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January 3, 2012

Mr. Daron Haddock
Utah Division of Oil, Gas and Mining
1594 West North Temple
Salt Lake City, Utah 84114

RECEIVED
JAN 05 2012
DIV. OF OIL, GAS & MINING

RE: Lila Canyon Mine - Exploration Drilling

Dear Daron:

On behalf of UtahAmerican Energy (“UEI”), we would like to confirm UEI’s plans to undertake exploration drilling on lands located within the Lila Canyon Mine Permit. UEI’s exploration plan was approved by the Bureau of Land Management (“BLM”) on December 8, 2011. See BLM’s letter dated December 8, 2011, Decision Record and Environmental Assessment (“EA”), attached. The type of exploration proposed is rotary/core drilling. A total of four exploration drill holes are proposed to be located on federal coal leases SL-066490, SL-069291, and U-0126947. The proposed well locations are identified on the map attached as Plate 1 to the EA. UEI drill hole numbers 11-01 and 11-02 are proposed to be drilled in 2012 and UEI drill holes 11-03 and 11-03A are to be drilled in 2013. Only the first two locations proposed to be drilled in 2012 will be completed as water monitoring wells per the terms of the Board Order approving the Lila Canyon Mine Permit. It is possible that one of the monitoring wells may be intercepted by mining activities within the next two years which may prevent data collection for the entire two-year period.

It is our understanding that these activities meet the conditions of the Board Order. Please confirm that this is also the understanding of the Division of Oil, Gas and Mining.

Very truly yours,

Denise A. Dragoo

DAD:jmc
Enclosures
cc: Jay Marshall

File in:

- Confidential
- Shelf
- Expandable

Date Folder 010512 CI 0070013

Incoming



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Green River District, Price Field Office
125 South 600 West
Price, UT 84501
Phone: (435) 636-3600 Fax: (435) 636-3657
<http://www.blm.gov/ut/st/en/fo/price.html>



DEC - 8 2011

IN REPLY REFER TO:

3482
SL-066490, SL-069291, U-0126947
(UTG023)

CERTIFIED MAIL—7010-3090-0002-7831-0658
RETURN RECEIPT REQUESTED

R. Jay Marshall, P.E.
Project Manager-Lila Canyon Mine
UtahAmerican Energy, Inc.
794 North "C" Canyon Road
P.O. Box 910
East Carbon, Utah 84520

RECEIVED

JAN 05 2012

DIV. OF OIL, GAS & MINING

Dear Mr. Marshall:

My decision is to grant authorization for the access and drilling of up to four exploratory wells on an approved exploration plan (submitted 08/15/2011) on Federal Coal Leases SL-066490, SL-069291 and U-0126947 to UtahAmerican Energy Inc. (UEI), Lila Canyon Mine.

The Bureau of Land Management drilling stipulations as listed on pages 4 through 7 in the Decision Record for the UtahAmerican Energy, Inc. Lila Canyon Mine 2011 Drilling Plan are required for all operations.

You will be required to submit a \$5,000 bond for each of the exploration holes that you are planning to drill.

Since there is a 30-day appeal period for this decision, you are authorized to implement this project beginning January 7, 2012, if there are no appeals. If you have any questions regarding this matter, please contact Steve Rigby at 435-636-3604.

Sincerely,

Patricia A. Clabaugh
Field Manager

Enclosure

Report of Water Observed (1p)

cc: BLM State Office, UT-923

Utah Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Green River District Office, UT-000

REPORT OF WATER OBSERVED

Company: _____ Lease/License Number: _____
Address: _____ Drill Hole Number: _____
_____ Date Completed: _____
_____ Total Depth: _____

Company Contact: _____
Phone Number: _____

Drilling Contractor: _____
Address: _____

Company Contact: _____
Phone Number: _____

Location of Hole: T. __ S., R. __ E., Section __ : __ 1/4 __ 1/4 __ 1/4
Hole Elevation: _____ Hole Diameter: _____
Drilling Method: _____
Static Water Level: _____

Aquifer No. 1

Depth Below Ground Elevation: _____ Formation: _____
Rock Type: _____ Yield(GPM): _____
Date Reported to BLM*: _____ Requirements of BLM*: _____
_____ Water Sample Provided to BLM? _____

Aquifer No. 2

Depth Below Ground Elevation: _____ Formation: _____
Rock Type: _____ Yield(GPM): _____
Date Reported to BLM*: _____ Requirements of BLM*: _____
_____ Water Sample Provided to BLM? _____

Aquifer No. 3

Depth Below Ground Elevation: _____ Formation: _____
Rock Type: _____ Yield(GPM): _____
Date Reported to BLM*: _____ Requirements of BLM*: _____
_____ Water Sample Provided to BLM? _____

-----* Refer to Stipulation Number 16H

**United States Department of the Interior
Bureau of Land Management**

**Decision Record
Environmental Assessment
DOI-BLM-UT-G023-2011-0052-EA**

December, 2011

**UtahAmerican Energy, Inc.
Lila Canyon Mine 2011 Drilling Plan**

Location: *Little Park Wash, Northern Emery County, Utah*

Applicant/Address: *UtahAmerican Energy, Inc.
Lila Canyon Mine
PO Box 910
East Carbon, Utah 84520*

U.S. Department of the Interior
Bureau of Land Management
Price Field Office
125 West 600 South
Price, Utah 84501
(435) 636-3600 Phone
(435) 636-3657 Fax



DECISION RECORD
Environmental Assessment
DOI-BLM-UT-G023-2011-0052-EA
Lila Canyon Mine 2011 Drilling Plan

It is my decision to authorize UtahAmerican Energy, Inc. (UEI) to perform the Proposed Action, which includes exploratory drilling, pad construction, and access road construction to four drilling locations on Federal coal leases SL-066490, SL-069291, and U-0126947 and authorize an access right-of-way for the UEI 11-03A access road outside of the leases for the purpose of collecting geological and structural information for the design of longwall shields. The exploration holes may be converted and used as water monitoring wells. The water monitoring wells will be used to monitor water quality on a quarterly basis, or when possible depending on snow depth and accessibility, for two years. Reclamation will begin after the casing and collar are constructed for the holes used as monitoring wells or immediately after drilling for the holes not used for water monitoring. The subsoil and topsoil material will be distributed throughout the pad, around the casing and collar at water monitoring wells, to achieve approximate original contour. Reclamation of the access roads will be completed after the drilling of each hole if the hole will not be used for water monitoring. The access roads to the water monitoring wells will be lightly scarified and seeded with the grass and forb species to maintain access to the wells. After the water monitoring period has been completed, the casing and collar will be removed and any disturbance to the reclaimed pad will be scarified and seeded again. The BLM will be notified when plugging of the exploratory drill hole or water monitoring well will start. The plugging methods include pulling surface casing when possible; but when not possible, cutting it flush with the ground, then pumping the cement/bentonite slurry through the drill pipe starting at the bottom of the hole. The plugged hole will be three feet below surface level. Water monitoring wells will be plugged using the same methodology after the water monitoring period is completed.

The Horse Canyon Road and the Little Park Wash Road will be used to access the project area. An access road approximately 360 feet long will be constructed from the Little Park Wash Road to the UEI 11-01 location. The two existing two-track roads branching from the Little Park Wash Road will be upgraded to provide access to the UEI 11-02, UEI 11-03, and UEI 11-03A locations. Approximately 554 feet of the existing two-track will be upgraded for the UEI 11-02 location, approximately 3,248 feet for the UEI 11-03 location, and approximately 4,704 feet for the UEI 11-03A location. Access roads will be the width of the equipment blade, twelve feet wide, but may be up to sixteen feet wide in areas for turning requirements. Upgrading the access roads will include keeping the equipment blade within six inches of the ground surface to clear vegetation and move a minimal amount of soil to cut high areas and fill low areas along the access road. An attempt will be made to leave the majority of the established vegetation root mass and bases of the stems. The shrubs will be pushed and windrowed adjacent to the proposed access road. Upgrading the roads will not include blasting or importing road base. Topsoil will be windrowed adjacent to the road prior to any significant cut or filling operation and will remain for reclamation. A right-of-way will be granted to upgrade the two-track road, approximately 2,116 feet, and to use the road as access to the UEI 11-03A location in the area outside of UEI's Federal coal leases.

Drilling pads may be up to 100 by 200 feet and will include area for the drilling rig, a portable mud pit, trailer area, storage area, and parking area.

The exploratory drill holes may be used for water monitoring wells. The wells will have a PVC pipe casing, cap, and cement collar extending approximately twelve inches from the ground.

Pre-existing roads will be left in a condition equal to or better than that observed on UEI's entry into the area. The Horse Canyon Road and Little Park Wash Road have been recently bladed and any pot holes or ruts created during the construction, drilling, or reclamation activities will be repaired by UEI. The locations and access roads, excluding the Horse Canyon Road and Little Park Wash Road, will be seeded with a BLM approved seed mix. The roads will be seeded with grass and forbs in order to allow access into the side canyons. After the water monitoring period is completed, the access roads will be reclaimed as close as possible to previous conditions by scarifying the center and edges of the road and seeding.

UEI will control the spread of noxious weeds within the project area during construction and drilling activities and until the reclamation of the project area is deemed successful. BMPs for weed control will involve integrated pest management and may include chemical, mechanical, and biological methods for invasive species and noxious weed control. UEI will be required to monitor the sites disturbed by the Proposed Action and control noxious weeds. This will be completed by a licensed pesticide applicator. A Pesticide Use Proposal (PUP) including types of chemicals and frequency of use will be submitted prior to the use of herbicides. A Pesticide Applicator Record (APR) will be submitted on a quarterly basis.

Authorities: The authority for this decision is contained in the Federal Land Policy and Management Act of 1976 (FLPMA), Title 43 of the Code of Federal Regulations (CFR) Part 2910 and 3480, and the Mineral Leasing Act of 1920, as amended (30 U.S.C. 185) (MLA). The granting of the right-of-way (ROW) by the BLM is pursuant to the requirements of Title 5 of the FLPMA, and regulations found within Title 43 of the Code of Federal Regulations (CFR), part 2800.

Compliance and Monitoring: BLM shall monitor actions performed to ensure compliance with the terms, conditions, and stipulations of the lease grant. The monitoring shall include inspecting construction, operation, maintenance, and termination of facilities and protection and rehabilitation activities until the holder completes rehabilitation of project area. Oversight of the operations will be completed by a supervising UEI representative or third party monitor. UEI will monitor the project area for the presence of noxious weeds for the life of the project. Reclamation will be in accordance with the Lila Canyon Extension Mining and Reclamation Plan (MRP) where success is defined as having vegetation cover, productivity, and woody plant density at least 90% of the cover, productivity, and woody plant density as the reference area.

Terms / Conditions / Stipulations: Construction or drilling activities will not be conducted within crucial year-long habitat for Rocky Mountain bighorn sheep between April 15 and June 15 without prior approval from the Authorized Officer. Construction or drilling activities will not be conducted between February 1 and July 15 within 0.5 miles from an active or occupied raptor nest nest.

All personnel contracted or otherwise doing work on the exploration program will be required to wear orange during elk and deer hunting season if construction, drilling, or water monitoring is conducted during hunting seasons.

Construction of the pads and access roads will be completed with a dozer and/or grader. Topsoil at each drill location will be salvaged for reclamation and distributed over the recontoured pad once drilling is completed. The soil excavated during construction of the pad will be pushed to the edge of the pad creating a berm and will also act as a secondary water containment structure. Erosion control structures, utilizing the State of Utah and BLM's Best Management Practices (BMPs) will be used in sensitive areas to prevent runoff erosion. BMPs may include straw bales, silt fences, and rip-rap armoring the wash banks at points where the access road crosses a wash channel.

The drilling rig will be a truck mounted core drill. Drilling operation will last for approximately ten days at each location. Drilling operations will be logged and a report will be given to the BLM following drilling completion. Water will be hauled to the drill sites from an approved source. Portable pits, or self-contained troughs, will be used to contain cuttings and drill fluids and will be hauled off site and the contents disposed of properly. Pollutants will be kept away from the drill hole and in original manufacturer containers or approved containers to minimize the potential for water pollution. The soil excavated during construction of the pad will be pushed to the edge of the pad to create a berm and secondary water containment structure. Materials used during drilling operations will be selected to be less toxic yet equally effective for drilling purposes. Berms will be constructed around the drill hole sites to contain any potential spills. All spills in excess of 100 gallons of potentially polluting materials will be reported to the BLM prior to removal from the area and properly disposed of.

