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March 1, 2011

Ms. Kristin Yannone
Lander Field Office
Bureau of Land Management
U.S. Department of the Interior
1335 Main Street
Lander, WY 82520

RE: REVISED Plan of Operations, Gas Hills Uranium ISR Project

Dear Ms. Yannone:

Cameco Resources (CR) is enclosing three (3) paper copies of the *Revised Plan of Operations, Gas Hills ISR Project* describing all planned surface disturbing activities associated with the development, construction, and operation of the Project. CR understands that you will forward one copy to the appropriate contact in the BLM Casper Field Office. We have sent a paper copy of this Plan directly to Mr. Brian Wood at the WDEQ-Land Quality Division (LQD) Lander Office.

CR has prepared this Plan, in conjunction with the LQD updated mine permit application copy provided to the Lander Field Office, to provide the information needed to complete BLM's NEPA analysis. This Plan was prepared in response to BLM's March 28, 2008 letter to CR requiring submittal of a Plan of Operations addressing the elements described in 43 CFR 3809.401.

The Plan was originally submitted to BLM in August 2008. Since that time, CR has submitted updates to our LQD Mine Permit application as required to comply with new regulations and to respond to LQD comments on those updates. Consequently, the Plan needed to be updated for consistency with the LQD Permit updates. Major changes to this Revised Plan relative to the August 2008 version include reorganization to follow the 43 CFR 3809.401 regulation headings and additions to the Description of Operations section. Detailed changes were made as discussed in our October 12, 2010 meeting with the BLM Lander Field office; written in BLM's October 18, 2010 letter to CR; and discussed in a follow-up telephone call with BLM on December 8, 2010.

If you have questions or require additional information regarding this Plan of Operations, please contact myself or the project manager Nick Lewallen in our Casper office at telephone 307-333-7612.

Sincerely,
Cameco Resources

Josh Leftwich
Director, Radiation Safety & Licensing

Enclosures

cc: file GH 4.17.1
B. Wood / WDEQ-LQD Lander
N. Lewallen / CR Casper
P. Hildebrand / Lidstone

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REVISED PLAN OF OPERATIONS
GAS HILLS URANIUM
ISR PROJECT

Prepared for:

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dba Cameco Resources
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Cheyenne, Wyoming 82001

Prepared by:

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March 2011

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1.0 INTRODUCTION

Power Resources, Inc., doing business as Cameco Resources (CR), is developing a uranium in-situ recovery (ISR) project (the Project) in the eastern portion of the Gas Hills Uranium District in Fremont and Natrona Counties, Wyoming. The Project is permitted by the Wyoming Department of Environmental Quality (WDEQ) - Land Quality Division (LQD) under Permit to Mine No. 687 (updated in November 2010) and is licensed by the U.S. Nuclear Regulatory Commission (NRC) under Source Material License SUA-1548. Because much of the Project is on public lands administered by the U.S. Bureau of Land Management (BLM), 43 CFR 3809 requires that mining operations performing more than "casual use" activities on more than five acres of public lands submit a Plan of Operations (the Plan) to BLM for review and approval. To ensure that the proposed operation is in compliance with the National Environmental Policy Act (NEPA) and other federal laws relating to BLM-administered public lands, BLM requests public comment on the Plan during the review process.

The BLM's NEPA review will focus only on those surface disturbances on BLM-administered public lands caused by drilling exploration holes; installing production, injection and monitoring wells; and installing and removing surface facilities. BLM's NEPA review of the Project will not duplicate the NRC NEPA review and Environmental Assessment (NRC, 2004) conducted as part of its licensing process, which evaluated potential impacts associated with Project construction, operation, aquifer restoration, and decommissioning.

The Project construction activities will include the installation of exploratory boreholes, monitoring wells, injection and production wells, uranium processing facilities, wastewater treatment facilities, and development of new as well as improvement of existing access roads. The major processing facilities will be constructed during the first year. The construction of the various mine units that supply ore to the processing facilities will be ongoing over approximately 16 years. Following the completion of any construction activity (six months to one year), the disturbed areas surrounding the facility, individual wells, pipelines, and roads will be reclaimed. This process is referred to as "contemporaneous reclamation," meaning that large disturbed areas will be reclaimed before new areas are disturbed. These surface disturbance activities and contemporaneous reclamation will be performed in phases in a scheduled sequence to minimize the surface area disturbed at any one time.

CR estimates that approximately 1,500 acres will be disturbed in phases over the 25-year life of the Project. Of that total, approximately 50 acres will be disturbed and reclaimed each year. Reclaimed land will be accessible for wildlife habitat for the duration of the Project. Once groundwater restoration has been completed throughout a mine unit, the entire mine unit area will undergo final reclamation, which will entail removal of surface and subsurface facilities, limited additional surface grading, contouring, and revegetation with native species. After revegetation success has been demonstrated, the mine unit surface area will be fully available for its pre-mining use of livestock grazing and wildlife habitat. At the end of the Project, after reclamation of the final mine unit and the ancillary surface facilities, the entire disturbed surface will be returned to its pre-mining land use. Because the ISR mining method does not require removal of vast quantities of rock, soil, or destruction of aquifers, the long-term post-mining footprint is negligible.

This Plan is intended to provide a summary in sufficient detail to inform the general public of CR's mining plans. According to the Memorandum of Understanding between BLM and LQD (WDEQ & BLM, 2003), permit applications shall contain information to satisfy requirements of both the BLM and LQD in one document. However, the BLM Lander Field Office indicated that

this Plan should completely reflect operational plans consistent with the LQD mining permit while also meeting the requirements of 43 CFR 3809.401.

The *Gas Hills ISR WDEQ Permit No. 687 Update* document (CR, 2009 and 2010) provides detailed Mine Operations and Reclamation Plans, site-specific data, and technical evaluation of land use, geology, hydrology, wildlife, vegetation, soils, radiological surveys, cultural resources/archeology, and climatology. That permit application document, consisting of nine volumes, is available for public review at both the BLM Lander Field Office and the WDEQ Lander office during business hours. Updates to that permit document have been submitted but are currently under review by LQD and have not been finalized. With the exception of **Figures 1W and 1E**, other key figures, large maps, and appendices included in the LQD permit document for which future updates are anticipated are cross-referenced herein, rather than reproduced, so that only the LQD document will require updating to maintain consistency with this Plan.

2.0 OPERATOR INFORMATION

Operator: Power Resources, Inc., dba Cameco Resources
Address: 2020 Carey Avenue, Suite 600
Cheyenne, WY 82001
Telephone: 307-316-7600
Taxpayer ID No: 84-1125472

Point of Contact name, address and telephone:

Mr. Josh Leftwich – Director of Radiation Safety & Licensing
Power Resources, Inc., dba Cameco Resources
2020 Carey Avenue, Suite 600
Cheyenne, WY 82001
Telephone: 307-316-7600

3.0 PROJECT LOCATION

The Project is located in the eastern portion of the Gas Hills Uranium District of south-central Wyoming within Natrona and Fremont Counties, approximately 65 miles west of Casper, Wyoming and 45 miles east of Riverton, Wyoming. The legal description of the Project is as follows:

Natrona County

T32N, R89W, 6th Prime Meridian
Sections 3, 4, 5, 6, 7

T33N, R89W, 6th P.M.
Sections 14, 15, 22, 23, 26, 27, 34, 35

Fremont County

T32N, R90W, 6th P.M.
Sections 1, 2, 3, 9, 10, 11, 12, 13, 14, 15

T33N, R89W, 6th P.M.
Sections 20, 21, 28, 29, 30, 31, 32, 33

T33N, R90W, 6th P.M.
Sections 25, 35

Attachment 1 lists all of CR's claims on which disturbance may occur.

4.0 AREA AND PROJECT HISTORY

4.1 District History

The Gas Hills District has been one of the major uranium producing regions of the United States. The uranium reserves for the area, including past production and current known remaining reserves, are approximately 12 percent of the nation's total known uranium reserves. The district is remotely located, being near the geographical center of Wyoming in eastern Fremont and western Natrona Counties. The mineralized subsurface encompasses an area of approximately 100 square miles.

Uranium was initially discovered in the Gas Hills in 1953 by a prospector named Neil McNeice. He reported his findings to the Atomic Energy Commission (AEC), who initiated preliminary geologic investigations in the area. Word of the discovery spread rapidly, and a rush to stake claims ensued. Within the next few years thousands of claims were staked, and a series of small open-pit mines were developed on shallow oxidized ore deposits above the water table. The ore was sold to the AEC at buying stations and shipped by rail to Edgemont, South Dakota for processing. By the mid to late 1950's, a uranium mill was constructed in Riverton, Wyoming that began milling Gas Hills ore. During the late 1950's, significant deposits were discovered below the groundwater table, and large-scale surface and underground mining commenced. Over the next few years properties were consolidated, and three uranium mills were constructed in the Gas Hills District. By the early 1960's, production from the District approached 5,000 tons per day of ore that averaged greater than 0.20 percent U_3O_8 ("yellowcake," or uranium oxide concentrate). Production at these levels continued more or less until the early 1980's, at which time the steep decline in uranium prices forced the closure of the mines and mills. Although intermittent production has occurred since that time, most activity in the District has involved former mine and mill reclamation. Total production from the District during its conventional mining history is approximately 100,000,000 pounds U_3O_8.

4.2 Project History

Mining claims covering the Project were initially staked by a variety of small operators and companies during the 1950's. Most of the claims were consolidated when three of the companies Gas Hills Uranium, Federal Resources, and Radorock Uranium formed a partnership and constructed a mill. Gas Hills Uranium changed their name to American Nuclear Corporation, and Federal Resources acquired Radorock. The subsequent mining group was called Federal American Partners (FAP). FAP signed a property development partnership agreement with the Tennessee Valley Authority (TVA) during the early 1970's who commenced an ambitious program of open-pit and underground mine development. During this time, the last significant property consolidation occurred with the Partnership's purchase of Western Nuclear's East Gas Hills properties. The TVA subsequently acquired all interest in the property from the partnership in the early 1980's. The TVA maintained the property through the 1980's and in 1991 sold the undeveloped property to CR. CR then sold a 25 percent interest to Urangesellschaft (UG) under an operating agreement between CR and UG. In 1994, CR acquired TVA's Buss property and in 1996 reacquired UG's 25 percent interest. Thus, CR is currently 100 percent owner of the Project. With the acquisition of the mineral rights for the Project, CR acquired certain existing surface facilities, including a large surface mine equipment maintenance shop (Carol Shop) and associated utilities.

CR also acquired from TVA the Buss Pit property (LQD Permit No. 438). CR reclaimed the Buss open pits area from 1994 through 1995 in accordance with an approved LQD reclamation plan.

CR is currently having discussions with BLM and LQD as to the final disposition of the Buss properties and final bond release.

5.0 DESCRIPTION OF PREVIOUS OPERATIONS AND IMPACTS

5.1 Historical Surface Disturbances

From the 1950's to the early 1980's, much of the surface area within and adjacent to the Project was extensively mined for uranium employing both underground and surface mining methods. The majority of the uranium ore was recovered by surface mining methods. **Attachment 2** provides a 1987 aerial photo of the East Gas Hills showing the extent of conventional mining disturbances compared to CR's current Project area. LQD permit application Appendix D1-Land Use Plates D1-1E and D1-1W show the areal extent of historical surface disturbance within and adjacent to the Project.

Of the approximately 8,538 acres within the permit boundary, approximately 15 percent, or 1,281 acres, have been previously disturbed by underground and/or surface mining activities. Approximately half of the land surface within proposed Mine Unit 5 and portions of proposed Mine Units 2, 3 and 4 have been disturbed by previous conventional mining and subsequent reclamation. Additionally, exploration drilling and associated access road construction completed since the 1950's has disturbed much of the remaining surface within the proposed mine units. Many of the historical drilling access roads still exist.

At least 14,000 exploration boreholes have been drilled within the Project area since the 1950's. It is estimated that this previous drilling disturbed approximately 260 acres, or 27 percent of the area contained within the five proposed ISR mine units (approximately 972 acres).

At least 14 historical open-pit or underground mining operations were located within and adjacent to the Project. Detailed information on historic disturbances and reclamation activity is illustrated on the LQD Permit Appendix D1-Land Use Plates D1-E and D1-W. Known areas of underground workings include the Thunderbird Shaft west of Mine Unit 5 between Mine Units 3 and 5 (Plate D1-E) and the Atlas Mine Workings west of Mine Unit 3 (Plate D1-W). Areas previously disturbed by mining are summarized in LQD Permit Appendix D6-Hydrology Table D6-1-1 and outlined on Plate D6-1.

Modern open-pit and limited underground mining have occurred in the West Gas Hills area (Pathfinder and Umetco), the Central Gas Hills area (Pathfinder), and the East Gas Hills area (Federal American Partners and Umetco). The Veca, A-8, PC, B2/B3, Atlas/Peach, Thunderbird, Rox, and Tee Pit areas were reclaimed between 1989 and 1992 under WDEQ's Abandoned Mine Lands (AML) program. Reclamation is ongoing at Umetco's East Gas Hills Mine (LQD Permit No. 349C) and Pathfinder's Central Lucky Mc Mine (LQD Permit No. 356C). The Two States, Area 9, and Blackstone Slot were reclaimed by AML between 1992 and 1998. The Buss Pits (LQD Permit No. 438) were originally reclaimed by CR by 1995.

5.2 Notice of Intent Activities between 1996 and 2010

Since 1997, CR's Notices of Intent (NOIs) for proposed activities in the Gas Hills project area on federal (only, not including State or private) surface have been tracked by BLM under three case file numbers: WYW140590, WYW167994, and WYW168071. In June 2008, CR updated BLM of drilling actually completed since 2007 under these three case file numbers. Drilling location details are provided in drilling activity reports to BLM in letters dated October 2008, February 2009, February 2010, November 2010, and December 2010. Individual letters are referenced in Section 11 of this Plan (below). **Table 1** summarizes the number of boreholes and

wells that were drilled and installed by CR between 1996 and 2010. No drilling occurred during 2005-2006.

Table 1 Boreholes / Wells Drilled on Federal Surface 1996 - 2010

Year	# of Boreholes	# of Wells	Total
1996	0	9	9
1997	475	11	486
1998	186	0	186
2004	2	0	2
2007	135	0	135
2008	46	0	46
2009	22	0	22
2010	31	0	31
Total	**897**	**20**	**917**

Historical compilation maps showing the locations of boreholes drilled across the site through 2008 are provided on LQD Plate OP-6 (in LQD Operations Plan, vol. 2) and LQD Plate D5-17W and Plate D5-17E (in LQD Appendix D5-Geology, vol. 5). Maps of boreholes drilled by year since 2008 are included with the activity reports submitted to BLM, referenced above. Of the 1,807 boreholes requested in NOIs submitted since 1997, 897 boreholes actually were drilled.

The locations of existing site monitoring wells are illustrated on LQD Permit Plate D6-1 (Appendix D6-Hydrology, vol. 6). Out of 897 boreholes drilled, 20 boreholes have been completed as monitoring wells since 1997. In September 2008, CR plugged and abandoned 12 inoperable site monitoring wells.

Existing roads were used to access drilling areas. Access to each drill site was across native ground and care was taken to minimize surface damage to soils and vegetation. Equipment used included a backhoe, truck-mounted rotary drill rig, water truck and two pickup trucks. Following completion of the drilling, each site was reclaimed in accordance with state and federal requirements. Photographs showing reclamation revegetation progress at a number of these sites are provided in **Attachment 3** to this Plan.

6.0 DESCRIPTION OF OPERATIONS

6.1 Introduction

CR plans to develop and extract approximately 1.0 million to 2.5 million pounds of uranium per year over an anticipated project life of 25 years. Maps of the potential uranium recovery areas, called mine units, and the associated facilities are shown on Figures 1E and 1W. CR also maintains mining claims outside the approved mining permit boundary for which future exploration and development are planned. These lands are shown on the Claims Map provided in **Attachment 4** and described in Section 3.0 above.

The Project will use ISR mining methods and will be operated as a satellite facility to CR's Smith Ranch-Highland (SRH) Uranium Project located in Converse County, Wyoming. Ion exchange resin loaded with uranium will be transported to CR's SRH operating facility for stripping and processing into yellowcake. The stripped resin will be returned to the Gas Hills Project site for reuse.

The surface disturbance resulting from this ISR mine will be limited to the construction of water wells, small roads, pipelines, buildings and ancillary structures. Surface disturbance will include mine unit pattern areas during mine unit construction, evaporation ponds, wastewater disposal

injection wells, mineral processing and water treatment facilities, mine unit header houses, pipelines, booster pump stations and roads. Unlike conventional mining, ISR does not involve excavation of large mine pits or handling of stockpile spoils and waste material on surface lands. There will be no development of underground facilities such as shafts, tunnels and portals.

6.2 ISR Process

ISR involves the use of conventional water wells and a leaching solution, called a lixiviant, to extract the economic mineral from the geologic formation in which it occurs without physically removing the ore-bearing formation. The lixiviant consists of (a) native groundwater to which has been added an oxidant, such as oxygen, to make the uranium soluble in the groundwater and (b) a complexing ion, such as carbon dioxide or sodium bicarbonate, to which the uranium combines allowing it to be carried in the groundwater pumped to the surface.

The lixiviant is injected into the uranium-bearing strata through a series of injection wells. The lixiviant causes the uranium to go into solution with the native groundwater. The uranium-bearing groundwater is recovered by pumping from production wells located adjacent to the injection wells. The uranium laden groundwater is then conveyed through buried pipelines to a surface ion exchange facility. The uranium in solution attaches to the ion exchange resin, thereby removing it from the groundwater. After the uranium has been removed, the majority of the water is recycled back to the injection wells where the uranium extraction process continues. However, a limited purge or "bleed" volume of that water cannot be reinjected and is separated for treatment and disposal as a wastewater. The ion exchange resin loaded with uranium will be transported to CR's SRH processing plant (discussed in Section 6.8.1 below) for stripping and processing into yellowcake (U_3O_8).

A schematic diagram of the ISR process is presented in this Plan as **Figure 2**. A detailed description of the ISR process is provided in LQD Operations Plan Sections 2.0: Uranium ISR Chemical Processes and Lixiviant Selection, and 3.0: Project Development along with conceptual designs for processing and waste disposal facilities.

After the economic recovery limit of a production zone has been reached, lixiviant injection and uranium recovery is stopped, and groundwater restoration of the production zone must be started. Groundwater restoration involves returning the affected groundwater within the production zone to its pre-mining water quality meeting the requirements of NRC and WDEQ-LQD rules and regulations. Restoration is typically accomplished using a combination of techniques including groundwater sweep (injection of higher-quality water to flush the production zone), reinjection of groundwater treated by reverse osmosis, bioremediation, and/or addition of chemical reductant to precipitate heavy metals back into the formation. Groundwater restoration is discussed in detail in LQD Reclamation Plan Section 2.0.

CR estimates that 70 percent of the total disturbed area (approximately 916 acres) will be short-term disturbance (one year or less) associated with mine unit construction. The remaining 30 percent of disturbed acreage (approximately 393 acres) will be long-term disturbance associated with proposed evaporation ponds, wastewater disposal injection wells, mineral processing and water treatment facilities, mine unit header houses, pump stations and access roads. These disturbances will remain for the life of the Project. For the projected 25-year operational life of the Project, it is estimated that approximately 393 acres of the approximately 8,538 total permitted acreage, or 5 percent, will be unavailable for wildlife habitat use until final reclamation. At the end of the Project, the entire 8,538 acres will be returned to the pre-ISR mining use of wildlife habitat and livestock grazing.

6.2.1 Delineation Drilling

The irregular shape, distribution, and grade of the uranium deposits require that a considerable amount of drilling be completed to determine ore reserves; injection, production and monitoring well locations; and provide the information needed to finalize mine unit engineering and design. The surface disturbance footprint for each delineation borehole will be contained within the total disturbed area calculated for the various mine units **(Table 2).** Typical footprints for drill sites in even (level) terrain and rough (sloping) terrain are presented as **Figures 3** and **4** which include approximate dimensions.

Table 2 Proposed Mine Development Surface Disturbance Estimates

	Within Proposed Mine Units (acres)					Outside Mine Units, within Permit Boundary	Total Acres
	1	2	3	4	5		
Proposed Mine Unit Pattern Area Disturbance (incl. roads, utilities, header houses, etc.)	156	365	86	255	111	Na	972
Proposed Mine Unit Perimeter Monitor Wells disturbance Area (wells + access roads)	10	10	9	9	8	Na	47
Proposed Buried Pipeline/Utilities Corridors and Roadways	Na	Na	Na	Na	Na	200	200
Proposed Evaporation ponds, Waste Disposal Injection wells, 2nd Satellite Bldg., New Meteorology Monitoring Station	Na	Na	Na	Na	Na	90	90
Disturbed Area Total	166	376	95	264	118	290	1,309
15 Percent Contingency for Unanticipated Future Exploration and Development							196
Total Estimated Surface Disturbance (rounded down)							**1,500**
Na = not applicable							

Each borehole will be geophysically logged, then plugged and abandoned in accordance with state and federal requirements prior to moving the drill rig to the next location. The drilling mud pits will be protected from human and animal intrusion until the contained fluid has been removed or has evaporated, at which time they will be reclaimed. Procedures used for installing boreholes and wells, including reclamation practices and equipment, are described in the LQD Operations Plan Sections 3.10: Delineation Drilling and 3.11: Well Installation, and LQD Reclamation Plan Section 3.2: Well Plugging and Abandonment. Wells will be constructed with surface seals and wellhead protection.

Depending on production requirements and equipment availability, as many as eight or more drill rigs may be operating on site simultaneously for delineation drilling and well construction activities. These activities are described in detail for proposed Mine Unit 1 in LQD Operations Plan Section 6: Mine Unit No. 1 Typical Mine Unit Operations Plan.

The final phase of delineation drilling consists of installing pilot holes for injection and production wells. If the geophysical logs show that the pilot hole does not contain enough reserve for economic production, the hole will be plugged and abandoned. If it is determined that the hole contains an economic reserve, it will be completed as a well.

If there will be a lag between delineation drilling and mine unit construction, the delineation sites will be reclaimed and seeded. If mine unit construction will immediately follow delineation drilling, borehole site reclamation will be deferred until mine unit construction has been completed.

Following completion of delineation drilling to develop a mining plan, detailed Hydrologic Testing Proposals for each individual mine unit will be prepared and will include the most current plans for aquifer pump testing and the locations and quantities of associated monitoring wells to be installed for testing. Required monitoring wells will be installed around the Mine Unit to be developed, and Mine Unit aquifer testing is conducted using these wells to confirm that there is no hydraulic connection between the production sand unit and the underlying and overlying water-bearing units across the underlying and overlying confining units. Aquifer test results are reported to LQD for review and approval, then mine unit construction can commence. Details of Hydrologic Test Proposal purpose and contents are provided in LQD Operations Plan Section 4.2: Hydrologic Test Proposal.

Perimeter monitoring wells are installed during the aquifer testing phase and will be used to monitor the mine unit throughout production and restoration. The surface disturbance caused by the installation and completion of perimeter monitoring wells is very similar to that caused by production and injection wells. A single-lane access road will provide access to each well within the well ring for short-term installation and long-term routine sampling.

6.2.2 Mine Unit Construction

Surface disturbance within a mine unit does not occur all at once but is sequenced over several years, depending on the uranium production rate and the availability of mine unit development and construction equipment and personnel. **Figure 4** illustrates a typical mine unit pattern installation consisting of injection wells, production wells, monitoring wells, pipelines, access roads, power lines, and a header house. A total of 13 header houses (each approximately 12 feet by 25 feet) are proposed within Mine Unit 1. Typically, for a one-million pound per year production rate, seven to eight header houses and associated wells are installed during a year. Approximately 20 production wells and 40 injection wells are installed and piped to each header house. The surface disturbance for these header houses and associated wells for Year One will be reclaimed and seeded with an agency-approved seed mix (see Section 7.7 below) prior to disturbing the surface in the Year Two area of the mine unit. Except for the long-term header houses and access roads, the remainder of surface disturbance within Mine Unit 1 will have been reclaimed and seeded by the end of Year Two and returned to potential wildlife use during uranium production.

Although the actual location of surface disturbing activities that are projected to occur within Mine Units 2 through 5 is not yet known, the nature and extent of such disturbances will be very similar to what has been proposed for Mine Unit 1. As the plans for subsequent mine units are developed, they will be provided as revisions to the LQD Permit and, by reference, this Plan of Operations.

All of the surface within the proposed mine units may be disturbed by initial ISR construction activities but will be contemporaneously reclaimed as discussed in Section 1.0 (above). Mine unit construction surface disturbing activities will include:

- Drilling associated with ore body delineation and well installation;
- Construction of primary and secondary access roadways within and between mine units;
- Construction of mine unit header houses within mine units;
- Use of temporary cement batch plants within mine units to support well and header house installation;
- Construction of a second satellite uranium recovery facility outside of existing Carol Shop (see **Figure 1W**) and other support facilities;

- Trenching of pipelines and utilities both within and between mine units and uranium recovery and wastewater disposal facilities; and,
- Construction of wastewater evaporation ponds and wastewater disposal injection wells outside of mine units.

