



P.O. Box 910, East Carbon, Utah 84520 794 North "C" Canyon Rd, East Carbon, Utah 84520
Telephone (435) 888-4000 Fax (435) 888-4002

Utah Division of Oil, Gas & Mining
Utah Coal Program
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

July 27, 2016

Attn: Daron Haddock
Permit Supervisor

Re: Crandall Canyon Mines, C/015/032
C16-002 Midterm Review Task ID #5190

Dear Mr. Haddock,

Attached you will find the application addressing the deficiencies regarding the Midterm review of Crandall Canyon Mine.

As detailed in the Stabilization of Surface Areas section of the deficiencies, it was requested to provide a commitment to conduct a second seeding of the topsoil pile at Burma Pond. This commitment was already included in the last submittal, and I addressed this with Priscilla, and she confirmed that the commitment was in fact taken care of on page 10, of appendix 7-66.

Two new appendices have been added to Chapter 1: Appendix 1-17 Forest Service Special use Permit for Surface Facilities, which will be submitted upon Forest Service approval, and Appendix 1-18 Nielson Fee Coal Lease.

Included in this submittal, you will find the C1 and C2 forms, required changes to maps and text, redline strikeouts, and adjusted bond calculations.

If you have any questions, or need any additional information regarding this submittal, please contact me directly at 435-888-4026.

Sincerely,

Karin Madsen
Engineering Technician
UtahAmerican Energy, Inc.

APPLICATION FOR PERMIT PROCESSING

<input checked="" type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: ACT/015/032
Title of Proposal: C16-002 Midterm Review, Task ID #5190						Mine: Crandall Canyon Mine
						Permittee: Genwal Resources, Inc.

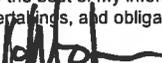
Description, include reason for application and timing required to implement:

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

<input 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 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 type="checkbox"/> Yes	<input type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input 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: Midterm Review
<input type="checkbox"/> Yes	<input type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input 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 type="checkbox"/> Yes	<input type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input 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 type="checkbox"/> Yes	<input type="checkbox"/> No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

X Attach 1 complete digital copy of the application and maps.

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, understandings, and obligations, herein.


 Signed - Name - Position - Date
 Karin Madsen - Engineering Tech - 7-27-16

Subscribed and sworn to before me this 27th day of July, 19 2016

My Commission Expires _____
 Attest: 
 Notary Public
 STATE OF Utah
 COUNTY OF Carbon



Received by Oil, Gas & Mining

ASSIGNED TRACKING NUMBER

Application for Permit Processing

Detailed Schedule of Changes to the MRP

C16-002 Midterm Review Task ID #5190

Permit Number: ACT/015/032

Mine: Crandall Canyon Mine

Permittee: Genwal Resources, 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
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Chapter 1 pages: 1-i, 1-iii, 1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 22
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Chapter 5 pages: 5-iv, 5-v, 5-vi
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Chapter 7 pages: 7-xii-a, 7-xiv, 51, 52, 54
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Appendix 7-66 pages: 4, 7, 8, 9, 10, 11, 12, 19, 20, 21
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Plates 1-1 Lease Maps 1-1A Permit Areas 2-3 Stockpile Locations 2-6 Regional Soils 3-1A Wildlife - Moose 3-1B Wildlife - Elk 3-1C Wildlife - Deer 3-2 Vegetation 4-1 Land Use 4-2 Land Use 4-3 Oil and Gas 4-4 Surface Ownership 5-3 Surface Facilities 5-3A Burma Pond as-Constructed Map 5-3B Burma pond Reclamation Contours 5-5 Subsidence Monitoring 6-1 Geology 7-12 Seep and Springs 7-14 Groundwater Rights 7-15 Surface Water Rights 7-18 Water Sites
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Bonding Calculations and total sheets
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Appendix 1-17
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	Appendix 1-18
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD <input type="checkbox"/> REPLACE <input type="checkbox"/> REMOVE	

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

WordPerfect Document Compare Summary

Original document: K:\Crandall\2016\C16-002 Midterm Deficiencies\Originals\Chapter 1 Original.wpd

Revised document: K:\Crandall\2016\C16-002 Midterm Deficiencies\Task ID #5190 Entire Complete Submittal 7-28-16\Text\Chapter 1 Edits.wpd

Deletions are shown with the following attributes and color:

~~Strikeout~~, **Blue** RGB(0,0,255).

Deleted text is shown as full text.

Insertions are shown with the following attributes and color:

Double Underline, Redline, **Red** RGB(255,0,0).

The document was marked with 72 Deletions, 97 Insertions, 0 Moves.

CHAPTER 1

**LEGAL, FINANCIAL, COMPLIANCE, AND RELATED INFORMATION
(R645-301-100)**

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APPENDIX 1-15	Modification of Federal Lease UTU-68082
APPENDIX 1-15A	BLM/Forest Service Joint Decision (UTU-68082 Lease Mod)
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<u>APPENDIX 1-18</u>	<u>Nielson Fee Coal Lease</u>

CHAPTER 1

LEGAL, FINANCIAL, COMPLIANCE, AND RELATED INFORMATION

R945-301-112 IDENTIFICATION OF INTERESTS

112.100 GENWAL Resources, Inc. is a corporation organized and existing under the laws of Utah and qualified to do business in Utah.

112.200 The applicant, GENWAL Resources, Inc. will also be the operator.

_____ **G E N W A L**
_____ **Resources, Inc.**
_____ **P.O. Box 910**
_____ **East Carbon, Utah 84520**
(435) 888-4000
David Hibbs - President

112.220 The resident agent of the applicant, GENWAL Resources, Inc., is:

David HibbsKarin Madsen
GENWAL Resources, Inc.
P.O. Box 910
East Carbon, Utah 84520
(435) 888-4000

112.230 GENWAL Resources, Inc. will pay the abandoned mine land reclamation fee.

112.300 thru 112.330 ~~————~~ Ownership and Control - See Appendix 1-9.

GENWAL Resources, Inc. is the permittee and operator of the Crandall Canyon and the South Crandall Mines. GENWAL Resources, Inc. is a wholly owned subsidiary of ANDALEX Resources, Inc. GENWAL Resources, Inc. is a Utah corporation licensed to do business in the State of Utah. ANDALEX Resources, Inc. is a wholly owned subsidiary of UtahAmerican Energy Inc., which in turn is a wholly owned subsidiary of Murray Energy Corporation.

112.340 See Appendix 1-12

112.350 See Appendix 1-12

112.410 See Appendix 1-12

112.420 See Appendix 1-9

112.500 Surface Owners:

U.S. Forest Service
Manti-La Sal National Forest
599 West Price River Drive
Price, Utah 84501

School and Institutional Trust
Lands Administration
355 West North Temple, Suite 400
Salt Lake City, Utah 84180-1204

GENWAL Resources Inc.
P.O. Box ~~1077~~910
~~Price~~East Carbon, Utah ~~84501~~84520

Subsurface Owners:

Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

School and Institutional Trust
Lands Administration
355 West North Temple, Suite 400
Salt Lake City, Utah 84180-1204

GENWAL Resources Inc.
P.O. Box ~~4077~~910
~~Price~~East Carbon, Utah ~~84501~~84520

112.600 Contiguous Surface Owners:

U.S. Forest Service
Manti-La Sal National Forest
599 West Price River Drive
Price, Utah 84501

School and Institutional Trust
Lands Administration
355 West North Temple, Suite 400
Salt Lake City, Utah 84180-1204

Dick Nielson
c/o Kris Ligon
4819 Mandell Street
Houston, Texas 77006

Contiguous Sub-Surface Owners:

Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

School and Institutional Trust
Lands Administration
355 West North Temple, Suite 400
Salt Lake City, Utah 84180-1204
Dick Nielson
c/o Kris Ligon
4819 Mandell Street
Houston, Texas 77006

112.700 See Appendix 1-12

114 RIGHT OF ENTRY INFORMATION

114.100 Applicant bases its legal right to enter and begin underground mining activities in the permit area upon the following:

<u>UNDERGROUND COAL LEASES SUMMARY</u>			
<u>Lease Type</u>	<u>Lease Name / Number</u>	<u>Area (acres)</u>	<u>See Location</u>
Federal Coal Lease U-54762, issued to GENWAL on December 1, 1986, is currently owned by Andalex and IPA. IPA and Andalex have undivided 50% interest as tenants in common of all leases previously under GENWAL's sole ownership (Andalex Resources, Inc has now assumed all leases or portions of the leases previously held by NEICO through the purchase and transfer of those rights to GENWAL Resources, Inc. effective 1/11/95). <u>Lease</u>	<u>UTU-78953</u>	<u>880.00</u>	<u>Appendix 1-13</u>
<u>Federal Lease</u>	<u>UTU-88990</u>	<u>40.00</u>	<u>Appendix 1-14</u>
<u>Private Fee Lease</u>	<u>Dellenback Fee Lease</u>	<u>160.00</u>	<u>Appendix 1-1</u>
<u>Private Fee Lease</u>	<u>Nielson Fee Lease</u>	<u>160.00</u>	<u>Appendix 1-18</u>
<u>Total Underground Lease Area</u>		<u>1240.00</u>	

<u>PERMIT AREA SUMMARY</u>				
<u>Lease Type</u>	<u>Lease Name/Number</u>	<u>Area (acres)</u>	<u>Surface or Underground</u>	<u>See Location</u>
<u>Federal Lease</u>	<u>UTU-78953</u>	<u>880.00</u>	<u>Underground</u>	<u>Appendix 1-13</u>
<u>Federal Lease</u>	<u>UTU-88990</u>	<u>40.00</u>	<u>Underground</u>	<u>Appendix 1-14</u>
<u>Private Fee Lease</u>	<u>Dellenback Fee Lease</u>	<u>160.00</u>	<u>Surface and Underground</u>	<u>Appendix 1-1</u>

<u>Private Fee Lease</u>	<u>Nielson Fee Lease</u>	<u>160.00</u>	<u>Underground</u>	<u>Appendix 1-18</u>
<u>FS SUP</u>	<u>Sediment Pond</u>	<u>1.5</u>	<u>Surface</u>	<u>Appendix 1-3</u>
<u>FS SUP</u>	<u>Topsoil Piles</u>	<u>1.4</u>	<u>Surface</u>	<u>Appendix 1-3</u>
<u>FS SUP</u>	<u>Surface Facilities*</u>	<u>7.53</u>	<u>Surface</u>	<u>Appendix 1-17</u>
<u>SITLA</u>	<u>Special Use Lease (Burma Pond)</u>	<u>7.32</u>	<u>Surface</u>	<u>Appendix 1-16</u>
<u>Total Permit Area</u>		<u>1257.75</u>		

* Application for a Forest Service Special Use Permit (FS SUP) was submitted April 27, 2016 for the surface facilities included in the relinquished Federal Lease #SL-062648.

- Federal coal lease UTU-78953 (also known as the South Crandall tract) was acquired in June 2003. (Refer to Appendix 1-13)
- A 40 acre parcel of the SITLA Millfork Lease was subleased from PacifiCorp in February, 2004. (Refer to Appendix 1-14).
- ~~In December, 2004 the BLM issued a decision to approve~~ On July 11, 2011 the SITLA Millfork Lease (ML-48258) reverted to the United States Department of the Interior and became Federal Lease UTU-68082, to include an additional 120 acres . (Refer to Appendix 15-A.) ~~The approval became effective in the early part of 2005 (Refer to Appendix 1-15):~~

~~The present Joint Owners (Andalex and IPA) UTU-88554, still leased by Pacificorp. The same 40 acre parcel was subleased from Pacificorp. In September 2011, Andalex filed for an assignment of this parcel as a separate lease. Effective January 1, 2013 this 40 acre parcel was assigned Federal Lease number UTU-88990, with Andalex Resources holding 100% undivided interest.~~

- A 160 acre parcel was leased to Swisher Coal Co., known as the Dellenback Fee Lease, on March 24, 1976 from William and Julie Dellenback. The lease was acquired by Nevada Electric Investment Company and Intermountain Power Agency on September 9, 1993. Nevada Electric Investment Company sold its 50% share in the lease to Andalex Resources on January 11, 1995. Effective September 29, 2010, the Intermountain Power Agency conveyed all of its interest in Genwal Resources, including this lease, to Andalex Resources Inc. Andalex Resources currently holds 100% undivided interest in what is still titled the Dellenback Fee Lease.

The present Owner (Andalex) base their legal right to enter and continue underground mining activities in the permit area upon the following documents and the NEICO/Andalex sales contract:

Federal Coal Lease Assignments

~~Federal Coal Lease U-54762 was issued to Genwal Coal Co. on December 1, 1986 and was assigned to the previous Joint Owners (NEICO and IPA) on July 11, 1991. NEICO's interest was assigned to ANDALEX on January 11, 1995.~~

~~Federal Coal Lease SL-62648, was assigned to the previous Joint Owners (NEICO and IPA) on July 11, 1991. NEICO's interest was assigned to ANDALEX on January 11, 1995.~~

~~UTU-78953 (also known as the South Crandall tract) was acquired in June 2003. (Refer to Appendix 1-13)~~

~~Federal coal lease UTU-88990 that was formerly Federal Coal Lease UTU-68082, was assigned to the previous Joint Owners (NEICO and IPA) in March, 1994. NEICO's interest was assigned to ANDALEX on January 11, 1995.~~

State Coal Lease Assignments

~~Utah State Coal Lease ML-21568, was assigned to the previous Joint Owners (NEICO and IPA) on July 11, 1991. NEICO's interest was assigned to ANDALEX on January 11, 1995.~~

~~Utah State Coal Lease ML-21569, was assigned to the previous Joint Owners (NEICO and IPA) on July 11, 1991. NEICO's interest was assigned to ANDALEX on January 11, 1995.~~

~~Copies of the Assignments are included in Appendix 1-1.~~

UTU-88554.

Forest Service Special Use Permit Assignments

Special Use Permit, 1.5 acres, 150 x 400 ft adjacent to the eastern boundary of GENWAL's Federal Coal Lease SL-062648 for construction of the Sediment Pond. (See Appendix 1-3)

Special Use Permit, .10 acres located in Section 6, SW quarter NE quarter T16S R7E SLBM for the Trailhead parking and snow storage. (See Appendix 1-3).

Special Use Permit, 1.4 acres for stockpiles 1, 2, 3 and 4 dated 8/17/87 (See Appendix 1-3)

Road Use Permit Assignment for F.S. No. 50248 road issued May 21, 1981 by the United States Forest Service (Appendix 1-2).

An application was made to the Forest Service for a Special Use Permit on April 27, 2016 to cover the portion of the surface facilities that was permitted under Federal Lease #SL-062648. It should be noted that when Genwal Resources relinquished Federal Lease #SL-06248, the intention was to keep the surface rights so Genwal Resources would maintain the right of entry for the existing surface facilities. Unfortunately, these surface rights were relinquished at the time of the lease relinquishment. Under the direction of the Bureau of Land Management and the Utah Department of Oil, Gas and Mining, Genwal Resources applied for a special use permit from the Forest Service for the area covered by the Federal Lease. The permit has yet to be issued. Genwal Resources will provide a copy of the special use permit when it is issued by the Forest Service. The permit will become Appendix 1-17 at that time.

It should be noted that throughout this Mining and Reclamation Plan the combined area of Federal Lease UTU-78953 and [the SITLA/PacifiCorp sublease UTU-88990](#) are collectively referred to as the South Crandall lease area, the South Crandall tract, the South Crandall mining area, and similar such terms.

Private Lease

Andalex Resources acquired 100% undivided interest in the Dellenback Fee Lease in Septemeber 2010.

Andalex Resources leased 160.00 acres known as the Neilson Fee Lease on August 1, 2004. See Appendix 1-18.

Emergency Drillholes and Access Roads

On August 6, 2007, the active mine workings in Main West barrier pillar section collapsed trapping six miners underground. In an emergency attempt to rescue these men a number of boreholes were drilled from the surface of East Mountain down to the underground workings (see Plate 1-1). Due to the emergency nature of this rescue operation all surface construction for the drillpads and access roads was done under the emergency provisions of the various surface management regulations. The Forest Service, BLM, SITLA and the Division all granted verbal authority to proceed in a cooperative effort to not hinder the rescue attempts. Due to the emergency nature of the operation no formal rights-of-entry were granted for the areas of surface disturbance. On August 30, MSHA officially called off the rescue effort. Reclamation of drill pads and access roads began shortly thereafter. Refer to Appendix 5-22(A) for the addendum to the reclamation plan for the East Mountain drillpads and access roads. This plan includes a more complete description of activities and land management issues involving this rescue attempt.

SITLA Special Use Lease #1708, Burma Evaporation Basin

This Special Use Lease is located in lower Huntington Canyon, and is the site of the Burma evaporation pond. Refer to Plate 1-1A for location. Refer to Appendix 1-16 for right-of-entry information. Refer to Appendix 7-66 for details of the evaporation basin facility.

PERMIT LEGAL DESCRIPTION

The permit area is located and described as follows:

<u>PARCEL DESCRIPTION</u>	<u>ACREAGE</u>	<u>LEGAL DESCRIPTION</u>
FEDERAL LEASE U-68082	2979.49	T 15 S, R 6 E
		Section 25: S ½
		Section 26: S ½
		Section 35: ALL
		T 15 S, R 7 E
		Section 30: Lots 7-12 SE ¼
		Section 31: Lots 1-12 NE ¼ N ½ SE ¼ SW ¼ SE ¼
		T 16 S, R 6 E
		Section 1: Lots 1-12 SW ¼
		T 16 S, R 7 E
		Section 6: Lots 2-4 SW ¼ NE ¼
MODIFICATION TO U-68082	120.00	T15S, R7E
		Section 32: W ½ NW ¼ NW ¼ SW ¼

FEDERAL LEASE U-54762 256.49 T 15 S, R 7 E

Section 31: SE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 32: S $\frac{1}{2}$ SW $\frac{1}{4}$
SW $\frac{1}{4}$ SE $\frac{1}{4}$

T 16 S, R 7 E

Section 5: Lots 2, 3, and 8

FEDERAL LEASE SL-062648 161.17 T 16 S, R 7 E

Section 5: Lots 5 and 6
Section 6: Lot 1
SE $\frac{1}{4}$ NE $\frac{1}{4}$

FEDERAL LEASE U-78953 880.00 T 16 S, R 7 E

Section 4: W $\frac{1}{2}$ SW $\frac{1}{4}$
S $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$
Section 5: SE $\frac{1}{4}$
S $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$
Section 8: E $\frac{1}{2}$
NE $\frac{1}{4}$ NW $\frac{1}{4}$
S $\frac{1}{2}$ NW $\frac{1}{4}$
Section 9: NW $\frac{1}{4}$

STATE LEASE ML-21568 997.69 T 16 S, R 6 E

Section 2: ALL

STATE LEASE ML-21569 640.00 T 15 S, R 6 E

Section 36: ALL U-
78953
880.00
T 16 S,
R 7 E

Section 4: W $\frac{1}{2}$ SW $\frac{1}{4}$
S $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$
Section 5: SE $\frac{1}{4}$
S $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$
Section 8: E $\frac{1}{2}$

NE¹/₄NW¹/₄
S¹/₂NW¹/₄
Section 9: NW¹/₄

FEE SURFACE AND ~~COAL~~ COAL 160.00 T⁰⁰ T 16
(Dellenbach) S, R 7 E
Section 5: SW¹/₄

BLM RIGHT OF WAY UTU-77975 50.00 T 16 S, R 6 E
(underground mining rights)

Section 3: E $\frac{1}{2}$ E $\frac{1}{2}$ SE $\frac{1}{4}$ NE
 $\frac{1}{4}$
E $\frac{1}{2}$ E $\frac{1}{2}$ NE $\frac{1}{4}$ SE
 $\frac{1}{4}$
E $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 10: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE
 $\frac{1}{4}$

SITLA/PACIFICORP SUBLEASE 40.0 T 16 S, R 7 E

Section 8: NW $\frac{1}{4}$ NW $\frac{1}{4}$

Dellenback)

Section 5: SW $\frac{1}{4}$

FEDERAL LEASE UTU-88990 40.0 T 16 S, R 7 E

Section 8: NW $\frac{1}{4}$ NW $\frac{1}{4}$

FEE UNDERGROUND COAL 160.0 T 16 S, R 7 E
(Nielson)

Section 8: SW $\frac{1}{4}$

FOREST SERVICE SPECIAL USE AREAS:
(all in T 16 S, R 7 E)

SEDIMENT SEDIMENT POND (7/28/83) 1 1.5

Section 5

Section 5:
located within SW $\frac{1}{4}$ S W $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$,

~~TOPSOIL~~ TOPSOIL PILE #1 (8/17/87) — 0 — 0.2 — Section
n2

Section
n 5:
located
within
SE¹/₄S
E¹/₄SE
¹/₄NW
¹/₄,

~~TOPSOIL~~ TOPSOIL PILE #2 (8/17/87) — 0 — 0.2 — Section
n2

Section
n 5:
located
within
SW¹/₄N
W¹/₄SE
¹/₄NE¹/₄
,

~~TOPSOIL~~ TOPSOIL PILE #3 (8/17/87) — 0 — 0.5 — Section
n5

S
ection
4:
located
within
NW¹/₄
NW¹/₄S
E¹/₄N
W¹/₄,

~~TOPSOIL~~ TOPSOIL PILE #4 (8/17/87) — 0 — 0.5 — Section
n5

Section

n 4:
located
within
SW¼S
W¼N
E¼N
W¼

SURFACE FACILITIES 7.53 Section 5: located within Lot 6
(forthcoming)

SITLA SPECIAL USE LEASE* 7.32 T 17 S, R 8 E
LEASE* 7.32 Section
(Burma Evaporation Basin) Section
on 5: located within
Lot 6

TOTAL PERMIT AREA 6795.06 1257.75
AREA

* For complete legal description of Burma Pond, refer to Appendix 1-16

RESCUE ROAD AND DRILL PADS

The right of entry for reclamation of the rescue road and drill pads is through the permits attained to construct said road and drill pads (See Appendix 5-22(A)). Though the permit terms of five (5) years expired in 2012, Genwal Resources has the obligation, per the permits, to reclaim the disturbed areas per SMACRA. Thus, Genwal Resources has the right of access to the area, per the permits in Appendix 5-22(A), for reclamation purposes only. Genwal Resources is nearly ready to apply for a Phase II bond release for the reclamation of the rescue road and drill pads.

For bonding and location purposes only, the rescue road and drill pads used in rescue operations in August 2007 are contained within a polygon containing:

Township 15 South, Range 6 East, SLBM
Section 35: Lots 2, 3 and 4

Township 16 South, Range 6 East, SLBM
Section 2: Lots 4, 5, 6, 8, 9, 16, 21, 24 and 25

The right to continue underground mining operations will apply to the property attached hereto as Appendix Appendices 1-1, 1-13, 1-14 and 1-18.

The surface facility area and permit area is not within 300 feet of any occupied dwelling and is not subject to the prohibitions or limitations of the State and/or Federal Regulations.

GENWAL DISTURBED ACREAGE

<u>AREA</u>	<u>LOCATION</u>	<u>ACRES</u>	<u>PARCEL</u>
Minesite	<u>NW1/4 Lot 6</u> of Sec 5 (1)	<u>7.778*53*</u>	<u>Federal Lease UTU-54762FS Special Use Permit (forthcoming)</u>
Minesite	SW1/4 of Sec 5 (1)	6.086	Dellenbach <u>k</u> Fee
Topsoil Pile #1	NW1/4 of Sec 5 (1)	0.2	FS Special Use Permit
Topsoil Pile #2	NE1/4 of Sec 5 (1)	0.2	FS Special Use Permit
Topsoil Pile #3	NW1/4 of Sec 4 (1)	0.5	FS Special Use Permit

Topsoil Pile #4	NE1/4 of Sec 4 (1)	0.5	FS Special Use Permit
Rescue Drillholes	SE1/4 of Sec 35 (2)	2.27	Federal Lease UTU-68082 <i>(relinquished)</i>
Rescue Drillholes	NE1/4 of Sec 2 (3)	5.64	State Lease ML-21568 <i>(relinquished)</i>
SITLA Rescue Road	E1/2 of Sec 2 (3)	3.98	State Lease ML-21568 <i>(relinquished)</i>
Burma Evaporation Basin	Lot 6 of Sec 5 (4)	7.32	SITLA Special Use _____ Lease 1708

TOTAL DISTURBED AREA _____ **34.~~47~~23 Acres**

-
- Notes: (1) T16S, R7E
(2) T15S, R6E
(3) T16S, R6E
(4) T17S, R8E

* Includes all areas within “permitted” disturbed area. Not all acreage is presently disturbed. See Figure 8C.

117 INSURANCE, PROOF OF PUBLICATION

117.100 Insurance

A Certificate of Liability Insurance ~~with Andalex and IPA~~ is included in Appendix 1-10.

117.200 Proof of Publication

A copy of the newspaper advertisement of the application for a renewal of Crandall Canyon Mine permit was included in the permit package, as required under R645-300-121.100. Also, a copy of the newspaper advertisement for the permit amendment to install a culvert in Crandall Canyon has been included. See Appendix 1-8 for both copies.

118 FILING FEE

This permit application to conduct coal mining and reclamation operations pursuant to the State Program was accompanied by a fee of \$5.00.

120 APPLICATION FORMAT AND CONTENTS

This application is structured based on the R645 regulations of the Division of Oil, Gas, and Mining. The chapter divisions in the application are based on the different sections of the R645 regulations. Each section of the application is based on the corresponding sections of the GENERAL CONTENTS of the R645 regulations.

VERIFICATION OF APPLICATION

I hereby certify that I am a responsible official (Resident Agent) of the applicant (Andalex ~~and HPA~~ for GENWAL Resources, Inc.) 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**

Subscribed and sworn to before me this__ day of_____, 20__

Notary Public

My commission Expires: _____, 20__)

Attest: STATE OF _____) ss:

COUNTY OF _____)

CHAPTER 5
ENGINEERING
(R645-301-500)

CHAPTER 5

FIGURES

<u>FIGURE</u>	<u>DESCRIPTION</u>
5-1	Certification Report Sedimentation Pond
5-2	Sedimentation Pond Inspection Report
5-4	Maximum Subsidence Graph
5-5	Vertical Subsidence Distribution
5-8	Structure Map / Hiawatha Coal Seam
5-10	Typical Shotcrete Installation
5-11	Typical Profile, South Portal Pocket Cuts
5-12	Cross Section, South Portal Belt Conveyor
5-13a	Tunnel Construction Option (Plan)
5-13a	Tunnel Construction Option (Profile)
5-14	Portal Reclamation Drawings
5-15	“Old Loadout Area” Drawings

(Note: Unless otherwise noted, figures follow Chapter 5 text)

CHAPTER 5

LIST OF PLATES

<u>PLATE NUMBER</u>	<u>DESCRIPTION</u>
5-1	Old Works
5-2	Mining Projections
Plates 5-2A, 5-2B and 5-2C have been removed.	
5-3	Surface Facility Map
<u>5-3B</u>	<u>Burma Pond Reclamation Contours</u>
5-4	Proposed In-Mine Sump
5-5	Subsidence Control Point Locations
5-6	Truck Loadout
5-7	Rock Dust Silo
5-8	Electrical Substation Installation
5-10	Road Profile and Cross Section
Plate 5-11 has been removed	
5-12	Aerial Photography
5-13	Aerial Photography
5-16	Reclamation (Phase I)
5-17	Reclamation (Phase II)

CHAPTER 5

LIST OF PLATES (continued)

<u>PLATE NUMBER</u>	<u>DESCRIPTION</u>
5-17A	Reclamation Cross Sections
5-18	Underground Bath House (As Built)
5-19	Hilfiker Welded Wire Wall Details (3 Sheets)
5-20	Original Surface Contour Map
5-17B	Reclamation Cross Sections
5-18	Underground Bathhouse, As Built
5-19	Typical Road Sections, 3 sheets
5-20	Original Surface Contour Map

~~Note: Bold number plates and appendices are included with this submittal.~~

CHAPTER 7

**HYDROLOGY
(R645-301-700)**

7-57	Determination of Recharge Location of Little Bear Spring (Dye Tracing)
7-58	Summary of Hydro logic Baseline Information, South Crandall Lease
7-59	Little Bear Spring Study (Initial study, 1998) AquaTrack
7-60	Little Bear Spring Study (Expanded Study, 1999) AquaTrack
7-61	Mill Fork Resistivity Study, 2001 AquaTrack
7-62	Little Bear Spring (2 nd Expanded Study, 2001) AquaTrack
7-63	Hydrology/Geology Map of Little Bear Watershed
7-64	Baseline Information for the U-68082 Lease Mod Area
7-65	Mine Discharge Water Iron Treatment Facility
7-66	Burma Evaporation Basin

~~Note: Bold number plates and appendices are included with this submittal.~~

<u>PLATE NUMBER</u>	<u>DESCRIPTION</u>
PLATE 7-15	Surface Water Rights
PLATE 7-16	Stream Monitoring Stations, Crandall Canyon Mine Area
PLATE 7-17	Blind Canyon Drainage Cross Section Location (Approx.)
PLATE 7-18	Water Monitoring Sites Map

~~Note: Bold number plates and appendices are included with this submittal.~~

substation pad collects water from the pad and adjacent undisturbed areas. A stilling basin was placed at the downstream end of this diversion to trap sediment prior to discharging into UD-1.

Expansion Area Surface Water Drainage and Sediment Control

Water on the extended mining pad associated with the proposed culvert expansion comes from two sources. The pad itself and two watershed areas located in undisturbed terrain to the south of the proposed pad. Runoff from the pad and watersheds is collected and controlled by the use of drainage ditches and culverts. All runoff diverted through the drainage ditches and culverts go into a sediment pond. The watersheds are shown on Plate 7-5. The location of drainage ditches and culverts can be also be found on Plate 7-5.

All diversion ditches have been designed to have a triangular channel with a minimum depth of one foot and side slopes of 1H:1V. During the periods of peak flow at least 3" of the channel depth will be freeboard. The calculations associated with drainage ditch design can be found in Appendix 7-4.

7.42.40 Road Drainage

All of GENWAL's roads have been designed, located and constructed as required by the regulations R645-301-742.410 through R645-301-742-423.5.

7.43 Impoundment

There are no permanent impoundments associated with the GENWAL facilities. Temporary impoundments of water collected for runoff control will occur in the sediment pond. The physical design of the sediment pond are certified designs as required in R645-301-512 and are presented in Section 5.33 and Appendix 7-4 of this application. The sediment pond does not meet the criteria for MSHA regulations. The hydrologic design for the sediment pond is presented in Section 7.42.20 and Appendix 7-4. On cessation and reclamation of mining and disposal activities, the sediment pond will be removed.

7.44 Discharge Structures

The sediment pond is equipped with a decant, a riser pipe (cmp) principle overflow and a rip-rapped open-channel emergency spillway. Sediment pond details are covered under Section 7.42.20 and in Appendix 7-4.

7.45 Disposal of Excess Spoil

No significant excess spoil will be developed by the underground mine. In the event spoil is generated during the mining operations, this will be transported to an approved disposal site. The handling of these materials will comply with R645-301-745.

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Iron sludge material from the minewater treatment facility (described in Appendix 7-65) will be hauled off-site and disposed of at the Burma evaporation basin facility as described in Appendix 7-66.

End Of Moved Text

7.46 Coal Mine Waste

The disposal and placement of any refuse materials will be conducted in accordance with the plans presented in Chapter 5 of this application.

7.47 Disposal of Noncoal Mine Waste

Garbage

Solid waste generated from mining activities, such as garbage and paper products, is disposed of in large trash "dumpsters" located near the portal. A contract garbage hauling service, empties the contents of the dumpsters on a weekly basis and hauls the garbage to an approved dump or landfill.

Unusable Equipment

All salvageable mining equipment is sold to local scrap dealers: items such as broken bolts, worn out engine parts, and items which might be recycled. Any machinery or large parts are placed in a stockpile near the material storage area for periodic salvage by local scrap dealers. No mining equipment will be merely abandoned.

Petroleum Products

Oil and grease wastes are collected in tanks and returned to distributors for refining or used as heating fuel. In case of spills, a spill control plan has been developed and is located at the mine site.

7.48 Casing and Sealing of Wells

Following completion of reclamation, the monitoring wells for the mine site will be plugged and abandoned in accordance with R645-301-631 and R645-301-748. This will prevent the potential for disturbance to the hydrologic balance.

7.50 Performance Standards

All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area and support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of R645-301 and R645-302. For the purpose of SURFACE COAL MINING AND

Neither cause nor contribute to, directly or indirectly, the violation of effluent standards given under R645-301-751. Refer to section 7.51 in this plan.

7.52.24 Surface and Groundwater Systems

Minimize the diminution to, or degradation of, the quality or quantity of surface and groundwater systems.

7.52.25 Normal Water Flow

Refrain from significantly altering the normal flow of water in streambeds or drainage channels.

7.53 Impoundments and Discharge Structures

Impoundments and discharge structures will be located, maintained, constructed and reclaimed to comply with R645-301-733, R645-301-734, R645-301-743 and R645-301-745 and R645-301-760. Refer to sections 7.33, 7.34, 7.43, 7.45 and 7.60 in this plan.

7.54 Disposal of Excess Spoil, Coal Mine Waste and Noncoal Mine Waste

Disposal areas for excess spoil, coal mine waste and noncoal mine waste will be located, maintained, constructed and reclaimed to comply with R645-301-735, R645-301-736, R645-301-745, R645-301-746, R645-301-747 and R645-301-760. Refer to sections 7.35, 7.36, 7.45, 7.46 7.47 and 7.60 in this plan.

7.55 Casing and Sealing of Wells

All wells will be managed to comply with R645-301-748 and R645-301-765. Water monitoring wells will be managed on a temporary basis according to R645-301-738. Refer to sections 7.38, 7.48, and 7.65 in this plan.

