GARY R. HERBERT
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Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 8, 2018

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

Subject: NPL Open Pit Expansion, Alton Coal Development, LLC, Coal Hollow Mine, C/025/0005, Task #5666

Dear Mr. Nicholes:

The Division has reviewed your application. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter.

The deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise. The plans as submitted are denied. Please resubmit the entire application.

If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron R. Haddock

Daron R. Haddock
Coal Program Manager

DRH/sqs
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Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0250005
TaskID: 5666
Mine Name: COAL HOLLOW
Title: NPL OPEN PIT EXPANSION

General Contents

Permit Application Format and Contents

Analysis:

The applicant has met the requirements of R645-301-120 for Permit Application Format and Content.

The application proposes to expand the disturbed area of the North Private lease by 14.6 acres. This amounts to less than a 7 percent increase in the 239 acre disturbed area of the North Private Lease. As such, the change qualifies as an incidental boundary change and the application does not need to be processed as a significant revision as categorized under R645-303-224. The application will be processed as a permit amendment.

dhaddock

Environmental Resource Information

Historic and Archeological Resource Information

Analysis:

The amendment meets the State of Utah R645-301-411 requirements for historic and archeological resource information. The amendment proposes expanding the northeast boundary of Area 2 of the North Private Lease. According to cultural resource reports found in Appendix 4-1 of the confidential MRP, there are no known sites within, or adjacent to, the area of the expansion.

tmiller

Vegetation Resource Information

Analysis:

The amendment meets the State of Utah R645-301-320 requirements for vegetation resource information. Plate 3-11, Reclamation Treatments, Monitoring & Sample Locations, has been updated with this amendment to include the expansion area of Area 2. The seeding mix for Area 2 is a pasture mix detailed on Table 3-38 in Chapter 3 of the MRP. Additional vegetation information for the expansion area is found on Drawing 3-1, Vegetation Map, of the MRP.

tmiller

Fish and Wildlife Resource Information

Analysis:

The amendment meets the State of Utah R645-301-322 requirements for fish and wildlife resource information. Wildlife information already included in the MRP covers the expansion of Area 2. Important habitats for black bear, mule deer, Rocky Mountain elk, and sage grouse are found in the area. Information related to these species can be found on Drawing 3-2, Black Bear Habitat Map; Drawing 3-3, Rocky Mountain Elk Habitat Map; Drawing 3-4, Mule Deer Habitat Map; and Drawing 3-5, Sage-Grouse Brood Habitat Map. Additional wildlife information is found in Appendices 3-9 and 3-10 of the MRP. The primary wildlife concern in this area lies with the greater sage grouse (*Centrocercus urophasianus*). Projects mitigating the proposed 239 acres of disturbance in the North Private Lease have so far totaled 891.79 acres with another 108.21 acres still planned for bringing the total mitigation acreage to 1,000 acres for 239 acres of disturbance.

tmiller

Geologic Resource Information

Analysis:

The application meets the requirements of the R645-301-623 rules for geologic information.

The expansion of the North Private Lease area by 14.6 acres takes place all within the existing permit boundary and within the same formations as currently approved. Since the coal seam and strata dip toward the Northeast, the depth of overburden will increase and may ultimately limit the extent of the mine pits. The lithologic characteristics of the formations should remain constant with the coal seam being appoximately 16 feet in thickness.

dhaddock

Operation Plan

Topsoil and Subsoil

Analysis:

The application does not meet the requirements of R645-301-231.100, method for removal and storage of topsoil and subsoil, because the plan calls for topsoil storage on top of redistributed topsoil in Phase 1 bond release areas BRP1-10, BRP1-12 and BRP1-13, but does not describe protection of the recently topsoiled/seeded area.

Permit disturbed areas (1, 2, &3) total 239 on Drawing 2-4. This amendment increases the disturbed Area 2 by 14.16 acres. The revised disturbed area boundary inclues the NE1/4 Sec 12 in T39S R6W and follows Kanab Creek in T39S, R5W Sec 7 and 18. Most of this increased disturbance is on G. Ferril & Dorothy Heaton land (designated GDH), in prime farmland soil map units G and E.

