Cessation Order #12147 (CO #12147). CO #12147 was issued for failing to abate Notice of Violation #10141 within the time specified in the citation. The violation history table in Appendix 2-7 lists CO #12147 in the status column for Notice of Violation #10141. However; CO #12147 is a separate stand-alone enforcement action as noted in the Office of Surface Mining Reclamation and Enforcement Applicant/Violator System (AVS) and must be identified as such. Additionally, two NOV's have been issued to the Wildcat Loadout in the last three years. Notice of violation N10129 (NOV #10129) was issued on June 20th, 2013 for non-permitted oil trans-loading activities that occurred on the Wildcat Loadout site. Notice of violation N10132 (NOV #10132) was issued on November 26th, 2013 for failure to prevent additional contributions of suspended solids to stream flow outside the permit area. The Wildcat Loadout MRP identifies Wild West Equipment & Hauling, LLC as the operator of the facility and Dan Baker as the Vice President of the company (DOGM Permit C/007/0033, Chapter 1, page 1-2).

R645-301-113.310, -113.330, -113.340 and 113.350: The Permittee must provide additional information for the violation information provided in Appendix 2-7. R645-301-113.310 through 113.350 outlines information that must be provided for each violation notice or cessation order reported. Upon review of the NOV history in Appendix 2-7, more information is required. R645-301-113.310 requires that the name of of the person to whom the violation notice was issued and the name of the issuing regulatory authority. R645-301-113.330 requires the date, location and type of any administrative or judicial proceedings initiated concerning the violations. R645-301-113.340 requires the current status of the proceedings and of the violation notice. R645-301-113.350 requires the actions, if any, taken by any person identified in R645-301-113.300 to abate the violation.

schriste

Right of Entry

Analysis:

The amendment meets the State of Utah R645 requirements for Right of Entry.

Section 114 of the approved MRP (see page 2-5) provides the Right of Entry Information. No revisions were made to this section on the newly submitted page 2-5 of the amendment.

schriste

Permit Term

Analysis:

The amendment meets the State of Utah R645 requirements for Permit Term.

The proposed permit term for the Horizon Mine is 5 years. Chapter 3 of the approved mining and reclamation plan (MRP) discusses the extent of underground mining activities to be conducted over the 5-year permit term. However; mining activity has ceased at the mine-site.

schriste

Permit Application Format and Contents

Analysis:

The amendment does not meet the State of Utah R645-301-121.200 requirement for being clear and concise.

Plate 3-1 is not clear and concise in conformance with R645-301-140. Due to the small size of this map, the legend and text are not clear and features are not distinguishable.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-121.200 requirement for being clear and concise. The following deficiency must be addressed.

R645-301-141. The Permittee must provide a map that meets the requirements set forth by the regulations. Maps will contain information set forth on U.S. Geological Survey 1:24,000 scale series and at a scale of 1:6,000 or larger. Adjacent areas will be no smaller than 1:24,000.
Plate 3-1 is not legible and areas intended to be reclaimed are not clearly defined.

lreinhart

Maps and Plans

Analysis:

The amendment does not meet the State of Utah R645 requirements for General Contents of Maps and Plans.

The narrative in V. 1, Ch. 3, Sec. 3.2, states plan view is exhibited on Plate 3-1 with associated cross sections on plate 3-2. Therefore, plate 3-1 does not meet the minimum requirements of R645-301-121.200,R645-301-141 and R645-301-512.120 due to missing location labels of the associated profiles detailed on Plate 3-2. The surface disturbances shown on Plate 3-1 are associated with the Horizon mine and the surface disturbances shown on Plate 3-6, entitled Premining Topography, detail the pre Horizon mining topography but after the Blaze Mine.

Historic mining disturbances in the area have been in existence since the mid-1920s. As a result the exact pre-mining topography is not readily available; however, the surface contours in undisturbed areas surrounding the mine site are considered generally indicative of the original land slopes. A combination of Plate 3-6 and Plate 3-2 are an integral part of describing what surrounding areas could be considered undisturbed. Plate 3-2 details cross sections of surface facilities but is missing a plan view location labels of the labels profiles on Plate 3-1 or some other appropriate drawing. The location of profiles on the plan drawings are required to give a clear and concise plan and profile information of undisturbed slopes. Such information is required by R645-301-512.260 for a variance from approximate original contour.

The amendment does not meet the minimum requirements of R645-301-521, R645-301-121.200, and R645-301-140. The plan provides a new figure, Plate 3-1a, but fails to include a supporting narrative as to why Plate 3-1a was added and what information is presented on it. Plate 3-1a does not provide clear and correct information of the surface area as the plate fails to detail existing site structures such as concrete footings, portal canopies, refuse piles, power poles, gate, and asphalt areas. See Mining Operations maps and plans deficiency for additional Plate 3-1a deficiencies.

The submitted Plates 3-1a, 3-7a, and 8-1b do not meet the minimum requirements of R645-301-521, R645-301-121.200, and R645-301-140 as the drawings are illegible and do not meet presentation of information in a consolidated format set forth on USGS 1:24,000 scale series.

Deficiencies Details:

R645-301-512.100, R645-301-121.200, R645-301-140: The Permittee must add the profile labels to a plan drawing, e.g. Plate 3-1, that show the locations of the profiles depicted on Plate 3-2. Also see Existing Surface Configuration Maps for more details.

R645-301-121.200, R645-301-140, R645-301-521, and R645-301-542: The Permittee will add a narrative referencing Plate 3-1a with the MRP.

R645-301-521, R645-301-121.200, and R645-301-140: Plate 3-1a, 3-7a, and 8-1b must be legible and meet USGS 1:24000 series format guidelines.

cparker

Environmental Resource Information

General

Analysis:

The amendment does not meet the State of Utah R645 requirements for General Environmental Resource Information in terms of engineering.

The amendment does not meet the R645-301-521 general regulations due to conflicting information in Chapter 3,Section 3.2 and Plate 3-1a. See General Maps and Plans analysis and deficiency for further details.

Deficiencies Details:

R645-301-512.100, R645-301-121.200, R645-301-140: The Permittee must add the profile labels to a plan drawing, e.g. Plate 3-1, that show the locations of the profiles depicted on Plate 3-2. Also see Existing Surface Configuration Maps for more details.

R645-301-121.200, R645-301-140, R645-301-521, and R645-301-542: The Permittee will add a narrative referencing Plate 3-1a with the MRP.

R645-301-521, R645-301-121.200, and R645-301-140: Plate 3-1a, 3-7a, and 8-1b must be legible and meet USGS 1:24000 series format guidelines.

cparker

Permit Area

Analysis:

The amendment meets the State of Utah R645 requirements for the Permit Area.

The amendment meets the minimum requirements of R645-301-521.140 as the current MRP details the permit area and sub areas as outlined within Chapter 3 and Plate 3-1. The amendment did not contemplate any changes to the Permit Area.

cparker

Historic and Archeological Resource Information

Analysis:

The amendment meets the State of Utah R645-301-411.140 requirements for Cultural and Historic Resources information.

Volume 1, Chapter 5 provides a narrative that describes the nature of cultural and historic resources listed or eligible for listing in the National Register of Historic Places and known sites with the permit and adjacent areas. This information was derived from a class I literature search and class III survey which is provided in Appendix 5-1.

A map pursuant to R645-301-411.141 is provided in Appendix 5-1 of the amendment. The map shows locations of sites identified in the Class III survey. There are no public parks or cemeteries within 100 feet of the permit area. Utah has approximately 169.3 miles of designated Wild and Scenic River, all of which are tributaries of the Virgin River in southwest Utah and outside the adjacent area. National System of Trails in Utah are inclusive of the Pony Express, California National Historic Trail, Mormon Pioneer Trail, and Old Spanish National Historic Trail. None of the trail systems are within the adjacent area.

Coordination with the State Historic Preservation Officer (SHPO) is evidenced by letters from USHPO on May 30, 1995 and October 24, 1995 both recommend No Effect. The letters from SHPO are located in Appendix 5-1 and include concurrence on National Register of Historic Places eligibility findings. No sites will be adversely affected and therefore an MOU or Mitigation Plan is not recommended in accordance with R645-301-411.144.

lreinhart

Climatological Resource Information

Analysis:

The amendment meets the State of Utah R645 rules for Climatologic Information.

This information was not changed as part of this amendment.

adaniels

Vegetation Resource Information

Analysis:

The amendment meets the State of Utah R645-301-321 requirements for Vegetation Resource Information.

In Volume 3, Chapter 9, Section 9.4 the amendment describes plant communities within the proposed permit area and any reference areas. The description is adequate to predict the potential for reestablishing vegetation and includes productivity measurements on all lands that will be disturbed. As noted on page 9-6, Water Rights and the Corp have determined the Horizon site (0.42 acres) to be a riparian area not an Army Corp jurisdictional wetland. That riparian area was surveyed to facilitate standards for reclamation success of Jewkes Creek. As noted on page 9-9 of section 9.8, Horizon commits to provide a reclamation channel design which will allow a reasonable likelihood of reestablishing the riparian vegetation along Jewkes Creek which existed prior to the construction of the Horizon Mine.

Table 9-4 contains federally listed and proposed endangered species in Utah.

Data on predicted forage production for rangeland is available the Vegetation Sampling report from 1995, Appendix 9-1.

lreinhart

Fish and Wildlife Resource Information

Analysis:

The amendment meets the State of Utah R645-301-322 requirements for Fish and Wildlife Resource Information.

Fish and wildlife resources are discussed in Ch. 10, Section 10.3. T&E species are listed in section 10.3.3.1. Potential impacts are discussed in Section 10.4. Mitigation and Management Plans are discussed in 10.5. The level of detail of the information is sufficient to design the protection and enhancement plan under R645-301-333. The area is not likely to include any listed proposed endangered or threatened species of plants or animals as evidenced by the discussion in section 10.3.3.1. and analysis of IPaC Resource Report generated 2/4/2016.

The amended permit area contains riparian area Jewkes Creek which is a habitat of unusually high value for fish and wildlife.

The Division determined that approval of this amendment would not affect a listed species or designated critical habitat and therefore did not initiate informational consultation with U.S. Fish and Wildlife Service.

lreinhart

Land Use Resource Information

Analysis:

The amendment meets the State of Utah R645-301-411 requirements for Land Use information.

V. 1, Ch. 3, Section 3.4.1 discusses preservation of land use. As noted on page 3-23, Reclamation efforts will be directed to recreating the pre-mining land use. The pre-mining land use is recreation and grazing. Current and future land use is also discussed in sections 4.4 and 4.5. The narrative analyzes the landuse in conjunction with other environmental resources and provides analysis of the capability of the land before any coal mining and reclamation operations to support a variety of uses. Land use classifications under local law is Mining and Grazing. Plate 4-1 is a map that shows land use.

lreinhart

Hydro Sampling and Analysis

Analysis:

The amendment meets the State of Utah R645 requirements for Sampling and Analysis.

The current MRP states that the sampling and analysis methods will meet the requirements of R645-301-723, and will consist of the collection and analysis of water quantity and water quality data. This information was not changed as part of this amendment.

adaniels

Hydro Baseline Information

Analysis:

The amendment meets the State of Utah R645 requirements for Baseline Information.

The baseline water data collection has previously taken place in other permit amendments and was not changed as part of this amendment, and this information can be found in Appendices 7-2 and 7-3 of the approved MRP.

adaniels

Hydro Baseline Cumulative Impact Area

Analysis:

The amendment meets the State of Utah R645 requirements for Baseline CIA information.

This information was approved as part of the MRP during previous amendments to the permit and was not changed as part of this amendment.

adaniels

Hydro Modeling

Analysis:

The amendment meets the State of Utah R645 requirements for Modeling information.

This information was approved as part of the MRP during previous amendments to the permit and was not changed as part of this amendment.

adaniels

Probable Hydrologic Consequences Determination

Analysis:

The amendment does not meet the State of Utah R645 requirements of PHC Determination.

The PHC was not updated to include the new reclamation plan. This new plan would leave in place the undisturbed diversion culverts, UC-1, UC-2 and UC-3. The mine pad would remain in place, and the sediment pond and the current disturbed drainage culvert, DC-2, would remain as well. The PHC should be updated to contemplate the impacts of leaving all of this in place.

R645-301-728.310 indicates that all potential adverse impacts to the hydrologic balance should be identified. With the revisions to the reclamation plan, impacts that should be evaluated should include issues such as potential culvert plugging, sediment pond degradation, disturbed area degradation that would include erosion that may contribute additional contributions of suspended solids to the surface water systems, and potential impacts of the coal waste that is still in place at the pad site.

The PHC should also provide supporting calculations that the proposed postmining landuse will improved the watershed and not add additional suspended solids to the receiving waters below the permit area.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Probable Hydrologic Consequences (PHC) Determination. The following deficiency must be addressed prior to final approval:

R645-301-728 The PHC must be updated to include an assessment of probable impacts from the revised reclamation plan. This would include supporting calculations and/or modeling that demonstrates that the proposed postmining land use will improve the watershed and not contribute additional suspended solids to the receiving water downstream of the permit area.

adaniels

Hydro GroundWater Monitoring Plan

Analysis:

The amendment meets the State of Utah R645 rules for Groundwater Monitoring Plan.

This information was not changed as part of this amendment.

adaniels

Hydro SurfaceWater Monitoring Plan

Analysis:

The amendment meets the State of Utah R645 rules for Surface Water Monitoring Plan.

This information was not changed as part of this amendment.

adaniels

Maps Affected Area Boundary Maps

Analysis:

The amendment does not meet the State of Utah R645-301-323 requirements for Maps and Aerial photographs.