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7.60 Reclamation

Sealing of Mine Openings

The Applicant has drilled from the Hiawatha seam upwards to the Blind Canyon seam as described in Chapter 6. The drilling occurred in areas that pillar extraction will occur and no provisions were made to seal the bore hole.

APPENDIX 7-66

BURMA EVAPORATION BASIN

are all measures to help minimize erosion, and promote a healthy interim re-vegetation until the time of final reclamation. A containment berm made of sub-soil material, and a siltation control structure (such as excelsior logs) will be installed around the perimeter of the pile to prevent erosional loss of topsoil material from the pile. A topsoil identification sign will be installed on the pile upon completion. After construction, an as-built drawing of the pile will be prepared and supplied to the Division, and a final assessment of the volume of salvaged material will be updated in the MRP.

During topsoil salvaging and stockpiling operations the Company commits to having a professional soils monitor on site. The purpose of this person will be to make sure that all topsoil resources are properly salvaged, to maintain accurate inventory of the material, take photos, and generally make sure that the salvage and stockpiling operations are done according to the plan. The monitor will be someone familiar with topsoil salvaging and pre-approved by the Division. After the soil salvaging is completed, a final report will be prepared and submitted to the Division.

[Location of the As-Built drawings for acreage disturbed and volumes for subsoil and topsoil stockpiled are found on Plate 5-3A.](#)

Chapter 3, Biology:

The evaporation basin site is located at an elevation of 6400' on the broad pediment outslope extending from the base of the surrounding cliffs. The area was surveyed for vegetation, wildlife habitat and sensitive species by Dr. Patrick Collins of Mt. Nebo Scientific. The report of findings is located in Attachment 5. The area is primarily a Pinyon-Juniper community. As clearly visible in the aerial photos, the area has been chained by the federal government in the past, presumably for range enhancement and habitat improvement.

The report concludes that construction of the facility is not expected to impact any threatened, endangered or candidate species.

The Dominant vegetative community over the entire project area is pinyon -juniper. Map 1 of the Vegetation, Wildlife Habitat & sensitive Species report is an aerial photo showing the total area as being chained pinyon -juniper.

As is discussed on page 12 of the Vegetation, Wildlife Habitat & Sensitive Species report, the entire area (shown on Map 1) is considered crucial winter range for Rocky Mountain elk and Mule deer. The entire study area (shown on Map 1) is considered year-long substantial habitat for Black bear. Finally, the entire area (pinyon-juniper) could be used by Ferruginous hawks because they often nest in this community.

Reclamation of the project area will be according to and along with the approved reclamation time line found in Section 3.41.100 of the approved MRP. In the event that discharged mine water no longer requires treatment and/or the basin is no longer receiving sludge, the reclamation

Chapter 5, Engineering:

As depicted on the drawings in Attachment 1, the facility will consist of a large, shallow evaporation pond, measuring approximately 100' wide by 200' long. ~~It~~ It will be constructed about five feet (60") deep, although only the bottom 36" will be utilized for sludge storage/water retention, leaving the top 24" as freeboard. ~~Based on past experience, it is anticipated that cleanout sludge-water from the Crandall water treatment facility will be hauled to the site about 10 each eight-hour days (two working weeks) every two months~~ twice a week, at two approximately 2-3 truckloads per day, and 4000 -gallons per truckload. ~~This, depending on weather and road conditions. Due to the low iron levels, cleaning can be suspended at any time, up to 4 months a year if sludge build up in the cells indicate cleaning is not necessary. This works out to be about 64130,200000 cu. ft. per year hauled to the site for disposal. The~~ The iron cleanout "sludge" material has typically been analyzed at about 5% solids, and 95% water by weight, and even less by volume, perhaps 2-3% solids. ~~Therefore, after evaporation of the water, which is estimated to be 1.4 acre feet per year, the actual volume of solids left to accumulate in the basin is expected to average about 24004,300 cu ft. per year. Spread out to dry over the 20,000 square foot bottom of the evaporation basin, the rate of solids accumulation in the basin is expected to be less than 12.56 inches per year or less. It is anticipated that the material will not accumulate more than 24" deep in the bottom of the basin during the operational life of the facility, which according to current deposit rates, will take more than 16 years to accumulate to this level. This will then allow the material to be covered with the necessary 48" of backfill at the time of final reclamation.~~

Consumption calculation show that the mine currently discharges approximately 400 GPM which equates to 644.3 acre feet per year. The evaporation pond will consume approximately 1.4 acre feet per year for a net gain of 642.9 acre feet per year.

It should be noted that the preceding volume accumulation estimate is based on rough assumptions, and will vary significantly upon actual practice. However, prior experience with sludge disposal at the Wildcat Loadout site has demonstrated that the amount of solid material remaining after evaporation is actually quite small, and will indicate that the above assumptions are reasonable.

At present, there is some uncertainty as to the future treatment requirements for the Crandall Mine discharge water, in terms of the longevity of treatment and the degree of treatment. With the approval of the application of the Crandall water treatment, it is assumed that the following scenarios will ultimately unfold:

- 1) The dried sludge material will be left in place and buried on-site as part of the final reclamation process. The material will be buried under 48" of inert earthen material during reclamation, topsoiled and re-vegetated. As noted previously, the material has been analyzed as is neither toxic, hazardous nor acid-forming, and contains no RCRA metals, as shown by the laboratory result presented in

Appendix 10. If, at time of reclamation there is not enough soil to achieve the required 48" of inert earthen material, imported material from a location approved by the Division shall be used.

2) The accumulated depth of sludge will be monitored and reported in the annual report and that grab samples of the dried material will be taken every five years or with 7.5 inches of solid waste deposited. Grab samples of the waste will be shipped using chain of custody forms, and will be prepared at the laboratory using TCLP Method 1311, and will be analyzed for all RCRA metals using EPA Method 200.7 or 200.8 and will be monitored for hazardous concentrations in accordance with 40 CFR 264.13.

Grab samples of the accumulated sludge will be taken for analysis of the following metals of agronomic concern: aluminum by Synthetic Precipitation Leaching Procedure (SPLP, SW846 Method 1312), and plant available iron, zinc, and nickel analyzed by DTPA extractable, and by the methods described for all parameters listed in the Division's Guidelines for Topsoil and Overburden, Tables 3 & 7.

Excess dried material will be removed from the basin if needed and taken to an approved disposal site, such as ECDC.

3) The basin will be enlarged if needed to accommodate additional future accumulation needs. This would be accomplished by extending the length of the basin either to the east or the west within the existing site. The site will easily accommodate an enlargement of the basin of over three times the currently proposed size. The company acknowledges that any future modification of the facility will require additional SMCRA permitting amendments.

3) There is a possibility that the iron content of the Crandall mine discharge water may naturally drop down to within compliance levels such that future treatment is no longer required, and hence, sludge disposal at the Burma evaporation facility will no longer be required.

4) There is a possibility that if the iron levels remain high and treatment is required in perpetuity then a more permanent, long-term treatment facility will be constructed, and an alternate sludge disposal system could be incorporated into that facility.

5) The status of the need for treatment at the mine and subsequent disposal at the evaporation basin ~~will be evaluated~~ is evaluated on an as-needed basis, as determined by operator, weather permitting, on an ongoing basis ~~as part of the five-year permit renewal process.~~

6) In the event of temporary cassation at the Berma Pond site, the sludge will be covered with six inches of subsoil and an interim seeding of crested wheatgrass (*Agropyron cristatum*) . Notice will be given as required by R645-301-515.321.

7) The waste will be routinely compacted and covered to prevent combustion and wind-borne waste. When compaction is necessary, this action will be included in the Annual Report.

8) Sludge, when suspended in water, expands, and a visual estimation isn't plausible. A measurement of accumulated sludge will only be possible if the water in the pond evaporates entirely. During wet years, complete evaporation may not be achieved. An estimation of accumulated Sludge depth will be provided in the Annual report.

It should be noted that the iron sludge material has been tested in the lab using the EPA 200.7 method for RCRA metals, and has been found to be non-toxic, non-hazardous and non-acid forming. (See Attachment 10). Also, the chemicals used in the water treatment (coagulant and flocculant) are all NSF-60 certified. (See Attachment 12).

For comparison purposes, the evaporation basin will be approximately the same size as the nearby gas-well pad located immediately to the south of the site. The basin will be ringed by an access road which will allow the trucks to dump the sludge at any point around the perimeter of the basin. The perimeter access road will also allow trucks to enter the site, dump their load and exit the site without needing to back up and turn around.

As shown in plan view and cross-section view of Drawings 4 and 5 (Attachment 1), the basin will be constructed generally in the following sequence:

- 1) Prior to any construction-related disturbance at the site, a sediment control structure will be installed around the lower (down-drainage) part of the site. This will consist of a double row of over-lapping excelsior logs staked firmly into the ground. These excelsior logs will provide the primary sediment control during construction, but will be left in place to provide long-term permanent sediment control for the site as well.
- 2) Perimeter markers will be installed around the boundary of the site to delineate the maximum extent of surface disturbance. Permit signs will also be installed specifying the DOGM permit number and legally-required permittee contact information.
- 3) The entrance road will then be established into the site. This short (200' long) road segment will exit the Emery County "Burma" Road as per the county-issued encroachment permit (see Attachment 9), and will enter the site along grade from the west side of the property.
- 4) Included as part of the entrance road construction will be the establishment of an upper

drainage ditch. The purpose of this ditch is to permanently divert undisturbed surface drainage around the facility site, both during construction and thereafter throughout the operational life of the facility. It will parallel the entrance road and head east around the top of the site, and discharge into the predominant natural drainage structure located in the eastern part of the site.

5) Grubbing and clearing the area of vegetation, primarily small-growth juniper-pinyon trees, will then commence. The grubbed trees will be stockpiled at the lower end of the site, and will serve as micro-habitat for small animals.

6) The larger surface boulders will then be removed and stockpiled. Many of these boulders are quite large and may require to be broken up using a hoe-ram. These boulders will be relocated to the lower side of the basin and placed in a linear pile which will ultimately become the out slope of the containment berm of the evaporation basin. Depending on the volume of boulders encountered, excess boulders beyond those that can be incorporated into the berm may be stockpiled separately out of the way at the lower end of the site until final reclamation. Areas that are disturbed by boulder removal, where the topsoil has not been removed, will be seeded with the approved seed mix, if necessary. Seeding was completed on the outslopes of the containment berm and the topsoil pile in the Fall following construction. Grubbing pile will be seeded in fall of 2016.

7) Removal of available topsoil material will follow. According to the topsoil survey (see Attachment 6) there is approximately 12" of suitable topsoil material available for salvage, in those areas where topsoil exists. However, due to the preponderance of large boulders occurring on and within the surface material, estimated at about 50% of the surface exposure, the average depth of topsoil material averaged over the entire area can be mathematically approximated at 6". The topsoil will be gathered and placed in a topsoil pile located at the lower end of the site. It is estimated that approximately 1,137 cubic yards of topsoil will be collected, and stored in low-lying linear shaped piles as described in Chapter 2, Topsoil above. It should be noted that much of the boulder salvage and topsoil salvage may be done at the same time due to the natural occurrence of the boulders as part of the pre-existing surface material.

8) After the boulders and topsoil have been salvaged, construction of the evaporation basin will begin. The basin will be constructed using dozers starting at the upper part of the site, and simultaneously excavating the top portion of the basin and filling in the lower portion. Cut and fill will be balanced to provide the finished basin above with the containment berm below. Granular material excavated from the basin will be used to construct the structural core of the berm. This granular material, forming the upslope section of the containment berm will be compacted to 90% using vibratory equipment and/or wheel rolling. It should be noted that this earthen material in its native condition is a well-suited construction medium, as evidenced by the fact that there are several large-scale commercial gravel operations in the immediate area extracting this same

material for local highway projects and other civil engineering projects.

9) The containment berm will be made wide enough (at least 20' wide) to serve as the perimeter access road for the tanker disposal trucks. As noted above, the upslope of the berm will be constructed of the large boulders salvaged from the surface, while the core of the berm (and the upslope section which will be subject to contact with the impounded sludge-water), will be constructed from the smaller-sized gravel material excavated from the basin area, and compacted in-place within the berm. The top of the berm will be capped with a 12" thick layer of gravel which will form an impervious layer over the boulders, and also as a suitable running surface (roadway) for the sludge delivery trucks. The berm upslope boulders will be covered with a 6"-12" layer of subsoil material which will serve as a medium for interim contemporaneous reclamation. A stability analysis for the construction of this earthen berm is included in Attachment 11. Seeding was completed on the outslopes of the containment berm and the topsoil pile in the Fall following construction. Grubbing pile will be seeded in fall of 2016.

10) A continuation of the perimeter access road will be constructed (20' wide) around the upper side of the basin. Rather than being constructed on fill, this upper road will be constructed as a shallow cut in the native ground. In final design, this upper access road will be a continuation of the entrance road.

11) To protect groundwater from potential exposure to leachate, an engineered liner will be installed in the interior of the pond. The proposed liner is described in Attachment #2 of Appendix 7-66 of the approved MRP and is the same as that used for the cells in the treatment plant at Crandall.

12). It should be emphasized that this basin is not expected to normally impound much if any water, only temporarily after cleaning disposal. At an average of 80,000 gallons of diluted sludge material per two-month cleaning cycle (as explained above), coming primarily during the concentrated two-week cleaning periods, the maximum depth of standing water at any given time is not anticipated to exceed 5 inches. In between the anticipated two-month cleaning cycles, the evapo-transpiration process is expected to quickly eliminate any standing water to a damp, thin concentrated filter-cake, or dry out completely. This assumption has been verified through previous experience when the material was disposed of at the Wildcat Loadout facility. The basin will be constructed 5' deep, primarily to provide ample excavated fill material to be replaced to a depth of 48" at time of final reclamation. With a 5' basin depth, the cleaning water could actually fill to a standing depth of 36" and still allow 24" of freeboard to the top of the containment berm.

The basin is not designed to ever discharge and all of-site drainage is diverted around the pond. However, at DOGM requirements, a single small 5' x 6" emergency spillway has been designed into the structure as shown on Drawing #4. This will allow the release, in a controlled fashion, of any flows in the highly improbable chance that water filled the

pond. Other than the watery material disposed of from the Crandall treatment, the only water entering the basin will be from natural rainfall or snowfall. The 10-year, 24-hour event in this area is 2.00 inches and the 100-year, 24-hour event is 2.59 inches. As discussed in Chapter 7, the anticipated rise in water level from the 10yr event will be about 4 inches and for the 100yr event will be about 4.5 inches. Hence, there is no statistical probability that the basin will ever fill with water above the 18" freeboard level to the spillway elevation in the berm, given the fact that no undisturbed drainage reports to the basin. The basin can better be envisioned as a large depressed evaporation area rather than an impoundment structure.

13) The in-slopes to the basin will be constructed to a shallow slope of 3 vertical to 1 horizontal. With these gentle in-slopes, and the shallow depth of containment, there will be no necessity for any perimeter barricade or fence for wildlife protection, or public safety. Also, as mentioned previously, the basin contents (dried iron precipitate material) has been tested as non-toxic, non-hazardous and non-acid forming, posing no public health threat.

14) Based on the design shown on Drawings 4 and 5 of Attachment 1, the computer-generated volume of excavation is 3,500 cubic yards. Of this volume, 1,137 cubic yards will be removed as topsoil and stockpiled separately. The remaining 2,363 cubic yards of excavation (cut) will be used to construct the berm of the basin.

15) Location of the As-Built drawings for acreage disturbed and volumes for subsoil and topsoil stockpiled are found on Plate 5-3A.

Chapter 6, Geology:

An Order 2 Soils Survey was performed at the site by Bob Long of Long Resource Consultants (see Attachment 5). According to this report, the geology of the area is described as follows:

“The project area is situated on an alluvial fan that is on top of a terrace pediment mantle. The terrace consists of alluvium and colluvium derived from the nearby sandstone of the North Horn, Blackhawk, Castlegate and Mancos formations (Witkind, et. al., 2006). The pediment mantle is underlain by sandstone and shale of the Mancos formation (Witkind, et. al., 2006). The thickness of the pediment mantle is variable, but neither sandstone nor shale parent material was observed in the soil test pits.”

The report includes numerous photographs which clearly show the geologic nature of the site.

This geologic description of the site area is in accord with the studies of the USGS for the San Rafael drainage basin. Once the Wasatch Plateau meets the San Rafael Valley, the area is a alluvial/colluvial terrace pediment that has incised ephemeral drainages that have dissected the terrace pediments into the underlying Mancos Shale Formation. This formation consists of

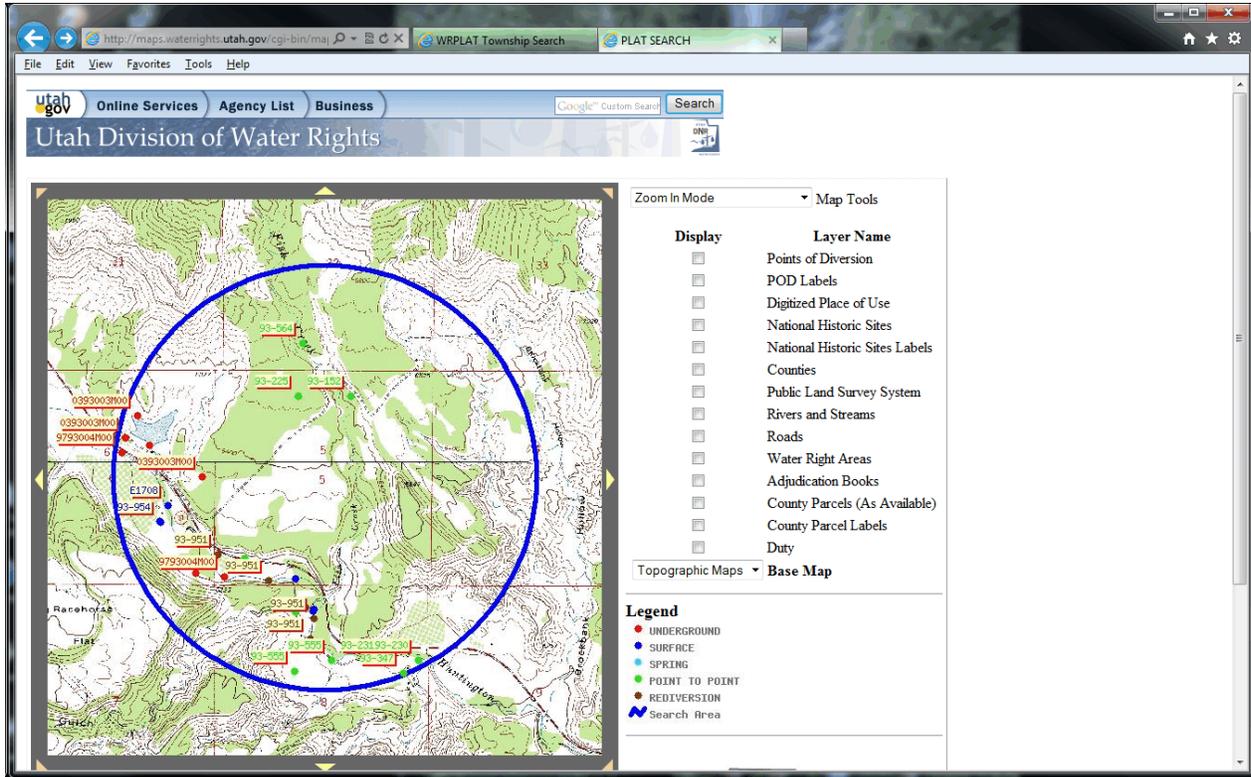


Figure 7-2. Topographic Map of Search Area

Chapter 8, Bonding:

All unit costs herein presented are taken from the format of the presently (October, 2011) approved Crandall Canyon Mine bonding calculations. The calculations below are a summary of the Burma bond revisions. A complete copy of all bond calculation sheets including a summary, can be found in Appendix 5-20 of the approved MRP.

1) Demolition

The only structure to be removed is a 20' long 18" diameter culvert crossing the access road.

a) Demolition of one culvert = \$198.67

2) Earthwork

b) backfill and grading of the basin (of 2,363 cubic yards)

~~According to the presently approved Crandall reclamation costs the cost of backfill on-site is \$173,310 for 70,192 yds = \$2.46 per yd.~~

$$~~2,363 \text{ yd} \times \$2.46/\text{yd} = \$5,812.98~~$$

c) topsoil replacement (of 1137 cubic yards)

~~According to the presently approved Crandall reclamation costs (Feb, 2006) the cost of topsoil redistribution is \$43,170 for 10,737 yds = \$4.02 per yd.~~

$$~~1,137 \text{ yd} \times \$4.02/\text{yd} = \$4,570.74~~$$

3) Revegetation (of 1.41 acres)

d) revegetation of 1.41 acres

~~The cost of revegetation is \$7,279 for 1.41 acres.~~

~~Total direct reclamation costs are therefore calculated to be~~

~~Demolition\$ 198.67~~

~~Earthwork\$10,383.72~~

~~Revegetation \$ 7,279.00~~
~~—Sub-total\$17,861.39~~

~~Indirect costs and escalation costs are presently~~
~~\$1,697,800 / \$1,236,798 = 1.3727 or 37.27% of the direct~~
~~costs. Therefore, the estimated total reclamation bonding~~
~~cost for the Burma evaporation facility is \$17,861.39 x~~
~~1.3727 = \$24,518.33~~

ATTACHMENT 1

CONSTRUCTION DRAWINGS

Genwal Mines

Appendix 1-17

U.S. Forest Service Special Use Permit

for

Crandall Canyon Surface Facilities

APPENDIX 1-18
NIELSON FEE COAL LEASE

UNDERGROUND COAL LEASE

THIS UNDERGROUND COAL LEASE ("Lease") entered into effective as of the 1st day of August, 2004, among DICK N. NIELSON and QUINEVERE A. NIELSON, husband and wife, whose address for purposes of this Lease is c/o Kris Ligon, 4819 Mandell Street, Houston, Texas 77006 hereinafter referred to as "Lessor;" and ANDALEX Resources, Inc., ("ANDALEX") a Delaware corporation, with offices at 45 West and 10000 South, Suite 401, Sandy, Utah 84070, and Intermountain Power Agency, ("IPA"), a political subdivision of the State of Utah, with offices at 10653 South River Front Parkway, Suite 120, South Jordan, Utah 84095 (each as to an undivided fifty percent (50%) interest), with ANDALEX and IPA being collectively hereinafter referred to as "Lessee."

WITNESSETH:

SECTION 1. Agreement to Lease

Lessor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by Lessor, and in further consideration of the mutual covenants and agreements hereinafter set forth, does hereby demise, lease, grant and let exclusively unto Lessee for the term of this Lease all of the coal and any substance mixed with or encountered when mining coal (all hereinafter referred to as "coal") in, on and underlying the following described real estate, located in Emery County, State of Utah, more particularly described as follows, to-wit:

Township 16 South, Range 7 East, SLB&M

Section 8: SW1/4

containing for the purposes of this Lease 160.0 acres, more or less. The term "leased premises" as used in this Lease shall refer to the above-described real estate and the coal.

SECTION 2. Interest Leased

This Lease covers and includes the interest now owned by the Lessor in the leased premises, and also conveys unto the Lessee any reversionary, contingent or future interest now owned by Lessor or hereinafter acquired by Lessor together with all of the mining rights and privileges appurtenant to the aforesaid coal and incident to the ownership thereof, and (by way of enlargements, and not by way of restriction) the following rights and privileges:

(a) The exclusive right and privilege to explore for, mine (by any method other than surface strip mining), remove, extract, store, prepare, ship and dispose of the coal and gas occurring in coal seams, beds or deposits when vented as a non-commercial substance in conjunction with coal development or extraction operations.

(b) The right to enter into and through the leased premises, at such points and in such manner as may be necessary or convenient for the purpose of mining all coal by any underground mining method.

(c) The right to have and use the free and uninterrupted right-of-way into and under the leased premises, at such points and in such manner as may be necessary or convenient to the mining, removal, processing and marketing of the coal.

(d) The right to transport under and through the leased premises any coal now or hereafter owned, leased or otherwise acquired by Lessee and located within the general mining area as hereinafter defined in Section 5.

(e) Subject to the limitations contained in this Lease, the right to use so much of the surface as may be necessary or convenient in conjunction with Lessee's operations hereunder, as long as Lessee does not unreasonably interfere with prior rights and the use of the surface by Lessor.

(f) The right to include the leased premises or any portion thereof with the general mining area in any plan of unitization for coal or a Federal logical mining unit pursuant to any such unitization, so that operations or mining in any portion of the leased premises shall be deemed operations or mining on the logical mining unit for Federal diligent development and continued operations requirements.

(g) The right to subside, collapse, sink, lower, and alter the surface, subsurface, and super adjacent strata of the leased premises as a result of Lessee's permitted operations hereunder, including the right, but not the obligation, to enter upon the leased premises to repair any subsidence damage that may occur to the surface of the leased premises. In addition, Lessee may, but shall not be obligated to, establish subsidence monitoring monuments within the boundaries of the leased premises.

(h) The right to commingle coal from the leased premises with coal mined elsewhere in the general mining area; provided however, that Lessee shall thereafter take such measurements and collect such data as are necessary to ensure fair and accurate determination of the amount of coal originating from the leased premises. At the request of Lessor during periods while production is occurring from the leased premises, Lessee will provide, no more frequently than monthly, a map prepared by a certified engineer showing the monthly volumes produced from the leased premises. Lessor shall also have access to Lessee's records as provided at Section 13.

The rent, royalty and other payment provisions contained in this Lease fully compensate Lessor for all the rights and privileges granted Lessee under this or any other provision of this Lease; except, however, Lessee shall be fully responsible for any loss to growing crops or forage caused by Lessee in the exercise of any of the rights granted to the Lessee by the terms of this Lease.

SECTION 3. Rights Surviving

All rights (except the actual right to mine and remove coal) and easements hereinabove granted to Lessee shall survive the surrender or termination of this Lease, provided that Lessee is then conducting mining operations or reclamation is not final and complete at all locations within the general mining area as hereinafter defined in Section 5, and for as long thereafter as Lessee conducts mining operations or reclamation is not final and complete at all locations within said general mining area.

SECTION 4. Lease Term

Unless voluntarily surrendered by Lessee at an earlier date as provided in Section 21, the primary term of this Lease shall run for a period of ten (10) years from and after the date hereof and as long thereafter as mining operations are being conducted by Lessee on the leased premises or in the general mining area as hereinafter defined in Section 5; provided, however, if at the expiration of the primary term hereof mining operations are not being conducted on the leased premises or in the general mining area, and if all rental payments are being made in accordance with Section 9, then, and in such event, this Lease may be extended for ten (10) additional periods of one (1) year each upon the same terms and conditions as herein set forth and so long thereafter as mining operations are being conducted by Lessee on the leased premises or in the general mining area.

SECTION 5. General Mining Area

The term "general mining area" as used in this Lease shall refer to the area included within Lessee's mining operations in the Crandall Canyon Mine complex, both now and in the future, and shall include, but not be limited to, all fee lands and all fee, county, state, and federal leases whether now owned or hereafter acquired.

SECTION 6. Compliance with Laws

Lessee agrees to conduct all mining operations on the leased premises in a good and workmanlike manner and shall materially comply with and abide by all applicable Federal, state and local laws, rules, regulations and orders whether now existing or hereafter enacted or imposed.

SECTION 7. Reserved Minerals

The rights hereby granted to Lessee shall not include mining rights with respect to oils, gases or other minerals other than coal and substances (including but not limited to gas or

coalbed methane gas) mixed with or encountered when mining coal. Notwithstanding the foregoing, Lessee shall have the right to vent any gases or coalbed methane gases which are encountered in Lessee's mining operations as a safety measure without any liability or accountability of any nature whatsoever to Lessor, but Lessee shall not have the right to commercially exploit any such gases or coalbed methane gases. The leasing, exploration for, or development of other minerals or substances other than coal and substances mixed with coal shall not interfere in any way with the coal mining operations of the Lessee during the term of this Lease. Leases related to other minerals issued by Lessor after the date of this Lease shall be specifically made subject to the priority of the coal mining operations.

Upon completion of its extraction operations on the leased premises, Lessee shall provide written notice of that completion to Lessor together with a map showing any portion of the leased premises that Lessee will need to continue to utilize for access or other mining related purposes. Lessor shall then be free to allow development of other minerals or substances other than coal in those areas shown as no longer needed by Lessee so long as such development does not interfere with the uses identified by Lessee in the notice.

SECTION 8. Lease Bonus Payment

To compensate Lessor for the fair market value of the interest herein leased, Lessee shall pay to Lessor a lease bonus payment at the time coal is mined, removed and sold, which payment shall be in addition to the royalties hereinafter provided. The lease bonus payment shall be in the amount of thirty-five cents (\$0.35) per ton (2,000 pounds) actually mined, removed and sold from the leased premises and shall, subject to the following provisions, be payable at the same time, on the same tonnage, and in the same manner as production royalties.

Upon execution of this Lease, Lessee shall pay Lessor as an advance payment of said lease bonus for the lease year beginning August 1, 2004 the amount of \$25,000.00. Annually, thereafter prior to the beginning of each subsequent Lease Year for a period of three additional years (i.e., August 1, 2005, August 1, 2006 and August 1, 2007), Lessee shall pay Lessor an additional \$25,000.00 per year (without interest) as an advance of said lease bonus until a total of \$100,000.00 in advance lease bonus has been paid. Termination of this Lease prior to August 1, 2007 shall not excuse Lessee from making the payments specified in this paragraph of Section 8.

All advance lease bonus payments shall be credited against the actual lease bonus payments provided for in this Section 8. Said advance lease bonus payments are intended to pre-pay the lease bonus payment on the first 285,714 tons of production from the leased premises. After 285,714 tons have been produced from the leased premises the lease bonus payment will be payable as additional coal is produced.

SECTION 9. Rent

Lessee shall pay to the Lessor annually on or before the anniversary date of this Lease as rent, the sum of Three and no/100 Dollars (\$3.00) per acre for the number of acres then subject to this Lease. Rental shall not be recoupable from production royalties. Notwithstanding anything to the contrary contained herein, if the Lessee shall default in making any payment

under the terms of this Lease when due and if such default shall continue for a period of ninety (90) days after written notice of such default to Lessee, then Lessor shall have the right to terminate this Lease and retain all sums theretofore paid Lessor by Lessee.

SECTION 10. Production Royalty

Lessee shall pay to Lessor as a production royalty for all coal actually mined, removed and sold from the leased premises, the sum of five percent (5%) of Gross Proceeds (as hereinafter defined in Section 11.)

For purposes of determining the weight of the coal produced from the leased premises, Lessee shall complete volumetric surveys on a monthly basis as of the last day of each calendar month of all active mining areas contributing to the commingled coal produced from the general mining area and any other areas as to which coal is commingled prior to being weighed at the mine belt scale by Lessee.

A preliminary calculation of the weight of the coal produced from the various separately owned properties shall be made by multiplying the total cubic feet of mined area during the month by 80 pounds per cubic foot and dividing by 2,000 pounds per ton to determine the preliminary tons of coal produced from the leased premises and all other premises contributing to the commingled coal. Based upon the preliminary calculation, the portion of the coal produced during the month from the leased premises and each of the other properties shall be calculated as a percentage of total production stated to three places past the decimal. The percentage so determined shall then be used to determine the tonnage actually produced from each individual lease or area based upon the mine belt scale weights. It is the expressed intent of the parties that all weights be determined and allocated among the various properties as accurately as possible under the circumstances of Lessee's operations.

Production royalty will be paid on coal sold. Lessee shall maintain a schedule on a monthly basis showing the total coal inventory available for sale broken down by the leases or property from which the coal was mined. Sales will be allocated by lease or property in proportion to the coal inventoried from each lease or property. The FIFO (first in-first out) accounting method will be used to allocate coal sales.

Production royalty due and payable for coal actually mined, removed and sold from the leased premises during any calendar month shall be paid on or before the last day of the next succeeding calendar month, and all production royalty due and unpaid for sixty (60) days shall be a lien on Lessee's equipment on the leased premises. Interest shall accrue at the rate of 8% per annum on production royalty not paid when due.

SECTION 11. Gross Proceeds

Gross Proceeds shall have the same meaning as the term "gross proceeds" as defined from time to time in 30 C.F.R. Part 206, Subpart F, with respect to federal coal leases within the general mining area. The value and time of payment for royalty purposes with respect to coal from the leased premises shall be determined under the provisions of such Subpart applicable to federal ad valorem coal leases, including amendments thereto and administrative and judicial interpretations thereof, which shall include, without limitation, any deductions, adjustments or allowances now existing or hereafter permitted in calculating royalty due under federal coal leases. Deductions include, but are not limited to, trucking and loading expenses.

SECTION 12. Depository for Payments

Lessee may make all payments required to be made herein to the Lessor by wire transfer and for such purpose Lessor hereby designates the Wells Fargo Bank Bank of 38650 7300 East, Account Number 201100-3817, or its successors, as the depository to receive such payments which may hereinafter be made by Lessee to Lessor. Said bank and its successors shall be Lessor's agent and shall continue as the depository for all payments payable thereafter regardless of any change in ownership of the leased premises or the production payments royalty. All such payments shall be considered tendered when made by wire transfer, check or draft of Lessee or of any assignee of Lessee and mailed or delivered to Lessor or to the depository bank as herein above set forth. Lessor may, by 30 days prior written notice to Lessee, change the above designated depository to another single depository bank.

