Preliminary Economic Assessment
Shirley Basin Uranium Project
Carbon County, Wyoming, USA

Report for NI 43-101

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Report Prepared for:

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This NI 43-101 Preliminary Economic Assessment titled "PRELIMINARY ECONOMIC ASSESSMENT, SHIRLEY BASIN URANIUM PROJECT, CARBON COUNTY, WYOMING, USA", dated January 27, 2015, has been prepared under the supervision of, and signed by, the following Qualified Persons:

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Appendix A Certificate of Qualified Persons

1.0 SUMMARY

This independent Preliminary Economic Assessment (PEA) for the Shirley Basin Project (the Project) has been prepared for Ur-Energy Inc. (URE) and its subsidiary, Pathfinder Mines Corporation (PMC), under the supervision of Western Water Consultants, Inc., d/b/a WWC Engineering (WWC), in accordance with Canadian National Instrument 43-101, "Standards of Disclosure for Mineral Projects" (NI 43-101). The objective of this PEA is to evaluate the technical and economic viability of the Project using the most current scientific, engineering and cost information available.

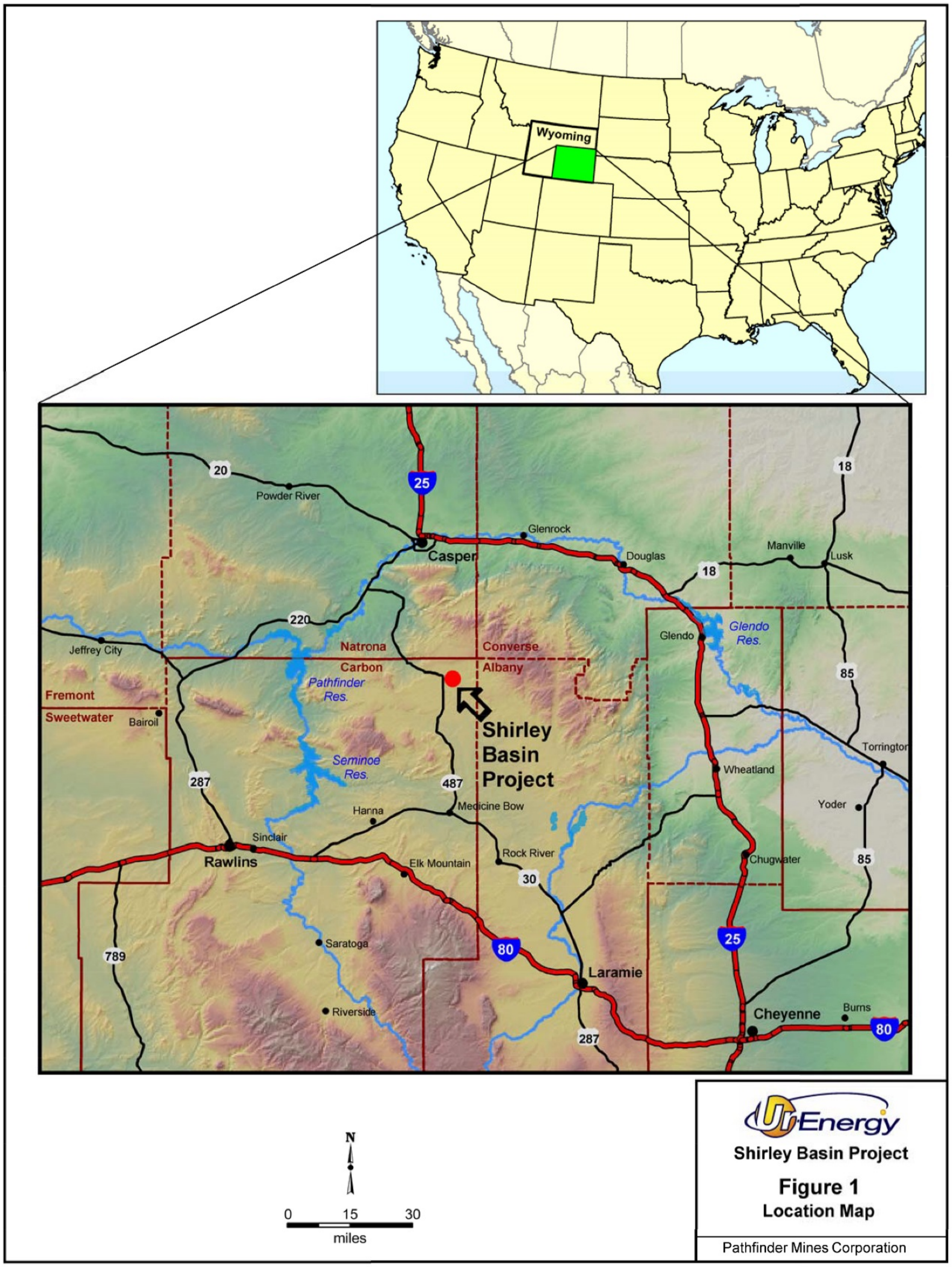
This PEA analyzes the planned development of a commercial satellite uranium *in-situ* recovery (ISR) operation at the Project, combined with existing processing operations at URE's Lost Creek Mine in Sweetwater County, Wyoming. The evaluation uses current operational information to develop capital (CAPEX) and operating (OPEX) cost estimates for the proposed wellfields, the satellite ion exchange (IX) plant and associated infrastructure. CAPEX and OPEX estimates are provided in this PEA along with an economic analysis based on these costs and projected revenue from the recovery and sale of uranium.