The amendment updates plate 3-1a, however the map is not legible and therefore does not meet R645-301-140. Plate 3-1 in the existing MRP is clearly legible.
Plate 10-1 is a wildlife map that shows the area is within critical habitat for elk and deer.
Plate 4-1 is a Land Use Map which shows land use of mining and grazing in the area of the mine.
Plate 9-1 is a Vegetation map that clearly shows vegetation communities in the area.
Plate 9-2 shows riparian areas surveyed which will be used as basis for reclamation success criteria of riparian areas.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-323 requirements for maps and photographical information due to the map being illegible. The following deficiency must be addressed prior to final approval:

R645-301-140: The Permittee must provide a clear and legible map showing the location and boundary of proposed reference areas, monitoring stations for fish and wildlife, and habitat features.

lreinhart

Maps Affected Area Boundary Maps

Analysis:

The amendment meets the State of Utah R645 requirements for Affected Area Boundary Maps.

The minimum requirements of R645-301-521 are met in regards to including relevant maps that detail the affected area in regards to environmental impacts in Plate 3-1. No changes were made to Plate 3-1 at the time of this amendment.

cparker

Maps Existing Structures and Facilities

Analysis:

The amendment meets the State of Utah R645 requirements for Existing Structures and Facilities Maps.

The amendment meets the minimum requirements of R645-301-521.120 by clearly showing that there are no buildings within a 1000 ft. of the existing and proposed permit areas outside of the building to be constructed on the mine site, detailed on Plate 3-1. The amendment did not contemplate any changes to Chapter 3 Section 3.2 of the MRP.

cparker

Maps Existing Surface Configuration

Analysis:

The amendment does not meet the State of Utah R645 requirements for Existing Surface Configuration Maps.

The amendment meets the minimum certification requirements of R645-301-512.150 by having a Professional Engineer, J Thomas Paluso, certification on the plan view of the surface contour Plate 3-1. Plate 3-2, stamped by Richard White, does not meet the minimum requirements of R645-301-121.200 and R645-301-141 due to missing locations of the profiles on Plate 3-1 or some other applicable drawing. See deficiency under General Maps, Plans, and cross sections for further details.

Deficiencies Details:

R645-301-512.100, R645-301-121.200, R645-301-140: The Permittee must add the profile labels to a plan drawing, e.g. Plate 3-1, that show the locations of the profiles depicted on Plate 3-2. Also see Existing Surface Configuration Maps for more details.

R645-301-121.200, R645-301-140, R645-301-521, and R645-301-542: The Permittee will add a narrative referencing Plate 3-1a with the MRP.

R645-301-521, R645-301-121.200, and R645-301-140: Plate 3-1a, 3-7a, and 8-1b must be legible and meet USGS 1:24000 series formant guidelines.

cparker

Maps Mine Working

Analysis:

The amendment meets the State of Utah R645 requirements for Mine Workings Maps.

The amendment meets the minimum requirement of R645-301-512.110, -512.130, and R645-301-521.140 which require certified maps that clearly show all mine plans. The amendment did not contemplate any changes to the mine working maps.

cparker

Maps Monitoring and Sampling Locations

Analysis:

The amendment meets the State of Utah R645 rules for Monitoring and Sampling Location Maps

The ground and surface water monitoring plan was not changed as part of this amendment.

adaniels

Maps Permit Area Boundary

Analysis:

The amendment meets the State of Utah R645 requirements for the Permit area and Boundary maps.

The amendment meets the minimum requirements of R645-301-521.140 as the amendment did not propose any changes to

the Permit Area boundary maps.

cparker

Maps Subsurface Water Resources

Analysis:

The amendment meets the State of Utah R645 rules for Subsurface Water Resource Maps.

This information was not changed as part of this amendment.

adaniels

Maps Surface and Subsurface Manmade Features

Analysis:

The amendment meets the State of Utah R645 requirements for preexisting Surface and Subsurface Manmade features maps.

The amendment meets the minimum requirement of R645-301-521.122 as Chapter 3 Section 3.2 details that there are no existing surface and subsurface facilities within, passing through, or over the permit area. The amendment did not contemplate any changes to preexisting surface and subsurface features.

The amendment meets the minimum requirements of R645-301-521.123 by detailing the public road is operated by Carbon County. The amendment did not contemplate any changes to roadway operations.

The amendment meets the minimum requirements of R645-301-521.124 by detailing that there are no previous impoundments within the permit area.

cparker

Maps Surface and Subsurface Ownershiip

Analysis:

The amendment meets the State of Utah R645 requirements for Surface and Subsurface Ownership Maps.

The amendment meets the minimum requirements of R645-301-521.130 through -521.132 which require landowners, right of entry, and public interest maps as the amendment did not contemplate any changes to Chapter 3 Section 3.2 of the approved MRP. All surface facilities are located on privately owned surface by Hidden Valley Splendor. Plates 4-1 and 4-2 of Chapter 4 show the boundaries of lands and the names of owners at that time. Plate 4-3 details the subsurface coal ownership of the permit area and adjacent area. The amendment contemplates changing the post mining land use to recreational use for private recreational activities. The change of post mining land use includes the lease of the surface facilities to a state legislator, however, the SMCRA operator will remain the owner of the surface presenting a conflict of interests. See hydrology and post mining land use analysis and deficiencies.

cparker

Maps Surface Water Resource

Analysis:

The amendment meets the State of Utah R645 rules for Surface Water Resource Maps.

This information was not changed as part of this amendment.

adaniels

Maps Well

Analysis:

The amendment meets the State of Utah R645 rules for Well Maps.

This information was not changed as part of this amendment.

adaniels

Operation Plan

Mining Operations and Facilities

Analysis:

The amendment does not meet all the State of Utah R645 requirements for Mining Operations and Facilities.

The amendment does not meet the minimum requirements of R645-301-512.120 by not updating cut/fill certified engineered drawings and narrative for the proposed changes in reclamation. The amendment included changes to Section 3.5 table 3-1 cut/fill calculations but did not contemplate any changes t/o Chapter 3 Section 3.2.1, Plate 3-7, Plate 3-6, Plate 7-7, and Plate 7-7a. The only reclamation plate provided was Plate 3-7a which is simply a copy of Plate 3-2 detailing the cross sections of the surface facilities during operations and conflicts with approved Plate 3-7.

The amendment does not meet the minimum requirements of R645-301-512.120 and -512.240 as the sedimentation pond and diversion ditches are not currently maintained to the certified engineering designs (Plate 7-4, Plate 7-6, Plate 7-6a). The amendment did not include any updated drawings, such as Asbuilts, to change the pond or ditch designs to the current asbuilt condition.

The amendment meets the minimum requirements of R645-301-523 by including a description of the mining operation, method of coal mining, engineering techniques, anticipated annual and total production of coal by tonnage, and major equipment to be used for all aspects of those operations proposed to be conducted during the life of the mine. No changes were made to this section of the MRP within the amendment.

The amendment meets the minimum requirements of R645-301-528.100 due to no change in location of stockpiles.

Deficiencies Details:

R645-301-521.200,-301-512.100,-301-512.120,-301-512.230,-301-512.240,-301-512.260, R645-301-121.200, and R645-301-551: The Permittee will provide updated plates showing the cut/fill plan and profiles for the proposed amendment. The Permittee will correct the site conditions to match approved plates or provide Asbuilts to Section 3.2.1, Plate 3-7, Plate 3-6, Plate 7-4, Plate 7-6, Plate 7-6a, Plate 7-7, and Plate 7-7a.

R645-301-528: The Permittee must revise the application and detail how the existing coal, excess spoil and coal mine waste will be handled and/or disposed of.

R645-301-512.230,- 513.300, -528.320, -536.300 through -563.330 and -542.730: The Permittee must revise the application and provide additional design information and supporting narrative as to how the proposed post-mining land use change will reclaim, handle and/or dispose of the underground development waste and coal mine waste currently located on the mine-site.

R645-301-513.400, -514.200 thru -514.250 and -528.322: The Permittee must revise the application and provide additional design information, and supporting narrative, as to how the proposed post-mining land use change will reclaim, handle and/or dispose of the refuse material currently located on the mine-site.

R645-301-532: The Permittee must revise the application and address how the current site is stable and how the retention of the impoundment is a necessary sediment control measure for a recreational post-mining land use.

R645-301-514.310 thru -514.330: The Permittee must revise the application to address how a professional engineer or specialist will inspect the impoundment with the revision of the post-mining land use. The revision must also address the frequency of inspections and provide a commitment to provide the Division with a certified report that the impoundment is being maintained as designed.

R645-301-532: The Permittee must revise the application to address how accumulated sediment material removed from the retained surface ditches and impoundment will be handled/disposed of with the revised post-mining land use.

R645-301-528: The Permittee must revise the application with drawings and supporting narrative to address the maintenance and removal of the existing mine facilities (e.g. power sub-station, power poles, transformers, sediment pond

etc).

cparker

Existing Structures

Analysis:

The amendment meets the State of Utah R645 requirements for Existing Structures.

The amendment meets the minimum requirements of R645-301-526.110-.116 as the amendment contained no change to existing structures. The currently approved MRP includes the discussion that there are no existing buildings associated with mine operations in Chapter 3 section 3.2 and Section 3.2.3.8. Chapter 3 Section 3.5 details that all disturbed areas will be backfilled, graded, re-top soiled, and revegetated.

The amendment meets the minimum requirements of R645-301-526.200 by detailing no known existing utilities within the permit area.

cparker

Relocation or Use of Public Roads

Analysis:

The amendment meets the State of Utah R645 requirements for the Relocation or Use of Public Roads.

The amendment meets the minimum requirements of R645-301-521.133 due to information detailing general mining methods that would be employed under or within 100 ft of public roads to protect interest of the public. No changes were made to this section of the MRP within the amendment.

The amendment meets the minimum requirements of R645-103.224.422 as the original permit provided proof of a weekly public notice. No changes were made to this section of the MRP within the amendment.

cparker

Air Pollution Control Plan

Analysis:

The amendment meets the State of Utah R645-301-422 requirements for Air Pollution Control Plan.

A description of the coordination and compliance efforts with the Utah Division of Air Quality is discussed in V.3, Ch. 11 and Appendix 11-1. The projected production rate exceeds the 1,000,000 tons of coal per year (1.2 mill t/y), and therefore the air pollution control plan is provided within Chapter 11 and the approval order. Appendix 11-1 is an approval order BAQE-336-91, approval number DAQE-700-00, dated November 7, 2000. This approval order states the project was evaluated and found to be consistent with requirements of Utah Air Quality Rules and Utah Air Conservation Act.

lreinhart

Coal Recovery

Analysis:

The amendment meets the State of Utah R645 requirements for Coal Recovery.

The amendment meets the minimum requirements of R645-301-522 due to a discussion of the measures to be used to maximize the use and conservation of the coal resources. Chapter 3 section 3.2.4 details how coal will be brought out of the mine by conveyor, detailed on Plate 3-1. Chapter 3 Section 3.3 contains detail information about the extraction methods employed at the site along with detailed equipment lists. Mine plans are shown on Plate 3-3 while Plate 3-9 and 3-10 show the location and extent of known adjacent workings. Horizon mine was a combination of fee simple and federal coal leases. Chapter 3 section 3.3.3 details that the maximum quantity of coal will be extracted from the permit area in a way that is consistent with safe operations of the mine following all relevant Federal and State requirements. No changes were made to this section of the MRP within the amendment.

cparker

Subsidence Control Plan Renewable Resource

Analysis:

The amendment meets the State of Utah R645-301-332 requirements for describing impacts of subsidence to fish, wildlife, and vegetative resources. V. 1, Ch. 3, Section 3.4.8 discusses subsidence control and monitoring. One perennial stream (Beaver Creek) and various springs are known to exist within the area to be mined. Subsidence monitoring stations are shown of plate 3-3 and were to be performed annually for 2 years following cessation of mining operations. Anticipated impacts of subsidence on wildlife and vegetation are described in Section 3.4.8.2 on page 3-27. The vegetation resource above the mining area consists of rangeland for stock and wildlife grazing and a limited timber resource. If subsidence should occur, the effects would be minimal, possibly resulting in some fractures or slight depressions. Thus, the effect upon vegetation resources would also be minimal. Should impacts to vegetation occur due to subsidence, mitigation measures may include: filling of fractures, regrading of broken areas, replanting degraded areas, and intensified monitoring.

lreinhart

Subsidence Control Plan Renewable Resource

Analysis:

The amendment meets the State of Utah R645-301-525.130 requirements for Subsidence Control Plan with a renewable resources survey.

The approved MRP details all renewable resources that exist within the permit area in Chapter 3 Section 3.4.8.2. Section 3.4.8.3 details the geologic hazards and conducted a geotechnical report. No changes were made to this section of the MRP within the amendment.

cparker

Subsidence Control Plan Subsidence

Analysis:

The amendment meets the State of Utah R645-301-525.400 requirements for Subsidence Control Plan.

The approved MRP contains a subsidence protection plan as detailed in Section 3.4.8.4. No changes were made to this section of the MRP within the amendment.

cparker

Subsidence Control Plan Performance STD

Analysis:

The amendment meets the State of Utah R645-301-525.requirements for Performance Standards for Subsidence Control.

The approved MRP contains a subsidence protection plan as detailed in Section 3.4.8.5. No changes were made to this section of the MRP within the amendment.

cparker

Subsidence Control Plan Notification

Analysis:

The amendment meets the State of Utah R645-301-525.700 requirements for Public Notice of Proposed Mining.

The approved MRP contains a subsidence protection plan as detailed in Section 3.4.8.5. No changes were made to this section of the MRP within the amendment.

cparker

Subsidence Control Plan Slides and Other Damage

Analysis:

The amendment meets the State of Utah R645 requirements for Slides and Other Damage.

The amendment meets the minimum requirements of R645-301-515.100 with procedures already described within the existing MRP detailing the emergency contact procedures in the event of a slide in Chapter 3 section 3.3.2.5. No changes were made to this section of the MRP within the amendment

cparker

Fish and Wildlife Protection and Enhancement Plan

Analysis:

The amendment does not meet the State of Utah R645-301-333 requirements by describing how using best technology currently available to minimize adverse impacts to fish and wildlife, including compliance with the Endangered Species Act.