SECTION 13. Records and Accounts

Lessee shall keep a true and correct record of all coal mined, removed and sold from the leased premises and all royalty calculations applicable thereto and shall permit Lessor or Lessor's agents at all reasonable times and at Lessor's expense to examine such records. On or before the last day of each calendar month following the date on which Lessee shall commence actual mining operations on the leased premises, Lessee shall furnish Lessor a true and correct statement showing the gross proceeds accrued during the preceding calendar month and the tons of coal actually mined, removed, and sold during the preceding calendar month from the leased premises, the general mining area, and all other areas whose production is commingled with coal produced from the leased premises prior to the first certified weighing of coal being produced by Lessee. Lessor, or audit representatives, at Lessor's expense, shall have the right at any reasonable time or times to examine, audit and reproduce the records, vouchers and their source documents which serve as the basis for royalty payments. All such records of Lessee kept in the ordinary course of its business, and all payments made in accordance therewith, shall be presumed to be accurate after a period of three (3) years.

SECTION 14. Warranty of Title

Lessor warrants and covenants that collectively they have full marketable record title to the coal estate in the leased premises and will defend the same and that Lessee shall have quiet enjoyment of the coal estate in the leased premises throughout the term of this Lease and any

extension or renewal hereof. Lessor covenants that there are no liens or encumbrances of any kind whatsoever on the coal estate in the leased premises.

SECTION 15. Title to Leased Premises

(a) Lessee, at its sole expense, shall have the right at any time during the term of this Lease to examine title to the leased premises, and Lessor shall furnish to Lessee all abstracts and other title information covering the leased premises over which Lessor has possession or control. If objections to Lessor's title to the coal estate be found, Lessee shall specify such objections in writing and deliver the same to Lessor. Lessor shall have all reasonable title objections, so specified by Lessee, corrected to the reasonable satisfaction of Lessee within ninety (90) days after the date of delivery of said written objections. Default on the part of Lessor to cure any objections to title as to the coal estate, as herein provided, shall give to Lessee the option of terminating this Lease on notice to Lessor, or of curing and correcting said objections and deducting the cost thereof from rental or production royalty payments as the same become due and payable under this Lease.

(b) In the event Lessor is the owner of an interest in the coal that is less than the entire fee interest therein, Lessor will, upon written demand by Lessee and to the extent possible under state law, commence appropriate action in a court of competent jurisdiction against the owners of the undivided interest in the coal to compel partition of said coal. Lessor will cooperate with Lessee in such action as to selection of counsel and will be available at reasonable times for consultations, appearance for depositions, appearance in court and such other activities as may be necessary or convenient for the furtherance of said action. Lessee agrees to pay the costs of said action, including attorney fees, court costs, abstracting and other expenses associated therewith.

Lessor shall fully indemnify and hold harmless Lessee against all claims or demands of any kind or nature which may be made upon Lessee or against Lessee's interest in the leased premises for, or on account of such title objections. Lessor shall also take action in accordance with Section 15(a) and (b) to correct or otherwise cure such title objections at the written request of Lessee.

SECTION 16. Breach of Lease Obligations

Breach by Lessee of any obligation arising hereunder shall not work a forfeiture or termination of this Lease or cause a termination or reversion of the rights hereby created, nor be grounds for cancellation hereof in whole or in part, except as herein expressly provided. In the event that Lessor considers that Lessee's mining operations are not at any time being conducted in compliance with this Lease, Lessor shall notify Lessee in writing of the fact relied upon as constituting a breach hereof, and Lessee, if in default, shall have ninety (90) days after receipt of such notice in which to comply with the obligations imposed by virtue of this instrument. Neither notice nor attempted compliance shall be evidence that a breach has in fact occurred.

SECTION 17. No Implied Obligations of Lessee

It is understood and agreed that the mining of coal from the leased premises is highly speculative because of, among other things, the possible existence of faults, dykes, wants, rolls and seam thinning, the location of the leased premises and foreseeable and unforeseeable geologic circumstances that exist on the leased premises. Lessee shall be under no obligation, express or implied, to explore, develop, mine, remine or otherwise rework the leased premises, for coal or any other mineral or substance which may be covered hereby, it being expressly agreed that the good faith judgment of the Lessee in carrying out the purposes of this Lease shall be conclusive. Suspension of mining operations by the Lessee shall be without prejudice to its rights to resume operations. Lessor specifically acknowledges and agrees that this Lease shall not be forfeited for any failure to prosecute mining operations on the leased premises, nor shall any forfeiture be claimed or enforced for the breach of any implied covenant, and the rights herein granted and conveyed shall not be canceled or revert to Lessor or his assigns so long as all payments herein stipulated to be paid by Lessee are paid to Lessor. The fact that Lessee may fulfill some or all of its obligations under a coal sales contract with production from the leased premises, is not intended to nor shall it give Lessor any rights in or to said coal sales contract. Lessee shall not be required to mine, remove or pay any production royalty on poor quality coal or waste material, unless Lessee actually sells the same. Any amounts received by Lessee for a buyout, buydown or amendment to a coal sales contract shall not be deemed gross proceeds subject to royalty.

SECTION 18. Lesser Interest

In the event Lessor owns less than the entire fee simple estate in and to the leased premises, whether or not such lesser interest is specified herein, all payments to Lessor as provided for herein shall be reduced in the proportion that such lesser interest bears to the entire fee simple estate in and to the leased premises.

SECTION 19. Taxes

Lessor covenants to pay promptly all property taxes and assessments levied against the leased premises or any part thereof during the entire term of this Lease, and any renewal or extension hereof. If Lessor fails to do so, or if there shall be any unpaid tax encumbrance now on the leased premises or any part thereof, Lessee may, without being obligated so to do, pay such taxes or encumbrance and any penalties thereon or redeem said leased premises from tax sale. Any payments so made may be considered as an advance against rentals and production royalties and may be credited on or deducted from rent or production royalty payments as the same become due and payable under this Lease. Lessee shall pay all validly assessed and levied property taxes on its improvements and property and shall pay all of the taxes, if any, validly assessed and levied against its rights in the coal covered by this Lease. For avoidance of doubt, the parties agree that Lessor shall be responsible only for ordinary property taxes of the kind and magnitude that were assessed against leased premises prior to the execution of this Lease, and Lessee shall be responsible for all other taxes and assessments.

SECTION 20. Removal of Equipment

At the termination of this Lease, either at the end of the term or prior thereto by cancellation or surrender, Lessee shall have a reasonable time, not to exceed one year, in which to remove all of Lessee's machinery, equipment and other property from any part of the leased premises. During that period, Lessee shall have a continuing right of access to the leased premises as may be necessary for Lessee to fulfill its reclamation and other cleanup or rehabilitation obligations related to the lease premises.

SECTION 21. Right of Surrender or Termination

Lessee may at any time and from time to time, in its sole discretion, upon 30 days advance written notice to Lessor, surrender this Lease in whole or in part by executing and recording with the Emery County Recorder a release or releases covering all or the relevant portion of the leased premises, and thereby terminate from and after the date of such surrender all future obligations as to the acreage surrendered. Lessor shall not have any obligation to reimburse Lessee for any payments or assessments paid in advance to Lessee.

SECTION 22. Energy Policy Act

Lessor specifically acknowledges that prior to the execution of this Lease, he has been made aware of the provisions of § 2504(a)(1) of the Energy Policy Act of 1992, Public Law 102-486, 106 Stat. 3104 (enacted October 24, 1992) (codified at 30 U.S.C. § 1309a), and he also hereby acknowledges that the consideration provided for herein is intended to fully compensate Lessor for any and all damages and liability of Lessee to Lessor under § 2504(a)(1) of the Energy Policy Act for subsidence caused by underground mining operations (to the extent they are owned by the Lessor) to any occupied residential dwelling and structures related thereto or to any non-commercial building, or for the effects of any underground coal mining operations on any state appropriated water supply in existence prior to Lessee's application for a coal mining and reclamation permit. Lessor specifically waives any and all other rights they might have under § 2504(a)(1) of the Energy Policy Act and any regulations or State legislation implementing such Section, with regard to such damages or compensation or insurance therefor. Lessor agrees to execute an express waiver of the rights described above with respect to those portions of the leased premises, if any, in which he owns the surface estate, if requested to do so by any regulatory agency. Notwithstanding the foregoing waiver of Lessor's rights under § 2504(a)(1) of the Energy Policy Act, Lessee's indemnification under Section 30 shall include any alleged noncompliance with § 2504(a)(1) or implementing statutes or regulations and any contamination arising from Lessee's use of the leased premises that is asserted by any party other than Lessor.

SECTION 23. Ownership Disputes

In case of any dispute or question regarding ownership of the coal estate in the leased premises or of any amounts payable hereunder, Lessee shall be entitled to withhold, without interest, the disputed payments otherwise due to Lessor and instead deposit the same into an escrow account until Lessee receives reasonable documentation that the dispute or question has

been resolved. All such escrowed payments shall be kept in a separate escrow account and shall not be mixed with Lessee's other funds. If Lessee is required to pay any third-party as the result of any such claim, the third-party payment shall be credited against all payments thereafter due to Lessor.

SECTION 24. Force Majeure

Lessee shall not be deemed in default for failure to perform any of its obligations during periods in which performance is prevented by any cause reasonably beyond Lessee's cause or control (any such cause being herein called "Force Majeure") such as, for example and not by way of limitation, fire, cave-in, floods, windstorms, other damage from the elements, strikes, riots, unavailability of transportation or necessary equipment, lack of satisfactory market for coal from the leased premises, action of governmental authority, litigation, acts of God and acts of the public enemy. The duration of this Lease shall be extended, unless sooner terminated by Lessee by release as herein above provided, for a period equal to the period for which performance is suspended due to Force Majeure. All periods of Force Majeure shall be deemed to begin only at such time as Lessor has received written notice thereof. Lessee shall also notify Lessor of the ending date of each such period of Force Majeure. This Section shall not apply in any way to monetary payments required or permitted of Lessee under the terms of this Agreement, which payments shall not be excused or delayed by any Force Majeure.

SECTION 25. Successors and Assigns

This Lease shall be binding upon and inure to the benefit of the parties hereto, their heirs, executors, administrators, successors and assigns.

SECTION 26. Assignment or Sublease

The estate of either party to this Lease may be subleased, assigned or transferred in whole or in part. Assignments of this Lease shall be subject to the approval of the non-assigning party which approval shall not be unreasonably withheld or unduly delayed. No change or division of ownership in the leased premises or in the royalties payable under this Lease shall (except at Lessee's option in any particular case) be binding upon Lessee until thirty (30) days after Lessee shall have been furnished, at its address shown above, with the original recorded instruments, or duly certified copies thereof, properly evidencing the same. No such change or division of ownership shall operate to enlarge the obligations or diminish the rights of Lessee.

SECTION 27. Notices

All notices may be served in person, or may be given by United States registered or certified mail, return receipt requested, postage prepaid, addressed to the individual party concerned at the respective addresses first above written. Notices shall be effective upon receipt. Any party may change its address by notice to the other parties.

SECTION 28. Homestead and Dower

Lessor, hereby releases and waives all rights of homestead and dower insofar as such rights may in any way affect the purpose for which this Lease is made.

SECTION 29. Genders

Wherever used herein, the plural shall include the singular and vice versa, and each gender shall include the other as the text and tenor of this Lease shall indicate.

SECTION 30. Indemnification

(a) Lessee shall hold harmless and fully indemnify Lessor against all claims or demands of any kind or nature which may be made upon Lessor or against Lessor's interest in the leased premises for, or on account of, any debt or expense contracted or incurred by Lessee in conducting its activities, as well as against any and all acts, transactions and omissions of Lessee, its employees, agents, contractors, subcontractors, lessees, partners or coventurers, licensees and suppliers in conducting such activities, and Lessee shall defend and save Lessor harmless and fully indemnify Lessor as to liability or asserted liability, for, or on account of, injury to, or death of, any person or damage to any property sustained during the term of this Lease, alleged to have resulted from any such act or omission of Lessee, its employees, agents, contractors, subcontractors, lessees, partners, or coventurers, licensees and suppliers, or any unsafe condition of the leased premises created by Lessee or Lessee's operations. In addition, Lessee shall waive, hold harmless and fully indemnify Lessor against any and all penalties or charges imposed upon Lessor by federal, state, or local authorities on account of Lessee's failure to comply with all laws, rules, regulations or orders of such authorities.

(b) Further, Lessee agrees to indemnify and hold harmless Lessor from all claims of environmental damages and demands arising directly out of or in connection with the Lessee's operations that may be asserted by third parties, including but not limited to claims by individuals or groups, whether public or private, by federal, state, or local agencies and/or by any other party bringing said claims against Lessor, unless Lessor, or any person or instrumentality acting in Lessor's behalf shall have been a contributing cause to the event giving rise to such claim or demand, in which case Lessee's indemnification obligation shall be limited to the scope of Lessee's culpability. Lessor agrees to cooperate with Lessee in the conduct of any suits arising from claims and demands under this subsection.

(c) If any third party asserts, through a judicial proceeding, any claim to or against the coal estate in the leased premises for any minerals, concentrates or mineral products contained within the coal estate in the leased premises, or to any amounts payable to Lessor, Lessee may deposit any amounts otherwise due to Lessor in escrow until the controversy is finally determined. If Lessee is required to deposit any amounts in escrow or pay any third party as the result of any such claim, payment and all costs incurred by Lessee, including reasonable attorney's fees, shall be credited against all payments thereafter due to Lessor.

(d) Lessor will hold harmless and fully indemnify Lessee against all claims or

demands of any kind or nature which may be made upon Lessee or against Lessee's interest in the coal estate in the leased premises for, or on account of, any debt or expense contracted or incurred by Lessor in conducting his activities, as well as against any and all acts, transactions and omissions of Lessor, his employees, agents, contractors, subcontractors, lessees, partners or coventurers, licensees and suppliers in conducting such activities, and Lessor will defend and save Lessee harmless and fully indemnify Lessee as to liability or asserted liability, for, or on account of, injury to, or death of, any person or damage to any property sustained during the term of this Lease, alleged to have resulted from any such act or omission of Lessor, his employees, agents, contractors, subcontractors, lessees, partners, or coventurers, licensees and suppliers, or any unsafe condition of the leased premises created by Lessor or Lessor's operations.

(e) Without limiting survival of any other provisions of this Lease that may be deemed to survive termination, the provisions of this Section 30 shall survive any termination of this Lease.

SECTION 31. Lessor's Cooperation

Lessor shall further cooperate with Lessee in any manner as may be reasonably necessary to assure the complete and full development of the coal pursuant to this Lease, and Lessor shall execute and deliver to Lessee any and all documents, waivers, releases or covenants which may reasonably be needed pursuant to the terms of this Lease, including, but not limited to any consent to mining which may be required under any current or future laws, rules or regulations of any federal, state, or local government but in doing so Lessor shall not be required to incur any out of pocket costs or expenses..

SECTION 32. Recording

The parties agree that they will execute a Memorandum of Underground Coal Lease in a form substantially similar to that attached as Exhibit A, and that the executed Memorandum will be placed of record in the Emery County. This Lease will not be placed of record.

SECTION 33. Obligations of Lessee

(a) Protection from Liens. Lessee shall allow no liens, claims or encumbrances arising from its operations hereunder to remain upon the interest of the Lessor in and to the leased premises, provided, however, that if Lessee, in good faith, disputes the validity or amount of any claim, lien or liability asserted against it with respect to the leased premises, it shall not be required to pay or discharge the same until the amount and validity thereof have been fully determined. Notwithstanding the foregoing, Lessee shall not permit any part of the leased premises to be conveyed and title lost as the result of nonpayment of such liens.

(b) Insurance. Lessee shall carry general liability insurance providing coverage in reasonable and customary amounts for Lessee's operations on the leased premises. Lessor shall be named as an additional insured under the policy of insurance, and the policy shall include a provision to the effect that Lessor shall be given not less than 30 days prior written notice by certified mail of any cancellation of or changes to the policy. Lessee also agrees to

carry such insurance, or to require independent contractors to carry such insurance, covering all persons working on or allowed to enter upon the leased premises, as will fully comply with the requirements of the State of Utah pertaining to workmen' compensation and occupational disease and disabilities, as now in force or as may be hereafter amended or enacted. All such insurance shall be maintained by Lessee at its own expense throughout the duration of this Lease.

(c) **Inspection of Leased Premises.** Lessee shall allow Lessor and its representatives reasonable access to the leased premises, and to those portions of the general mining area related to the production, measurement and commingling of coal, for the purpose of inspecting Lessee's operations, at the times which, in Lessee's reasonable discretion, do not unreasonably interfere with Lessee's operations. Lessor agrees to indemnify and hold harmless Lessee from and against any and all losses, costs, damages, claims and liabilities that may be imposed upon or incurred by Lessee on account of Lessor's exercise of said inspection rights, except to the extent that such losses, costs, damages, claims and liabilities are attributable to the negligence or willful misconduct of Lessee, its contractors or agents.

(d) **Notice of Agency Filings.** Lessee shall timely provide Lessor with copies of all notices or applications filed with any state, local or federal agency with respect to proposed exploration or mining operations on the leased premises.

(e) **Delivery of Data upon Termination.** Upon termination of this Lease, either at the end of the term or prior thereto by cancellation or surrender, Lessee shall at the written request of Lessor given within 60 days of such termination furnish Lessor with one set of copies of all available geologic data pertaining to the leased premises and developed or prepared by or for Lessee during the term of this Lease, and shall authorize and permit Lessor to take possession of any available drill core derived from the leased premises during the term of this Lease, whether such data or core is stored on the leased premises or elsewhere; provided, however, that Lessee shall in no event be liable to Lessor for the accuracy of any such data or core.

SECTION 34. Miscellaneous

(a) **Time of the Essence.** Time is of the essence of this Lease and each and every term and provision hereof.

(b) **Modification.** No modification or alteration of this Lease shall be effective unless made in writing and executed by all parties with the same formality as this Lease.

(c) **No Waiver.** Failure of Lessor at any time or from time to time to enforce or to require strict observance of any of the terms of this Lease shall not constitute a waiver thereof, nor limit or impair such terms in any respect. In addition, any such failure shall not affect Lessor's right to avail itself at any time of such remedies as it may have for any default hereunder.

(d) **Survival.** All payment, reclamation, indemnification and other provisions of this Lease containing obligations that are intended to continue beyond the termination of this Lease

shall survive such termination and remain in effect until their existence is of no benefit to any party.

(e) Governing Law. This Lease shall be construed in accordance with and governed by the laws of the State of Utah.

(f) Attorney Fees. In any action arising out of this Lease, the prevailing party shall be entitled to its reasonable attorney fees and related court costs.

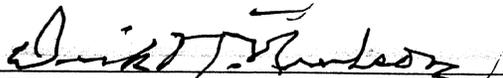
(g) Multiple Counterparts. This Lease may be executed in two or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

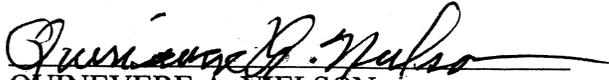
IN WITNESS WHEREOF, this instrument is executed as of the day and year first above written.

SOCIAL SECURITY NUMBER OR
EMPLOYER IDENTIFICATION NO.:

528-10-3329

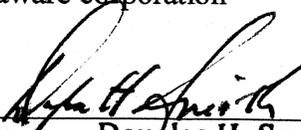
LESSOR:


DICK N. NIELSON

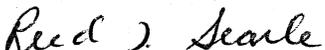

QUINEVERE A. NIELSON

LESSEE:

ANDALEX RESOURCES, INC.,
a Delaware corporation

By: 
Name: Douglas H. Smith, President
Title: _____

INTERMOUNTAIN POWER AGENCY,
a political subdivision of the State of Utah

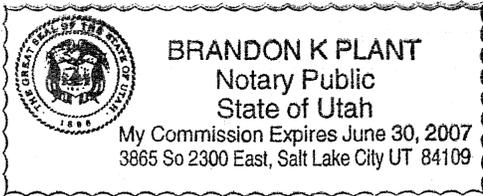
By: 
Name: Reed T. Searle
Title: Gen. Manager

STATE OF UTAH)
)
:ss.
COUNTY OF SALT LAKE)

The foregoing instrument was acknowledged before me this 18 day of August, 2004, by DICK N. NIELSON.

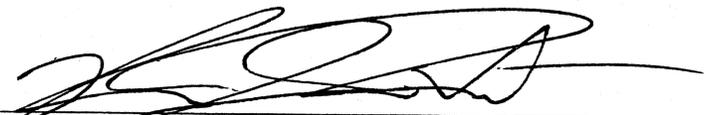


Notary Public for Utah
Residing at: 3865 So 2300 East
My commission expires: Jun 30 2007

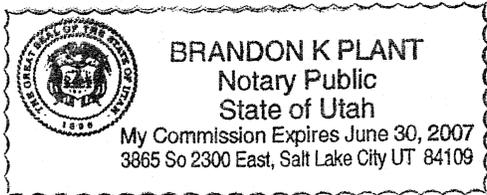


STATE OF UTAH)
)
:ss.
COUNTY OF SALT LAKE)

The foregoing instrument was acknowledged before me this 18 day of August, 2004, by QUINEVERE A. NIELSON.

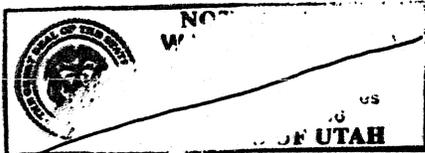


Notary Public for Utah
Residing at: 3865 So 2300 East
My commission expires: Jun 30 2007



STATE OF UTAH)
 : SS.
COUNTY OF SALT LAKE)

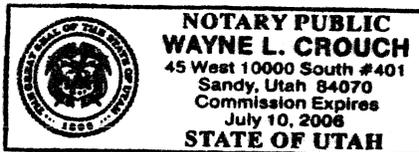
On the 23 day of August, 2004, personally appeared before me
Douglas H. Smith, the President of ANDALEX
Resources, Inc., who executed the foregoing instrument on behalf of said corporation.



Wayne L Crouch
Notary Public
Residing at: Salt Lake County, UT

My commission expires:

10 July 2006



STATE OF UTAH)
 : SS.
COUNTY OF SALT LAKE)

On the 24 day of August, 2004, personally appeared before me
Reed T. Searle, the General Manager of
INTERMOUNTAIN POWER AGENCY, a political subdivision of the State of Utah, who
executed the foregoing instrument on behalf of said entity.



Krista R Paull
Notary Public
Residing at: S.L. County UT.

My commission expires:

9/1/07

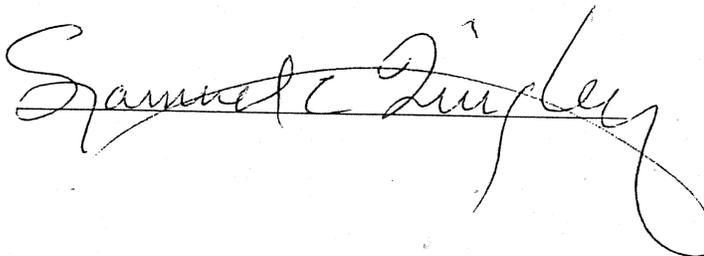
AFFIDAVIT

STATE OF UTAH)
) ss.
COUNTY OF CARBON)

Samuel Quigley being first duly sworn on oath, deposes and says:

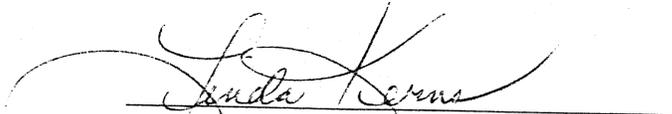
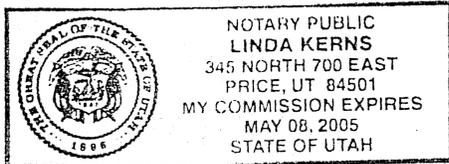
1. Affiant is a resident of Carbon County, Utah.
2. Affiant is the Vice President /Operations of ANDALEX Resources, Inc.
3. ANDALEX Resources, Inc. is a Lessee of the attached coal lease issued by the State of Utah, identified as Lease No ML 49287-OBA.
4. The attached document is a true and correct copy of the original lease as contained in the files of ANDALEX.

Further Affiant sayeth not.



STATE OF UTAH)
) ss.
COUNTY OF EMERY)

The foregoing instrument was acknowledged, subscribed and sworn before me this 15th day of July, 2004.



Notary Public for Utah
Residing at:
345 N. 700 E. Price, UT 84501
My commission expires:
05-08-05

Genwal Mines

Appendix 1-17

U.S. Forest Service Special Use Permit

for

Crandall Canyon Surface Facilities

Jensen, PJ

From: Jensen, PJ
Sent: Wednesday, April 27, 2016 3:41 PM
To: 'Salow, Jeffrey - FS'
Cc: Jones, Anita - FS; Hibbs, David (dhibbs@coalsource.com); Madsen, Karin; 'Daron Haddock'; 'Falk, Stephen'
Subject: RE: Crandall Canyon Permit Request

Thank you very much. I really appreciate your help. Please let me know if you have any questions or need anything else.

Thanks again,

PJ Jensen

Engineering Technician
UtahAmerican Energy, Inc.
794 North 'C' Canyon Road
P.O. Box 910
East Carbon, Utah 84520
Phone: 435.888.4018
Fax: 435.888.4002
Email: pjensen@coalsource.com

From: Salow, Jeffrey - FS [mailto:jsalow@fs.fed.us]
Sent: Wednesday, April 27, 2016 3:28 PM
To: Jensen, PJ
Cc: Jones, Anita - FS
Subject: RE: Crandall Canyon Permit Request

Hi PJ,

I received your request for a special use permit and I'll try to get this worked out as soon as I can.

Thank you for the information.



Jeff Salow
Geologist
Forest Service
Manti-La Sal National Forest
p: 435-636-3596
jsalow@fs.fed.us

599 West Price River Drive
Price, UT 84501
www.fs.fed.us



From: Jensen, PJ [<mailto:pjensen@coalsource.com>]
Sent: Wednesday, April 27, 2016 1:55 PM
To: Salow, Jeffrey - FS <jsalow@fs.fed.us>
Cc: Falk, Stephen <sfalk@blm.gov>; Daron Haddock <daronhaddock@utah.gov>; Hibbs, David <dhibbs@coalsource.com>; Madsen, Karin <kmadsen@coalsource.com>
Subject: Crandall Canyon Permit Request

Hello Mr. Salow –

We met at the Carbon and Emery County Collaborative Meeting yesterday, April 26.

This email is regarding the Crandall Canyon Mines surface facilities in Emery County, Utah. The mines are owned by Genwal Resources, Inc. which is an operating division of UtahAmerican Energy, Inc., the company that employs me.

UtahAmerican Energy relinquished some of our federal coal leases for the Crandall Canyon Mines in 2013. In the process, we lost our legal access to the northern portion of our surface facilities. We believed that we had maintained the legal access to the facilities that were on Federal Lease #SL-062648 when it was relinquished. Unfortunately, access to the northern portion of the surface facilities “slipped through the cracks” and we lost our legal access even though we are currently using the facilities.

With this email, UtahAmerican Energy is requesting a special use permit for the northern portion of the surface facilities at the Crandall Canyon Mines. Attached is a PDF that includes the following:

1. Narrative of the Current Conditions and reason for the need of the permit
2. Proposed Metes and Bounds of the Proposed Permit Area
3. Figure 1 – Location Map
4. Plate 5-2 – Crandall Canyon #1 and Princess Mine Plans
5. Plate 5-3 – Surface Facilities Map (with Proposed Permit Area)
6. Figure 2 – Permit Area on Section Plat Map

We are currently using the facilities in question to dewater and treat the water from the Crandall Canyon #1 Mine. Therefore, we are hopeful that an expedited review process can be achieved so we can resolve this legal access issue as quickly as possible.

Please feel free to contact me if you have any questions or need any further information. Thank you for your time and assistance with this matter.

Best Regards,

PJ Jensen

Engineering Technician
UtahAmerican Energy, Inc.
794 North ‘C’ Canyon Road
P.O. Box 910

East Carbon, Utah 84520
Phone: 435.888.4018
Fax: 435.888.4002
Email: pjensen@coalsource.com

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Proposed U.S. Forest Service Special Use Permit for the Crandall Canyon Mines' Surface Facilities

Introduction

UtahAmerican Energy, Inc. is requesting a Special Use Permit for the northern portion of the surface facilities at the Crandall Canyon Mines (UDOGM Permit Number C/015/032), located within the Manti-La Sal National Forest. The mine site is positioned in northwest Emery County, Utah. After recent federal lease relinquishments, UtahAmerican Energy has learned that we no longer have the legal right to enter the northern portion of our surface facilities at the Crandall Canyon mine complex. These facilities are currently maintained by UtahAmerican Energy and used for operations to dewater the Crandall Canyon Mine. After discussions with the Bureau of Land Management (BLM) and the Utah Department of Oil, Gas and Mining (UDOGM), it was determined that a special use permit from the U.S. Forest Service is needed by UtahAmerican Energy to continue use of the northern portion of the existing facilities.

History

Coal mining has been conducted in Crandall Canyon since 1939, with a lull from 1955 to 1983. In 1997, a major expansion of the surface facilities was performed in order to accommodate longwall mining at the Crandall Canyon #1 Mine by Genwal Resources, Inc. A second mine, the South Crandall Canyon Mine, commenced mining operations shortly thereafter in the southern slope of Crandall Canyon. The Crandall Canyon #1 and South Crandall Canyon Mines utilized the same surface facilities for their respective operations. Due to economic conditions, the South Crandall Canyon mine was idled in 2006, while the Crandall Canyon Mine continued mining operations.

In 2006, UtahAmerican Energy, Inc. acquired several local mines, including the Crandall Canyon Mines. UtahAmerican Energy continued mining operations at the Crandall Canyon site until August 2007, when an accident forced the closure of the Crandall Canyon #1 Mine.

In 2013, UtahAmerican Energy, Inc. relinquished all of the federal and state coal leases related to the Crandall Canyon #1 Mine, while retaining the coal leases for the South Crandall Mine, which has been renamed the Princess Mine. When the federal coal leases for the Crandall Canyon #1 Mine were relinquished by the Bureau of Land Management (BLM), the surface rights to the northern portion of the surface facilities and disturbance reverted back to the U.S. Forest Service. Due to circumstances beyond our control, the legal right to access the north portion of the surface facilities was included in the relinquishment, and UtahAmerican Energy's right to access and maintain the north portion of the Crandall Canyon Mines' surface facilities was removed. All entities involved with the lease relinquishments believed the surface facilities were excluded from the relinquishment, and UtahAmerican Energy would maintain the legal right to access and utilize the existing facilities. In reality, UtahAmerican Energy lost the legal right to enter our facilities due to these relinquishments.

Summary and Conclusion

Coal mining operations in Crandall Canyon, Utah have been occurring since 1939, with a major expansion of the surface facilities in 1997. The existing surface facilities utilized by two separate mines have been in existence for nearly twenty years. Recently, UtahAmerican Energy,

Inc. has learned that we no longer have the legal right to enter the northern portion of these facilities due to an oversight when federal coal leases were relinquished.

The existing Crandall Canyon surface facilities are currently used to dewater the sealed Crandall Canyon #1 Mine. The northern portion of the complex contains the portals and water treatment facility for the Crandall Canyon #1 Mine. Furthermore, several buildings and support facilities are located in the northern portion of the site. This is the portion where we have lost our legal access.

