

# UtahAmerican Energy Inc.



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July 30, 1999

Pam Grubaugh-Littig  
Permit Coordinator  
DOGM  
1594 West North Temple, Suite 1210  
Salt Lake, Utah 84114-5801

*Copy saved to file  
ACT/005/013 # 2*

**Subject: Lila Canyon TA Response**

Dear Ms Grubaugh Littig:

Pam please find enclosed UtahAmerican Energies response to the Lila Canyon Technical Analysis (TA). The TA was complete by DOGM on May 27, 1999. UEI is submitting our response prior to the August 26, 1999 due date in hopes of expediting the approval process.

The appropriate Notarized C1 and C2 forms are included.

In addition summary sheets "Technical Analysis Deficiencies Response" are included to assist your staff in reviewing our TA response.

Should you have any questions or comments please give me a call.

*5 copies -  
Jay updated & in SLC  
1 @ PFO  
1 @ BLM - PFO  
Will send to Pam*

Sincerely,

R. Jay Marshall P.E.  
Chief Engineer



# APPLICATION FOR PERMIT PROCESSING

<input checked="" type="checkbox"/> Permit Change X	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: <b>ACT 007/013</b>
Title of Proposal: <b>UtahAmerican Energy's response to the Lila Canyon Technical Analysis completed on May 26, 1999.</b>						Mine: <b>Lila Canyon</b>
						Permittee: <b>UtahAmerican Energy Inc.</b>

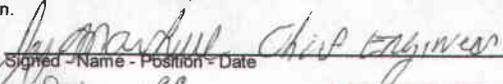
Description, include reason for application and timing required to implement: **TA response to the significant revision to the Horse Canyon MRP**

**Instructions:** If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.

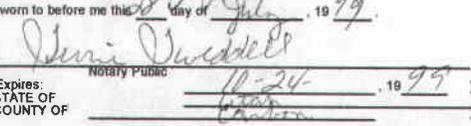
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input type="checkbox"/> No	2. Is the application submitted as a result of a Division Order? DO # _____
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	4. Does application include operations in hydrologic basins other than as currently approved?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	9. Is the application submitted as a result of a Violation? NOV # _____
<input type="checkbox"/> Yes	<input type="checkbox"/> No	10. Is the application submitted as a result of other laws or regulations or policies? Explain: _____
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	21. Have reclamation costs for bonding been provided for?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

**Attach 5 complete copies of the application.**

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

  
 Signed - Name - Position - Date  
 \_\_\_\_\_ Chief Engineer 7/28/99

Subscribed and sworn to before me this 28 day of July, 19 99.

  
 My Commission Expires: \_\_\_\_\_, 19 99  
 Attest: STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_

Received by Oil, Gas & Mining

RECEIVED

JUL 30 1999

DIV. OF OIL, GAS & MINING

ASSIGNED TRACKING NUMBER

# Application for Permit Process

## Detailed Schedule of Changes to the MRP

Title of Application: **Response to TA completed on May 26<sup>th</sup> 1999.**Permit Number: **ACT007/013**Mine: **Lila Canyon**Permittee: **UtahAmerican Energy Inc.**

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<b>CHAPTER 1 (LEGAL)</b>			
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Pages 3-17 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 1-1 All Pages
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 1-1 Cover Page with the New Cover Page
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 1-2 All Pages
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 1-2 Cover Page with the New Cover Page
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Sublease to Appendix 1-1
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 1-3 All Pages
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 1-3 Cover Page with the New Cover Page
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Proof of Publication Notice Sheet and Draft Notice of Publication
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Proof of Publication to Appendix 1-5
<b>CHAPTER 2 (SOILS)</b>			
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 2 Test ALL
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Fan Site Soil Inventory to the end of The Lila Canyon Soil Inventory found in Appendix 2-3
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 2-2 All
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 2-1 (Soils Map)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 2-2 (Detailed Soils Map)
<b>CHAPTER 3 (BIOLOGY)</b>			
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 3 Text All
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Pages 1-10l of the Lila Canyon Vegetation inventory found near the end of Appendix 3-2
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Productivity Letter to front of Appendix 3-7
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 3-1 (Wildlife Habitat Map)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 3-2 (Vegetation Map)
<b>CHAPTER 4 (Land &amp; Air Quality)</b>			
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 4 Text ALL
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Large Site Application with Large Site Approval in Appendix 4-2
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 4-1 (Culture Resource Inventory) Inventory is Confidential
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 4-1 Cover Page with "Confidential" Page
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 4-3 (Cultural Resources) from Plan. Plate is Confidential.
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Replace Plate 4-3 with "Confidential" Page
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Air Quality Permit to Appendix 4-3