Dwg 2-4 Topsoil handling plan shows the new disturbed boundary and provides estimated salvage quantity by soil type and landowner for 67.82 acres of non-prime farmland in Area 2 and 44 acres of 44 acres of Prime Farmland soils in Area 2 (Total = 112 acres). Dwg 2-4 also outlines salvage from 57.23 ac non-prime farmland in Area 3.Some of the Area 2 soils have already been salvaged from Pond 7 north to the North boundary of Pit 15 along the elk fence (the section line between Section 12 and 13 in R6W (7 & 18 in R5W). i.e. All of A2-Heat-1 soils and and A2- Other-1 soils have already been recovered. Aside from the Prime Farmland sois, this leaves 17.68 acres in Area 2 to be recovered. pf this acreage, the 7.47 acres of A2-HEAT-2 soils will be live-hauled..

A2-OTHER-2, -3, and -4 non-prime farmland soils will be stockpiled in Area 1 in the existing topsoil and substoil stockpile location as shown on Dwg 2-4. This A2-OTHER soil volume is provided in the table on Dwg 2-4. This will bring the existing NL topsoil pile to aproximately 78,000CY and the existing NL subsoil pile to approximately 103,000 CY. The capacity of both these stockpiles as drawn on Dwg 2-4 is 125,000 CY, with 1h:1v side slopes These piles extend over Phase 1 bond release areas BRP1-10 and BRP1-12 in Area 1. Prime Farmland soils will be stockpiled in designated as shown on Dwg 2-4, along the permit boundary in Area 2 or above BRP1-12 and BRP1-13 in Area 1. Silt fence will be installed along the downhill side of all prime gfarmland soils.

The plan does not describe the protection and handling of topsoil already re-distributed over BRP1-10, BRP1-12 and BRP1-13. The plan appears to underestimate the area required by the prime farmland soils, as the required 3h:1v side slopes were not shown for all prime farmland stockpiles on Dwg 2-4 and Dwg 5-51B for these prime farmland soils. Dwg 2-4 does not show accessways between the stockpiles which will be required during operations and reclamation.

Salvage and Storage Plans

The salvage plan in Section 231.100 (and Sec. 523) states that the depth of soil salvage will be determined in the field by a Coal Hollow environmental technician in consultation with a certified soil scientist (p. 2-24). The oversight of this process by a Certified Professional Soil Scientist is stressed several times within the Order II Soil Survey (Vol 11, p. 41-43), because the topsoil and subsoil salvage depths described are for planning purposes, but actual depths will vary in the field. Section 231.100 and Section 232.100 of the topsoil salvage plan includes the use of pedestals for quality control and for later confirmation of topsoil and salvage depth by the CPSS.

Section 232.100 provides an estimated salvage recovery table for the North Lease, which includes Areas 2 & 3 (p. 2-27 to 2-28). The table indicates that on average 11-12 inches of topsoil and 37 inches of subsoil (48 inches total) will be salvaged from all map units within Areas 2 & 3. Estimated topsoil and subsoil quantities for Areas 2 & 3 prime farmland and non-primefarmland soils are stated in Tables on Dwg 2.4 (1:2,400). Soil Map Units and recovery depths are also depicted on Dwg 2-3 (1:6,000) . Supplemental Volume 11, Map 10 also provides the estimated salvage depth of topsoil and subsoil by Map Unit in all areas of the North Lease (1:6,000). This revision of Dwg 2-4 replaces original topography with reclaimed topoography. Original topography is prefereable on Dwg 2-4 because of the scale difference between Dwg 2-4 and 2-3, the toporgraphy allows the user of the maps to correlate between them.

Sediment control during soil salvage is shown on Dwgs. 5-48, 5-48A, 5-65 and 5-65A. Soil will be recovered using dozers or scrapers (Section 231.100). Stockpiles will be constructed with 3h:1v slopes and will be bermed as described in Section 231.400. In accordance with the requirements of R645-301-234.230, all piles will be stabilized by seeding either with an interim mix or in the off-season, a cover crop (Quick Guard) (Sections 231.100 and 231.400 and Section 244.100). Stockpiles in place for longer than a year will also be mulched (Section 231.100). During contemporaneous reclamation activity, tackifier will be used to stabilize slopes of partially consumed, reshaped topsoil stockpiles, pending re-seeding in appropriate season (late fall, Sections 234.230 (c) and Section 244.100).

The depleted Area 1 topsoil and subsoil stockpiles will be replaced by one Area 3 Map Unit C topsoil/subsoil pile holding 55,000CY, which will be used along with 55,000 CY topsoil and 114,374 CY subsoil live-hauled from A3-OTHER to reclaim Area 3.