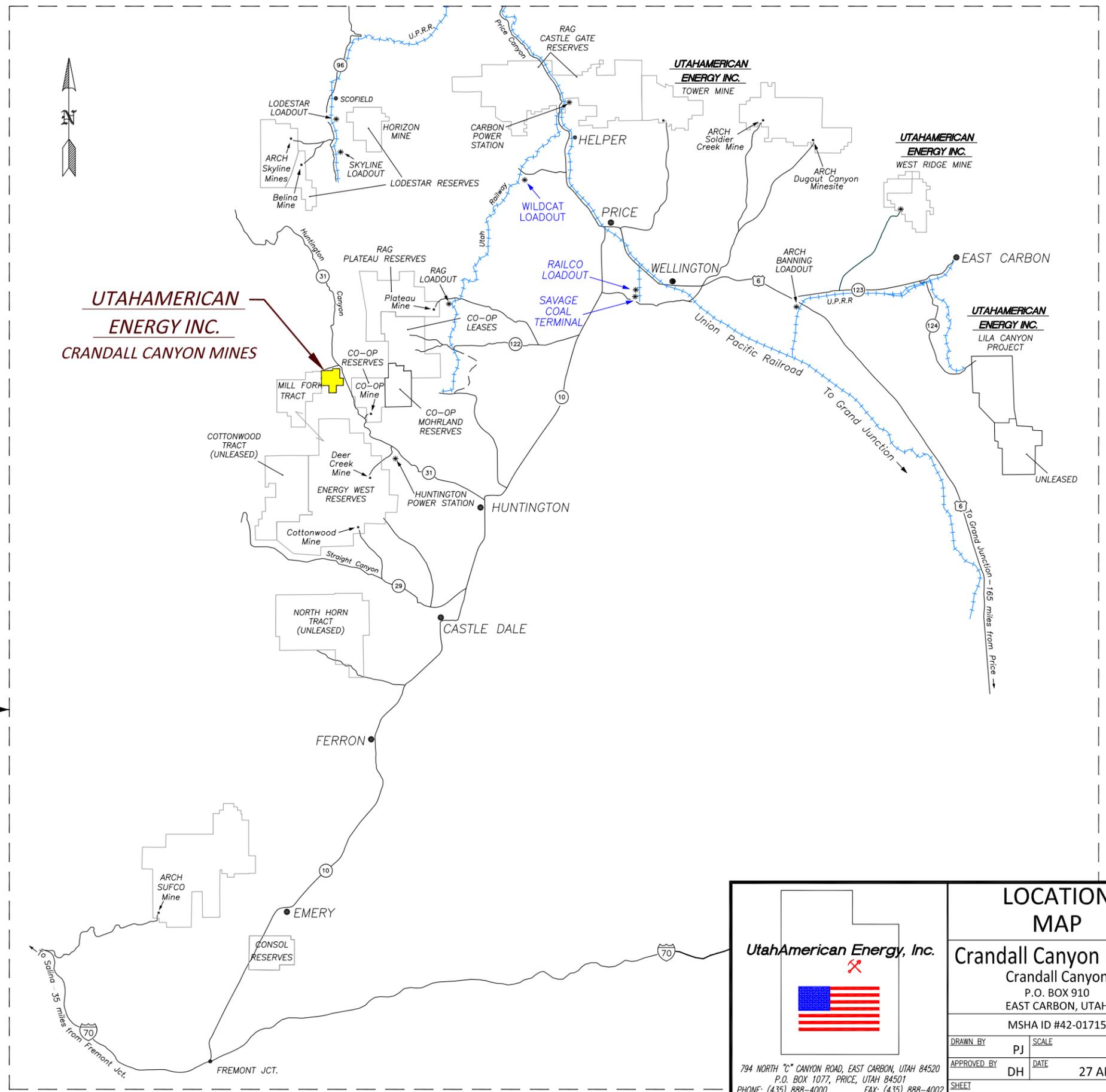
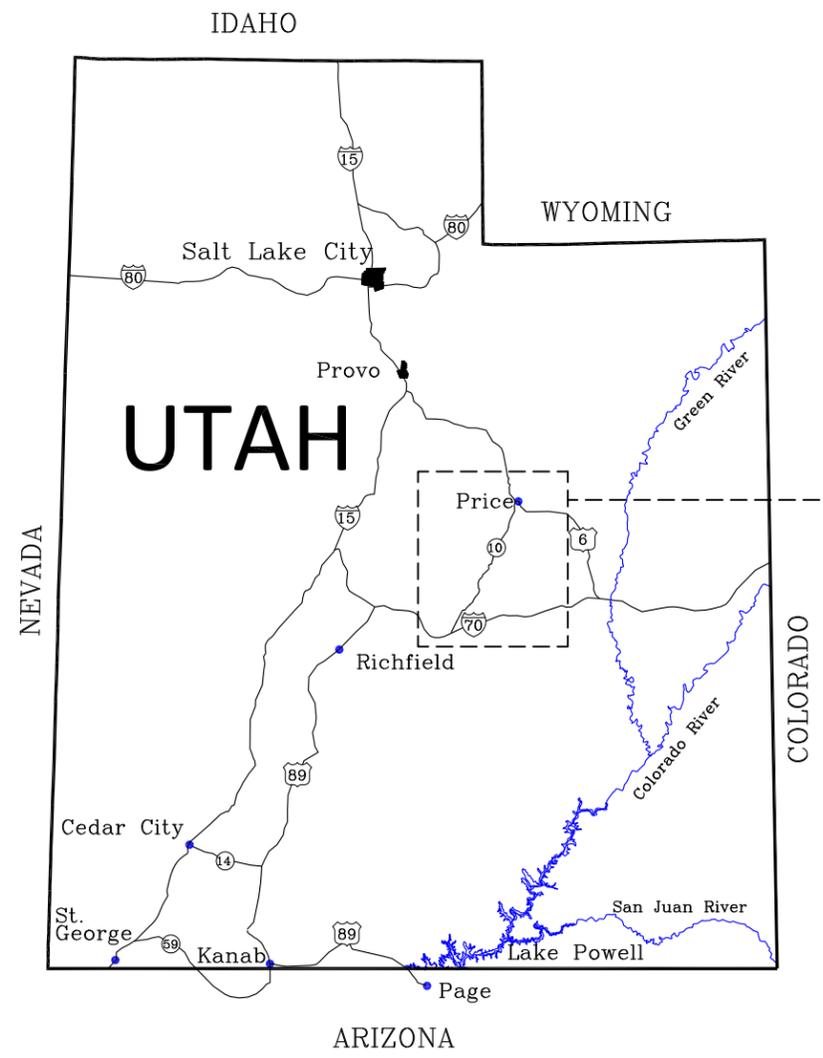
In addition, UtahAmerican Energy, Inc. plans to resume mining in the Princess Mine (formerly the South Crandall Mine) when economic and market conditions become more favorable. At that time, the existing surface facilities will become vital to the coal production at the Princess Mine. However, without the legal right to enter our facilities, UtahAmerican Energy cannot utilize this existing complex for its intended purpose, to support the mining operations. Thus, the need for a special use permit. Additionally, as the northern facilities are currently used by UtahAmerican Energy to dewater the Crandall Canyon #1 Mine, an expedited review for the permit is requested as continued operations are required.

**Proposed U.S. Forest Service Special Use Permit
for the Crandall Canyon Mines Surface Facilities**

Proposed Legal Description:

Beginning at a point located 310.0 feet N87°57'09"E from the quarter corner and along the south border of Lot 6 in Section 5, Township 16 South, Range 7 East, SLBM; thence N02°02'51"W 300.0 feet; thence N87°57'09"E 1015.48 feet to the border between Lots 6 and 9; thence N87°57'09"E 89.45' to the western boundary of an existing U.S. Forest Service Special Use Permit; thence S02°38'W 303.29 feet to the south border of Lot 9; thence S89°44'40"W 73.02 feet to the southwest corner of Lot 9; thence S87°57'09"W 1007.20 feet to the point of beginning.

Proposed permit area is 7.53 acres.



UTAHAMERICAN ENERGY INC.
CRANDALL CANYON MINES

UtahAmerican Energy, Inc.

794 NORTH "C" CANYON ROAD, EAST CARBON, UTAH 84520
 P.O. BOX 1077, PRICE, UTAH 84501
 PHONE: (435) 888-4000 FAX: (435) 888-4002

LOCATION MAP		
Crandall Canyon Mines		
Crandall Canyon P.O. BOX 910 EAST CARBON, UTAH		
MSHA ID #42-01715		
DRAWN BY	PJ	SCALE NONE
APPROVED BY	DH	DATE 27 APRIL 2016
SHEET		FIGURE 1

LEGEND

- Mined Out Areas
- Lease Boundary
- Permit Area
- Projected Subsidence
- Seam Iso-Pac
- Depth of Cover
- Surface Drill Hole

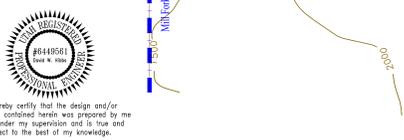
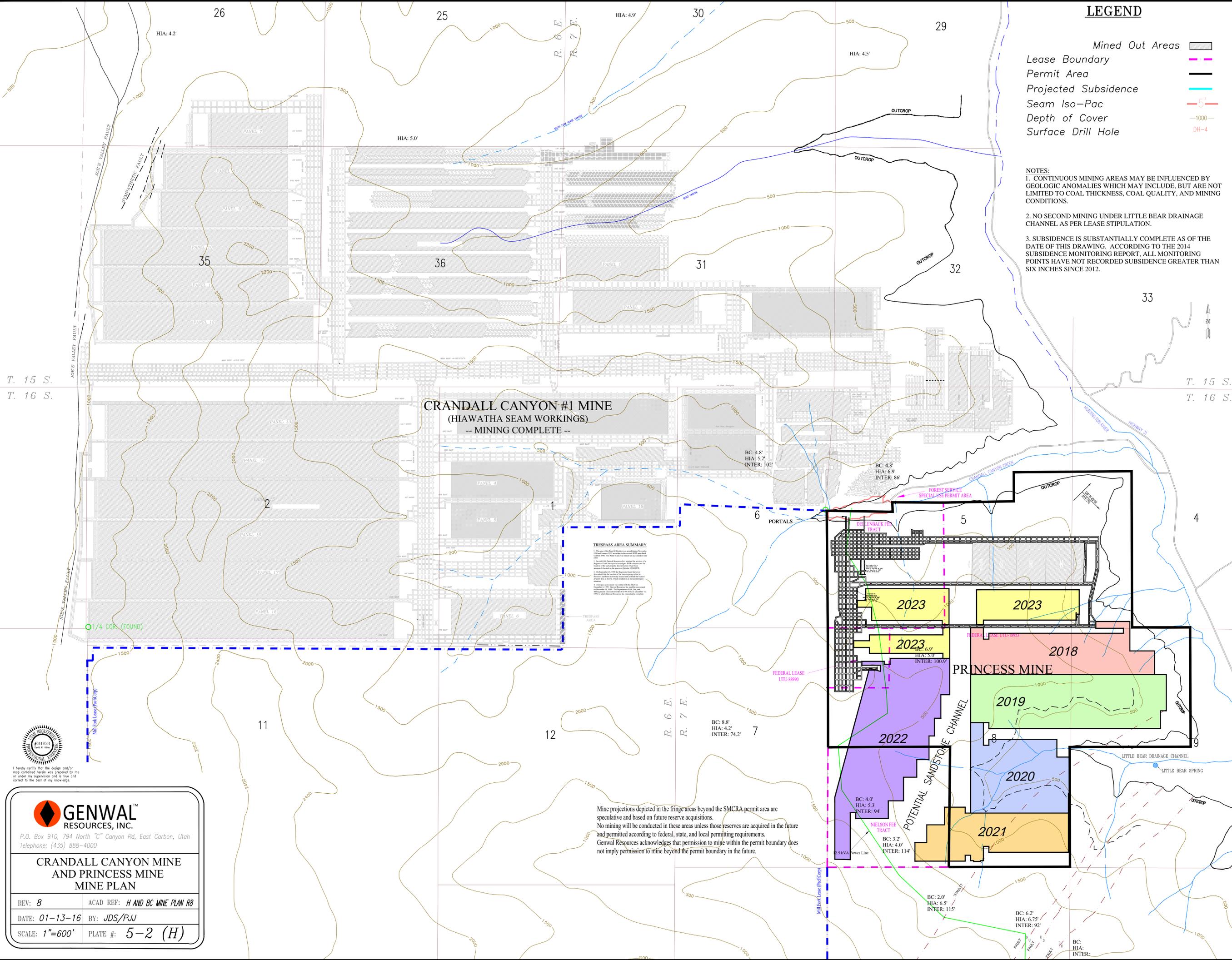
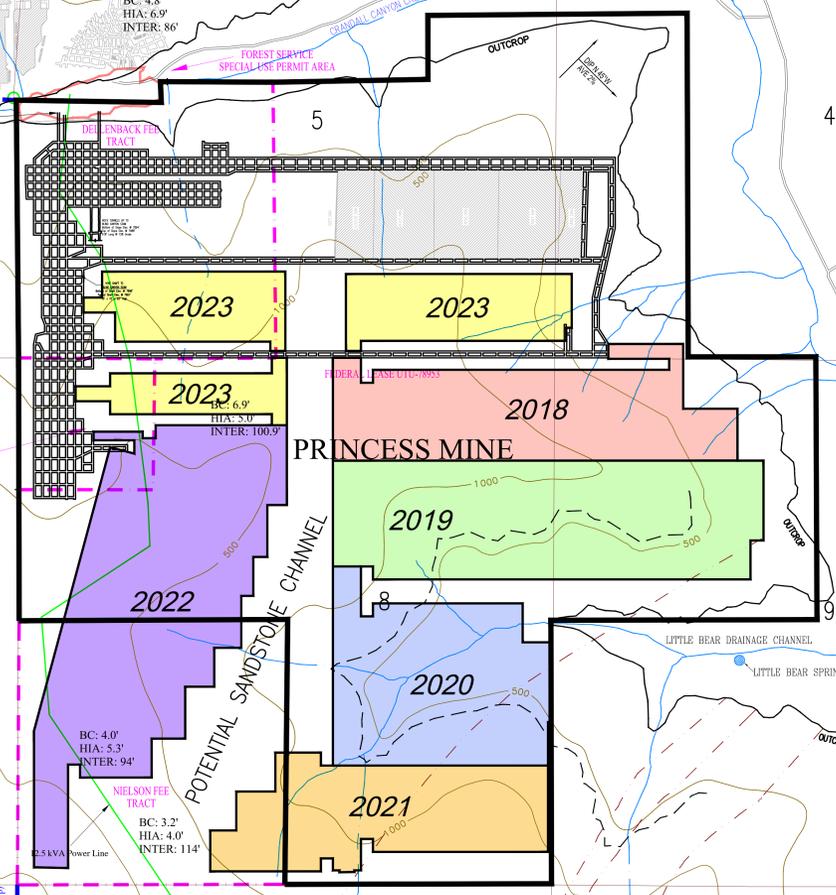
- NOTES:
1. CONTINUOUS MINING AREAS MAY BE INFLUENCED BY GEOLOGIC ANOMALIES WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO COAL THICKNESS, COAL QUALITY, AND MINING CONDITIONS.
 2. NO SECOND MINING UNDER LITTLE BEAR DRAINAGE CHANNEL AS PER LEASE STIPULATION.
 3. SUBSIDENCE IS SUBSTANTIALLY COMPLETE AS OF THE DATE OF THIS DRAWING. ACCORDING TO THE 2014 SUBSIDENCE MONITORING REPORT, ALL MONITORING POINTS HAVE NOT RECORDED SUBSIDENCE GREATER THAN SIX INCHES SINCE 2012.

**CRANDALL CANYON #1 MINE
(HIAWATHA SEAM WORKINGS)
-- MINING COMPLETE --**

TRESPASS AREA SUMMARY

1. This area of the East Molemine is an unmined area of the mine.
2. The East Molemine is a coal seam that is approximately 100' thick.
3. The East Molemine is a coal seam that is approximately 100' thick.
4. The East Molemine is a coal seam that is approximately 100' thick.
5. The East Molemine is a coal seam that is approximately 100' thick.
6. The East Molemine is a coal seam that is approximately 100' thick.
7. The East Molemine is a coal seam that is approximately 100' thick.
8. The East Molemine is a coal seam that is approximately 100' thick.
9. The East Molemine is a coal seam that is approximately 100' thick.
10. The East Molemine is a coal seam that is approximately 100' thick.

Mine projections depicted in the fringe areas beyond the SMCR permit area are speculative and based on future reserve acquisitions.
No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements.
Genwal Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary in the future.

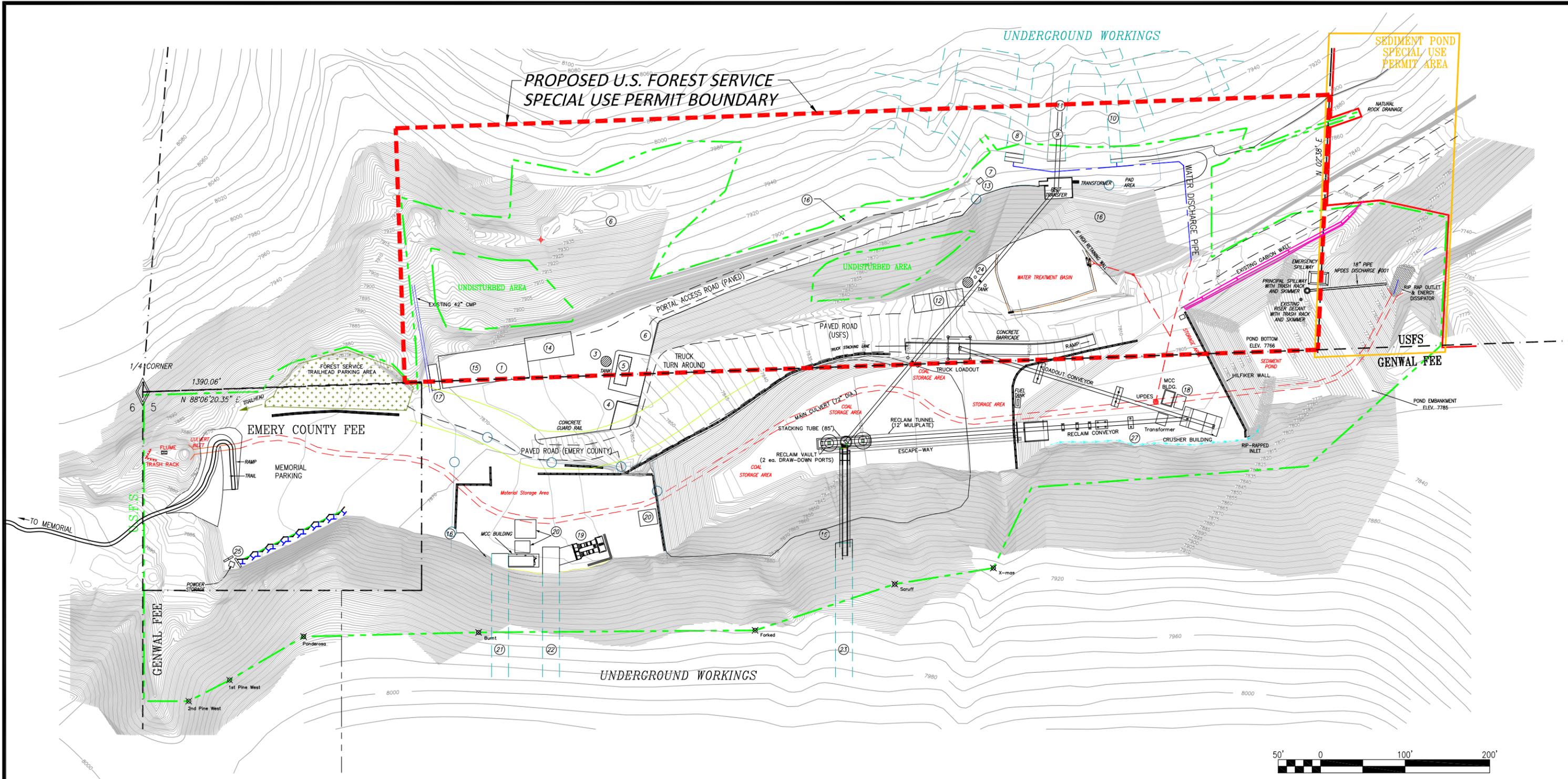


**GENWAL™
RESOURCES, INC.**
P.O. Box 910, 794 North "C" Canyon Rd, East Carbon, Utah
Telephone: (435) 888-4000

**CRANDALL CANYON MINE
AND PRINCESS MINE
MINE PLAN**

REV: 8	ACAD REF: H AND BC MINE PLAN R8
DATE: 01-13-16	BY: JDS/PJJ
SCALE: 1"=600'	PLATE #: 5-2 (H)

G:\Current Drawings\MRP Maps\Crandall Canyon\2015 MR-Term Review\Task 5067 3-21-16\Plate 5-3 REV 19.dwg, 11x17 Surface Facilities, 4/27/2016 2:24:42 PM, 1:1



LEGEND:

SEDIMENT POND (SPECIAL USE PERMIT AREA)	
EXTENT OF DISTURBANCE	
10' CONTOUR	
JERSEY BARRIERS	
RE-ESTABLISHED USFS ROAD (DOUBLE-LANE)	
SAFETY BARRIERS	
FENCING	

- FACILITY LEGEND:**
- | | |
|--------------------------------|---------------------------------------|
| 1. Shop | 14. New Warehouse and Office Building |
| 2. Ventilation Fan | 15. 4500 Gallon Cullinary Water Tank |
| 3. Rockdust Silo | 16. Shotcrete |
| 4. Concrete Dumpster Pad | 17. Parts Shed |
| 5. Power Center | 18. Portable Shed |
| 6. Power Pole | 19. Ventilation Fan |
| 7. Offices & Bathhouse (u'grd) | 20. Material Storage Sheds |
| 8. Intake Portal | 21. Intake Portal |
| 9. Belt Portal | 22. Return Portal |
| 10. Fan Portal | 23. Belt Portal |
| 11. Mine Belt | 24. Mag Tank |
| 12. Iron Treatment Shed | 25. Powder Storage |
| 13. Visual Disconnect | 26. Cap Storage |
| | 27. Concrete Ditch |





GENWAL™
RESOURCES, INC.
P.O. Box 1077, 794 North "C" Canyon Rd, Price Utah
Telephone: (435) 888-4000

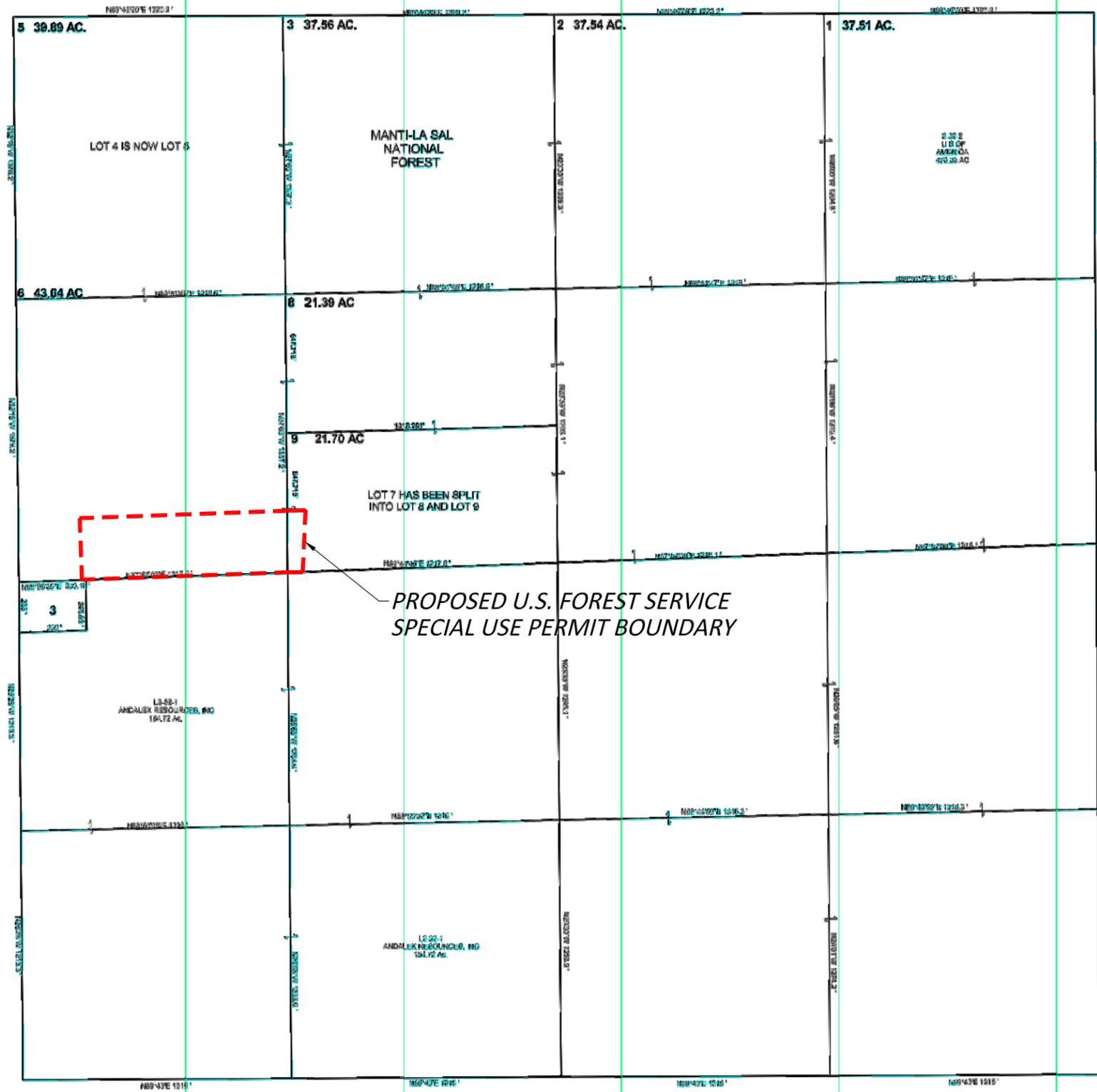
**CRANDALL CANYON MINE
SURFACE FACILITIES**

REV: 19	ACAD: 5-3 REV19
DATE: 04-27-16	BY: PJJ
SCALE: AS SHOWN	PLATE #: 5-3

T. 16 S., R. 7 E., SLBM

SECTION 5, T 16 S, R 7 E S.L.B. & M.

THIS PLAT IS MADE SOLELY FOR THE PURPOSE
 OF ASSISTING IN LOCATING THE LAND, AND
 THE RECORDER ASSUMES NO LIABILITY FOR
 VARIATIONS, IF ANY, WITH AN ACTUAL SURVEY.



SOURCE:
 ONLINE PLAT MAPS FROM
 EMERY COUNTY, UTAH
 (www.emerycounty.com/
 maps/index.htm)



P.O. Box 1077, 794 North "C" Canyon Rd, Price Utah
 Telephone: (435) 888-4000

PERMIT AREA
 ON PLAT MAP

REV: 1 ACAD: 5-3 REV19

DATE: 04-27-16 BY: PJJ

SCALE: AS SHOWN **FIGURE 2**

Proposed U.S. Forest Service Special Use Permit for the Crandall Canyon Mines' Surface Facilities

Introduction

UtahAmerican Energy, Inc. is requesting a Special Use Permit for the northern portion of the surface facilities at the Crandall Canyon Mines (UDOGM Permit Number C/015/032), located within the Manti-La Sal National Forest. The mine site is positioned in northwest Emery County, Utah. After recent federal lease relinquishments, UtahAmerican Energy has learned that we no longer have the legal right to enter the northern portion of our surface facilities at the Crandall Canyon mine complex. These facilities are currently maintained by UtahAmerican Energy and used for operations to dewater the Crandall Canyon Mine. After discussions with the Bureau of Land Management (BLM) and the Utah Department of Oil, Gas and Mining (UDOGM), it was determined that a special use permit from the U.S. Forest Service is needed by UtahAmerican Energy to continue use of the northern portion of the existing facilities.

History

Coal mining has been conducted in Crandall Canyon since 1939, with a lull from 1955 to 1983. In 1997, a major expansion of the surface facilities was performed in order to accommodate longwall mining at the Crandall Canyon #1 Mine by Genwal Resources, Inc. A second mine, the South Crandall Canyon Mine, commenced mining operations shortly thereafter in the southern slope of Crandall Canyon. The Crandall Canyon #1 and South Crandall Canyon Mines utilized the same surface facilities for their respective operations. Due to economic conditions, the South Crandall Canyon mine was idled in 2006, while the Crandall Canyon Mine continued mining operations.

In 2006, UtahAmerican Energy, Inc. acquired several local mines, including the Crandall Canyon Mines. UtahAmerican Energy continued mining operations at the Crandall Canyon site until August 2007, when an accident forced the closure of the Crandall Canyon #1 Mine.

In 2013, UtahAmerican Energy, Inc. relinquished all of the federal and state coal leases related to the Crandall Canyon #1 Mine, while retaining the coal leases for the South Crandall Mine, which has been renamed the Princess Mine. When the federal coal leases for the Crandall Canyon #1 Mine were relinquished by the Bureau of Land Management (BLM), the surface rights to the northern portion of the surface facilities and disturbance reverted back to the U.S. Forest Service. Due to circumstances beyond our control, the legal right to access the north portion of the surface facilities was included in the relinquishment, and UtahAmerican Energy's right to access and maintain the north portion of the Crandall Canyon Mines' surface facilities was removed. All entities involved with the lease relinquishments believed the surface facilities were excluded from the relinquishment, and UtahAmerican Energy would maintain the legal right to access and utilize the existing facilities. In reality, UtahAmerican Energy lost the legal right to enter our facilities due to these relinquishments.

Summary and Conclusion

Coal mining operations in Crandall Canyon, Utah have been occurring since 1939, with a major expansion of the surface facilities in 1997. The existing surface facilities utilized by two separate mines have been in existence for nearly twenty years. Recently, UtahAmerican Energy,

Inc. has learned that we no longer have the legal right to enter the northern portion of these facilities due to an oversight when federal coal leases were relinquished.

The existing Crandall Canyon surface facilities are currently used to dewater the sealed Crandall Canyon #1 Mine. The northern portion of the complex contains the portals and water treatment facility for the Crandall Canyon #1 Mine. Furthermore, several buildings and support facilities are located in the northern portion of the site. This is the portion where we have lost our legal access.

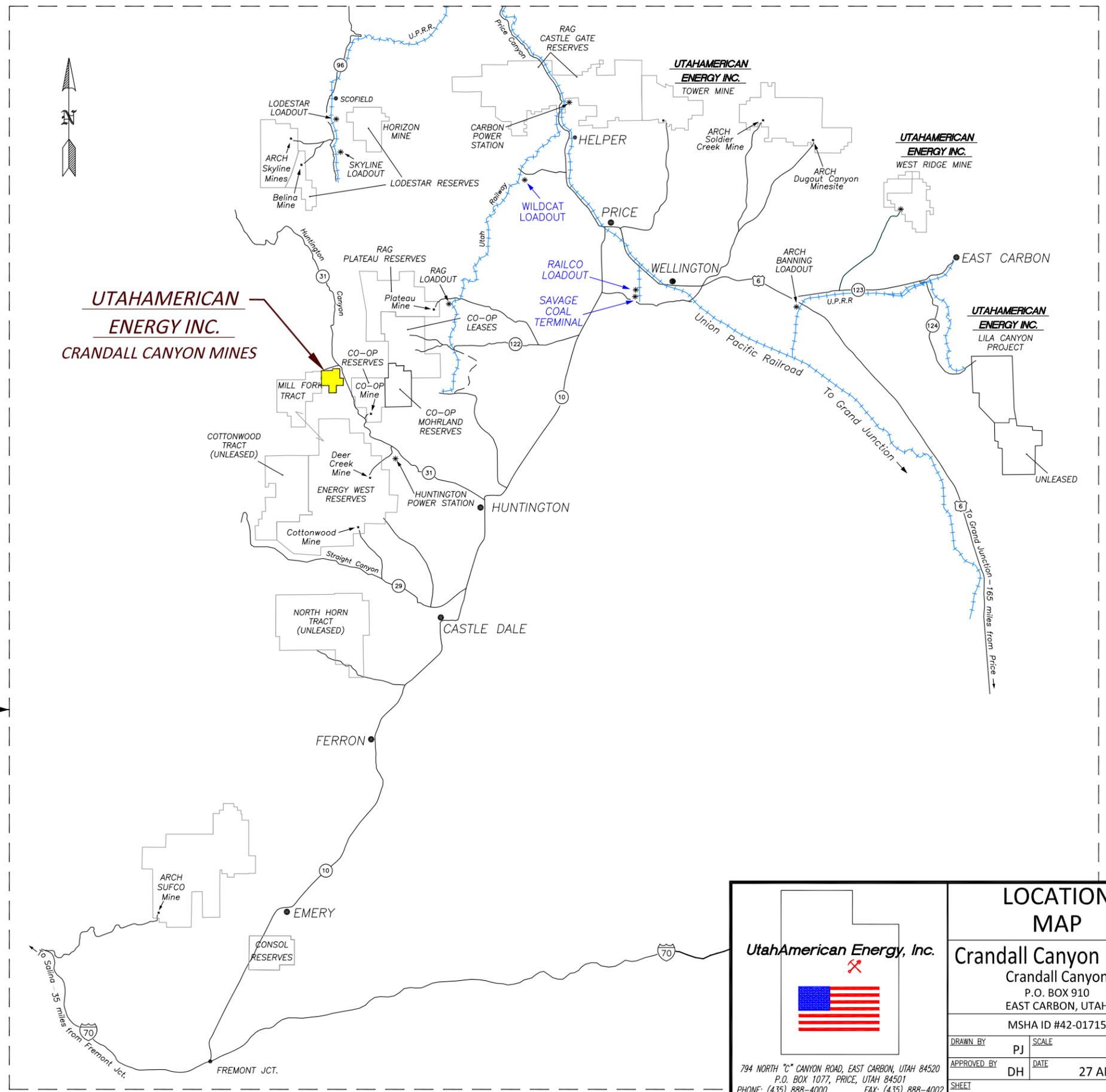
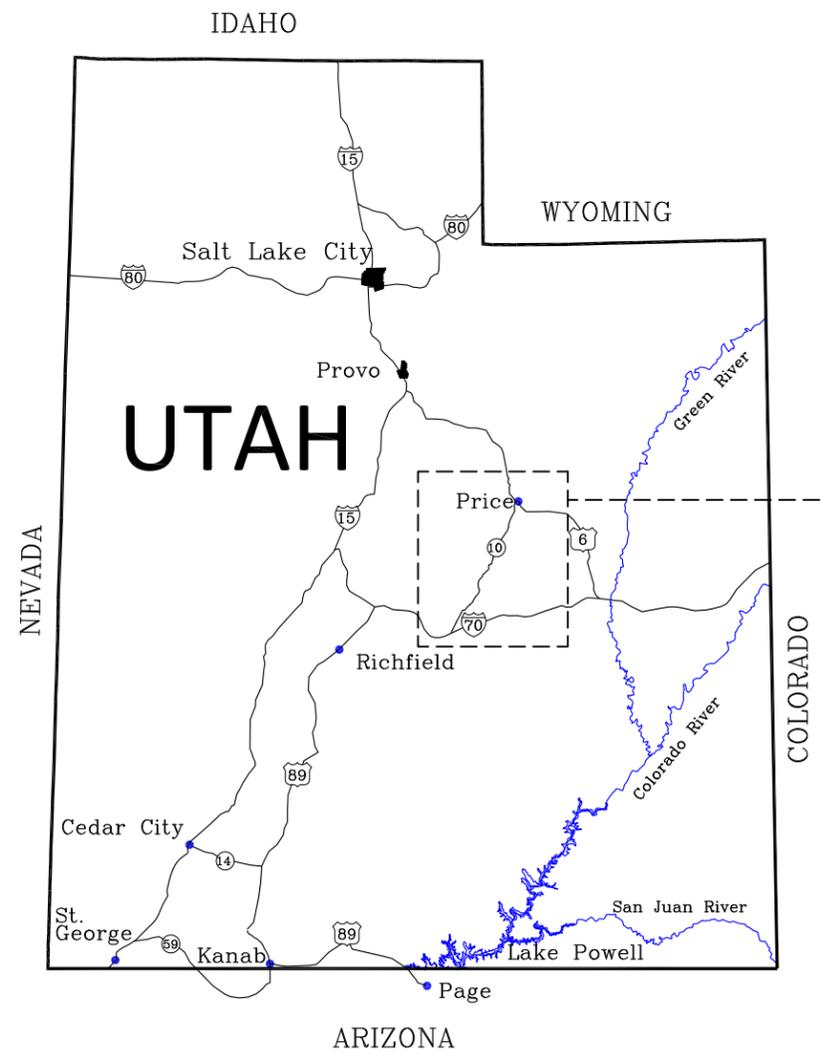
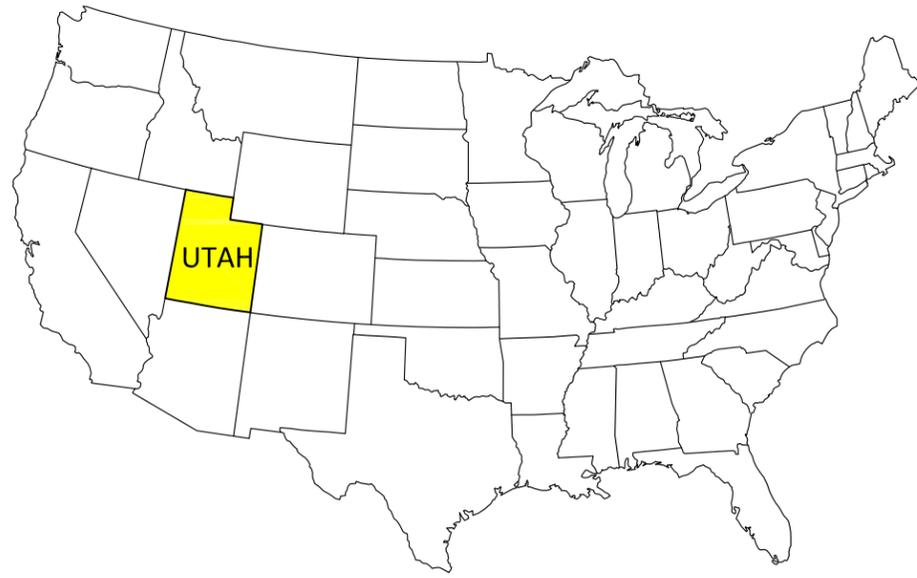
In addition, UtahAmerican Energy, Inc. plans to resume mining in the Princess Mine (formerly the South Crandall Mine) when economic and market conditions become more favorable. At that time, the existing surface facilities will become vital to the coal production at the Princess Mine. However, without the legal right to enter our facilities, UtahAmerican Energy cannot utilize this existing complex for its intended purpose, to support the mining operations. Thus, the need for a special use permit. Additionally, as the northern facilities are currently used by UtahAmerican Energy to dewater the Crandall Canyon #1 Mine, an expedited review for the permit is requested as continued operations are required.