Potential impacts on fish and wildlife are discussed in Section 10.4 and 10.5. A discussion of construction of support facilities to avoid or minimize impacts on fish and wildlife species is located in Section 10.4 on page 10-35.

As noted in section 10.3.2 on page 10-25, Jewkes Creek provides a water source used by all species of wildlife which frequent the area and on page 10-21, Hidden Splendor Resources, Inc., intends to continue the maintenance of the water quality necessary to encourage all aquatic life by controlling sediment and contaminants associated with the mining operation from entering the North Fork of Gordon Creek. The surface disturbance associated with the mining operation will be mitigated by reclaiming the disturbed sites, as noted in Section 10.5, page 10-37.

Monitoring of aquatic conditions will be performed in the North Fork of Gordon Creek. Although not perennial, Jewkes Creek is a tributary to the North Fork of Gordon Creek and has the potential to impact it. Therefore, a spring and fall macroinvertebrate survey will be performed every year for three years then every other year after that until final bond release. The Permittee is not in compliance with these requirements pursuant to R645-300-143 since surveys have not been conducted in over 3 years and final bond release has not been met. According to the most recent survey, October 11, 2012, the stream is in poor condition at both monitoring sites. In 2008 the stream was good to fair condition and has since been downgraded. Therefore, the surveys indicate the stream is declining in health. Because no other surveys were conducted, it is impossible to determine the current condition of the stream or the factors that caused the degradation. The application requests that culverts and the pad are retained for the post mining land use, but fails to provide evidence that retention of the facilities will not contribute to further degradation of stream health in Gordon Creek. All current survey information indicates that the current plan is indeed deteriorating the health of Gordon Creek. Therefore, retention of the structures as proposed is not using BTCA to minimize adverse impacts to fish and wildlife.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-333 requirements by describing how using best technology currently available will minimize adverse impacts to fish and wildlife.

R645-301-333. The permittee must provide evidence that retention of the pad and culverts is using BTCA to minimize impacts to fish and wildlife.

lreinhart

Vegetation

Analysis:

The amendment meets the State of Utah R645-301-331 requirements for Protection of Vegetation.

V. 1, Ch. 3, Section 3.4.5 and Ch. 9, section 9.2, discusses how the permit area is the site of previous mining activity and much of the surface area has been previously disturbed. All mining activity will be conducted within the proposed disturbed area and traffic is confined to established roadways and pads.

lreinhart

Road Systems Classification

Analysis:

The amendment meets the State of Utah R645 requirements for Road Systems and Other Transportation Facilities.

The amendment meets the minimum requirements of R645-301-527.100 by classifying each road as primary or ancillary in the existing MRP Chapter 3 Section 3.2.3.3. Plate 3-1 and Plate 3-4 detail plan and profiles of classified roads. Roads will be constructed, used, and maintained by Horizon. Chapter 3 section 3.2.1 states that all roads and pads will be constructed with a cut and fill technique. No changes were made to this section of the MRP within the amendment.

cparker

Road System Plans and Drawings

Analysis:

The amendment meets the State of Utah R645 requirements for Transportation Plans and Drawings.

The amendment meets the minimum requirements of R645-301-521.170 by having all roads described with Chapter 3 section 3.2.3 and on Plate 3-1. All drainage structures associated with the roads are discussed in Chapter 7. A typical cross section of the primary road is provided on Plate 3-4.

The amendment meets the minimum requirements of R645-301-527.210 and R645-301-534.100 by having plan and profile drawings within the MRP of all haul roads during coal mining operations. No changes were made to this section of the MRP within the amendment.

cparker

Road System Performance Standards

Analysis:

The amendment meets the State of Utah R645 requirements for Performance Standards of roads within the permit area.

The amendment meets the minimum requirements of R645-301-527.230 by detailing the general maintenance of all roads within the permit area within the existing MRP Chapter 3 Section 3.2.3.4.

The amendment meets the minimum requirements of R645-301-527.250 asno alternative specification or steep cut slops were plan or disturbed that were associated with roads at the time of this amendment.

The amendment meets the minimum requirements of R645-301-534.150. Plans and drawings were submitted for each road to be maintained within the permit area to prevent and control erosion. Chapter 7 details the road drainage structures. No changes were made to this section of the MRP within the amendment.

cparker

Road System Certification

Analysis:

The amendment meets the State of Utah R645 requirements for Primary Road Certification .
The amendment meets the minimum requirements of R645-301-512.250 by having all primary haul roads designed and certified by a professional engineer. All primary haul roads will be built in a stable manner to ensure environmental protection and safety with no stream fords. Road specifications are detailed on Plate 3-4. Chapter 3 section 3.2.3.3 details the primary roads within the Permit Area include the lower haul road loop and the upper pad road. The MPR does not contemplate the construction of any ancillary roads within the disturbed area. No changes were made to this section of the MRP within the amendment.

cparker

Road System Other Transportation Facilities

Analysis:

The amendment meets the State of Utah R645 requirements for Other Transportation Facilities.

The amendment meets the minimum requirements of R645-301-521.170 as no change to the surface conveyor from the portals through the mine yard was proposed. The mining operations included two material handling conveyors that existed on the surface. Plate 3-1 details how the mine belt transported coal from the mine to the stacker belt. No changes were made to this section of the MRP within the amendment.

cparker

Spoil Waste Disposals of Noncoal Mine Wastes

Analysis:

The amendment does not meet the State of Utah R645 requirements for Spoil and Waste Materials.

The original MPR meet the minimum standards or R645-301-528.330 due to detailing disposal of noncoal mine waste disposal located in the Chapter 3 Section 3.2.3. However, the Permittee was issued NOV # 10142 due to failing to maintain non coal mine waste during reclamation activates in fall of 2014(See inspection report # 4001 and 3858). The Permittee abated the NOV by disposing of the non-coal mine waste at a Division approved waste site on 8/4/2014. However, non-coal mine waste piles continue to be observed at the mine site (See Inspection reports #4086, #4147, and #4163). The Permittee needs to address how the proposed post-mining land use change will handle/dispose of existing non-coal waste/spoil material at the mine site.

Deficiencies Details:

R645-301-528: The Permittee must revise the application and detail how the existing coal, excess spoil and coal mine waste will be handled and/or disposed of.

cparker

Spoil Waste Coal Mine Waste

Analysis:

The amendment does not meet the State of Utah R645 requirements for Coal Mine Waste.

Currently the pad has a large accumulation of coal mine waste. This waste is stacked at the point between the lower and upper pad, all across the lower pad, and the pond is full of coal mine waste. This waste must be disposed of to minimize adverse effects of leachate and surface water runoff on surface and groundwater quality and quantity, according to the R645-301-746.120. Also, according to R645-301-553.250 coal mine waste must be disposed of in a designed refuse pile with four feet of cover material.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for for Coal Mine Waste. The following deficiency must be addressed prior to final approval:

R645-301-746.120, R645-301-553.250, R645-301-553.300 Waste located on the pad site and in the sediment pond must be disposed of in a refuse pile and covered with four feet of material. The MRP should include a plan to handle the waste currently within the permit area.

adaniels

Spoil Waste Coal Mine Waste

Analysis:

The amendment does not meet the State of Utah R645 requirements for Coal Mine Waste.

The amendment does not meet the minimum requirements of R645-301-513.300, -301-528.320, -301-536.300- through 563.330, and -542.730The MRP currently states that coal processing waste will not exist or occur on the surface within the permit area. However, current site conditions include coal mine waste located at the surface.

Chapter 3 Section 3.2.3, Section 3.2.3.1, and Section 3.2.3.6 state that no coal mine waste disposal facilities will exist on the surface within the permit area. The coal mine waste was generated at the surface when the Permittee commenced in handling materials on the facilities lower pad by separating earth materials from coal fines (See Inspection report #4001,

#4086 and #4104). The inspection reports detail how Wellington Dry Coal Cleaning facility was on site removing coal fines when the Division inspector arrived on January 22, 2015 and continued to operate at the site until the third week in February 2015. The operation of removing coal fines that were sold to a market is defined in R645-100-200 as Coal processing by "cleaning, concentrating, or the processing or preparation of coal." In the process of concentrating the material on the lower pad the Permittee created a coal mine waste pile that is not permitted within the existing MRP. The Division's inspector has stated the need to remove the pile in Inspection reports #4147, #4163, and #5395.

Deficiencies Details:

R645-301-512.230,- 513.300, -528.320, -536.300 through -563.330 and -542.730: The Permittee must revise the application and provide additional design information and supporting narrative as to how the proposed post-mining land use change will reclaim, handle and/or dispose of the underground development waste and coal mine waste currently located on the mine-site.

cparker

Spoil Waste Refuse Piles

Analysis:

The amendment does not meet the State of Utah R645 requirements for Refuse Piles. of R645-301-513.400, R645-301-514.200-.250, and R645-301-528.322.

The amendment fails to mention or contemplate any changes in the MRP text to reflect the existing refuses pile on site, see NOV #10142, Inspection reports #4104, #4086 for photos of refuse pile generated at the site post February 11, 2015. The MRP currently addresses the handling of refuse in Chapter 3 Section 3.2.3.5 and Section 3.2.3.6. That MRP indicates that no refuse piles will exist in the permit area. However; The amendment fails to mention or contemplate any changes in the MRP text to reflect the existing refuses pile on site (See NOV #10142, Inspection reports #4104, #4086 for photos of refuse pile generated at the site post February 11, 2015).

Deficiencies Details:

R645-301-513.400, -514.200 thru -514.250 and -528.322: The Permittee must revise the application and provide additional design information, and supporting narrative, as to how the proposed post-mining land use change will reclaim, handle and/or dispose of the refuse material currently located on the mine-site.

cparker

Spoil Waste Impounding Structures

Analysis:

The amendment does not meet the State of Utah R645 requirements for impounding structures.

The impoundment at the site is not currently maintained in accordance to R645 regulations or constructed to the approved designs detailed in Plate 7-6. The primary decant does not exist within the current pond and the weir/skimmer detailed in Plate 7-6a does not match the existing outfall structure of the impoundment. The Division has documented this issue in NOV #10141, with the abatement to construct the pond to design detailed in Plate 7-6 and Plate 7-6a. The Permittee failed to address the NOV and the Division issued FTACO#12147.
The Permittee failed to detail justification for why the pond is required for the change in post mining land use in Section 3.2.3.2 and Section 3.5 of the MRP. The Division cannot contemplate the retention of the sedimentation pond without justification as to why retention of the pond is a better BTCA than reclamation of the site. The amendment includes text amendments to retain the pond post reclamation without justification.

The Permittee has a history of not maintaining the pond as documented in Inspection Reports #3906, # 4001, #4032, # 4086, #4147, #4163, # 5364, and #5395. The pond is currently still in disrepair at the inlet, at several points along the banks, and has not been cleaned out as documented several times in the various inspection reports detailed above. A series of NOVs have been issued due to the failure to maintain the pond, NOV #17150, #21151 and #10141.
The amendment does not meet the minimum requirements of R645-301-532. Table 3-4 in the amendment was amended to remove the construction of reclamation channels. The amendment did not include any justification detailing how current erosion control measures are more stable than reclamation. The Permittee has a history of not maintaining the highly erosive slope along the cut highwall slopes throughout the permit area, as documented in Inspection Reports #3906 , #4163, # 5364, #5395 and NOV #17151. The Permittee must justify how the current site is stable and why the current site drainage is required for the postmining land use and is a better BTCA compared to reclaiming the site..

The amendment meets the minimum requirements of R645-301-513.200 by detailing within the MRP that no impoundments and sedimentation ponds meet the size or other qualifying criteria of MSHA 30 CFR 77.216.

The amendment does not meet the minimum requirements of R645-301-514.310-313. Section 514.310-313 and 514.320 details how inspections will be made regularly during construction, upon completion, and at least yearly until removal at final reclamation. The amendment does not provide any text amending the MRP to detail who will maintain the pond and quarterly inspections if the pond is to be retained as part of the post mining land use with a lease.

The amendment does not meet the minimum requirements of R645-301-121.200 of clear and concise narrative due to conflicting drawings and narrative within the MRP Chapter 3 Section 3.2.3.6. Said section details that materials removed during the cleaning of surface ditches and the sediment pond will be placed in areas designated on Plate 3-1 or disposed of at a State-approved solid waste disposal area. The material stockpiled behind the substation, detailed on Plate 3-1, was said to contain 150 CY and the material stockpiled behind the fan was said to contain 110 CY. The stockpiles were to be constructed with 2:1 slopes and seeded in Fall of 2000. Plate 3-1 has no such stockpiles labeled. The MRP narrative and Plate 3-1 present conflicting information and must be corrected.

Inspection reports,# 3906, #4001, #4032, #4104, #4147, #4163, #5364, and # 5395 detail the instability of the pond embankment and heavy sediment loads received by the diversion ditches.
Inspection Reports # 3906, #4001, #4032, #4104, #4147, #4163, #5364, and # 5395 and NOVs #21153, #21151, #17151, #17150, and #10140 detail the instability of the pond embankment and cut faces throughout the disturbed area. The amendment removes the timetable and plans to remove the structure without justification or meeting R645-301-542.400.

Deficiencies Details:

R645-301-532: The Permittee must revise the application and address how the current site is stable and how the retention of the impoundment is a necessary sediment control measure for a recreational post-mining land use.

R645-301-514.310 thru -514.330: The Permittee must revise the application to address how a professional engineer or specialist will inspect the impoundment with the revision of the post-mining land use. The revision must also address the frequency of inspections and provide a commitment to provide the Division with a certified report that the impoundment is being maintained as designed.

R645-301-532: The Permittee must revise the application to address how accumulated sediment material removed from the retained surface ditches and impoundment will be handled/disposed of with the revised post-mining land use.

cparker

Spoil Waste Burning and Burned Waste Utilization

Analysis:

The amendment meets the State of Utah R645-301-513.800 and R645-301-528.323 requirements due to no changes in the MRP text that no waste will be burned within the Permit area.

cparker

Spoil Waste Coal Processing Waste to Abandoned

Analysis:

The amendment meets the State of Utah R645 requirements for the approved return of coal development into abandoned underground workings.