The area contained within the proposed five mine units totals approximately 972 acres of the total permitted acreage. Disturbance areas were estimated from the mine units (**Figures 1W and 1E**) assuming the following:

- Mine Unit Pattern disturbance area as shown on **Figures 1W and 1E** "Proposed Disturbance Area" excluding former Atlas Mine Workings area. Assume 100 percent short-term disturbance during mine unit construction.
- Perimeter monitoring well disturbance area: perimeter will be located approximately 400 feet outside of each Mine Unit boundary, and monitoring wells will be located approximately every 400 feet along that perimeter. Assume 1700 square feet disturbance per well site, based on measured mine unit average.
- Roads outside of Mine Unit boundary: primary roads are 30 feet wide with a 60-foot right-of-way (ROW), secondary roads are 15 feet wide with a 40-foot ROW (see LQD Permit Operations Plan Plate OP-4 for road construction plans)
- Buried pipeline/utilities corridor disturbance outside of Mine Unit boundary: measure corridors outside of Mine Unit boundaries, assume 50-foot width.
- Evaporation ponds footprints plus 100-foot buffer surrounding each pond.
- Second satellite processing facility building, 80 feet by 160 feet, outside of mine units

CR estimates that installation of monitoring well rings will disturb approximately 47 acres around the five mine units. Construction of primary and secondary access roadways and pipeline utility trenches, evaporation ponds, waste disposal injection wells, and a second satellite processing building will add another approximately 290 acres of surface disturbance in addition to the mine units and monitoring well rings. Including a 15 percent contingency for unanticipated exploration and development activities, the total area that may be disturbed and reclaimed by ISR related activities totals 1,500 acres **(Table 2).**

Construction of a meteorology monitoring station within the southwest quarter of Section 28 was completed in December 2010 (CR, December 2010). This monitoring station will be in use for a minimum of one year but possibly as long as the anticipated 25-year life of the mine. CR estimates a long-term surface disturbance area of 0.1 acres for this tower, assuming a 36-foot square fenced base.

Topsoil will be separately stockpiled within the mine unit disturbance area and replaced when well construction is completed. Minor grading may take place at drill sites to ensure a relatively level pad. Pre-construction contours will be restored and reclaimed after a well is constructed. The construction of buildings, facilities, evaporation ponds, primary and secondary access roads will require stripping and stockpiling of topsoil. These stockpiles will remain for the duration of the facility. Details of topsoil handling are discussed in Section 7.7 below.

The construction of pipelines will be a short-term disturbance. If large (greater than 8 inches) or multiple pipelines are placed in a trench, CR will construct the pipeline trench with an excavator or backhoe and will separately stockpile then immediately replace topsoil. In some cases, and where pipe diameter is less than 8 inches, CR will use a trenching machine or spider plow.

These types of machines do not require topsoil segregation and reduce the overall disturbance footprint.

For the short term, drilling mud pits will be fenced using "pig panels" consisting of 4 feet high by 16 feet wide rigid wire grid fence panels wired to steel T-posts. The panels will completely surround each mud pit to exclude animals and people from the pit.

Long-term fencing will be constructed around the mine unit production facilities and processing satellites primarily to prevent sheep and cattle from interrupting production activities and damaging surface installations (production and injection well heads) while still allowing wildlife forage. Fences will be constructed using guidance provided in BLM Handbook H-1741-1 and LQD Guideline 10. Plate RP-1 in the LQD Reclamation Plan shows typical fence construction specifications. Fences surrounding the evaporation ponds will be constructed to prevent both livestock and high-jumping wildlife from accessing the ponds (LQD Type II tall sheep tight). Typically, perimeter monitoring wells do not require and are not fenced.

Groundwater restoration and final surface reclamation within a mine unit is also a sequential activity. Once the header houses in a mine unit production area become sub-economic with regards to uranium production, they will be converted for groundwater restoration which involves reversal of water flow directions in existing piping but no new construction.

6.3 Water Management Plan

Water management is a critical aspect of an ISR project, as water is used for all phases of the recovery and restoration processes. **Figure 2** illustrates the Project water cycle from groundwater production through resin loading, untreated wastewater disposal, and injection of treated water back to groundwater.

6.3.1 Project Water Sources

All water used at the Project will be obtained from groundwater sources appropriated in accordance with state requirements. Surface and groundwater rights appropriations in the area historically have been used for livestock watering, by wildlife, and for limited non-industrial domestic purposes associated with past mining operations. Some groundwater resources also have been used for uranium mining related (industrial) purposes.

6.3.2 Water Production and Injection

The greatest volumes of water will be used during the groundwater sweep phase of groundwater restoration at each mine unit. Based on the proposed production rate and the waste minimization program at the Project, it is estimated that the maximum annual volume of treated groundwater requiring disposal will be approximately 420 acre-feet (260 gallons per minute average). The actual annual wastewater disposal volume will depend on the actual production rate. LQD Operations Plan Table OP3-3: Production Water Balance provides details of the estimated production flows, restoration flows, water treatment capacity, and water evaporation capacity projected annually for the mine life.

To estimate the flow rates which can be expected during production at the Project, flow models have been developed and run for each of the first four Mine Units for which there is adequate data to effectively model the hydrology. These estimated flow rates assist with the planning of production and groundwater restoration programs because they simulate the natural limits of the hydrogeologic system that must be understood sufficiently to plan and control the operation. Where the estimated flow rates are low because of low permeability and/or low available hydraulic head, the economics of mining can be affected to the point that the uranium

mineralization may be unrecoverable by ISR methods. These model flow rates also are used to estimate the production and groundwater restoration schedules. Model estimates will be refined and updated as mining operations progress and new data are acquired. Details of the groundwater flow modeling conducted are provided in LQD Operations Plan Sections 5.3: Mine Unit Flow Rate Predictions, and 5.4: Mine Unit Simulations of Ground Water Flowpaths, and in LQD Operations Plan Addendum OP-2: Ground Water Modeling.

6.3.3 Project Water Uses

The primary water uses at the project will be for non-potable use, drilling water, mine unit production bleed, groundwater restoration bleed and reverse osmosis make-up water. The major uses and estimated rates of water use at the Project are as follows:

Table 3 Estimated Rates of Water Use

Use	Estimated Rate (gpm)
Non-industrial and Drilling	5 - 100
Production Purge	40 - 160
Groundwater Sweep	100 - 500
Water Treatment Make-Up	30 - 150

Water required for the industrial uses noted above will be obtained from post-treatment process fluids, such as reverse osmosis and/or forced evaporation, and from two existing site supply wells. Water required for non-industrial uses (showering, laundry, etc.) will be obtained from an external bulk potable water supplier or a well completed in a non-uranium bearing formation. Bottled water will be used for drinking purposes.

Other Project activities that consume water could include dust suppression, concrete mixing, and/or pipeline pressure testing. However, the total estimated volume of these uses is negligible in comparison to that consumed for groundwater restoration of even a single mine unit.

6.3.4 Wastewater Disposal

Treated wastewater will be disposed into solar evaporation ponds (already approved in the LQD Permit), that will be designed and constructed to contain the proposed volume of treated water for the life of the project. Locations of these proposed ponds are shown on **Figure 1E.** Evaporation pond design is detailed in LQD Operations Plan Section 3.5.2: Evaporation Ponds, and illustrated on LQD Plates OP-2 through OP-3: Evaporation Ponds Design Details.

To add disposal capacity over time, Forced Evaporation and crystallization (FE) equipment will be added within the Carol Shop at the beginning of operational Year 6. FE is a process that has been used for many years at power plants across the U.S. to treat and recycle saturated wastewaters using a distillation and crystallization process. The evaporator system heats the wastewater feed to the boiling point. The steam is then allowed to cool resulting in a condensate of distilled water. The waste brine generated by the evaporator is transferred to the crystallizer where it is heated to drive off residual moisture and reduce it to a dry solid that can be removed and stored for disposal as solid waste.

CR is also investigating the feasibility of using one or more Class I injection wells for wastewater disposal as a supplement to the planned evaporation ponds. If technically feasible, CR plans to add wastewater disposal via injection well(s) because (a) injection wells are less costly to operate and reclaim, and (b) there are fewer environmental concerns as compared to evaporation ponds. Use of injection wells disposes of concentrated process reject fluids

underground, thereby eliminating the surface contamination concerns associated with evaporation ponds and greatly reducing the volume of 11e(2) material that will require over–road hauling to distant permitted disposal facilities.

Construction of an initial Test Injection Well is proposed for SWNE Section 29, T33N, R89W **(Figure 1E).** The drill pad, mud pit, and access road to the proposed Initial Test Injection Well would disturb approximately 2.5 acres. CR will first obtain the permits from BLM, Wyoming Oil & Gas Conservation Commission, NRC, LQD, and WDEQ-Water Quality Division (WQD) necessary to install/construct the proposed injection wells for testing.

If down-hole testing of the initial test well(s) indicates that the well is suitable for injection, CR would next proceed with preparation of a WQD Underground Injection Control (UIC) Class I injection permit application, approval of which is needed prior to operation for wastewater disposal. CR may add one or two more injection disposal wells tentatively to be sited within the NENW of Section 3, T32N, R90W and/or the SWSW of Section 22, T33N, R89W. Upon approval of the UIC permit, CR will provide a copy of the UIC permit and application to BLM and LQD.

6.3.5 Potential Effects on Area Water Resources and Water Rights

Because groundwater plays a major role in the operation of an ISR project, and as required for the LQD permit application, CR has conducted extensive groundwater and surface water characterization of the Project waters. This information is detailed in LQD Appendix D6-Hydrology.

In accordance with LQD Rules and Regulations Chapter 11, Section 4(a)(xxi), CR has evaluated the potential effects of the proposed ISR operation on existing water resources and rights. The only Wyoming State Engineer's Office (WSEO) surface water right permit within one-half mile of the project area not related to mining is for a surface water reservoir (Permit P9573R). This BLM reservoir was developed in a depression resulting from previous mining activities. It is not anticipated that the proposed ISR activities will have any adverse effect on project surface waters or surface water rights. However, site surface water will be monitored during operations as described below in Section 8.1.

Cameron Spring (WSEO permit number P44457W) is located within the project area. Discharge originates from the Wagon Bed Formation, which is stratigraphically above the Wind River Formation (see LQD Permit Appendix D5-Geology Table D5-2-1 for stratigraphic sequence). Because no ISR mining activities will occur in areas where the Wagon Bed Formation crops out, Cameron Spring should not be affected.

Spring P71766W discharges from the upper stratigraphic units of the Wind River Formation within the project area. The elevation of this spring is approximately 200 feet higher than the Wind River water level elevation within the project area. The spring is located a minimum of one-half mile from any proposed ISR disturbances. Because ISR mining will target stratigraphically lower and hydraulically isolated units, proposed ISR mining activities should not affect the water level or quality of this spring.

ISR operations should not cause lowering of the water level of non-mining groundwater rights because there are no non-mining groundwater rights within one-half mile of the permitted boundary. Due to previous mining operations in the Gas Hills and associated pit dewatering, groundwater cones of depression already exist in and adjacent to the Project area. Based on pre-mining water level elevations reported for Pathfinder's and Umetco's mining operations and

permit documents, it is estimated that the Wind River aquifer water levels within the project area are presently five feet to greater than 50 feet below pre-mining levels, depending on proximity to the former mine pits. The proposed ISR operation will have a relatively small bleed rate resulting in minor additional depression of the water level elevation. The ISR operation may cause a decrease in the **rate** of water level recovering from previous mining operations.

CR will remove approximately one percent more groundwater than is injected into any mine at any given time during the production phase of the operation. This limited consumption of area groundwater is not anticipated to adversely affect existing water resources or area water rights. The net result of this over-pumping will be creation of a small cone of depression centered on the mine unit that will prevent both injected chemicals and leached ore from migrating off site.

Groundwater flow modeling, summarized in LQD Operations Plan Sections 5.3 and 5.4 and detailed in LQD Operations Plan Addendum OP-2, indicates that mining fluids migration, or "excursions," can be controlled at each of the five mine units by altering injection rates and locations based on hydraulic gradients and existing abandoned mine workings. These modeling results do not include drawdown contours or potentiometric maps but do provide estimates of potential radii of influence for each mine unit during operations. CR will re-run the models with as-built injection/production well patterns and resulting actual hydraulic gradients following hydrologic unit testing. Estimated drawdown and potentiometric surface maps will be prepared and shown relative to existing water rights at that time. This information will be used to update the LQD permit application document at that time.

After completion of groundwater restoration and surface reclamation at a given mine unit, the entire mine unit surface will be returned to wildlife and livestock grazing use. Site surface reclamation is discussed in Section 7.0 below.

6.4 Rock Characterization and Handling Plan

An important difference between conventional mining and ISR mining methods is that no rock is removed from the ground with the ISR method. Therefore, no large earth moving equipment, rock handling procedures, or waste rock and tailings disposal facilities are required.

However, since the uranium mineralization is chemically removed from the host rock in-situ, knowledge of the host rock geology and mineralogy is essential. A detailed description of the project site geology is provided in Appendix D5-Geology of the LQD permit application. This appendix includes geologic maps and cross sections for each proposed mine unit. It also includes geophysical logs of each borehole used to construct the cross sections, as well as an abandoned drill hole map and listing of known boreholes drilled within the permit area. The ore body mineralogy and proposed injection fluid chemistry are detailed in the LQD Operations Plan Section 2: Uranium ISR Chemical Processes and Lixiviant Selection.

6.5 Quality Assurance

Quality assurance (QA) comprises all those planned and systematic actions that are necessary to provide adequate confidence that a product or service will satisfy the requirements for quality. Quality control (QC) is the process used to ensure a certain level of quality in a product or service. Both NRC and LQD regulations require that an approved QA/QC program be established for each operating facility prior to permit or license approval. Required QA/QC program elements include:

- Organizational structure and responsibilities of managerial and operational personnel;
- Qualifications of personnel involved in quality activities;

- Standard operating procedures;
- Records and documentation of quality activities;
- QC in environmental sampling, including air, soil, vegetation, surface water and groundwater;
- Laboratory QC;
- QC for radiological and non-radiological effluent monitoring systems;
- Data verification and validation;
- Assessments and audits; and,
- Preventive and corrective actions.

CR has an approved QA/QC Plan for their operating SRH Uranium Project, which is a part of CR's ISO 14001:2004 certified Environmental Management System. Because the Gas Hills Project will be operated as a satellite to the SRH Uranium Project, the existing comprehensive QA/QC plan will also apply to the Gas Hills Project.

CR is committed to ensuring minimal disturbance to soils, vegetation, wetlands, wildlife and cultural resources throughout the life of the project. LQD Operations Plan Section 3.1: Environmental Consideration describes the procedures that will be followed to minimize environmental disturbance. Mine unit operations personnel will be trained in these environmental procedures.

6.6 Spill Contingency Plan

It is CR's goal to prevent spills of any kind. CR has developed and implements spill contingency plans that are followed in the event of a spill at their SRH operating facility.

Construction disturbances and associated potential for the discharge of pollutants into Waters of the State via storm water runoff will be controlled using Best Management Practices as described in CR's Gas Hills Project Storm Water Pollution Prevention Plan (SWPPP). The SWPPP was prepared as part of the Gas Hills WDEQ-WQD general permit No. WYR103870 to discharge storm water associated with large construction activity under the Wyoming Pollutant Discharge Elimination System. The SWPPP will be modified whenever there is a change in design, construction, operation or maintenance that may change the potential for the discharge of pollutants into Waters of the State. A copy of the SWPPP is already kept on site. When operations commence at the Project, this construction permit will be converted to an industrial activity permit.

CR's SRH facility maintains and regularly updates a Spill Prevention, Control and Countermeasure (SPCC) Plan for operations involving petroleum products, which includes a detailed procedure for mitigating petroleum spills. In summary, should a spill occur, it will be contained, the location recorded, the volume estimated, responsible parties notified, samples collected to determine appropriate regulatory notification, appropriate clean up procedures completed, and procedures modified to prevent future similar spills. A copy of CR's SPCC Plan will be kept on site once construction commences.

Mine unit fluid spills that could contaminate surface soils will be minimized through the use of proper construction and operational procedures, detection devices and alarms, and proper training of personnel. Procedures for addressing operations-related mine unit fluid spills are detailed in CR's Safety, Health, and Environmental Quality (SHEQ) Management System

Emergency Procedures Volume VIII. This procedure document is part of CR's ISO 14001:2004 certified Environmental Management System discussed in Section 6.5 above. A copy of CR's SHEQ Management System comprehensive procedure manuals will be kept on site once construction commences.

6.7 Project Schedule

As discussed in Section 6.2.2 above, mine unit development and operation is a phased, sequential process. The surface disturbed over a year is dependent on the grade of the uranium and the desired production rate. For example, if the production rate for Year One is one million pounds U_3O_8, a production mine unit will be installed only within the acreage containing the reserves needed to meet the annual production rate. The remaining area within the mine unit will not be disturbed. It typically takes approximately 6 to 12 months to complete the construction of a mine unit, including injection/production wells, pipeline/electrical power corridors, header houses, and access roads associated with a given mine unit. At the completion of construction, the disturbed acreage will be recontoured, scarified and seeded with a seed mix approved by BLM and LQD. Following the completion of any construction activity, the disturbed areas surrounding the facility and surface surrounding individual wells, buried pipelines, and roads will be reclaimed. The sequential nature of these activities is shown in the Project schedule provided in LQD Operations Plan Figure OP1-3: Project Schedule, submitted to LQD with the updated permit application (CR, November 2010).

It is currently estimated that the life of an individual mine unit, from installation through the end of final surface reclamation, will be 10 to 13 years. The project schedule is based on an initial production rate of 1 million pounds of U_3O_8 per year, with that rate being increased to the maximum production rate sustainable from the ore sand aquifer, currently estimated to be about 2.5 million pounds of U_3O_8 per year. Actual production rates will be adjusted in response to actual mine unit well flows, uranium recovery rates, and the market demand for uranium.

Following LQD's approval of the Mine Unit 1 Hydrologic Test report (see LQD Operations Plan Section 4.2: Hydrologic Test Proposal), the production well patterns will be installed. This mine unit will contain approximately 930 injection and production wells and 130 monitoring wells. Their approximate locations are shown on LQD Operations Plan Plate OP-7: Mine Unit 1 Wellfield Development. Concurrent with mine unit installation activities, uranium recovery processing facilities will also be constructed as detailed in the LQD Operations Plan Section 3: Project Development.

Groundwater restoration will occur concurrently with mining throughout the life of the Project. The groundwater restoration schedule is designed to achieve the fastest restoration possible, given the ability of the aquifer to yield water. After groundwater restoration and stability is completed and regulatory release has been obtained for a mine unit, it will take approximately one additional year to plug and abandon wells, dismantle and remove pipelines and equipment, remove the satellite building and ancillary equipment, and conduct surface reclamation and revegetation. These time estimates do not include time for reestablishment of vegetation following demolition.

6.8 Project Access and Facilities

6.8.1 Regional Access and Transportation Routes

Primary access to the Project site will be either via Casper or Riverton, Wyoming. State Highway No. 136 is expected to be used for commuting by the majority of the work force for the Gas Hills project. The airports with scheduled commercial airline services that are closest to the

Gas Hills site include Riverton Municipal Airport about 47 miles due west-northwest of the site and Natrona County International Airport about 56 miles due east of the site.

As described in Section 6.1 above, ion exchange resin loaded with uranium will be transported to CR's SRH processing plant for stripping and processing into yellowcake (U_3O_8). The stripped resin will be transported back to the Gas Hills Project site for reuse. CR estimates that, during the period of uranium recovery operations, one truckload of approximately 500 cubic feet of resin will be transported from the Gas Hills Project to SRH central processing plant once per day for processing into yellowcake. The interstate highway, U.S. highways, and state highways are maintained year round. County and private roads may be impassable or closed during inclement weather. The NRC has analyzed resin transportation in the Gas Hills Environmental Assessment (NRC, 2004) and the Toll Milling of Third Party Ion Exchange Resins Environmental Assessment, which analyzed resin transportation to the SRH processing facility (**Attachment 5**). **Attachment 5** includes a tabulation of average annual traffic counts for each of the proposed transportation road segments.

Proposed surface transportation routes from the Gas Hills site (Carol Shop) to nearby population centers and SRH include the following roadways **(Figure 6):**

Primary Resin Transportation Route from Carol Shop to Casper:

- Approximately 4 miles on unimproved dirt road (AML Road);
- 3 miles of private gravel road (Dry Creek Road, unmaintained) to Fremont County line;
- 25 miles of graded County Road 321 (Gas Hills Road) to Waltman;
- 49 miles of paved U.S. Highway 20/26 to Casper.

Alternate Resin Transportation Route from Carol Shop to Riverton to Casper:

- Approximately 4 miles north on unimproved dirt road (AML Road);
- 7 miles of private gravel road (Dry Creek Road) west to paved State Highway 136;
- 44 miles on State Highway 136 to Riverton;
- 22 miles on U.S. Highway 26 / State Highway 789 to Shoshoni;
- 100 miles on U.S. Highway 20/26 to Casper.

The total distance from the Project to the processing plant via Riverton is estimated at 180 miles one way.

Primary Route from Casper to SRH processing plant:

- 21 miles south on Interstate Highway 25 to Glenrock Exit 165;
- North through Glenrock to State Highway 95;
- 17 miles north on State Highway 95;
- 0.2 miles northwest on State Highway 93;
- 7.6 miles northwest on County Road 31 (Ross Road);
- 1 mile northeast on private graded gravel road controlled by CR.

The total distance from the Project to the processing plant via Casper is approximately 140 miles one way.

Alternate Route from Casper to SRH processing plant:

- U.S. Highway 20/26 east (Glenrock Highway) to Glenrock;
- 17 miles north on State Highway 95;

- 0.2 miles northwest on State Highway 93;
- 7.6 miles northwest on County Road 31 (Ross Road);
- 1 mile northeast on private graded gravel road controlled by CR.

The Glenrock Highway route is actually shorter than using Interstate Highway 25 and bypasses most of the closely-spaced Glenrock residences, but it is closer to rural dispersed residential property and is a lighter duty, lower speed road than I-25.

6.8.2 Road Ownership and Bonding

The AML Road was constructed by the WDEQ-Abandoned Mine Lands program in 1989 to provide access to reclamation projects within and adjacent to the Project site. The road crosses land owned by Philp Sheep Co. and the U.S. Government (BLM). A use agreement has been obtained from Philp Sheep Co. for that portion of the road that crosses their property. CR already carries a reclamation bond for the AML Road (see LQD Reclamation Plan Table RP4-1: Reclamation Cost Estimate, part VII Misc Reclam, part II, access road reclamation). Prior to project construction, CR will obtain a ROW from BLM for the portion of the AML Road administered by them, in accordance with 43 CFR 2800. CR will accept the maintenance and reclamation responsibility for that portion of the AML Road that CR plans to use for primary access to the Project. LQD Permit Appendix A-Surface and Mineral Rights Plate A-1: Surface Ownership Map shows the surface ownership of areas including these roads.

The AML Road and the portion of the Dry Creek Road that will be used for primary access will be upgraded. The AML Road on federal surface will be upgraded with culverts and gravel surface prior to facilities construction, including proposed road realignments to allow for pond construction in accordance with BLM standards presented in BLM Manual 9113 – Roads and the BLM Gold Book. Dry Creek Road segments, on both private and federal surface, will be upgraded to meet Fremont County standards. The upgraded roads will be approximately 24 feet in width and will be graded, drained, surfaced, and capable of carrying highway loads. Plans for the upgrades will be submitted to BLM, Fremont County, and LQD for review prior to commencement of road construction. Professional engineering design and construction oversight will be employed as required.

Road base gravel needed to upgrade access roads may be hauled by truck to the site from off-site quarries. Specific quarry locations will be determined as part of the road upgrade plan designs to be prepared.

A ROW for the portion of the Dry Creek Road in the vicinity of the Project is held by Umetco Minerals. A portion of the road also crosses land owned by Philp Sheep Co. The road has been used for public access to the area for many years. Use agreements for the Dry Creek Road have been obtained from Umetco Minerals and Philp Sheep Co. Copies of these agreements are included in Addendum OP-5 to the LQD Operations Plan.

6.8.3 Project Site Roads

Main access to and from the Project will be over existing roads and two-tracks, where available. Should a second satellite facility be required, approximately 3,300 additional linear feet of main access road will need to be constructed **(Figures 1W and 1E).** Additionally, as each mine unit is delineated, designed and developed, additional secondary access roads will be required to provide access to and from mine unit production areas, header houses and monitoring wells. These access roads will be shown on maps accompanying each detailed mine unit Hydrologic Testing Proposal. LQD Operations Plan Plate OP-4: Typical Road Construction provides road design and maintenance requirements for primary and secondary access roads. Primary access

roads are designed for two-way traffic including large trucks, while secondary access roads are designed for one-way traffic and light use. Both primary and secondary access roads will use culvert crossings at significant drainages. LQD Operations Plan Plate OP-5: Typical Culvert Installation provides culvert design and construction details. **Figure 1W** shows the planned locations of access roads, pipelines and power/utility corridors for Mine Unit 1.