The timing of topsoil removal (R645-301-232.600) precedes overburden removal. The sequence for overburden removal is shown on Dwg 5-57 and described on page 5-56 as occurring first in Pits 1 – 10 , then 11 – 21, then HWT 1.

In Area 2: Prime farmland soils will be encountered above the N and East of Pit 15 all the way through Pit 21. Prime Farmland handling procedures are discussed under Special Categories of Mining/Prime Farmland Operation Plan.

SPECIAL CATEGORIES OF MINING PRIME FARMLAND OPERATION PLAN

The application meets the requirements of R645-302-317.400, Prime Farmland soils handling.

In accordance with R645-302-317.410, prime farmland soil will be removed prior to drilling, blasting or mining and prime farmland soil handling will be minimized when soils are saturated. The Division recommends that all prime farmland within a bonding unit is sampled and recovered at one time allow for soil recovery during an appropriate season and to allow mining to continue uninterrupted.

In Area 2: Prime farmland soils will be encountered North ofPit 15 to Pit 21 and East to Kanab Creek (refer to Dwg 5-57 and 5-53). Procedures are described in Chapter 9 for Prime Farmland soil removal and stockpiling (Vol 9, Section 317.400 et seq). These procedures include sampling by horizon one sample per 2 acres prior to salvage; salvage by landowner and by horizon. A certified, professional soil scientist will be at the site to monitor the soil sampling and prime farmland soil salvage by horizon within land ownership boundaries.

Salvage of Prime Farmland Soils is discussed in Vol 11, pages 41-43. Volume of salvage by horizon and Map Unit is summarized in Table 13. The volume to be salvaged by landowner acreage is provided in a Table on Dwg 2-4. Prime farmland topsoil stockpiles are illustrated on Dwg 2-4 and Dwg 5-51B. The topsoil piles are shown in cross section. These stockpiles are labeled by landowner: Dean R Heaton (DRH); G. Ferril and Dorothy Heaton (GDH); and Orval & Gretta Palmer (OGP). The Permittee will track the soil during salvage and stockpiling (Chapter 2, p. 3-36 and Appendix 2-2).

Deficiencies Details:

The application does not meet the R645-301-231.100 requirements. The following deficiency must be addressed prior to final approval:

R645-301-231.100, Describe the protection and handling of topsoil already re-distributed over BRP1-10, BRP1-12 and BRP1-13. Re-evaluate the area required for prime farmland soil storage with the required 3h:1v side slopes on Dwg 2-4 and Dwg 5-51B and describe the protection of the topsoil beneath the prime farmland and other stockpiles. Show the path of haul truck and vehicle accessways between the stockpiles which will be required during operations and reclamation and describe the protection of the topsoil on the accessway. .

R645-301-121.100 and -121.200, Replace the original topography on Dwg 2-4, because of the scale difference between Dwg 2-4 and 2-3, the original toporgraphy allows the user of the maps to approximate location between them.

pburton

Hydrologic Ground Water Monitoring

Analysis:

The amendment does not meet the State of Utah R645 requirements for Groundwater Monitoring.

The amendment does not included updated information on how the new pit configuration will influence the groundwater monitoring wells within the North Private Lease.

Water monitoring Table 7-10 shall be updated to include the current baseline and operational well monitoring network.

Deficiencies Details:

The amendment does not meet the State of Utah R645 requirements for Groundwater Monitoring. The following deficiencies must be addressed prior to final approval:

The amendment shall update maps and narratives showing how the pit expansion will destroy groundwater monitoring wells that are part of the current monitoring network within the North Private Lease.

Water monitoring Table 7-10 shall be updated to include the current baseline and operational well monitoring network.

kstorrar

Hydrologic Diversion General

Analysis:

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

Farm Road ditch:

The updated lengthwise cross-section of UD-14 in Drawing 5-72 does not appear to be a reasonable cut depth and width. The amendment proposes to change the length and location of the ditch to convey undisturbed runoff from watershed UA-4 to Kanab Creek to run along the farm road and eventually end at the creek crossing. The cross-section of UD-14 shows the topographic low of the farm road is 2,000 feet from the creek and the ditch steadily slopes to the east as the land rises. This causes the proposed cut depth of the ditch to be nearly 20 feet just 100 feet due west of the creek. At this depth with a 2H : 1V setback the width of the proposed ditch is 80 feet wide at the top. It is not possible to achieve this width without significantly altering the farm road or causing significant disturbance to the south of the road. The amendment shall update this ditch profile to be more specific about the cut depth and width and how sediment control measures will be implemented along this large path of disturbance or the amendment shall provide an alternative for dealing with runoff from UA-4.