The amendment meets the minimum standards or R645-301-528.340 due to no changes in the MRP text stating that coal processing waste will be returned to the underground workings in a stable and safe manner. Chapter 3 Section 3.2.3.6 and Section 3.3 detail how coal mine underground development waste was approved to be disposed of in underground workings within the permit area. The underground development waste was to be stowed in dead end panels primarily near the outer extent of the area to by mined underground. The waste was to be backfilled prior to second mining to ensure adequate roof support existed in the area. The approved MRP does not contemplate any underground development waste to be disposed of on the surface in the permit area

cparker

Spoil Waste Excess Spoil

Analysis:

The amendment meets the State of Utah R645 requirements for excess spoil.

The amendment meets the minimum requirements of R645-301-512.210, R645-301-514.100, R645-301-521.143, R645-301-528, and R645-301-535.100 as there is no change in the approved MRP Chapter 3 Section 3.2.3.1 that states that no excess spoil will be generated.

cparker

Hydrologic Ground Water Monitoring

Analysis:

The amendment meets the State of Utah R645 rules for Groundwater Monitoring.

This information was not changed as part of this amendment.

adaniels

Hydro Surface Water Monitoring

Analysis:

The amendment meets the State of Utah R645 rules for Surface Water Monitoring.

This information was not changed as part of this amendment.

adaniels

Hydrologic Acid and Toxic forming Materials

Analysis:

The amendment meets the State of Utah R645 rules for Acid and Toxic Forming Materials.

This information was not changed as part of this amendment.

adaniels

Hydrologic Transfer Wells

Analysis:

The amendment does not meet the State of Utah R645 rules for Transfer of Wells.

The amendment, in section 3.5.3.1, changes the previous plan of sealing all monitoring wells according to the Utah Division of Water Rights rules. The Permittee is proposing that monitoring wells located on federal property be sealed as previously planned, but that wells located on private property be converted to water wells per private property owner's requests. Wells HZ-95-1, HZ-95-1S, HZ-95-2 and HZ-01-06-1 are located on private property, and HZ-95-3 is located on Federal property. If the four wells located on private property are requested to be retained for water supply purposes, the Permittee must provide supporting documentation from the Utah Division of Water Rights. This documentation would include a transferred water right and a revised beneficial use for the wells. This information must be provided to the Division before the transfer of wells can be approved, in accordance with R645-301-731.400.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Transfer of Wells. The following deficiency must be addressed prior to final approval:

R645-301-731.400 The Permittee must provide supporting documentation from the Utah Division of Water Rights for the transfer of the four monitoring wells located on private property. This documentation would include transferred water rights

and revised beneficial uses for the wells. This information must be provided to the Division before the transfer of wells can be approved.

adaniels

Hydrologic Discharge Into an Underground Mine

Analysis:

The amendment meets the State of Utah R645 rules for Discharges Into An Underground Mine.

This information was not changed as part of this amendment.

adaniels

Hydrologic Gravity Discharge From Underground Mine

Analysis:

The amendment meets the State of Utah R645 rules for Gravity Discharges From Underground Mines.

This information was not changed as part of this amendment. The mine is not expected to discharge.

adaniels

Hydrologic Water Quality Standards

Analysis:

The amendment meets the State of Utah R645 rules for Water-Quality Standards and Effluent Limitations.

This information was not changed as part of this amendment. There are two outfalls associated with the mine's UPDES permit, the point that mine water was discharged and the sediment pond spillway. The mine does not discharge, and the pond only rarely discharges. DMRs are being submitted to the correct state agencies monthly.

adaniels

Hydrologic Diversion Perennial and Intermitten

Analysis:

The amendment meets the State of Utah R645 rules for Diversions: Perennial and Intermittent Streams.

The Permittee has proposed to keep in place the cmp culverts that divert undisturbed drainage under the mine facility pad. This includes culverts UC-1, UC-2 and UC-3. These culverts divert Jewkes Creek, and intermittent stream and the undisturbed drainage coming down Portal Canyon, which is a watershed of 178.3 acres. These diversions have been designed to handle the flows of a 100-year, 6-hour precipitation event. While the storm design standards have been met, according to R645-301-413.320, the alternative postmining land use "does not present and actual or probable…threat of water diminution or pollution". Through past experiences with these undisturbed culverts, especially UC-2, need frequent inspections and maintenance. A notice of violations (citation #17150) was recently issued for not maintaining the inlet to UC-2, which became blocked by sediment and debris during rainstorm events. It is reasonable to predict that these maintenance issues will continue to be problems if the alternate postmining land use is approved.

These diversions require frequent inspections and maintenance, and if the pad is only used for recreation purposes, it is unlikely for this to be adequately performed. Currently the MRP calls for inspections of these diversions after each storm event. It is likely that maintenance problems will eventually cause blocked drainages, leading to water quantity and quality problems for downstream receiving waters, specifically the North Fork of Gordon Creek.

According to R645-301-413.300, the site does not meet the criteria for alternate postmining land use. See the R645-301-413.320 deficiency.

adaniels

Hydrologic Stream Buffer Zones

Analysis:

The amendment meets the State of Utah R645 rules for Stream Buffer Zones.

This information was not changed as part of this amendment.

adaniels

Hydrologic Sediment Control Measures

Analysis:

The amendment does not meet the State of Utah R645 rules for Sediment Control Measures.

It is unclear if temporary sediment control measure will be needed during reclamation. Page 7-63 states that “leaving the sediment pond and diversions in place obviates the need to establish alternative sediment control measures during reclamation…” However, if there needs to be heavy equipment mobilized below the pond to bring it back to its original design, or when the topsoil pile below the pond is utilized for reclamation, temporary sediment control measures may be necessary.

The mine site its self has had many problems with slopes stability and erosion. Large erosion rills have been continuously forming on the steep side slopes of the canyon. If the pad remains in place, this issue will continue causing more and more problems.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Sediment Control Measures. The following deficiency must be addressed prior to final approval:

R645-301-742 It is unclear if temporary sediment control measure will be needed during reclamation. Page 7-63 states that “leaving the sediment pond and diversions in place obviates the need to establish alternative sediment control measures during reclamation…” However, if there needs to be heavy equipment mobilized below the pond to bring it back to its original design, or when the topsoil pile below the pond is utilized for reclamation, temporary sediment control measures may be necessary. The plan must include foreseeable temporary sediment controls that will be necessary during reclamation.

R645-301-742, R645-301-532.200 The side slopes of the Portal Canyon have had continuous severe erosion problems. This problem will contribute to slope stability issues. The plan must include how exactly these slopes will be repaired and permanently stabilized.

adaniels

Hydrologic Siltation Sedimentation

Analysis:

The amendment does not meet the State of Utah R645 rules for Sedimentation Ponds.

The design of the sediment pond currently in place at the facility was not changed. Under the current state of disrepair, it is unclear if the sediment pond can contain or treat a 10-year 24-hour precipitation event. Periodic sediment removal has not been taking place, the inlets are extremely eroded, the banks are eroding, and there is currently only the emergency spillway in-place. The primary decant structure has either been destroyed or removed. Proposed changes to the MRP include leaving the pond in place, and not maintaining the pond until after reclamation activities are done. With these problems, there should not be work taking place on site that could potentially add more sediment to the already poorly maintained pond. The pond should be repaired prior to reclamation work taking place at the facility.

In addition, there is currently a failure to abate, cessation order (#12147) in effect for the permitted site for not maintaining the pond. This CO was written in the fall of 2014, and no reasonable effort has been made to abate it.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Sediment Ponds. The following deficiency must be addressed prior to final approval:

R645-301-752 The sediment pond should be maintained prior to reclamation activities, instead of after the work has taken place. The pond should be operating as designed prior to earth work and reclamation activity that will contribute even more sediment to the poorly maintained pond.

adaniels

Support Facilites and Utility Installations

Analysis:

The amendment does not meet the State of Utah R645 requirements for Support Facilities and Utility Installations.

The amendment does not meet the minimum requirements of R645-301-521.180 and R645-301-526 that requires the description, plans, and drawing for each support facility to be constructed, used, or maintained within the proposed permit area in section 3.2.3.2. Chapter 3 section 3.2.3 lists all the surface facilities that are also shown on Plate 3-1 and there is narrative in section 3.2.3.2 detailing how support utilities will be operated. The MRP specifically states that support facilities will prevent or control erosion and siltation, utilize the best technology available, and minimize additional contributions of suspended solids to a stream flow. The amendment includes the amended text stating that all water pollution control facilities will be maintained following mining operations. There is no narrative justifying how leaving the water pollution control facilities meets R645-301-413.100 through R645-301-413.334. The amendment does not address the instability documented at the inlet of the pond and no slope protection for surface erosion at the site, see Inspection Reports # 3906, #4001, #4032, #4104, #4147, #4163, #5364, and # 5395 and NOVs #21153, #21151, #17151, #17150, and #10140 detailing instability of the pond embankment and cut faces throughout the disturbed area. See Hydrology analysis and deficiencies for more details.

The mine had Utah Power and Light Company construct a Portal Canyon substation along County Road 290. Location and details are located on Plate 3-1 and Chapter 3 Section 3.2.5. Reclamation activities at the site commenced fourth quarter 2014 (See inspection report #4032, and have continued to the time of this review (See first quarter 2016 inspection report #5403). Photos from inspection report #5395 show that power poles and transformers remain on site and Photo 1 attached to the Findings. There is no narrative justifying why such utility remnants remain on site. The Permittee must follow the approved MRP reclamation and contact the appropriate authority to remove the power poles to meet R645-301-521.180 and -526.

Deficiencies Details:

R645-301-528: The Permittee must revise the application with drawings and supporting narrative to address the maintenance and removal of the existing mine facilities (e.g. power sub-station, power poles, transformers, sediment pond etc).

cparker

Signs and Markers

Analysis:

The amendment meets the State of Utah R645 requirements for Signs and Markers.

The amendment meets the minimum requirements of R645-301-521.200-270 by the general discussion of signs detailing the required signs will be maintained during all actives including: Mine Permit Identification signs, Permit markers, buffer zone markers and topsoil markers in Chapter 3 Section 3.3.5.1

cparker

Explosives General

Analysis:

The amendment meets the State of Utah R645 requirements for general Use of Explosives.

The amendment meets the minimum requirements of R645-301-521.167 as the narrative within Chapter 3 Section 3.3.5.4 remains unchanged.

cparker

Explosives Preblasting Survey

Analysis:

The amendment meets the State of Utah R645 requirements for a Preblasting Survey.

The amendment essentially restates rules R645-301-524.310 thru 350, which includes all the requirements for pre-blasting surveys within Chapter 3 Section 3.3.5.4 remains unchanged

cparker

Explosives General Performance Standards

Analysis:

The amendment meets the State of Utah R645 requirements for establishing General Performance Standards.

The amendment meets the State of Utah R645 rules for Blasting: General Performance Standards by detailing general standards to be followed within Chapter 3 Section 3.3.5.4 remains unchanged

cparker

Explosives Blasting Signs Warnings Access Control

Analysis:

The amendment meets the State of Utah R645 requirements for Blasting Signs and Warnings within Chapter 3 Section 3.3.5.4 had no changes within this amendment remains unchanged

cparker

Explosvies Control of Adverse Effects

Analysis:

The amendment meets the State of Utah R645 requirements for Blasting: Control of Adverse Effects within Chapter 3 Section 3.3.5.4 had no changes within this amendment remains unchanged

cparker

Explosives Records of Blasting Operations

Analysis:

The amendment meets the State of Utah R645 requirements for Records of Blasting Operations within Chapter 3 Section 3.3.5.4 had no changes within this amendment remains unchanged

cparker

Maps Affected Area

Analysis:

The amendment does not meet the State of Utah R645-301-521.100 requirements for Affected Area Maps.

The amended Plate 3-1a fails to follow design standards established in R645-301-141, is not legible, R645-301-121.200 and shows contradicting information to approved MRP Plate 3-1. Plate 3-1a also fails to accurately depict the current site conditions as there is no call out to existing concrete pads, concrete footings, concrete portal entrance canopies, and asphalted pad area.

Deficiencies Details:

R645-301-121.200, -141, -521.100: The Permittee must revise Plate 3-1a. Information on Plate 3-1a contradicts Plate 3-1 and fails to accurately depict the current site conditions.

cparker

Maps Facilities

Analysis:

The amendment does not meet the State of Utah R645 requirements Mining Facilities Maps.

The amendment does not meet the minimum requirements of R645-301-521.161 by detailing the existing waste piles at the facilities to be constructed within the permit area on Plate 3-1. The amendment does not include the addition of coal mine waste piles currently located on the site, the pond in the current condition documented in Inspection report # 5395, and stockpiles described in Section 3.2.3.6 of the MRP.

The amendment meets the minimum requirements of R645-301-521.162 by providing a map detailing the yearly and overall disturbance. The amendment did not contemplate any changes to the overall disturbance of the permit area.

The minimum requirements of R645-301-521.164 are not met due to misleading information presented in the narrative of coal mine waste piles and non-coal mine waste piles.

Deficiencies Details:

R645-301-512.100, R645-301-121.200, R645-301-140: The Permittee must add the profile labels to a plan drawing, e.g. Plate 3-1, that show the locations of the profiles depicted on Plate 3-2. Also see Existing Surface Configuration Maps for more details.

R645-301-121.200, R645-301-140, R645-301-521, and R645-301-542: The Permittee will add a narrative referencing Plate 3-1a with the MRP.

R645-301-521, R645-301-121.200, and R645-301-140: Plate 3-1a, 3-7a, and 8-1b must be legible and meet USGS 1:2400 series formant guidelines.

R645-301-512.230, -521.161: The Permittee must revise Plate 3-1 to depict the coal mine waste piles and non-coal mine waste piles currently located on the mine-site.

cparker

Maps Mine Workings

Analysis:

The amendment meets the State of Utah R645-301-521.140 requirements for Mine Workings Maps. The amendment did not contemplate any changes to the mine workings maps.

cparker

Maps Certification Requirements

Analysis:

The amendment meets the State of Utah R645-301-512Certification Requirements.