**Proposed U.S. Forest Service Special Use Permit
for the Crandall Canyon Mines Surface Facilities**

Proposed Legal Description:

Beginning at a point located 310.0 feet N87°57'09"E from the quarter corner and along the south border of Lot 6 in Section 5, Township 16 South, Range 7 East, SLBM; thence N02°02'51"W 300.0 feet; thence N87°57'09"E 1015.48 feet to the border between Lots 6 and 9; thence N87°57'09"E 89.45' to the western boundary of an existing U.S. Forest Service Special Use Permit; thence S02°38'W 303.29 feet to the south border of Lot 9; thence S89°44'40"W 73.02 feet to the southwest corner of Lot 9; thence S87°57'09"W 1007.20 feet to the point of beginning.

Proposed permit area is 7.53 acres.



UTAHAMERICAN ENERGY INC.
CRANDALL CANYON MINES

UtahAmerican Energy, Inc.

794 NORTH "C" CANYON ROAD, EAST CARBON, UTAH 84520
 P.O. BOX 1077, PRICE, UTAH 84501
 PHONE: (435) 888-4000 FAX: (435) 888-4002

LOCATION MAP	
Crandall Canyon Mines	
Crandall Canyon P.O. BOX 910 EAST CARBON, UTAH	
MSHA ID #42-01715	
DRAWN BY	PJ
APPROVED BY	DH
SCALE	NONE
DATE	27 APRIL 2016
SHEET	FIGURE 1

LEGEND

- Mined Out Areas
- Lease Boundary
- Permit Area
- Projected Subsidence
- Seam Iso-Pac
- Depth of Cover
- Surface Drill Hole

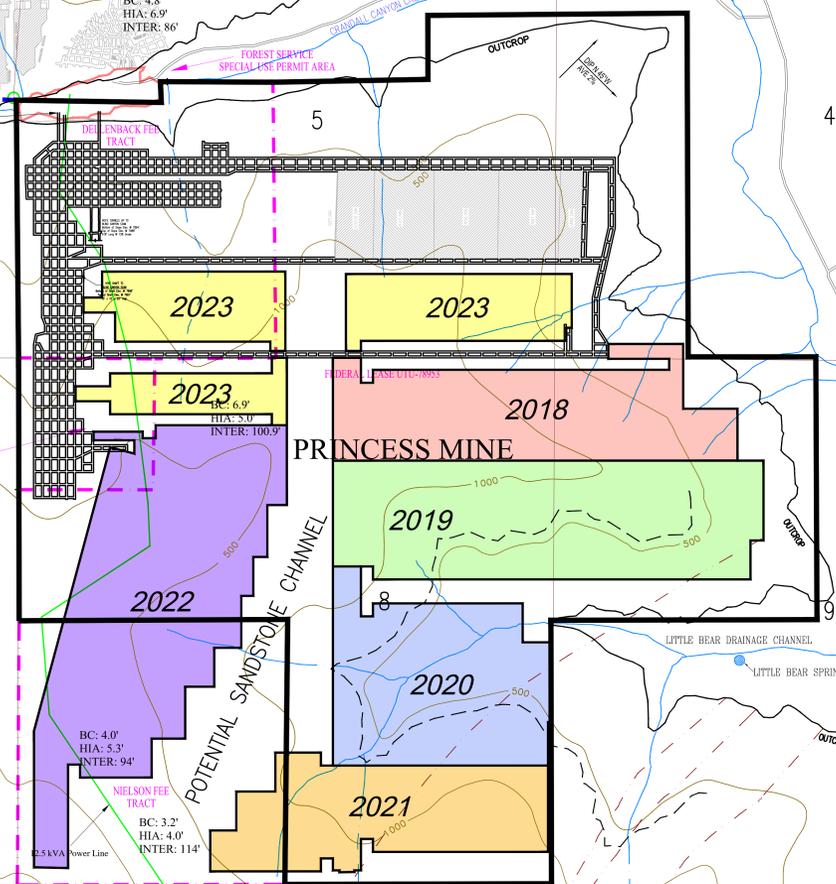
- NOTES:
1. CONTINUOUS MINING AREAS MAY BE INFLUENCED BY GEOLOGIC ANOMALIES WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO COAL THICKNESS, COAL QUALITY, AND MINING CONDITIONS.
 2. NO SECOND MINING UNDER LITTLE BEAR DRAINAGE CHANNEL AS PER LEASE STIPULATION.
 3. SUBSIDENCE IS SUBSTANTIALLY COMPLETE AS OF THE DATE OF THIS DRAWING. ACCORDING TO THE 2014 SUBSIDENCE MONITORING REPORT, ALL MONITORING POINTS HAVE NOT RECORDED SUBSIDENCE GREATER THAN SIX INCHES SINCE 2012.

**CRANDALL CANYON #1 MINE
(HIAWATHA SEAM WORKINGS)
-- MINING COMPLETE --**

TRESPASS AREA SUMMARY

1. This area of the East Molemine is an unmined boundary area of the mine. The East Molemine was mined out and sold to the State of Utah in 1982.
2. The area of the East Molemine is an unmined boundary area of the mine. The East Molemine was mined out and sold to the State of Utah in 1982.
3. On September 21, 1988, the Regional Coal Resource Inventory (RCRI) was completed for the state of Utah. The RCRI is a map showing the location and extent of coal resources in the state. The RCRI is a map showing the location and extent of coal resources in the state.
4. A portion of the area of the East Molemine is an unmined boundary area of the mine. The East Molemine was mined out and sold to the State of Utah in 1982.

Mine projections depicted in the fringe areas beyond the SMCR permit area are speculative and based on future reserve acquisitions. No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements. Genwal Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary in the future.



T. 15 S.
T. 16 S.

T. 15 S.
T. 16 S.



I hereby certify that the design and/or map contained herein was prepared by me or under my supervision and is true and correct to the best of my knowledge.

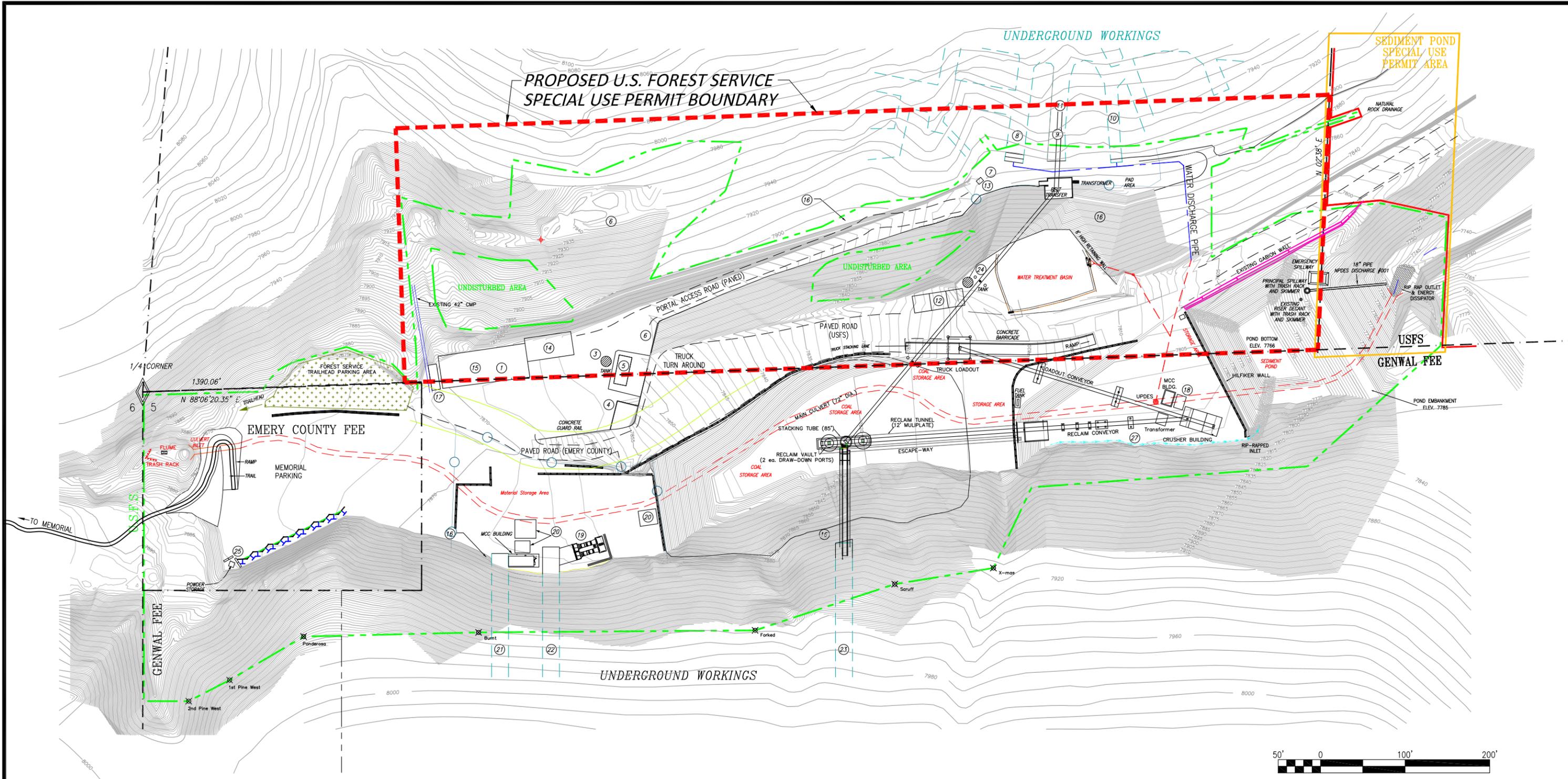


P.O. Box 910, 794 North "C" Canyon Rd, East Carbon, Utah
Telephone: (435) 888-4000

**CRANDALL CANYON MINE
AND PRINCESS MINE
MINE PLAN**

REV: 8	ACAD REF: H AND BC MINE PLAN R8
DATE: 01-13-16	BY: JDS/PJJ
SCALE: 1"=600'	PLATE #: 5-2 (H)

G:\Current Drawings\MRP Maps\Crandall Canyon\2015 MR-Term Review\Task 5067 3-21-16\Plate 5-3 REV 19.dwg, 11x17 Surface Facilities, 4/27/2016 2:24:42 PM, 1:1



LEGEND:

SEDIMENT POND (SPECIAL USE PERMIT AREA)	
EXTENT OF DISTURBANCE	
10' CONTOUR	
JERSEY BARRIERS	
RE-ESTABLISHED USFS ROAD (DOUBLE-LANE)	
SAFETY BARRIERS	
FENCING	

- FACILITY LEGEND:**
- | | |
|--------------------------------|---------------------------------------|
| 1. Shop | 14. New Warehouse and Office Building |
| 2. Ventilation Fan | 15. 4500 Gallon Cullinary Water Tank |
| 3. Rockdust Silo | 16. Shotcrete |
| 4. Concrete Dumpster Pad | 17. Parts Shed |
| 5. Power Center | 18. Portable Shed |
| 6. Power Pole | 19. Ventilation Fan |
| 7. Offices & Bathhouse (u'grd) | 20. Material Storage Sheds |
| 8. Intake Portal | 21. Intake Portal |
| 9. Belt Portal | 22. Return Portal |
| 10. Fan Portal | 23. Belt Portal |
| 11. Mine Belt | 24. Mag Tank |
| 12. Iron Treatment Shed | 25. Powder Storage |
| 13. Visual Disconnect | 26. Cap Storage |
| | 27. Concrete Ditch |





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Telephone: (435) 888-4000

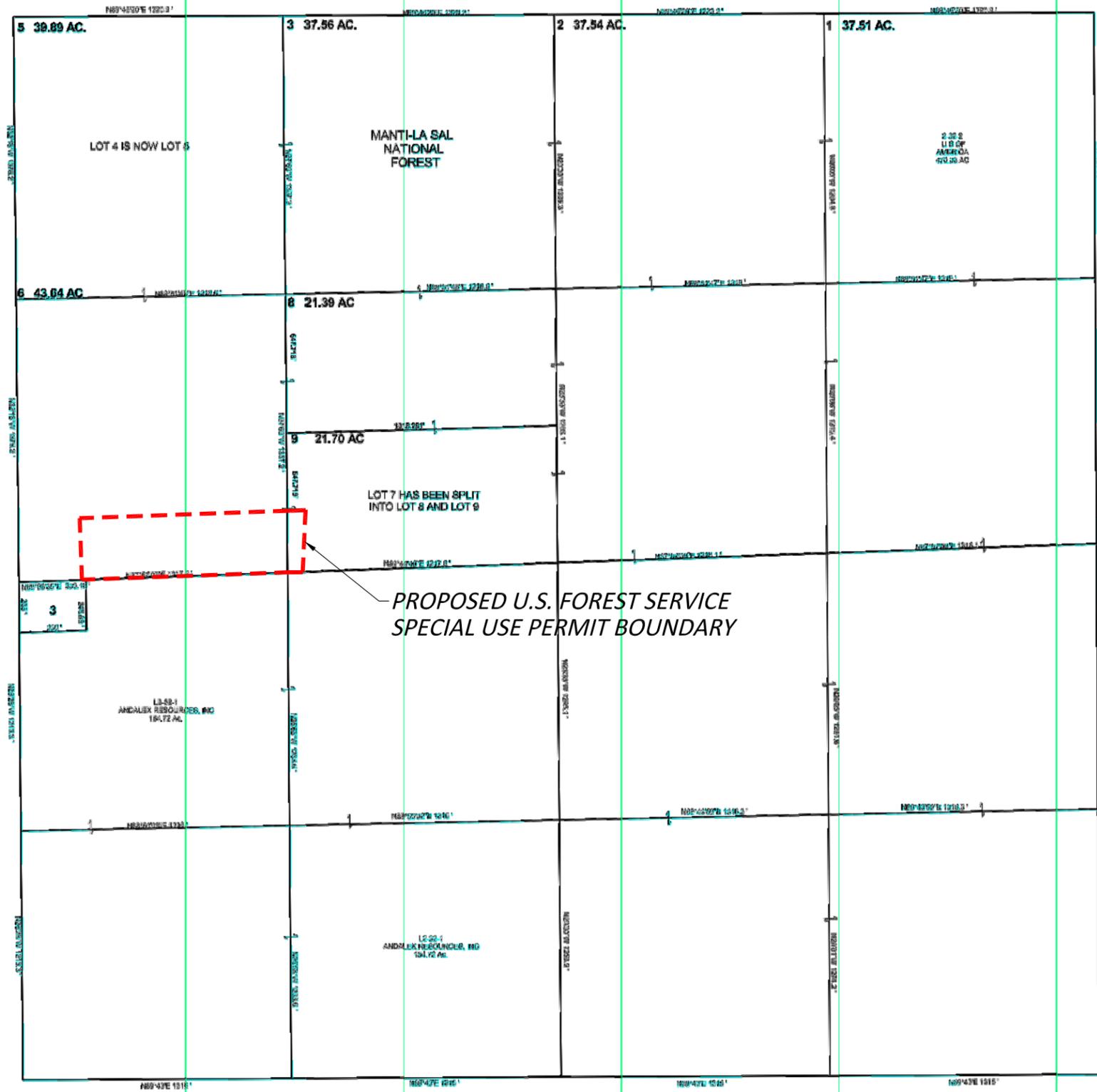
**CRANDALL CANYON MINE
SURFACE FACILITIES**

REV: 19	ACAD: 5-3 REV19
DATE: 04-27-16	BY: PJJ
SCALE: AS SHOWN	PLATE #: 5-3

T. 16 S., R. 7 E., SLBM

SECTION 5, T 16 S, R 7 E S.L.B. & M.

THIS PLAT IS MADE SOLELY FOR THE PURPOSE
OF ASSISTING IN LOCATING THE LAND, AND
THE RECORDER ASSUMES NO LIABILITY FOR
VARIATIONS, IF ANY, WITH AN ACTUAL SURVEY.



2-32

SOURCE:
ONLINE PLAT MAPS FROM
EMERY COUNTY, UTAH
([www.emerycounty.com/
maps/index.htm](http://www.emerycounty.com/maps/index.htm))



P.O. Box 1077, 794 North "C" Canyon Rd, Price Utah
Telephone: (435) 888-4000

PERMIT AREA
ON PLAT MAP

REV: 1	ACAD: 5-3 REV19
DATE: 04-27-16	BY: PJJ
SCALE: AS SHOWN	FIGURE 2

Jensen, PJ

From: Jensen, PJ
Sent: Wednesday, April 27, 2016 3:41 PM
To: 'Salow, Jeffrey - FS'
Cc: Jones, Anita - FS; Hibbs, David (dhibbs@coalsource.com); Madsen, Karin; 'Daron Haddock'; 'Falk, Stephen'
Subject: RE: Crandall Canyon Permit Request

Thank you very much. I really appreciate your help. Please let me know if you have any questions or need anything else.

Thanks again,

PJ Jensen

Engineering Technician
UtahAmerican Energy, Inc.
794 North 'C' Canyon Road
P.O. Box 910
East Carbon, Utah 84520
Phone: 435.888.4018
Fax: 435.888.4002
Email: pjensen@coalsource.com

From: Salow, Jeffrey - FS [mailto:jsalow@fs.fed.us]
Sent: Wednesday, April 27, 2016 3:28 PM
To: Jensen, PJ
Cc: Jones, Anita - FS
Subject: RE: Crandall Canyon Permit Request

Hi PJ,

I received your request for a special use permit and I'll try to get this worked out as soon as I can.

Thank you for the information.



Jeff Salow
Geologist
Forest Service
Manti-La Sal National Forest
p: 435-636-3596
jsalow@fs.fed.us

599 West Price River Drive
Price, UT 84501
www.fs.fed.us



From: Jensen, PJ [<mailto:pjensen@coalsource.com>]
Sent: Wednesday, April 27, 2016 1:55 PM
To: Salow, Jeffrey - FS <jsalow@fs.fed.us>
Cc: Falk, Stephen <sfalk@blm.gov>; Daron Haddock <daronhaddock@utah.gov>; Hibbs, David <dhibbs@coalsource.com>; Madsen, Karin <kmadsen@coalsource.com>
Subject: Crandall Canyon Permit Request

Hello Mr. Salow –

We met at the Carbon and Emery County Collaborative Meeting yesterday, April 26.

This email is regarding the Crandall Canyon Mines surface facilities in Emery County, Utah. The mines are owned by Genwal Resources, Inc. which is an operating division of UtahAmerican Energy, Inc., the company that employs me.

UtahAmerican Energy relinquished some of our federal coal leases for the Crandall Canyon Mines in 2013. In the process, we lost our legal access to the northern portion of our surface facilities. We believed that we had maintained the legal access to the facilities that were on Federal Lease #SL-062648 when it was relinquished. Unfortunately, access to the northern portion of the surface facilities “slipped through the cracks” and we lost our legal access even though we are currently using the facilities.

With this email, UtahAmerican Energy is requesting a special use permit for the northern portion of the surface facilities at the Crandall Canyon Mines. Attached is a PDF that includes the following:

1. Narrative of the Current Conditions and reason for the need of the permit
2. Proposed Metes and Bounds of the Proposed Permit Area
3. Figure 1 – Location Map
4. Plate 5-2 – Crandall Canyon #1 and Princess Mine Plans
5. Plate 5-3 – Surface Facilities Map (with Proposed Permit Area)
6. Figure 2 – Permit Area on Section Plat Map

We are currently using the facilities in question to dewater and treat the water from the Crandall Canyon #1 Mine. Therefore, we are hopeful that an expedited review process can be achieved so we can resolve this legal access issue as quickly as possible.

Please feel free to contact me if you have any questions or need any further information. Thank you for your time and assistance with this matter.

Best Regards,

PJ Jensen

Engineering Technician
UtahAmerican Energy, Inc.
794 North ‘C’ Canyon Road
P.O. Box 910

East Carbon, Utah 84520
Phone: 435.888.4018
Fax: 435.888.4002
Email: pjensen@coalsource.com

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**Proposed U.S. Forest Service Special Use Permit
for the Crandall Canyon Mines Surface Facilities**

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Proposed permit area is 7.53 acres.

Proposed U.S. Forest Service Special Use Permit for the Crandall Canyon Mines' Surface Facilities

Introduction

UtahAmerican Energy, Inc. is requesting a Special Use Permit for the northern portion of the surface facilities at the Crandall Canyon Mines (UDOGM Permit Number C/015/032), located within the Manti-La Sal National Forest. The mine site is positioned in northwest Emery County, Utah. After recent federal lease relinquishments, UtahAmerican Energy has learned that we no longer have the legal right to enter the northern portion of our surface facilities at the Crandall Canyon mine complex. These facilities are currently maintained by UtahAmerican Energy and used for operations to dewater the Crandall Canyon Mine. After discussions with the Bureau of Land Management (BLM) and the Utah Department of Oil, Gas and Mining (UDOGM), it was determined that a special use permit from the U.S. Forest Service is needed by UtahAmerican Energy to continue use of the northern portion of the existing facilities.

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Summary and Conclusion

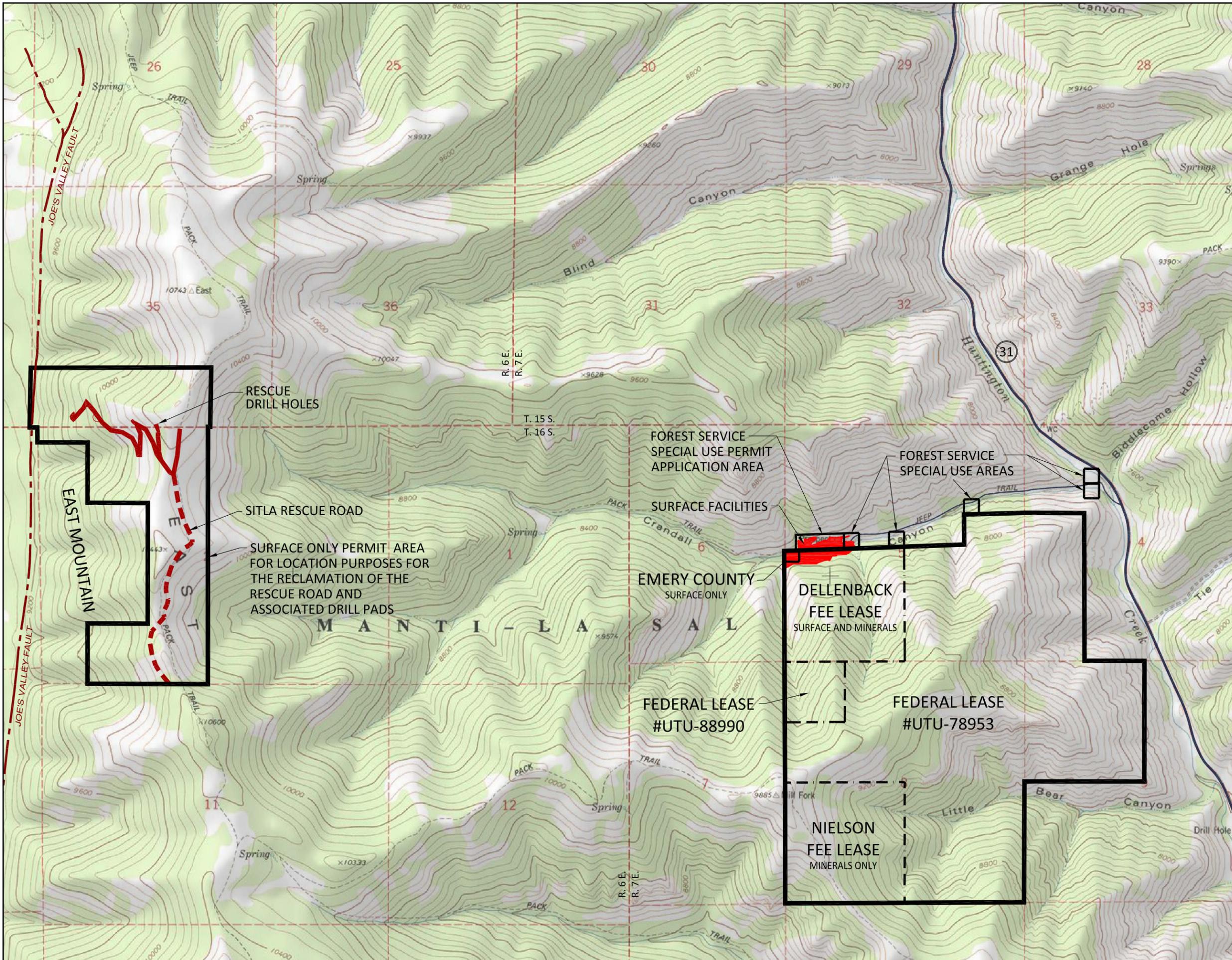
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In addition, UtahAmerican Energy, Inc. plans to resume mining in the Princess Mine (formerly the South Crandall Mine) when economic and market conditions become more favorable. At that time, the existing surface facilities will become vital to the coal production at the Princess Mine. However, without the legal right to enter our facilities, UtahAmerican Energy cannot utilize this existing complex for its intended purpose, to support the mining operations. Thus, the need for a special use permit. Additionally, as the northern facilities are currently used by UtahAmerican Energy to dewater the Crandall Canyon #1 Mine, an expedited review for the permit is requested as continued operations are required.

G:\Current Drawings\MPR Maps\Crandall Canyon\2015 MPR Term Review\Task 5190 - 3rd Submittal\1-1 LEASE MAP REV15.dwg, Plate 1-1, 7/25/2016 8:44:29 AM, 1:1



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RESOURCES, INC.
P.O. Box 910, 794 North "C" Canyon Rd, East Carbon, Utah
Telephone: (435) 888-4000

**CRANDALL CANYON MINE
LEASE / PERMIT AREA MAP**

REV: 15	ACAD: 1-1 LEASE MAP R15
DATE: 7-27-16	BY: JDS/RJ
SCALE: 1"=2000'	PLATE #: 1-1



I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

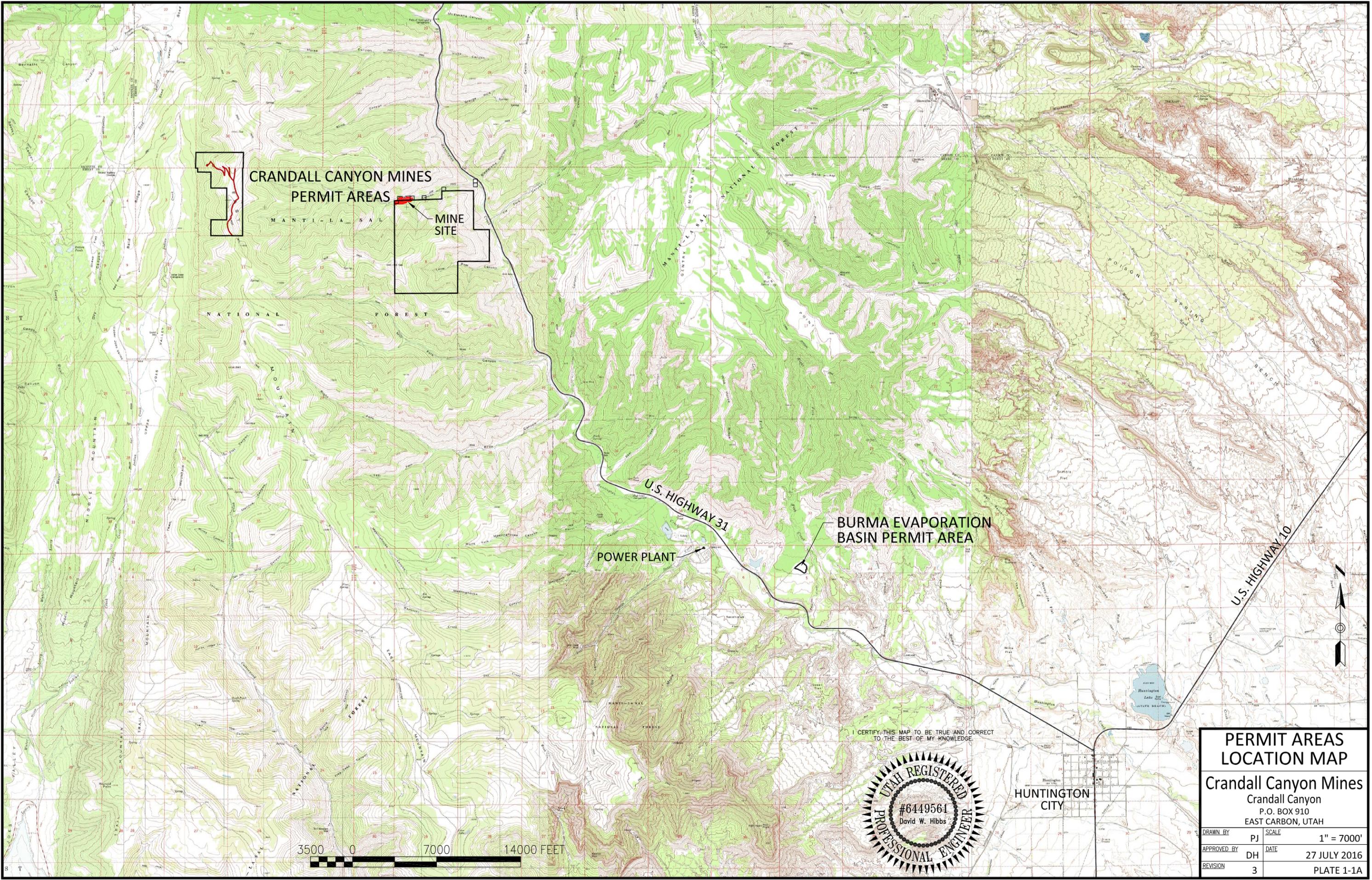


LEGEND

- UDOGM PERMIT BOUNDARY
- TYPICAL LEASE BOUNDARY
- MINE SURFACE FACILITIES

THE PERMIT AREA IS ENTIRELY WITHIN THE MANTI - LA SAL NATIONAL FOREST

NOTE:
SEE PLATE 1-1A FOR LOCATION OF BURMA EVAPORATION POND (PERMIT AREA).