<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 4-1 with new plate 4-1 (Surface Ownership)
<b>CHAPTER 5 (ENGINEERING)</b>			
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 5 Text All
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 5-5 (Safety Factor) with new Appendix 5-5
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Sewage System Design to end of Appendix 5-4
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 5-7 (Refuse Piles) with new Appendix 5-7
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 5-8 (Reclamation Plan) with new Appendix 5-8
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-1 (Old Mine Works) with the new Plate 5-1 (Previously Mined Areas)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-2 (Surface Area Lila Canyon Mine) with new Plate 5-2
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-3. (Plate 5-3 was a duplicate of Plate 4-1) Plate 4-1 will provide needed information.
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-4 (Permit Area and Ownership) with new Plate 5-4 (Coal Ownership)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-5 (Mine Map) with new Plate 5-5 (Mine Map)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-6 (Post Mine Topography) with the new Plate 5-6 (Post Mine Topography)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-7A with the new Plate 5-7A (Mine Site Cross Sections)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-7B with the new Plate 5-7B (Mine Site Cross Sections)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 5-7C (Reclaimed Profile)
<b>CHAPTER 6 (GEOLOGY)</b>			
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Page 12 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Page 17 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Pages 21-22 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Page 24 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Page 26 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Page 28 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Page 35 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Page 39 of Text
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 6-3 with the new Plate 6-3 (Coal Thickness Isopachs)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 6-4 with the new Plate 6-4 (Cover and Structure Map)
<b>CHAPTER 7 (HYDROLOGY)</b>			
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 7 Text ALL
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Sediment Pond Application to end of Appendix 7-4
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 7-3 with the new Appendix 7-3
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	NPDS Application to end of Appendix 7-5
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	New Appendix 7-6
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 7-1 with New Plate 7-1 (Permit Area Hydrology)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 7-4 with New Plate 7-4 (Water Monitoring Locations)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Plate 7-6 with New Plate 7-6 (Proposed Sediment Pond)
<b>CHAPTER 8 (Bonding &amp; Insurance)</b>			
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Liability Insurance (Updated) <i>APP 8-2</i>

## Technical Analysis Deficiencies Response

### OWNERSHIP AND CONTROL

R645-301-1122.310

The ownership or control information for the Horse Canyon MRP was updated and approved with the permit transfer from IPA to UEI. The Lila Canyon Mine part "B" refers back to the approved Horse Canyon Mine part "A".

R645-301-112.500 and 112.600

Plate 4-1 shows the surface ownership, plate 5-4 shows the coal ownership. Plate 5-3 was a duplicate of plate 4-1 and has been removed. Surface areas that are administered by the Utah School of Institutional Trust Lands Administration are shown on plate 4-1.

R645-301-112.500

The name change from the Department of Natural Resources, Division of Sovereign Lands and Forestry has been changed to the Utah School and Institutional Trust Lands Administration is reflected through out the text and maps.

R645-301-112.700

The MSHA ID for the Lila Canyon Mine has been added. Refuse pile ID number will be added when it becomes available.

### RIGHT OF ENTRY

R645-301-114

The UEI sublease approval from the BLM has been added to Appendix 1-1.

R645-301-114

The Lila Canyon Permit Area does not include any fee coal. Table 1-1 is correct. UEI does not hold coal leases in Sections 33 and 34, Township 15 South, Range 14 East. Those leases are not part of the Lila Canyon Permit Area.

R645-301-114

Acreage figures have been corrected and now correspond. Coal lease acreage is 5,544.01 acres and is shown in Table 1-1. Permit area acreage is 1,776.13 for Horse Canyon (Part "A") and 4,685.66 Acres for Lila Canyon (Part "B") and is shown in Table 4-2. The total disturbed area for Lila Canyon is 40.77 acres.