Ditch along eastern boundary of Area 2:

Disturbed area runoff will not be properly conveyed along DD-13 to Sediment Pond 7 with the proposed change to the length and location of the ditch. The amendment proposes to shorten the length of DD-13 by 1,000 feet at its upper end so it will no longer run along the eastern boundary of the disturbed area DA-1. For instance Drawing 5-66 shows the area along the eastern boundary along Kanab creek flowing to Sediment Pond 7, however there is no ditch that will direct water to Pond 7.

Deficiencies Details:

The amendment does not meet that State of Utah R645 requirements for Diversions. The following deficiencies must be addressed prior to final approval:

The updated lengthwise cross-section of UD-14 in Drawing 5-72 does not appear to be a reasonable cut depth and width. It is not possible to achieve the 20 foot cut and 80 foot width without significantly altering the farm road or causing significant disturbance to the south of the road. The amendment shall update this ditch profile to be more specific about the cut depth and width and the sediment control measures that shall be implemented along this large path of disturbance or the amendment shall provide an alternative for dealing with runoff from UA-4.

Disturbed area runoff will not be properly conveyed along DD-13 to Sediment Pond 7 with the proposed change to the length and location of the ditch. The amendment shall provide a narrative and calculations if necessary of the sediment control measures that will be implemented between active operations west of Kanab Creek and north of Ditch DD-13 on Drawing 5-65. The narrative shall describe how runoff will be contained within the disturbed area along the eastern edge DA-1. The narrative shall discuss the anticipated flow paths or where disturbed area runoff from DA-1 will drain to and how runoff will be segregated from undisturbed area runoff within the stream buffer between active operations and the creek. Stabilization measures of the berm shown along the northeastern corner of DA-1 shall be included in the narrative as well.

kstorrar

Reclamation Plan

General Requirements

Analysis:

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

R645-301-512, R645-301-521 - This amendment is proposing a change to the approved mine plan in the North Private Lease area of the Coal Hollow Mine. Specifically, the Permittee is seeking to modify the boundaries of Area 2 of the North Private Lease to allow the option to surface mine areas that were previously proposed to be mined by highwall methods. This alteration necessarily requires that changes be made to surface facilities dealing with drainage control, the most significant of which is a reduction in the length of UD-14. Previously UD-14 was designed to divert drainage from undisturbed areas north of Area 2 around Pits 11 - 21 to the east, parallel to Kanab Creek and eventually draining into Kanab Creek slightly north of Pond 8. The new design proposes to drain the undisturbed areas north of Area 2 due east, draining directly into Kanab Creek without redirecting flow south as shown in Drawing 5-65.

The North Haul Road location, which was previously designed to run adjacent to the western Permit Boundary has been redesigned to run directly north through the middle of all pits in Area 2, which will facilitate easier handling of reclamation pit volumes going forward. This configuration also enables Permittee to complete construction of a permanent county road that will be located over the reclaimed surface of Pits 6 - 10 as illustrated in Drawing 5-49.

Previously, stockpiles containing topsoil from the prime farmlands were planned to be located directly above Pits 11 through 13, but will now be moved south to reside above reclaimed Pits 3 through 5 as shown in Drawing 2-4 and 5-51B. This was a necessary change since the North Haul Road will now reside where the Farmland stockpiles would have been located, and relocating the Farmlands stockpiles would also enable Permittee to harvest these soils sooner than anticipated.

An important distinction between the current mine plan and the plan proposed in this amendment is how the Area 2 reclaimed pits will be contoured. The amendment proposes to reshape the approximate original contour (AOC) of the reclaimed pits to drain south into Pond 7 as shown in Drawings 5-65 and 5-66. This change in AOC is achieved by backfilling Pits 11 - 21 with an approximate 2% grade sloping south. An intended consequence of this slight change in AOC results in an eventual surplus of overburden once mining progresses beyond Pit 17. This surplus results in a scenario where Pit 21 may be backfilled with overburden adjacent to the pit instead of harvesting backfill from HWT 01 and HWT 02 in Area 3.

jeatchel

Topsoil and Subsoil

Analysis:

The application does not meet the requirements of R645-301- 242, soil redistribution plan, because the plan must describe how the buried, placed topsoil will be treated to relieve compaction after removal of said stockpiles and roads. In addition, The plan should specify that the stockpile locations and primary roads and all other heavily trafficked areas (around stockpiles) will be ripped to a depth of 18 – 24 inches prior to subsoil placement or prior to reseeding of topsoil/subsoiled phase 1 bond release areas.