The BLM will be notified when plugging will start. The completion method will include pulling surface casing when possible; but when not possible, cutting it three feet below surface level, then pumping the cement/bentonite slurry through the drill pipe starting at the bottom of the hole. Plugging will then be done in stages by tripping-out of the hole three to four joints, 60-80 feet, and pumping again. The process will be repeated to the surface. The plugged hole will be three feet below the ground surface.

Reclamation activities will begin immediately after the completion of each hole and will be in accordance with the success standards set forth in the approved MRP. All silt fences, straw bales, and rip-rap will be removed during final reclamation. At the drill holes used as water monitoring wells, a casing and collar will be installed and the pad area surrounding the casing and collar will be reclaimed after the installation is completed. A backhoe or a bulldozer will be used to redistribute the subsoil material throughout the drill pads to achieve approximate original contour. The topsoil will then be redistributed over the total disturbance area. The reclamation area will then be scarified and seeded. After the water monitoring period has been completed, the casing and collar will be removed and any disturbance to the reclaimed pad will be scarified and seeded again.

The access roads which were previously existing two-track roads will be reclaimed as close as possible to the pre-existing condition after drilling if the drill hole will not be used for water

monitoring. The access road center and edges will be scarified and seeded to approximate the pre-disturbance two-track condition. The access roads to exploratory holes converted to water monitoring wells will be scarified in areas with no vegetation or in areas where vegetation was disturbed and seeded with grass and forb species to allow access to the water monitoring well during the water monitoring period and reclaimed as close as possible to pre-existing conditions after the water monitoring period is complete. Final reclamation will include the contouring and spreading of topsoil in any cut and fill areas created during the upgrade of the road.

UEI will control the spread of noxious weeds within the project area until reclamation is deemed successful. Prior to arrival, all equipment used in the completion of construction will be washed or hosed to help eliminate and prevent the spread of invasive and noxious weeds. Pesticides will be used according to Federal and State laws. A Pesticide Use Proposal (PUP) will be submitted prior to the use of pesticides or herbicides and a Pesticide Applicator Record (PAR) will be submitted on a quarterly basis.

The following stipulations have been developed to mitigate adverse environmental impacts which may result from the action permitted:

1. No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of six inches deep, the soil shall be deemed too wet to adequately support construction equipment and travel on roads must be halted.
2. UEI shall maintain the roads on the Federal coal lands in a safe, usable condition, as directed by the Authorized Officer. A regular maintenance program shall include, but is not limited to blading.
3. Any damage to existing roads or road improvements shall be repaired if damaged. If dusts from the roads reach excessive levels, a program of wetting the roads shall be implemented. This shall be determined by the Authorized Officer.
4. UEI shall secure the approval of the District Engineer for the Division of Water Rights for any appropriation of water.
5. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by UEI, or person working on their behalf, on public land shall be immediately reported to the Authorized Officer. UEI shall suspend all operations in the area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to

determine appropriate actions to prevent the loss of significant cultural or scientific values. UEI will be responsible for the cost of evaluation, and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with UEI.

6. UEI is responsible to see that all personnel contracted or otherwise doing work on the exploration program are aware of these approval requirements and abide by all regulations governing this program. Any changes to the approved exploration plan must receive approval from the Authorized Officer prior to implementation.
7. When artesian flows or horizons with possible development potential are encountered, the Authorized Officer shall be notified immediately so that a determination may be made concerning their development potential. When possible, water samples shall be collected by the operator for analysis by the BLM. A written report is required upon completion of exploration as noted by Stipulation 16 H.
8. The Authorized Officer representing the BLM shall be notified 24 hours prior to setting surface and/or intermediate casing and plugging of wells, so that the BLM may arrange to be present. Each string shall be cemented in the annulus to the surface. The cement slurry mixture used to plug and seal the drill holes shall be mixed in compliance with standard cement mixing tables. Any variance from this procedure must be approved in advance by the Authorized Officer. In addition, periodic drilling updates on the weekends will be required if the drilling is nearing the cementing phases, so that representatives of the BLM will be made aware of progress.
9. If adverse down-hole conditions prevent a completed drill hole from being properly plugged after attempting all standard industry plugging procedures, the Authorized Officer shall be contacted immediately to make a determination as to a final plugging procedure.
10. For activities which disturb five acres or more, a Storm Water Pollution Prevention Plan shall be submitted to the Utah Department of Environmental Quality.

11. The Best Management Practices set forth in the Utah Nonpoint Source Management Plan for Hydrologic Modifications, Appendix B, and page 3 shall be implemented during construction.

12. In the event construction can't be completed prior to winter closures, measures to prevent erosion from upcoming snow melt shall be taken as follows:
 - A. Loose earth and debris must be removed from drainage and flood plains.
 - B. Earth and debris shall not be stockpiled on drainage banks.
 - C. Road drainage shall be checked to ensure that there are none with uncontrolled outlets.
 - D. Be sure all ditch drainages have an outlet to prevent ponding.
 - E. If necessary, build temporary sediment ponds to capture runoff from unreclaimed areas.
 - F. Re-route ditches as needed to avoid channeling water through loosened soil.

13. All drilling pits shall be lined to retain drilling fluids, unless sufficient evidence on site specific soil (percolation) and water quality tests are performed to determine a site specific waiver of this stipulation, as determined by the Authorized Officer.

14. All construction debris and drilling refuse will be completely removed from the site and disposed of at an appropriate approved land fill.

15. The hole location is to be marked by placing an approved marker made of galvanized steel, brass, aluminum or similar noncorrosive metal in the concrete plug. Such markers are to show hole number, year drilled, lessee/licensee name, and as feasible, the section, township, and range in which the hole is located. The top of the concrete plug, if located in a cultivated field must be set below normal plow depth (10 to 12 inches). In noncultivated areas, all marker caps should not protrude above the ground level. All drill holes shall be surveyed in to assure proper location. An exact survey of each drill hole location will be submitted to the Authorized Officer.

16. Upon completion of exploration activities, two copies of each report as required by 43 CFR 3485.1 shall be submitted to the Authorized Officer. The reports at a minimum must contain the following;

- A. Location(s) and serial number(s) of lands under Federal lease or license on which exploration was completed.
- B. A description of the completed exploration operations that includes the number of holes drilled, total depth of each hole, and completion date of each hole.
- C. A map showing the locations of all holes drilled, other excavations, and the coal outcrop lines as appropriate. The scale of the map shall not be less than one inch equals one mile.
- D. Analysis of coal samples and other pertinent tests obtained from exploration operations.
- E. Copies of all in-hole mechanical or geophysical stratigraphic surveys or logs, such as electric logs, gamma ray-neutron logs, sonic logs, or any other logs. The records shall include a lithologic log of all strata penetrated and conditions encountered such as water, gas, or any unusual conditions.
- F. Status of reclamation of the disturbed areas.
- G. Any other information request by the Authorized Officer.
- H. Hydrologic reports using the approved BLM template to report water observed.

17. When dry, mud pits must be reclaimed by selectively backfilling excavated materials, top soil last, such that the disturbed area is replaced to approximate original contour.

18. UEI shall comply with all State and Federal regulations governing the disposal of hazardous waste. Fuel oil and other petroleum products shall be disposed of at approved waste disposal sites.

PLAN CONFORMANCE AND CONSISTENCY:

The Proposed Action is in conformance with the Price Field Office Record of Decision and Approved Resource Management Plan (Approved RMP) approved October 31, 2008. The objective on page 123 states: "Maintain coal leasing, exploration, and development within the planning area while minimizing impacts to other resource values."

**United States Department of the Interior
Bureau of Land Management**

**Environmental Assessment
DOI-BLM-UT-G023-2011-0052-EA**

December, 2011

**UtahAmerican Energy, Inc.
Lila Canyon Mine 2011 Drilling Plan**

***Location:* Little Park Wash, Northern Emery County, Utah**

***Applicant/Address:* UtahAmerican Energy, Inc.
794 North "C" Canyon Road
P.O Box 910
East Carbon, Utah 84520-0910**

U.S. Department of the Interior
Bureau of Land Management
Price Field Office
125 South 600 West
Price, Utah 84501
Phone: (435) 636-3600
Fax: (435) 636-3657



Lila Canyon Mine 2011 Drilling Plan
DOI-BLM-UT-G023-2011-0052-EA

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APPENDICES

Appendix A – Interdisciplinary Team Checklist

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Lila Canyon Mine 2011 Drilling Plan

DOI-BLM-UT-G023-2011-0052-EA

1.0 PURPOSE & NEED

1.1 Introduction

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of the Lila Canyon Coal Mine Exploratory Drill Sites as proposed by UtahAmerican Energy, Inc. The EA is a site-specific analysis of potential impacts that could result with the implementation of a Proposed Action or alternatives to the Proposed Action. The EA assists the Bureau of Land Management (BLM) in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. "Significance" is defined by NEPA and is found in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI). If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record may be signed for the EA approving the selected alternative, whether the Proposed Action or another alternative. A Decision Record (DR), including a FONSI statement, documents the reasons why implementation of the selected alternative would not result in "significant" environmental impacts (effects) beyond those already addressed in Price Field Office Record of Decision and Approved Resource Management Plan (RMP) (BLM, 2008b).

1.2 Background

UtahAmerican Energy, Inc. (UEI) proposes to conduct exploratory drilling for the Lila Canyon Mine in Emery County, Utah. UEI proposes to complete four exploration drill holes to evaluate geology and structure for the purpose of designing longwall shields. The proposed drill holes may remain open for water monitoring for at least two years to satisfy stipulations in the Lila Canyon Mine permit. Samples from the well or wells would be taken quarterly. The proposed exploration area covers Federal lands administered by the BLM overlying the Federal Coal Leases SL-0066490, SL-069291, and U-0126947. The entire lease area will be mined using longwall methods and the design and layout can be found in the Resource Recovery and Protection Plan processed by the BLM. The drill hole locations are proposed in Sections 23 and 24, T. 16 S., R. 14 E., and Section 30, T. 16 S., R. 15 E. The Proposed Action includes upgrading approximately 8,686 feet of two-track roads, construction of a new access road approximately 360 feet long, and four drilling pads approximately 0.46 acres each. The drilling depths would be 950 to 1,500 feet. The project area, which is the proposed drilling pads and access roads, is shown on Plate 1. Drilling activities at the UEI 11-01 and UEI 11-02 holes would begin in November 2011.

Construction of the pads and access roads would be completed with a dozer and grader. Drilling pads would be approximately 100 by 200 feet and would include area for the drilling rig, portable pit area, trailer area, storage area, and parking area. The drilling rig would be a truck