Office and water treatment facilities will be housed in the existing Carol Shop Facility (see **Figure 1E**). Ion exchange facilities will be located in the Carol Shop and/or at either of two possible satellite locations shown on **Figure 1W**. Detailed discussion of surface facilities and their operation is provided in the LQD Operations Plan Sections 3.2 through 3.6: Surface Facilities and their Operation, Satellite Facilities, IC Booster Facilities, Water Treatment Facilities, and Waste Management Systems.

The mine units will consist of large groups of injection and production well patterns typically arranged with four corner injection wells and a central production well per pattern. Fluids will be conveyed between the satellite facilities and mine units through buried pipelines. Small groups of injection and production wells will be piped to central distribution centers, called header houses, where oxidant will be added to the injection fluid. A typical mine unit pattern installation schematic is presented as **Figure 5**. Ancillary equipment that will be used will include truck-mounted pump pulling units, truck-mounted hose reels, electrical generators, backhoes and light duty 4-wheel drive vehicles. The wells will be installed by contract well drillers who will use truck-mounted rotary drilling rigs and water trucks. Additional ancillary construction material will be contained within the Carol Shop area or mine unit disturbance areas.

7.0 RECLAMATION PLAN

Sections of the LQD Operations Plan as well as the LQD Reclamation Plan provide the procedures and methods for project reclamation and include plans for items specified in 43 CFR 3809.401 (b) (3). When the groundwater within the mine unit has been restored to pre-ISR conditions and the quality has been accepted by the regulatory agencies, final surface reclamation will be implemented by plugging and abandoning wells, removing header houses and buried piping, and reclaiming and seeding the disturbed surface. Specific activities that will occur during project decommissioning and the expected disturbances associated with them are detailed in the LQD Reclamation Plan Section 3: Facility Decommissioning. Areas to be reclaimed and associated volumes and quantities are presented in Table RP 4-1 of the LQD Reclamation Plan.

7.1 Drill Hole Plugging

All drill holes will be abandoned in accordance with W.S. 35-11-404 and LQD Rules and Regulations Chapter 8 using Plug Gel or an equivalent abandonment material. The abandonment material will be mixed with water and circulated through the drill pipe filling the drill hole from bottom to top. In accordance with LQD Rules & Regulations Chapter 8, Section 2(a)(ii)(A)(I) and (II), the mixed abandonment fluid will have a ten-minute gel strength of at least 20 lbs/100 sq. ft. and a filtrate volume not to exceed 13.5 cc.

Any open hole between the top of the abandonment mud column and the collar of the hole will be filled with bentonite chips, pellets or similar material. A concrete plug will be placed in the hole a minimum of two feet below the ground surface. The ground surface affected by the drilling will then be reclaimed. If the hole cannot be plugged immediately after probing, it will be securely covered until plugging is possible.

Following abandonment of the drill hole, the mud pit will be allowed to dry out for several days prior to backfilling. After the drill hole has been properly abandoned, techniques such as siphoning the water from the pit back into the drill hole or removing excess water from the pit for use at other drill sites may be used to expedite mud pit reclamation. After backfilling the pits with subsoil, the pits will be allowed to settle before applying the topsoil and performing final grading. Compaction may be used to further reduce potential settling of reclaimed pits. Steep slope sites and access routes will be reclaimed using a dozer, track hoe or similar equipment to minimize the surface disturbance.

Those drill sites that will become part of a mine unit within one year of drilling the hole will not be seeded until mine unit construction is complete. Those sites that will not become part of a mine unit within one year will be seeded after mud pit reclamation is complete. In either case, seed will be planted during the next available seeding window, spring or fall. All seeding will be completed using the approved permanent seed mixture described in Table RP 3-1 of the LQD Reclamation Plan. Abandonment of delineation holes will be reported to the WDEQ with each Annual Report.

7.2. Well Abandonment

The procedure for well abandonment will be as follows:

- A drill rig or hose reel will be used for well abandonment to ensure that wells are properly grouted from bottom to top.
- Abandonment fluid to be used will either be Plug-Gel®, or an equivalent material, or cement containing 5 to 10% bentonite in the mixture.
- Volume of abandonment fluid needed will be determined based on the depth and diameter of the well and the following abandonment fluid characteristics:

  Ten-minute gel strength of at least 20 lbs/100 ft^2

  Filtrate volume not to exceed 13.5 cc.
- Mixed abandonment fluid will be pumped through a tremie pipe into the bottom of the well, filling the well from the bottom to the collar. Water in the well will be displaced into a small earthen pit constructed near the well to contain the fluid.
- Well will remain open for at least 24 hours to allow for settling of the abandonment fluid.
- After the fluid level has stabilized in the casing, the soil around the well collar will be excavated to a depth of three feet.
- Well casing will be cut off at a minimum of three feet beneath the ground surface.
- Well casing will be topped off with bentonite chips, pellets or similar material until full.
- A concrete hole plug will be placed in the top of the casing.
- Hole around the abandoned well will be backfilled to the original surface with the excavated soil material.
- Well location will be marked with a permanent tag or equivalent device.
- For each abandoned well, a written abandonment report will be completed providing detailed documentation of the abandonment; a copy of the report will be placed in the individual well file.
- An abandonment report will be filed with the WSEO for the corresponding groundwater permit number.

- If the well to be abandoned is artesian to the surface, a concrete or cement plug will be emplaced at least from 10 feet below to 10 feet above the artesian aquifer to completely seal off the artesian zone from the well, and the well will then be abandoned as described above.

7.3 Regrading and Reshaping

It will be the goal of surface reclamation to return disturbed areas to as close to their original condition and land use as possible by grading to the approximate original contours, replacing salvaged topsoil, and seeding with the approved native seed mixture.

Disturbed surfaces will be scarified and contoured, if necessary, followed by topsoil placement and seeding with the approved seed mix. Areas which have been compacted will be scarified, ripped, and/or disked as necessary to relieve the compaction and prepare the subgrade for topsoil placement. Where needed, the surface will be graded and contoured to approximate original contours and to blend with the surrounding topography. In areas that were stripped of topsoil, the salvaged topsoil will be reapplied. If necessary, the replaced topsoil will be disked to create a proper seed bed. Seed beds will be prepared only with appropriate soil and climatic conditions.

Topsoil will be placed in a single lift to avoid compaction. On slopes of 4:1 (horizontal to vertical) or steeper, topsoil will be placed along the contour. Topsoil will not be placed under excessively wet, dry or frozen ground conditions which would cause excessive clod or frost chunks to form. Topsoil thicknesses generally will be uniform and reflect the approximate thicknesses of topsoil originally available at the locality being reclaimed. Salvaged topsoil will be used for reclamation purposes.

Details concerning regrading and reshaping, building and facilities decommissioning, mine unit reclamation and revegetation, and topsoil handling are provided in the LQD Reclamation Plan Section 3: Facility Decommissioning.

7.4 Mine Reclamation Pit Backfilling

Mining pits are not anticipated in the proposed ISR project. As such, pit backfilling is not considered part of the LQD Reclamation Plan.

7.5 Riparian Mitigation

Potential wetlands that occur within the permit area were delineated based on vegetative characteristics and are shown on LQD Permit Appendix D8-Vegetation Plates D8-1E and D8-1W. In general, disturbances of wetlands within the limits of the proposed production areas will be avoided. If an access road or pipe line will cross a jurisdictional wetland, required permits will be obtained from the US Army Corps of Engineers. Best Management Practices detailed in the LQD Operations Plan Section 3.1.6: Erosion and Sediment Control will be employed when access roads and pipelines cross perennial and intermittent drainages.

7.6 Wildlife Habitat Mitigation

Affected wildlife habitat will be mitigated by revegetating mine unit areas as soon as practicable after construction in accordance with the LQD Operations and Reclamation Plans. After groundwater restoration has been completed in the last mine unit and facility decommissioning has occurred, vegetation will be reestablished in those areas disturbed by the final reclamation process. As no effect is anticipated to existing rock outcrops, trees, seeps or ponds, mitigation is not planned for those features.

Much of the Project is on public land, and the surface is leased for livestock grazing purposes. The uranium processing and mine unit facilities will be fenced to exclude sheep and cattle from damaging or otherwise interrupting production infrastructure and activities. The evaporation ponds will be fenced to prevent both livestock and large game animals from accessing the ponds. However, processing and mine unit fencing will be designed to allow wildlife access, as discussed in Section 6.2.2 above.

New power lines will be constructed to minimize potential electrocution hazards to raptors by following the guidance in "Suggested Practices for Raptor Protection on Power Lines - The State of the Art in 2006," by the Avian Power Line Interaction Committee, 2006.

The BLM Lander Field Office outlined general time and area restrictions for drilling or other surface disturbing activities near raptor nests, sage grouse leks and mountain plover nests in a conditional drilling approval letter for Notice Level site activity (BLM, Oct. 2008). Conditions 6 through 8 therein state that, without prior consultation with BLM, drilling or other surface disturbing activities are not allowed:

- within 2 miles of active sage grouse leks from March 15 – July 15;
- within 0.75 mile of raptor nesting habitat from February 1 – July 31; and
- within 0.25 mile of mountain plover nesting habitat from April 10 – July 10.

CR will propose mitigation measures to avoid adverse impacts to any raptor, Threatened & Endangered species, or Migratory Birds of High Federal Interest on site. The primary mitigative action will be avoidance. Whenever possible, CR will avoid ground disturbing activities, including drilling and construction activities within certain areas during active nesting or breeding times. If avoidance is not practicable, alternative mitigation will be planned and implemented in consultation with BLM, the U.S. Fish and Wildlife Service, and Wyoming Game and Fish Department. Proposed mitigation may include construction of alternate nest sites on natural features, or the erection of appropriately sized nesting platforms. If needed, wildlife exclusion fences will be constructed as described in Section 6.2.2 above. Site speed limits will be implemented to reduce wildlife/vehicle collisions. Other proposed wildlife mitigation actions are described in the LQD Operations Plan Section 3.1.4: Wildlife Mitigation During Operations.

CR will monitor water fowl activity at these ponds once in operation. West Canyon Creek, small stock ponds, and reclaimed open-pit mines already existing in the area (**Figures 1W and 1E)** can provide needed food and hiding/nesting vegetation that will not be present at the evaporation ponds. Consequently, wildlife specialists do not anticipate that water fowl will inhabit the proposed evaporation ponds long enough to be adversely affected (see LQD Operations Plan Section 3.5.8: Estimated Quality of Evaporation Pond Water and Content of Evaporated Solids). However, CR will implement mitigative action to remove, exclude, and deter water fowl, should it become necessary. Such actions may include propane cannons, netting over the ponds, brightly colored pennants, etc.

Compared with conventional surface mining, ISR generally poses a lesser impact to wildlife, especially big game species such as deer and antelope. This is primarily because the area of disturbance is limited and temporary, and heavy equipment, such as large earth excavators and haul trucks, are not used. Adverse impacts to wildlife as a result of the Project will be minimal for the following reasons:

- ISR activities disturb relatively small amounts of land surface at any one time.

- Areas disturbed by mine unit construction will be quickly revegetated and will then be available for wildlife use throughout the life of the Project. Livestock exclusion fencing will be limited to operating mine units and will be constructed so as not to impede wildlife movements.
- No big game migration routes or crucial winter habitats have been identified within or near the Project.
- Number of site workers involved in ISR activities is much less (50 to 80, versus several hundred) as compared to a conventional mining operation.
- Vehicular traffic will be limited with reduced speed limits used for safety purposes and to decrease the likelihood of vehicle and wildlife collisions.

7.7 Topsoil Handling

ISR operations do not disturb topsoil to the extent of conventional open-pit mining. A topsoil resource management plan is presented in detail in the LQD Operations Plan Sections 3.1.1: Topsoil Management, and 3.1.7: Mine Unit Topsoil Management. Descriptions, mapping and average depths of topsoil resource for the Project are presented in Appendix D7-Soil Assessment of the LQD permit. **Table 4** summarizes topsoil resource management practices, which will vary according to the nature of disturbance, as follows:

Table 4 Topsoil Management Practices

Nature of Disturbance	Topsoil Management
Main Facilities Area	Salvage All Suitable Topsoil. Replace and seed upon decommissioning.
Primary Access Road	Salvage All Suitable Topsoil. Replace and seed upon decommissioning.
Culvert and/or Road Crossings	Salvage All Suitable Topsoil. Replace and seed upon decommissioning.
Secondary Access Roads (To Header Houses within Mine Units)	Salvage All Suitable Topsoil. Replace and seed upon decommissioning.
Non-Constructed Roads (From the Header Houses to Individual Wells and access to Monitor Well Rings	No Topsoil Stripping, traffic minimized and restricted to defined corridors.***
Pipeline and Utility Corridors and Installation of Drill Holes and Wells	Segregate suitable topsoil and subsoil during installation. Replace topsoil and subsoil in sequence and regrade contemporaneously. Seed at first available seeding window.
***During operations, mine unit activity includes routine maintenance and monitoring of wells and header houses within a mine unit. This requires daily, light vehicle access to the mine unit areas. However, routine mine unit activities do not extensively disturb the in-place topsoil.	

Topsoil handling procedures during reclamation are presented in the LQD Reclamation Plan Section 3.5.2: Topsoil Placement.

7.8 Revegetation

All disturbed mine unit, monitoring well, pipeline and utility trench acreage will be reclaimed and revegetated as soon as possible after construction has been completed. This revegetated acreage will be available for wildlife usage during the remaining life of the project. The approved permanent seed mixture is listed in the LQD Reclamation Plan Table RP 3-1. This approved seed mix is comparable to what has been used at other reclamation projects within the Gas Hills and will reestablish a vegetative cover that is consistent with the pre-ISR land use of livestock grazing and wildlife habitat. If any of the individual seed species become unavailable or prohibitive in cost, appropriate substitutions will be made with prior approval of the BLM and LQD. The seed mix and seeding methods will be reviewed on an annual basis as part of the LQD Permit Annual Report, and any proposed species substitutions will be discussed and

requested at that time. Details of the approved seed mix and seeding methods are provided in LQD Reclamation Plan Section 3.5: Surface Reclamation and Revegetation.

7.9 Isolation and Control of Acid-Forming, Toxic or Deleterious Materials

Unlike many types of conventional mines, the ISR process does not bring acidic and/or toxic materials to the surface or require stockpiling of such materials. Consequently, no acid rock drainage from open pits or stockpiles will occur.

Any hazardous or toxic materials used for uranium processing will be handled, stored, and/or disposed of in accordance with state and federal hazardous materials requirements. Procedures for safe handling of processing operations materials are detailed in CR's approved QA/QC Plan for their operating SRH Uranium Project, which is a part of CR's ISO 14001:2004 certified Environmental Management System (see Section 6.5 above).

7.10 Removal of Buildings and Structures

Those facilities requiring decommissioning and removal following the completion of groundwater restoration of a mine unit or the entire project include but are not limited to:

1. Buildings and structures, including the Carol Shop facility, header houses, injection, recovery and monitoring wells, pump stations, and the satellite;
2. Process and water treatment facilities housed within these structures including tanks, piping (above ground), pumps and related equipment;
3. Buried piping including piping within mine units, piping between mine units and process and water treatment facilities, and piping between the Carol Shop facility and the evaporation ponds;
4. Evaporation ponds; and,
5. Overhead and buried power lines.

Detailed discussion of the radiological decommissioning and the demolition of buildings and structures is provided in the LQD Reclamation Plan Section 3: Facility Decommissioning. LQD Permit Plates RP1: Mine Unit No. 1 Reclamation Plan and RP2: Reclamation Details illustrate the dimensions of the areas that would be disturbed during each activity.

7.11 Post-Closure Management

Project reclamation generally consists of three major activities: (1) groundwater restoration, (2) facility decommissioning, and (3) surface reclamation. Mine unit groundwater restoration and reclamation will occur concurrently with operations. Once the economic recovery limit of a mine unit has been reached, uranium recovery operations will cease, and groundwater restoration will commence. The goal of groundwater restoration will be to return the affected groundwater within the production zone to its pre-mining water quality as defined by WDEQ-LQD regulations and NRC requirements.

After groundwater restoration and stability have been achieved in a mine unit and regulatory concurrence has been granted, wells will be plugged and abandoned followed by the removal of subsurface and surface facilities and minor site grading. The regraded surface will be sampled to ensure that it is composed of suitable material prior to topsoil placement. This will then be followed by surface reclamation and revegetation operations. The LQD Operations Plan Figure OP1-3: Project Schedule provides the proposed time schedule for achieving groundwater restoration and surface reclamation within each mine unit.

The goal of decommissioning and surface reclamation activities will be to return those surface areas affected by ISR activities to a condition which will support the pre-mining land use of livestock grazing and wildlife habitat. In accordance with LQD Rules and Regulations Chapter 11, Section 5(a)(iv), reclamation of mining-related surface disturbances in any mine unit will be completed within two years following approval of groundwater restoration in that mine unit. Additionally, reclamation of all mining-related surface disturbances will be completed within two years following approval of final groundwater restoration within the permit area.

When reclamation activities are completed, the final measure of reclamation success will be based upon criteria detailed in the LQD Reclamation Plan Section 3.6: Vegetative Success Criteria. All reclaimed areas will remain fenced for a period of at least two years, or until the vegetation is capable of renewing itself with properly managed grazing and without supplemental irrigation or fertilization. The fencing will not be removed until BLM and LQD agree that the revegetated areas are ready for livestock grazing. Upon demonstration of vegetative success and bond release, the temporary fencing will be removed.

7.12 Reclamation Cost Estimate

The reclamation cost estimate for the Gas Hills Project, which covers restoration of affected groundwater, facility decommissioning, and surface reclamation, is provided in LQD Reclamation Plan Table RP 4-1: Reclamation Cost Estimate. The restoration cost estimate is based on the number of operational well patterns and extent of affected groundwater in Mine Unit No. 1 during the first year of operation. Cost estimates for facility decommissioning and surface reclamation are based on the number of existing surface facilities and associated land disturbance and those surface facilities and associated land disturbance that are planned to be constructed during the first year of operation. The primary unit cost elements used in the estimate are detailed in LQD Reclamation Plan Table RP 4-1. The calculations used in this cost estimate rely on, where approved by LQD, actual operating costs from CR's operating SRH Uranium Project and unit costs listed in LQD Guideline No. 12: Standardized Reclamation Performance Bond Format and Cost Calculation Methods.

The bond instrument currently is a letter of credit that is held by the WDEQ and also names BLM. The reclamation costs must be reevaluated and the bonding instrument amount reset annually to satisfy LQD and NRC requirements. 43 CFR 3809.570 requires that BLM review and concur with reclamation plans and surety bond amounts. Each annual bond revision that is submitted to the LQD and NRC for review and approval also will be submitted to BLM for review and concurrence.

Under the provisions of 3909.570, a separate financial guarantee instrument with the Secretary of the Interior is not required if (a) the existing financial guarantee is redeemable by the Secretary, (b) it is held or approved by a state agency, and (c) it provides the same amount of financial guarantee as required by the BLM. CR will ensure that the Secretary of the Interior is an additional beneficiary on the Project's bonding instrument.

8.0 MONITORING PLAN

An extensive monitoring program has been developed and approved by state and federal agencies to monitor the effects of the operation. The objectives of the monitoring program are to (1) demonstrate compliance with the Plan and ensure compliance with other state and federal regulations and laws, (2) provide early detection of potential problems, and (3) supply information that will assist in directing corrective actions should they become necessary.

The project surface and groundwater monitoring programs for pre-operational, operational, and post operational monitoring are detailed in the LQD Operations Plan Section 3.1.10: Surface and Ground Water Monitoring Plan. A detailed surface and ground water sampling and analysis plan is included as Addendum OP-4: Surface and Ground Water Sampling and Analysis Plan to the LQD Operations Plan. The following sections summarize the major elements of these monitoring plans.

8.1 Surface and Groundwater Monitoring

The predominant natural surface water flowing through the permitted area is West Canyon Creek, a perennial stream (see **Figures 1W and 1E** and LQD Permit Appendix D6-Hydrology Plate D6-1). With the exception of West Canyon Creek, most drainages throughout the property are ephemeral in nature and flow only intermittently in response to spring run-off or occasional strong thunderstorms. Three surface water sites and one groundwater site will be routinely monitored during the project life as part of the area wide monitoring program. These will include the following:

- Cameron Spring Reservoir which is located south of the proposed Mine Unit No. 1 in the SE 3, SE 3, Sec. 2, T32N, R90W;
- Stock Pond in Section 32, a small constructed pond near the northern end of proposed Mine Unit No. 1, in the SW 3, NE 3, Sec. 32, T33N, R89W;
- Carol Shop supply well (Carol Shop No. 1) which will provide water to the Carol facilities. This well is completed in a non-uranium bearing portion of the production aquifer and is located in the SE 3, NW 3, Sec. 28, T33N, R89W;
- West Canyon Creek which flows through proposed Mine Unit No. 4.

Cameron Spring, located hydrologically and topographically upgradient from the proposed Mine Unit No. 1, discharges to the East Fork of Fraser Draw, providing perennial flow to a constructed stock pond located downstream from the spring. Discharge rate and water quality from the spring will be monitored at an existing flume set at the spring discharge (see LQD Permit Appendix D6, Plate D6-1)

The stock pond in Section 32 is located between proposed Mine Unit No. 1 and No. 2 and will receive surface run-off from the southwest portion of the Mine Unit No. 2 area. Starting with the commencement of mine unit construction in the southwest portion of Mine Unit No. 2, this pond will be grab sampled quarterly and analyzed for conductivity, pH, natural uranium and radium-226. An estimate of water volume will be made at the time of sampling.

The Carol Shop No. 1 well is located within a separate building adjacent to the Carol Shop building and is in close proximity to the northern most portion of Mine Unit No. 4. Beginning with mine unit construction in the northern portion of Mine Unit No. 4, this well will be sampled quarterly and analyzed for conductivity, pH, natural uranium and radium-226.

The two established West Canyon Creek surface water monitoring stations described in Appendix D6 of the LQD application will be grab sampled quarterly starting at the time mine unit construction begins in Mine Unit No. 4. Flow will be measured at the time the samples are collected.

Additional monitoring wells will be installed as part of mine unit development and will include the mine zone "M" wells that laterally surround and monitor the mine zone, the "MO-" wells to monitor overlying aquifers, and "MU-" wells to monitor underlying aquifers. A network of regional

groundwater monitoring wells already exists at the Project that was previously sampled and measured to establish pre-mining baseline groundwater quality and limited static groundwater elevations. Details of baseline water quality characterization are presented in LQD Permit Appendix D6-Hydrology.

8.1.1 Operational Groundwater Monitoring

Consistent with state and federal regulations and LQD Guideline No. 4: In-Situ Mining, a groundwater monitoring program has been designed and will be implemented to ensure that mining production fluids remain within the defined production zone. Details of this operational groundwater monitoring program are provided in LQD Operations Plan Section 5.6: Operational Hydrologic Monitoring Program. If production fluids exit the production zone, increases in concentrations of the upper control limit (UCL) parameters (conductivity, chloride, bicarbonate or total alkalinity) at the affected monitoring wells will be determined through the monitoring program. If this situation occurs, and the concentration of the UCL parameters meet the excursion (mining fluids migration off-site) criteria defined in LQD Operations Plan Section 5.6.4: Excursions and Incursions, specific regulatory and operational procedures will be followed as described in LQD Permit Section 5.6.2: Monitoring Frequency and Reporting.

8.1.2 Post-Operational Groundwater Monitoring

Following regulatory concurrence that restoration appears to have been reached in a particular mine unit, an initial six-month stability period will elapse to confirm that the restoration goal has been achieved. The following restoration stability monitoring program will be followed during the stability period:

- External production zone monitoring wells ("M-" wells) will be sampled at the beginning of the stability period and once every two months thereafter. The samples will be analyzed for the UCL parameters.
- Those internal production zone monitoring wells ("MP-" wells) designated as restoration stability monitoring wells will be sampled at the beginning of the stability period and once each month thereafter. The samples will be analyzed for the list of parameters in LQD Operations Plan Table OP 4-1: Baseline Water Quality Parameters, excepting those parameters not affected by the mining and restoration process.

Following the six-month stability period, the agencies will review the stability data and determine whether restoration has been successful, more stability sampling is needed, or more active restoration is needed.

8.2 Post-Operational Vegetation Monitoring

The reclamation goal at the Project will be to return the land to a condition that will sustain the pre-mining land use of livestock grazing and wildlife habitat. The success of revegetation in meeting the land use goal will be assessed prior to application for bond release by using the Comparison Area (COMA) method as described in WDEQ/LQD Rules and Regulations Chapter 3, Section 2(d)(vi)(C) and LQD Guideline No. 2: Vegetation. A COMA is defined as a land unit which is representative, in terms of physiography, soils, vegetation, and land use history, of a plant community where the pre-mining total vegetation cover and species diversity has not been collected, or where the area to be affected is small and incidental to the operation. The representative nature of each COMA is validated by a subjective field reconnaissance of the site or by subjective evaluation of the vegetation data generated by a sampling program. Post-mining quantitative data from the COMAs will be directly compared, by standard statistical

procedures, to data from a reclaimed vegetation type when evaluating revegetation success for full bond release.

