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DEPARTMENT OF NATURAL RESOURCES

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Technical Analysis and Findings
Utah Coal Regulatory Program

PID: C0070013
TaskID: 4453
Mine Name: HORSE CANYON MINE
Title: MIDTERM REVIEW RESPONSE

Reclamation Plan

Bonding Determination of Amount

Analysis:

The Permittee submitted a response to the Divisions first analysis of the permit information on November 22, 2013. Several errors were identified in the determination of the demolition section of the direct cost analysis for reclamation. Utah American Energy, Inc. responded on December 9, 2013 with a corrected version of the reclamation cost estimate. The total reclamation cost in 2013 dollars is estimated at \$ 1,676,252. The escalated reclamation cost through 2018 is \$ 1,804,000. The amount of bond posted by the Permittee to the DOGM in 2009 is \$ 1,807,000. The excess amount of \$ 3,000 is a + 0.17 % of the posted bond amount. The Permittee has updated the reclamation cost estimate using 2013 unit costs from the 2013 R. S. Means heavy construction cost data manual, which adequately address the deficiency aired under R645-301-830.140.

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Operation Plan

Fish and Wildlife Protection and Enhancement Plan

Analysis:

On October 2, 2013 the Division notified Utah American Energy, Inc. of the initiation of the Midterm Review. The following items were included:

- A. Review of the Plan to ensure that the requirements of all permit conditions, division orders, notice of violations (NOV), abatement plans, and permittee-initiated Plan changes approved subsequent to permit approval or renewal (whichever is the most recent) are appropriately incorporated into the Plan document.
- B. Ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program which have occurred subsequent to permit approval or renewal.
- C. Review applicable portions of the permit to ensure that the Plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area.
- D. Evaluate the compliance status of the permit to ensure that all unabated enforcement actions comport with current regulations for abatement; verify the status of all finalized penalties levied subsequent to permit issuance or permit renewal, and verify that there are

no demonstrated patterns of violation (POV). This will include an AVS check to ensure that Ownership and Control information is current and correct.

E. Evaluate the reclamation bond to ensure that coverage adequately addresses permit changes approved subsequent to permit approval or renewal, and to ensure that the bond amount is appropriately escalated in current-year dollars.

F. Evaluate the permit for compliance with variances or special permit conditions.

G. Optional for active mines, mandatory for reclamation only sites: conduct a technical site visit in conjunction with the assigned compliance inspector to document the status and effectiveness for operational, reclamation, and contemporaneous reclamation practices undertaken on predetermined portions of the disturbed area to minimize, to the extent practicable, the contribution of acid or toxic materials to surface or groundwater, and to otherwise prevent water pollution. On November 4th, 2013 the Division received a response to the deficiencies note on the Midterm review.

This memo will include a review of items A and G.

The current mining and reclamation for the Lila Canyon mine includes approximately 34 commitments many of which have been completed. Members of the review team have updated the list in accordance with their respective disciplines.

page footer -> Page 2/7

R645-301-322, -301-333, -301-342, -301-358.

BLM MEMORANDUM OF AGREEMENT FOR RECOVERY OF SIGNIFICANT INFORMATION (42EM2517) BLM, OSM, DOGM, and SHPO will enter a MOA to implement a recovery plan.

STATUS Completed

COLORADO RIVER FISH Water depletion reporting for the CO River endangered fish Recovery Implementation Program. STATUS Data regarding acre feet per year of consumed water is provided annually.

CONFIDENTIAL Submit confidential information in amendments, annual reports, and explorations in a separate folder.

STATUS Ongoing

HABITAT ENHANCEMENT AND MITIGATION Install two artificial eagle nests in consultation with USFWS.

STATUS According to the text on page 10, of Chapter 3 the eagle nests were to be mitigated by a prey base off-site vegetation treatment project with a reference to page 19. The reference has been corrected to pages 11, 17 and 18. The vegetation treatment was scheduled completed in the fall of 2013.

HABITAT ENHANCEMENT AND MITIGATION Implement the BLM 70+-acre wildlife enhancement/mitigation plan to offset expected impacts to bighorn sheep as well as mule deer, elk, raptors, and chukars from the initial construction of the main facilities site.

STATUS To be completed in the Spring of 2014.