R645-301-114

ROW information for the proposed surface area can be found in ROW # UTU-77122 found in the BLM EA currently under review.

R645-301-114

Plate 5-4 has been corrected. The State of Utah does not own any mineral estate in Section 12, Township 16 South, Range 14 East, but does own surface.

R645-301-114

The existing permit area ROW information is contained in Part "A" of the permit. The Lila Canyon significant revision is only for part "B" of the permit.

## **UNSUITABILITY CLAIMS**

R645-301-117.100

The certificate of insurance has been changed and approved as part of the IPA UEI permit transfer. The new certificate can be found in Appendix 8-2.

R645-301-117.200

The newspaper advertisement and proof of publication for the significant revision can be found in Appendix 1-5.

## **ENVIRONMENTAL RESOURCE INFORMATION**

R645-301-122

Relevant references used in the PAP have been included. For those references unavailable Direct quotes from those references that are unavailable have been removed from the PAP.

## **PERMIT AREA**

R645-301-121.200

Plate 5-3 has been removed. Plate 5-4 depicts coal ownership and plate 4-1 depicts surface ownership.

R645-301-521.190

Legal descriptions for the surface lands can be found in Table 4-2.

R645-301-521.190

Only one WSA exists within the proposed permit area. Turtle Canyon WSA is shown on plate 6-2.

## **HISTORICAL AND ARCHEOLOGICAL RESOURCE INFORMATION**

R645-301-121.200

Text changed to read "a culture resource survey was done in the spring of 1998 and

results are included on Plate 4-3 and in Appendix 4-1.

R645-301-121.200

Both Plate 4-3 and Appendix 4-1 have been made confidential.

## **VEGETATION RESOURCE INFORMATION**

R645-301-131

All collection data found in Appendices 3-1 and 3-2 is as complete as possible with names and dates where known.

R645-301-321

Concerns have been addressed in Chapter 3.

R645-301-321

Ferocactus sp. And Engelmann spruce statements have been clarified in the text of Chapter 3.

R645-301-321.200

Productivity letter for the proposed disturbed areas has been added to Appendix 3-7.

R645-301-323

Reference areas can be found on Figure 1 in appendix 3-2. Vegetation communities in relation to the proposed surface facilities can be found on plate 3-2.

R645-301-323

Text has been changed on page 13 of chapter 3.

## **FISH AND WILDLIFE RESOURCE INFORMATION**

R645-301-322

Table 3-1 corrected on page 7 to show T&E for Utah.

R645-301-322

Habitats addressed on page 11 of chapter 3.

R645-301-322

Plate 3-1 revised to clarify different types of habitats.

R645-301-322

Eagle nest locations can be found in appendix 3-5 and are shown on plate 3-1.

R645-301-322

Raptor nestS visible from the proposed surface facilities are discussed on page 13 of chapter 3.

R645-301-322

All potential raptor habitats have been surveyed. Addressed on page 11 of chapter 3.

R645-301-322

Statement has been changed on page 11 to state that a current raptor survey was completed in 1998.

R645-301-322

A plan for continued monitoring of raptor nesting habitats is included on page 13 and 17 of chapter 3.

R645-301-322

Habitats addressed on page 5 of chapter 3.

R645-301-322

See letter added to Appendix 3-4.

## **SOIL RESOURCE INFORMATION**

R645-301-222.300

Additional soil map units have been added to appendix 2-2

R645-301-141

Soil survey maps in Appendix 2-3, Plate 2-2, and Appendix A2 of Appendix 2-3 do have discontinuous contour lines and interpretation between existing contour lines may be necessary.

R645-301-222

Soil survey for fan site has been added to the end of appendix 2-3.

R645-301-223

Comment not applicable to Lila Canyon MRP.

R645-301-232

Operator proposes to remove and store topsoil down to the calcic layer which averages approximately 8".

## **LAND-USE RESOURCE INFORMATION**

R645-301-411

Text changed to include grazing on page 2 of chapter 4.

R645-301-411

Addressed on page 11 of chapter 4.

## **GEOLOGIC RESOURCE INFORMATION**

R645-301-200

A contour has been added for 6200' on plate 6-4.

R645-302.122, -624.130

Non relevant outside references have been removed.