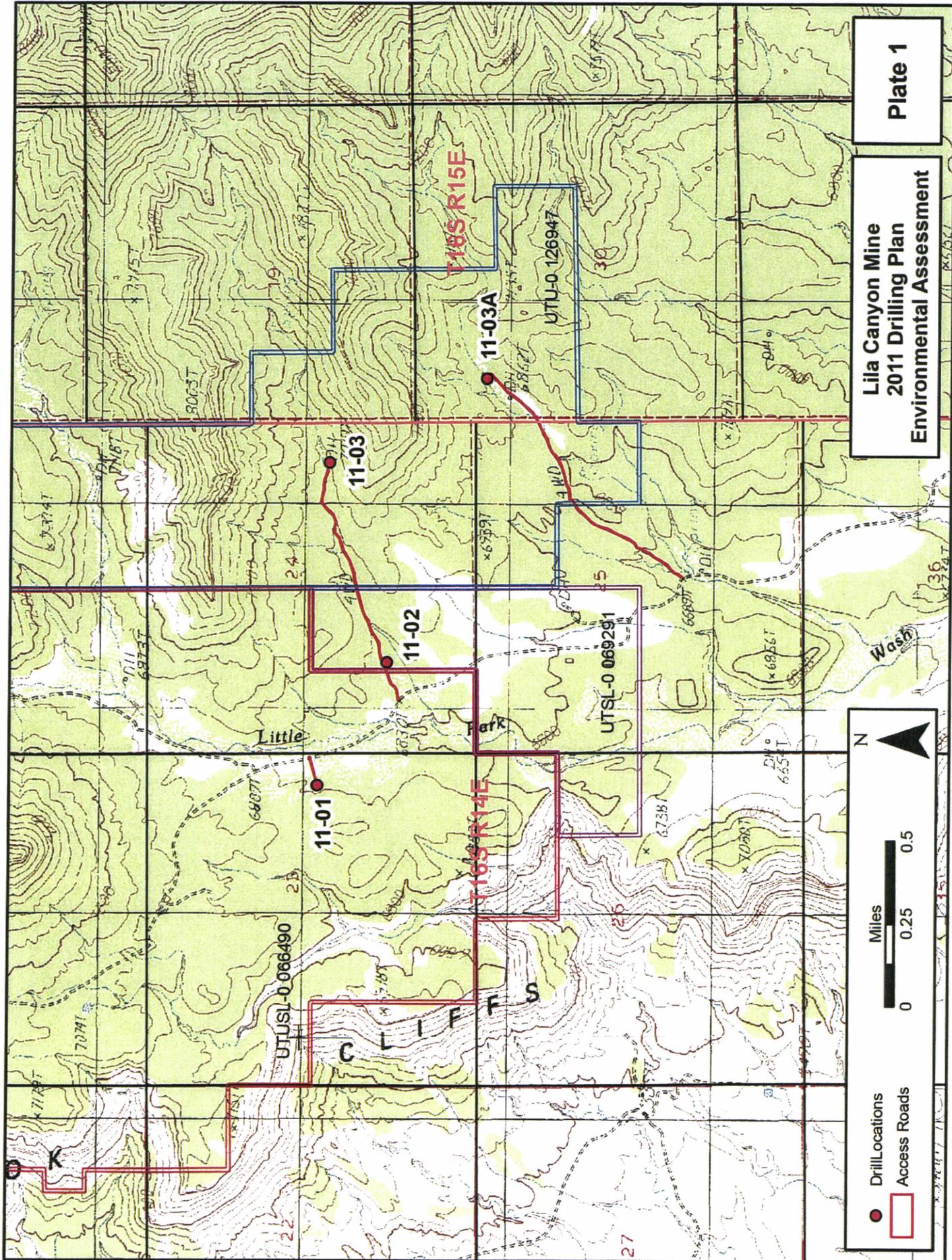


Plate 1

Lila Canyon Mine
2011 Drilling Plan
Environmental Assessment

Legend:

- Drill Locations
- Access Roads

Miles

0 0.25 0.5

N

mounted core drill. Operations would require two water trucks, supply and pipe trailer, and pickup trucks and SUVs for personnel transport. Drilling operation would last for approximately ten days at each location. The UEI 11-01 location is on the flat bottom of Little Park Wash and would require the construction of an access road approximately 360 feet long from the Little Park Wash Road to the proposed location. The UEI 11-02 location is also near the Little Park Wash Road and access to the location would be approximately 554 feet of an existing two-track road from the Little Park Wash Road to the location. The access road to the UEI 11-03 location is approximately 3,428 feet of old two-track road requiring upgrades from the UEI 11-02 location. The UEI 11-03 location is on a previous drill pad located in a small side canyon of Little Park Wash. The UEI 11-03A location is also in a side canyon to Little Park Wash and is adjacent to a previous drill pad site. Access to this location would be approximately 4,704 feet of an existing old two-track road requiring upgrades from the Little Park Wash Road. Approximately 2,116 feet of the UEI 11-03A access road is not within UEI's lease area and would require a right-of-way (ROW). The UEI 11-01 and UEI 11-02 locations are within a previously burned area and the UEI 11-03 location is on a previously disturbed area from past drilling.

The Proposed Action includes methods for reclaiming the disturbance caused by the proposed drilling. Topsoil at each drill location would be salvaged for reclamation and distributed over the recontoured pad once drilling is completed. Any of the four holes may be used as water monitoring wells and a four to six inch PVC pipe would remain at the drill hole and project from the surface approximately twelve inches. Surrounding the extended pipe would be a cement collar flush with the cap of the pipe and sloped downward away from the pipe to prevent water runoff from entering the pipe. The area surrounding the collar would be reclaimed following the completion of the case and collar. Appendix B includes a schematic of the casing and collar and photographs of existing water monitoring wells. The pad locations and access roads would be seeded with a BLM approved seed mix. The seed mix would include desired species that may prevent invasive species from establishing in the proposed project area. The roads would be seeded with grass and forbs in order to allow vehicle access into the side canyons.

The Proposed Action would allow UEI to obtain core samples and data required for the design of longwall shields to efficiently and safely extract coal from their lease area. UEI plans to transfer personnel to the Lila Canyon Mine in 2014 and provide continued employment. A percentage of monies from the production and sale of coal from UEI's Federal coal lease area would provide Federal and State governments with additional revenue.

The Little Park Wash area has been an area of previous drilling, including 35 drill locations. The effects to the area resulting from the Proposed Action would be a minor addition to previous disturbances from vegetation treatment and drilling activities. No other drilling is planned in this area by UEI. The coal under the project area will be mined as part of the Lila Canyon Mine. The proposed pad disturbance would be short term and reclamation would begin immediately after drilling. The pad surrounding the collar would be recontoured and reclaimed. The reclamation procedures included in the Proposed Action are expected to enhance forage vegetation for livestock and wildlife and are provided as a balance to the proposed disturbance.

1.3 Need for the Proposed Action

UtahAmerican Energy, Inc. (UEI) is anticipating the Lila Canyon Mine to open longwall productions and transfer of employees to the mine in the fall of 2014. The purpose of the four proposed coring holes is to better define rock structure, composition, and geotechnical information to determine stresses that need to be considered for longwall shield design. The core samples would also confirm historic data relative to seam thickness, depth, etc. The specific shield design is required to avoid using a shield shorter than the coal depth, which would prevent the maximum amount of coal retrieval, and using a more costly shield that is too large. Improper design of the shields may also result in inadequate stabilization of the mine roof and eventual failure. It is important to accurately design shields to prevent failure of the shield that protects employees from life threatening incidents. An improperly designed shield would be a costly mistake resulting in safety hazards and production and time loss. To design and build the shields would take up to two years to complete. In order to create the longwall assembly in preparation for the employee transfer in 2014, the geotechnical information must be gathered in the fall of 2011. This operation is essential to develop and produce coal from Federal coal leases SL-066490, SL-069291, and U-0126947. A stipulation in the mine permit requires UEI to develop two water monitoring wells in the event exploratory drilling is completed within the lease area and monitor from these wells for two years. UEI would use these wells for water monitoring to satisfy the stipulation in the mine permit.

UEI has submitted an application for surface use on Federal land, and the BLM's need is to respond to the applicant's proposal to continue mining operations.

1.4 Purpose(s) of the Proposed Action

The purpose of the Proposed Action is to allow UEI to determine geotechnical information on the rock formations surrounding the coal within their lease by constructing access roads and drilling pads for the purpose of drilling core samples, and also to allow UEI the opportunity to satisfy the stipulation within their lease permit by converting exploration holes into water monitoring wells. The purpose is also to provide the BLM with project information for analysis within the three Federal coal leases and access road portion within Section 25, T. 16 S. R.15 E., which is not within the lease areas. This information will be used to evaluate surface use of Federal lands and commitment of resources in the region. Private exploration and production from federal coal leases is an integral part of BLM's coal leasing program under authority of the Mineral Leasing Act of 1920 (MLA) as amended (30 U.S.C. 185). The BLM is tasked to provide multiple use management and resolve multiple use issues between resource values and resource uses. The BLM coal leasing program encourages development of coal leases and the reduction of the United States dependence on foreign energy sources. BLM will consider approval of the proposed drilling in a manner that avoids or reduces impacts on other resources and activities as identified in the approved RMP. The BLM will decide whether or not to approve the proposed drilling and grant a ROW, and if so, under what terms and conditions.

The BLM must consider the Proposed Action according to the Federal Land Policy and Management Act of 1976 (FLPMA) and regulations found in Title 43 of the Code of Federal Regulations (CFR) Part 2910 and 3480.

This Proposed Action would incorporate approved stipulations, including resource protection and reclamation requirements, all in accordance with the applicable management objectives and requirements of the BLM.

1.5 Conformance with BLM Land Use Plan(s)

The Proposed Action is in conformance with the approved RMP Mineral and Energy resources objective to "Maintain coal leasing, exploration, and development within the planning area while minimizing impact to other resource values" (BLM, 2008b, p. 123) and with all relevant management prescriptions assigned to the land use plan.

1.6 Relationship to Statutes, Regulations, or Other Plans

The granting of the ROW by the BLM is pursuant to the requirements of Title 5 of the FLPMA, and regulations found within Title 43 of the Code of Federal Regulations (CFR), part 2800. These requirements would cover all actions proposed that are off the coal lease area.

The coal lease would be administered under the requirements of the MLA, and regulations found within Title 30 of the CFR (U.S.C. 181-287).

The area of the Proposed Action is zoned as M&G-1, mining and grazing, by the Emery County Zoning and Planning Office, and is consistent with the Emery Country General Plan of 1996 (Emery County, 1996).

The Proposed Action is consistent with Council for Environmental Quality (CEQ) regulations (40 CFR 1500-1508) and the Department of Interior Procedures for Implementing NEPA (43 CFR Part 46). The Proposed Action would be a Federal action requiring the NEPA process and is not subject to require and EIS as stated within the BLM NEPA Handbook (H-1790-1) (BLM, 2008a), and the BLM must determine if it is in conformance with the approved RMP as required by 43 CFR 1610.5-3, 516 DM 11.5.

The Proposed Action is also associated with the Development of the Lila Canyon Project EA UT-070-99-22, Lila Canyon Power Line and Communication Line EA DOI-UT-G021-2009-0082-EA, and Lila Canyon Exploration Drilling Program EA-UT-070-2004-54. The Lila Canyon Project EA includes discussion of future exploratory wells within the analysis of the mine impacts and the power and communication line EA analyzed the impacts resulting from the installation of a 138 kV transmission line in association with the mine development. The previous exploration drilling EA analyzed the impacts resulting from two exploratory drilling locations. The analyzed impacts from several actions in association with the mine development may be considered in the cumulative impact analysis.

1.7 Identification of Issues

Environmental issues were identified for the Proposed Action utilizing an interdisciplinary process during a BLM scoping meeting. Issues associated with the natural resources, resource values, natural processes and components of the human environment were discussed during the meeting of August 22, 2011 and were limited due to either minor or no additional disturbance resulting from the Proposed Action. The rationale for dismissing those resources from detailed analysis within this EA is included in Appendix A, the Interdisciplinary Team (IDT) checklist. The potential issues that are associated with the Proposed Action are analyzed in greater detail in the following sections. The IDT checklist, included as Appendix A, lists and briefly describes the resources affected by the Proposed Action and the effects that require detailed analysis in this EA. The issues were discussed based on the potential impacts from construction of access roads and drill pads and with the drilling operations. All four drilling locations are within leases currently held by UEI and shown in Table 1. The majority of the proposed access roads are within leases held by UEI and are within the permit area, however, a portion of the proposed access road to the UEI 11-03A location is outside of the permit boundary and would require the approval of a ROW.

1.7.1 Livestock Grazing

- Temporary disturbance of forage up to 5.18 acres
- Temporary unavailable water sources for livestock

1.7.2 Invasive Species and Noxious weeds

- Possible spread of invasive and noxious weeds with the construction of the drill sites due to equipment operations

1.7.3 Vegetation

- Temporary disturbance of 5.18 acres of vegetation

1.7.4 Lands With Wilderness Characteristics

- The project area is within area designated as Non-WSA lands with wilderness characteristics

1.8 Issues Considered and Dismissed

The following environmental elements were reviewed to determine the need to include them for analysis in this document. It has been determined that these elements would not be affected by the Proposed Action and will not be discussed further in the document. Appendix A, the IDT checklist addresses the issues and reason for dismissal. The Little Park Wash Road has recently been upgraded and would be used by UEI as the primary access road. The two-track and constructed roads to the drill locations would be within the lease areas with the exception of

approximately 2,116 feet of two-track road leading to the UEI 11-03A location. This portion of access road off of the lease area would require a ROW prior to upgrading.

Air Quality- Overall, air quality in the project area is considered to be in attainment of NAAQS. There are no regulatory monitoring data for the project area. Dust emissions currently occur from vehicles utilizing the road. It is anticipated that the incremental change from this project's alternatives would be so small as to be undetectable by both models and monitors. The access roads and pads would be sprayed with water from a BLM approved source if necessary to control fugitive dust.

Areas of Critical Environmental Concern- After review of GIS records and the Approved RMP there are no ACESs within the project area.