J Thomas Paluso a Utah certified professional engineer with experience in underground and surface mining operations stamped Plate 3-1a and Plate 3-7a.

cparker

Reclamation Plan

General Requirements

Analysis:

The amendment does not meet the State of Utah R645 requirements for Reclamation Activities.

The amendment meets the minimum requirements of R645-301-513 by detailing no ponds meet the MSAH, 30 CFR 77.216

requirements.

The amendment does not meet the minimum requirements of R645-301-542.730 and -301-553.200 through -553.252 as refuse piles not approved within the MRP exist at the site with no clear details as how said piles will be reclaimed.

The amendment does not meet the minimum requirements of R645-301-542.740 as non coal mine waste piles that are not approved within the MRP exist at the site with no clear details as how said piles will be reclaimed.

The amendment does not meet the minimum requirements of R645-301-551,- 542.700 as the amendment did not contemplate changing any MRP text or narrative detailing how a change in the sealing of underground openings shall meet MSHA, 30 CFR 75.1711. See mining openings deficiency for more details.

The amendment does not meet the minimum requirements of R645-301-541.300 by detailing why all surface structures or other facilities detailed in the amendment to be retained are suitable for the postmining land use.

Deficiencies Details:

R645-301-121.300: Text within the amendment was changed and not called out per Division guidelines detailed within the DOGM Submittal Guide.

R645-301-541.300, -301.553,-302.271 R645-301-553,-521.162,-521.100.-541.100,-541.300,-542.200,-542.300,-542.400: Permittee must provide justification how current runoff control measure perform better than reclamation. Provide a detailed plan for backfilling and stabilization of the proposed backfill volumes and areas with supporting plan/profile plates for the Division to be able to verify volumes.

R645-301-553.100-.150,-302-271: The Permittee must provide supportive information for a variance from AOC required by R645 regulations.
• -271.100 Support approved post mining land use
• -271.200 all applicable state program requirements
• -271.300 an equal or better economic or public use
• -271.400 Federal and State agencies approval
• -271.500 Will be stable and Site grading minimizes off site effects
• -271.600 surface landowner has knowingly requested, in writing, that a variance be granted
• -271.700 The watershed of land within the permit and adjacent areas will be improved in measures detail with R645-302-271.710 through -271.720.
• -271.800 The design will be certified by UT PE with the removal of highwalls and static factor of safety at least 1.3
• -271.900 The watershed of the permit and adjacent areas is shown to be improved

R645-301-542.740, -551, -631, -738, and -765: The Permittee will amend the MRP for alternative scenario of closure of the mine portals document by MSHA and BLM.

R645-301-542.740, -551, -631, -738, and -765: The Permittee amend the MRP for the alternative sealing of the escape shaft. Updated drawings will include a PE certified of Asbuilts of the sealed shaft showing backfill from within the mine workings to the surface.

R645-301-528: The Permittee must revise the application and detail how the existing coal, excess spoil and coal mine waste will be handled and/or disposed of.

R645-301-513.400, -514.200 thru -514.250 and -528.322: The Permittee must revise the application and provide additional design information, and supporting narrative, as to how the proposed post-mining land use change will reclaim, handle and/or dispose of the refuse material currently located on the mine-site.

R645-301-542.600, R645-103-224.420 through -224.422 , R645-301-533 and -301-532: The Permittee must provide justification for amendment changes retention of roadways.

cparker

PostMining Land Use

Analysis:

The amendment does not meet the State of Utah R645 requirements for Post Mining Land Use.

R645-301-413.300 outlines the criteria for alternative postmining land uses. In the amendment, the Permittee outlines how a change in post mining land use from undeveloped to recreational meets the criteria in Section 4.5 of the amendment. In this section, the Permittee indicates that the mine site will be reclaimed for "private, recreational use by a private lessee Utah State Senator David Hinkins".

In Appendix 4-4, Declaration of Alexander H. Walker III, the Permittee discusses in facts 19 and 20 that it is the intention of Hidden Splendor Resources to "lease or sell the private property "to another party for the purposes of recreational use and that "it is in the best interest of the corporation to market the property for lease or sale for recreational use".

R645-301-413.310 requires that a criteria for an alternative postmining land use is that there is a reasonable likelihood for achievement of the use. R645-301-413.313.333 provides that an alternative postmining land use cannot involve unreasonable delay in implementation.

The Division is aware of numerous financial liabilities and outstanding regulatory issues connected to the Horizon Mine. As such, it's unclear as to whether the Permittee has the legal ability to enter into a lease and/or sale of the property. If encumbrances on the property preclude a lease and/or sale agreement for the property, then a reasonable likelihood for achievement of the postmining land use is very much in question.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Post Mining Land Use. The following deficiency must be addressed prior to final approval.

R645-301-413.300, -413.310: The Permittee must demonstrate to the satisfaction of the Division's legal counsel that it's possible to enter into a lease and/or sale agreement of the property. The Division is aware of numerous financial liabilities and outstanding regulatory issues connected to the Horizon Mine property. As such, it's unclear as to whether the Permittee has the legal ability to enter into a lease and/or sale agreement for the property. If encumbrances on the property preclude a lease and/or sale of the property, then a reasonable likelihood for achievement of the postmining land use is in question.

schriste

PostMining Land Use

Analysis:

The amendment does not meet the Postmining Land Use Plan requirements for performance standards.

This amendment modifies the Post Mining Land Use to private recreational use by a proposed private lessee, Utah State Senator David Hinkins. Although deficiencies are noted in the Reclamation Section of this analysis, background is provided here.

Senator Hinkins has adjacent property that he uses for recreation andrecreation is a practical use of the land and consistent with local laws. The narrative goes on to explain how some infrastructure will be maintained for site access. The infrastructure includes the existing diversionary structures which are stated to be necessary to maintain the facility pad and access road. The amendment never provides justification as to why these structures are necessarywhereas access is available via adjacent property Senator Hinkins already owns. Furthermore, accesscould be made available on a much smaller scale such as a small parking pad. The size and scope of what is proposed is not discussed or evaluated. In reality, the size of the access and pad proposed are far greater and larger than what is prudent for normal recreational access and parking.

The amendment further states Senator Hinkins assumes responsibility for maintenance and necessary permitting of diversionary structures onsite including the sediment pond, culverts and ditches. To support this statement, Appendix 4-5 is

a confidential letter which provides the initial understanding and framework for a lease agreement. An actual agreement or contract is not provided. The letter includes statements that Senator Hinkins will lease/acquire the property in its current condition and configuration with the road, water wells, culverts, retaining pond and current topography in place. The letter is signed by both Alexander H. Walker III and David P. Hinkins.

Recreation is the proposed mining land use, which is different from the premining land use. The application does not adequately demonstrate the need for support structures/activities necessary to achieve the proposed land use but it does identify the need to maintain an access road and pad. Pursuant to R645-301-412.130, all materials needed for approval of the alternative use under R645-301-413.100 through R645-301-413.334, R645-302-270, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900 apply.

R645-301-413.110 -220 The application does not propose to restore the site to the premining conditions compatible with wildlife use. The retention of the pad, culverts, and pond do not provide an equal or better quality habitat that Jewkes Creek and the unnamed ephemeral creek provided. The application does not adequately justify why proposed remaining structures are necessary to support recreational activities.

R645-301-413.310. The application and supporting documentation do not provide adequate evidence there is a reasonable likelihood for achievement of the use. A letter of intent from a potential lessee is provided. However, there is no evidence a viable landowner would use this property as proposed.

R645-301-413.320. The land use of recreation does not violate this regulation but because the proposal does not remove and reclaim culverts and restore Jewkes Creek, the failure of culverts could lead to hydrologic imbalance and present a hazard to public health or safety, or threaten water diminution or pollution. Specifics can be found in the hydrology findings of this analysis.

R645-301-413.331. Although recreation at the site is not impractical, the size and scope of the “driveway” and pad are. A small access pad and road are practical, but that is not what is proposed. The retention of culverts would require continued maintenance to ensure public and environmental safety. The culverts are nearing the end life for material integrity and collapse or plugging by sediment is unavoidable without proper maintenance.

R645-301-413.334. The postmining land use does not cause or contribute to violation of federal, Utah, or local law but withdrawing reclamation of Jewkes Creek does as described in other sections of this review.

The amendment meets the State of Utah R645-301-412 requirements for describing the proposed postmining land use and provides a discussion of the relationship of the proposed use to existing land-use policies and plans.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-413 requirements for PMLU performance standards. The following deficiencies must be addressed prior to final approval:

R645-301-413.110 -220. The Permittee must restore the site to the premining conditions for wildlife use. Otherwise, the application must adequately justify why structures are necessary to support recreational activities and how they provide better habitat.

R645-301-413.320. The Permittee must provide adequate maintenance commitments to ensure retention of culverts will not result in failure leading to degraded hydrologic balance.

R645-301-413.331. The Permittee must adequately demonstrate how the retention of culverts, pad, and pond are practical and necessary for recreation.

lreinhart

WildLife Protection

Analysis:

The amendment does not meet the State of Utah R645-301-342 requirements for a fish and wildlife plan for the reclamation and postmining phase of operation.

Jewkes Creek is a habitat of unusually high value for fish and wildlife as defined by R645-301-322-220 and as substantiated by coordination letter dated 10/30/15 from PLPCO and DWR. On page 10-38 of the approved MRP, HSR provides a specific

commitment to restore Jewkes Creek as part of the mitigation plan. This mitigation commitment was a major consideration for approval of the stream alteration permits and approval of the mining permit. The proposed amendment simply removes that commitment without adequate justification. Jewkes Creek must be restored to comply the biological protection performance standards as defined by the Division and also as committed by the Permittee.

The application presents Appendix 7-1a as evidence of relinquishment of the State Engineers Office to enforce the conditions of the permit because it has expired. (SAP 97-91-08sc). It also states the decision lies with the Division. The Division will not grant an exception to restoration of Jewkes Creek without a reasonable justification as to why it is impractical or how it provides recreational value to the property. The Permittee will be required to meet all requirements set forth by the SEO in this matter in regards to future permits for stream restoration.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-342 requirements for wildlife protection and enhancement. The following deficiencies must be addressed prior to final approval:

R645-301-358.400. The Permittee must provide provisions in the reclamation plan that restore Jewkes Creek. As specifically committed in MRP, Page 9-9, HSR must provide a reclamation channel design which will allow a reasonable likelihood of reestablishing the riparian vegetation along Jewkes Creek which existed prior to the construction of the Horizon Mine.

lreinhart

Approximate Original Contour Restoration

Analysis:

The amendment does not meet the State of Utah R645 requirements for Variance from Approximate Original Contour.

R645-302-271.700-720 states that the variance in approximate original contour can only be approved if it improves the watershed that contains the permit area. This includes improving TSS or other pollutant levels, ecology of water, reduces flood hazards and the volume of flow from the area will not adversely effect the ecology of surface waters.

According to these rules, the Division has no information to support a claim that leaving the pad, pond, and the culverted drainages will improve the watershed. At this time, it appears that if anything, the watershed quality will be harmed. Shown through recent inspection reports and notice of violations, it is evident that the culverts and ponds are frequently plugged or in need of maintenance, and it is reasonable to assume that this will continue to occur if they area left in place and Jewkes Creek and Portal Canyon are not reclaimed as currently approved in the MRP.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Variance from Approximate Original Contour. The following deficiency must be addressed prior to final approval:

R645-302-271.700-720, R645-301-728.300 The Permittee should provide information that the proposed changes to the reclamation plan will improve the watershed. Currently, the Division has no information that would support the meeting of these rules. This will include calculations and/or modeling that demonstrates that there will be no additional suspended solids contributed to the water systems below the permit area.

adaniels

Approximate Original Contour Restoration

Analysis:

The amendment does not meet the State of Utah R645-302-270.600 requirements for requesting a variance from Approximate Original Contour.

R645-302-270.600 Because the proposal includes leaving a pad, retention of culverts and pond, and does not include backfilling and grading, the permittee must request, in writing, a Variance from Approximate Original Contour. Section 701(2) of SMCRA gives the following definition of AOC. “Approximate original contour” means that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated…” The Utah Coal Rules define

AOC under R645-100.200 as same with designs approved under R645 rules and prepared for abandonment. The fundamental intent of AOC is to provide for the restoration of the affected area to a condition which is at least fully capable of supporting the pre-mining land use.

Deficiencies Details:

The amendment does not meet the State of Utah R645-302-270.600 requirements for requesting a variance from Approximate Original Contour. The following deficiencies must be addressed prior to final approval:

R645-302-270.600 The Permittee must request, in writing, a Variance from Approximate Original Contour. Except as specifically exempted, the final surface configuration shall closely resemble the general surface configuration of the land prior to mining. However, as planned, the Division may not approve a variance because all drainages must be restored and erosion of slopes must be controlled. The condition of the site must be capable of supporting the land use which existed before mining or provide evidence it is a higher or better use. The watershed of the permit and adjacent area must be improved. Furthermore, the existing plan does not demonstrate that the designs and plans are sound and well justified nor are they in compliance with regulatory requirements from all disciplines.

lreinhart

Approximate Original Contour Restoration

Analysis:

The amendment does not meet the State of Utah R645 requirements for Approximate Original Contour Restoration.

The amendment does not meet the minimum R645-301-512.200 ,-553.110 through -553.150, and -302-270 due to the proposed post mining land use change that would require a variance from approximate original contour (AOC).

The current MRP states that no variance from AOC will be applied for the Horizon Mine, Chapter 3 Section 3.2.3.2. Said section details how the mine was approved to reclaim the site to AOC. AOC as defined by R645-301-553.100 through -553.150 is achieved when the final grade closely resembles the general surface configuration of the land prior to mining activities and provides a subsurface foundation for vegetative cover capable of stabilizing the surface from erosion.