CRANDALL CANYON MINES PERMIT AREAS
MINE SITE

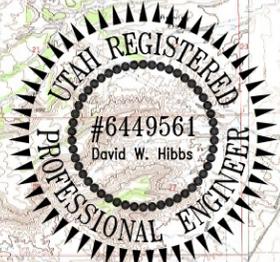
U.S. HIGHWAY 31
POWER PLANT

BURMA EVAPORATION BASIN PERMIT AREA

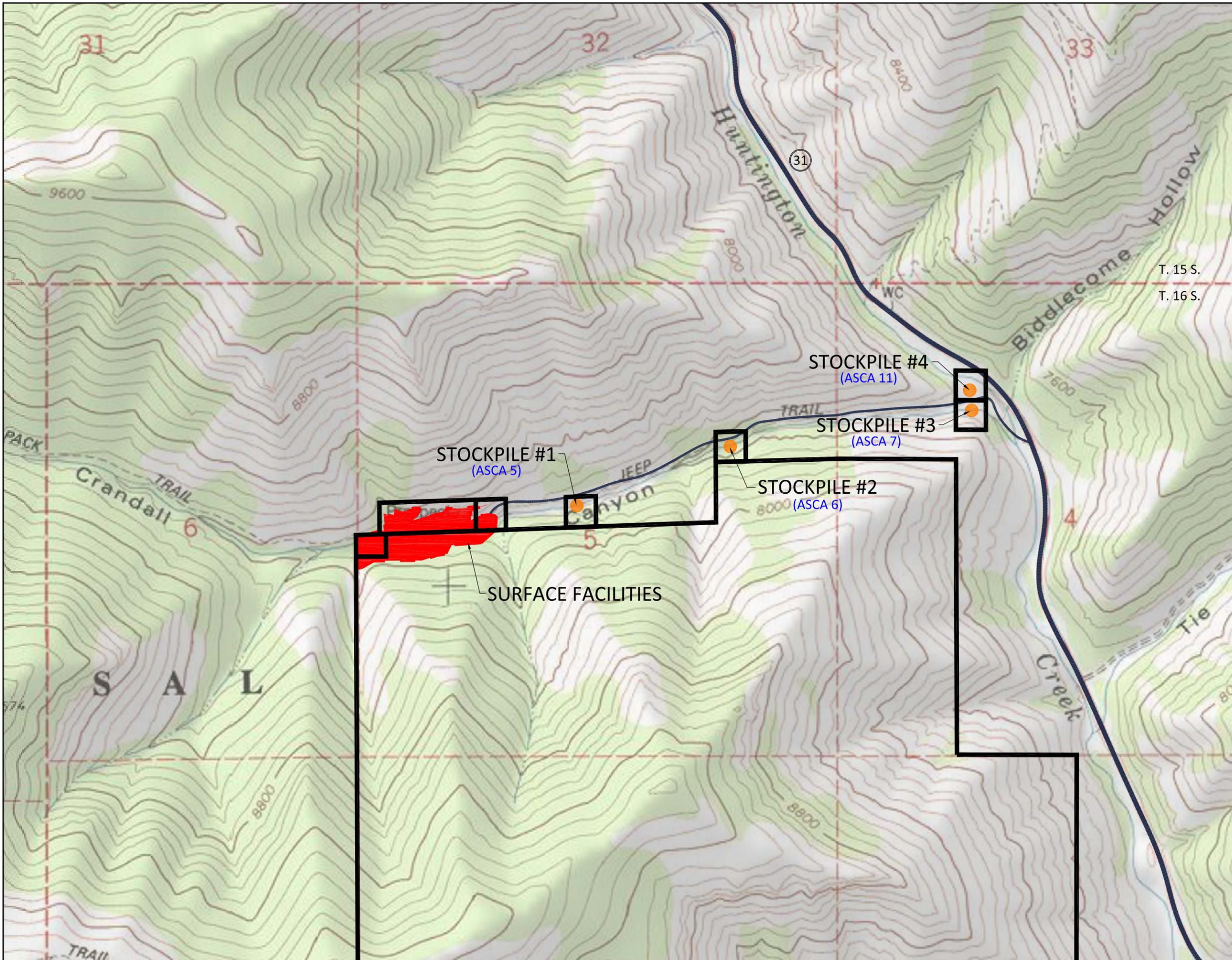
U.S. HIGHWAY 10

HUNTINGTON CITY

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



PERMIT AREAS LOCATION MAP		
Crandall Canyon Mines Crandall Canyon P.O. BOX 910 EAST CARBON, UTAH		
DRAWN BY	PJ	SCALE 1" = 7000'
APPROVED BY	DH	DATE 27 JULY 2016
REVISION	3	PLATE 1-1A





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CRANDALL CANYON MINE

TOPSOIL STOCKPILE LOCATIONS

REV: 6 ACAD: STOCKPILE LOCATIONS

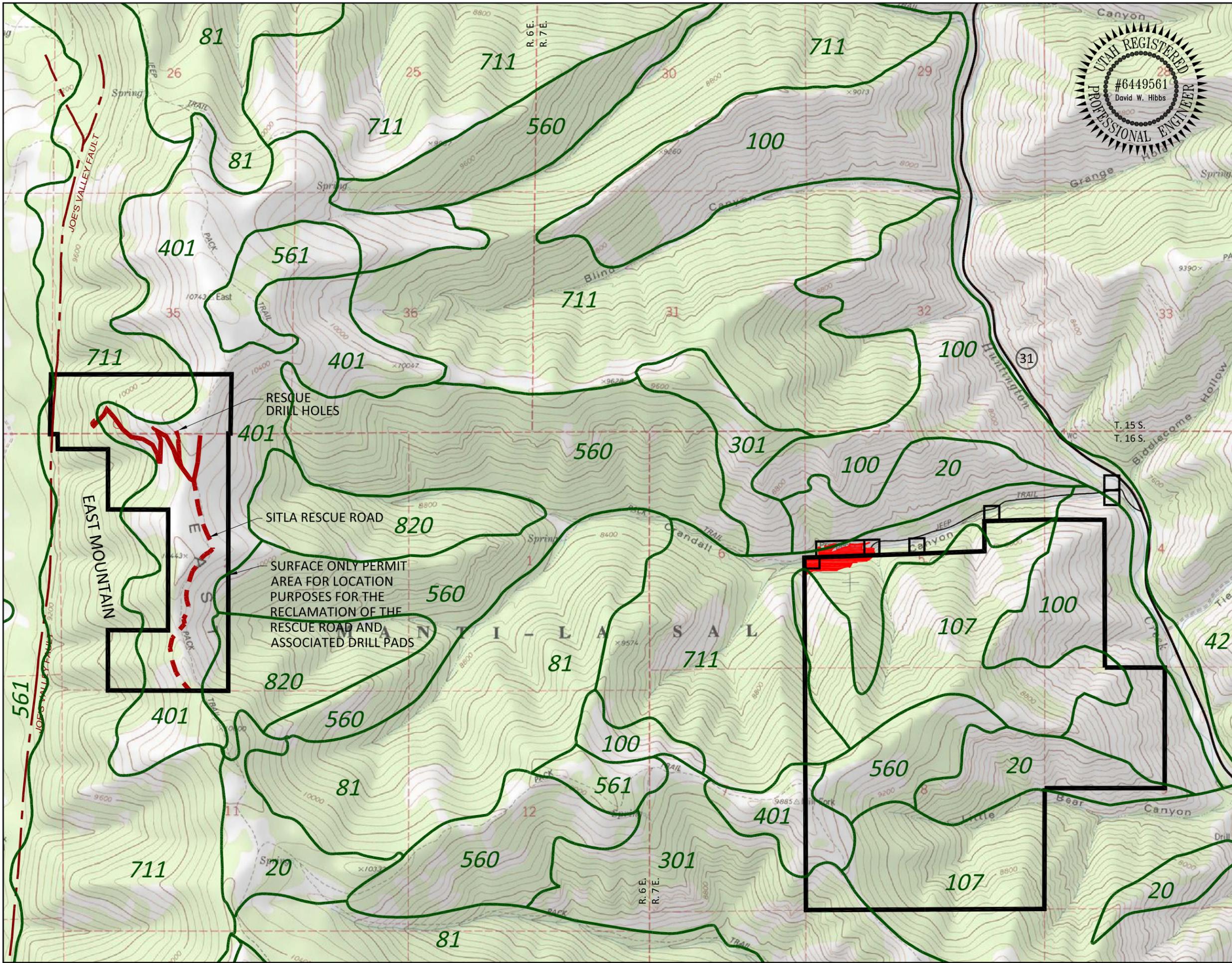
DATE: 7-27-16 BY: JDS/RJ

SCALE: 1"=1000' PLATE #: 2-3



- LEGEND**
- UDOGM PERMIT BOUNDARY
 - TYPICAL LEASE BOUNDARY
 - STOCKPILE LOCATIONS ● (PERMIT AREA)

THE PERMIT AREA IS ENTIRELY WITHIN
THE MANTI - LA SAL NATIONAL FOREST





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RESOURCES, INC.
P.O. Box 910, 794 North "C" Canyon Rd, East Carbon, Utah
Telephone: (435) 888-4000

CRANDALL CANYON MINE
REGIONAL SOILS MAP



REV: 12	ACAD: REGIONAL SOILS MAP	
DATE: 7-27-16	BY: JDS/RJ	
SCALE: 1"=2000	PLATE #: 2-6	

- SOIL TYPE KEY**
- | | |
|---|--|
| <ul style="list-style-type: none"> 8 GREYBACK FAMILY-CRYOTHENTS COMPLEX 20 STRYCH-PATHEAD-PODO FAMILIES-RUBBLELAND COMPLEX 41 CASTINO FAMILY 42 BECKS FAMILY-CRYAQUOLLS-SILAS FAMILY COMPLEX 81 BUNDO-LUCKY STAR-SCOUT FAMILIES COMPLEX 100 GRALIC-BEHANIN-ELWOOD FAMILIES COMPLEX 107 CURECANTI-ELWOOD-DUSCHENE FAMILIES COMPLEX 301 GREYBACK-LOAMY, MIXED (NONACIDIC) LITHIC CRYOTHENTS-BACHELOR FAMILIES COMPLEX 401 ADEL-MERINO FAMILIES COMPLEX 560 CLAYBURN-BROAD CANYON FAMILIES COMPLEX 561 CLAYBURN-FAIM-BEHANIN FAMILIES COMPLEX 711 BUNDO-LUCKY STAR-ADEL FAMILIES COMPLEX 820 LUCKY STAR-BUNDO-ADEL FAMILIES COMPLEX | <ul style="list-style-type: none"> 107 BECKS FAMILY-CRYAQUOLLS-SILAS FAMILY COMPLEX 20 BUNDO-LUCKY STAR-SCOUT FAMILIES COMPLEX 42 GRALIC-BEHANIN-ELWOOD FAMILIES COMPLEX 81 CURECANTI-ELWOOD-DUSCHENE FAMILIES COMPLEX 100 CRYOTHENTS-BACHELOR FAMILIES COMPLEX 301 ADEL-MERINO FAMILIES COMPLEX 401 CLAYBURN-BROAD CANYON FAMILIES COMPLEX 560 CLAYBURN-FAIM-BEHANIN FAMILIES COMPLEX 711 BUNDO-LUCKY STAR-ADEL FAMILIES COMPLEX 820 LUCKY STAR-BUNDO-ADEL FAMILIES COMPLEX |
|---|--|

SOURCE: Manti-LaSal Forest Service, 1995





P.O. Box 910, 794 North "C" Canyon Rd, East Carbon, Utah
Telephone: (435) 888-4000

CRANDALL CANYON MINE
WILDLIFE MAP - MOOSE

REV: 12	ACAD: WILDLIFE-MOOSE R12
DATE: 7-27-16	BY: JDS/RJW
SCALE: 1"=2000'	PLATE #: 3-1 (A)

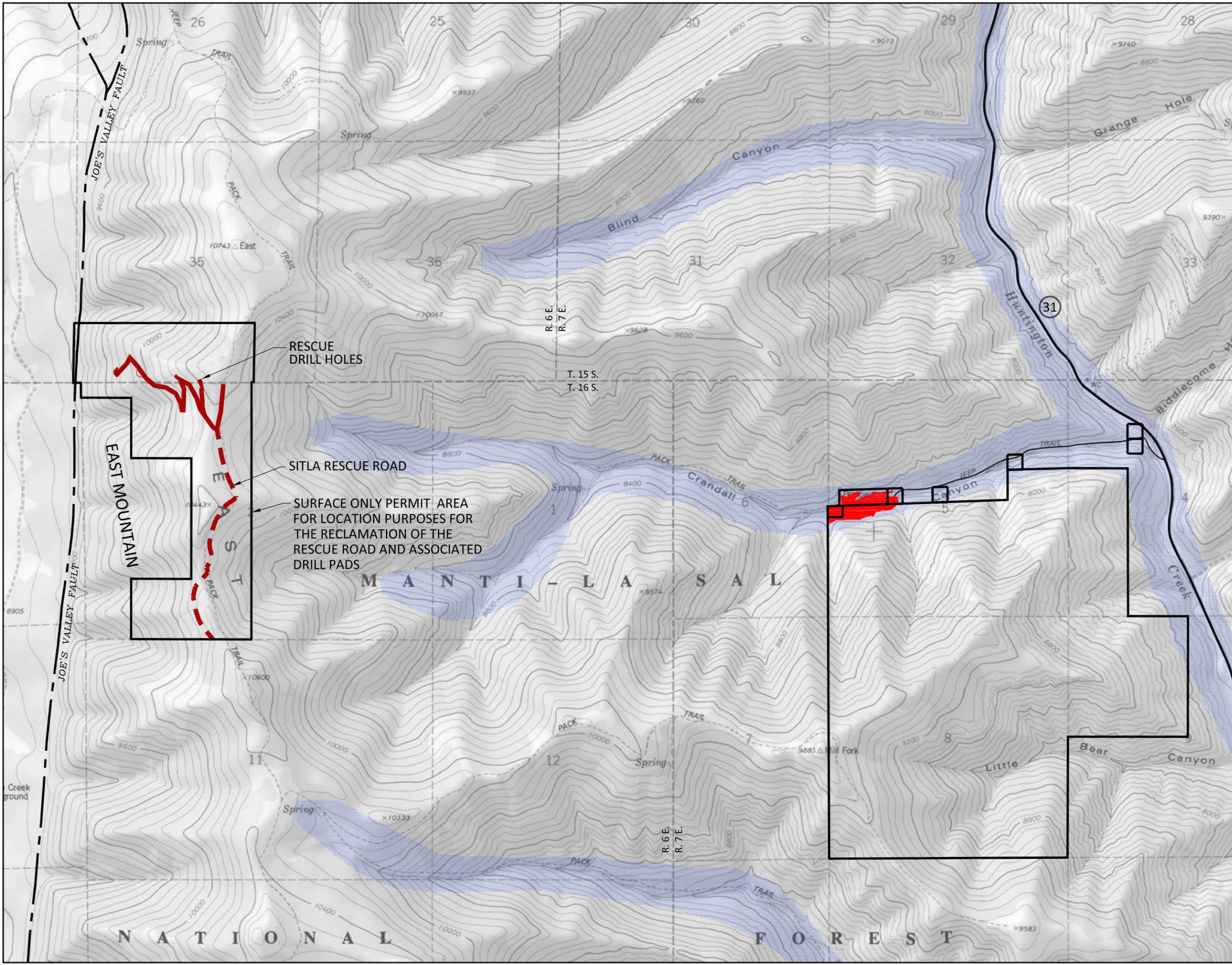


LEGEND

- MOOSE - YEAR ROUND
- UDOGM PERMIT BOUNDARY
- MINE SURFACE FACILITIES

SOURCE: U.D.W.R. 2004

G:\Current Drawings\MPR Maps\Crandall Canyon\2015 MPR-Term Review\Task 5190 - 3rd Submittal\3-1A WILDLIFE-MOOSE R12.dwg, Plate 3-1a, 7/25/2016 8:57:37 AM, 1:1



RESCUE DRILL HOLES

SITLA RESCUE ROAD

SURFACE ONLY PERMIT AREA FOR LOCATION PURPOSES FOR THE RECLAMATION OF THE RESCUE ROAD AND ASSOCIATED DRILL PADS

EAST MOUNTAIN

EAST

MANTILLA SAL

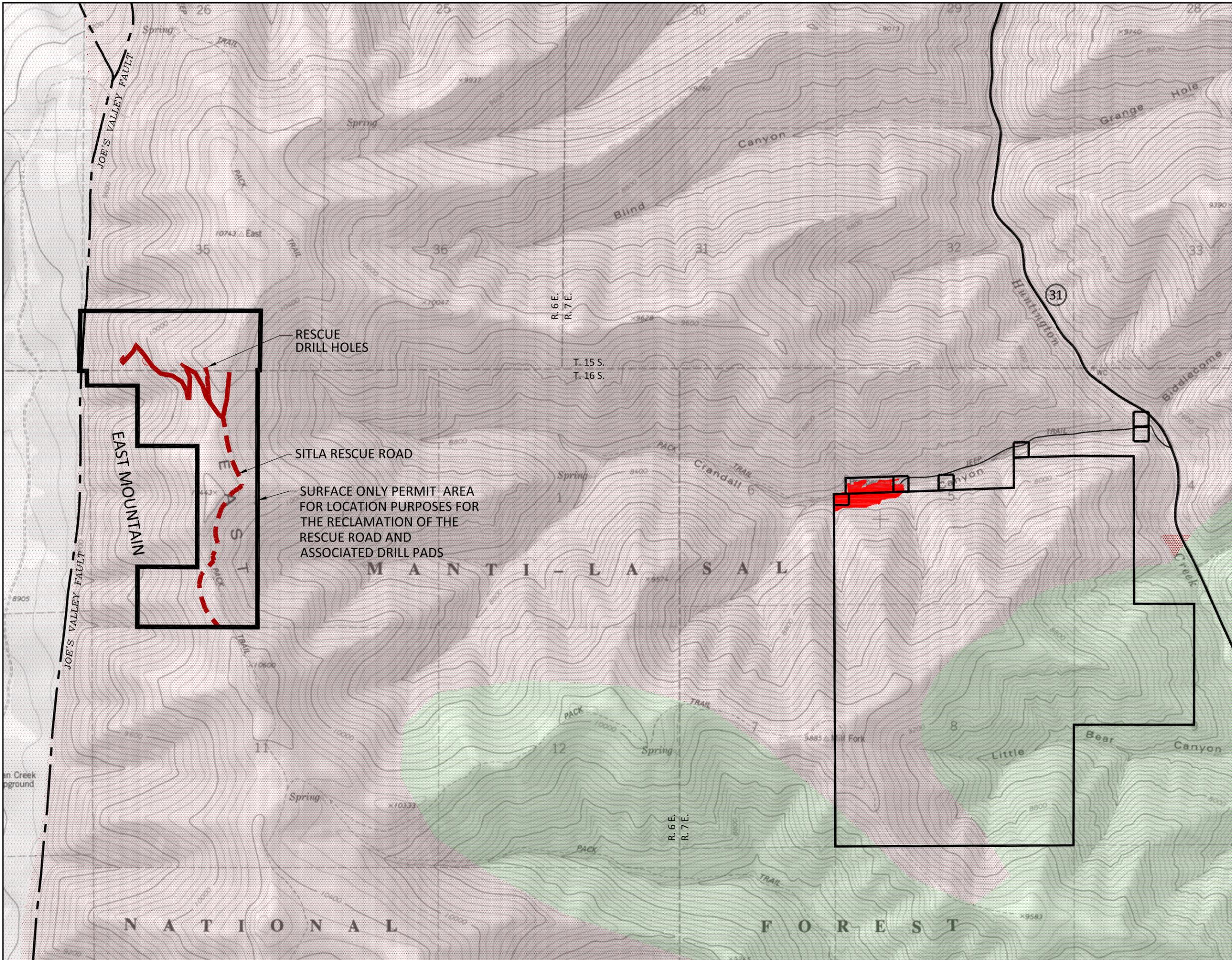
NATIONAL

FOREST

R. 6 E.
R. 7 E.

T. 15 S.
T. 16 S.

R. 6 E.
R. 7 E.





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Telephone: (435) 888-4000

CRANDALL CANYON MINE
WILDLIFE MAP - ELK

REV: 13
DATE: 7-27-16
SCALE: 1"=2000'

ACAD: WILDLIFE-ELK R13
BY: JDS/RJW
PLATE #: 3-1 (B)



- LEGEND**
- ELK - SUMMER
 - ELK - WINTER
 - UDOGM PERMIT BOUNDARY
 - MINE SURFACE FACILITIES
- SOURCE: U.D.W.R. 2004

EAST MOUNTAIN

RESCUE DRILL HOLES

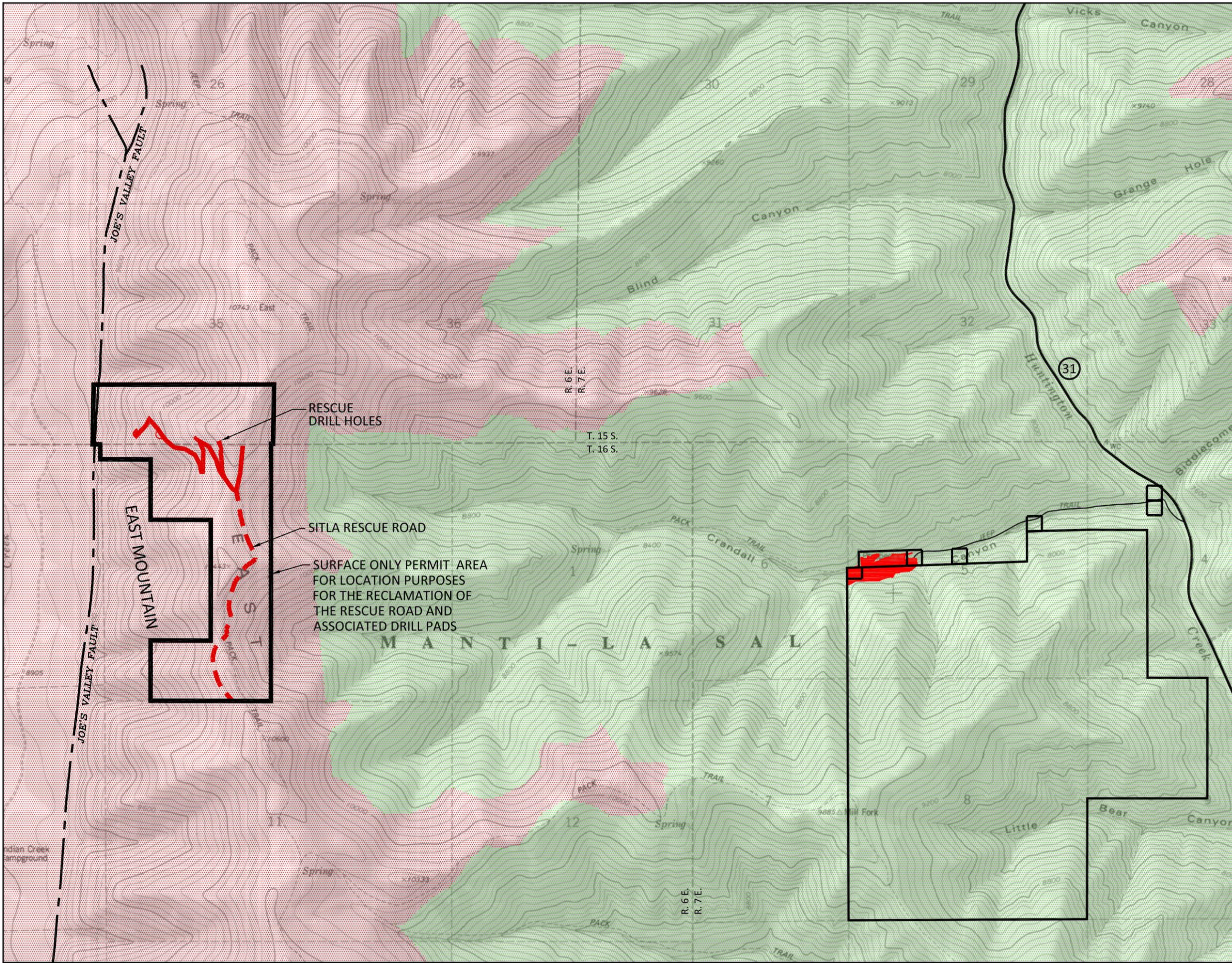
SITLA RESCUE ROAD

SURFACE ONLY PERMIT AREA FOR LOCATION PURPOSES FOR THE RECLAMATION OF THE RESCUE ROAD AND ASSOCIATED DRILL PADS

M A N T I - L A S A L A

N A T I O N A L

F O R E S T



LEGEND

DEER - SUMMER

DEER - WINTER

SOURCE: U.D.W.R. 2004

UDOGM PERMIT BOUNDARY

MINE SURFACE FACILITIES



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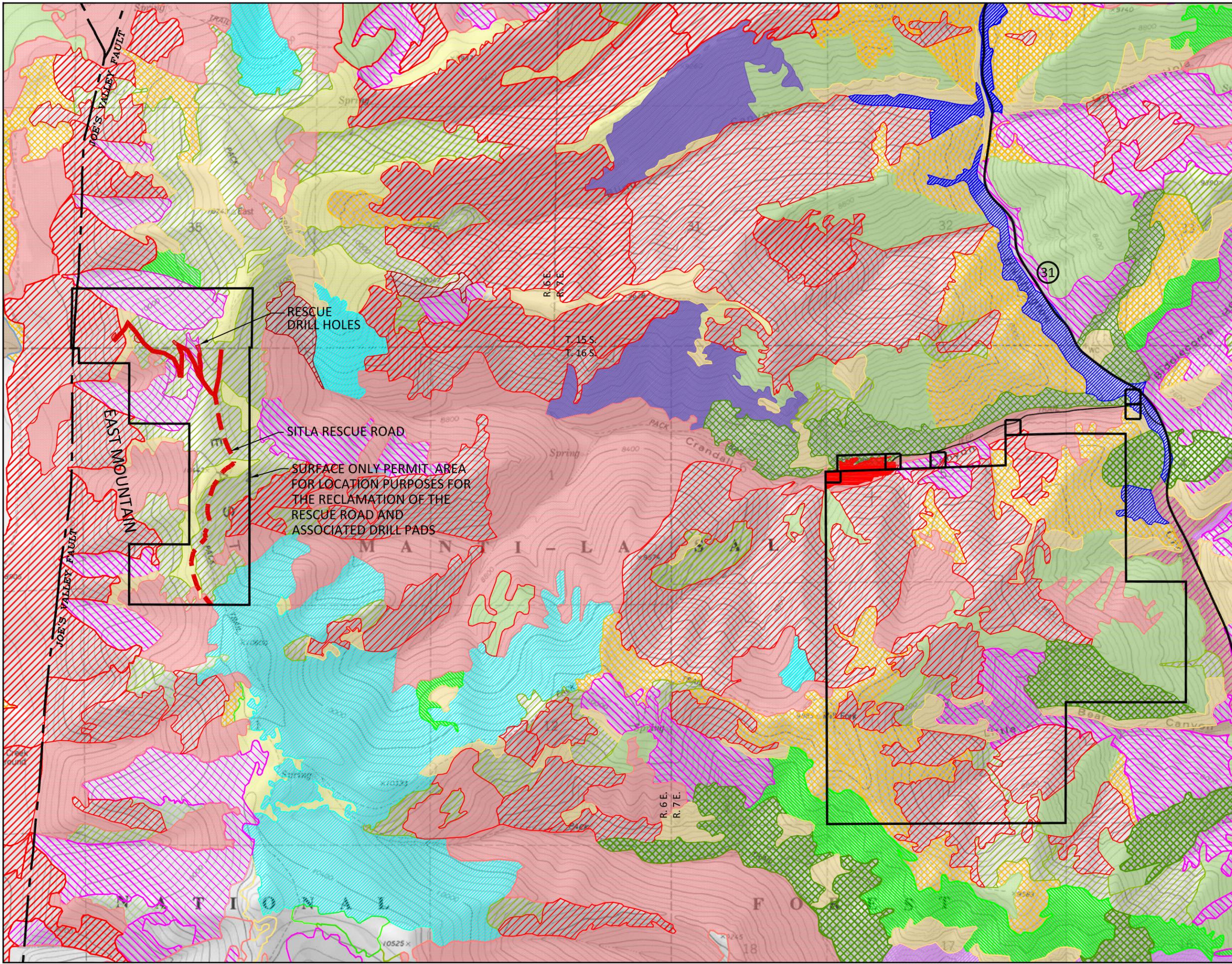
CRANDALL CANYON MINE

WILDLIFE MAP - DEER

REV: 13 ACAD: WILDLIFE-DEER R13

DATE: 7-27-16 BY: JDS/PJU

SCALE: 1"=2000' PLATE #: 3-1 (C)





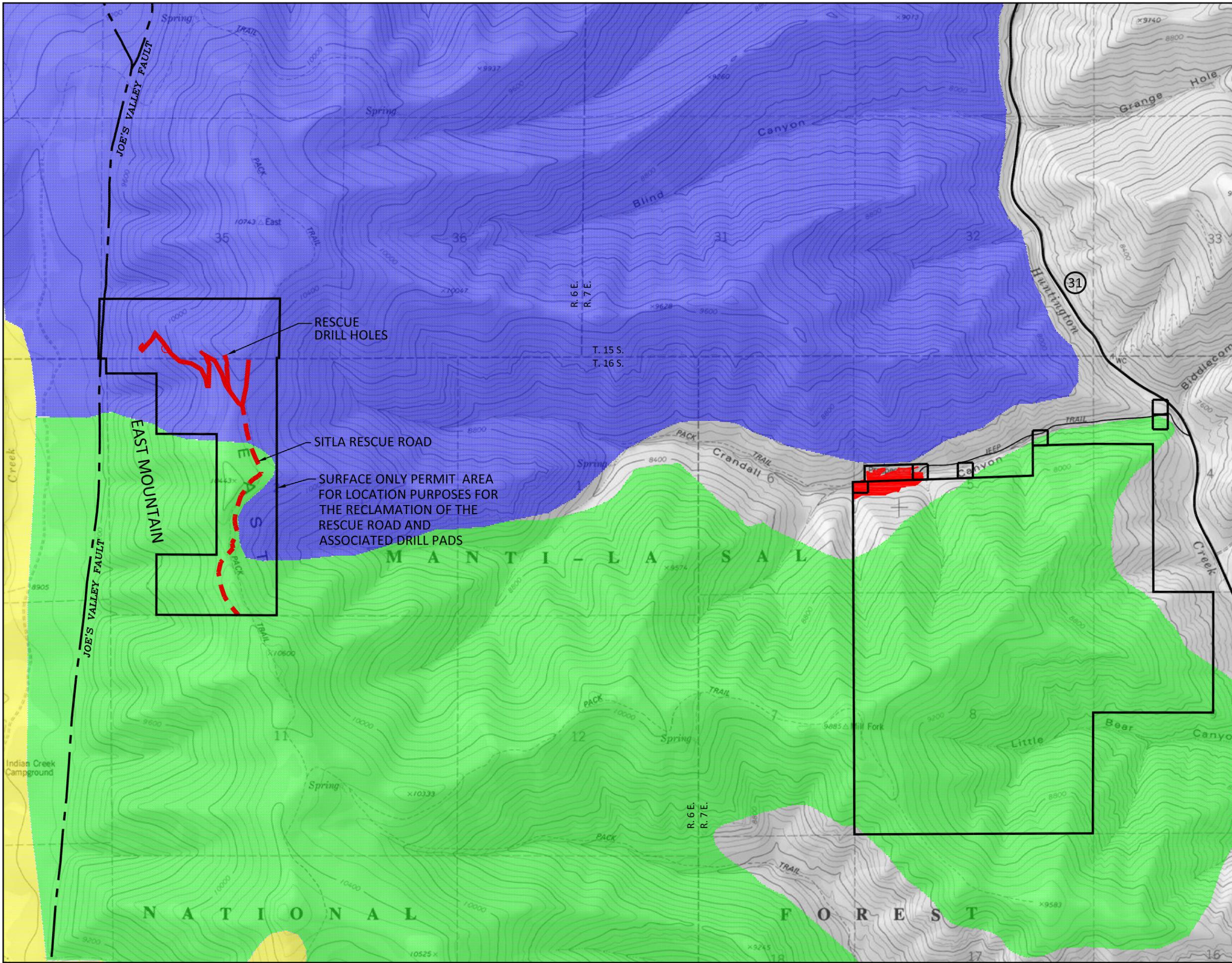
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CRANDALL CANYON MINE
REGIONAL VEGETATION MAP

REV: 13	ACAD: VEGETATION MAP R13
DATE: 7-27-16	BY: JDS/PJ
SCALE: 1"=2000	PLATE #: 3-2



LEGEND	
<ul style="list-style-type: none"> ASPEN ASPEN WITH CONIFER ASPEN WITH MOUNTAIN BRUSH BARREN ROCK OR LEDGE BLUE SPRUCE CURLLEAF MOUNTAIN MAHOGANY DOUGLAS FIR LIMBER/BRISTLECONE PINE MOUNTAIN BRUSH OAK BRUSH 	<ul style="list-style-type: none"> PERENNIAL FORB PERENNIAL GRASSLAND PERENNIAL WETLAND ROCKY MOUNTAIN JUNIPER SAGEBRUSH SPRUCE-FIR TREE DOMINATED RIPARIAN <p style="text-align: center; font-size: small;">SOURCE: U.S.F.S. 2005</p> <ul style="list-style-type: none"> UDOGM PERMIT BOUNDARY MINE SURFACE FACILITIES