BLM Natural Areas- There are no BLM Natural Areas within the proposed project area as per GIS and RMP reviews.

BLM Sensitive Animal Species- BLM sensitive animal species are not known to be present within the project area as per GIS/map review.

BLM Sensitive Plant Species- After review of BLM records there are no known populations or habitat within the project area for BLM sensitive species.

Cultural Resources- A cultural resource inventory completed on August 23, 2011 resulted in no findings of cultural sites within the project area. The survey area included the proposed disturbance areas with a 100 foot access road corridor and a 600 foot radius from the proposed drill locations. The Proposed Action would have no impacts to Cultural Resources.

Green House Gas Emissions- There are currently no regulatory standards for controlling GHG emissions or accepted analytical methods for evaluating project specific impacts related to GHG emissions. As a consequence, the impacts of site-specific proposals cannot be determined. Based on the nature of the action GHG emissions are expected to be minimal.

Environmental Justice- No minority or economically disadvantaged communities or populations have been identified which could be affected by the Proposed Action.

Farmlands (Prime or Unique)- According to the NRCS soils surveys, there are no prime and unique soils mapped within the project area.

Fish and Wildlife Excluding USFW Designated species and BLM Sensitive Species- There are active raptor nests, especially golden eagles, surrounding the project area. There are no known nests within 0.5 miles of the project area. Bighorn sheep, mule deer, and elk are present. The drill sites and roads are located on mule deer and elk winter substantial habitat. There are no seasonal closures for substantial habitats. The nearby cliffs are Rocky Mountain bighorn sheep year-long crucial habitat. The UEI 11-01 location and access road and approximately 130 feet of the UEI 11-03A access road are within crucial year-long habitat for Rocky Mountain bighorn sheep. Seasonal closure for this area is April 15 to June 15.

Floodplains- After an inspection of USGS 7.5 minute maps of the area, it is determined no floodplain as defined by EO 11988, FEMA, or Corps of Engineers is found on or near the project area.

Fuels and Fire Management- Implementation of the Proposed Action would have no significant impact on Fuels/Fire Management because the project is small in scope, and fuel source is minimal.

Geology/ Mineral Resource/ Energy Production- The 4-boring proposal would not negatively impact surficial solid mineral materials. The proposed actions would not alter, remove, or inhibit the eventual use of mineral materials, and where present, are too far from useable markers to be economical. There are no mineral resources present other than common variety minerals; therefore, there would not be any conflicts with other mineral sources or mining claims. Regarding oil and gas energy production: there are no leases present that would provide any conflict of interest (GIS Layer 8/19/11).

Hazardous and Solid Wastes- Actions taken by UEI under the coal exploration program (CEP) in association with similar coal exploration actions taken would be satisfactory to address this issue. Hazardous and solid wastes would be contained by berms being constructed around drill sites to contain any potential spills. All spills of polluting materials would be removed from the area and properly disposed in appropriate facilities. Refer to Appendix A.

Hydrologic Conditions- The project area is in or around predominantly characterized coarse sand in a dry wash. This type is resistant to increased erosion after disturbance of this magnitude. Little or no change to hydrologic conditions at the surface is anticipated. Groundwater conditions could be affected except if the proponent would case the drill holes. All drill holes would be cased if ground water is encountered. The Proposed Action is not expected to impact the existing water monitoring wells.

Lands/ Access- A review of LR2000 and the Master Title Plats showed that the Proposed Action is compatible with the existing land use and authorized right-of-ways. There are no conflicts with other land use authorization. If drilling occurs on the site 11-03A, a ROW will be required for that section of road outside of the lease boundary.

Migratory Birds- There are no mapped important migratory bird habitat areas in the project area. Although migratory birds would use the project area, no special status migratory birds are known to be in this area, therefore no special stipulations are needed.

Native American Religious Concerns- No such concerns have been identified during cultural issue evaluation. Tribal consultation letters were sent August 31, 2011.

Paleontology- Although the geologic formations forming outcrops in the area are known to hold vertebrate fossils, the actual surface disturbance would be in alluvial and colluvial materials which have very little likelihood of holding paleontological resources.

Range Land Health Standards- The area currently meets the rangeland health standards and the Proposed Action is not expected to affect the ability of the landscape to meet the rangeland health standards. The indicators in this EA are addressed in the Livestock Grazing and Vegetation sections. No additional impacts other than those disclosed are expected.

Recreation- The Proposed Action is in an area (extensive Recreation Management Area) where recreation opportunities and problems are limited and explicit recreation management is not required. Implementation of the proposed project would have minimal impact on recreation.

Socio-Economics- Implementation of the Proposed Action would have no measurable social or economic impacts because the project is relatively small in scope when compared to the larger economy of the area.

Soils- Soils in the affected area are coarse sand and are resistant to this level of disturbance. Little to no effect is anticipated. Outside the washes, the soils are generally loamy on the sandy silt side. These soils are not as resistant to erosion, but the area disturbed would be small.

Threatened, Endangered or Candidate Plant Species- After review of BLM records there are no known populations or habitat within the project area for BLM Threatened and Endangered Plants. A Habitat Delineation was completed by EIS Environmental and Engineering Consulting in August, 2011 to determine if potential or suitable habitat for Federally listed threatened and endangered plants and BLM sensitive plants was present within the project area. The survey areas included a 300 foot buffer from the centerline of the proposed access roads and pad edge. The result of the survey was that no suitable habitat for threatened, endangered, or candidate plant species is within the project area. A survey for any of the listed plant species would not be required during the plants' blooming period due to the lack of suitable habitat and the low probability of the plant occupying the project area.

Threatened, Endangered, or Candidate Animal Species- There are no known occurrences of federally listed or candidate species in the project and no designated critical habitat present based on GIS review. There would be no surface water depletion that would affect federally listed fish species that occur downstream.

Wastes (hazardous or solids)- No chemicals subject to reporting under SARA Title III would be used, produced, stored, transported, or disposed of annually in association with the project. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities would be used, produced, stored, transported, or disposed of in association with the project. Trash would be confined in a covered container and disposed of in an approved land fill. No burning of any waste would occur due to this project. Human waste would be disposed of in an appropriate manner in an approved sewage treatment center.

Water Resources/Quality (Drinking/surface/ground)- There would be no impact to water quality due to the small size of this project and the drill hole would be cased in the event that ground water is encountered.

Wetland/Riparian Zones- Location UEI 11-03 is adjacent to a riparian zone created by a spring approximately 900 feet upstream from the proposed location. Areas with wetland or riparian zones would be avoided.

Wild and Scenic Rivers- There are no wild and Scenic Rivers within the project area as per review of RMP/GIs maps.

Wilderness/WSA- There are no Wilderness/WSAs within the project area as per review of RMP/GIS maps.

Woodland/ Forestry- There are merchantable woodland/forest products within the project area. Due to the size of the proposed sites, less than 0.5 acre, there would be negligible impacts to merchantable woodland/forestry products.

Visual Resources- The proposed project is within VRM II which states that level of change to the characteristics of the landscape should be low. The objective of the VRM II is to retain the existing character of the landscape. Implementation of this project may impact the area but would not exceed the Visual Resource Management Class II objectives.

Wild Horses and Burros- As per review of GIS and the Price Resource Management Plan (RMP, 2008b) maps, there are no Heard Management Areas within the project area.

1.9 Summary

This chapter has presented the purpose and need of the proposed project, as well as the relevant issues, i.e., those elements of the human environment that could be affected by the implementation of the proposed project. In order to meet the purpose and need of the proposed project in a way that resolves the issues, the BLM has considered and/or developed a range of action alternatives. These alternatives are presented in Chapter 2. The potential environmental impacts or consequences resulting from the implementation of each alternative considered in detail are analyzed in Chapter 4 for each of the identified issues.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Introduction

The location, methodology and access were determined based on the specific data required for the core drilling to confirm and or dispute historic data, plus gain new information on rock mechanics. The location of the project area can be seen in Plate 1. Alternatives other than a "No Action Alternative" were subsequently dismissed on their inability to accomplish the stated objectives.

2.2 Alternative A – Proposed Action

The Proposed Action and location of drill holes and access roads have been selected based on Best Management Practices (BMPs) of reducing the unnecessary disturbance. The access roads

to three of the four locations would be on existing old two-track roads requiring upgrades. The fourth access road is proposed on a previously burned area. The drilling locations have been selected to be on or adjacent to previous drilling locations or within previously burned areas. The proposed drilling locations have been selected to be on generally flat ground to reduce the amount of cut and fill required for the pad. Additional BMPs have been included in the Proposed Action such as reclaiming all areas and minimizing topsoil disturbance during road construction.

The Proposed Action by UEI would be to drill four exploratory drill holes on Federal land, overlying Federal coal leases SL-066490, SL-069291, and U-0126947. The purpose of the four proposed core drill wells is to better define coal quality, specifically rock structure and composition, and geotechnical information to determine stresses that need to be considered in association with longwall shield design, and confirm historic data relative to seam thickness, depth, etc. This information is needed to accurately locate structural control data on the Sunnyside Coal Seam in order to properly design and construct an appropriate longwall shield. The Lila Canyon Mine would use this information for determining future mine development layout. Drilling pads and erosion control structures would be constructed on sites prior to drilling activities. Drilling operations at UEI 11-01 and UEI 11-02 would be completed in 2011. The proposed drilling sites are in Emery County, Utah. The specific exploration sites are shown in Table 1. The location of the Proposed Action can be seen on Plate 1.

Table 1 - Site Identification, Lease Number, and Locations/Sections

| Lease Number | Hole ID | Location of Drill Sites |
|---------------------|----------------|---|
| SL-066490 | UEI 11-01 | SE ¼ SW ¼ Sec. 13, T16S, R14E 39° 24' 57" N 110° 19' 46" W |
| SL-069291 | UEI 11-02 | SW ¼ SW ¼ Sec. 12, T16S, R14E 39° 24' 46" N 110° 18' 46" W |
| U-0126947 | UEI 11-03 | NE ¼ NE ¼ Sec. 24, T16S R14E 39° 24' 55" N 110° 18' 05" W |
| U-0126947 | UEI 11-03A | NW ¼ NW ¼ Sec. 30, T16S R14E 39° 24' 30" N 110° 17' 48" W |

An improved, gravel road through Horse Canyon, herein called the Horse Canyon Road, would be used to access the drill sites. From the Horse Canyon Road, a dirt/gravel native road, the Little Park Wash Road, would be used to access the sites. These two roads would provide the main access for all the drilling activities. These roads have been previously improved and would not be upgraded by UEI. Following drilling and reclamation activities, the roads would be left in a condition equal to or better than the condition prior to the Proposed Action. All of the access roads in the project area are located on Federal lands. The proposed access to the UEI 11-03A drill location extends beyond the mine lease before turning back onto the lease area. UEI would require a ROW for the use of this portion of the access road that is not within the lease area. The road outside of the lease area is approximately 2,116 feet long and may be up to sixteen feet wide, although the majority would be twelve feet wide, and up to 0.78 acres. Access would be restricted to the Horse Canyon Road, Little Park Wash Road, and drill location access roads to prevent disturbance outside of the project area.

Sites are located within $\frac{1}{2}$ to $\frac{3}{4}$ of a mile from the Little Park Wash Road. A new access road approximately 360 feet long would be constructed to the UEI 11-01 location. Sites UEI 11-01 and UEI 11-02 are located within flat areas near the Little Park Wash Road. The UEI 11-03 location is on an abandoned drill site that is sparsely vegetated ground (previously disturbed). The UEI 11-03A is located adjacent to a previous drill site. There are existing two-track roads to the UEI 11-02, UEI 11-03, and UEI 11-03A locations. Currently, stretches of the existing two-track roads along and in the Little Park Wash have been partially reclaimed. This is evident by the large water bars three feet in height and the introduction of non-native species, primarily bluebunch wheatgrass and crested wheatgrass. The roads intercept wash bottoms and transverse washes for over forty percent of the distance. No evidence of reclamation is residual in the actual wash bottom due to intermittent water flow. Recreationists, hunters, site seers etc., have used these reclaimed roads. These reclaimed roads can be utilized with minimum work to provide drilling access. Maintenance of the roads would not be required during the water monitoring period.

The general method to be followed during the drill hole exploration, reclamation, and abandonment would be: 1) repair the roads where needed and prepare the drill site pad, 2) drill and log the exploration drill hole, and plug the drill hole if the well is not used as a water monitoring well or case the hole and construct a collar, 3) reclaim the drill site pad and access route.