The post mining land use that the amendment contemplates does not restore AOC as the current surface does not closely resemble the general surface configuration of the land prior to mining activities. Subsurface foundations show continued erosion and instability thereby increasing sediment run off and reducing the capability of vegetative cover. An amendment including the retention of the operations footprint would consequently require a variance from AOC.

A variance from AOC can be granted when the Permittee demonstrates all of the following items are met of R645-302-271 with the retention of the operational foot print:
• -271.100 Support approved post mining land use
• -271.200 all applicable state program requirements
• -271.300 an equal or better economic or public use
• -271.400 Federal and State agencies approval
• -271.500 Will be stable and Site grading minimizes off site effects
• -271.600 surface landowner has knowingly requested, in writing, that a variance be granted
• -271.700 The watershed of land within the permit and adjacent areas will be improved in measures detail with R645-302-271.710 through -271.720.
• -271.800 The design will be certified by UT PE with the removal of highwalls and static factor of safety at least 1.3
• -271.900 The watershed of the permit and adjacent areas is shown to be improved

The currently approved MRP narrative and certified drawings provided a basis for the Division to determine that the proposed backfill and grading plan will minimize off-site effects, achieve a final surface configuration which closely resembles the general surface configuration of the land prior to mining, provide a subsurface foundation for vegetative cover capable of stabilizing the surface from erosion, and support the approved post mining land use. The amendment contemplates changes to the backfill and grading plan that does not achieve AOC and does not include any supportive information to meet the R645-302-271 rules outlined above.

Deficiencies Details:

R645-301-553.100-.150,-302-271: The Permittee must provide supportive information for a variance from AOC required by R645 regulations.
• -271.100 Support approved post mining land use
• -271.200 all applicable state program requirements

• -271.300 an equal or better economic or public use
• -271.400 Federal and State agencies approval
• -271.500 Will be stable and Site grading minimizes off site effects
• -271.600 surface landowner has knowingly requested, in writing, that a variance be granted
• -271.700 The watershed of land within the permit and adjacent areas will be improved in measures detail with R645-302-271.710 through -271.720.
• -271.800 The design will be certified by UT PE with the removal of highwalls and static factor of safety at least 1.3
• -271.900 The watershed of the permit and adjacent areas is shown to be improved

cparker

Backfill and Grading General

Analysis:

Analysis:
The application does not meet the requirements of R645-3-1-552 for Backfilling and Grading. The cut and fill Table 3-1 was revised to show only 0.4 acres cut/fill at an average depth of 6-7 ft. The reclamation plan is to move approx. 4,500 CY. Plates 3-7 and 3-7a are not legible. Further evaluation of the reclamation plan for elimination of highwall and burial of the portal face will be completed upon receipt of lebible copies of Plates 3-7 and 3-7a.
Chapter 7 Reclamation Hydrology Design states that Horizon will not re-establish the natural drainage channels of Jewkes and Portal Canyon Creeks. Chapter 8, Sec. 8.8 was revised to eliminate the replacement of salvaged and stockpiled riparian soil to the flood plain of Jewkes Creek. Chapter 9, page 9-9 was similarly changed. This plan does not meet the obligations of R645-301-358.400 of the coal mining and reclamation permit, nor does it meet the obligations of the stream alteration permit. The UDWR has objected to this plan (Incoming folder 10302015). However, Chapter 4 Section 4.5 states that diversionary structures and sediment pond must be retained to accomodate the facility pad and access road.
Section 3.5.3.2 states all existing structures will be removed and/or buried in the fill beneath four feet of cover to meet the requirements of R645-301-542.742.

Deficiencies Details:

R645-301-121.200, The Permittee must provide legible copies of Plates 3-7 and 3-7a. Further evaluation of the reclamation plan for elimination of highwall and burial of the portal face will be completed upon receipt of legible copies of Plates 3-7 and 3-7a.

pburton

Backfill and Grading General

Analysis:

The amendment does not meet the State of Utah R645 requirements for Backfill and Grading.

The amendment does not meet the general requirements of R645-301-553 by failing to detail a general backfill and grading plan that details how disturbed areas will be backfilled and graded to achieve the approximate original contour, eliminate all highwalls, spoil piles, and depressions, and achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long term static safety factor of 1.3 and to prevent slides, minimize erosion and water pollution both on and off the site, and support the approved postmining land use.

The currently approved MRP does meet the general requires as the narrative details industry standard procedures to achieve AOC with final reclamation backfill and grading. For example, in Chapter 3 section 3.2.1 states that all roads and pads will be constructed with a cut and fill technique. This method of road construction is an industry standard as the design makes implementation of final grading at reclamation cost efficient.

The approved MRP contains a narrative in Chapter 3 Section 3.5 that does not meet R645 regulation. The narrative on page 3-35 states that, “the surface at Horizon Mine was originally disturbed by a previous mining operation. These prior operators made no effort to salvage any topsoil or other soil material for subsequent site reclamation. Therefore, restoration to a contour that approximates pre-mining land conditions is neither practical nor required ...” This statement is an unfounded as Hidden Splendor Resources assumed responsibility for reclamation of any increase in the disturbed area, addition of three mine openings, two large pads, and a sedimentation pond. Regulations R645-301-521.151 and R645-301-553.510 are included to measurements beyond the extent of previously mined areas to be able to establish the original AOC to meet R645-301-541. This narrative should be correct to meet R645 regulations.

The amendment did not include sufficient narrative changes to Section 3.5 and incorrectly relies on approved text assumptions in the paragraph discussed above. The narrative within the current MRP states grading is compatible with the post mining land use. This narrative was approved for the current undeveloped post mining land use with supporting narrative detailing how disturbed areas will be backfilled and graded to achieve the approximate original contour. The amendment changes the grading text to void the "intent of Horizon to restore the area to a topography that is compatible with the post-mining land use…". The amendment is missing supportive information how the changed post-mining land use meets the R645 grading regulations. There is no justification why the proposed post mining land use requires the site to retain unstable slopes or a sedimentation pond that has not been maintained to design and has been left in a continued state of disrepair.

Within Chapter 3 Section 3.5, the first bullet on page 3-32 has text that has been changed from the original MRP that is not identified as redline strike out (See DOGM Submittals Guide). Specifically, the amendment changes the word "Removal" to "Reclamation" without a redline strike out call out of the change. The Permittee must document all changes within an amendment per R645-301-121.300.

The amendment removes text detailing the construction of stable channels across regraded areas without any justification. The Permittee must justify why measures should not be taken to implement the best technology currently available to minimize erosion and water pollution both on and off site. Current erosion measures are not sufficient for operations or reclamation as the site does not have stable highwalls, see continued erosion problems documented in Inspection Reports # 3906, #4104, #4163, and #5395. NOV #17151 was written in response to the disrepair of the various slopes within the permit area not being maintained. The slopes within the disturbed area clearly require regrading to a more stable slope, similar to that depicted in the current MRP Plate 3-7, 3-7a, and 3-7b.

The slopes depicted in the amended Plate 3-7a are the same as approved Plate 3-2. The current site slopes have a history of instability (NOV #21153 and #14151) requiring regular maintenance. See analysis state above regarding current site erosion problems (documented in Inspection Reports # 3906, #4104, #4163, #5395, and NOV #17151). See deficiency in Reclamation Maps and Drawings for additional deficiencies of amendment Plate 3-1a and Plate 3-7a.

The amendment includes changes in text within Section 3.5 and Table 3-1 to the cut/fill volumes required for final reclamation of the site. The amendment reduces the volumes by leaving the upper and lower pad as constructed for mining operations and maintaining the sedimentation pond. The cut/fill volumes are altered with no justification as to why such changes provide a better use for the proposed land use than the reclamation plan for the site within the current MRP. The amendment includes the change in volume of cut/fill to be reduced by 6837/5963.74 CY respectively, a decrease in backfill volumes of 42% in cut and fill from the original backfill volumes. There is no justification why 42% of the backfill grading needs to be removed to achieve the post mining land use

The amendment does not meet the minimum requirements of R645-301-542.200 due to conflicting information within the Plates. R645 rules require plan contour and profile maps of the reclamation grading plan. No changes were contemplated to Plate 3-7 that details the approved reclamation plan view of lessening the slope grade along Portal Canyon and restoration of Portal Canyon stream a Jewkes Creek. The amendment did update Plate 3-7a, which is simply a copy of Plate 3-2 Operations profile views, relabeled. The cross section in Plate 3-7a conflicts with the plan view contours detailed in Plate 3-7. A small bridge could be installed over Jewkes creek for access and the reclamation plan provided on Plate 3-7 has a gentle enough grade to provide adequate parking room while still restoring Portal canyon stream and implementing BTCA erosion control features and meet the proposed post mining land use.

The amendment contemplates eliminating the construction of BTCA reclamation channels to control reclamation erosion and replaces said text with retaining the existing diversionary channels. Again, the Permittee failed to provide any justification why the existing diversionary ditches are a superior BTCA to construction reclamation drainage channels. The existing diversionary channels, culverts, and pond have been in continuous disrepair and require very specific equipment to maintain (See Inspection Reports # 3906, #4001, #4032,#4104, #4147, #4163, #5364, #5395 and NOV #10140, #10141, #21151, #17151, #17150 and FTACO#12147). The Permittee had to recently excavate a culvert in order to complete basic maintenance (See Inspection Report #5395). The approved MRP includes surface control ditches installed for easy control and maintenance of the surface waters to limit sedimentation of the runoff within and outside the disturbed area. The Division cannot approve the text edits to Section 3.5 page 3-35 and 3-36 without a justification detailing how the existing sediment controls are a superior BTA.

The amendment does not meet the minimum requirements of R645-529,-551, and 542.700. The amendment provides conflicting information as the narrative does not match drawings for original backfilling and removal of all portal entrances (highwalls), see Plate 3-7, 3-7a, and 3-7b and Figures 3-6 and 3-7. See analysis and deficiencies of Mine openings for further details.

Deficiencies Details:

R645-301-121.300: Text within the amendment was changed and not called out per Division guidelines detailed within the DOGM Submittal Guide.

R645-301-553,-521.162,-521.100.-541.100,-541.300,-542.200,-542.300,-542.400: Permittee must provide justification how current runoff control measure perform better than reclamation. Provide a detailed plan for backfilling and stabilization of the proposed backfill volumes and areas with supporting plan/profile plates for the Division to be able to verify volumes.

R645-301-512.260,-521.133, -529, - 542.200-, 542.400, -553, -302-271: Proposed change in grading plan requires variance from AOC. R645-301-553.100-.150,-302-271: The Permittee must provide supportive information for a variance from AOC required by R645 regulations.
• -271.100 Support approved post mining land use
• -271.200 all applicable state program requirements
• -271.300 an equal or better economic or public use
• -271.400 Federal and State agencies approval
• -271.500 Will be stable and Site grading minimizes off site effects
• -271.600 surface landowner has knowingly requested, in writing, that a variance be granted
• -271.700 The watershed of land within the permit and adjacent areas will be improved in measures detail with R645-302-271.710 through -271.720.
• -271.800 The design will be certified by UT PE with the removal of highwalls and static factor of safety at least 1.3
• -271.900 The watershed of the permit and adjacent areas is shown to be improved

cparker

Backfill and Grading Previously Mined

Analysis:

The amendment meets the State of Utah R645 requirements for Previously Mined Areas.

The minimum requirements of R645-301-521.152 and R645-301-553.500 are met within the amendment as Chapter 3 Section 3.2 of the existing MRP details areas with the mining operations where previous operations have occurred. Plate 3-9 and 3-10 detail the exact location and extent of known workings. The amendment did not make any adjustments to this section at this time.

cparker

Backfill and Grading on Steep Slopes

Analysis:

The amendment meets the State of Utah R645 requirements for Backfilling and Grading on Steep Slopes.

The minimum requirements of R645-301-553.200 are met within the amendment as there is no area of extended backfilling on a steep grade or slopes.

cparker

Backfill and Grading Steep Special Provisions

Analysis:

The amendment meets the State of Utah R645 requirements for Special Provisions for Steep Slope Mining.

The minimum requirements of R645-301-537 and -553 are met within the amendment as there is no area where backfilling on a steep grade or slope will exist within the Permit area.

cparker

Mine Openings

Analysis:

The amendment does not meet the State of Utah R645 requirements for Mine Openings.

The minimum requirements of R645-301-513.500, R645-301-529, and R645-301-551 are not met within the amendment due to a missing discussion of how the drift portals and escape shaft will be sealed.

The amendment did not contemplate any changes to the reclamation of the portals. Chapter 3 Section 3.2.3 details that, "Upon termination of mining operations, all structures will be removed and the area reclaimed as outlined in Section 3.5." Section 3.3.1.2 contains the mine portal descriptions, with Figure 3-6 and Figure 3-7 detail the portal closure and plate 3-1 showing the portal locations.

Chapter 3 Section 3.3.1.2 and section 3.2.3.7 include a description of Hiawatha seam mine portal(See Plate 3-1). Narrative within the MRP states that each underground mine opening which becomes temporarily inactive will be protected through the installation of a lockable chain-link gate with temporary seals. The protection and warning devices will be periodically inspected and maintained in good operation condition during the period of temporary inactivity.

Chapter 3 Section 3.3.1.2 describes the four portals in the Hiawatha seam. The return portal was rehabilitated and expanded for use as a primary return. A second and third slope portal were faced up approximately 300 feet long to the Hiawatha seam to act as the belt and fan portals respectively. A fourth opening is a rehabilitated slope that was utilized as a third escape way. A secondary escape way is located at the Castlegate A Seam horizon but connects to the Hiawatha Seam by a steeply inclined rock slope. Chapter 3 Section 3.3.3. states, "if plans for resource recovery or abandonment (including portal sealing) change in the future, the U.S. Bureau of Land Management and the Division will be properly informed.