Revegetation will be considered successful when, at the end of the bonding period, the following have been demonstrated:

- Vegetation species of the reclaimed land are self-renewing under natural conditions prevailing at the site;
- Total vegetation cover of perennial species (excluding noxious weed species) and any species in the approved seed mix is at least equal to the total vegetation cover of perennial species (excluding noxious weed species) on the area before mining;
- Species composition and diversity are suitable for the approved post-mining land use; and,
- The above criteria are achieved during one growing season, no earlier than the fifth full growing season on the reclaimed lands.

Further details of vegetative success criteria are provided in LQD Reclamation Plan Section 3.6.

8.3 Air Monitoring

To ensure compliance with 10 CFR 20.1301, 20.1302 and 20.1501, CR will maintain a continuous air monitoring program at locations upwind and downwind relative to the permit boundary. The air monitoring program will include passive gamma and radon monitoring devices.

As the Project will not contain yellowcake drying or packaging facilities, there will be no air effluent to be monitored. Air particulate air sampling will not be conducted.

8.4 Wildlife Monitoring

The most current occurrence and relative distribution of wildlife at the project site are reported in the annual wildlife survey reports to both BLM and LQD. The initial baseline site wildlife surveys were conducted in 1992, 1993, 1994, 1996, 1997, and 1999. The results of these surveys are provided in Appendix D9 - Wildlife of the LQD permit application. CR resumed conducting site wildlife surveys annually in 2007; these annual Wildlife Survey Reports have been submitted to LQD as addenda to the LQD Annual Report for the Project, and the BLM is copied on these reports.

The most current Wildlife Monitoring Plan was prepared in consultation with and approved by BLM, the lead agency for project wildlife issues, as well as Wyoming Game & Fish and the U.S. Fish and Wildlife Service. The plan provides the methodology and frequency of the annual monitoring as well as the specific species to be monitored. This approved plan was submitted to LQD in November 2010 as Addendum D9-E to the LQD Permit Appendix D9-Wildlife. CR met with the BLM Lander Field Office wildlife specialist most recently in February 2011 to discuss proposed updates to this plan, including reducing the number and frequency of surveys and eliminating surveys altogether for those species not observed within or near the permit area since 2007. The plan is undergoing revision to incorporate the findings of intensive site wildlife survey data collected 2009 through 2010.

Annual monitoring for active raptor and mountain plover nests will continue to determine proximity to currently proposed operational areas. If operations are or will be within prescribed

buffer zones for the given species, temporary mitigation may be necessary. The primary mitigation will be avoidance, as discussed above in Section 7.6.

CR will monitor potential water fowl activity in the area of the evaporation ponds. While birds and other wildlife may use the ponds for short, transient migratory stop-overs, the ponds are not expected to attract long-term residence of water fowl or other wildlife because they will not contain any food source or shoreline vegetation for hiding or nesting. There are numerous existing water bodies in the area that can provide food and hiding/nesting vegetation including West Canyon Creek, small stock ponds, and reclaimed open-pit mines.

9.0 INTERIM MANAGEMENT PLAN

In 1994, the NRC promulgated the "Timeliness in Decommissioning Rule," which was subsequently codified in 10 CFR 40.42. This regulation essentially allows for a 24-month interim standby period at uranium facilities. If operations have not resumed by the end of the 24-month period, the licensee must proceed with project decommissioning unless a request for a time extension has been submitted and approved by the NRC. The NRC may grant an extension if it is determined that the additional postponement of decommissioning activities will not be detrimental to public health and safety and is otherwise in the public interest. The process that the NRC uses to review and make determinations on decommissioning postponement requests is provided in NRC's NUREG 1757, Volume 3, Section 2.

9.1 Exploration and Development Drilling Programs

It is possible that drilling programs could be temporarily suspended due to inclement weather, equipment failure, or other unforeseen delays. Should this occur, prior to leaving the site CR will take measures to protect wildlife, livestock and humans from injury. These procedures may include backfilling or fencing mud pits, abandoning or surface plugging boreholes, and completing or providing surface protection for uncompleted wells.

9.2 Uranium Recovery Operation

Scheduled temporary closures during the operational life of the Project are not expected, so a schedule of such closures has not been generated. Once operations commence, they will continue on a 24 hour per day, 365 day per year basis until final closure.

An economic downturn in the uranium market of sufficient magnitude to render the project an unprofitable business venture would cause a temporary cessation of uranium production. Even if there were a business decision to terminate the Project, it could not happen immediately. Currently operating mine units would continue operation until recoverable uranium had been removed. Groundwater restoration, reclamation, and decommissioning would continue until affected mine units had been restored in accordance with the LQD Reclamation Plan and state and federal requirements. Should a business decision be made to place the Project into a standby mode, the following actions would take place:

- Delineation drilling will cease and surface disturbances will be reclaimed in accordance with the LQD Reclamation Plan;
- Mine unit development and construction will cease;
- Producing mine units will continue in the production mode until the uranium resource has been depleted, at which time they will proceed into the groundwater restoration phase;
- Those mine units that are in groundwater restoration will continue in that mode until regulatory requirements have been achieved; and,

- Once groundwater restoration has been completed and approved by the regulatory authorities, surface reclamation and decommissioning will be completed on a mine unit-by-mine unit basis until mine units have been decommissioned.

At this point a business decision would be made as to whether to proceed to final reclamation or to keep the main injection/recovery trunk lines and uranium recovery facilities in place in anticipation of a future production restart. A decision to keep these facilities in place for an extended care and maintenance period will result in the following actions:

- Main trunk lines will be drained to the uranium recovery facility, and the excess water will be treated and disposed.
- Open ends of the pipelines will be blind flanged, and manholes will be secured from access by securing the lids to the manholes and locking the access hatches.
- Plant equipment, including reagent tanks, will be drained, decontaminated and protected for future use.
- Interior building surfaces will be decontaminated and cleaned.
- Solids will be removed from the evaporation ponds and properly disposed, and the pond liner surfaces will be decontaminated and cleaned.
- Fuel storage tanks will be removed from site and the storage areas reclaimed.
- Buildings and ponds will be secured from public and animal access using fences and by securely locking access doors.
- Facilities will be inspected on a monthly basis. The inspected areas will include restricted access to radiological areas, the evaporation ponds, mine units, and perimeter fences.
- Any discovered breach of site infrastructure will be reported to the proper regulatory and law enforcement authorities, and CR management. Potential hazards resulting from the breach will be assessed, documented and reported as required. The breached area will be resecured as necessary.
- A remote alarm and monitoring system will be considered if the technology can be implemented at such a remote location.

10.0 BASELINE OPERATIONAL AND ENVIRONMENTAL INFORMATION

The LQD permit application document, *Gas Hills ISR WDEQ Permit No. 687 Update* (CR, 2009 and 2010). provides the following detailed baseline information in nine separate volumes:

Appendices A and B: Surface and Mineral Rights Within and Adjacent to the Permit;
Appendix C: Tabulation of Lands;
Appendix D1: Land Use;
Appendix D3: Cultural Resources (Archeology);
Appendix D4: Climatology;
Appendix D5: Geology;
Appendix D6: Hydrology;
Appendix D7: Soil Assessment;
Appendix D8: Vegetation Inventory; and,
Appendix D9: Wildlife.

Updates to the surface and groundwater quality, wildlife, vegetation, and cultural resources information may be generated from time to time as individual mine units are developed. These updates will be provided to BLM as revisions to the LQD application document and, by reference, this Plan. For example, hydrologic testing of Mine Unit No. 1 will be planned, completed, evaluated, and reported before mine unit construction can commence. The results of this testing will be submitted as a revision to LQD Permit application Appendix D6 - Hydrology.

11.0 REFERENCES

BLM/J. Kaminsky, 31 October 2008: Letter to Cameco Resources/J. Lawlor RE: Conditional Approval of Additional Drilling, Amendment to Case File No. WYW167994.

Cameco Resources (CR), October 2009: Gas Hills ISR WDEQ Permit No. 687 Update, volumes 1 through 9.

CR, November 2010: Responses to January 20, 2010 WDEQ/LQD Review Comments on Gas Hills ISR Permit to Mine No. 687 Update, TFN 5 4/132.

CR/J. Lawlor, 24 October 2008. Letter to BLM/J. Kaminsky RE: Revision 2: Request to Drill Additional Delineation Boreholes under Drilling Notice/Case No's. WYW140590 & WYW167994, Gas Hills Uranium ISR Project.

CR/J. Lawlor, 13 February 2009. Letter to BLM/J. Kaminsky RE: Drilling Progress Report, Drilling Notice/Case File No's. WYW167994 & WYW140590, Gas Hills Uranium ISR Mining Project.

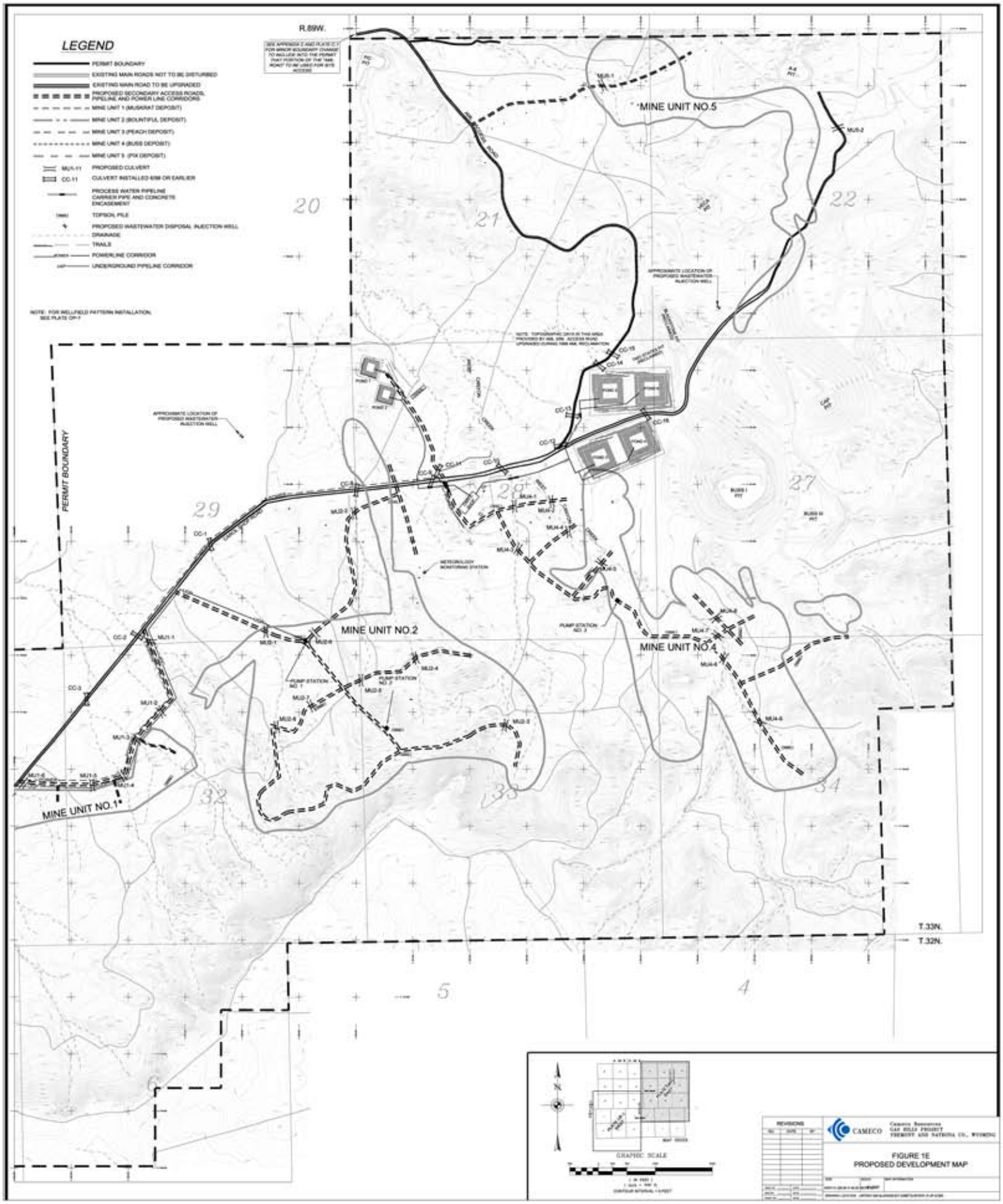
CR/J. Lawlor, 23 February 2010. Letter to BLM/J. Kaminsky RE: Drilling Progress Report, Drilling Notice/Case File No. WYW167994, Gas Hills Uranium ISR Mining Project.

CR/J. Lawlor, 24 November 2010. Letter to BLM/C. Rutland RE: Drilling Progress Report, Drilling Notice/Case File No. WYW168071 (WDEQ-LQD 264DN), Gas Hills/Beaver Rim Uranium Exploration Project.

CR/J. Lawlor, 9 December 2010. Letter to BLM/C. Rutland RE: Drilling Progress Report, Drilling Notice/Case File No. WYW167994 (WDEQ-LQD Permit No. 687), Gas Hills Uranium ISR Mining Project.

NRC, January 2004: Environmental Assessment for the Operation of the Gas Hills Project Satellite In Situ Leach Uranium Recovery Facility.

Wyoming Dept. of Environmental Quality - Land Quality Division, and U.S. Dept. Interior Bureau of Land Management, November 19, 2003: Supplement to Memorandum of Understanding No. WY 19 between the USDI BLM and the WDEQ-LQD for Management of Surface Mining and Exploration for Locatable Minerals on Public Lands.


LEGEND
PERMIT BOUNDARY
EXISTING MAIN ROADS NOT TO BE DISTURBED
EXISTING MAIN ROAD TO BE UPGRADED
PROPOSED SECONDARY ACCESS ROADS, PIPELINE AND POWER LINE CORRIDORS
MINE UNIT 1 (MUSKRAT DEPOSIT)
MINE UNIT 2 (BOUNTIFUL DEPOSIT)
MINE UNIT 3 (PEACH DEPOSIT)
MINE UNIT 4 (BUSS DEPOSIT)
MINE UNIT 5 (PIX DEPOSIT)
MU1-11 PROPOSED CULVERT
CC-11 CULVERT INSTALLED 6/98 OR EARLIER
PROCESS WATER PIPELINE CARRIER PIPE AND CONCRETE ENCASEMENT
TOPSOIL PILE
PROPOSED WASTEWATER DISPOSAL INJECTION WELL
DRAINAGE
TRAILS
POWERLINE CORRIDOR
UNDERGROUND PIPELINE CORRIDOR
NOTE: FOR WELLFIELD PATTERN INSTALLATION SEE PLATE OP-7
R.89W.
SEE APPENDIX 2 AND PLATE C-1 FOR MINOR BOUNDARY CHANGE TO INCLUDE INTO THE PERMIT THAT PORTION OF THE NWL ROAD TO BE USED FOR SITE ACCESS
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MINE UNIT NO.4
MINE UNIT NO.1
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METEOROLOGY MONITORING STATION
PUMP STATION NO. 1
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PUMP STATION NO. 3
NOTE: TOPOGRAPHIC DATA IN THIS AREA PROVIDED BY AML SRK ACCESS ROAD UPGRADED DURING 1998 AML RECLAMATION
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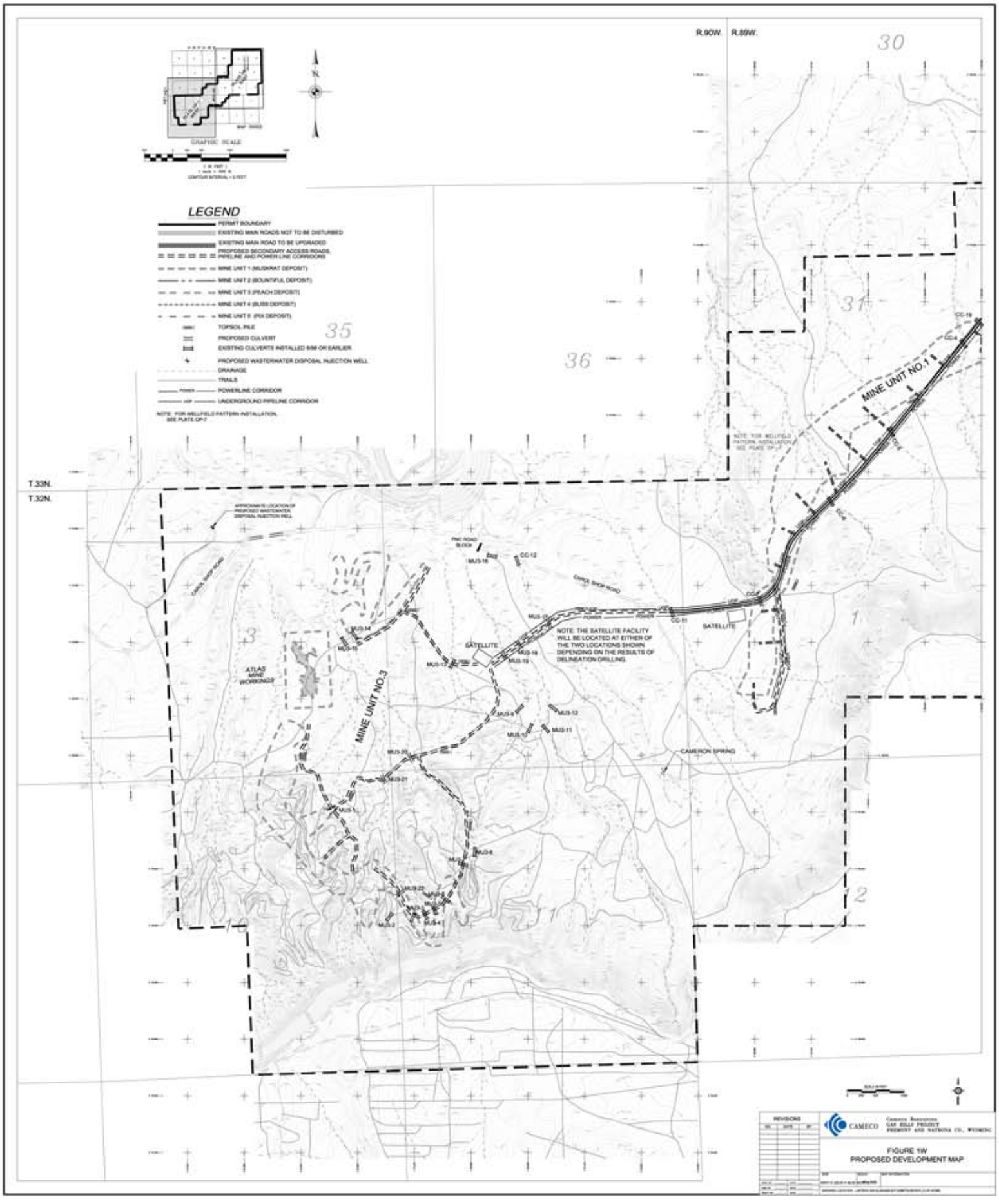
FREMONT AND NATRONA CO., WYOMING
FIGURE 1E
PROPOSED DEVELOPMENT MAP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PROPOSED SECONDARY ACCESS ROADS, PIPELINE AND POWER LINE CORRIDORS
MINE UNIT 1 (MUSKRAT DEPOSIT)
MINE UNIT 2 (BOUNTIFUL DEPOSIT)
MINE UNIT 3 (PEACH DEPOSIT)
MINE UNIT 4 (BUSS DEPOSIT)
MINE UNIT 5 (PIX DEPOSIT)
TOPSOIL PILE
PROPOSED CULVERT
EXISTING CULVERTS INSTALLED 8/88 OR EARLIER
PROPOSED WASTEWATER DISPOSAL INJECTION WELL
DRAINAGE
TRAILS
POWERLINE CORRIDOR
UNDERGROUND PIPELINE CORRIDOR
NOTE: FOR WELLFIELD PATTERN INSTALLATION, SEE PLATE OP-7
GRAPHIC SCALE
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APPROXIMATE LOCATION OF PROPOSED WASTEWATER DISPOSAL INJECTION WELL
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CAMERON SPRING
CASEY SHOP ROAD
PNC ROAD BLOCK
POWER
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MUS-5
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CC-11
CC-12
REVISIONS
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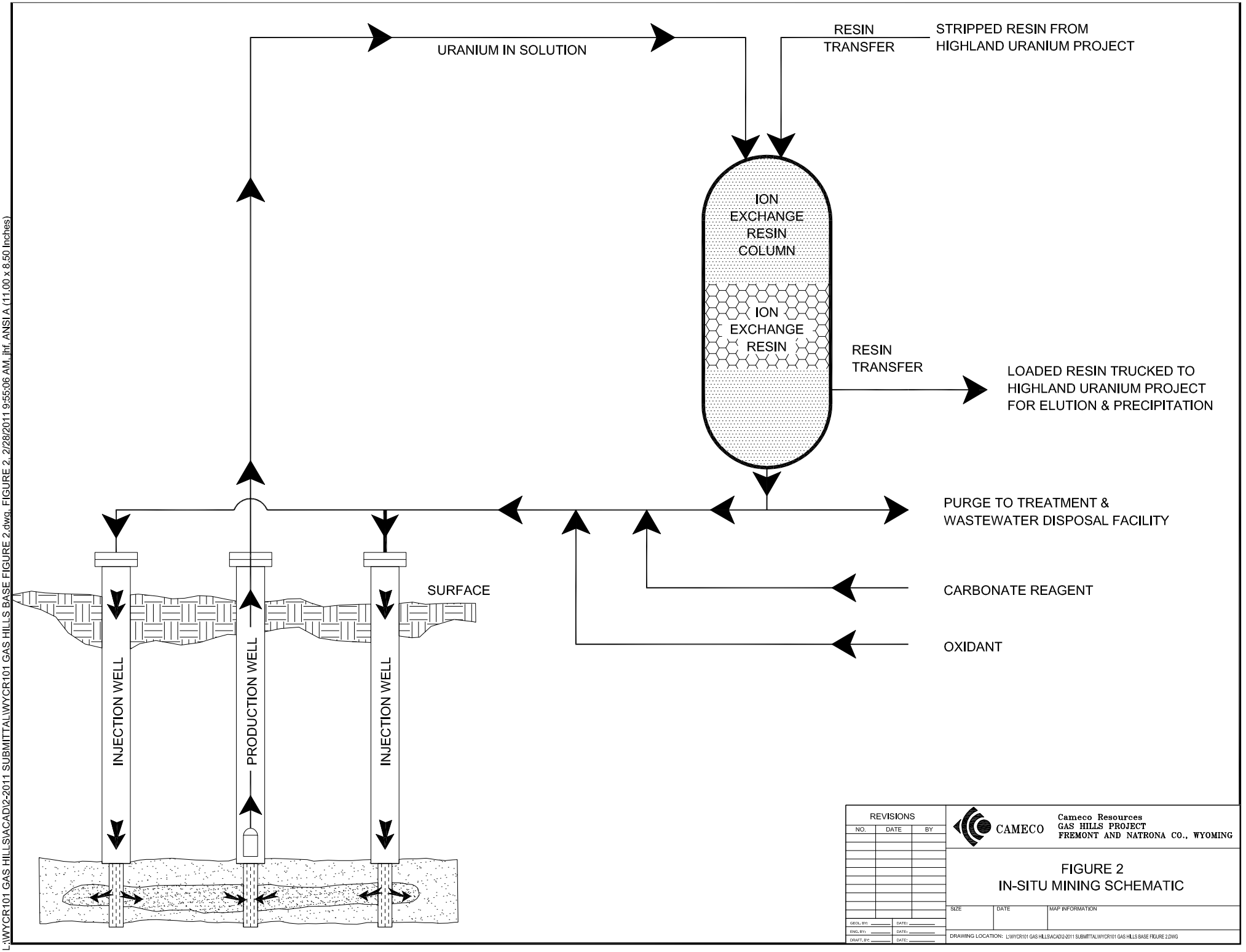
FREMONT AND NATRONA CO., WYOMING
FIGURE 1W
PROPOSED DEVELOPMENT MAP

Figures



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GEOL. BY: DATE:
ENG. BY: DATE:
DRAFT. BY: DATE:

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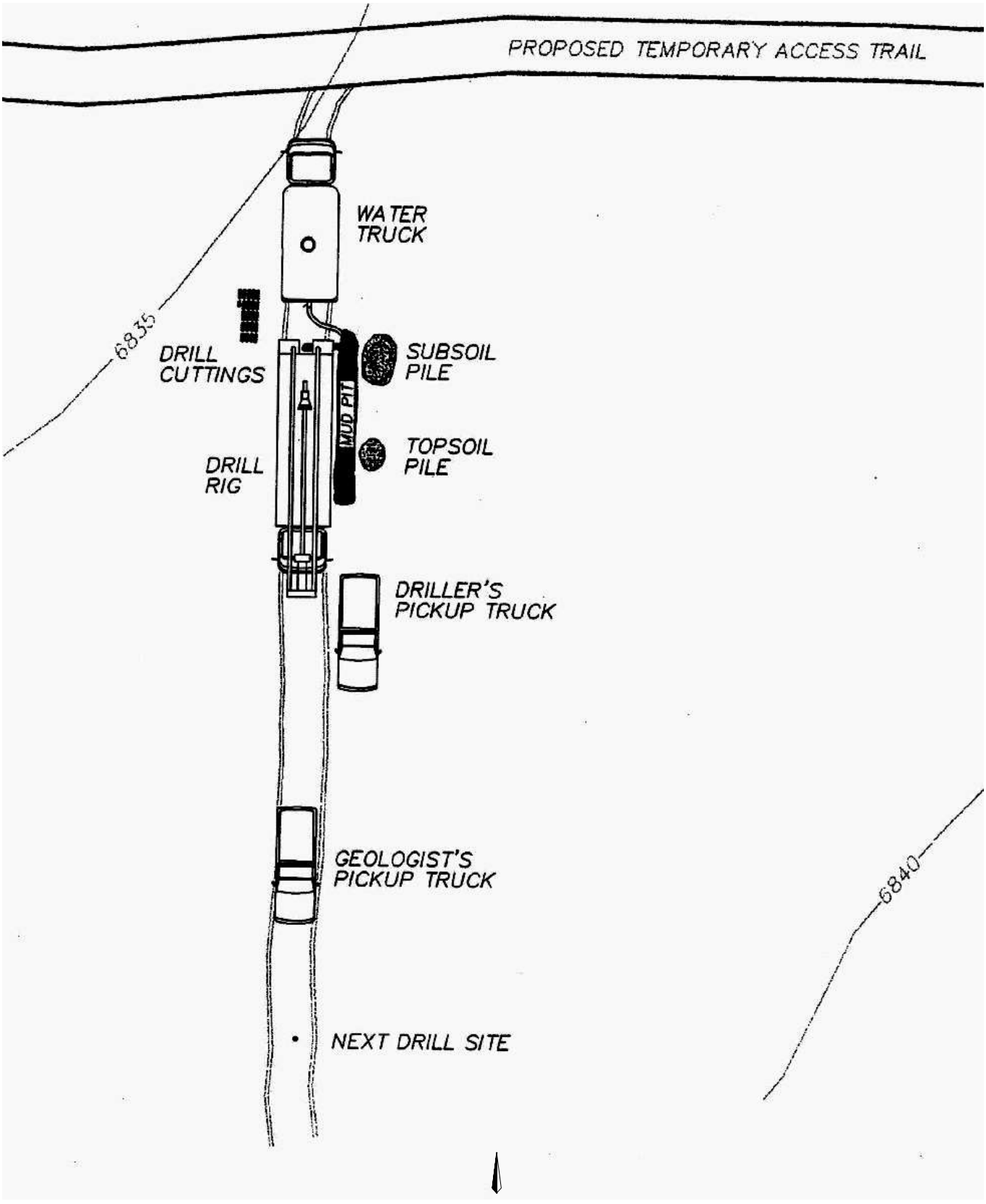
FIGURE 2
IN-SITU MINING SCHEMATIC

SIZE	DATE	MAP INFORMATION

DRAWING LOCATION: L:\WYCR101 GAS HILLS\ACAD\2-2011 SUBMITTAL\WYCR101 GAS HILLS BASE FIGURE 2.DWG

L:\WYCR101 GAS HILLS\ACAD\2-2011 SUBMITTAL\WYCR101 GAS HILLS BASE FIGURE 2.dwg, FIGURE 2, 2/28/2011 9:55:06 AM, ihf, ANSI A (11.00 x 8.50 Inches)



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ENG. BY: _____ DATE: _____
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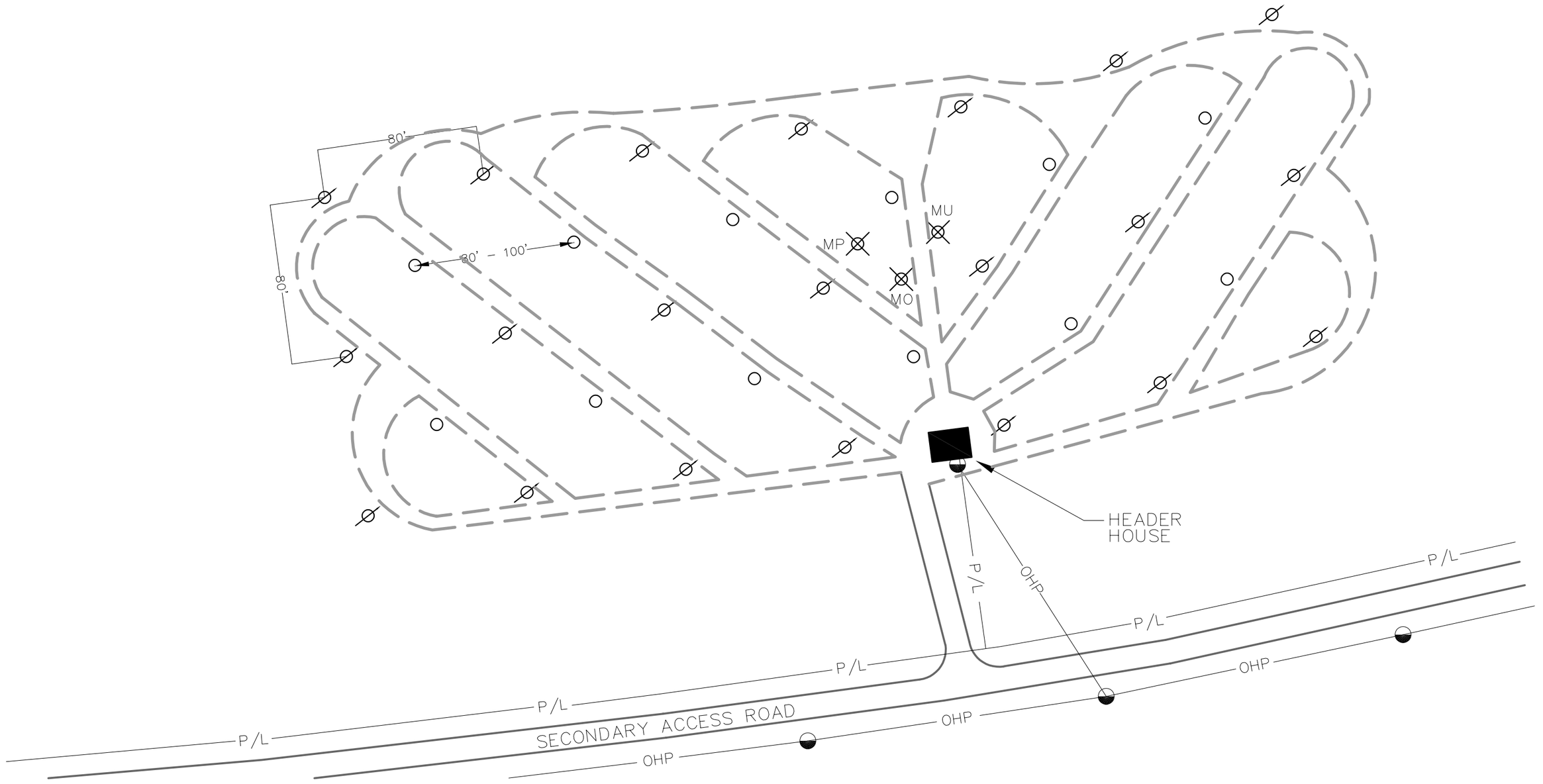
FREMONT AND NATRONA CO., WYOMING

FIGURE 3
TYPICAL DRILL SITE IN RELATIVELY LEVEL TERRAIN

SIZE	SCALE	MAP INFORMATION
8.5X11	NTS	

DRAWING LOCATION: L:\WYCR101 GAS HILLS\ACAD\2-2011 SUBMITTAL\WYCR101 GAS HILLS BASE FIGURE 3-4.DWG



LEGEND

- INJECTOR WELL
- PRODUCER WELL
- MONITOR WELL
- POWER POLE
- OHP — OVERHEAD POWER LINE
- P/L — PIPELINE w/ SIZE
- WELLFIELD TRAILS

50' 0' 50' 100'

SCALE: 1"=50'

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FREMONT AND NATRONA CO., WYOMING

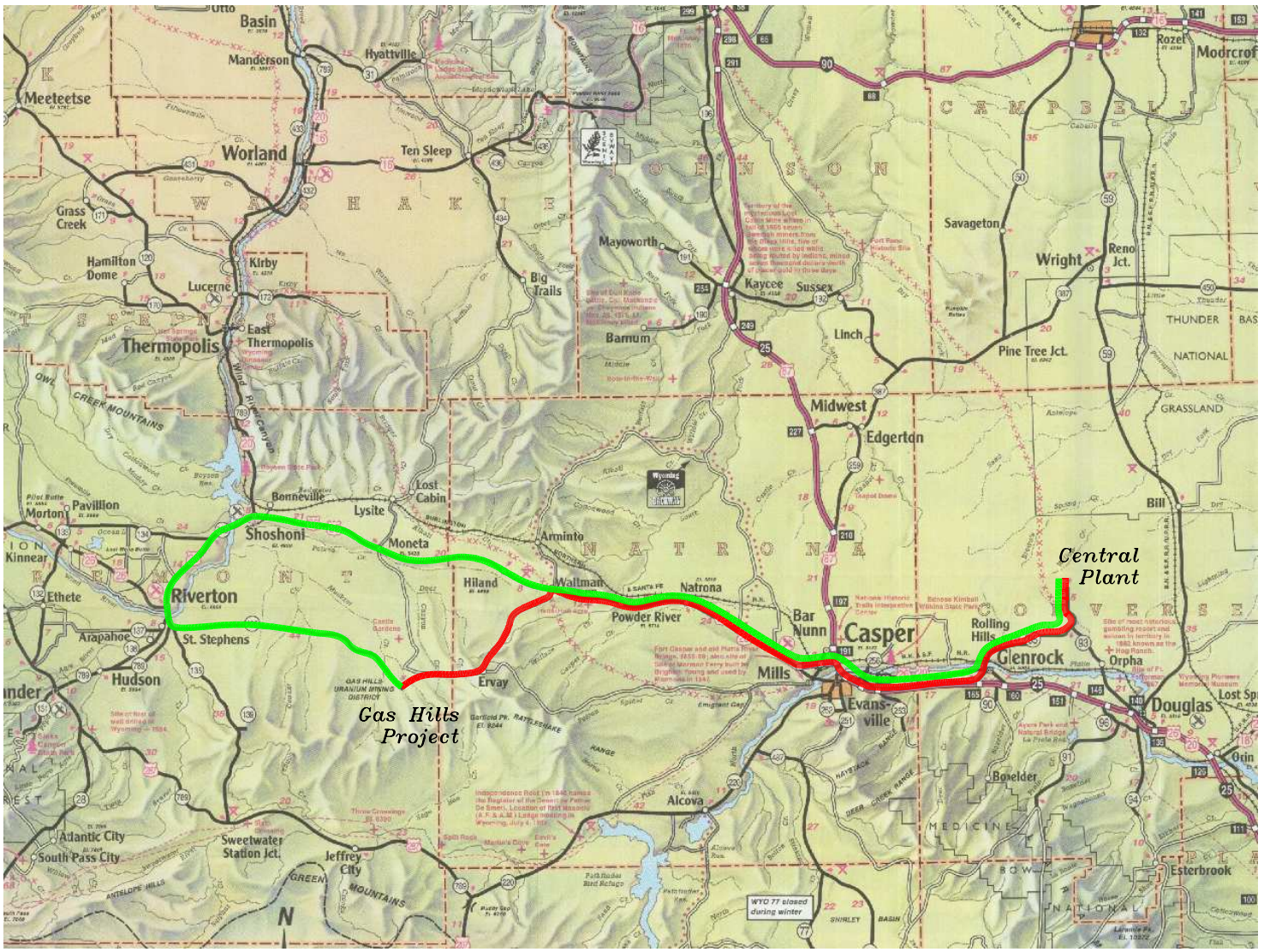
FIGURE 5
TYPICAL WELLFIELD PATTERN INSTALLATION

SIZE	SCALE	MAP INFORMATION
11X17	1" = 50'	0

GEOL. BY: DATE:
ENG. BY: DATE:
DRAFT. BY: DATE:

DRAWING LOCATION: L:\WYCR101 GAS HILLS\ACAD\2-2011 SUBMITTAL\WYCR101 GAS HILLS BASE FIGURE 5.DWG

L:\WYCR101 GAS HILLS\ACAD\2-2011 SUBMITTAL\WYCR101 GAS HILLS BASE FIGURE 5.dwg, FIGURE 5, 2/28/2011 9:55:40 AM, jhf, ANSI B (17.00 x 11.00 Inches)



PRIMARY TRANSPORTATION ROUTE FROM CAROL SHOP TO SRH PROCESSING PLANT VIA CASPER

ALTERNATE TRANSPORTATION ROUTE FROM CAROL SHOP TO SRH PROCESSING PLANT VIA RIVERTON

N

1"=25MI

REVISIONS		
NO.	DATE	BY
	DD	

GEOL. BY: DATE:
ENG. BY: DATE:
DRAFT. BY: DATE:

CAMECO

Cameco Resources
GAS HILLS PROJECT
FREMONT AND NATRONA CO., WYOMING

FIGURE 6
REGIONAL ACCESS & TRANSPORT ROADS

SIZE	DATE	MAP INFORMATION
LETTER	3/1/11	

DRAWING LOCATION:
L:\WYCR101 GAS HILLS\ACAD\2-2011 SUBMITTAL\WYCR101_GASHILLS_CENTRALPLANT_DIRECTIONS.DWG

Attachments

Attachment 1

List of Claims

EXHIBIT A

Attached to and made a part of that certain Claim Maintenance Fee Letter, by Power Resources, Inc., dated August 13, 2007.

	LOCATION			BLM
NAME OF CLAIM	TNSP	RNGE	SEC	SERIAL NO.
Blackstone #11	32N	89W	5,6	WMC 125663
	33N	89W	32	
Blackstone #18	32N	89W	6	WMC 125670
	33N	89W	32	
Blackstone #19	32N	89W	6	WMC 125671
	33N	89W	32	
Blackstone #51	33N	89W	21,22, 27,28	W MC 247423
Blackstone #66	32N	89W	5	WMC 125651
	33N	89W	33	
Blackstone #67	32N	89W	5	WMC 125652
	33N	89W	33	
Bountiful #1	33N	89W	27,28	W MC 247424
Bountiful #1A	33N	89W	27,28	W MC 247425
Bountiful #9	33N	89W	21,22, 27,28	W MC 247428
Bountiful #10	33N	89W	21,22	W MC 247429
BP F 7	32N	89W	6	WMC 101188
	33N	89W	32	
BP F 9	32N	89W	6	WMC 101190
	33N	89W	32	

NAME OF CLAIM	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
BP F 11	32N	89W	6	WMC 101191
	33N	89W	32	
BP F 13	32N	89W	6	WMC 101192
	33N	89W	32	
BP F 15	32N	89W	6	WMC 101193
	33N	89W	32	
BP F 17	32N	89W	5,6	WMC 101194
	33N	89W	32	
BP F 19AM	32N	89W	5	WMC 101195
	33N	89W	32	
Diane No. 5	33N	89W	32,33	W MC 243699
Diane No. 6	32N	89W	5	W MC 243700
	33N	89W	33	
Diane No. 27	32N	89W	5	W MC 243721
	33N	89W	33	
Diane No. 28	32N	89W	4,5	W MC 243722
	33N	89W	33	
Eileen #1	33N	89W	21,22	WMC 246202
Eileen #3	33N	89W	21,22	WMC 246204
Jasper Group #5	32N	89W	6	WMC 123312
	32N	90W	1	
Jasper Group #8	32N	89W	6	WMC 123313
	32N	90W	1	
Muskrat Basin #17	32N	89W	6	WMC 45205
	32N	90W	1	
	33N	89W	31	
Muskrat Basin #18	32N	89W	6	WMC 45206
	33N	89W	31	
Muskrat Basin #19	32N	89W	6	WMC 45207
	33N	89W	31,32	

NAME OF CLAIM	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Muskrat Basin #20	32N 33N	89W 89W	6 31,32	WMC 45208
Muskrat Basin #21	32N 33N	89W 89W	6 31	WMC 45209
Owl	33N	89W	27,28, 33,34	WMC 70054
Pix #1	33N	89W	21,22	WMC 75699
Pix #2	33N	89W	21,22	WMC 75700
Pix #3	33N	89W	21,22	WMC 75701
Stacey No. 3	32N 33N	89W 89W	6 32	WMC 124963
Stacey No. 4	32N 33N	89W 89W	6 32	WMC 124964
Uranium Point #1	33N	89W	33,34	WMC 129655
Uranium Point #2	33N	89W	33,34	WMC 125573
Uranium Point #3	33N	89W	33,34	WMC 70059
Uranium Point #4	33N	89W	33,34	WMC 70060
Uranium Point #5	33N	89W	33,34	WMC 70061

EXHIBIT A

Attached to and made a part of that certain Claim Maintenance Fee Letter, by Power Resources, Inc., dated August 13, 2007.

	LOCATION			BLM
NAME OF CLAIM	TNSP	RNGE	SEC	SERIAL NO.
Betty H 1	32N	90W	10	WMC 68523
Betty H 2	32N	90W	15	WMC 68524
Betty H 3	32N	90W	15	WMC 68525
Betty H 4	32N	90W	15	WMC 68526
Betty H 5	32N	90W	15	WMC 68527
Betty H 6	32N	90W	15	WMC 68528
Betty H 7	32N	90W	15	WMC 68529
Betty H 8	32N	90W	15	WMC 68530
Betty H 9	32N	90W	15	WMC 68531
Betty H 10	32N	90W	15	WMC 68532
Betty H 11	32N	90W	15	WMC 68533
Betty H 12	32N	90W	10	WMC 68534
Betty H 13	32N	90W	10	WMC 68535
Betty H 14	32N	90W	15	WMC 68536
Betty H 15	32N	90W	15	WMC 68537
Betty H 16	32N	90W	15	WMC 68538
Betty H 17	32N	90W	15	WMC 68539
Betty H 18	32N	90W	15	WMC 68540
Betty H 19	32N	90W	15	WMC 68541
Betty H 20	32N	90W	10, 11	WMC 68542
Betty H 21	32N	90W	10, 11	WMC 68543
Betty H 22	32N	90W	10, 11	WMC 68544
Hank H. 3	32N	90W	10	WMC 68519
Hank H. 4	32N	90W	10	WMC 68520
Hank H. 5	32N	90W	10	WMC 68521
Hank H. 6	32N	90W	10	WMC 68522
H-M 1	32N	90W	10	WMC 68504
H-M 2	32N	90W	10	WMC 68505
H-M 3	32N	90W	10	WMC 68506
H-M 4	32N	90W	10	WMC 68507
H-M 5	32N	90W	10	WMC 68508
H-M 6	32N	90W	10	WMC 68509
H-M 7	32N	90W	10	WMC 68510
H-M 8	32N	90W	10, 11	WMC 68511
H-M 9	32N	90W	10, 11	WMC 68512
H-M 10	32N	90W	11	WMC 68513
H-M 11	32N	90W	11	WMC 68514
H-M 12	32N	90W	11	WMC 68515
H-M 13	32N	90W	11	WMC 68516

NAME OF CLAIM	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
H-M 14	32N	90W	11, 12	WMC 68517
H-M 15	32N	90W	11, 12	WMC 68518
H-bow 3	32N	90W	11	WMC 68606
H-bow 4	32N	90W	11	WMC 68607
H-bow 5	32N	90W	11	WMC 68608
H-bow 6	32N	90W	11	WMC 68609
H-bow 7	32N	90W	2, 11	WMC 68610
H-bow 8	32N	90W	2	WMC 68611
H-bow 9AM	32N	90W	11	WMC 68612
J.A.F. No. 1 Fraction	32N	90W	3	WMC 68703
J.A.F. No. 2 Fraction	32N	90W	3	WMC 68704
Maverick 1	32N	90W	10	WMC 68503
Opal 1	32N	90W	11	WMC 68547
Opal 2	32N	90W	11	WMC 68548
Opal 3	32N	90W	11, 12	WMC 68549
Opal 4	32N	90W	11	WMC 68550
Opal 5	32N	90W	11	WMC 68551
Opal 6	32N	90W	11, 12	WMC 68552
Opal 7	32N	90W	11	WMC 68553
Opal 8	32N	90W	11	WMC 68554
Opal 9	32N	90W	11, 12	WMC 68555
Opal 10	32N	90W	14, 15	WMC 68556
Opal 11	32N	90W	14	WMC 68557
Opal 12	32N	90W	14	WMC 68558
Opal 13	32N	90W	13, 14	WMC 68559
Opal 14	32N	90W	14, 15	WMC 68560
Opal 15	32N	90W	14	WMC 68561
Opal 16	32N	90W	14	WMC 68562
Opal 17	32N	90W	13, 14	WMC 68563
Opal 18	32N	90W	14, 15	WMC 68564
Opal 19	32N	90W	14	WMC 68565
Opal 20AM	32N	90W	14	WMC 68566
Opal 21	32N	90W	13, 14	WMC 68567
Opal 22	32N	90W	14, 15	WMC 68568
Opal 23	32N	90W	14	WMC 68569
Opal 24	32N	90W	14	WMC 68570
Opal 25	32N	90W	13, 14	WMC 68571
Opal 26	32N	90W	14, 15	WMC 68572
Opal 27	32N	90W	14	WMC 68573
Opal 28	32N	90W	14	WMC 68574
Opal 29	32N	90W	13, 14	WMC 68575
Opal 30	32N	90W	15	WMC 68576
Opal 31	32N	90W	14, 15	WMC 68577
Opal 32	32N	90W	14	WMC 68578
Opal 33	32N	90W	14	WMC 68579

NAME OF CLAIM	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Opal 34	32N	90W	13, 14	WMC 68580
Opal 35	32N	90W	15	WMC 68581
Opal 36	32N	90W	14, 15	WMC 68582
Opal 37	32N	90W	14	WMC 68583
Opal 38	32N	90W	14	WMC 68584
Opal 39	32N	90W	13, 14	WMC 68585
P. C. H. 1	32N	90W	2	WMC 68620
P. C. H. 2	32N	90W	2, 11	WMC 68621
P. C. H. 3	32N	90W	11	WMC 68622
P. C. H. 4	32N	90W	11	WMC 68623
P. C. H. 5	32N	90W	10, 11	WMC 68624
P. C. H. 6	32N	90W	10	WMC 68625
P. C. H. 7	32N	90W	10	WMC 68626
P. C. H. 8	32N	90W	10	WMC 68627
P. C. H. 10	32N	90W	10	WMC 68628
P. C. H. 11	32N	90W	10, 11	WMC 68629
P. C. H. 12	32N	90W	10	WMC 68630
P. C. H. 13	32N	90W	10	WMC 68631
P. C. H. 14	32N	90W	3, 10	WMC 68632
P. C. H. 15	32N	90W	3, 10	WMC 68633
Peach 1	32N	90W	2, 3	WMC 68586
Peach 2	32N	90W	2, 3	WMC 68587
Peach 3	32N	90W	2, 3	WMC 68588
Peach 4	32N	90W	2, 3	WMC 68589
Peach 5	32N	90W	2, 3	WMC 68590
Peach 6	32N	90W	2, 3	WMC 68591
Peach 7	32N	90W	2, 3	WMC 68592
Peach 8	32N	90W	2, 3, 10, 11	WMC 68593
Peach 9	32N	90W	3	WMC 68594
Peach 10	32N	90W	3	WMC 68595
Peach 11	32N	90W	3	WMC 68596
Peach 12	32N	90W	3	WMC 68597
Peach 13	32N	90W	3	WMC 68598
Peach 14	32N	90W	3	WMC 68599
Peach 15	32N	90W	3	WMC 68600
Peach 16	32N	90W	3, 10	WMC 68601
Peach 33	32N	90W	2	WMC 68602
Peach 34AM	32N	90W	2	WMC 68603
Peach 46AM	32N	90W	10, 11	WMC 68604
Peach 53AM	32N	90W	10	WMC 68605
Peach Fraction 1	32N	90W	10, 11	WMC 68501
Peach Fraction 2	32N	90W	10	WMC 68502
Pete 1AM-2	32N	90W	15, 16	WMC 68545
Pete 2AM	32N	90W	15	WMC 68546
Pete 3AM	32N	90W	10	WMC 68634

NAME OF CLAIM	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Pete 4	32N	90W	10	WMC 68635
Pete 5	32N	90W	11	WMC 68636
Pete 6	32N	90W	11	WMC 68637
Pete 7	32N	90W	11, 12	WMC 68638
Pete 8	32N	90W	10	WMC 68639
Peach Strip 1	32N	90W	2, 3	WMC 983
R. Scott 1AM	32N	90W	2, 11	WMC 68702
R. Scott 2	32N	90W	2	WMC 218047

EXHIBIT A

Attached to and made a part of that certain Claim Maintenance Fee Letter, by Power Resources, Inc., dated August 13, 2007.