Section 232.300 refers to Table 14, Vol. 11 (p. 44) for the estimated salvage quantities and replacement depths of topsoil and subsoil from the non-prime farmland map units. The estimated topsoil replacement depth will follow the average recovery for non-prime farmland soils as stated in Section 232.200 and restated in Section 233.100-400, as follows: 18 inches in Area 1, 11 inches in Area 2, and 12 inches in Mine Area 3.

Substitute subsoil testing is described in Section 232.300, following procedures described in Section 232.720 for Area 1. Dwg 5-76A shows the sample locations on a grid within Area 1. No areas of sampling are proposed for Areas 2/3 on Dwg 5-76A, because the Permittee believes that there are sufficient sources of native subsoil to provide the 48 inches of total cover (Section 232.720, p. 2-33). Overall for Areas 2 and 3, an average subsoil replacement depth of 37 inches is stated in Section 232.100 (Table p. 2-28). Where replacement falls short of three feet depth, the Division will request that regraded spoils are sampled for suitability within the root zone.

The Permittee will track the soil during replacement of topsoil and subsoil using a balance sheet (Chapter 2, p. 3-36 and Appendix 2-2). New Appendix 2-7 contains tables with soil balance for bond release areas.

Soil redistribution to a uniform, stable thickness, prevention of compaction, ripping, discing on the contour, and seeding and mulching is described in Chapter 2 Sections 242 through Sections 244.200, if necessary. This approach did not serve the Permittee well in Area 1 ABRP1-12 where compacted soils were not ripped and mulch could not be adequately crimped with the disc. The primary haul road runs through Area 2. The plan should specify that the stockpile locations and primary roads and all other heavily trafficked areas (around stockpiles) WILL be ripped to a depth of 18 – 24 inches prior to subsoil placement.

Earthwork reclamation sequence is found on Dwg 5-76A Facilities reclamation is described on Dwg 5-76B. Pre-mining topography is shown on Dwg 5-45. Pot-mining topography is shown on Dwg 5-74 for the entire site. Dwg 5-74A illustrates Area 1. Dwg 5-74B illustrates Area 2. Dwg 5-74B does not show the revised disturbed area boundary. Dwg 5-74C (Area 3) illustrates a material void in Area 3, as described in Chap 5, Section 521.141, page 5-15. Chapter 5 Bond polygons are shown on Dwg 5-77. Post mining surface hydrology is found on Dwg 5-79.

Deficiencies Details:

The application does not meet the R645-302-242 soil redistribution requirements. The following deficiency must be addressed prior to final approval:

R645-301-242.200, The plan must describe how the buried, redistributed topsoil will be protected and compaction will be relieved after removal of stockpiles and roads. Section 242.200 of the MRP should specifically state that the soil stockpile areas, equipment access ways and primary roads will require deep-ripping prior to subsoil placement or prior to reseeding of topsoil/subsoiled phase 1 bond release areas. The North and South lease bonding calculations should be adjusted for this purpose, if necessary.

R645-301-121.100, Dwg 5-74B must show the revised disturbed area boundary.

pburton

Hydrological Information Reclamation Plan

Analysis:

The amendment meets the State of Utah R645 rules for Hydrologic Reclamation.

The amendment proposes to slightly alter the final grade of the reclaimed surface, altering reclaimed area flow paths. The final grade drains to the same location, but ditch RC-4 will be eliminated and runoff will now be conveyed in ditches RC-4A and RC-4B. The amendment provides updated calculations of flow velocities along the ditch in Table 8 of Appendix 5-12. Where flow velocities are calculated to be higher than 5 fps the ditch will be adequately armored with riprap and a filter blanket.

kstorrar

Maps Reclamation Final Surface Configuration

Analysis:

The application meets the requirements of R645-301-622 for the reclamation cross-section and maps of the area to be mined.