HABITAT ENHANCEMENT AND MITIGATION Install 2 guzzles as part of the BLM enhancement/mitigation plan to offset expected impacts to bighorn sheep as well as mule deer, elk, raptors, and chukars from the initial construction of the main facilities site.

STATUS Completed in 2013 Permittee should provide verification in the annual report.

HABITAT ENHANCEMENT AND MITIGATION Install two artificial eagle nests in consultation with USFWS.

STATUS Not required could be deleted, see Chapter three, Page 17, Paragraph 1.

MEXICAN SPOTTED OWL Conduct two-year calling survey at least two years but no more than four years prior to undermining identified habitat. Results will be submitted to USFWS, DWR, and the Division immediately following of each nighttime survey. If owls are observed, the agencies will immediately coordinate to determine appropriate measures.

STATUS The two required surveys have been completed, the second survey was completed in 2013 and will be submitted in the annual report that is due by March 31, 2014.

RAPTOR AND NEST PROTECTION For possible subsidence impacts to raptor nests, the Permittee will develop a mitigation plan that must be submitted and approved within 6 months after issuance of permit and apply for take permit through USFWS 2 years prior to subsidence of the nests.

STATUS The mitigation is scheduled to be completed in the Fall of 2013. The permittee has identified the nests, 456 and 496. The only nest within the subsidence zone is 719 that can no longer be found. Chapter 3, page 10 has been revised to include this information. If nests are identified through aerial surveys the permittee must apply for take permit through USFWS 2 years prior to subsidence of the nests.

RAPTOR PROTECTION Employee educational to remove road kill from the coal haul road.

STATUS Ongoing, the permittee has corrected the pagination error that begins at the bottom of page 20. The employee awareness program should include annual and as needed training and as needed as well as text that describes the removal of animal carcasses.

page footer -> Page 3/7

RAPTOR PROTECTION Escarpment barrier of at least 200' to prevent cliff habitat loss.

STATUS The text of Chapter three, page 13, Section 332 (1) has been revised show that the 200' barrier will be measured from the coal outcrop.

RAPTOR SURVEYS Survey all raptor habitat and nests.

STATUS Ongoing annually for nests within 1 mile of the current disturbed area or areas that may be impacted by subsidence.

SEED MIX TAGS Provide the Division biologist with seed mix tags prior to or during interim, contemporaneous, and final reclamation projects.

STATUS The division is recommending that the topsoil pile and disturbed areas not being utilized for mining activities be scarified and seeded in the Fall of 2013 to minimize the current infestation of hallogeten. Seed tags should be provided to the inspector.

SENSITIVE PLANTS Survey the Cliff's blazing star, canyon sweetvetch, and creutzfeldt-flower. Initiate and implement a protection/mitigation plan if surveys are positive.

STATUS Completed

SENSITIVE PLANTS Implement a protection program for known populations of canyon sweetvetch during construction of the main facilities site.

VEGETATION MONITORING Color infrared photography. Submit and implement a mitigation plan, if results indicate impact from operations.

STATUS The next survey is scheduled for 2016

VEGETATION TEST PLOT To test whether summer seeding will increase establishment of the warm season species (blue grama and galleta). Area 1 and 4 were seeded in July and area 2 and 3 were seeded in October following construction.

STATUS The Division needs to meet with the permittee in the Spring of 2014 to visit the test plot areas and discuss the information provided in the 2012 annual report to determine what recommendations should be made regarding the warm season seeding of blue grama and galleta.

WILDLIFE Adhere to wildlife exclusionary periods: raptors (Feb 1 - July 1), bighorn sheep lambing, (May 1 - June 15), and pronghorn (May 15 - June 20)

STATUS Ongoing, applies primarily to new construction or surface disturbance

NOXIOUS WEED CONTROL To control invasive species in and adjacent to the disturbed area. The permittee should implement a noxious/invasive species weed control program.

STATUS The Division is recommending that this commitment be added to the Lila Canyon MRP list of commitments. The regulatory basis is found at R645-301-357.320-.324. The permittee needs to address the current infestation of hallogeten and Russian thistle in these areas. The Division has recommended scarifying and seeding in the Fall of 2013 and spraying based on a site inspection in the Spring of 2014.

STATUS ongoing

Deficiencies Details:

The information in the current MRP is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information is required in accordance with; R645-301-322, -301-333, -301-342, -301-358.

page footer -> Page 4/7

MRP COMMITMENTS

HABITAT ENHANCEMENT AND MITIGATION Install two artificial eagle nests in consultation with USFWS.