Equipment operators and geologists would use pickup trucks or SUV's for transportation. The construction of the access roads would be completed with a dozer or grader. The access roads would be constructed according to BMPs to reduce topsoil removal. The equipment blade would be kept within six inches of the ground surface to clear vegetation and move a minimal amount of soil to cut high areas and fill low areas along the access road. An attempt would be made to leave the majority of the established vegetation root mass and bases of the stems. The shrubs would be pushed and windrowed adjacent to the proposed access road. The roads would be the width of the equipment blade, twelve feet wide, but may be up to sixteen feet wide in areas for turning requirements. The roads would not require blasting or importing road base. Topsoil would be windrowed adjacent to the road prior to any significant cut or filling operation and would remain for reclamation. Erosion control structures, utilizing the State of Utah and BLM's BMPs, would be used in sensitive areas to prevent runoff erosion.

Prior to arrival, all equipment used in the completion of construction would be washed or hosed to help eliminate and prevent the spread of invasive and noxious weeds.

Drill site acreage is estimated for a 200 foot by 100 foot pad. It is anticipated that the pads would be small in size and adjacent to the road or on an old reclaimed pad. The road may serve as part of the drilling pad but road access would be maintained around the drilling rig. The access roads may be used for equipment storage to reduce the amount of surface disturbance at the pad site.

Earth excavation for the drill sites would be accomplished using a dozer or backhoe and road grader. Excavation would include grubbing, removal and separate storage of the suitable soil to

re-establish vegetation. The soil would be pushed to the edge of the pad to create a berm for secondary containment and to capture precipitation runoff.

Portable pits, which are self-contained troughs, would be used to contain cuttings and drill fluids. Drilling mud, foam, and/or cuttings would be hauled off and disposed of properly.

Core drilling would involve one truck-mounted 2,000 foot rated core drill, one 3,000 gallon water truck, one 1,500 gallon water truck, one supply and drill pipe trailer, four pickup trucks, a geophysical logging truck, and one covered trailer. The supply trailer would carry drill steel, coring equipment, drilling additives, cutting and welding equipment, and other supplies. The drillers would use two pickup trucks for personnel, fuel, and supplies and the dirt contractor would use two pickup trucks. The company representative and geological consultant would also use pickup trucks or SUV's for transportation. Oversight of the operations would be completed by a supervising UEI representative or third party monitor.

The drilling procedure for the exploration holes would be either continuous coring to total depth, rotary drilling and spot coring of selected zones, or a combination of both. Drilling operations would be logged and a report would be given to the BLM following drilling completion. Surface casing may be needed to segregate the unconsolidated material. The holes would be shallow and less than 2,000 feet each. After exploratory drilling, the holes may be reamed and cased for use as water monitoring wells.

Water would be hauled to the drill sites from an approved adjudicated industrial source to the drill sites.

The BLM would be notified when plugging would start. All plugging activity would be accomplished in accordance with the plan of operations. Unless the hole would be used as a water monitoring well, the exploration drill holes would be plugged to their full depth with cement, cement/bentonite slurry, or bentonite chips. The completion method includes pulling surface casing when possible; but when not possible, cutting it flush with the ground, then pumping the cement/bentonite slurry through the drill pipe starting at the bottom of the hole. Plugging would then be done in stages by tripping-out of the hole three to four joints (60-80 ft.) and pumping again. The process would be repeated to the surface. The plugged hole would be flush with the ground surface. The holes used as water monitoring wells would be cased and a PVC pipe would remain protruding approximately twelve inches at the surface. The pipe would be capped and locked and have a cement collar surrounding the pipe and sloping down away from the pipe to prevent runoff from entering the pipe. The well would be used for quarterly water monitoring for two years. The design of the monitoring well is attached as Figure 1. Existing monitoring wells are shown in Photographs 1 and 2. Photograph 2 shows an existing monitoring well covered by sagebrush. The proposed monitoring well would be PVC pipe surrounded by a cement collar instead of the steel pipe shown in the photographs.

The potential for water pollution would be minimized by keeping pollutants away from the drill hole and in their original manufacturer containers or approved container. The soil excavated during construction of the pad would also act as a secondary water containment structure. Materials used during drilling operations would be selected to be less toxic yet equally effective

for drilling purposes. Berms would be constructed around the drill hole sites to contain any potential spills. All spills in excess of 100 gallons of potentially polluting materials would be reported to the BLM prior to removal from the area and properly disposed of. The drill holes would range from 3 3/16 inches to 10 inches in diameter, depending on the drilling method. The estimated depths of the proposed drill holes and other drill hole information is given in Table 2. An estimated timetable for exploration related activities is given in Table 3. The time requirement for construction, drilling, and reclamation shown in Table 3 would be repeated for the UEI 11-03 and UEI 11-03A locations.

Table 2 - Estimated Drilling Depths and Associated Disturbance

| Drill Site | Total Depth (ft.) | Disturbed Acreage | | |
|--------------|-------------------|-------------------|--------------|-------------|
| | | Drill Site | Access Route | Total |
| UEI 11-01 | 950 | 0.46 | 0.14 | 0.60 |
| UEI 11-02 | 1150 | 0.46 | 0.21 | 0.67 |
| UEI 11-03 | 1500 | 0.46 | 1.26 | 1.72 |
| UEI 11-03A | 1500 | 0.46 | 1.73 | 2.19 |
| | | | | |
| TOTAL | | 1.84 | 3.34 | 5.18 |

Table 3 - Estimated Exploration Activities

| Event | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
|---|--------|--------|--------|--------|--------|
| Prepare Roads | | | | | |
| Prepare Sites | | | | | |
| Core Drilling/Conversion to Water Monitoring Well | | | | | |
| Reclamation | | | | | |

The only coal removed during exploration activities would be cores. Assuming a core diameter of three inches and an average thickness of seven feet to fifteen feet for the Sunnyside Seam, an estimated 200 pounds of coal would be removed.

Reclamation activities would closely follow the completion of each hole and would be conducted in accordance with the applicable requirements set forth in the approved Lila Canyon Mine MRP. This plan may be obtained from the Utah Division on Oil, Gas, and Mining (DOG M) office or from the UEI office.

Upon completion of drilling activities at a given site, all debris, and drilling related equipment would be removed from the site. Reclamation would begin after the casing and collar are constructed for the holes used as monitoring wells. The portable pits would be hauled off location and the pit contents disposed of properly. A backhoe or a bulldozer would redistribute the subsoil and topsoil material on and around drill pads to achieve approximate original contour. Straw bales/silt fences would be removed to facilitate reclamation of the drill sites. Entire drill pad areas, including existing road surfaces that would be used as part of the pad, would be

significantly roughened and reseeded. If the hole would remain as a water monitoring well, the pad would be reclaimed as described above, with the exception of the casing and collar left above ground. The area surrounding the collar would be recontoured with topsoil spread and roughened. The pad area would then be seeded with the seed mix shown in Table 4. After the water monitoring period has been completed, the casing and collar would be removed and any disturbance to the reclaimed pad would be scarified and seeded again.

After the wells are drilled, the access roads to the water monitoring wells would be lightly scarified and seeded with the grass and forb species shown in Table 4 to maintain access to the wells. The access roadways that are not running within the wash bottom would be scarified (roughened) utilizing a ridged tooth harrow pulled behind a small crawler. The harrow would leave the existing vegetation in place while lessening compaction on areas where vegetation has been lost or was not present. After the water monitoring period is completed, the roads would be reclaimed as close to their previous condition as possible by scarifying the center and edges of the road and seeding with a mix including shrubs.

At each point where the road intercepts the wash, rip-rap either composed of earth or large rock would be constructed. The purpose of the armor is to stabilize the bank, allowing the vegetation to become established. The access road and rip-rap would not be more than sixteen feet wide. The rip-rap would be removed during final reclamation.

Shortly after the seeding of disturbed areas, the seed, in most cases, would be lightly buried and protected by raking or harrowing the reseeded surface area. Based upon site-specific conditions, however, wood fiber mulch would be applied at the rate of 2,000 pounds per acre, where warranted, to provide better protection from erosion.

The drill pad and access road reclamation procedure outlined above would apply only to those areas disturbed as a result of this exploration. Pre-existing roads, the Little Park Wash Road and Horse Canyon Road, would be left in a condition equal to or better than that observed on UEI's entry into the area.

BMPs for weed control would involve integrated pest management and could include chemical, mechanical, and biological methods for invasive species and noxious weed control. UEI would be required to monitor the sites disturbed by the Proposed Action and control noxious weeds. This would be completed by a licensed pesticide applicator. A Pesticide Use Proposal (PUP) including types of chemicals and frequency of use would be submitted prior to the use of herbicides. A Pesticide Applicator Record (APR) would be submitted on a quarterly basis.

UEI has committed to have a third party monitor who is knowledgeable in reclamation practices on site during the reclamation portion of the project. BLM personnel would approve the reclamation upon completion and conduct annual inspections until the area is deemed fully reclaimed or identify areas which may require additional work to accomplish the reclamation standard of success described in the MRP.

Table 4 – Suggested Seed Mix

| Common Name | Scientific Name | Pounds PLS/Acre |
|-------------------------|--|------------------------|
| Grasses | | |
| Indian Ricegrass | <i>Achantherum hymenoides</i> | 3 |
| Needle and Thread Grass | <i>Hesperostipa comate ssp. comata</i> | 3 |
| Intermediate Wheatgrass | <i>Thinopyrum intermedium</i> | 3 |
| Galletta | <i>Pleuraphis jamesii</i> | 0.5 |
| Forbs | | |
| Palmer Penstemon | <i>Penstemon palmeri</i> | 0.5 |
| Pacific Aster | <i>Aster chilensis</i> | 0.1 |
| Shrubs | | |
| Winterfat | <i>Krascheninnikovia lanata</i> | 1.25 |
| Wyoming Big Sagebrush | <i>Artemisia tridentata wyomingensis</i> | 0.1 |
| Total | | 11.45 |

2.3 Alternative B – No Action

The No Action Alternative provides a conceptual baseline for analyzing relevant impacts. The No Action Alternative would be to deny UEI from completing the proposed exploratory drilling. Current land uses would continue as they have in the past. UEI would have to rely on data which has been collected historically to base their design of longwall shields. The subsequent cost of overbuilding could be considerable, and the potential risk of under design could result in failure and loss of life.

2.4 Alternatives Considered, but Eliminated from Further Analysis

Other alternatives such as drilling location changes have been discussed and eliminated due to the specific location of geotechnical information required. The use of helicopters to transport drilling equipment, materials, and personnel was dismissed due to the weight and type of equipment required to drill to the required depths. Other alternatives would not meet the Purpose and Need for the Proposed Actions.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values and resources) of the impact area as identified in the Interdisciplinary Team Checklist found in Appendix A and presented in Chapter 1 of this assessment. This chapter provides the baseline for comparison of impacts/consequences described in Chapter 4.

3.2 General Setting

The project area is located in the Book Cliffs physiographic area. The elevation of the proposed exploration area is approximately 7,000 feet. The four proposed drilling sites are located on or adjacent to previously disturbed sites, on existing roads, and within previous burned areas. The existing Horse Canyon Road and Little Park Wash Road have recently been improved by blading. Three of the proposed drill locations are on or adjacent to existing two-track roads. The UEI 11-01 location is located approximately 360 feet from an existing improved road. This area has been the site of historic drilling activity from 1948 to 1994. The primary vegetation types consist of sagebrush-grassland, sagebrush shrubland and pinyon-juniper woodland and shrubland. The area receives approximately 14 to 18 inches of precipitation annually.

3.3 Resources/Issues Brought Forward for Analysis

The resources determined to be affected to a degree that require detailed analysis are described in this section. Other resources within the project area listed in the IDT Checklist were determined not to be affected to a degree requiring detailed analysis.

3.3.1 Livestock Grazing

The project area lies within the Little Park allotment which contains 26,156 acres. This allotment contains Little Park Wash from Horse Canyon in the north, to the Price River in the south along the west facing Book Cliffs. Two permittees currently use 242 AUMs within the allotment. Season of use is May 25 through October 31. There are no fences, troughs, or range improvement facilities within the project area. The project area covers approximately 5.18 area of livestock forage. Livestock may utilize two springs near the project area. The allotment is in conformance with the Standards for Rangeland Health and Guidelines for Grazing Management included as Appendix R-7 in the RMP (BLM, 2008b).