The Permittee failed to include any changes to the sealing of the mine portals that has been previously disclosed to the Division. To meet the requirements of the State of Utah R645 rules, reclamation activities must commence upon the forfeiture of coal leases. The Permittee removed all ventilation equipment, as documented in Inspection Report #4001, #4032 and #4086, and no longer maintains any private or federal coal leases in the area. The removal of all ventilation equipment requires stringent MSHA approval for re-entry into the mine for the construction of the seals detailed in Figure 3-6. The Permittee commenced negations with the Division and pertinent Federal parties (MSHA and Price BLM) to secure an alternative plan for the permanent sealing of all underground openings in fourth quarter 2015. On September 14, 2015 the Permittee met with Price BLM to discuss compliance with 43 CFR 3484.2 and updating the plans for the sealing of the portals to include 25 feet of backfill and P-trap. In a follow up of the BLM discussions, the DOGM Division Associate Director sent a letter to the Permittee on September 15, 2015 detailing how changes discussed with BLM would require changes to the approved MRP and must receive Division approval prior to construction. The only information further disclosed to the Division was an email from Steve Rigby at the BLM office detailing:
• BLM and MSHA meeting September 17, 2015:
• Portal #1 and #2 were to be sealed constructing Mitchell/Barrett type seals in front of the existing temporary Kennedy seals
• Portal #3 already has an existing seal and would follow existing MRP closure
• All entries would be backfilled with incombustible material from the seal location to a minimum of 25 feet to the outside surface
• In entry #2, a water discharge pipe would be installed with a p-trap through the Kennedy stopping and Mitchell/Barrett seal with the pipe extending through the fill material to be exposed in daylight at the toe of the fill.
• A drawing or written affidavit, signed, and notarized explaining the nature of the backfill in the "Shaft" be submitted to MSHA and DOGM for evaluations of the sealing integrity.

The Permittee has failed to supply any further documentation for Division approval of the agreed upon changes in sealing of the portals at the Site. The cover letter included with the application provides misleading and false information by stating that the requirements identified in the September 15, 2015 letter were not required. The Permittee must follow the portal closure plan detailed in Plate 3-6 which includes the placement of the Mitchell/Bartlett seals placed over 100 feet beyond the current canopy brow and temporary Kennedy seals.
The extended backfill of the portals would severally encroach on the proposed pad functionally as well as bury the undisturbed by pass culvert currently under the upper facilities pad. The Division contacted Lester Jorgensen, retired Ferron Fire Boss, and Clark Martienez on 12/9/2015 to receive an estimate on the currently approved sealing of the portals approved within the MRP. The demolition of the concrete canopies, Mitchell/Bartlett seal construction, and backfill of 25 feet from the brow of the undisturbed hill would be approximately $40,000 (See bonding analysis and deficiencies for more details in the bonding amount).

The Division documented an unsecured escape vent shaft documented not properly sealed in Inspection report #4001. The Division and Permittee had a conference on September 29, 2015 and discussed the material needed to seal the vent shaft in a more secure manor. The Division then requested As-built PE certified drawings on 9/24/15. The Permittee responses was sent to the Division on October 21, 2015 and consisted of inadequate details of backfill. The received "As-built" did not include a UT PE certification or detailed specifications. Specifically, there was no proof of equipment or work at the mine site

to backfill the full extent of the escape shaft as required by 30 CFR 75.1711. The Permittee was instructed to provide further detail to document that the vent shaft was properly sealed to satisfy Federal and State regulations.

Deficiencies Details:

R645-301-542.740, -551, -631, -738, and -765: The Permittee will amend the MRP for alternative scenario of closure of the mine portals document by MSHA and BLM.

R645-301-542.740, -551, -631, -738, and -765: The Permittee amend the MRP for the alternative sealing of the escape shaft. Updated drawings will include a PE certified of Asbuilts of the sealed shaft showing backfill from within the mine workings to the surface.

cparker

Topsoil and Subsoil

Analysis:

The application does not meet the requirements for R645-301-242 Soil Redistribution.
Table 3-1 provides Reclamation Cut and Fill Calculations. A note on this table states that the cross sections were generated from the surface contours on Plate 3-7 in conjunction with revised reclamation contours. However, a revised Plate 3-7 showing proposed reclamation contours could not be found with this application. The existing Plate 3-7 illustrates the plan view of reclamation contours with removal of the culvert. The station locations A-A' through R-R' on the plan view do not correspond to the proposed cross sections A-A' through P-P'. Please provide the revised Plate 3-7 showing plan view of the contours with the culvert being retained, and identifying the cross-section station locations, and showing the centerline profile. Plate 3-7a reclamation contours was revised with this application, but is not legible, even with magification. A review of the reclamation plan is severly hindered without this information.
A stockpile of 5,700 CY sits above a culvert at the upper end of the disturbed area. The approved plan shown on Plate B of Appendix 8-1 is to distribute this topsoil soil over the entire 4.04 acres to a depth of 10 inches thick, utilizing 5,430 CY of salvaged topsoil. The new plan shown on revised Plate B (App. 8-1) would apply 10 inches of topsoil to the portal area and the coal storage yard, a total area of 1.5 acres. The new plan would utilize 2,016 CY of stockpiled topsoil, but leave 3,684 CY in storage. This approach does not meet the requirements of R645-301-242.100 which requires that all salvaged and stored topsoil is replaced. To utilize the stockpiled topsoil completely, the Permittee could apply topsoil over a greater area and still achieve the desired post mining land use of recreation. For instance, revised Plate B (App. 8-1) shows the facilities yard between the coal yard and portals devoid of topsoil. This area could receive minimal surface treatment (to relieve compaction) and a cover of topsoil followed by seeding, which would enhance the recreational post mining land use.

The new plan retains the sediment pond and therefore does not call for topsoil in this location. R645-301-242.300 requires that topsoil is replaced on the embankments of a permanent pond, unless they are to be otherwise stabilized. The plan states in Section 3.5.1 (last bullet) that the embankments of the pond will be mulched and seeded, which meets the requirements of R645-301-242.300.

Stockpiles of soil have also been maintained at various locations within the disturbed area as shown on Plate A Appendix 8-1, in accordance with R645-301-234.300. These stockpiles are thin lenses placed on the slopes of the facilities yard and in a testplot downstream of the sediment pond. One of these stockpiles is riparian soil dedicated for the restoration of Jewkes Creek. These stockpiles were seeded with an interim mix. Under the new plan, these stockpiles would remain in place. These stockpiles must be redistributed to riparian zones.

Deficiencies Details:

R645-301-121.100, R645-301-242 and R645-301-542.310, The Permittee must provide a revised Plate 3-7 showing plan view of the contours and identifying the cross-section station locations and showing the centerline profile. Table 3-1 provides Reclamation Cut and Fill Calculations. A note on this table states that the cross sections were generated from the surface contours on Plate 3-7 in conjunction with revised reclamation contours. However, a revised Plate 3-7 could not be found with this application. The existing Plate 3-7 illustrates the proposed contours with removal of the culvert. The station locations A-A' through R-R' do not correspond to the proposed cross sections A-A' through P-P'.

R645-301-121.200, The Permittee must supply legible copies of Plates 3-1a, Plate 3-7a and Plate B (App 8-1). The revised contours sown in cross section on Plate 3-71a are illegible, even with magnification. Similarly, the reproduction of Plate B (App. 8-1 and Plate 3-1a are also illegible. Please complare these two revisions with the existing Plate 3-1 and existing Plate 3-7a to assess how line type and shading might be revised so that countour notation is legible.

R645-301-242.100, The Permittee must utilize all stockpiled topsoil and subsoil in the reclamation plan. The proposed reclmation plan shown on revised Plate B (App. 8-1) would apply 10 inches of topsoil to the portal area and the coal storage yard, a total of 1.5 acres. The new plan would utilize 2,016 CY of stockpiled topsoil, but leave 3,684 CY in storage. This approach does not meet the requirements of R645-301-242.100 which requires that all salvaged and stored topsoil is replaced. To utilize the stockpiled topsoil completely, the Permittee could apply topsoil over a greater area and still achieve the desired post mining land use of recreation. For instance, revised Plate B (App. 8-1) shows the facilities yard between the coal yard and portals devoid of topsoil. This area could receive minimal surface treatment (to relieve compaction) and a cover of topsoil followed by seeding, which would enhance the recreational post mining land use.

R645-301-232.300 and R645-301-244.200, Soil temporarily placed thin lenses at various locations within the disturbed area as shown on Plate A Appencix 8-1, must be redistributed. At a minimum, these stockpiles should receive the final seed mix.

pburton

Road System Reclamation

Analysis:

The amendment does not meet the State of Utah R645 requirements for Reclamation of Roads.

The minimum requirements of R645-301-534 are met within the amendment as all primary roads will be designed to R645-301-534.300 and all temporary ancillary roads will meet the general 534 design requirements. There are no roads within the permit area that R645-301-537 would apply to. The amendment does not contemplate any changes in reclamation design of the roadways.

The requirements of R645-301-542.600, R645-103-224.420 through -224.422 are not met within the amendment as narrative was changed to include the retention of the primary facility access road. The narrative of section 3.5.1 was amended to include the retention of a driveway for the “private landowner.” The current private landowner is the operator who must fulfill R645 reclamation activities of coal mining primary roads. The operator may not change the retention of primary facilities based solely on limiting their financial requirements to meet R645 regulations. The operator does not currently have a legally binding lease agreement to sell the property to a private owner who does not have a conflict of interests. In the event a separate private owner requested road access to the mine site post reclamation, the current facility layout is not the minimal practicable disturbance required for access to meet R645-301-533 and -301-532.

Deficiencies Details:

R645-301-542.600, R645-103-224.420 through -224.422 , R645-301-533 and -301-532: The Permittee must provide justification for changes retention of roadways along with signed agreements of understanding of road maintenance.

cparker

Road System Retention

Analysis:

The amendment does not meet the State of Utah R645 requirements for Retention of Roadway Facilities.

The requirements of R645-301-534 and -552 are not met within the amendment. In addition, the narrative of section 3.5.1 was amended to include the retention of a driveway for the “private landowner.” The current private landowner is the operator who must fulfill R645 reclamation activities of coal mining primary roads. The operator may not change the retention of primary facilities based solely on limiting their financial requirements to meet R645 regulations. The operator does not currently have a legally binding lease agreement to sell the property to a private owner who does not have a conflict of interest. In the event a separate private owner requested access to the mine site post reclamation, the current facility layout is not the minimal practicable disturbance required for access to meet R645-301-533 and -301-532.

Deficiencies Details:

R645-301-542.600, R645-103-224.420 through -224.422 , R645-301-533 and -301-532: The Permittee must provide justification for amendment changes retention of roadways, including an agreement on ownership of maintenance.

cparker

Hydrological Information Reclamation Plan

Analysis:

The amendment does not meet the State of Utah R645 requirements for Hydrologic Information: Reclamation Plan.

The reclamation plan proposes to leave in place the by-pass culverts currently in place, as well as the sediment treatment pond. The by-culverts come down out of Portal Canyon and carry a section of Jewkes Creek. The culverts are designed to meet the requirements of a permanent diversion, specifically a 100-year, 6-hour precipitation event. The sediment pond was designed to have the capacity to handle runoff from a 25-year, 6-hour event as required for a permanent impoundment.

However, R645-301-733.226 states that the impoundment will be suitable for the approved postmining land use. Currently the Permittee is proposing a post-mining land use of recreation. Currently it does not appear that an impoundment, which will have very little water in it for most of the year, is suitable for the approved postmining land use. The Permittee must provide supporting information to justify the retention of the sediment pond under the postmining land use of recreation.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Hydrologic Information: Reclamation Plan. The following deficiency must be addressed prior to final approval:

R645-301-733.226 Currently it does not appear that an impoundment, which will have very little water in it for most of the year, is suitable for the approved postmining land use. The Permittee must provide supporting information to justify the retention of the sediment pond under the postmining land use of recreation.

adaniels

Contemporaneous Reclamation General

Analysis:

The amendment does not meet the State of Utah R645 requirements for Contemporaneous Reclamation.

The minimum requirements of R645-301-553 in regards to contemporaneous reclamation and backfilling activities are not met. The amendment changes the sequencing of mining and backfilling of the operation in Chapter 5 Section 526, 528 and 553 without justification as to how such changes effect the smallest practicable disturbance for the post mining land use, how disturbed areas will be backfilled and graded to achieve the approximate original contour, eliminate all highwalls, spoil piles, and depressions, and achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long term static safety factor of 1.3 and to prevent slides, minimize erosion and water pollution both on and off the site, and support the approved postmining land use.

Deficiencies Details:

R645-301-553: The Permittee must provide a justification for how the proposed post-mining land use revisions affect the smallest practicable disturbance for the post-mining land use, how disturbed areas will be backfilled and graded. The Permittee must also provide a justification for how the approximate original contour will be achieved and how all highwalls, spoil piles and depressions will be eliminated. Additionally, the Permittee must address how the proposed post-mining land use change will achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long-term static safety factor of 1.3 and to prevent slides, minimize erosion and water pollution both on and off site.

cparker

Revegetation General Requirements

Analysis:

The amendment does not meet the State of Utah R645requirements for the Revegetation Plan.

The reclamation plan for final revegetation is located in Section 3.5 on pages 3-32 and 3-33. The plan does not clearly describe what areas will be seeded or provide measures for success in accordance with R645-301-323.100. The amendment removes restoration of riparian area Jewkes Creek which violates R645-301-342.100 and does not apply as an exemption under R645-301-341. Since the PMLU is changed to recreation, requirements of R645-301-341.210-250 apply

and as such, will require tree and shrub stocking as specified by the Division and Utah Division of Wildlife. Since the proposal does not restore premining drainage systems, the Permittee must request a variance from Approximate Original Contour, which is discussed under Approximate Original Contour.