Drawing 5-74 is a post-mining topography map for the North Private lease area. It is accompanied by Drawing 5-74a, 5-74b, and 5-74c which are more detailed maps for the specific mine areas 1,2 & 3. Drawing 5-75 shows the post mining topography cross sections A - A' through G - G'. The cross sections show areas of backfill and specifically areas of fill above the final contour and areas of void below the final contour. These cross sections allow for the determination of approximate original contour. While there are some areas of excess fill and some areas of void, the overall topography matches the pre-mining topography. There is one location on the East side of Kanab creek that will possibly have a lower profile than original contour because of the need for fill for pit 21, however, the lower profile will actually improve the area for use as agricultural ground.

dhaddock

Bonding Determination of Amount

Analysis:

The amendment meets the State of Utah R645 requirements for Determination of Bonding Amount.

R645-301-830 - The amendment is proposing a change to the approved mine plan in the North Private Lease area of the Coal Hollow Mine. Specifically, the Permittee is seeking to modify the boundaries of Area 2 of the North Private Lease (NPL) to allow the option to surface mine areas that were previously proposed to be mined by highwall methods.

The increase in proposed surface mining results in an increase in disturbed acreage. This amendment only deals with changes in the North Private Lease, and the acreages and volumes for all of the pits and surfaces have been accounted for in this submittal. The proposed surface disturbance for the North Private Lease increases from 224.8 to 239.0 acres because the remainder of the unmined pits in Area 2 will be extended further east. The increased mined acreages also results in an increase of volumes from approximately 9.2M to 10.9M bank cubic yards.

The increased volume will be backfilled into the mined out pits in a manner that supports the proposed reclamation contours, preserving a gradual 2% slope to the south. The proposed backfill plan will result in a net surplus of overburden that accumulates as mining advances north in Area 2. This enables Pit 21 to be backfilled with overburden from the adjacent reclaimed pits as opposed to harvesting material from Area 3 and hauling it over Kanab Creek. Additionally, the revised mining plan calls for backfilling Pit 21 with overburden directly from within Pit 21 itself, backfilling the mined out void as mining progresses east. In addition to not requiring backfill from the HWT 01 and HWT 02 zones of Area 3 for Pit 21, Permittee proposes to no longer reclaim Borrow Areas from Area 3 because those areas will remain undisturbed.

Taking into account the proposed changes to the North Private Lease, the Phase 1 Bond amount decreased slightly from $2,427,938 to $2,348,731 dollars, but the Phase 2 Bond amount increased by $67,655 dollars, and the Phase 3 Bonding costs also increased by $18,171 dollars. The total bond amount for the North Private Lease increased slightly from $4,729,964 to $4,736,582 dollars.

jeatchel

Special Categories

Prime Farmland Soil Replacement

Analysis:

The application does not meet the requirements of R645-302-316.500, because the application must confirm that the final topography in the prime farmland North of the elk fence in Area 2 will maintain prime farmland characteristics of no greater than 3% slope with an erodibility factor of 2.0 or less.

Forty-four acres of prime farmland will be affected by surface mining (Dwg. 2-4). The proposed final topography

portrayed on Drawing 5-74B will create land which has a maximum slope of 2.8% in T 39S, R5W, Sec. 6, and 3% grade in T 39 S, R 6W Sec 12. This is consistent with Map 7 of the Supplemental report illustrates the existing slope of the prime farmland in Sec 12 and Sec 7 as 0 – 3% slope. In addition, the final topography will remove an incised gully to create 1.82 acres of additional prime farmland (A2-OTHER-4 on Dwg 2-4).

The criteria for prime farmland are listed in Table 4 of the Supplemental Reports Volume 11. Erodibility by water is a criterion that must be less than 2.0, as determined by the K factor times the slope. Table 4 states the K factor was determined by Intermountain labs, but does not report the K-factor. Lab sheets provided in Appendix C do not include the K factor. Page 39 of the Supplemental Report states, "K factors greater than 0.37 are of limited extent in the North Private Lease," but does not state the K-factors. Assuming a K factor of 0.37 for the prime farmland, the erodibility of the final topography in prime farmland will be 1.11 to 1.04, which meets the erodibility criterion for prime farmland.

Chapter 9 Section 316.500 of the application must provide the K factor and calculated erodibility factor for the final topography in the Area 2 prime farmland to confirm that the total prime farmland acreage will not be decreased.

Deficiencies Details:

The application does not meet the R645-302-316.500 requirements. The following deficiency must be addressed prior to final approval:

R645-301-302-316.500, Chapter 9 Section 316.500 of the application must provide the K factor and calculated erodibility factor for the final topography in the Area 2 prime farmland to confirm that the total prime farmland acreage will not be decreased and the land will maintain prime farmland characteristics of no greater than 3% slope with an erodibility factor of 2.0 or less.

pburton