3.3.2 Invasive Species and Noxious Weeds

Tamarisk is present within the drainages within the project area. UEI 11-01 and UEI 11-03 have a vegetation cover that is composed of primarily cheat grass. Noxious weeds including thistle are found along the Little Park Wash Road. Houndstongue is found at the UEI 11-01 location. Current weed eradication and control measures are conducted by the BLM.

3.3.3 Vegetation Excluding USFW Designated Species and BLM Sensitive Species

The proposed UEI 11-01, UEI 11-02, and UEI 11-03 pads are within a previously disturbed section of Little Park Wash. The UEI 11-01 and UEI 11-02 pads are located on previously burned areas. The UEI 11-03 pad is on a pad previously disturbed by drilling. The dominant vegetation in the general area consists of pinyon pine, Utah juniper and Utah serviceberry. The north aspects of the canyons are predominantly Douglas fir. Dominant shrub vegetation consists of big sagebrush and fourwing saltbush. Other shrubs located in isolated amounts consist of serviceberry, rabbitbrush, and curl-leaf mountain mahogany. Forbs consist mostly of the

noxious weed houndstongue, golden cryptantha, aster and penstemon scattered through the project area. Cheat grass and Indian ricegrass are the dominant grasses. Approximately 1 acre of the proposed disturbance area is within shrubland and approximately 4.18 acres is surrounded by pinyon-juniper woodland. This area was historically pinyon-juniper woodland, but has been previously disturbed and contains few pinyon or juniper trees.

3.3.4 Lands With Wilderness Characteristics

Non-WSA lands with wilderness characteristics are defined as areas having at least 5,000 acres in a natural or undisturbed condition, and provide outstanding opportunities for solitude or primitive forms of recreation. The proposed drill sites and access roads, excluding the Little Park Wash Road, fall within an area that the BLM determined to have wilderness characteristics during the 1999 Utah Wilderness Inventory. These Non-WSA lands with wilderness characteristics cover approximately 4,805 acres of the area (Turtle Canyon Unit) and 11,842 acres (Desolation Canyon Unit). These two units are contiguous to two Wilderness Study Areas, Turtle Canyon Wilderness Study Area with 33,379 acres and Desolation Canyon Wilderness Study Area with 294,581 acres.

In 2007, during the revision of the Price Resource Management Land Use Plan, the BLM reconfirmed that the Turtle Canyon Unit still had wilderness characteristics and that the existing inventories were still adequate.

4.0 ENVIRONMENTAL IMPACTS

4.1 Introduction

This section analyzes the potential impacts of the Proposed Action to the resources described in the Affected Environment.

4.2 General Analysis Assumptions and Guidelines

For the purpose of analysis, several assumptions have been adopted. All relating provisions of the Price Field Office stipulations for coal exploration would be followed, as well as all agreements in place between UEI and the Price Field Office for field development and resource protection.

The project area has been surveyed for threatened, endangered, and BLM sensitive plant species and was found not to be occupied by these species. A cultural resource inventory was also completed over the project area and resulted with no cultural resources.

The anticipated acres of disturbance are based on a sixteen foot wide access road and 20,000 square foot pad. The actual pad size is anticipated to be smaller, however for discussion purposes the maximum pad size will be analyzed.

4.3 Direct and Indirect Impacts

Direct impacts associated with the Proposed Action stem from disturbance. This would include the actual loss of vegetation, plant mortality, disturbance to grazing, and the possibility of spreading invasive and noxious weeds. Indirect impacts would stem from the increase in noise, traffic and personnel.

4.3.1 Alternative A - Proposed Action

4.3.1.1 Livestock Grazing

The proposed disturbance is estimated to be 5.18 acres. The Proposed Action would result in the disturbance of approximately 5.18 acres of livestock forage. With general operations of each drill site averaging 10 days, the impact to the grazing community would be limited. The suggested seed mix used during reclamation activities would be beneficial to livestock grazing, and would require 1-2 growing seasons to establish.

4.3.1.2 Invasive Species and Noxious weeds

The Proposed Action includes a relatively small area of disturbance, covering 5.18 acres, however, the potential for introduction and spread of invasive and noxious weed species throughout the project area does exist. Cheat grass is likely to establish on disturbed soils and tamarisk may spread to disturbed areas along the drainages. Equipment used for the construction of the access roads and pads would be sprayed prior to arrival at the project area to prevent the introduction of noxious weeds into the area. Noxious weeds are currently found along the Little Park Wash Road. The presence of invasive species, primarily cheat grass, is currently present in all four of the proposed drill sites with a concentrated density inside the UEI 11-01 and the UEI 11-03 project areas. The general operations and construction of the drill sites carry a potential risk of spreading noxious weeds and invasive species from one site to the other with the transfer of equipment. With the suggested seed mix a more diverse and healthy plant community would develop that may outcompete invasive species. UEI would be responsible for noxious weed control within the project area until reclamation is deemed successful. With BMPs and reclamation methods described in the Proposed Action, the spread of invasive species and noxious weeds would be limited and expected to have a minimal impact to the project area.

4.3.1.3 Vegetation Excluding USFW Designated Species and BLM Sensitive Species

Impact to vegetation from the Proposed Action is estimated to be 5.18 acres. Approximately 1 acre of the proposed disturbance is sagebrush shrubland and grassland and approximately 4.18 acres was historically pinyon-juniper woodland, but has been previously disturbed and has few pinyon and juniper trees. Vegetation disturbed would consist mainly of sagebrush and grass. The majority of the disturbance would be on previously disturbed sites, existing roads or in a previously burned area. The access roads to the drilling locations would be cleared in an attempt

to maintain as much vegetation as possible. Drilling activities would be short and the disturbances would be reseeded after drilling is completed. This seed mix used in reclamation should generate a desirable ground cover. The access roads to the water monitoring wells would be seeded with grass and forb species to maintain access to the wells. Depending on which hole locations are converted to water monitoring wells, approximately 0.4 acres, a length of 913 feet, to 3.3 acres, a length of 9,045 feet, of access roads would be seeded with a mix of grass and forb species and would not be seeded with shrub species until the water monitoring period is completed. After drilling operations, the roads would be used for water monitoring on a quarterly basis or less depending on snow depth and accessibility. After the water monitoring period, the access roads would be scarified and seeded with shrub species in attempt to reclaim the access roads to their condition prior to upgrading. Depending on environmental conditions, vegetation may not be established until after one or two growing seasons. With the relatively small area of disturbance compared to the surrounding area, the impact to vegetation would be minimal.

4.3.1.4 Lands With Wilderness Characteristics

Potential impacts to the Turtle Canyon Unit wilderness characteristics would result in approximately 4.58 acres of temporary surface disturbance. Potential impacts to the Desolation Canyon Unit wilderness characteristics would result in approximately 0.6 acres of temporary surface disturbance for one or two growing seasons following the final reclamation. The disturbance for an exploration hole not converted to a water monitoring well would create a temporary loss of naturalness for the time it would take to reclaim the area, an estimated one to two growing seasons after the drilling. All other activities with this proposal would be conducted underground with no surface disturbance expected.

During the Price Field Office land use planning process, the Turtle Canyon Unit and Desolation Canyon Unit were considered and thoroughly analyzed for the protection, preservation, and maintenance of those wilderness characteristics as well as for the impacts that could occur if other resource developments and uses were allowed. The BLM did not carry this area forward for protection of wilderness characteristics, and chose to provide opportunities for other resource development and uses such as the Lila Canyon Mine development (BLM, 2008b).

Implementation of the Proposed Action would result in approximately 5.18 acres of temporary surface disturbance in the Turtle Canyon Unit of 4,805 acres and Desolation Canyon Unit of 11,842 acres and is expected to have minimal and temporary impacts to loss of naturalness, solitude, and primitive recreational opportunities.

4.3.2 Alternative B – No Action

If the Proposed Action is denied, there would be no direct or indirect impacts to the resources listed from the Proposed Action. Resources would remain under current management conditions.

4.3.2.1 Livestock Grazing

Under the No Action Alternative, the Little Park Wash allotment would continue to be managed in conformance with the approved RMP. Grazing on the allotment would continue until the closure period and existing roads would remain.

4.3.2.2 Invasive Species and Noxious Weeds

Noxious weeds and invasive species would remain within the area and current control methods would continue to be implemented by the BLM. The invasive species within the project area of the Proposed Action would persist.

4.3.2.3 Vegetation Excluding USFW Designated Species and BLM Sensitive Species

There would be no impacts to vegetation from the Proposed Action under the No Action Alternative. The vegetation currently present would remain within the project area of the Proposed Action.

4.3.2.4 Lands With Wilderness Characteristics

The No Action Alternative would not result in any additional disturbance to the Non-WSA lands with wilderness characteristics than what has already been analyzed in the approved RMP (BLM, 2008b) and Lila Canyon Mine EA (UTU-070-99-22).

4.4 Cumulative Impacts Analysis

“Cumulative impacts” are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions.

4.4.1 Livestock Grazing

4.4.1.1 Cumulative Impact Area

The Cumulative Impact Area (CIA) would be the Little Park Allotment, as it is the single allotment that would be affected by the Proposed Action. The allotment contains approximately 26,156 acres including the Little Park Wash from Horse Canyon in the north to the Price River in the south along the west facing Book Cliffs and as far the ridgeline of the Roan Cliffs 3 to 4 miles to the east. The Horse Canyon Road and Little Park Wash Road are through the length of the allotment and several additional two-track roads traverse through the allotment as well giving access to adjacent side canyons and draws within the allotment. Thirty five previous drilling locations have been created since 1948, which may have impacted the allotment by temporary clearing of vegetation.

4.4.1.2 Past and Present Actions

This area has had 35 exploratory drill holes developed from 1948 to 1994. Each drill location resulted with clearing forage. Since the exploratory drilling, the vegetation has re-established over the past disturbance and includes non-native and invasive species. The proposed drill locations UEI 11-01 and UEI 11-02 are within an area that has been burned to control the pinyon and juniper growth to enhance forage for livestock grazing and wildlife. The previous construction of access roads to drill locations may have had a minimal impact on water sources by facilitating grazing access to the two springs near the project area.

4.4.1.3 Reasonably Foreseeable Action Scenario

The Reasonably Foreseeable Action Scenario (RFAS) includes actions that are foreseeable and proposed in the future. There is a proposed pinyon-juniper treatment to benefit wildlife within the CIA. The treatment would enhance forage for wildlife and livestock grazing over 93 acres. The BLM would continue to manage the allotment in conformance with the Price Field Office RMP. Future exploration, except for the UEI 11-03 and UEI 11-03A, is not proposed at this time. The Horse Canyon Road and Little Park Wash Road will continue to be used for recreational purposes, which may affect livestock grazing by additional traffic and possible harassment of livestock. The two-track roads would also remain to allow access into the side canyons and draws, where at least two springs are located and may be accessed by livestock. Any additional developments are not foreseen at this time and would require NEPA analysis.

4.4.1.4 Cumulative Impact Analysis

The Proposed Action would result in a minimal additional impact to the grazing allotment when combined with past and foreseeable actions. The reclamation described in the Proposed Action would result in countervailing impacts that would balance or mitigate the effects of past actions in the project area. Invasive species have been established through much of the project area and would be disturbed and desired species would be seeded. The Proposed Action may result in the addition of 5.18 acres of forage.

The No Action Alternative would result in no additional impacts caused by the Proposed Action to livestock grazing. The allotment would continue to be managed in conformance with the Price Field Office RMP.

4.4.2 Invasive Species and Noxious Weeds

4.4.2.1 Cumulative Impact Area

The CIA for the Proposed Action would be the Little Park Wash area of the Book Cliffs, which contains approximately 26,000 acres. This area has been selected because impacts from the Proposed Action are not likely to affect beyond this area because of the weed monitoring and controlling best management practices within the Proposed Action and the spread and control of invasive species and noxious weeds outside of this area is beyond the scope of this EA. Invasive species and noxious weeds may be introduced to this area as a result of the equipment use

described in the Proposed Action and from the project area invasive species and noxious weeds may be transferred to adjacent areas by recreational use of the Little Park Wash Road. Noxious weeds are found throughout the state of Utah, and any recreation user may spread noxious weeds from any part of the state to the CIA and from the existing noxious weed populations from the CIA to any part of the state.