STATUS According to the text on page 10, of Chapter 3 the eagle nests were to be mitigated by a prey base off-site vegetation treatment project with a reference to page 19. The reference needs to be corrected to pages 11, 17 and 18. The vegetation treatment is scheduled to be completed in the fall of 2013.

RAPTOR AND NEST PROTECTION For possible subsidence impacts to raptor nests, the Permittee will develop a mitigation plan that must be submitted and approved within 6 months after issuance of permit and apply for take permit through USFWS 2 years prior to subsidence of the nests.

STATUS The mitigation is scheduled to be completed in the Fall of 2013. The permittee needs to identify which nests are being referred to (previously identified or from future surveys). If nests are identified through aerial surveys the permittee must apply for take permit through USFWS 2 years prior to subsidence of the nests.

RAPTOR PROTECTION Employee educational to remove road kill from the coal haul road.

STATUS Ongoing, the permittee needs to correct the pagination error that begins on page 20. The employee awareness program should include annual training and as needed as well as text that describes the removal of animal carcasses.

RAPTOR PROTECTION Escarpment barrier of at least 200' to prevent cliff habitat loss.

STATUS The text of Chapter three, page 13, Section 332 (1) needs to be revised or clarified to demonstrate how the 200' barrier will be measured.

SEED MIX TAGS Provide the Division biologist with seed mix tags prior to or during interim, contemporaneous, and final reclamation projects.

STATUS The division is recommending that the topsoil pile and disturbed areas not being utilized for mining activities be scarified and seeded in the Fall of 2013 to minimize the current infestation of hallogeten. Seed tags should be provided to the inspector.

VEGETATION TEST PLOT To test whether summer seeding will increase establishment of the warm season species (blue grama and galleta). Area 1 and 4 were seeded in July and area 2 and 3 were seeded in October following construction.

STATUS The Division needs to meet with the permittee in the Spring of 2014 to visit the test plot areas and discuss the information provided in the 2012 annual report to determine what recommendations should be made regarding the warm season seeding of blue grama and galleta spp.

NOXIOUS WEED CONTROL To control invasive species in and adjacent to the disturbed area. The permittee should implement a noxious/invasive species weed control program.

STATUS The Division is recommending that this commitment be added to the Lila Canyon MRP list of commitments. The

regulatory basis is found at R645-301-357.320-.324. The permittee needs to address the current infestation of hallogeten and Russian thistle in these areas. The Division has recommended scarifying and seeding in the Fall of 2013 and spraying based on a site inspection in the Spring of 2014.

This portion of the midterm review is recommended for approval pending verification of areas that were to be scarified and seeded in the Fall of 2013

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Topsoil and Subsoil

Analysis:

The south side of topsoil stockpile was pocked, mulched and seeded, in the fall of 2013 (see Inspection Report #3678). Task Additional topsoil will be brought to the pile when Phase 2 development of the site occurs.

In addition Task 4453 states that the roadway along the north side of the topsoil pile was scarified and reseeded. The area will be inspected in the Spring of 2014.

Seed tags for the above work were provided to the Inspector.

pburton

Hydrologic General

Analysis:

In response to midterm deficiencies, the Permittee responded by updating Chapter 7 to more clearly reflect the current water monitoring program. Table 7-3 was updated to indicate that Quaker Spring monitoring has been temporarily suspended. Section 731.214.2 was also updated to clarify the monitoring program. The MRP states that surface water monitoring at the sites currently called out as "temporarily suspended" will resume as second mining enters the area that could potentially affect the surface waters. The MRP also clarifies that samples will only be collected during the 2nd, 3rd, and 4th quarters, due to the sites being inaccessible during the 1st quarter.

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Maps Certification Requirements

Analysis:

The Permittee submitted the following updated maps in response to R645-301-121.100; Plates 1-2, 2-2, 2-3, 5-2,5-6, 7-2, 7-5 and 7-7. Only Plates 5-2 and 5-6 are relative to the Engineering discipline and these have been reviewed under Engineering. All Plates have been P.E. certified by Mr. R. Jay Marshall, Utah registered professional and the P.E. stamps meet the requirements of R156-22-601 (1) (a-f).

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