As noted on page 10-38 or the MRP, riparian areas provide wildlife a source of water and food; a feeding and nesting site; and a resting or roosting site. Hidden Splendor Resources, Inc., understands the importance of the riparian area which they will disturb, therefore they have agreed to properly reclaim and improve the riparian area. Mitigation measures for riparian replacement have been discussed with Bill Bates of the DWR, however the exact mitigation will be determined by Hidden Splendor Resources, Inc., UDOGM and DWR at a later date. Section 10.5.1, page 10-39, "Reclamation is particularly important as a means of controlling erosion and restoring disturbed areas to productive wildlife habitat."

On October 30, 2015, PLPCO and UDWR provided the Division with written comments that supported these statements in regards to the importance of Jewkes Creek for wildlife habitat.

The amendment does not meet the State of Utah R645-301-353 requirements for Vegetative Cover.

The application has removed plans for vegetative cover at Jewkes Creek, the pad, and the pond. The plan does not demonstrate why these features are necessary or prudent for recreation.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-341, R645-301-323.100, and R645-301-356.230 requirements for the revegetation plan. The following deficiencies must be addressed prior to final approval:

R645-301-341: The Permittee must provide an updated (following R645-301-356.230) plan for final revegetation of all lands disturbed by mining and operations that complies with the biological protection performance standards. Jewkes Creek must be reclaimed since it is important wildlife habitat. The plan must meet requirements set forth in R645-341.210 and adhere to requirements in R645-301-356.231.

R645-301-323.100. The Permittee must provide a legible map of the permit area identifying reference areas that will be used to determine success of revegetation.

R645-301-356.230: The Permittee must consult with the Division and Utah Division of Wildlife to design a revegetation plan including trees and shrubs.

R645-301-353. The revegetation plan must be revised to show how all disturbed areas, except water areas and surface areas of roads that are approved as part of the postmining land use, will be revegetated

lreinhart

Revegetation Standards for Success

Analysis:

The amendment does not meet the State of Utah R645-301-356 requirements for Revegetation Standards for Success.

Within section 3.5.6, the Permittee commits to restore all disturbed sites to meet regulations of R645-301-356.250. With the removal of Jewkes Creek restoration and the pad/pond retention, this criteria is not met.

Deficiencies Details:

The amendment does not meet the State of Utah R645-301-356 requirements for revegetation standards for success. The following deficiency must be addressed prior to final approval:

R645-301-356: The revegetation plan must show how all disturbed areas, except water areas and surface areas of roads that are approved as part of the postmining land use will meet success standards. If the features are necessary to support the postmining land use, the Permittee must request they be approved with the postmining land use and demonstrate how they are necessary to support recreation pursuant to R645-301-412.110

lreinhart

Stabilization of Surface Areas

Analysis:

The application does not meet the requirements of R645-301-244, Soil Stabilization.
The plan does not meet the requirements of R645-301-244.100, because all exposed areas must be protected.
Aside fromthe pond, there will be about 2.5 acres not receiving topsoil that should be ripped and seeded to control erosion.

Chapter 3 Section 3.5.1, states that topsoiled areas will be mulched and seeded. These areas are shown as 1.5 acres on Plate B (App 8-1). Section 3.5.5.3 states mulch will be applied at a rate of 1 ton/acre. Erosion control mattering is speciffied on all slopes greater than or equal to 2.5h:1v. The seed mis is provided in Table 3-3.

Chapter 3 Section 3.5.1 states silt fences and straw bale dikes will be used as needed to control erosion. A detailed plan is found in Chapter 7, pp. 7-68 and 7-69.

Deficiencies Details:

R645-301-244.100, The plan does not meet the requirements of R645-301-244.100, because the 2.5 acres not receiving topsoil, must be protected from erosion as follows: use ripper shanks on a dozer to loosen compaction to a depth of 6-12 inches, then seed (as described in Table 3-3) and mulch the disturbed area as described in Section 3.5.5.3.

pburton

Cessation of Operations

Analysis:

The amendment meets the State of Utah R645 requirements for Cessation of Operations

The minimum requirements of R645-301-541 are met within the amendment as there is no change to the existing MRP plan of communication with the appropriate parties in the event of the cessation of operations and final reclamation.

cparker

Maps Affected Area Boundary

Analysis:

The amendment does not meet the State of Utah R645-301-521.100 requirements for Affected Area Maps.

The amended Plate 3-1a fails to follow design standards established in R645-301-141, is not legible, R645-301-121.200 and shows contradicting information to approved MRP Plate 3-1. Plate 3-1a also fails to accurately depict the current site conditions as there is no call out to existing concrete pads, concrete footings, concrete portal entrance canopies, and asphalted pad area.

Deficiencies Details:

R645-301-121.200, -141, -521.100: The Permittee must revise Plate 3-1a. Information on Plate 3-1a contradicts Plate 3-1 and fails to accurately depict the current site conditions.

cparker

Maps Bonded Area

Analysis:

The amendment does not meet the State of Utah R645 requirements for Bonded Area.

The minimum requirements of R645-301-800 are not meet within the amendment as the bonded area map was updated in the plates; however, the Permittee does not maintain the current required bond.

Deficiencies Details:

R645-301-800: Permittee must provide line item updated cost estimates and post bond for the required $718,000.

cparker

Maps Reclamation BackFilling and Grading

Analysis:

The amendment does not meet the State of Utah R645 requirements for Reclamation Backfilling and Grading Maps. .

The minimum requirements of R645-301-542 are not met within the amendment due to competing pit footprints and missing R645-301-527.220 information for alterations to wetlands and OHWM.

Deficiencies Details:

R645-301-542,-553,-527.220: The Permittee must provide a plan view of the proposed changes in the reclamation that is legible.

cparker

Maps Reclamation Facilities

Analysis:

The amendment does not meet the State of Utah R645 requirements for Reclamation Facilities Maps

The minimum requirements of R645-301-542 are not met within the amendment as there is no discussion or engineering design provided to show that the natural drainages that will not be replaced in Portal Canyon and Jekes creek improve the water shed. R645-301-358.400, R645-301-521.100 through-521.130, R645-301-731.610, R645-301-527.220 and R645-301-121.200

Deficiencies Details:

R645-301-358.400, R645-301-521.100 through-521.130, R645-301-731.610, R645-301-527.220 and R645-301-121.200: Justification why operational slopes are stable. Provide a Plate 3-7 to match Plate 3-7a. Provide an updated reclamation of portal sealing plan.

cparker

Maps Reclamation Final Surface Configuration

Analysis:

The amendment does not meet the State of Utah R645 requirements for Final Surface Configuration Maps.

The minimum requirements of R645-301-542 are not met within the amendment as there is no discussion or engineering design provided to show how the natural drainages will not be replaced. There is not any justification why current site conditions will not be placed back in a stable manor meeting the requirements of R645-301-358.400, R645-301-521.100 through-521.130, R645-301-731.610 and R645-301-121.200.

Deficiencies Details:

R645-301-358.400, R645-301-521.100 through-521.130, -301-543, R645-301-731.610 and R645-301-121.200: Provided updated reclamation of portal seals as document on Plate 3-7a. Update Plate 3-7 to show plan view of plate 3-7a.

cparker

Maps Reclamation Surface and Subsurface Man Made

Analysis:

The amendment does not meet the State of Utah R645 requirements for Reclamation of Surface and Subsurface Manmade Features Maps.

The minimum requirements of R645-301-542 are not met not within the amendment as the Permittee does not include an updated Plate 3-7 that details the plan view location of the proposed retention of the portals, upper and lower pads, culverts and sedimentation pond.

Deficiencies Details:

R645-301-542: The Permittee must update Plate 3-7 to match proposed plate 3-7a

cparker

Maps Reclamation Certification Requirments

Analysis:

The amendment meets the State of Utah R645 requirements for Certification Requirements.

R645-3010-512 minimum requirements are met as all mine drawings and plates are stamped by a Utah certified professional engineer, Thomas Paluso, with experience in underground mining operations.

cparker

Bonding and Insurance General

Analysis:

The amendment does not meet the State of Utah R645 requirements for Bonding and Insurance Requirements.

The amendment does not meet the minimum requirements of R645-301-800 as the current bond amount is inadequate and contains errors. On April 8, 2014 the Division commenced the Horizon Mine Midterm review (See Task ID #4512). As part of the midterm review process, the line items of the bond amount are updated to the midterm year and then escalated to the point of the next midterm, 2019 in Horizon's case. The Permittee requested an extension that was granted through June 5, 2014. To this day, the Permittee has not supplied the required information per R645-301-830.410 and -301-542.800. The Permittee will provide line item updates to current year dollars for all demolition, earthwork, and revegetation cost estimates. The Permittee will then escalate the required bond amount to 2019.

In addition to updating the bond line items , the Permittee failed to document all reclamation activities required. As documented in the April 6, 2010 Bond Estimate evaluation by Peter Hess, the bond amount failed to include the sealing of five wells. The Amendment includes text detailing how the "private landowner" wishes to have the monitoring wells converted to water wells; however, the current private landowner is the mine permittee who must meet R645 regulations.

The Permittee also needs to provide more concise and clear information as to what reclamation activity has been completed. The information provided in Table 1 contradicts Division inspection reports and provides no photo or narrative justifying reclamation work including bond release as required by R645-301-850.

Deficiencies Details:

R645-301-830.140:The Permittee must provide line item updates for the bond as required by the Midterm review. The new reclamation sheets will also include the reclamation of the five monitoring wells until a signed agreement from the landowner requesting retention is approved by the Division.

cparker

Bonding Form of Bond

Analysis:

The amendment does not meet the State of Utah R645 requirements for Form of Bond.

The amendment does not meet the minimum requirements of R645-301-860.100 as the applicant does not currently meet all the -860 requirements of a real property bond.

Deficiencies Details:

R645-301-830.140, R645-301-860:The Permittee must address the Midterm bond escalation and include an addition 15% for real property collateral.

cparker

Bonding Determination of Amount

Analysis:

The amendment does not meet the State of Utah R645 requirements for Determination of Bond Amount.

The amendment does not meet the minimum requirements of R645-301-830.140 as the Permittee did not provide detailed bond information. The permittee included Table 1 within the amendment that is based primarily off the Division's updated bond numbers that are not currently approved with the MRP. The Permittee must follow R645 regulations for Bond release in order to receive credit for reductions in reclamation activities. The bond release procedure is the approved measure to provide justification of all reclamation activities completed to R645 requirements.

In addition the following specific line items stated within the amendment provide conflicting information with Division estimates and site reclamation. The Permittee does have documentation of structural removal from the site but has not applied for a bond release required by SMCRA as means to document and justify claimed reclamation. The Permittee did remove the water tanks up canyon of the substation, a reduction in the bond amount of $8,775. The Permittee also did fully remove the metal storage container of the fuel tanks on the lower pad, a reduction in the bond amount of $1,645. The Permittee cannot apply for full reclamation of the material storage shed as stated in Table 1. The material storage shed could be applied to reduce by $10,997 due to the removal of the mixed building, however, $8,600 in concrete footings still remain at the site. The Permittee cannot apply for the full reclamation of the substation transformer, as documented in earlier deficiency; $151of concrete footings still remain at the site as well as the power poles that are not included with the reclamation sheet. The substation sheet should be corrected to reflect the additional removal of the power poles by the utility. The Permittee's Portal Structures sheet needs to be updated to reflect the additional cost of reclamation of the portals to the details shown in Figure 3-6 to include ventilation for access 60 feet, 95 feet, and 120 feet into the Return, Belt, and Fan portal respectively. The sheet is also missing the third canopy of the portal structures. The Permittee's Mine Conveyor sheet contains errors, as the total reclamation for the mine conveyor is $13,179. The Permittee can apply for bond release of the structural removal, $10,293, but the reclamation of the concrete footings that remain at the site is $2,886. The Permittee cannot apply for the full bond release of the transfer belt as $2,525 worth of concrete demolition remains at the site. The Permittee cannot apply for the full bond release of the stacker belt as $650 worth of concrete demolition remains at the site. The Permittee cannot apply for the full bond release of the fan as $371 worth of concrete demolition remains at the site. The Permittee cannot apply for the full bond release of the office trailer as $276 worth of concrete demolition remains at the site. The Permittee cannot apply for the full bond release of the bathhouse as $276 worth of concrete demolition remains at the site. The Permittee cannot apply for the full bond release of the Crusher screen as $113 worth of concrete demolition remains at the site. The Permittee can apply for the full bond release of the explosive storage shed. The Permittee does not include updated line items cost to reflect that additional non coal mine waste removal, coal fines, and refuse piles from the site. The Permittee also needs to provide justification for the limited asphalt area of 2,345 yd2. The Division inspections document an area of asphalt closer to 8,340 yd2. The total remaining demolition required at the site is $135,682. The backfill and grading required is $87,097The Permittee failed to include any updated cost estimate volumes and calculations for the reduction of grading shown in the bond summary page of the amendment. The remaining revegetation cost is $136,255, as the Permittee failed to include any updated line item cost estimates detailing the reduction in volume and calculations in revegetation. The total bond amount that would be required for the Horizon mine is $540,000 in 2019 dollars. The estimate is based on the assumption that the applied for bond release of current reclamation activities. Until the Permittee files for bond release of such facilities, the required bond amount of $718,000 in 2019 dollars as of the 2014 midterm.

Deficiencies Details:

R645-301-800: The Permittee will provide updated line items costs in 2014 Dollars for the Division's review. The line items will also include proof of any changes in backfill, revegetation costs, and reclamation of wells. The Permittee will apply for bond release for reclamation reduction of bond amounts before reducing bond line items., as bond reduction amounts do not match site conditions. Failed to provide line item updates to backfill volumes. Failed to provide line item updates for reduction in revegetation costs.

cparker

Bonding Terms and Conditions Liability Insurance

Analysis:

The amendment meets the State of Utah R645 requirements for Terms and Conditions for Liability Insurance.

The amendment meets the minimum requirements of R645-301-850 as the applicant currently holds liability insurance through Great Midwest Insurance Co, effective until 12/03/16. The insurance includes the required Marsh form, explosives and claims made per occurrence. cparker

ATTACHMENT A – Photos

PHOTO 1
Power Poles on concrete pad at site
December 2015