RESCUE DRILL HOLES

SITLA RESCUE ROAD

SURFACE ONLY PERMIT AREA FOR LOCATION PURPOSES FOR THE RECLAMATION OF THE RESCUE ROAD AND ASSOCIATED DRILL PADS



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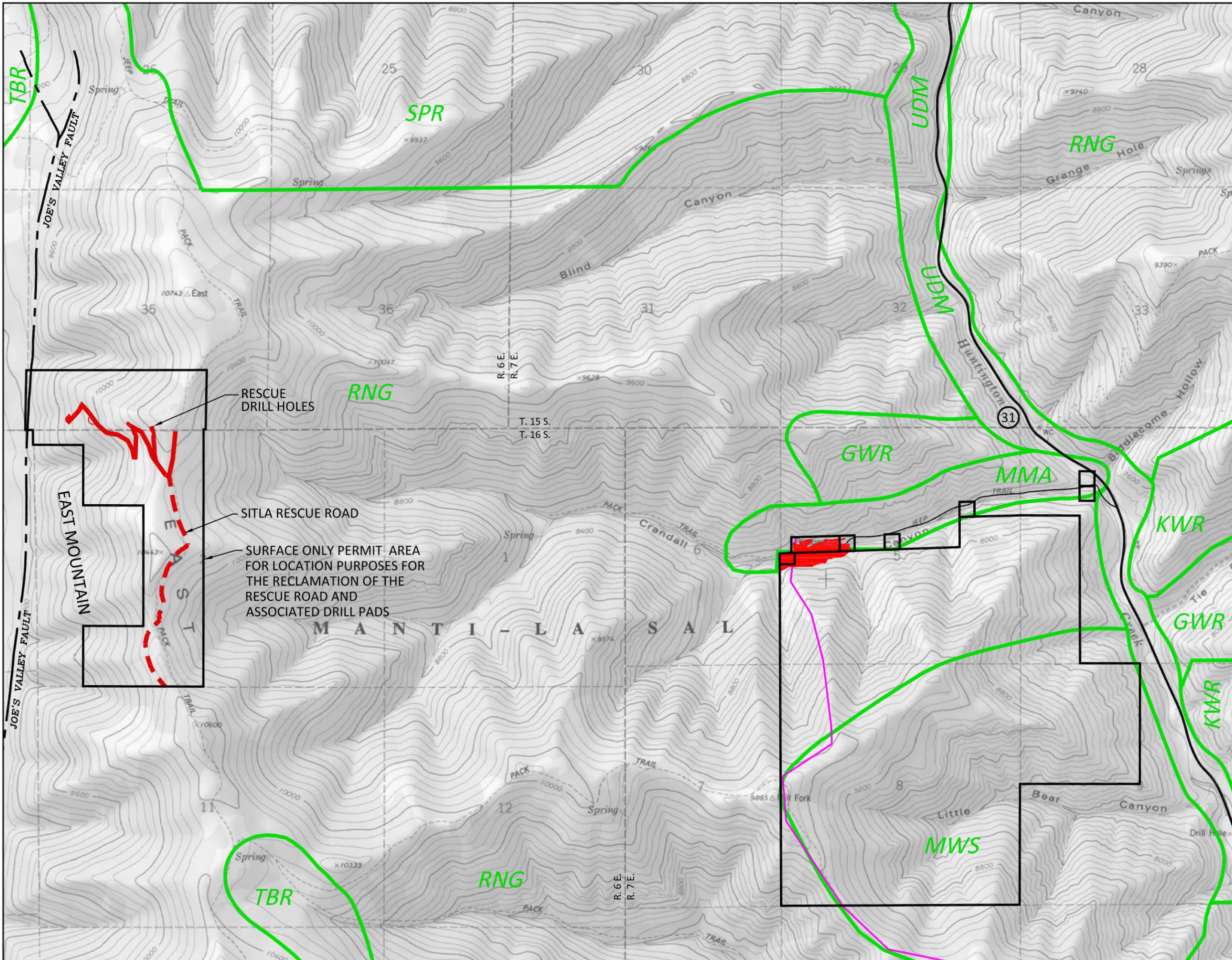
**CRANDALL CANYON MINE
GRAZING ALLOTMENTS**

REV: 11	ACAD: LAND USE R11
DATE: 7-27-16	BY: JDS/RJJ
SCALE: 1"=2000'	PLATE #: 4-1



LEGEND

- CRANDALL CANYON SHEEP & GOAT ALLOTMENT
 - CRANDALL RIDGE SHEEP & GOAT ALLOTMENT
 - TRAIL MOUNTAIN COW & HORSE ALLOTMENT
 - UDOGM PERMIT BOUNDARY
 - MINE SURFACE FACILITIES
- SOURCE: Manti-LaSal Forest Service, 1998



RESCUE DRILL HOLES

SITLA RESCUE ROAD

SURFACE ONLY PERMIT AREA FOR LOCATION PURPOSES FOR THE RECLAMATION OF THE RESCUE ROAD AND ASSOCIATED DRILL PADS



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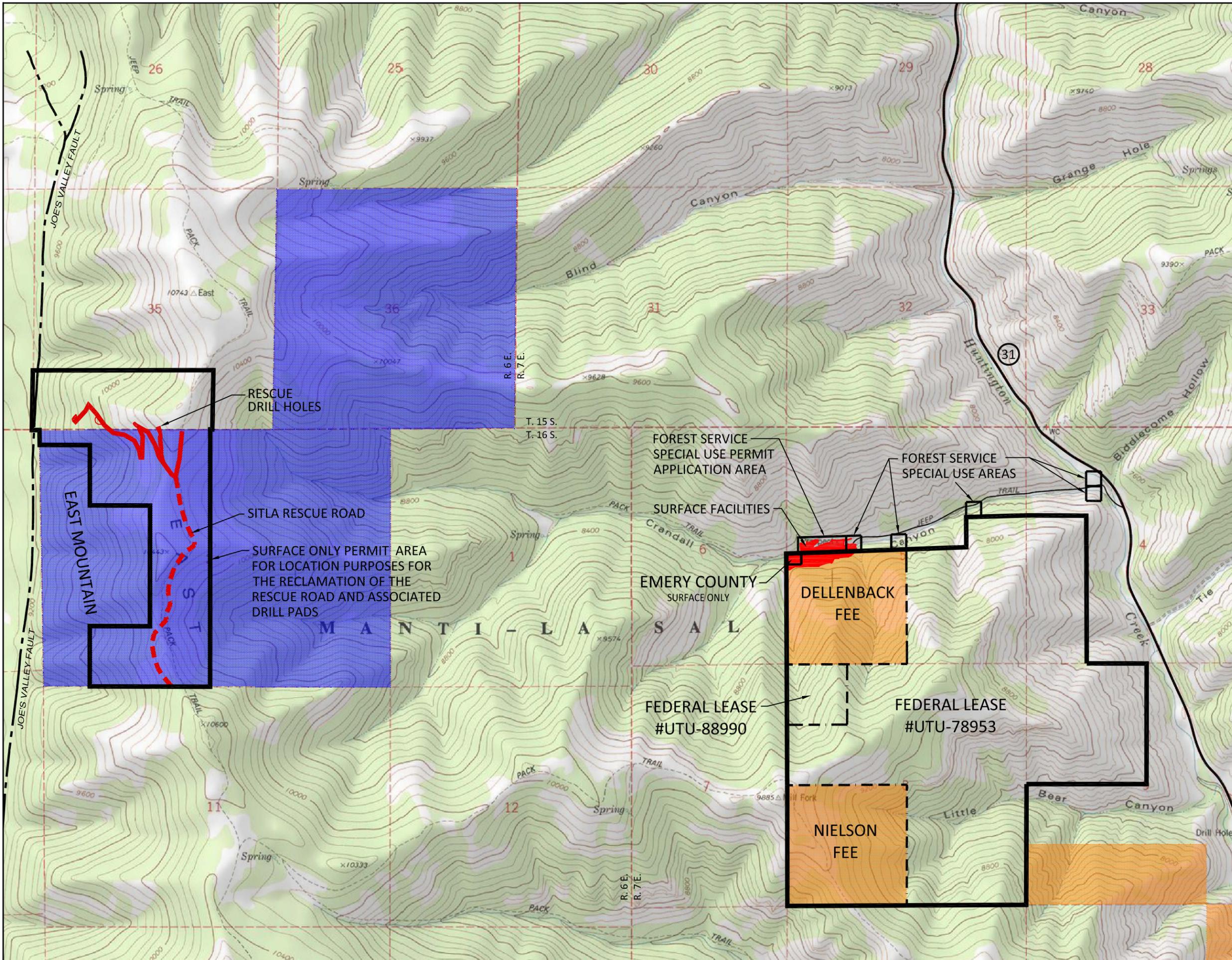
CRANDALL CANYON MINE
LAND USE MAP

REV: 12	ACAD: LAND USE R12	BY: JDS/PJ	PLATE #: 4-2
DATE: 7-27-16			
SCALE: 1"=2000'			



- LEGEND**
- LAND USE BOUNDARY LINE
 - MAIN POWER LINE
 - WOOD FIBER PRODUCTION & HARVEST
 - GENERAL BIG GAME WINTER RANGE
 - LEASABLE MINERAL DEVELOPMENT
 - RANGELAND MAINTENANCE
 - MUNICIPAL WATER SUPPLY
 - UTILITY CORRIDORS & WINDOWS
 - KEY BIG GAME WINTER RANGE
 - SEMI-PRIMITIVE RECREATION USE
 - UNDEVELOPED MOTORIZED SITE
 - DEVELOPED RECREATIONAL SITE
 - GAS WELL
- UDOGM PERMIT BOUNDARY
 - MINE SURFACE FACILITIES

SOURCE: FORESTLAND AND RESOURCE MANAGEMENT PLAN, 1986 MANAGEMENT UNITS.



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CRANDALL CANYON MINE SURFACE OWNERSHIP MAP	
REV: 12	ACAD: SURFACE OWNERSHIP R12
DATE: 7-27-16	BY: JDS/PJU
SCALE: 1"=2000' PLATE #: 4-4	



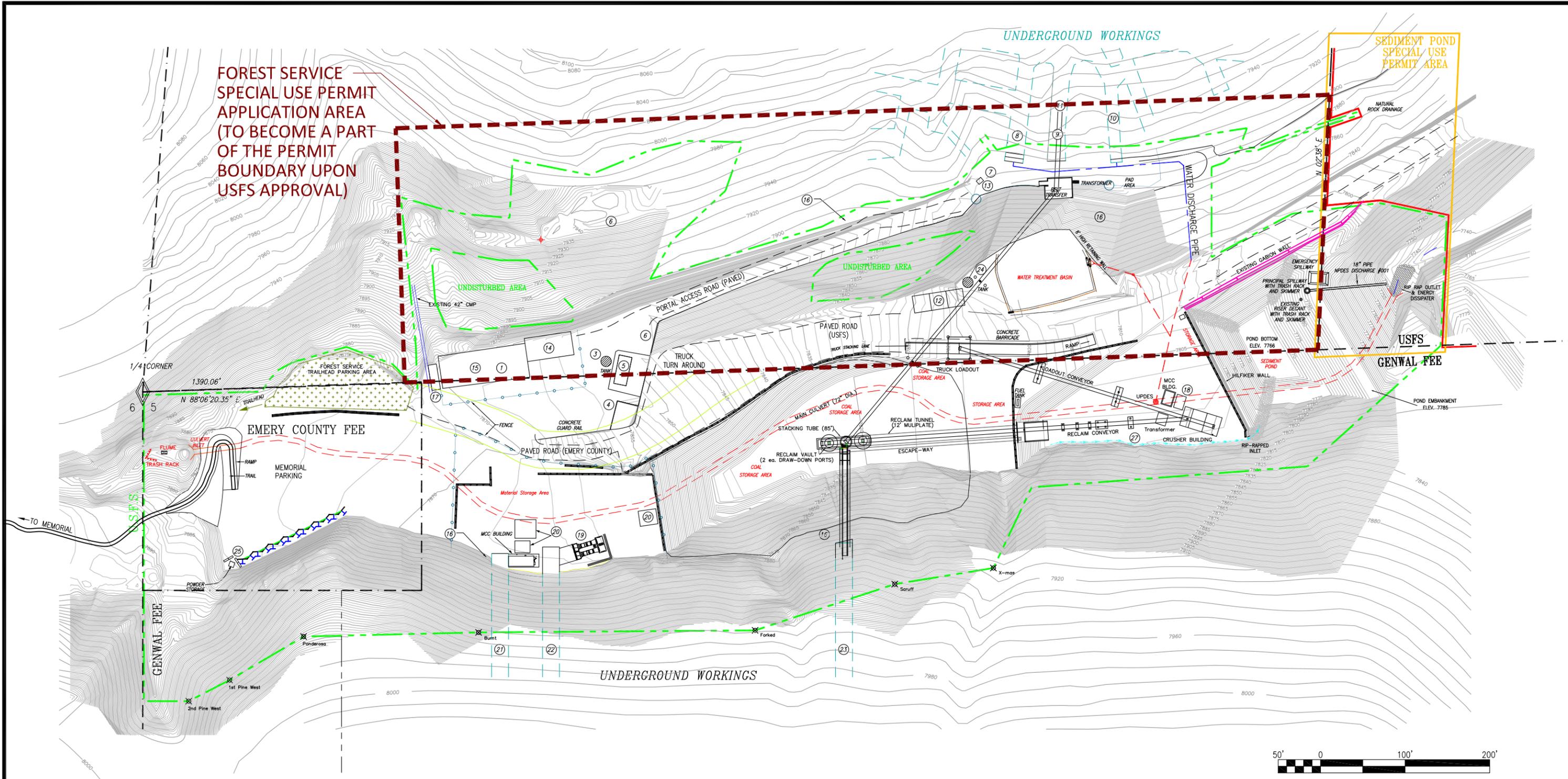
- LEGEND**
- PRIVATE
 - SCHOOL & INSTITUTIONAL TRUST LANDS ADMINISTRATION
 - U.S. FOREST SERVICE
 - UDOGM PERMIT BOUNDARY
 - MINE SURFACE FACILITIES
- UNSHADED AREA

 - UNSHADED AREA
 - DELLENBACK FEE
 - EAST MOUNTAIN
 - SURFACE ONLY PERMIT AREA

G:\Current Drawings\MRP Maps\Crandall Canyon\2015 MR-Term Review\Task 5190 - 3rd Submittal\Plate 5-3 REV 20.dwg, 11x17 Surface Facilities, 7/25/2016 9:57:33 AM, 1:1

**FOREST SERVICE
SPECIAL USE PERMIT
APPLICATION AREA
(TO BECOME A PART OF THE PERMIT
BOUNDARY UPON
USFS APPROVAL)**

**SEDIMENT POND
SPECIAL USE
PERMIT AREA**



LEGEND:

- SEDIMENT POND (SPECIAL USE PERMIT AREA) —
- EXTENT OF DISTURBANCE —
- 10' CONTOUR —
- JERSEY BARRIERS —
- RE-ESTABLISHED USFS ROAD (DOUBLE-LANE) - - - -
- SAFETY BARRIERS —
- FENCING —

FACILITY LEGEND:

- 1. Shop
- 2. Ventilation Fan
- 3. Rockdust Silo
- 4. Concrete Dumpster Pad
- 5. Power Center
- 6. Power Pole
- 7. Offices & Bathhouse (u'grd)
- 8. Intake Portal
- 9. Belt Portal
- 10. Fan Portal
- 11. Mine Belt
- 12. Iron Treatment Shed
- 13. Visual Disconnect
- 14. New Warehouse and Office Building
- 15. 4500 Gallon Culinary Water Tank
- 16. Shotcrete
- 17. Parts Shed
- 18. Portable Shed
- 19. Ventilation Fan
- 20. Material Storage Sheds
- 21. Intake Portal
- 22. Return Portal
- 23. Belt Portal
- 24. Mag Tank
- 25. Powder Storage
- 26. Cap Storage
- 27. Concrete Ditch



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**CRANDALL CANYON MINE
SURFACE FACILITIES**

REV: 20	ACAD: 5-3 REV20
DATE: 7-27-16	BY: PJJ
SCALE: AS SHOWN	PLATE #: 5-3

T. 16 S., R. 7 E., SLBM

AS-CONSTRUCTED
BURMA EVAPORATION
POND - PLAN VIEW

Crandall Canyon Mines
Crandall Canyon
P.O. BOX 910
EAST CARBON, UTAH

DRAWN BY	PJ	SCALE	1" = 100'
APPROVED BY	DH	DATE	16 MAY 2016
REVISION	3	PLATE #	5-3A

KEY

- AS-CONSTRUCTED MAJOR CONTOURS (10' INTERVALS)
- AS-CONSTRUCTED MINOR CONTOURS (2' INTERVALS)
- MAXIMUM DEPTH OF "SLUDGE" (2.0') = 6516.5'

AREA LOCATED IN
SECTION 5,
TOWNSHIP 17 SOUTH,
RANGE 8 EAST, SLBM



DISTURBED AREA CALCULATIONS

DISTURBED AREA WITHIN FENCED AREA	1.41 ACRES
DISTURBED AREA FROM GATE TO BURMA ROAD	0.06 ACRES
DISTURBED AREA FOR TOPSOIL PILE	0.15 ACRES
DISTURBED AREA FOR GRUBBING PILE	0.05 ACRES
TOTAL DISTURBED AREA WITHIN PERMIT AREA	1.67 ACRES

TOPSOIL CALCULATIONS

TOPSOIL PILE	860 cubic yards
GRUBBING PILE	284 cubic yards
TOTAL SALVAGED TOPSOIL	1,144 CUBIC YARDS
TOPSOIL REQUIRED @ 6" DEEP	1,137 CUBIC YARDS

NOTE:
INTERIM SEEDING HAS BEEN APPLIED TO OUTSLOPE AREAS OF THE CONTAINMENT BERM AND TOPSOIL PILE (GREEN SHADING). GRUBBING PILE TO BE SEEDDED AS SOON AS WEATHER ALLOWS.

EMERY COUNTY PUBLIC ROAD No. 303 (BURMA ROAD)

UTAH POWER AND LIGHT COMPANY
SITLA

EAST QUARTER CORNER OF
SECTION 5, T.17S., R.8E.,
SLBM

OLD CONSTRUCTION ROAD
(PREVIOUS CHAINING
OPERATIONS)

PERMIT AREA = 7.32 ACRES

EXISTING
GAS-WELL PAD
(XTO ENERGY, BB 5-107)



G:\Current Drawings\MRP Maps\Crandall Canyon\2015 MR-Term Review\Task 5067 3-21-16\5-3A Burma Pond As-Built R3.dwg, 5-3A As-Built Plan, 5/16/2016 9:03:02 AM, 1:1

KEY

-  AS-CONSTRUCTED MAJOR CONTOURS (10' INTERVALS)
-  AS-CONSTRUCTED MINOR CONTOURS (2' INTERVALS)
-  RECLAIMED MAJOR CONTOURS (10' INTERVALS)
-  RECLAIMED MINOR CONTOURS (2' INTERVALS)
-  MAXIMUM EXTENT OF "SLUDGE" WITH 4.0' MIN. COVER

AREA LOCATED IN SECTION 5, TOWNSHIP 17 SOUTH, RANGE 8 EAST, SLBM

FINAL CONTOURS BURMA EVAPORATION POND - PLAN VIEW

Crandall Canyon Mines
Crandall Canyon
P.O. BOX 910
EAST CARBON, UTAH

DRAWN BY	PJ	SCALE	1" = 100'
APPROVED BY	DH	DATE	16 MAY 2016
REVISION	1	PLATE #	5-3B

EARTHWORK VOLUME REPORT

COMPARING GRIDS: SITE WORKING CONTOURS.GRD AND SITE RECLAIMED CONTOURS.GRD

GRID CORNER LOCATIONS: 9835.82,9826.62 TO 10835.82,10756.62
GRID RESOLUTION X: 200, Y: 186 GRID CELL SIZE X: 5.00, Y: 5.00

AVERAGE CUT DEPTH: 0.37' AVERAGE FILL DEPTH: 0.45'
MAX CUT DEPTH: 7.02' MAX FILL DEPTH: 5.86'

TOTAL STORED SUBSOIL/TOPSOIL VOLUME: 2,435.86 C.Y.
TOTAL PROJECTED RECLAMATION FILL VOLUME: 5,240.72 C.Y.
DEFICIENT ON-SITE SUBSOIL VOLUME: 2,804.86 C.Y.

THE DEFICIENCY IN SUBSOIL VOLUME IS AS A RESULT OF PROVIDING 4.0' MINIMUM COVERAGE OVER THE MAXIMUM AMOUNT (2.0') OF DRIED IRON PRECIPITATE MATERIAL. THE IMPORTED FILL MATERIAL SHALL BE FROM A LOCATION APPROVED BY THE DEPARTMENT OF OIL, GAS AND MINING. THE SOURCE OF THE IMPORTED MATERIAL SHALL BE DETERMINED AND APPROVED PRIOR TO THE COMMENCEMENT OF ANY RECLAMATION ACTIVITIES DETAILED IN THE MRP.

UTAH POWER AND LIGHT COMPANY
SITLA

EAST QUARTER CORNER OF SECTION 5, T.17S., R.8E., SLBM

OLD CONSTRUCTION ROAD (PREVIOUS CHAINING OPERATIONS)



EMERY COUNTY PUBLIC ROAD No. 303 (BURMA ROAD)

PERMIT AREA = 7.32 ACRES

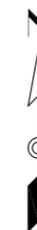
EXISTING GAS-WELL PAD (XTO ENERGY, BB 5-107)

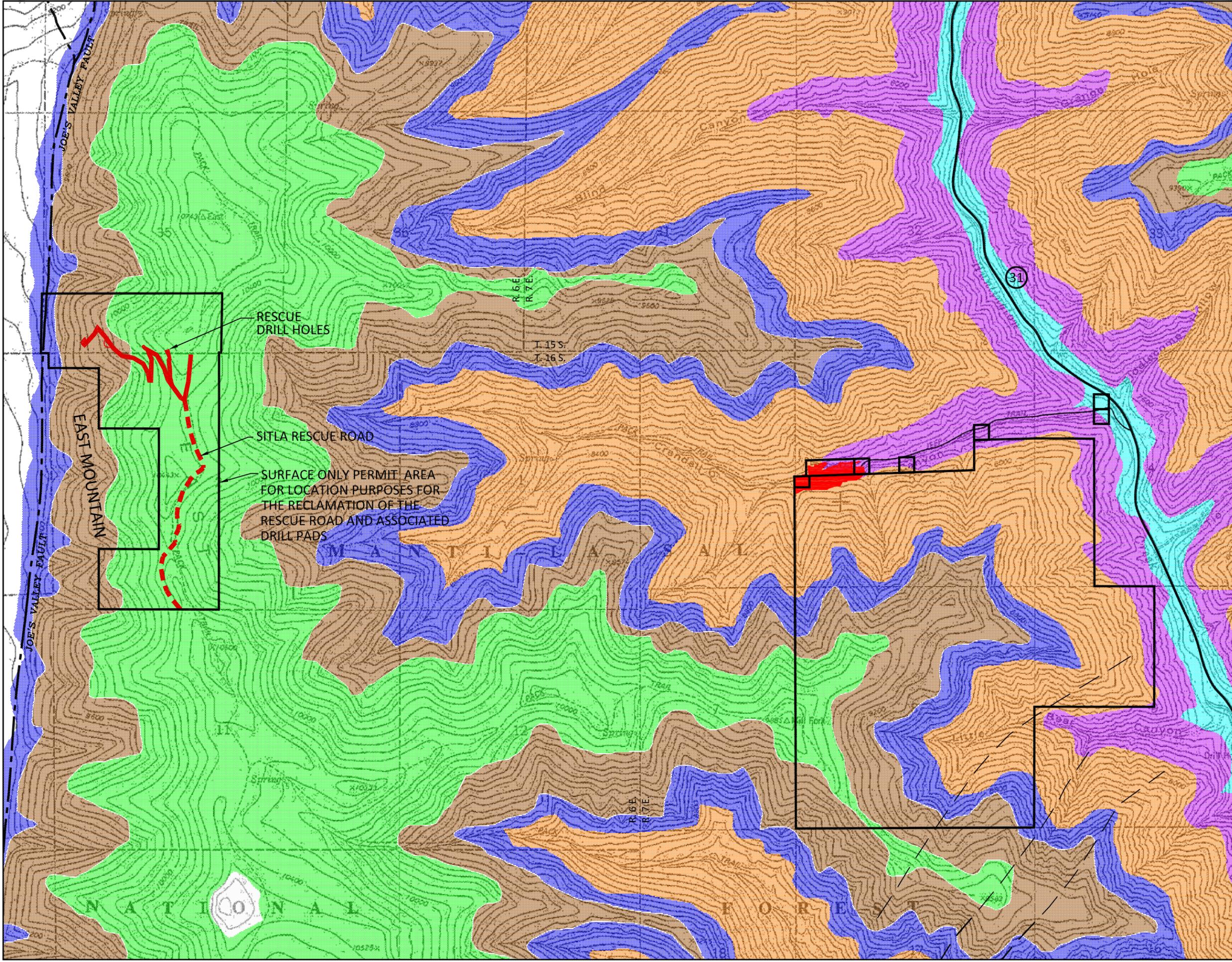
PERMIT LINE

PERMIT LINE

NATURAL DRAINAGE CHANNEL TO REMAIN

NATURAL DRAINAGE CHANNEL TO REMAIN





LEGEND:

- Tkn: NORTH HORN FORMATION
- Kpr: PRICE RIVER FORMATION
- Kc: CASTLEGATE SANDSTONE
- Kbh: BLACKHAWK FORMATION
- Ksp: STAR POINT SANDSTONE
- Krmm: MASUK MEMBER

UDOGM PERMIT BOUNDARY



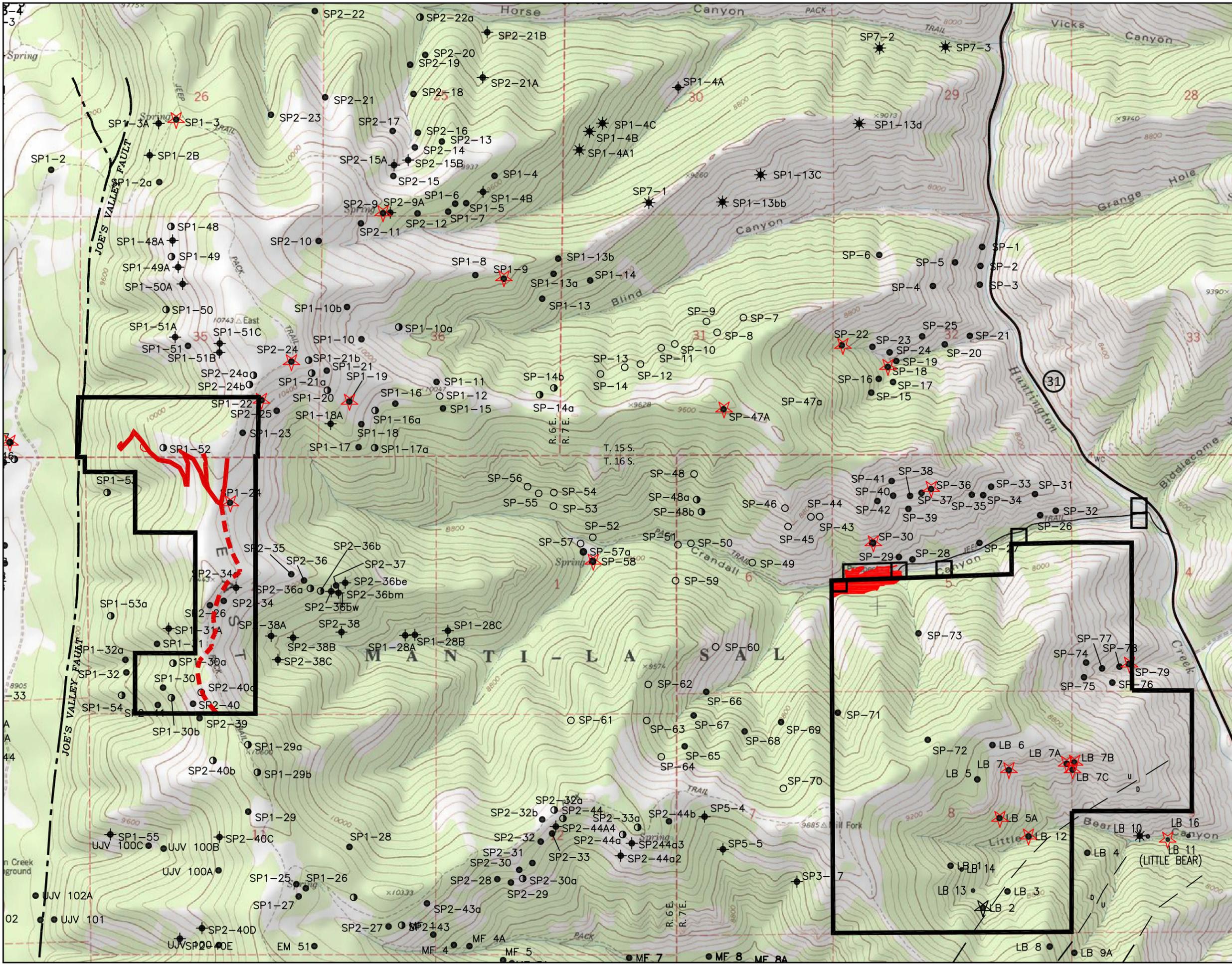
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CRANDALL CANYON MINE
GEOLOGY

REV: 12	ACAD: GEOLOGY MAP R12
DATE: 7-27-16	BY: JDS/PJU
SCALE: 1"=2000'	PLATE #: 6-1

SOURCE: USGS MISCELLANEOUS INVESTIGATION SERIES MAP 1-1631
GEOLOGIC MAP OF THE MANTI 30' x 60' QUADRANGLE

G:\Current Drawings\MPR Maps\Crandall Canyon\2015 MPR Term Review\Task 5190 - 3rd Submittal\7-12 SEEP AND SPRINGS R12.dwg, Layout3, 7/25/2016 9:46:55 AM, 1:1



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CRANDALL CANYON MINE
SEEP AND SPRING LOCATIONS

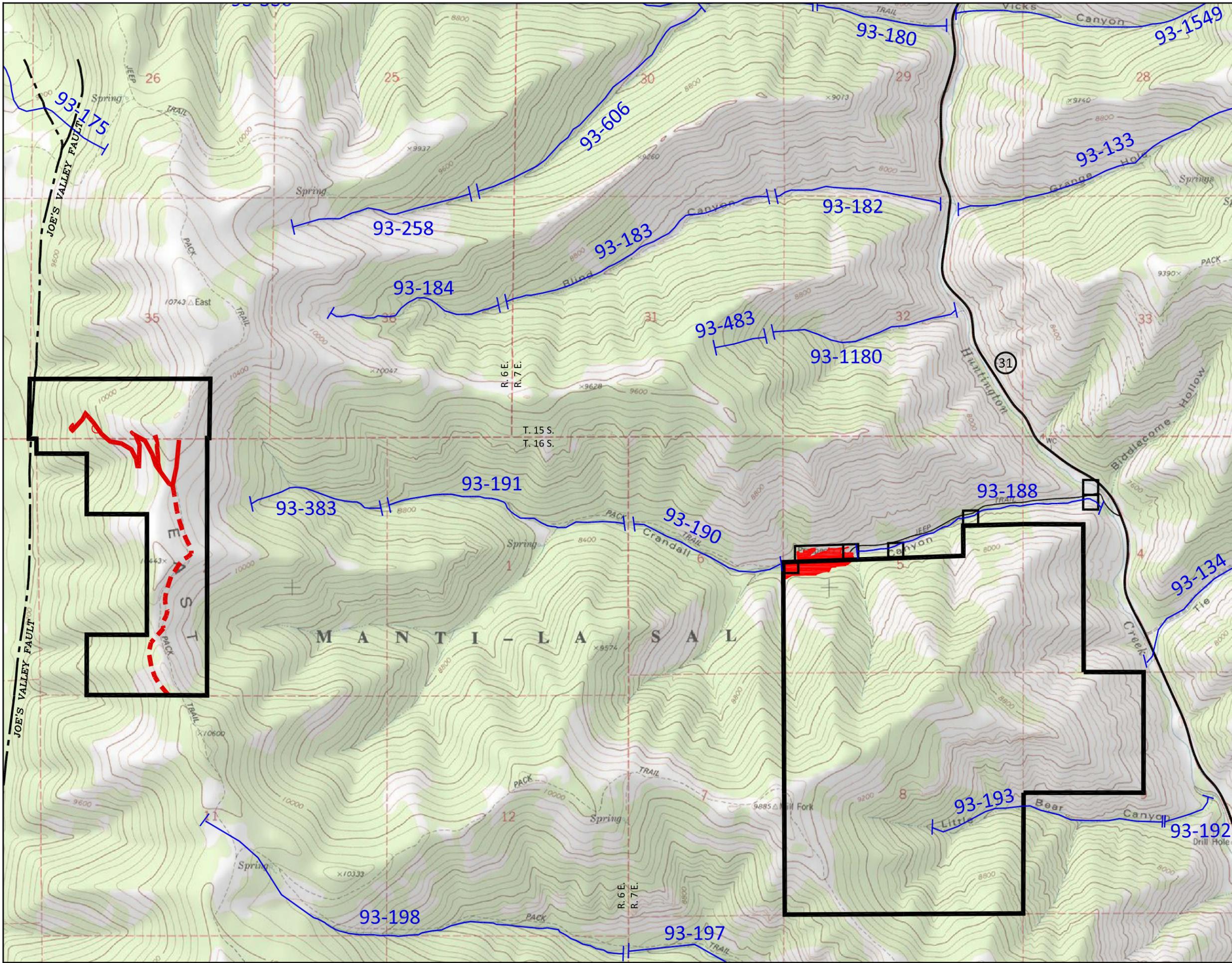
REV: 12	ACAD: SEEP AND SPRINGS R12
DATE: 7-27-16	BY: JDS/PJW
SCALE: 1"=2000'	
PLATE #: 7-12	



LEGEND

- 500' CONTOUR: [Contour line symbol]
- SEEP AND SPRING LOCATIONS: [Star symbol] • EM 219
- APPROXIMATE LOCATION OF FAULTS: [Red dashed line symbol]
- SPRING LOCATION (1992 SURVEY) [Star with dot symbol]
- SPRING LOCATION (1991 SURVEY) [Star with dot symbol]
- SPRING LOCATION (1989-1990 SURVEY) [Star with dot symbol]
- SPRING LOCATION (1987 SURVEY) [Star with dot symbol]
- SPRING LOCATION (1985 SURVEY) [Star with dot symbol]
- MONITORING LOCATIONS [Star with dot symbol]
- UDOGM PERMIT BOUNDARY [Black outline symbol]