	LOCATION			BLM
NAME OF CLAIM	TNSP	RNGE	SEC	SERIAL NO.
A-1	33N	89W	22	WMC 70043
A-2	33N	89W	22	WMC 75710
Bar-4	33N	89W	22	WMC 70750
Blackstone #68	32N	89W	5	WMC 125653
BP E 7AM	32N	89W	6	WMC 92003
BP E 9AM	32N	89W	6	WMC 101182
BP E 11AM	32N	89W	6	WMC 101184
BP E 13AM	32N	89W	6	WMC 101185
BP E 15AM	32N	89W	5,6	WMC 101186
BP F 8	32N	89W	6	WMC 101189
BP F 10AM	32N	89W	6	WMC 92005
BP F 12AM	32N	89W	6	WMC 92006
BP F 14AM	32N	89W	6	WMC 92007
BP F 16AM	32N	89W	6	WMC 92008
BP F 18AM	32N	89W	5,6	WMC 92009
BP F 20AM-2	32N	89W	5	WMC 101196
Buss #1	33N	89W	27	W MC 247430
Buss #2	33N	89W	27	W MC 247431
Buss #3	33N	89W	27	W MC 247432
Buss #4	33N	89W	27	W MC 247433
Buss #5	33N	89W	27	WMC 22045
Buss #6	33N	89W	27,34	WMC 54691
Buss #7	33N	89W	34	WMC 58757
Buss #8	33N	89W	27,34	WMC 54692
Buss #9	33N	89W	34	WMC 58758
Buss #10	33N	89W	27	W MC 247434
Buss #11	33N	89W	27	W MC 247435
Buss #12	33N	89W	27	W MC 247436
Buss #13	33N	89W	27	W MC 247437
Buss #14	33N	89W	27,34	WMC 22050

NAME OF CLAIM	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Buss #15	33N	89W	34	WMC 58759
Buss #16	33N	89W	34	WMC 54693
Buss #17	33N	89W	34	WMC 54694
Buss #18	33N	89W	34	WMC 54695
Buss #19	33N	89W	34	WMC 138794
Buss #20	33N	89W	34	WMC 54696
Cap #1	33N	89W	27	W MC 247438
Cap #2	33N	89W	27	W MC 247439
Cap #3	33N	89W	27	W MC 247440
Dawn #4	32N	89W	6	W MC 243652
Dawn #7	32N	89W	6	W MC 243655
Dawn #10	32N	89W	6	W MC 243658
Dawn #15	32N	89W	6	W MC 243663
Diane No. 7	32N	89W	5	W MC 243701
Diane No. 8	32N	89W	5	W MC 243702
Diane No. 9	32N	89W	5	W MC 243703
Diane No. 10	32N	89W	5	W MC 243704
Diane No. 11	32N	89W	5	W MC 291639
Diane No. 29	32N	89W	5	W MC 243723
Diane No. 31	32N	89W	5	W MC 243725
Diane No. 47	33N	89W	34	W MC 243741
Diane No. 48	33N	89W	34	W MC 243742
Diane No. 49	33N	89W	34	W MC 243743
Diane No. 50	33N	89W	34	W MC 243744
Diane No. 51	33N	89W	34	W MC 243745
Diane No. 52	33N	89W	34	W MC 243746
Diane No. 53	32N	89W	4	W MC 243747
	33N	89W	34	
Diane No. 54	32N	89W	4	W MC 243748
	33N	89W	34	
Diane No. 74	33N	89W	34	W MC 243768
Diane No. 76	33N	89W	34	W MC 243770
Diane No. 78	33N	89W	34	W MC 243772
Diane No. 80	33N	89W	34	W MC 243774
Diane No. 82	32N	89W	3,4	W MC 243776
	33N	89W	34	

NAME OF CLAIM	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Diane No. 196	32N	89W	6	W MC 254434
Eileen #2	33N	89W	22	WMC 246203
Eileen #4	33N	89W	22	WMC 246205
Federal #3	33N	89W	27	W MC 247448
Federal #4	33N	89W	27	WMC 22058
Federal #5	33N	89W	34	WMC 125584
Federal #6	33N	89W	34	WMC 129654
	32N	89W	4	
Federal #14	33N	89W	34	WMC 120088
Federal #15	33N	89W	34	WMC 120089
Federal #16	33N	89W	34	WMC 120090
Federal #17	33N	89W	34,35	WMC 120091
Federal #22	33N	89W	27,34, 35	WMC 120096
Federal #23	33N	89W	26,27, 34,35	WMC 120097
Federal #28	33N	89W	26,27	WMC 120102
Iota	33N	89W	27	W MC 247462
Jack #1	33N	89W	27	W MC 247463
Jack #2	33N	89W	27	W MC 247464
Jackneese #9	33N	89W	22	W MC 247466
Jackneese #10	33N	89W	22	W MC 247467
Jackneese #11	33N	89W	22,27	W MC 247468
Jackneese #12	33N	89W	27	W MC 247469
Jasper Group #6	32N	89W	6	WMC 125642
Jasper Group #7	32N	89W	6	WMC 125643
Jasper Group #13	32N	89W	6	WMC 125644
Koko #1	33N	89W	22,23	W MC 247470
Koko #6	33N	89W	22	W MC 247471
Koko #7	33N	89W	22,23	W MC 247472
Koko #8	33N	89W	22,23	W MC 247473
Koko #10	33N	89W	22	W MC 247474
Koko #11	33N	89W	22	WMC 74932
Mars "A" No. 1	33N	89W	22,27	W MC 247475
Mars "A" No. 2	33N	89W	22,27	WMC 124903
Pat #1	33N	89W	22	W MC 247476
Pat #2	33N	89W	22	W MC 247477

NAME OF CLAIM	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Pat #3	33N	89W	22,27	W MC 247478
Pat #4	33N	89W	22,23	WMC 58435
Pat #5	33N	89W	22	W MC 247479
Pat #6	33N	89W	22	W MC 247480
Pat #7	33N	89W	22,27	W MC 247481
Pat #8	33N	89W	27	W MC 247482
Peppy 2	33N	89W	26,27	WMC 74934
Peppy #3	33N	89W	27	W MC 247483
Peppy 4	33N	89W	26,27	WMC 74936
Pine No. 1	33N	89W	27	W MC 247484
Pit 9	33N	89W	22	WMC 75707
Pix 4	33N	89W	22	WMC 75702
Pix 5	33N	89W	22	WMC 75703
Pix 6	33N	89W	22	WMC 75704
Pix 7	33N	89W	22	WMC 75705
Pix 8	33N	89W	22	WMC 75706
Russ #1	33N	89W	26,27	WMC 54697
Russ #2	33N	89W	26,27	WMC 58760
Russ #3	33N	89W	26,27	WMC 58761
Russ #4	33N	89W	27	W MC 247485
Russ #5	33N	89W	27	W MC 247486
Russ #6	33N	89W	27	W MC 247487
Russ #7	33N	89W	27	W MC 247488
Russ #8	33N	89W	27	W MC 247489
Russ #9	33N	89W	27	W MC 247490
Russ #10	33N	89W	27	W MC 247491
Russ #11	33N	89W	27	WMC 22056
Sun No. 1	33N	89W	26,27	WMC 138795
Tee No. 1	33N	89W	14,15, 22,23	W MC 247492
Tee No. 2	33N	89W	22,23	W MC 247493
Tee No. 3	33N	89W	22,23	W MC 247494
Tee No. 4	33N	89W	22,23	W MC 247495
Uranus 1	33N	89W	22,27	W MC 247496
Uranus 2	33N	89W	27	WMC 247497

EXHIBIT A

Attached to and made a part of that certain Claim Maintenance Fee Letter, by Power Resources, Inc., dated August 13, 2007

NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Arm #1	32N	90W	2	WMC 70055
	33N	90W	36	
Arm #2	32N	90W	1,2	WMC 70056
	33N	89W	31	
	33N	90W	36	
Arm #3	33N	89W	31	WMC 70057
	33N	90W	36	
Arm #4	33N	89W	31	WMC 70058
	33N	90W	36	
Beaver 3AM	33N	89W	32	WMC 54698
Blackstone #4	33N	89W	29	WMC 126142
Blackstone #5	33N	89W	29,32	WMC 125657
Blackstone #6	33N	89W	32	WMC 125658
Blackstone #7	33N	89W	32	WMC 125659
Blackstone #8	33N	89W	32	WMC 125660
Blackstone #9	33N	89W	32	WMC 125661
Blackstone #10	33N	89W	32	WMC 125662
Blackstone #12	33N	89W	32	WMC 125664
Blackstone #13	33N	89W	32	WMC 125665
Blackstone #14	33N	89W	29	WMC 125666
Blackstone #15	33N	89W	29	WMC 125667
Blackstone #16	33N	89W	29	WMC 125668
Blackstone #17	33N	89W	29	WMC 125669
Blackstone #20	33N	89W	28	WMC 125672
Blackstone #21	33N	89W	28	WMC 125673
Blackstone #22	33N	89W	20,21, 28,29	WMC 125674
Blackstone #23	33N	89W	28	WMC 125675
Blackstone #24	33N	89W	32	WMC 125676
Blackstone #25	33N	89W	32	WMC 125677
Blackstone #26	33N	89W	32	WMC 125645

NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Blackstone #27	33N	89W	32	WMC 125678
Blackstone #28	33N	89W	29,32	WMC 125679
Blackstone #29	33N	89W	29,32	WMC 125680
Blackstone #30	33N	89W	29,32	WMC 125681
Blackstone #32	33N	89W	29	WMC 125682
Blackstone #33	33N	89W	29	WMC 125683
Blackstone #35	33N	89W	20,21, 28,29	WMC 125685
Blackstone #36	33N	89W	28,29	WMC 125686
Blackstone #37	33N	89W	28,29	WMC 125687
Blackstone #48	33N	89W	29	WMC 125689
Blackstone #49	33N	89W	29	WMC 125690
Blackstone #58	33N	89W	20,29	WMC 125693
Blackstone #59	33N	89W	20,29	WMC 126212
Blackstone #60	33N	89W	32,33	WMC 125648
Blackstone #61	33N	89W	32,33	WMC 125649
Blackstone #65	33N	89W	33	WMC 125650
Bonnie No. 10	32N	90W	10	WMC 251250
Bonnie No. 11	32N	90W	10	WMC 251251
Bonnie No. 12	32N	90W	3, 10	WMC 251252
Bonnie No. 13	32N	90W	3	WMC 251253
Bonnie No. 14	32N	90W	3	WMC 251254
Bonnie No. 15	32N	90W	3	WMC 251255
Bonnie No. 16	32N	90W	3, 10	WMC 251256
Bonnie No. 17	32N	90W	10	WMC 251257
Bonnie No. 18	32N	90W	3	WMC 251258
Bonnie No. 19	32N	90W	3	WMC 251259
Bonnie No. 20AM	32N	90W	3	WMC 251260
Bonnie No. 21	32N	90W	3	WMC 251261
Bonnie No. 22	32N	90W	3	WMC 251262
Bountiful #2	33N	89W	28	WMC 247426
Bountiful #2a	33N	89W	28	WMC 247427
Bountiful #3	33N	89W	32	WMC 125592
Bountiful #4	33N	89W	32	WMC 125593

NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Bountiful #5	33N	89W	32	WMC 125594
Bountiful #6	33N	89W	32	WMC 125595
Bountiful #7	33N	89W	29,32	WMC 125596
Bountiful #8	33N	89W	29	WMC 125597
Bull 1	33N	89W	21	WMC 125605
Carol #4	33N	89W	28	WMC 247441
Carol #5	33N	89W	28	WMC 247442
Carol #6	33N	89W	28	WMC 70102
Carol #7	33N	89W	28	WMC 247443
Carol #8	33N	89W	28	WMC 247444
Carol #9	33N	89W	28	WMC 247445
Carol #10	33N	89W	28	WMC 70106
Carol #11	33N	89W	28	WMC 70107
Carol #12	33N	89W	28	WMC 247446
Carol #13	33N	89W	28	WMC 247447
Carol Mill Site no. 1	33N	89W	28	WMC 247515
Carol Mill Site no. 2	33N	89W	28	WMC 247516
Carol Mill Site no. 3	33N	89W	28	WMC 247517
Carol Mill Site no. 4	33N	89W	28	WMC 247518
Carol Mill Site no. 5	33N	89W	28	WMC 247519
Carol Mill Site no. 6	33N	89W	28	WMC 247520
Dawn #1	32N	90W	1	WMC 243649
Dawn #2	32N	90W	1	WMC 243650
Dawn #3	32N	90W	1	WMC 243651
Dawn #5	32N	90W	1	WMC 243653
Dawn #6	32N	90W	1	WMC 243654
Dawn #8	32N	90W	1	WMC 243656
Dawn #9	32N	90W	1	WMC 243657
Dawn #11	32N	90W	1	WMC 243659
Dawn #12	32N	90W	1	WMC 243660
Dawn #13	32N	90W	1	WMC 243661
Dawn #14	32N	90W	1	WMC 243662
Dawn #16	32N	90W	12	WMC 243664

NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Dawn #17	32N	90W	12	WMC 243665
Dawn #18	32N	90W	12	WMC 243666
Dawn #20	32N	90W	12	WMC 243668
Dawn #21	32N	90W	12	WMC 243669
Dawn #22	32N	90W	12	WMC 243670
Dawn #24	32N	90W	11	WMC 243672
Dawn #25	32N	90W	11	WMC 243673
Dawn #26	32N	90W	12	WMC 243674
Dawn #27	32N	90W	12	WMC 243675
Dawn #29	32N	90W	11	WMC 243677
Dawn #30	32N	90W	12	WMC 243678
Dawn #31	32N	90W	12	WMC 243679
Dawn #32	32N	90W	12	WMC 243680
Dawn #34	32N	90W	12	WMC 243682
Dawn #35	32N	90W	12	WMC 243683
Dawn #36	32N	90W	12	WMC 243684
Dawn #37	32N	90W	12	WMC 243685
Dawn #38	32N	90W	12	WMC 243686
Dawn #39	32N	90W	12	WMC 243687
Dawn #40	32N	90W	12	WMC 243688
Dawn #43	32N	90W	12	WMC 243691
Dawn #45	32N	90W	12, 13	WMC 243693
Dawn #47	32N	90W	1	WMC 254432
Dawn #48	32N	90W	1	WMC 254433
Deseret X	33N	89W	21	WMC 197935
Diane No. 25	33N	89W	33	WMC 243719
Diane No. 26	33N	89W	33	WMC 243720
Dot	33N	89W	21	WMC 125606
Dot 3	33N	89W	21	WMC 125607
Eileen #5AM	33N	89W	21	WMC 246803
Grace #1	33N	89W	28	WMC 247449
Grace #2	33N	89W	28	WMC 247450
Grace #2A	33N	89W	28	WMC 247451

NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Grace #3	33N	89W	28	WMC 247452
Grace #3A	33N	89W	28	WMC 247453
Grace "A" #4	33N	89W	28	WMC 247454
Grace "A" #5	33N	89W	28	WMC 247455
Grace "A" #7	33N	89W	28	WMC 247456
Grace "A" #8	33N	89W	28	WMC 247457
Grace "A" #9	33N	89W	28	WMC 247458
Grace "A" #12	33N	89W	28	WMC 247459
Grace "A" #13	33N	89W	28	WMC 247460
Grace "A" 14	33N	89W	21,28	WMC 125550
Grace "A" 15	33N	89W	20,21	WMC 125551
Grace "A" 16	33N	89W	20	WMC 125552
Grace "A" 17	33N	89W	21	WMC 125553
Grace "A" 18	33N	89W	21	WMC 125554
Grace "A" 19	33N	89W	21	WMC 125555
Grace "A" 20	33N	89W	21	WMC 125556
Grace "A" 21	33N	89W	21	WMC 125557
Grace "A" 22	33N	89W	21,28	WMC 125558
Grace "A" 23	33N	89W	21,28	WMC 125559
Grace "A" 24	33N	89W	21,28	WMC 125560
Grace "A" 25	33N	89W	21,28	WMC 125561
Grace "A" 26	33N	89W	28,33	WMC 125562
Grace "A" #27	33N	89W	28	WMC 247461
Grace "A" 28	33N	89W	20,21	WMC 125564
Grace "A" 29	33N	89W	21	WMC 125565
Ground Hog	33N	89W	21,28	WMC 70053
Gunnel Group #12	33N	90W	25	WMC 70098
Hawk No. 1	33N	89W	31,32	WMC 123304
Hawk No. 2	33N	89W	31	WMC 123305
Hawk No. 3	33N	89W	31	WMC 123306
Islet	33N	89W	21	WMC 202003
Jackneese #1	33N	89W	21	WMC 125541
Jackneese #2	33N	89W	21	WMC 125542

NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Jackneese #3	33N	89W	21,28	WMC 247465
Jackneese #5	33N	89W	21	WMC 125544
Jackneese #6	33N	89W	21	WMC 125545
Jasper Group #1	32N	90W	1	WMC 123308
Jasper Group #2	32N	90W	1	WMC 123309
Jasper Group #3	32N	90W	1	WMC 123310
Jasper Group #4	32N	90W	1	WMC 123311
Jasper Group #9	32N	90W	1	WMC 123314
Jasper Group #10	32N	90W	1	WMC 123315
Jasper Group #11	32N	90W	1	WMC 123316
Jasper Group #12	32N	90W	1	WMC 123317
Jasper Group #14	32N	90W	1	WMC 123429
Jasper Group #15	32N	90W	1	WMC 123318
Jasper Group #16	32N	90W	12	WMC 123319
Jasper Group #17	32N	90W	12	WMC 123320
Jasper Group #18	32N	90W	12	WMC 123321
Jasper Group #19	32N	90W	12	WMC 123322
Jessie	33N	89W	21,28	WMC 70052
Muskrat Basin 1	32N	90W	2	WMC 49709
Muskrat Basin #2	32N	90W	2	WMC 45194
Muskrat Basin #3	32N	90W	2	WMC 45195
Muskrat Basin #4	32N	90W	2	WMC 45196
Muskrat Basin #5	32N	90W	2	WMC 45197
Muskrat Basin #6	32N	90W	2	WMC 45198
Muskrat Basin #7	32N	90W	2	WMC 45199
Muskrat Basin #8	32N	90W	1,2	WMC 45200
Muskrat Basin 9	32N	90W	1	WMC 49710
Muskrat Basin 10	32N	90W	1	WMC 49711
Muskrat Basin 11	32N	90W	1	WMC 25300
Muskrat Basin 12	32N	90W	1	WMC 25301
Muskrat Basin #13	32N	90W	1	WMC 45201
Muskrat Basin #14	32N	90W	1	WMC 45202

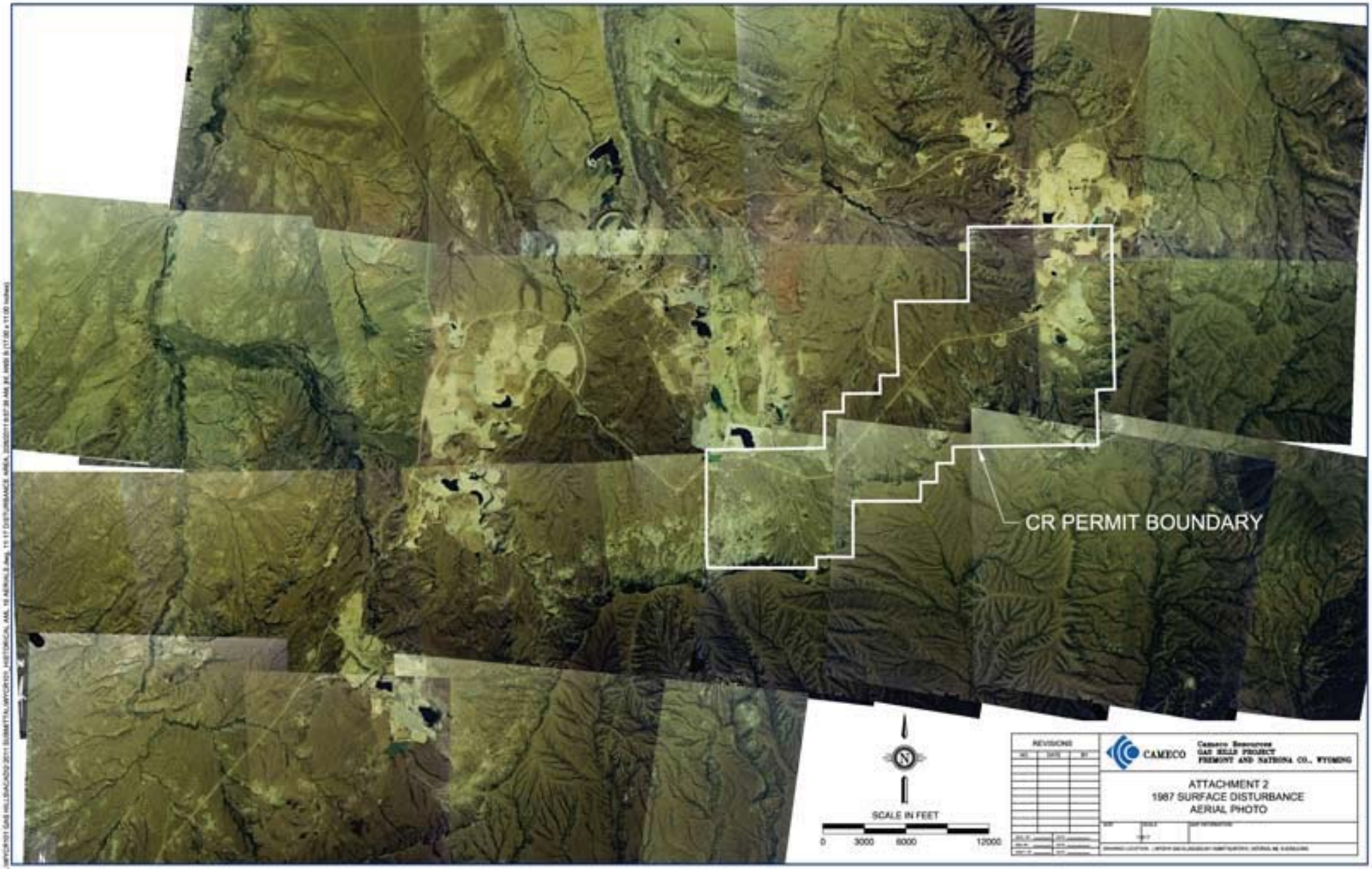
NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Muskrat Basin #15	32N	90W	1	WMC 45203
	33N	89W	31	
Muskrat Basin #16	32N	90W	1	WMC 45204
	33N	89W	31	
Muskrat Basin #22	33N	89W	31	WMC 45210
Muskrat Basin #23	33N	89W	31	WMC 45211
Muskrat Basin 24	33N	89W	31	WMC 25302
Muskrat Basin 25	33N	89W	31	WMC 25303
	32N	90W	1	
Muskrat Basin 26	33N	89W	31	WMC 25304
	32N	90W	1	
Muskrat Basin 27	33N	89W	31	WMC 25305
	32N	90W	1	
Muskrat Basin 28	33N	89W	31	WMC 25306
	32N	90W	1	
Muskrat Basin 29	33N	89W	31	WMC 49712
	32N	90W	1	
Muskrat Basin #30	33N	89W	31	WMC 45212
Muskrat Basin #31	33N	89W	31	WMC 45213
Muskrat Basin #32	33N	89W	31	WMC 45214
Muskrat Basin 33	33N	89W	31	WMC 25307
Muskrat Basin 34	33N	89W	31	WMC 25308
Muskrat Basin 35	33N	89W	31	WMC 25309
Muskrat Basin 36	33N	89W	31	WMC 25310
Muskrat Basin 37	33N	89W	31	WMC 25311
Muskrat Basin 38	33N	89W	31	WMC 25312
Muskrat Basin 39	33N	89W	31,32	WMC 25313
Muskrat Basin 40	33N	89W	32	WMC 25314
Muskrat Basin 41	33N	89W	32	WMC 25315
Muskrat Basin #42	32N	90W	2	WMC 45215
Muskrat Basin #43	32N	90W	2	WMC 45216
Muskrat Basin #44	32N	90W	2	WMC 45217
Muskrat Basin #45	32N	90W	2	WMC 45218
Muskrat Basin #46	32N	90W	2	WMC 45219
Muskrat Basin #47	32N	90W	2	WMC 45220

NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Muskrat Basin #48	32N	90W	2	WMC 45221
Muskrat Basin #49	32N	90W	1,2	WMC 45222
Muskrat Basin #50	32N	90W	1	WMC 45223
Muskrat Basin #51	32N	90W	2	WMC 45224
Muskrat Basin #52	32N	90W	2	WMC 45225
Muskrat Basin #53	32N	90W	2	WMC 45226
Muskrat Basin #55-A	32N	90W	2	WMC 45227
Muskrat Basin #58	32N	90W	1,2	WMC 45228
Muskrat Basin #59	32N	90W	1	WMC 45229
Quirk	32N	90W	1	WMC 198023
S-W 1	33N	89W	31,32	WMC 63814
S-W 2	33N	89W	31,32	WMC 63815
S-W 3	33N	89W	31,32	WMC 63816
S-W 4	33N	89W	29,30, 31,32	WMC 63817
S-W 5	33N	89W	29,30	WMC 63818
S-W 11	33N	89W	31	WMC 63822
S-W 12	33N	89W	31	WMC 63823
S-W 21	33N	89W	29,32	WMC 63831
S-W 22	33N	89W	32	WMC 63832
Stacey No. 1	33N	89W	32	WMC 124961
Stacey No. 2	33N	89W	32	WMC 124962
Thunderbird #2	33N	89W	21	WMC 125608
Thunderbird #3	33N	89W	21	WMC 125609
Thunderbird #30	33N	89W	21	WMC 125610
Uranium Point #8	33N	89W	33	WMC 125574
Uranium Point #9	33N	89W	33	WMC 125575
Uranium Point #10	33N	89W	32,33	WMC 70062
Uranium Point #11	33N	89W	32,33	WMC 125576
Uranium Point #12	33N	89W	32,33	WMC 125577
Uranium Point #13	33N	89W	32,33	WMC 70063
Uranium Point #14	33N	89W	32,33	WMC 70064
Uranium Point #15	33N	89W	32,33	WMC 70065
Uranium Point #16	33N	89W	32,33	WMC 70066

NAME OF CLAMS	LOCATION TNSP	RNGE	SEC	BLM SERIAL NO.
Uranium Point #17	33N	89W	28,33	WMC 70067
Uranium Point #18	33N	89W	28	WMC 70068
Uranium Point #19	33N	89W	28,33	WMC 70069
Uranium Point #20	33N	89W	28	WMC 70070
Uranium Point #21	33N	89W	28,29,32,33	WMC 70071
Uranium Point #22	33N	89W	28,29	WMC 70072
Uranium Point #23	33N	89W	33	WMC 125578
Uranium Point #24	33N	89W	33	WMC 125579
Uranium Point #25	33N	89W	33	WMC 70073
Uranium Point #26	33N	89W	33	WMC 125580
Uranium Point #27	33N	89W	33	WMC 125581
Uranium Point #28	33N	89W	33	WMC 125582
Uranium Point #29	33N	89W	33	WMC 125583
Uranium Point #30	33N	89W	33	WMC 70074
Uranium Point #31	33N	89W	33	WMC 70075
Uranium Point #32	33N	89W	33	WMC 70076
Uranium Point #33	33N	89W	33	WMC 70077
Uranium Point #34	33N	89W	33	WMC 70078
Uranium Point #35	33N	89W	33	WMC 70079
Uranium Point #36	33N	89W	33	WMC 70080
Van #1	33N	89W	29	WMC 63834
Wedge 1	33N	89W	33	WMC 203656
Wind River 34	32N	90W	3	WMC 85135
	33N	90W	35	
Wind River 35	32N	90W	3	WMC 85136
	33N	90W	35	
Wind River 36R	32N	90W	3	WMC 235776
	33N	90W	35	
Wind River 40	32N	90W	3	WMC 85138
Wind River 41	32N	90W	3	WMC 85139
Wind River 52	32N	90W	3	WMC 85144
Wind River 53	32N	90W	3	WMC 86776
Worm 1	33N	89W	28	WMC 247498

Attachment 2

1987 Surface Disturbance Aerial Photo


CR PERMIT BOUNDARY
N
SCALE IN FEET
0
3000
6000
12000
REVISIONS
NO
DATE
BY
CAMECO
Cameco Resources
GAS HILLS PROJECT
FREMONT AND NATRONA CO., WYOMING
ATTACHMENT 2
1987 SURFACE DISTURBANCE
AERIAL PHOTO

Attachment 3

Drilling Reclamation Photographs

1997 DRILL HOLE RECLAMATION

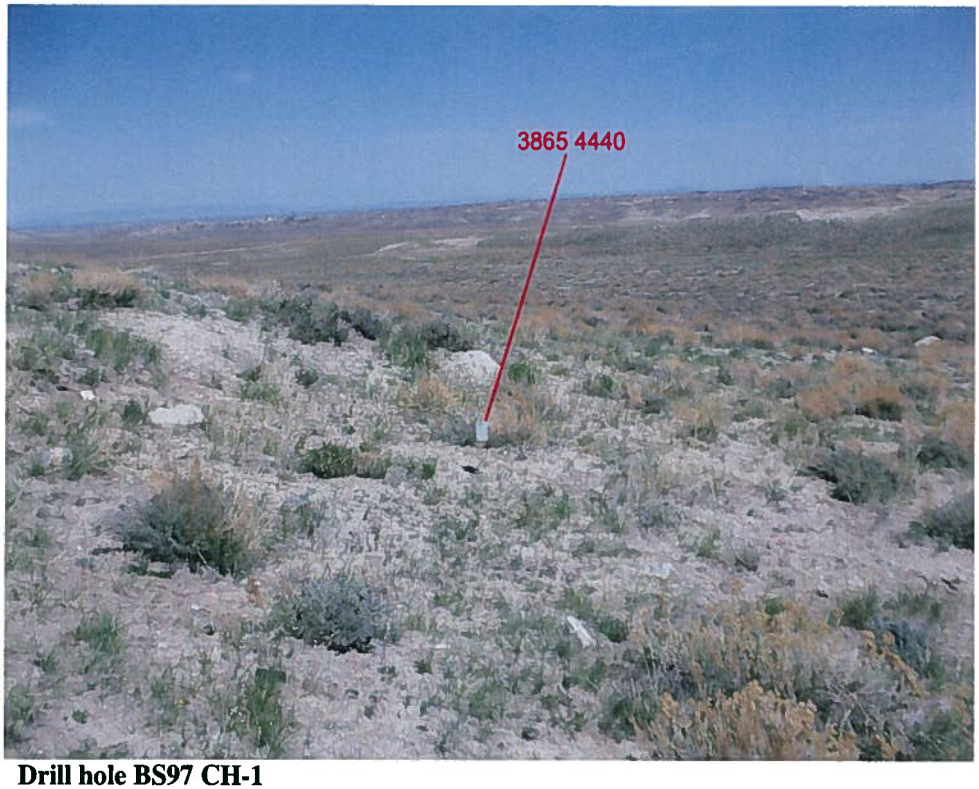


Photo 1 Drill hole BS97 CH-1

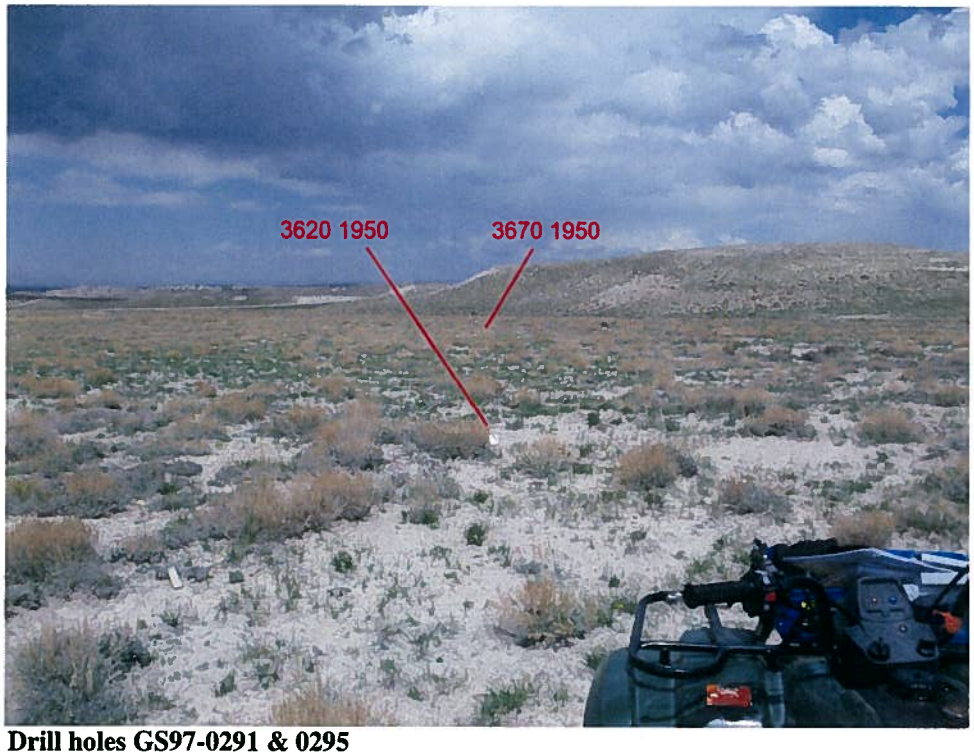


Photo 2 Drill holes GS97-0291 & 0295

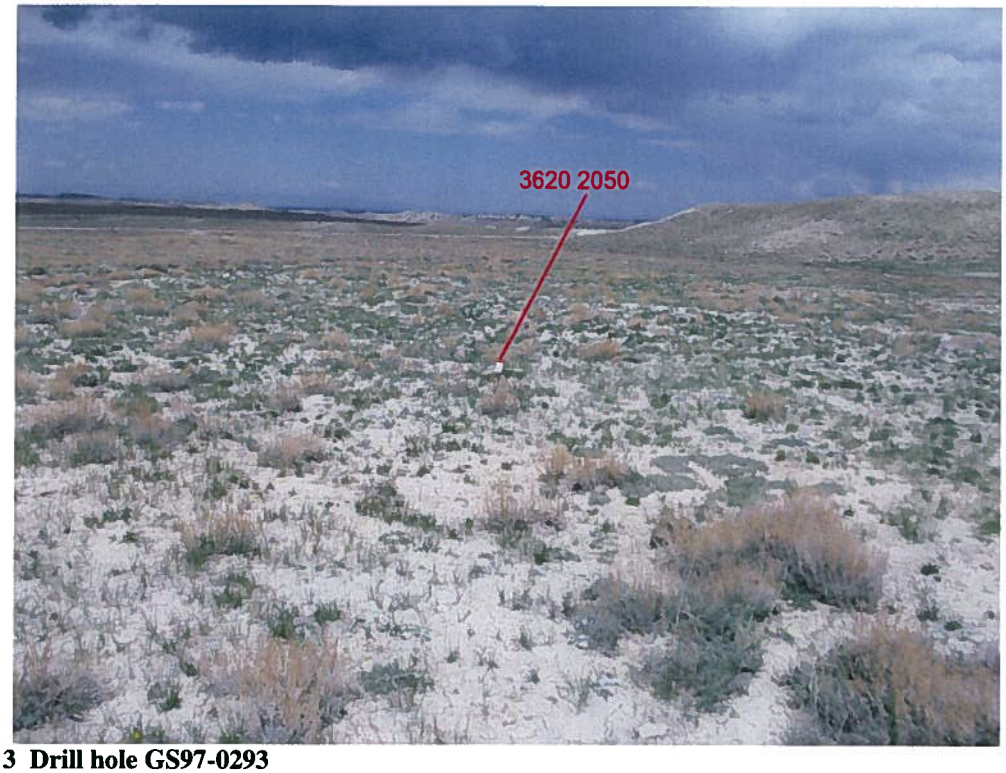


Photo 3 Drill hole GS97-0293

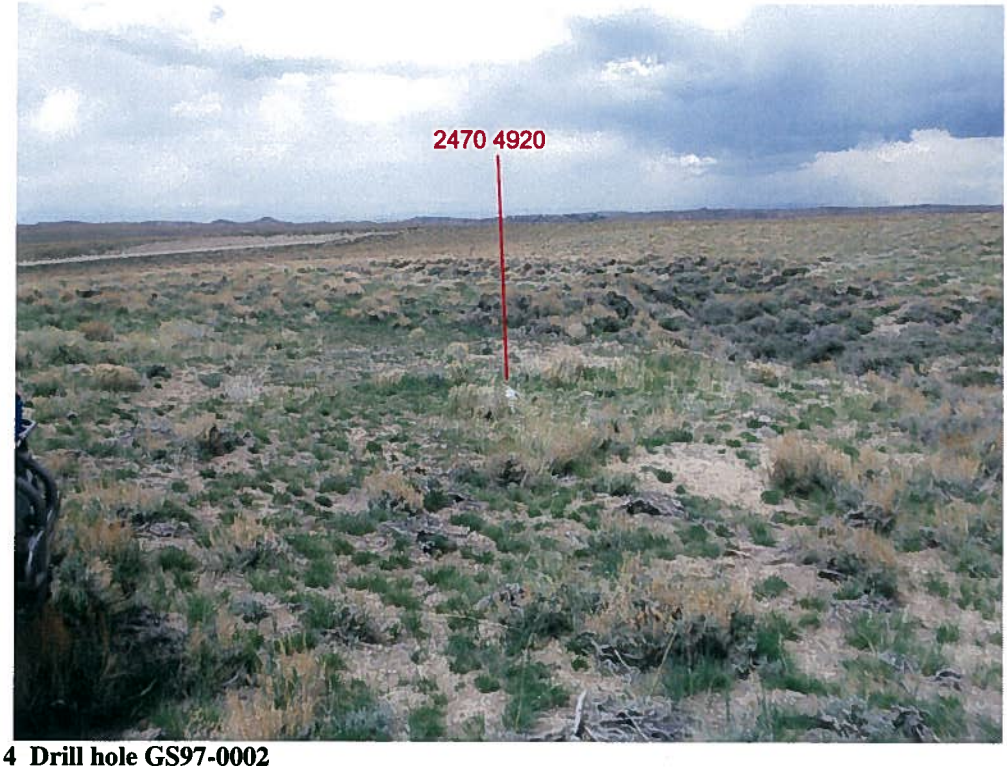


Photo 4 Drill hole GS97-0002

1998 DRILL HOLE RECLAMATION

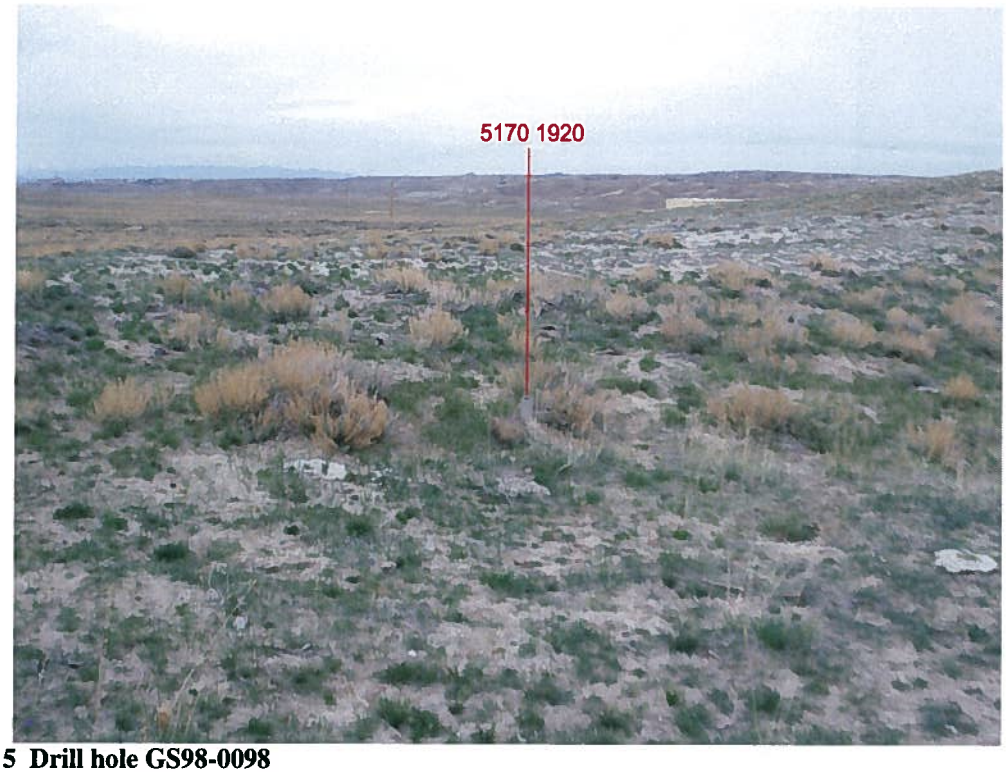


Photo 5 Drill hole GS98-0098

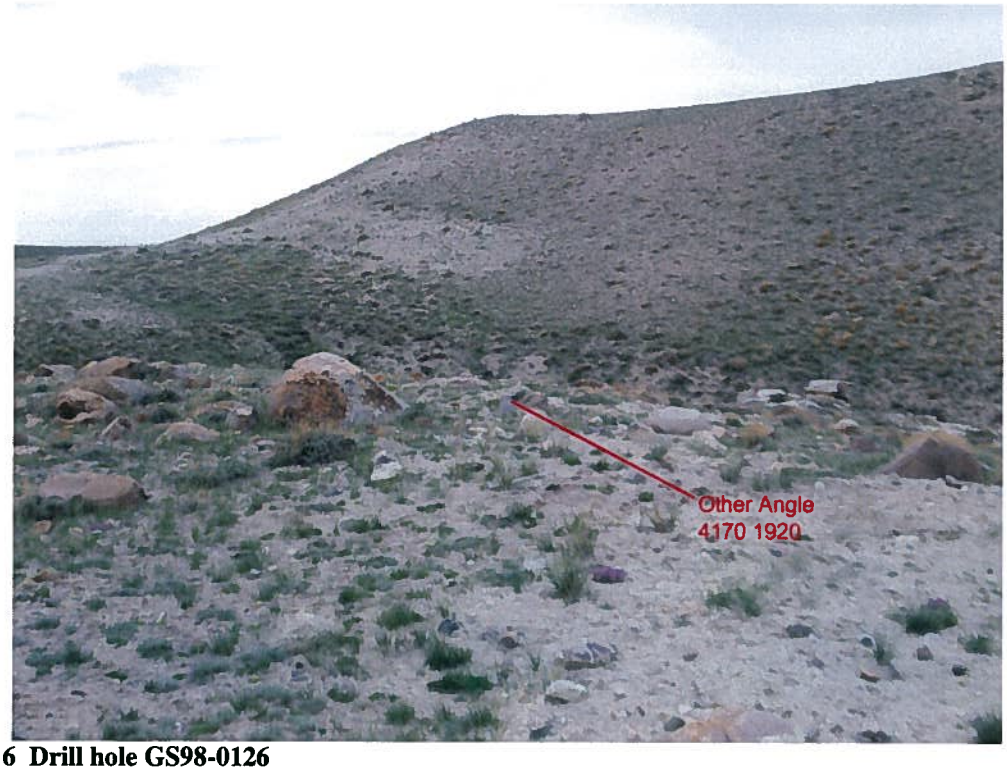


Photo 6 Drill hole GS98-0126

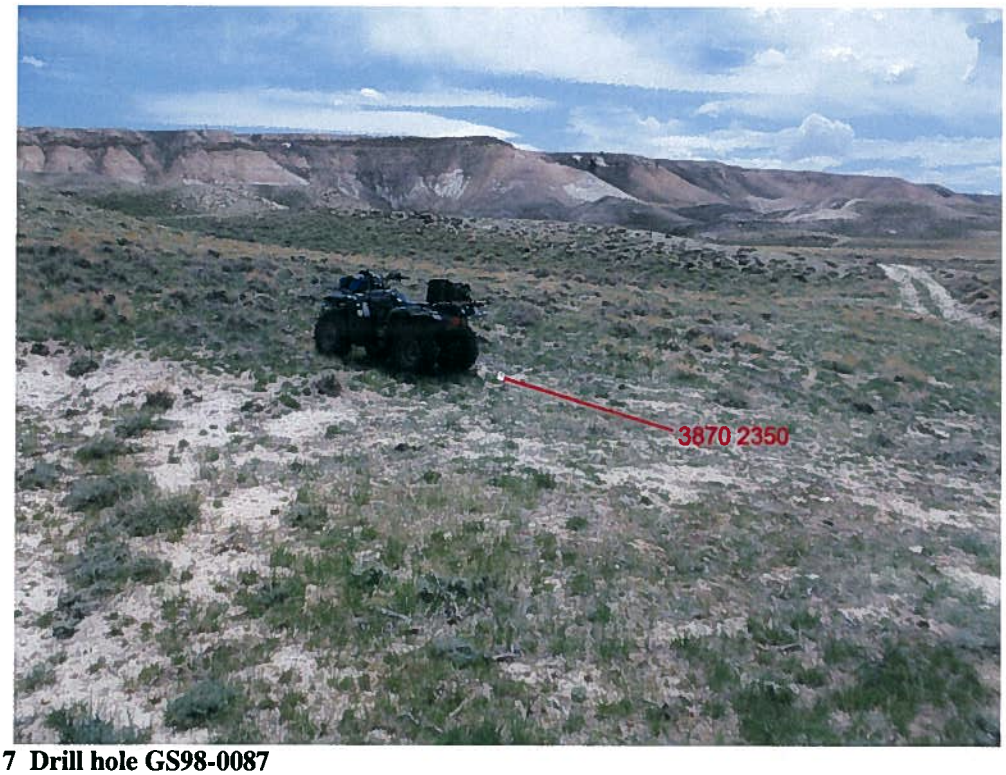
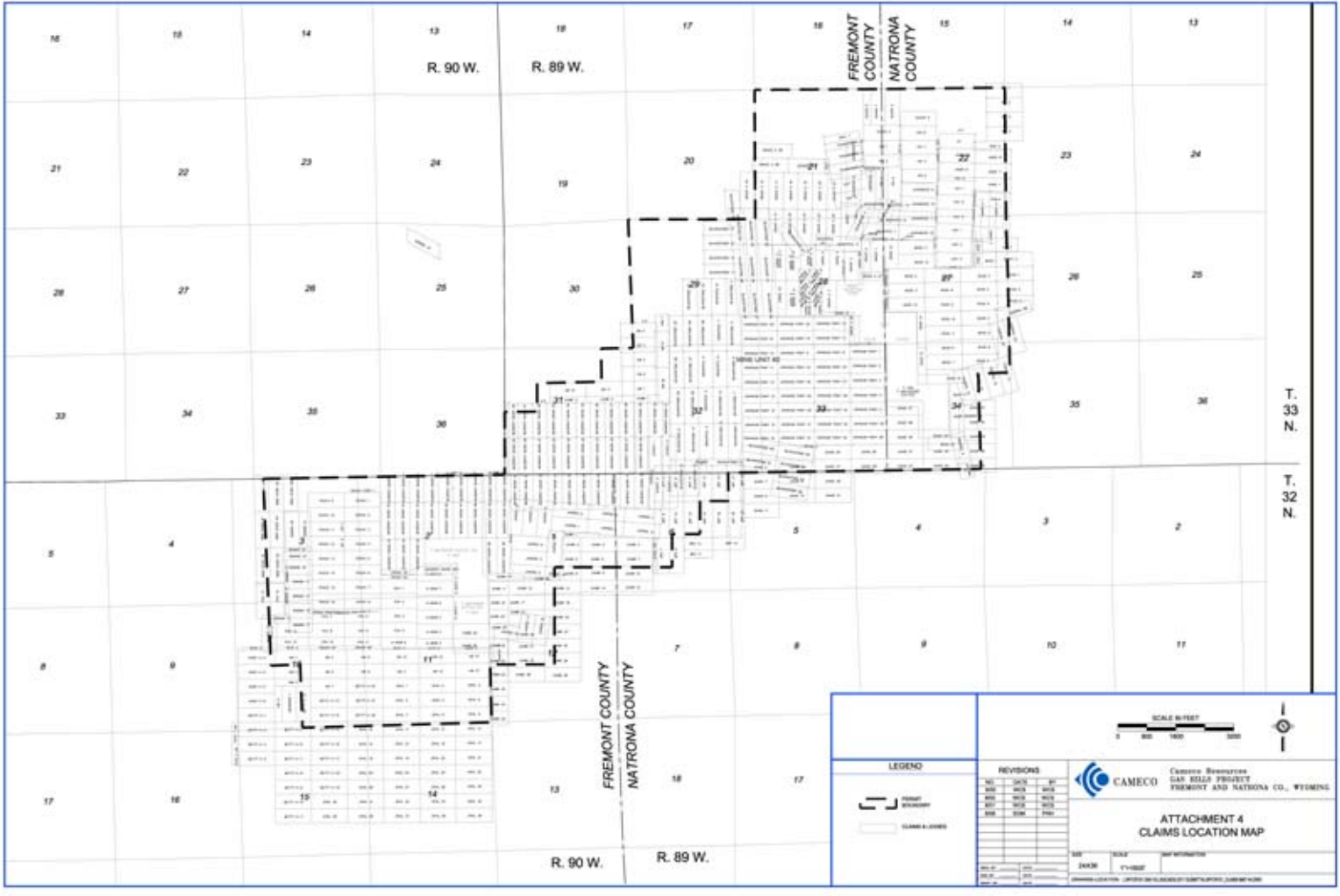


Photo 7 Drill hole GS98-0087

Photo 8 Drill hole GS98-0130

Attachment 4

Claims Location Map


R. 90 W.
R. 89 W.
FREMONT COUNTY
NATRONA COUNTY
T. 33 N.
T. 32 N.
LEGEND
SCALE IN FEET
REVISIONS
CAMECO
Cameco Resources
GAS HILLS PROJECT
FREMONT AND NATRONA CO., WYOMING
ATTACHMENT 4
CLAIMS LOCATION MAP

Attachment 5

NRC Environmental Assessment: Toll Milling of 3rd Party IX Resins

Lidstone and Associates, Inc.
Engineering Geology & Water Resource Consulting

FINAL ENVIRONMENTAL ASSESSMENT FOR THE THIRD PARTY PROCESSING OF ION EXCHANGE RESIN TO POWER RESOURCES, INC'S SMITH RANCH / HIGHLANDS URANIUM PROJECT CONVERSE COUNTY, WYOMING

SOURCE MATERIAL LICENSE NO. SUA-1548
DOCKET NO. 40-8964

July 28, 2009

U.S. Nuclear Regulatory Commission
Office of Federal and State Materials and Environmental Management Programs
Division of Waste Management and Environmental Protection
Uranium Recovery Licensing Branch

ATTACHMENT 5

August 12, 2009

NOTE TO: Docket File 04008964

FROM: Douglas T. Mandeville, Project Manager **/RA/**
Uranium Recovery Licensing Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
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THROUGH: Bill vonTill, Chief
Uranium Recovery and Licensing Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

SUBJECT: ENVIRONMENTAL ASSESSMENT, TOLL MILLING OF THIRD PARTY ION EXCHANGE RESINS, POWER RESOURCES, INC., GLENROCK, WYOMING SUA-1548 (TAC J00565)

By letter dated June 19, 2008, Power Resources, Inc. (PRI), doing business as Cameco Resources submitted to U.S. Nuclear Regulatory Commission (NRC) staff a request to accept and process third party ion exchange resin at its Smith Ranch – Highland Uranium Project (SR-HUP). Specifically, PRI sought permission to accept and process 365 shipments of ion exchange resin per year from NRC licensed facilities in the State of Wyoming. This action would be performed within the currently approved processing limits of 20,000 gpm flowrate in the central processing plant and annual yellowcake production of 5.5 million pounds per year.