4.4.2.2 Past and Present Actions

Thirty five exploratory drill holes have been completed and natural vegetation has been disturbed at these locations. Invasive species and noxious weeds may have been introduced as a result of the disturbances and as a result of recreational and grazing uses. Disturbance from the prior burning of a portion of the CIA may have also led to the spread of invasive species. Noxious weed control efforts have been the responsibility of the BLM.

4.4.2.3 Reasonably Foreseeable Action Scenario

Continued vehicle use of the access roads to the water monitoring wells, up to four times a year, by water monitors may increase the spread of invasive species and noxious weeds within the CIA. These access roads would also allow access by recreationalists, which may further the spread of invasive species and noxious weeds. UEI would be committed to control invasive and noxious species within the project area until reclamation of the project area is deemed successful. The BLM would also continue control efforts within the CIA.

4.4.2.4 Cumulative Impact Analysis

UEI would be committed to monitor and control noxious weeds within the project area, which would include the control of existing noxious weeds within the project area. A PUP and PAR would be required for the use of pesticides within the project area. The Proposed Action includes noxious weed control commitments within the project area until the reclamation of the proposed disturbance is deemed successful. During this period, any noxious weeds introduced to the project area would be controlled. The project area, approximately 5.18 acres of disturbance and noxious weed control, is relatively small when compared to the approximate 26,000 acres of the CIA. Reclamation activities would include minimizing invasive species within the project area as stated in the approved mine reclamation plan. Cumulative impacts caused by the Proposed Action to invasive species and noxious weeds would be minimal within the CIA.

There would be no cumulative impacts resulting from the Proposed Action under the No Action Alternative. The exploratory drilling and control of noxious weeds described in the Proposed Action would not be completed. Cumulative impacts from the No Action Alternative would not differ from the impacts from present efforts to control noxious weeds.

4.4.3 Vegetation Excluding USFW Designated Species and BLM Sensitive Species

4.4.3.1 Cumulative Impact Area

The CIA for the Proposed Action would be the Little Park Wash area of the Book Cliffs, which contains approximately 26,000 acres. This area has been selected because the vegetation types within the area are similar to the vegetation types in the project area and impacts from the Proposed Action are not likely to affect beyond this area. Wildlife and livestock use within the project area is similar to the use within the remaining CIA.

4.4.3.2 Past and Present Actions

Pinyon-juniper woodlands have been treated with a controlled burn within the CIA for the purposes of enhancing wildlife habitat. Revegetation efforts included seeding and natural vegetation establishment. Thirty five exploratory drill locations have also disturbed vegetation and have since been revegetated.

4.4.3.3 Reasonably Foreseeable Action Scenario

A pinyon-juniper treatment is planned to take place in 2012. The treatment will cover 93 acres approximately four miles from the Proposed Action.

4.4.3.4 Cumulative Impact Analysis

The cumulative impacts resulting from the Proposed Action would be additive to the previous exploratory drilling disturbance to vegetation. The cumulative impacts from the Proposed Action would be minimal; a short term loss of approximately 5.18 acres of vegetation compared to the approximate 26,000 acres of vegetation within the CIA. The impacts would be an additional 5.18 acres of habitat enhancement, when combined with the proposed pinyon-juniper treatment. The Proposed Action is not expected to impact pinyon-juniper woodlands and would not result in additional cumulative impacts to previous treatment areas. Some of the shrubs along the access roads to the water monitoring wells would be lost and shrubs would not be seeded until the water monitoring period is completed.

There would be no impacts from the Proposed Action under the No Action Alternative. There would be no additional cumulative impacts to the CIA under the No Action Alternative.

4.4.4 Lands With Wilderness Characteristics

4.4.4.1 Cumulative Impact Area

The CIA for Non-WSA lands with wilderness characteristics would be the Turtle Canyon Unit and Desolation Canyon Unit, which have been inventoried by the BLM and found to have wilderness characteristics and cover a combined 16,648 acres.

4.4.4.2 Past and Present Actions

Past and present actions that have resulted in impacts to the Turtle Canyon Unit include construction and operation of the Lila Canyon Mine and associated facilities. Impacts to the Desolation Canyon Unit include the drilling of 35 wells and the creation of access roads throughout the CIA. The proposed access roads to the UEI 11-02, UEI 11-03, and UEI 11-03A locations will follow two-track roads that were constructed during the drilling and have since been used. These roads are still evident.

4.4.4.3 Reasonably Foreseeable Action Scenario

The proposed pinyon and juniper treatment within the CIA may result in impacts to the appearance of naturalness and wilderness character. The continued use of the Horse Canyon Road and Little Park Wash Road for grazing and recreational uses may also impact Non-WSA wilderness characteristics.

4.4.4.4 Cumulative Impact Analysis

The access roads to the exploratory holes and water monitoring wells would be in evidence until successful reclamation is attained after an estimated two growing seasons following exploratory drilling or water monitoring period. Implementation of the Proposed Action (5.18 acres of additional disturbance) would have minimal cumulative effects on the 16,648 acres of the Turtle Canyon Unit and Desolation Canyon Unit.

The No Action alternative would not result in an accumulation of impacts because no direct or indirect impacts would occur from the Proposed Action. The previously constructed two-track roads leading to the proposed locations will be evident until native vegetation encroaches.

5.0 CONSULTATION AND COORDINATION

5.1 Introduction

The issue identification section of Chapter 1 identifies those issues analyzed in detail in Chapter 4. The ID Team Checklist provides the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in sections 5.2 and 5.3 below.

5.2 Persons, Groups, and Agencies Consulted

Table 5.2 - List of all Persons, Agencies and Organizations Consulted for Purposes of this EA.

| Name | Purpose & Authorities for Consultation or Coordination | Findings & Conclusions |
|---|--|--|
| Northern Band Shoshone, Shoshone-Bannock, Paiute Tribe of Utah, Navajo, Eastern Shoshone, Ute, Hopi, Southern Ute, Ute Mountain, Zuni | Native American Concerns | Consultation was conducted through scoping. Letters describing the project were sent to interested parties. The Hopi Tribe responded with a request for a treatment plan for any cultural resources adversely affected by the Proposed Action. |
| | | |

5.3 Summary of Public Participation

During preparation of this EA, the public was notified of the Proposed Action by posting details on the Environmental Notification Bulletin Board on August 16, 2011.

5.3.1 Comment Analysis

Two letters were received during the public comment period. Comments concerning the adequacy of this EA were considered and reviewed.

5.3.2 List of Commenters

The two comment letters were received from Southern Utah Wilderness Alliance (SUWA).

5.3.3 Response to Public Comments

Comments that presented new data or addressed the adequacy of the document, the alternatives, or analysis are summarized below (along with where the changes can be referenced in the document).

- Insertion of the proposed vegetation treatment into the cumulative impact section – Sections 4.4.1.3, 4.4.3.3, and 4.4.3.4.
- Added wildlife habitat discussion into the Issues Considered and Dismissed section – Section 1.8
- Added threatened, endangered, and sensitive species discussion into the Issues Considered and Dismissed section – Section 1.8
- Added cultural resources survey discussion into the Issues Considered and Dismissed section – Section 1.8
- Added conversion of exploration holes to water monitoring wells into the Proposed Action – Section 2.2
- Added discussion of expected impacts to existing monitoring wells into the Issues Considered and Dismissed section – Section 1.8

- Clarification of proposed locations and access roads are within or outside of current lease areas – Section 1.7, 1.8, and 2.2
- Revised the Proposed Action to include portable pits – Section 2.2
- Added discussion of Best Management Practices into Proposed Action – Section 2.2

5.4 List of Preparers

Table 5.4 - List of Preparers

5.4.1 BLM

| Name | Title | Responsible for the Following Section(s) of this Document |
|---------------|------------------|---|
| Vaughn Hughes | Project Lead | Editing Document |
| Donna Dixon | NEPA Coordinator | Coordination of NEPA with specialists |
| | | |

5.4.2 Non-BLM Preparers

| Name | Title | Responsible for the Following Section(s) of this Document |
|--------------------|----------------|---|
| Mel Coonrod | Owner, EIS | Editing, Impact Analysis |
| Joe Via | Biologist, EIS | Drafting, Editing |
| Matthew Serfustini | Biologist, EIS | Editing |

6.0 REFERENCES

6.1 References Cited

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APPENDICES

APPENDIX A

Interdisciplinary Team Checklist

INTERDISCIPLINARY TEAM CHECKLIST

Project Title: Lila Canyon Mine 2011 Drilling Plan EA

NEPA Log Number: DOI-BLM-UT-G023-2011-0052-EA

File/Serial Number: SL-066490

Project Leader: Vaughn R. Hughes

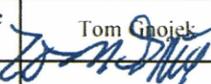
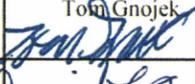
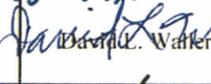
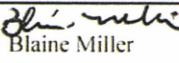
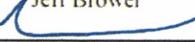
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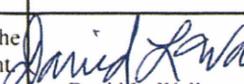
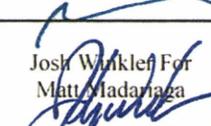
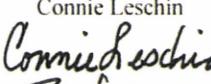
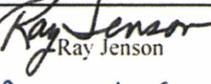
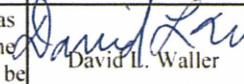
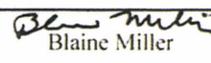
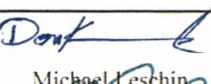
NP = not present in the area impacted by the proposed or alternative actions

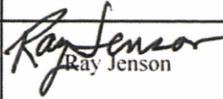
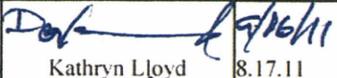
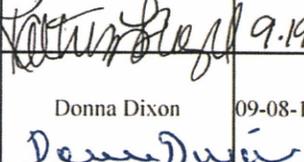
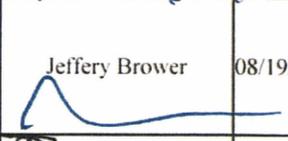
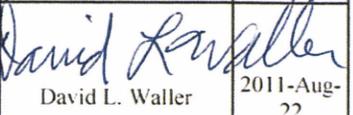
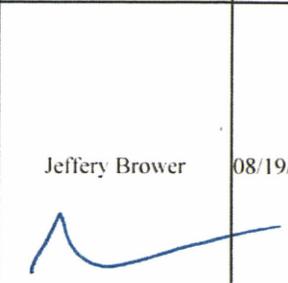
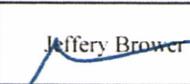
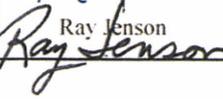
NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

| Determination | Resource | Rationale for Determination* | Signature | Date |
|--|---|--|--|--------------------|
| RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1) | | | | |
| NI | Air Quality | Overall, air quality in the project area is considered to be in attainment of the NAAQS. There are no regulatory monitoring data for the project area. Dust emissions currently occur from vehicles utilizing the subject roads. It is anticipated that the incremental change from this project's alternatives would be so small as to be undetectable by both models and monitors. | Jeffrey Brower  | 08/19/11 |
| NP | Areas of Critical Environmental Concern | After review of GIS records and the Approved RMP there are no ACECs within the project area | Tom Gnojek  | 9-12-11 |
| NP | BLM Natural Areas** | There are no BLM Natural Areas within the proposed project area as per GIS and RMP review | Tom Gnojek  | 9-12-11 |
| NP | BLM Sensitive Animal Species | BLM sensitive animal species are not known to be present within the project area, as per GIS/Map review. | David U. Waller  | 2011 Aug-22 |
| NP | BLM Sensitive Plant Species | After review of BLM records there are no known populations or habitat within the project area for BLM sensitive plants. | Dana Truman  | 8/22/2011 |
| NP | Cultural Resources | The project area was inventoried by Montgomery Archaeological Consultants(U-11-MQ-0700b). No Historic Properties were located. | Blaine Miller  | 9/12/11 8/31/11 |
| NI | Greenhouse Gas Emissions** | There are currently no regulatory standards for controlling GHG emissions or accepted analytical methods for evaluating project specific impacts related to GHG emissions. As a consequence, the impacts of site-specific proposals cannot be determined. Based on the nature of the action, GHG emissions are expected to be minimal. | Jeffrey Brower  | 08/19/11 |
| NP | Environmental Justice | There are no minority or low income populations that would be adversely effected by implementation of the Proposed Action. | Donna Dixon  | 09-08-11 |
| NP | Farmlands (Prime or Unique) | According to the NRCS soils surveys and knowledge of the soils, there are no prime and unique soils mapped within the project area. | Jeff Brower  | 08/19/11 |