G:\Current Drawings\MPR Maps\Crandall Canyon\2015 MPR Term Review\Task 5190 - 3rd Submittal\7-12 SEEP AND SPRINGS R12.dwg, Layout3, 7/25/2016 9:46:55 AM, 1:1



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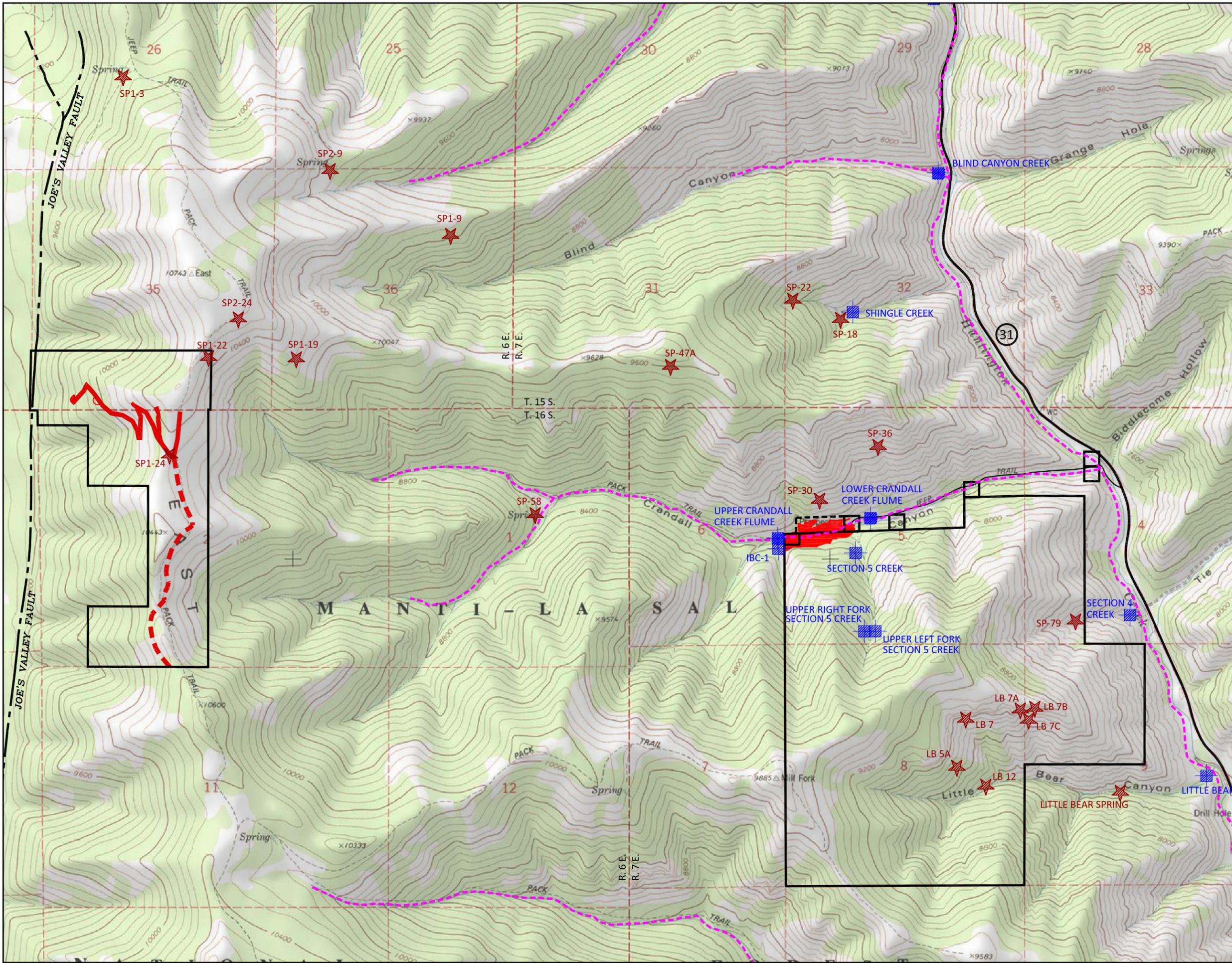
**CRANDALL CANYON MINE
 SURFACE WATER RIGHTS**

REV: 12	ACAD: SURFACE WTR RIGHTS R12
DATE: 7-27-16	BY: JDS/PJ
SCALE: 1"=2000'	PLATE #: 7-15



LEGEND

- UDOGM PERMIT BOUNDARY
- MINE SURFACE FACILITIES
- THE PERMIT AREA IS ENTIRELY WITHIN THE MANTI - LA SAL NATIONAL FOREST
- EXTENT OF SURFACE WATER RIGHT 93-198



 GENWAL RESOURCES, INC. P.O. Box 910, 794 North "C" Canyon Rd. East Carbon, Utah Telephone: (435) 888-4000	CRANDALL CANYON MINE WATER MONITORING SITES MAP	
	REV: 13 DATE: 7-27-16 SCALE: 1"=2000'	ACAD: WATER SITES MAP R12 BY: JDS/PJU PLATE #: 7-18



LEGEND

-  MINE SURFACE FACILITIES
-  UDOGM PERMIT BOUNDARY
-  PERENNIAL STREAM REACHES (based on 1992 thru 1998 observations)
-  MONITORING LOCATIONS OF SURFACE SPRINGS
-  MONITORING LOCATIONS OF UNDERGROUND WELLS
-  MONITORING LOCATIONS OF STREAMS

Ref.	Description	Materials	Cost
	Shop 01		\$35,947
	Ventilation Fan 02		\$11,346
	Rock Dust Silo 03		\$1,891
	Concrete Dump Pad 04		\$334,727
	Power Center 05		\$30,401
	Power Poles 06		\$5,868
	Underground Bathhouse 07		\$8,878
	Portals 08 Portal Sealing		\$30,086
	BeltPortals 09		\$4,995
	Crusher Pad 10		\$4,694
	Mine Belt 11		\$2,385
	Silo 13		\$47,725
	Weight Shed 14		\$661
	Bulk Oil 15		\$10,392
	Truck Pad 17		\$1,281
	General Storage 18		\$15,889
	Reclaim Hopper Belt 19		\$3,975
	Visual Disconnect 20		\$29
	New Shop 21		\$14,035
	Shop Extension 22		\$4,231
	Shotcrete Slopes 23		\$2,121
	Fan Transformer 24		\$239
	Chain Link Fence 25		\$368
	Concrete Guard 26		\$8,286
	Retaining Wall 27		\$5,423
	Culverts 28		\$6,804
	Guard Rail 29		\$1,589
	Inlets 30		\$2,356
	Sed Pond Culvert 31		\$48
	Gabion Retaining Wall 32		\$3,402
	Water Wells 33		\$0
	Head Walls 34		\$6,404
	Overhead Conveyor Supports 35		\$1,200
	Reclaim Tunnel 36		\$3,502
	Feeder Boxes 37		\$3,736
	Reclaim Conveyor Supports 38		\$140
	Crusher Platform Supports 39		\$1,702
	Feeder Conveyor Supports 40		\$140
	Scale Pads 41		\$8,066
	New Scale House 42		\$2,232
	Proposed Bathhouse 43		\$63,700
	Coal Silo 44		\$3,522
	Conveyors 45		\$8,093
	Parking Lot 46		\$61,331
	RubberLiner 47		\$26,235
	Culvert Bedding Removal 48		\$145,163
	Off Site Dump Fee 49		\$971,611
	Drainage Control 50		\$67,542
	Water Treatment Area		\$10,450
	Burma Basin 52		\$470
	Security Fence and Gates 53		\$152,234
	Total		\$2,137,545

NOTE: Everything with a red tab has costs that need a quote to use. Highlighted cells need quote documentation (three references with documentation of proof of attempts at contact). For sack of calculating approximate reclamation cost utilized Bowie Resources Nielson quote information but Crandall MUST get their own documentation for 2016 billing year

<i>Crandall Canyon Mine</i>	
	<i>Cost</i>
Earthwork Costs	
Backfilling and Grading	\$ 464,574
Topsoil Distribution	\$ 53,999
Support Equipment and Labor	\$ 81,528
Forest Service Road	\$ 9,313
Drill Pads, Access Roads	\$ 35,590
SITLA Road	\$ 28,768
Total	\$ 673,772

DEMO					Cost Reference	
Materials	Means Number	2016 Units			page	year
Floor Concrete 6" w/Reinforcement	02 41 16.17 0420	0.90 SF	D9R Semi-U EROPS		(9-37)	1st2016
Footings Concrete, 2' thick 3' wide	02 41 16.17 1140	16.48 LF	988G II		(9-28)	1st2016
Footings Concrete 1' thick 2' wide	02 41 16.17 1000	9.64 LF	770 Cat Off-Highway Truck		(20-11)	1st2016
Concrete Plain 8" thick w/reinforcing Heavy add 20% average 10%	02 41 16.17 2420	0.83 SF	CAT 385BL		(10-19)	1st2016
Concrete Plain 12" thick w/reinforcing Heavy add 20% average 10%	02 41 16.17 2500	1.15 SF	Dump Truck		(20-14)	1st2016
Concrete 7" to 24" thick, plain	02 41 13.17 5400	91.00 CY	416 Backhoe Loaders		(9-22)	1st2016
Concrete 7" to 24" thick, plain w/reinforcement	02 41 13.17 5500	124.50 CY	DTR Semi-U EROPS		(9-37)	1st2016
Front End Loader 3 CY	31 23 16.42 1300	1.69 CY	5,000 gal H2O truck Diesel		20-15	1st2016
12 CY (16 Ton) Dump Truck 5 mi. rod. trip	31 23 23.20 1025	10.80 CY	Pickup Truck Crew 4x4 1 ton		20-16	1st2016
City Sanitation	City Sanitation	3.09 CY	966G Series II EROPS		(9-28)	1st2016
Steel bldg. Large	02 41 16.13 0020	0.28 CF	6X4 50 000lbs 10-12 CY		(20-14)	1st2016
Utility Pole RSMMeans		203.80 EA	Foreman Average Outside		RSMMeans	2016
Guard Rail	02 41 13.30 0800	12.17 LF	CLAB (Common Building Laborers)		RSMMeans	2016
Guide Post	02 41 13.30 0860	12.92	Truck Driver (Heavy) (Eqmm)		RSMMeans	2016
Chain link_posts & fabric remove only	02 41 13.60 1700	3.07 LF	Cat 420		Scamp Ex (9-23)	
Mechanical equipment heavy	23 05 05.10 3600	795.00 Ton	Cat 350		Scamp Ex (9-21)	
Backhoe_hydraulic Bulk Bank Measure	31 23 16.42 0260	1.44 CY	Dump Truck		Scamp Ex (20-14)	
9000 gal to 12000 gal tank Dismantal and haul	02 65 10.30 1029	1050.00 EA	416 Backhoe Loaders		Scamp Ex (9-22)	
9000 gal to 12000 gal tank Disposal of tank (from Permittee)		325.00 EA	Pick-up Truck 4x4 1 Ton		Scamp Ex (20-15)	
Nielson Construction	Nielson Con (2016 bid)	7.64 Ton	D9R		Scamp Ex (9-37)	
12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23.20 1025	10.80 CY	988B		Scamp Ex (9-28)	
On Site Disposal	02 41 16.17 4200	9.07 CY	770 Cat Off-Highway Truck		Scamp Ex (20-11)	
Wire Removal	02 41 13.56 1900	5.39 LF	CAT 385BL		Scamp Ex (10-19)	
Wire Removal	23 05 05.10 1900	19.60 LF				
Conduit	26 05 05.10 0160	5.50 LF				
Fixtures	22 05 05.10 1140	94.50 EA				
Masonry bld. Large	02 41 16.13 0080	0.31 CF				
Seal Portals	JennChem (bid 2016)	4320.00 EA				
Mixture of Types; average	02 41 16.13 0100	0.31 CF				
Plug Well	Nielson Con (2016 bid)	170.00 EA				
Concrete Bld. Large	02 41 16.13 0050	0.40 CF				
Pavement Removal, Bituminous 3"	02 41 13.17 5010	4.33 SY				
Silt Fence	31 25 14.16 1000	1.15 LF				
Riprap Dumped 300 lb. average	31 37 13.10 0370	30.52 Ton				
Bare root seedlings 11" to 16" med. Soil		1.35 EA				
Hydro Spreader (equip. & labor) Revege 005	Revege 005	20.40 MSF				
Seed Non Riparian Area	Crandall 15321	281.83 \$/Ac				
Hydro Spreader (equip. & labor) Revege 002	Revege 002	20.40 MSF				
Hay 1" Material Only	Revege 001	132.00 MSF				
Transplant Non Riparian	Crandall 15322	206.05 \$/Ac				
Transplant North slope	Crandall 15323	1915.00 \$/Ac				
Seed Riparian Area	Crandall 15324	289.88 \$/Ac				
Transplant Riparian	Crandall 15325	554.39 \$/Ac				
D9R Bulldozer Semi-U EROPS	Scamp Excavation	185.00				
Hourly Cost	01 54 33 4360					
988G II ((6-13) 1H2008) 2005	Scamp Excavation	120.00				
Hourly Cost	01 54 33 4870					
770 Cat Off-Highway Truck	Scamp Excavation	150.00				
Hourly Cost	01 54 33 5600					
Chain link remove 8'-10'	02 41 13.60 1700	3.07 /LF				
Excavate 3 CY excavator	31 23 16.13 0050	7.19 CY				
Chainlink 6' tall	02 41 13.60 1700	3.05 LF				
Fence posts in concrete	02 41 13.62 1000	16.95 EA				
Barbed Wire	02 41 13.62 1200	0.27 LF				
Chainlink gate 10'-12' wide	02 41 13.62 0100	85.00 EA				
Metal gate 4'-6' high 3'-4' Wide	02 41 13.66 0600	67.70 EA				
metal gate 8x15'	02 41 13.62 0300	135.50 EA				

*NOTE: Equipment hourly operating costs from Equipment Watch Rental Blue Book V

Equipment					
Equipment cost monthly	Equipment operating*	equip overhead	oper. Hourly wage	hourly cost	Rate per hour w/ operator
24400	125.2	0.1	50.6	340.82	
35440	154.85	0.1	50.6	442.44	
16050	170	0.1	43.2	330.51	
34620	177.05	0.1	50.6	461.73	
3405	46.1	0.1	43.2	115.19	
3080	19.7	0.1	50.6	91.52	
15875	76.2	0.1	50.6	233.64	
5280	45.8	0.1	43.3	126.69	
234	16.1	0.1	43.3	62.47	
8250	57.8	0.1	55.4	170.54	
3670	49.8	0.1	43.3	121.02	
			51.90	51.9	
			37.90	37.9	
			43.20	43.2	
	23.15			163.15	140.00
	18.65			173.65	155.00
	46.1			131.10	85.00
	19.2			94.20	75.00
	16.1			56.10	40.00
	125.2			310.20	185.00
	154.85			274.85	120.00
	170			320.00	150.00
	177.05			279.05	102.00

fol 1 first half 2016.

	Cost Reference		Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
	Year	page															
Crandell Canyon Mine																	
<i>Backfilling and Grading</i>																	
<i>Ripping Fill Area</i>																	
D9R	Scam	(9-37)		125.2			310.20	1	310.2	\$/HR	57387	CY	1473	CY/HR	39	HR	\$12,098.00
Subtotal																	\$12,098.00
<i>Backfill On Site</i>																	
<i>Loading</i>																	
988B	Scam	(9-28)		154.85			274.85	1	274.85	\$/HR	70192	CY	498	CY/HR	140.9	HR	\$38,726.00
<i>Hauling</i>																	
770 Cat Off-Highway Truck	Scam	(20-11)		170			320.00	2	640	\$/HR	70192	CY	498	CY/HR	140.9	HR	\$90,176.00
<i>Place with Excavator</i>																	
CAT 385BL	Scam	(10-19)		177.05			279.05	1	279.05	\$/HR	12805	CY	181.3	CY/HR	70.6	HR	\$19,701.00
<i>Place with Dozer</i>																	
D9R	Scam	(9-37)		125.2			310.20	1	310.2	\$/HR	57387	CY	215	CY/HR	266.9	HR	\$82,792.00
Subtotal																	\$231,395.00
<i>Backfill Off Site</i>																	
<i>Loading</i>																	
988B	Scam	(9-28)		154.85			274.85	1	274.85	\$/HR	66096	CY	583	CY/HR	113.4	HR	\$31,168.00
<i>Hauling</i>																	
Dump Truck	(20-14	1st2016	3405	46.1	0.1	43.2	115.19	12	1382.28	\$/HR	66096	CY	583	CY/HR	113.4	HR	\$156,751.00
Subtotal																	\$187,919.00
<i>Miscellaneous Removal/Excavate Stream Channels</i>																	
416 Backhoe Loaders	Scam	(9-22)		19.2			94.20	1	94.2	\$/HR	1560	CY	151.1	CY/HR	10.3	HR	\$970.00
Subtotal																	\$970.00
<i>Burma Pond</i>																	
416 Backhoe Loaders	Scam	(9-22)		19.2			94.20	1	94.2	\$/HR	8406	CY	151.1	CY/HR	55.6	HR	\$5,238.00
<i>Burma Pond Deficient Materials</i>																	
Dump Truck	(20-14	1st2016	3405	46.1	0.1	43.2	115.19	6	691.14		2805	CY	72	CY/HR	39	HR	\$26,954.46
Burma Basin Subtotal																	\$32,192.46
Total Backfilling and Grading																	\$464,574.46

Note:

	Cost Reference Year page	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Ds.	Units	Cost
Crandell Canyon Mine																
Topsoil Distribution																
Load From Topsoil Stockpile																
<i>Load</i>																
966G Series II EROPS	(9-28) 1st2016	8250	57.8	0.1	55.4	170.54	1	170.54 \$/HR	10737	CY	298.8	CY/HR	35.9	HR		\$6,122.00
<i>Haul</i>																
6X4 50,000lbs 10-12 CY	(20-14) 1st2016	3670	49.8	0.1	43.3	121.02	5	605.1 \$/HR	10737	CY	298.8	CY/HR	35.9	HR		\$21,723.00
Subtotal																\$27,845.00
Place Topsoil																
<i>Place with Wheel Loader</i>																
966G Series II EROPS	(9-28) 1st2016	8250	57.8	0.1	55.4	170.54	1	170.54 \$/HR	7354	CY	160.1	CY/HR	45.9	HR		\$7,828.00
<i>Grading</i>																
D7R Semi-U EROPS	(9-37) 1st2016	15875	76.2	0.1	50.6	233.64	1	233.64 \$/HR	7354	CY	145	CY/HR	50.7	HR		\$11,846.00
<i>Excavator</i>																
CAT 385BL	Scam(10-19)		177.05			279.05	1	279.05 \$/HR	3383	CY	181.3	CY/HR	18.7	HR		\$5,218.00
Subtotal																\$24,892.00
Burma Pond																
416 Backhoe Loaders	Scam(9-22)		19.2			94.20	1	94.2 \$/HR	2436	CY	181.3	CY/HR	13.4	HR		\$1,262.00
Burma Basin																\$1,262.00
Total																\$53,999.00

	Cost Reference		Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
	Year	page															
Crandell Canyon Mine																	
Support Equipment and Labor																	
5,000 gal H2O truck Diesel	20-15	1st2016	5280	45.8	0.1	43.3	126.68	1	126.68	\$/HR					347.4	HR	44009
Pick-up Truck 4x4 1 Ton	Scam	(20-15)		16.1			56.1	1	56.1	\$/HR					347.4	HR	19489
Foreman Average Outside	RSM	2016				51.9	51.9	1	51.9	\$/HR					347.4	HR	18030
Subtotal																	81528
Total																	81528

	Cost Reference		Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
	Year	page															
East mountain Reclamation Costs																	
Forest Service Rd																	
Forest Service Rd																	
Wood Mulch			4765														4765
Labor	RS Means					37.9	37.9	6	227.4 \$/HR		20 HR				20 HR		4548
Subtotal																	9313
Total																	9313

	Cost Reference		Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
	Year	page															
East mountain Reclamation Costs																	
Drill pads, Access Rd																	
Wood Mulch			23765														23765
Labor	RS Means					37.9	37.9	6	227.4 \$/HR		52	HR			52	HR	11825
Subtotal																	35590
Total																	35590

	Cost Reference		Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
	Year	page															
East mountain Reclamation Costs																	
SITLA Road																	
Wood Mulch			23765														23765
Labor	RS Means					37.9	37.9	6	227.4 \$/HR		22	HR			22	HR	5003
Subtotal																	28768
Total																	28768

Bond Summary

Direct Costs

Demolition and Removal	\$2,137,545.00
Backfilling and Grading	\$673,772.46
Revegetation	\$91,271.00

Subtotal Direct Costs 2016 Dollars	\$2,902,588.46
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Indirect Costs

Mob/Demob	\$290,259.00	10.0%
Contingency	\$145,129.00	5.0%
Engineering Redesign	\$72,565.00	2.5%
Main Office Expense	\$197,376.00	6.8%
Project Management Fee	\$72,565.00	2.5%

Subtotal Indirect Costs	\$777,894.00	26.8%
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Total Reclamation Cost 2016 Dollars	\$3,680,482.46
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<i>Escalation factor</i>		0.007
<i>Number of years</i>		4
<i>Escalation</i>	\$104,141.00	

Total Escalated Reclamation Cost 2020 Dollars	\$3,784,623.46
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Bond Amount (rounded to nearest \$1,000)	\$3,785,000.00
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Bond Posted 2011	\$2,327,000.00
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Difference Between Cost Estimate and Bond	-\$1,458,000.00
Percent Difference	-38.52%

7 July 2016

RE: Crandall Canyon Bid Proposal

Mr. Taylor,

We have gathered the information for the bid proposal on the Crandall Canyon project you had requested earlier today.

Pricing is as follows:

Delivery Fee:	\$125.00
Haul Fee:	\$250.00 per 30 yard Roll-Off Container
Disposal Fee:	\$11.00 per ton

We appreciate the opportunity to place a bid with you and look forward to working with you.

Regards,



Wade Williams

$$\begin{aligned} & 125.00 / 30 \text{ cy.} = 4.17 / \text{cy.} \\ & 250.00 / 30 \text{ cy.} = 8.33 / \text{cy.} \\ & \frac{\$11}{2000\text{lb}} \times 4000\text{lb/cy} = \frac{2.20}{\text{cy.}} \\ & \qquad \qquad \qquad \underline{\qquad \qquad \qquad} \\ & \qquad \qquad \qquad 14.70 / \text{cy.} \end{aligned}$$



Nielson Construction & Materials
 825 North Loop Rd.
 Huntington, UT 84528
 435-687-2494 *Fax 435-687-9721



STAKER | PARSON
 COMPANIES

To:	Nielson Construction	Contact:	
Address:	825 North Loop Road Huntington, UT	Phone:	
Project Name:	Budgetary Numbers For Concrete Removal	Bid Number:	
Project Location:		Bid Date:	

Staker and Parson Companies may withdraw this proposal, unless written acceptance is received from buyer within 30 days of proposal date.

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
1	Concrete Demo Sidewalk (4" To 6" Thick)	50.00	CY	\$58.50	\$2,925.00
2	Concrete Demo Walls (8" To 16" Thick)	50.00	CY	\$63.50	\$3,175.00
3	Concrete Demo Large Foundations (18" To 36" Thick)	50.00	CY	\$90.00	\$4,500.00
4	Concrete Demo Building Foundation With Footer	50.00	CY	\$51.00	\$2,550.00
5	Load And Haul Concrete Rubble (1 Mile Round Trip)	50.00	CY	\$93.50	\$4,675.00
Total Price for above Items:					\$17,825.00

Avg. Cost. = '65.75/cy

Total Bid Price: \$17,825.00

Notes:

- **IMPORTANT NOTES****
 - Bid is based on unit pricing if additional units are used it will be billed by the units used.
 - Bid is based on today's liquid asphalt price and fuel surcharge which are subject to change at the time of construction, in which owner will be responsible for should there be a difference.
 - Bid includes only items listed in the above quote.
 - No cost for bonds, permits, licenses, fees, testing, engineering, traffic control, saw cutting, sterilant, striping, prime coat, paving fabric or fog coat are included in this contract unless listed above as included.
 - All schedules for completion are to be mutually agreed upon prior to construction.
 - Bid is based on one mobilization per crew. If additional mobs are required, there will be an additional charge which will be the equal of the bid mobilization unless otherwise noted.
 - Subgrade is to be within + or - .05 of a foot, no material to be added or removed.
 - No Davis Bacon Wages are included unless noted above.
 - Nielson Construction & Materials cannot guarantee proper drainage when slope is less than 2%.
- ASPHALT OIL COST ADJUSTMENT:** This contract is subject to an asphalt oil cost adjustment for all asphalt materials included in the contract. Buyer agrees increases or decreases to asphalt oil costs above or below the listed Bench Mark Price, as stated in this proposal, is cause for adjustment to the contract. The Bench Mark Price is based on UDOTs published Binder Index at the time of this proposal. Each \$10.00 change to the UDOT Binder Index (published monthly) will require a contract price adjustment of \$0.50 per ton of asphalt mix placed during the monthly index cycle. The binder index can be found by searching "binder Index" at www.udot.utah.gov.
- TERMS & CONDITIONS:**
 In consideration of the mutual promises set forth herein, Staker Parson Companies with the principal offices listed above (hereinafter referred to as "Staker") and the undersigned, whose full name and address appear above, (hereinafter referred to as "Buyer") hereby agree as follows:
 - DESCRIPTION OF WORK.** Staker will furnish the described materials to the job site designated above and provide the described labor (the material and the labor collectively hereinafter referred to as "the Work"). To the extent the described Work is detailed in Plans and Specifications, such must be provided to Staker before the contract is negotiated. Any changes to the original Plans and Specifications used to prepare this contract may necessitate a change in the contract price. Buyer hereby agrees to execute all necessary change orders outlining the changed Work and prices as submitted by Staker. Bid includes only the items as specified and described above.
 - LIMITATIONS & CHANGES.** Unless specified otherwise, this bid does not include payment performance or any other bonds, permits, licenses, fees, testing, engineering, traffic control, flagging, saw cutting, sterilant, striping, bollards, signage and prime coat. Additional work and work in excess of that specified and described above will be handled as a Change Order and **MUST BE APPROVED** by owner and contractor prior to construction. Bid **DOES NOT** include engineering, layout or testing unless otherwise stated. Finegrade +/- 1/10' means that the grade is within 1/10' from being finished (**GENERALLY ONE PASS WITH A GRADER**). Price does not include furnishing additional material or the removal of excess material. Unless otherwise stated, bid does not include raising and concrete collars on manholes, water valves or monuments. General Contractor, owner or developer is responsible for Storm Water Prevention Plan. Staker & Parson Companies will be responsible for Storm Water Prevention for our portion of work only, unless other arrangements are made.

- 3. **CONTRACT PRICE:** To the extent that the above Work is specified as a unit or square foot price, it is agreed that the number of units or square feet indicated is an approximation. Staker shall be paid for the actual Work provided, including the number of units or square feet completed as determined by field measurement.
- 4. **TERMS OF PAYMENT:** Buyer shall pay Staker in full at Staker's office identified above within thirty (30) days following the date of Staker's invoices, without retention and regardless of the final completion date of the Work. In the event that payment is not made to Staker as provided herein, Staker shall be entitled to all of its costs incurred in the enforcement of its rights under this contract, including attorney's fees and lien fees, whether or not legal proceedings are instituted. In addition, Staker shall be entitled to interest on all past due payments at the rate of 18% per annum (1 1/2% per month) from the date payment is due until payment is received by Staker, whether before or after judgment.
- 5. **CLAIMS OR DEFECTS:** Written notice of any alleged claim or defect must be given to Staker at its address shown above not later than five (5) days after the completion of the Work. Failure to give written notice as herein provided shall be and constitute a waiver of any such alleged defects or claims. Staker's sole and exclusive liability shall be to repair, replace, or, upon mutual agreement, credit Buyer's account for defective Work. If repair or replacement is made, Staker shall have a reasonable time to make such repair ■ replacement. **IN NO EVENT SHALL STAKER BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR ANY BREACH OR CLAIM THEREOF, INCLUDING BUT NOT LIMITED TO, LOSS OF GOODWILL, LOSS OF PROFITS OR USE.**
- 6. **PROSECUTION OF WORK:** It is contemplated by the parties that the Work specified in this contract shall be completed by this date or period: _____ . At its option, Staker may decline to perform any part of the Work which, through no fault of Staker, is to be completed beyond this date. In addition, Staker shall not be responsible for any delays in performing the Work due to labor disputes, weather, shortages in material, equipment or labor, acts of God or any other cause beyond its control. In the event of a delay beyond Staker's control, and to the extent reasonably possible, Staker shall complete the Work at the next available opportunity. In the event Staker elects not to perform any further Work beyond the above specified date pursuant to the terms provided herein, Staker shall be paid for all Work provided prior to the said date and shall otherwise be fully relieved of all of its duties and responsibilities under the terms of this contract.
- 7. **PROPERTY DAMAGE:** Buyer shall be responsible to direct Staker employees, subcontractors and suppliers as to proper ingress and egress of the property. To the extent such direction is followed or that no direction is given, Staker shall not be responsible for any damage to the property where the Work is being performed, including damage to curbs, gutters and sidewalks.
- 8. **MISCELLANEOUS PROVISIONS:**
 - A. Buyer specifically represents and warrants that either Buyer is the owner of the premises where the Work is to be performed, or, in the alternative, Buyer has written authorization from the owner of the premises authorizing the Work to be performed on the said premises.
 - B. Staker assumes no risk for non-disclosed or unforeseen conditions of the project site, including but not limited to, hazardous waste, soft subgrade or water table problems.
 - C. This contract and the Credit Application referenced below constitute the entire agreement of the parties and no changes or additions to this contract shall be made except in writing signed by both parties.
 - D. This contract shall be construed in accordance with the laws of the State of Utah.
 - E. This contract shall be binding on the heirs, successors or assigns of the parties hereto.
 - F. **THIS CONTRACT IS NOT BINDING UNTIL APPROVED BY STAKER'S CREDIT DEPARTMENT.** Buyer agrees to furnish a completed Credit Application to Staker prior to or at the execution of this contract.

Payment Terms:

Bid And Work Contract

As per the preceding Bid and Work Contract .

Please include your Social Security Number.

PERSONAL GUARANTEE

I/we unconditionally and individually guarantee the performance of the Buyer under the terms and conditions of the above contract, including all payments and any charges specified therein, including interest, attorney's fees and costs. This guarantee will continue unchanged by any bankruptcy, reorganization, or insolvency of the Buyer. This guarantee may not be withdrawn unless agreed to in writing by Staker Parson Companies.

Date: _____ Guarantor(s)

PLEASE SIGN AND RETURN ONE COPY

<p>ACCEPTED: The above prices, specifications and conditions are satisfactory and are hereby accepted.</p> <p>Buyer: _____</p> <p>Signature: _____</p> <p>Date of Acceptance: _____</p>	<p>CONFIRMED: Nielson Construction & Materials</p> <p>Authorized Signature: _____</p> <p>Estimator: Eric Luke</p>
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4520 S. 100 W.
 Price, UT 84501
 P.O. Box 282
 P:(435) 637-3495
 F:(435) 637-3497
 NelcoContractors.com

Eastern Utah's Preferred Contractor

To: EIS Environmental & Engineering Consulting	Contact: Gary Taylor
Address: Helper, UT 84526	Phone: (435) 472-3817
	Fax:
Project Name: EIS Concrete Demo	Bid Number:
Project Location:	Bid Date:

Thank you for the opportunity to bid this project.

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
1	Hourly Rate Of Equipment Excavator Komatsu 220 With Hydraulic Breaker	1.00	HR	\$195.00	\$195.00

It Is Estimated We Are Able To Demolish 5 To 15 CY Of Concrete Slabs, Walls Or Footers Per Hour Depending On Accessibility, Amount Of Reinforcing Steel, Etc.

Total Bid Price: \$195.00

Notes:

- Any changes, additional work and/or materials required beyond the scope of work expressly identified within this proposal, on bid documents, plans or specifications shall not occur without a written change order signed by the Customer and a Nelco supervisor.
- Utah General Engineering Contractor License #: 229870-5501

Payment Terms:

The herein designated purchaser and/or customer and its duly authorized agent and/or principal agrees to pay the following account at Price, Utah within 30 days of the date of invoice regardless of payment by Owner and if not paid when due to pay interest thereon from date hereof at the rate of 1.5% per month (18% annum) before and after judgment until paid and further agrees to pay all court costs, attorney's fees and collection agency commissions incurred in collecting this account, whether or not suit is filed, and understand that such fees and/or commissions might be as much as 50% of the principal balance owing.

Avg. Cost = $\frac{195.00}{10 \text{ CY}} = 19.50 / \text{CY}$

<p>ACCEPTED: The above prices, specifications and conditions are satisfactory and are hereby accepted.</p> <p>Buyer: _____</p> <p>Signature: _____</p> <p>Date of Acceptance: _____</p>	<p>CONFIRMED: Nelco Contractors Inc.</p> <p>Authorized Signature: _____</p> <p>Estimator: _____</p>
--	--

Scamp Excavation, Inc
PO Box 50, Wellington, UT 84542
Phone: (435) 636-8101 Fax: (435) 637-5696
E-Mail: SEOPLLC@EMERYTELCOM.NET

"24 hours a day, 7 days a week"

July 26, 2016

EIS
Attn: Gary Taylor
Email: gtaylor@emerytelcom.net

Re: Crandall Mine / Concrete Demolition

To demo concrete: **\$18.00 per Cubic Yard**

Thank-you

Shane Campbell
President/Scamp Excavation, Inc.