To support this licensing action, NRC staff issued a draft environmental assessment (EA) to the Wyoming Department of Environmental Quality (WDEQ) and U.S. Bureau of Land Management (BLM) on April 15, 2009. NRC did receive two comments from WDEQ; these comments were addressed in the final EA. BLM did not have any comments on the draft EA. We are issuing the enclosed final EA for the proposed action, which contains a Finding of No Significant Impact (FONSI). NRC staff will publish, in the Federal Register, its FONSI, after which the staff will issue the license amendment and technical evaluation report for the proposed action.

The EA prepared by the staff is provided as an enclosure to this memorandum to be placed in the licensee's docket file.

Docket No.: 40-8964
License No.: SUA-1548

Enclosure: As stated

FINAL ENVIRONMENTAL ASSESSMENT FOR THE THIRD PARTY PROCESSING OF ION EXCHANGE RESIN TO POWER RESOURCES, INC'S SMITH RANCH / HIGHLANDS URANIUM PROJECT IN SITU RECOVERY FACILITY CONVERSE COUNTY, WYOMING

INTRODUCTION

The U.S. Nuclear Regulatory Commission (NRC) staff is considering a request by Power Resources, Inc. (PRI) to accept and process ion exchange (IX) resin at its Smith Ranch – Highland Uranium Project (SR-HUP) in Converse County, Wyoming. IX resin is used during the in situ recovery (ISR) process to remove uranium from solution. By letter dated June 19, 2008, PRI submitted the aforementioned request to the NRC staff (PRI, 2008a). In this scenario, wellfield operations and initial processing steps through loading of uranium onto the IX resin would occur at NRC licensed facilities in Wyoming. The IX resin would be shipped to SR-HUP for the final stages of processing and yellowcake production.

During its acceptance review, the NRC staff found the original application to be incomplete as the request did not include an environmental analysis of the potential impacts of transportation of IX resin to SR-HUP (NRC, 2008a). PRI submitted additional information related to the environmental analysis on October 1, 2008 (PRI, 2008b). Based on its review of the information provided in the amendment request and the additional submittal related to potential impacts to transportation, NRC staff determined that the license amendment request is acceptable and intends to approve it. This environmental assessment (EA) documents the NRC staff's environmental review of this proposed action.

Background

PRI currently conducts commercial ISR operations for uranium at its SR-HUP site under NRC License SUA-1548, which currently runs through September 30, 2010. The facility includes two central processing plants (CPP), wellfields, roads, satellite buildings, maintenance buildings, and an administrative building. The facility is located in Converse County, Wyoming. The Smith Ranch CPP and administration building is located about 22 road miles (35.4 kilometers) northeast of Glenrock, Wyoming, and 25 road miles (40.2 kilometers) northwest of Douglas, Wyoming. The Highland CPP is located approximately 8 miles (12.9 kilometers) east of the Smith Ranch CPP. The Smith Ranch CPP is currently in operation and producing yellowcake; the Highland CPP is currently in standby mode. In addition to the main SR-HUP facility, license SUA-1548 also includes the remote satellite facilities at Reynolds Ranch, Ruth, North Butte, and Gas Hills. ISR activities have not been initiated yet at the remote satellite facilities.

The steps involved in a yellowcake production at SR-HUP include: (1) initial extraction of uranium from the ground using a lixiviant; (2) loading of uranium onto IX resin; (3) transportation of IX resin to the CPP; (4) stripping of uranium from the IX resin; (5) precipitation of uranium from solution; (6) production of yellowcake slurry; and (7) drying and packaging. Steps 1 and 2 are typically performed at satellite facilities and IX resin is shipped from the satellite to the CPP. PRI currently receives shipments of IX resin several times a week at the existing Smith Ranch CPP from its operating satellite facilities (Satellite 2, Satellite 3, SR-1, and SR-2). The operating satellite facilities are all located within the existing SR-HUP permit boundary. License Condition

9.1 gives PRI the authority to ship IX resin or yellowcake slurry between the remote satellites and the Smith Ranch CPP. Note that IX resin from a third party facility would be handled in the same manner as IX resin from the operating SR-HUP satellites.

Commercial plant operations at the SR-HUP and satellite facilities are limited to an average monthly flow rate of 20,000 gallons per minute (75,700 liters per minute), exclusive of restoration, and annual yellowcake production shall not exceed 5.5 million pounds (2.49 million kilograms) of yellowcake per year. PRI's current annual production is less than half of this limit.

Need for the Proposed Action

PRI currently conducts commercial scale ISR activities within the SR-HUP permit area. PRI has requested the ability to receive and process IX resin generated at other uranium recovery facilities in Wyoming. This would provide operational flexibility to PRI and other ISR facilities in Wyoming to meet market demand for yellowcake, a product that will eventually be used in fuel for commercially operated nuclear power reactors.

Proposed Action

PRI plans to receive and process third party IX resin generated at NRC licensed uranium recovery facilities located in Wyoming (2008a, 2008b). Processing of third party resins is also referred to as toll milling. Processing of third party IX resin would remain below the currently approved average monthly flow limit of 20,000 gallons per minute (75,700 liters per minute), exclusive of restoration, and annual yellowcake production shall not exceed 5.5 million pounds (2.49 million kilograms) of yellowcake per year.

Shipments of resin from third party facilities would average approximately 365 per year (this would be in addition to the current and anticipated shipments from currently licensed satellite facilities to SR-HUP). Each shipment would consist of between 2,000 and 3,000 pounds (907 and 1361 kilograms) of uranium absorbed onto resin beads (PRI, 2008b). PRI will not make any changes to equipment or techniques for processing the third party IX resin.

Review Scope/Regulatory Environment

The NRC staff is reviewing PRI's request in accordance with the NRC's environmental protection regulations in 10 CFR Part 51. These regulations implement section 102(2) of the National Environmental Policy Act of 1969, as amended. This document provides the results of the NRC staff's environmental review.

The NRC staff has prepared this EA in accordance with NRC requirements in 10 CFR 51.21 and 51.30, and with the associated guidance in NRC report NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs" (NRC, 2003). In 40 CFR 1508.9, the Council on Environmental Quality defines an EA as a concise public document that briefly provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact (FONSI). This document describes the proposed action, impacts of the proposed action, and impacts of the alternatives to the proposed action, including the no-action alternative. This review will address the environmental impacts of the currently-approved mining operations at the SR-HUP only

insofar as such operations would be modified by the proposed processing of third party IX resin. Any third party facility shipping IX resin to SR-HUP will be subject to a separate NEPA review.

Environmental Impacts of the Proposed Action

The proposed action involves the processing of third party IX resin at the PRI facility until license termination. This action would occur within existing footprint of operations at PRI. No building construction is required and PRI will not open any new wellfields beyond what is already approved in its current license. PRI will remain within its currently approved production limits of a flowrate of 20,000 gallons per minute (75,700 liters per minute), exclusive of restoration, and annual yellowcake production shall not exceed 5.5 million pounds (2.49 million kilograms) of yellowcake per year. PRI will not make any changes to equipment or techniques for processing the third party IX resin. The cumulative radiological impacts (i.e., gaseous radon-222) from the entire SR-HUP operation were evaluated by PRI most recently as part of the application process for satellite SR-2. Specifically, the resulting total effective dose equivalent for members of the public from PRI's operations is less than 100 mrem/yr (NRC, 2007a). As the proposed action does not seek to increase the wellfield areas, land application area, or production limits, the NRC staff does not expect the proposed action to impact public and occupational exposures. Additionally, the NRC staff does not expect the proposed action to impact groundwater, endangered or threatened species, historic and cultural resources, socioeconomic conditions, and noise. The staff also does not expect significant environmental impacts to transportation, waste management, soils, and air quality, as discussed below.

Transportation

During the review of PRI's license amendment request for the Gas Hills satellite facility, the NRC staff evaluated the impacts of shipping IX resin from PRI's Gas Hills satellite to and from the SR-HUP facility (NRC, 2004). The EA identified that as the amount of traffic generated from shipping the IX resin to SR-HUP would be minor compared to the overall traffic volume along the transportation route, it would not be expected to significantly contribute to congestion or accident rates along those roadways.

PRI's current license amendment request is similar as approval would result in transportation of uranium-charged IX resin to and from SR-HUP. The locations of the third party facilities have not been identified, however, uranium production has historically occurred in three parts of Wyoming. These include: the Powder River Basin, the Gas Hills district, and the Great Divide Basin. It is likely that future uranium recovery sites will be located in similar areas of Wyoming. Figure 1 shows these areas, as well as the location of the SR-HUP facility. Shipments of IX resin would involve approximately one round-trip shipment a day between a third party facility and SR-HUP.

Transportation access from the uranium recovery areas of Wyoming to the SR-HUP site is provided through a combination of local roads, state highways, U.S. highways, and Interstates. While the exact transportation routes between the third party facility and SR-HUP are unknown, Figure 1 shows the locations of the uranium recovery areas in Wyoming and their relation to SR-HUP. Table 1 provides the available traffic count data in 2005 and 2006 for roads that could be used for shipping IX resin to and from SR-HUP. The traffic counts are variable and range from a total vehicle count of 130 to 17,000.

Table 1
Average Annual Traffic Counts

Road Segment	Route	Distance	Trucks		All Vehicles	
			2005	2006	2005	2006
State Route 136 to Riverton	GH to SR-HUP	44	10-20	20-30	130-260	200-270
State Route 135 from State Route 136 to State Route 789	GH to SR-HUP	1.04	170	210	840	1090
State Route 789 from State Route 135 to U.S. Highway 26	GH to SR-HUP	1	570-650	570-650	11,500-17,000	11,650-17,100
U.S. highway 20/26 from Riverton to Shoshoni	GH to SR-HUP	22	520-650	520-650	3,340-19,580	5,100-19,620
U.S. highway 20/26 from Shoshoni to Waltman	GH to SR-HUP	51	270-580	470-550	2,350-3,090	2,190-3,060
U.S. highway 20/26 from Waltman to Casper	GH to SR-HUP	49	470-670	480-650	2,480-13,740	2,450-13,580
Interstate 25 from Casper to State Route 95	GH to SR-HUP	21	570-1,030	610-1,030	2,610-10,220	2,710-10,220
State Route 95 at Rolling Hills	GH to SR-HUP, PRB		50	50	1,800	1,810
U.S. Highway 287 at Jeffrey City	GD to SR-HUP		140	140	850	890
U.S. Highway 297 at Muddy Gap	GD to SR-HUP		140	140	910	910
State Route 220 at Muddy Gap North	GD to SR-HUP		620	620	1,910	1,910
State Route 73 from Baroil to Lamont	GD to SR-HUP		30	30	230	230
U.S. Highway 287 from Lamont to Muddy Gap	GD to SR-HUP		700	690	2,400	2,400
State Route 59 at Reno Junction (north of intersection with State Route 387	PRB		690	750	3,630	3,930
State Route 387 at Pine Tree Junction (between State Routes 50 and 59)	PRB	20	210-410	220-410	970-3,130	970-3,130
State Route 387 at Edgerton North	PRB		380	440	2,110	2,140
State Route 93 at Orpha	PRB		50	50	340	340
State Route 59 Douglas to Bill	PRB	35	380-450	410-440	1,940-3,690	1,940-3,690

(References: NRC, 2008, WDOT 2006)

The additional traffic volume of approximately 1 truck per day is relatively small compared to the existing traffic volumes on the roadways listed in Table 1. Therefore, the additional traffic resulting from shipment of IX resin to and from SR-HUP is not expected to significantly contribute to the congestion or accident rates on these roadways.

Shipments of the IX resins will be required to meet the U.S. Department of Transportation (DOT) regulations contained in 49 CFR 171-180. The trailers used for transportation will be exclusive use and will meet DOT release criteria prior to shipment. The trailers will also be placarded in accordance with the DOT regulations cited above and with the NRC regulations in 10 CFR Part 71. The staff's review of the DOT regulations indicates that would be considered Class 7, with a low specific activity (LSA). Shipments of this type do not appear to require prior notification along the transit route or special handling during significant weather events. The shipper should review the DOT regulations prior to shipment to confirm their interpretation of the regulations.

Waste Management

Liquid wastes generated at SR-HUP include: production bleed stream, plant wash-down water, ground water restoration equipment effluent, restoration bleed, and facility sanitary waste. Liquid effluents generated at SR-HUP are disposed of in deep injection wells permitted under the underground injection control program through the Wyoming DEQ-Water Quality Division. Solid wastes generated during facility operations include: piping, equipment, spent IX resin, and sediments removed from process pumps and vessels. PRI has a disposal agreement with Pathfinder Mines Corporation to dispose of radiologically contaminated wastes at the Shirley Basin ISL disposal facility. Since PRI has committed in the license amendment request to remain below the currently approved flow rate and yellowcake production limits, the amount of liquid and solid effluents generated at the facility will remain at or below current maximum estimated levels. Therefore, the proposed action is not expected to significantly impact waste management practices at SR-HUP.

Soils

In the case of an accident involving a shipment of uranium-loaded resin, the environmental impacts would be expected to be small. Overturning of a tanker truck carrying the loaded resin could result in the release of some resin and residual water. The resin beads, which would be deposited on the ground a short distance from the truck, would retain the uranium, absent a strong brine to strip the resin. PRI has indicated that the third party would be responsible for transportation to and from SR-HUP, the third party would be responsible for collecting the resin and any contaminated soils and dispose of them appropriately (*e.g.*, in a licensed facility). PRI has indicated that shipping procedures will be established by the third party facility and will comply with NRC, Occupational Safety and Health Administration, and U.S. Department of Transportation regulations (PRI, Oct 2008b). Note that in the event of a release, all disturbed areas would then be reclaimed in accordance with applicable NRC and State regulations.

Air Quality

Possible air quality impacts from the license amendment request include exposure to radionuclides during shipping and vehicle emissions during shipping. Airborne release of uranium would not occur during shipping as the IX resin would be shipped in a closed container and the uranium would remain fixed to the resin beads. As discussed above, the additional

traffic volume of approximately 1 truck per day is minor compared to the existing traffic volumes on the roadways in the area that may be used for shipping. Vehicle emissions from the additional traffic are not expected to significantly contribute to the vehicle emissions on these roadways.

ALTERNATIVES TO THE PROPOSED ACTION

The No-Action Alternative

Under the provisions of the National Environmental Policy Act, one alternative that must be considered in each environmental review is the no-action alternative. In this case, the no-action alternative would mean that the NRC would not approve the processing of third party IX resin at SR-HUP. In-situ recovery operations would continue to occur within the currently approved SR-HUP permit area and PRI would be limited to operations as outlined in the existing license.

ENVIRONMENTAL IMPACTS OF ALTERNATIVES TO THE PROPOSED ACTION

The only alternative to the proposed action is the no-action alternative in which the NRC staff denies the amendment request for processing and PRI is limited to processing of its own uranium. No additional environmental impacts beyond those identified in previous environmental assessments for SR-HUP (NRC, 1991; NRC, 2001; NRC, 2006; NRC, 2007b) would occur from the no-action alternative.

AGENCIES AND PERSONS CONSULTED

Because the proposed action occurs within the existing footprint at PRI and on existing roadways, NRC staff determined that the proposed action will not impact endangered and threatened species or cultural and historic resources. Therefore, no further consultation is required under Section 7 of the Endangered Species Act. Likewise, NRC staff has determined that the proposed action is not the type of activity that has potential to cause effects on historic properties. Therefore, no consultation is required under Section 106 of the National Historic Preservation Act.

By letters dated April 15, 2009, the NRC staff sent draft EAs to WDEQ and U.S. Bureau of Land Management (BLM) for review and comment. BLM had no comments on the draft EA. In a phone call on May 22, 2009, WDEQ provided verbal comments related to transportation of the IX resins. The last paragraph of the transportation section of the EA was revised to address DEQ's comments.

CONCLUSION

The NRC staff concludes that PRI's proposed action to process third party IX resin at SR-HUP would not result in a significant impact to the environment.

Impacts to transportation would be minimal, because the additional traffic resulting from one round trip shipment each day to and from SR-HUP anticipated shipment of resin between a third party facility and SR-HUP is relatively small as compared to the overall traffic volume.

The NRC has reviewed the environmental impacts of the proposed action in accordance with the

requirements of 10 CFR Part 51. The NRC staff has determined that the transportation and processing of third party IX resin at SR-HUP would not significantly affect the quality of the human environment. Therefore, an environmental impact statement is not warranted for the proposed action, and pursuant to 10 CFR 51.31, a FONSI is appropriate.

The documents related to this proposed action are available for public inspection and copying at NRC's Public Document Room, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. Additionally, most of these documents are available for public review through the NRC's electronic reading room, at: http://www.nrc.gov/reading-rm/adams.html.

LIST OF PREPARERS

Douglas T. Mandeville, Project Manager and Geotechnical Engineer, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs

LIST OF REFERENCES

Power Resources, Inc. (2008a) License Amendment Request for Processing of Third Party Resin, dated June 19, 2008 [ADAMS Accession No. ML081760278]

Power Resources, Inc. (2008b) Response to Request for Additional Information Concerning Third Party Resin Bead Processing dated October 1, 2008 [ADAMS Accession No. ML082820419]

Nuclear Regulatory Commission (1991) Environmental Assessment for Rio Algom Mining Corporation, Smith Ranch In Situ Leach Mining Project, Converse County, Wyoming October 28. [ADAMS Legacy Accession No. 9112020183]

Nuclear Regulatory Commission (2001). Renewal of Source Material License SUA-1548, Rio Algom Mining Corporation (RAMC), Rio Algom Smith Ranch In Situ Leach (ISL) Project, Converse County, Wyoming, May 8. [ADAMS Accession No. ML011290179]

Nuclear Regulatory Commission (2003) NUREG 1748 - Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, dated August 2003, [http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1748/sr1748.pdf]

Nuclear Regulatory Commission (2004) Environmental Assessment for the Operation of the Gas Hills Project Satellite In Situ Leach Uranium Recovery Facility, dated January 2004, [ADAMS Accession No. ML040070538]

Nuclear Regulatory Commission (2006) Environmental Assessment for the Reynolds Ranch Amendment to Source Materials License SUA-1548 November [ADAMS Accession No. ML062690386]

Nuclear Regulatory Commission (2007a) Safety Evaluation Report ISL Satellite Facility SR-2, Amendment 12 to License SUA-1548, December 2007. [ADAMS Accession No. ML073511450]

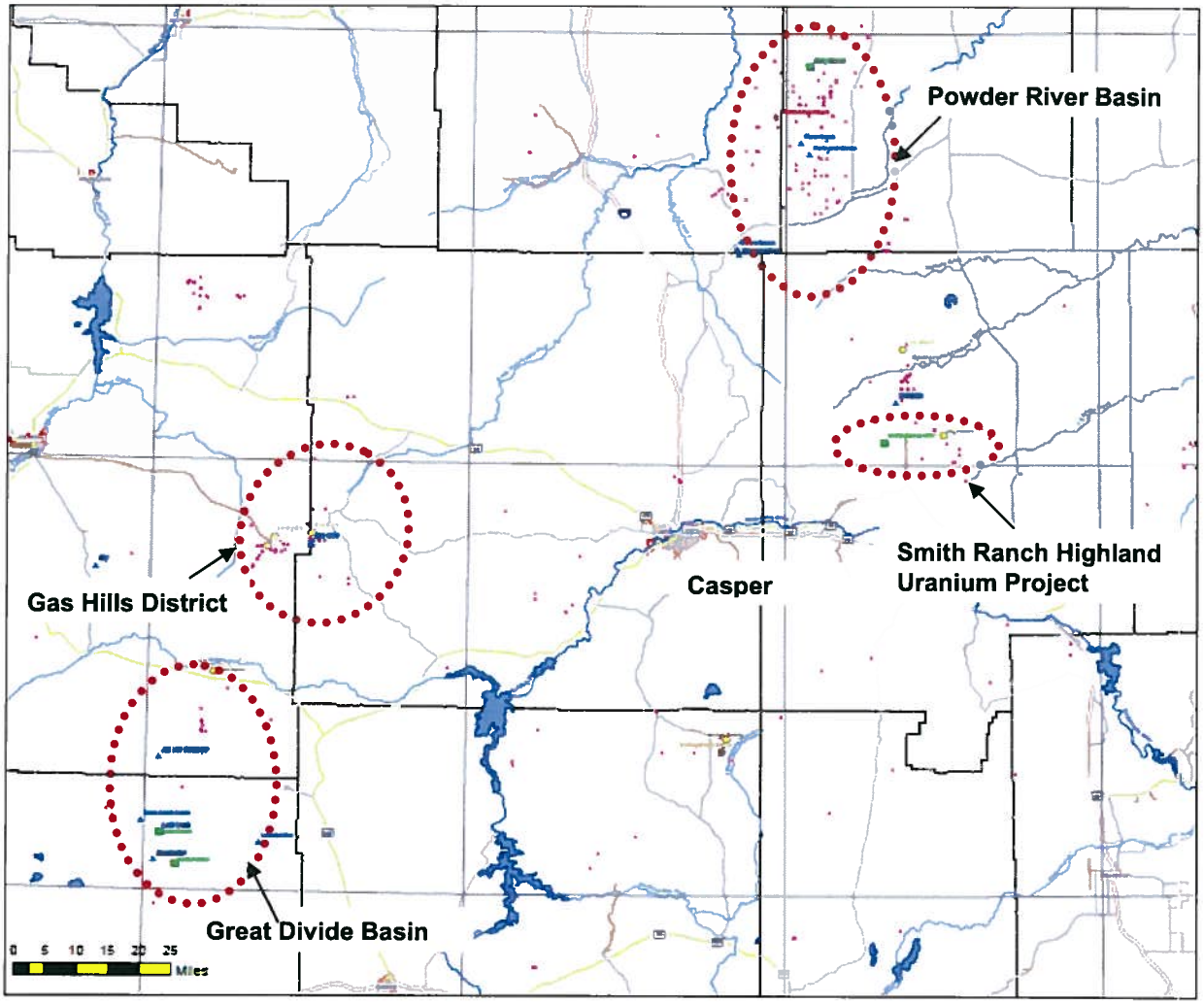
Nuclear Regulatory Commission (2007b) Environmental Assessment Construction and Operation of In Situ Leach Satellite SR-2 Amendment No. 12 to Source Materials License No. SUA-1548, December [ADAMS Accession No.ML073460801]

Nuclear Regulatory Commission (2008a) Letter from NRC to PRI RE: Acceptance Review of Request for Approval of Processing of Third-Party Resin at the Smith Ranch-Highland Uranium Project, dated July 23, 2008 [ADAMS Accession No. ML082820419]

Nuclear Regulatory Commission (2008b) NUREG 1910, Vols. 1-2, Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities - Draft Report for Comment, dated July 2008 [http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1910/]

Wyoming Department of Transportation (2006) Wyoming Department of Transportation. "WYDOT Traffic Analysis." Cheyenne, Wyoming: Wyoming Department of Transportation. 2006. <http://www.dot.state.wy.us/Default.jsp?sCode=hwyta>

Figure 1


Powder River Basin
Smith Ranch Highland
Uranium Project
Casper
Gas Hills District
Great Divide Basin
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