| Determination | Resource | Rationale for Determination* | Signature | Date |
|---------------|--|---|--|---------------------------------|
| NI | Fish and Wildlife Excluding USFWS Designated Species and BLM Sensitive Species | There are active raptor nests, especially golden eagles, in the project area. Bighorn sheep, mule deer, and elk are present. The drill sites and roads are located on mule deer and elk winter substantial habitat. The nearby cliffs are Rocky Mountain bighorn sheep year long crucial habitat. |  David L. Waller | 2011-Aug-22 |
| NP | Floodplains | After an inspection of USGS 7.5 minute maps of the area, it is determined no floodplains as defined by EO 11988, FEMA, or Corps of Engineers is found on or near the project area | Jeffrey Brower | 08/19/11 |
| NI | Fuels/Fire Management | Implementation of the proposed action would have no significant impact on Fuels/Fire Management because the project is small in scope, and fuel source is minimal. |  Josh Winkler For Matt Madanaga | 09/08/11 |
| NI | Geology / Mineral Resources/Energy Production | The 4-boring proposal will not negatively impact surficial solid mineral materials. The proposed action will not alter, remove, or inhibit the eventual use of mineral materials, and where present, are too far from usable markets to be economical. There are no mineral resources present other than common variety minerals; therefore, there will not be any conflicts with other mineral resources or mining claims. Regarding oil and gas energy production: There are no leases present that would provide any conflict of interest (GIS layer 8/19/11). | Chris Conrad  | 8/19/11 9/12/11 |
| NI | Hydrologic Conditions** | The project is in and around an area predominantly characterized by coarse sand in a dry wash. This type is resistant to increased erosion after disturbance of this magnitude. Little or no change to hydrologic conditions at the surface is anticipated. Groundwater conditions could be affected except if the proponent will case the drill holes. All drill holes will be cased if groundwater is encountered. | Jeffrey Brower  | 08/19/11 |
| PI | Invasive Species/Noxious Weeds (EO 13112) | Tamarisk is present in the drainages within the project area. Any surface disturbing activities could result in the spread or introduction of invasive species/noxious weeds. BMPs would be followed prior to equipment being moved into the project area. A PUP and PAR will be required prior to any treatment of infestations that stem from the results of implementation of the project. | Stephanie Bauer  | 9/8/2011 9/12/11 |
| NI | Lands/Access | A review of LR2000 and the Master Title Plats showed that the proposed action is compatible with the existing land use and authorized right-of-ways. There are no conflicts with other land use authorizations. If drilling occurs on site 11-03A, a ROW will be required for that section of road outside the lease boundary. | Connie Leschin  | 08/25/11 |
| NI | Livestock Grazing | Due to the small area of disturbance (less than 2 acres), the amount of livestock forage would be minimal and would not affect grazing. |  Ray Jensen | 0/12/2011 |
| NP | Migratory Birds | There are no mapped important migratory bird habitat areas in the project area. Although migratory birds would use the project area, no special status migratory birds are known to be in this area, therefore no special stipulations are needed. |  David L. Waller | 2011-Aug-22 |
| NI | Native American Religious Concerns | Tribal Consultation letters went out August 23, 2011 and the 30 day comment period ends September 22, 2011. |  Blaine Miller | 9-12-11 |
| NI | Paleontology | Although the geologic formations forming outcrops in the area are known to hold vertebrate fossils, the actual surface disturbance will be in alluvial and colluvial materials which have very little likelihood of holding paleontological resources. |  Michael Leschin | 9-16-11 8.19.2011 9.19.11 |

| Determination | Resource | Rationale for Determination* | Signature | Date |
|---------------|--|---|--|---------------------|
| NI | Rangeland Health Standards | The Little Park grazing allotment is presently in good range condition. Due to the small area of disturbance (less than 2 acres), rangeland health would not be changed by this action. |  Ray Jenson | 9/12/2011 |
| NI | Recreation | The proposed action is in an area (Extensive Recreation Management Area) where recreation opportunities and problems are limited and explicit recreation management is not required. Implementation of the proposed project will have minimal impact on recreation. |  Kathryn Lloyd | 8.17.11 9.19.11 |
| NI | Socio-Economics | Implementation of the Proposed Action would have no measureable social or economic impacts because the project is relatively small in scope when compared to the larger economy of the area. |  Donna Dixon | 09-08-11 |
| NI | Soils | Soils in the affected area are coarse sand in the bottom of the washes. Resistant to this level of disturbance. Little to no effect is anticipated there. Outside the washes the soils are generally loamy on the sandy silt side. Not quite as resistant to erosion, but small in area of disturbance. |  Jeffery Brower | 08/19/11 |
| NP | Threatened, Endangered or Candidate Plant Species | After review of BLM records there are no known populations or habitat within the project area for BLM T and E plants. |  Dana Truman | 08/22/2011 |
| NP | Threatened, Endangered or Candidate Animal Species | The project area is not habitat for Mexican Spotted Owls or any other listed animal species. No effect – because, after GIS review, there are no known occurrences of federally listed or candidate species in the project area. There is no designated critical habitat present either. There would be no new surface water depletion that would affect federally listed fish species that occur downstream. |  David L. Waller | 2011-Aug-22 |
| NP | Wastes (hazardous or solid) | No chemicals subject to reporting under SARA Title III will be used, produced, stored, transported, or disposed of annually in association with the project. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the project. Trash would be confined in a covered container and disposed of in an approved landfill. No burning of any waste will occur due to this project. Human waste will be disposed of in an appropriate manner in an approved sewage treatment center. |  Jeffery Brower | 08/19/11 |
| NI | Water Resources/Quality (drinking/surface/ground) | No impact to water quality due to the small size of this project provided the drill holes are cased in the event that groundwater is encountered. |  Jeffery Brower | 08/19/11 |
| NI | Wetlands/Riparian Zones | Location 11-3 is adjacent to a riparian zone created by a spring approximately 900 feet upstream from the proposed location. The proposed access to this location avoids the riparian zone and the proposed action would avoid disturbance of the riparian zone. |  Karl Ivory | 9/16/11 09/06/11 |
| NP | Wild and Scenic Rivers | There are no Wild and Scenic Rivers within the project area as per review of RMP/GIS maps. |  Tom Gnojek | 9-12-11 |
| NP | Wilderness/WSA | There are no Wilderness/WSAs within the project area as per review of RMP/GIS maps. |  Tom Gnojek | 9-12-11 |
| NI | Woodland / Forestry | There are merchantable woodland/forestry products within the project area, however due to the size of the proposed sites (less than .5 acre) there would be negligible impacts to merchantable woodland/forestry products. |  Stephanie Bauer | 9/8/2011 9/12/11 |
| NI | Vegetation Excluding USFW Designated | Due to the small area of disturbance (less than 2 acres), the loss of vegetation would be minimal and would not cause |  Ray Jenson | 9/12/2011 |

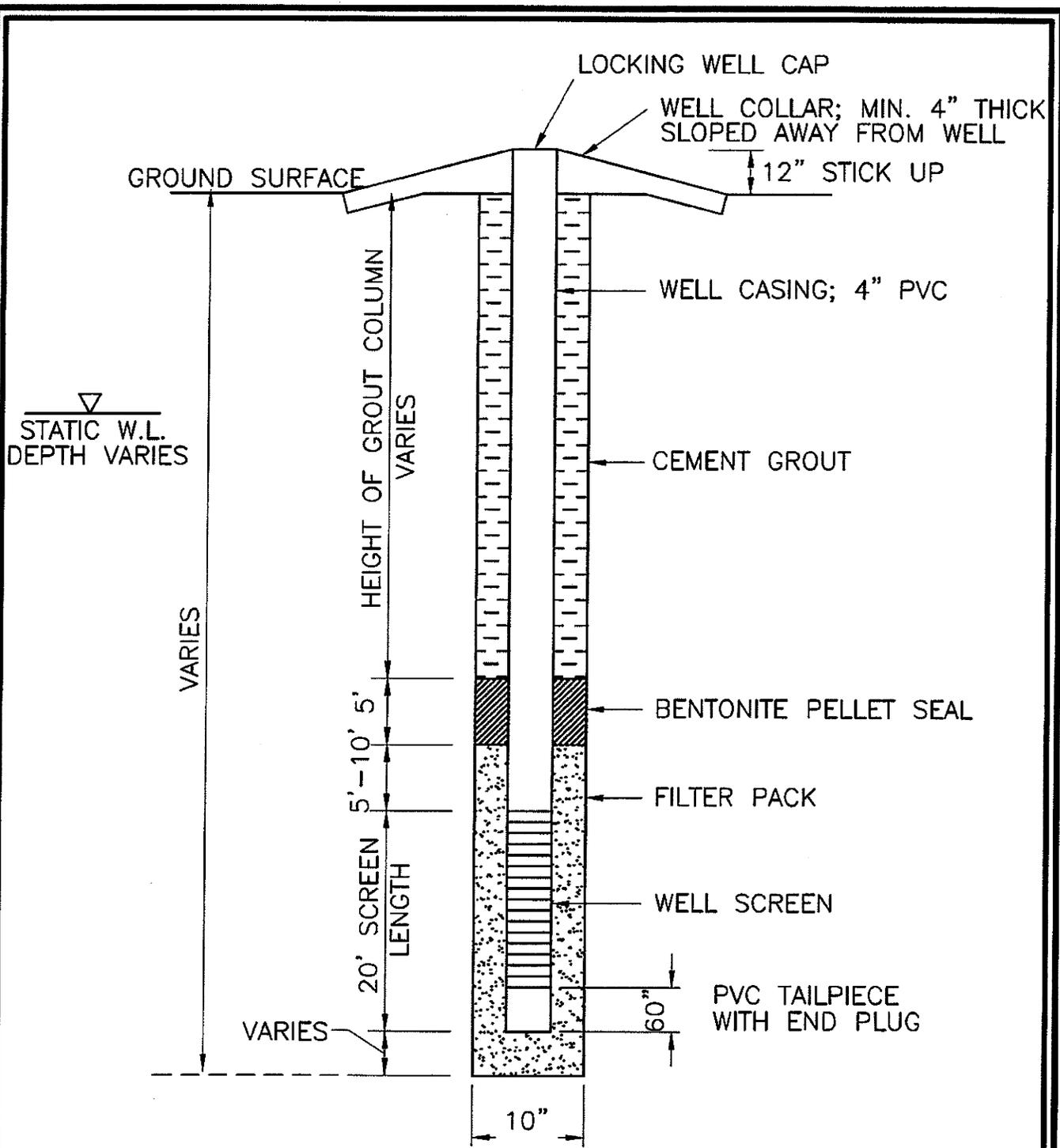
| Determination | Resource | Rationale for Determination* | Signature | Date |
|---------------|---|--|-------------------------------------|--------------------|
| | Species and BLM Sensitive Species | excessive erosion following reclamation. | | |
| NI | Visual Resources | The proposed project is within VRM Class II which states the level of change to the characteristic of the landscape should be low. The objective of VRM II is to retain the existing character of the landscape. Implementation of this project may impact the area but would not exceed the Visual Resource Management Class II objectives. | <i>[Signature]</i> Kathryn Lloyd | 8.17.11 9.19.11 |
| NP | Wild Horses and Burros | As per review of GIS and the Price Resource Management Plan (2008) maps, there are no Herd Management Areas within the project area. | Mike Twaddell <i>[Signature]</i> | 8/22/11 |
| NI | Areas with Wilderness Characteristics** | There are areas inventoried as having wilderness characteristics within the project area. A review of the RMP/GIS maps indicates no special management constraints were prescribed for these lands. | Tom Gnojek <i>[Signature]</i> | 9-12-11 |

FINAL REVIEW:

| Reviewer Title | Signature | Date | Comments |
|---------------------------|--------------------|---------|----------|
| Environmental Coordinator | <i>[Signature]</i> | 9/19/11 | |
| Authorized Officer | <i>[Signature]</i> | 9/19/11 | |

APPENDIX B

Monitoring Well Detail and Photographs of Existing Monitoring Wells



MONITORING WELL DETAIL

N.T.S.



FIGURE 1. Typical Monitoring Well Detail

TYPICAL MON. WELL DWG. UPL 10/2011



Photograph 1 – Existing Water Monitoring Well



Photograph 2 – Existing Water Monitoring Well Covered by Sagebrush