R645-301-302.122, -624.130, -624.320

Statement came from Kaiser Permit but can not be verified. Statement removed from Lila MRP.

R645-301-624, -624.210

Holes #A-26, and A-31 were drilled 15 years ago and were located to the south of the permit area. No core data or monitoring information can be found and may not exist.

R645-301-624, -624.210

Logs for hole S-32 can be found in Appendix 6-1. Monitoring data may not exist. S-32 is located south of the permit area.

R645-301-624.320

Results of chemical analysis for acid- or toxic-forming or alkalinity-producing materials for areas immediately above and below the coal seam to be mined can be found in Appendix 6-2. Due to the inability to mine the total thickness of the coal seam, in all probability top coal will be left in place. Chemical analysis of the top coal can be found in Appendix 6-2. Additional information on the slope rock will be included when available.

R645-301-624.320

Slope rock testing is covered in section R645-301-537.210.

## **HYDROLOGIC RESOURCE INFORMATION**

R645-301-121.200

Baseline water information can be found in Appendix 7-1

R645-301-724.100

A-26 and A-31 are addressed in Section 724.100.

R645-301-724.100

No known hydrologic data is known to exist for the two alluvium wells in lower Horse Canyon Creek.

R645-301-724.100

No known hydrologic data exists for S-32. See 724.100.

R645-301-724.100

Baseline data not available for 1997 or 1998.

R645-301-724.100

See Section 724.100 for information on A-26 and A-31.

R645-301-724.100

See Plate 7-1 and Section 724.100 For information on A-26 and A-31.

R645-301-724.100

Information on H-1, H-6, H-18, and H-21 can be found in Appendix 7-6.

R645-301-724.100

Information on H-21A, H-21B, H18A, and H18B can be found in Appendix 7-6.

R645-301-724.100

Information on HC-1, HC-1A and unidentified spring can be found in Section 724.100 and on Plate 7-1.

R645-301-724.100

Additional water supply well information can be found in Section 724.100.

R645-301-724.100

Additional information on S-32 can be found in Section 724.100.

R645-301-724.100

Manganese was not sampled for in Redden Spring.

R645-301-724.100, -724.200

Additional information on RS-1, RS-2, B-1, HC-1, and RF-1 can be found in Appendix 7-6.

R645-301-724.200

Additional information from the U.S. Geological Survey water quality survey can be found in Appendix 7-3.

R645-301-724.200

See Section 724.200 for discussion of Little Park Wash drainage.

R645-301-724.200

Range Creek is over 5 miles from the permit area.

R645-301-724.200

No data is available for the two streams in Lila Canyon or the stream in Little Park Wash.

R645-301-724.200

Additional data for Horse Canyon Creek can be found in Appendix 7-3.

R645-301-121.200, -724.200

Flow in Horse Canyon Creek is addressed in Section 724.200.

R645-301-121.200, -724.200

Inconsistencies relating to Lila Canyon Creek is addressed in Section 724.200 and Table 7-3.

R645-301-121.200, -724.200, -729

Descriptions of Horse Canyon and Lila Canyon drainages are found in Section 724.200.

R645-301-724.200, -728

Preminning Hydrology is addressed in Section 724.100.

R645-301-724.200, -728

The PHC has been revised. See Appendix 7-3.

R645-301-724.210

The use of the IPA wells as water monitoring points is addressed in Section 721.131.

R645-301-724.210

The possibility of using S-32, A-26, and A-31 as groundwater monitoring wells is addressed in Section 724.100.

## **MAPS PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

R645-301-323

Reference areas can be found on Figure 1 in appendix 3-2. Vegetation communities in relation to the proposed surface facilities can be found on plate 3-2.

R645-301-323

Section 323.400 has been changed.

R645-301-622.200

Coal seam elevation has been added to 6-4.

R645-301-121.200, -622.200

A 6,200' contour was added to Plate 6-4 and 7-1.

R645-301-121.200

Culvert information found in Section 521-120 has been clarified.

R645-301-121.200

Coal seam elevations have been added to Plate 6-4.

R645-301-121.200, -622.200

Lease information has been removed from plates 6-3 and 6-4.

R645-301-622.100, -722.300

The location of S-32 is discussed in Section 724.100.

R645-301-624.100, -624.110

The Sunnyside fault is discussed on page 28 of Chapter 6.

R645-301-512.110, -521.111

Plates 5-1 and 5-5 show areas that have been previously mined areas within part "B". See plate 2-2 Part "A" for details of areas previously mined.

R645-301-512.110, -521.111

The exploration entries were added to Plate 5-1.

R645-301-512.110, -521.111

Plate 2-2 of Part "A" shows the locations of sealed openings.

R645-301-512.110, -521.111

Plate 5-1 was revised to clarify where the old Book Cliff Mine was.

R645-301-512.110, -521.111

The outcrop fire located north of Horse Canyon is discussed on Page 23 of Chapter 5.

R645-301-623, -722, -731.521

Cross sections have been added to Plate 7-1.

R645-301-624.100, -722.100

Cross sections have been added to Plate 7-1.

R645-301-722

Plate 7-1 has been revised to reduce the confusing appearance of the map.

R645-301-722.100

Well added to plate 7-1.

R645-301-722.100

This is not necessary. There are only 3 monitoring holes with 3 years of baseline.

R645-301-722.100

The data used in the piezometric surface is within the same fault block and more recent. The 1986 data would probably not be valid in comparison with 1993 - 1995 data.

R645-301-722-100

Creeks have been labeled on Plate 7-1.

R645-301-722.200, -722.300

Locations of known seeps and springs is shown on Plate 7-1 and discussed in Section 724.100.

R645-301-722.200, -722.300

Locations of all known seeps and springs are shown on Plate 7-1.

R645-301-722.300

Information on wells and A-26 and A-31 are shown on Plate 7-1 and discussed in section 724.100.

R645-301-722.300

The data used in the piezometric surface is within the same fault block and more recent. The 1986 data would probably not be valid in comparison with 1993 - 1995 data.

## **OPERATIONS PLAN**

R645-301-121.200

Reference changed from Section 620 to Section 520.

R645-301-121.200

The MRP is being permitted at maximum production levels (4,000,000 per year). Since air quality fees are paid on permitted levels and not actual emission levels. Therefore, the air quality permit will be modified as needed using actual production numbers.

R645-301-521.190

Section 520 addresses amounts of coal stored on site.

R645-301-523

Equipment list added to section 523.

R645-301-528.100

Plates 5-2 and 5-8 shows areas of coal storage.

R645-301-528.300

Section was revised to address 528.300.

R645-301-526.300

Sewage design has been added to Appendix 5-4.

## **EXISTING STRUCTURES**

R645-301-121.200

Culvert has been clarified in Sections 521.120 and 521.120.

## **RELOCATION OR USE OF PUBLIC ROADS**

R645-301-526.133 and R645-301-526.116

Section 526.116 has been revised.

R645-301-121.200

Approval letter from the county approving the construction of the mine facilities next to the county road will be submitted when available.

R645-301-121.200

Plates 5-2 and 7-2 depict the transportation facilities.

## **AIR POLLUTION CONTROL PLAN**

R645-301-420

Air quality permit can be found in Appendix 4-2.

R645-301-420

Section 523 revised.

## **COAL RECOVERY**

R645-301-526.133 and R645-301-526.116

Section 526.116 has been revised.

R645-301-121.200

Approval letter from the county approving the construction of the mine facilities next to

the county road will be submitted when available.

R645-301-121.200

Plates 5-2 and 7-2 depict the transportation facilities.

## **SUBSIDENCE CONTROL PLAN**

R645-301-332

Section 525.100 has been revised to include grazing.

R645-301-332

Page 15 of Chapter 3 discusses vegetation monitoring as it relates to underground mining.

## **WETLANDS AND HABITATS OF UNUSUALLY HIGH VALUE FOR FISH AND WILDLIFE**

R645-301-333

Section 333 address off-road vehicle use.

R645-301-333

Page 21 of chapter 3 discusses the pond and wildlife.

R645-301-333

Appendix 7-3 has been corrected.

R645-301-333

Mitigation is discussed on Page 18 of Chapter 3.

R645-301-333

A take permit is not anticipated. See Page 13.

R645-301-333.200

Text changed to include all raptors.

R645-301-333

Plate 5-2 shows the area of no second mining to protect escarpments.

R645-301-333

Enhancement addressed in section 333 of the MRP.