The Project area geology is well understood. Shirley Basin is a small structural basin formed during the Laramide Orogeny of Late Cretaceous to Early Tertiary age. During this orogeny, basement uplifting within the surrounding Granite and Shirley Mountains to the west and southwest and within the Laramie Mountains to the east and northeast formed a broad, shallow, southward-plunging basin. Within this basin, post-Laramide Tertiary sediments were unconformably deposited onto an eroded surface of mid Cretaceous strata. These Cretaceous sediments dip approximately 2-12° to the southwest. The Tertiary sediments dip approximately 1° to the north. Coarse-grained arkosic sandstones of the Tertiary-age Wind River Formation are the primary host rocks for uranium deposits in Shirley Basin. The uranium mineralization occurs as roll front type deposits (Figures 9, 10 & 11) formed where uranium precipitated from oxidizing groundwater when it contacted reduced host rock.

The Project consists of approximately 3,536 acres and is located in central southeast Wyoming, approximately 40 miles south of the city of Casper (Figure 1). The Project lies within the northern portion of the historic Shirley Basin Mining District, the second largest uranium producing district in Wyoming with over 51 million pounds of U_3O_8 production from 1960 through 1992. The initial uranium discovery within this remote basin was made by Teton Exploration in 1955. URE's Shirley Basin land holdings were largely established by Utah Mining Corporation in 1957 by staking unpatented mining claims and leasing State of Wyoming and private mineral rights. After several mergers and corporate name changes, all interests were conveyed to what is now PMC in 1976. PMC was purchased by COGEMA Mining, Inc. (COGEMA) in 1980s. In December 2013 URE, through a U.S. subsidiary, acquired PMC.

After the cessation of open pit uranium mining operations at Shirley Basin in 1992, two historical resource areas on the Project were identified as potentially suitable for solution mining. These two areas are the 1) FAB Resource Area or FAB Trend and

Figure 1. Location Map



2) Area 5 Resource Area (Figure 4). PMC had completed over 3,200 drill holes (1.2 million ft. of drilling) in the delineation of these two resource areas, resulting in an approximate 100-ft. grid of drill holes throughout. These resources are primarily located within the “Main” and “Lower” Sands of the Eocene-age Wind River Formation.

In May 2014, URE completed a confirmation drilling campaign within the FAB Trend and Area 5. The primary goals of the program were:

- Confirmation of the location and nature of mineralization as reported by historical PMC data;
- Stratigraphic investigation to confirm lithology and to confirm overlying and underlying hydrogeological confinement; and
- Collection of core for leach testing and analysis of uranium, mineralogy, trace metals, disequilibrium, permeability, porosity and density.

Based upon data from the above-described historical and confirmation drilling, an NI 43-101 Technical Report on Resources was prepared (Shirley Basin Uranium Project, Carbon County, Wyoming, USA, dated August 27, 2014). The Technical Report documented the Project’s current resource estimate of 8.816 million pounds eU_3O_8 in the Measured and Indicated categories. The current mineral resources at the Project are listed in Table 1.

Table 1. Shirley Basin Uranium Project Resource Summary – July 2014

RESOURCE AREA	MEASURED			INDICATED		
	AVG GRADE % eU_3O_8	SHORT TONS (X 1000)	POUNDS U_3O_8 (X 1000)	AVG GRADE % eU_3O_8	SHORT TONS (X 1000)	POUNDS U_3O_8 (X 1000)
FAB TREND	0.280	1,172	6,574	0.119	456	1,081
AREA 5	0.243	195	947	0.115	93	214
TOTAL	**0.275**	**1,367**	**7,521**	**0.118**	**549**	**1,295**
MEASURED & INDICATED				**0.230**	**1,915**	**8,816**

Notes:
1. Sum of Measured and Indicated tons and pounds may not add to the reported total due to rounding.
2. Based on grade cutoff of 0.020 % eU_3O_8 and a grade x thickness (GT) cutoff of 0.25 GT.
3. Measured and Indicated mineral resources as defined in Section 1.2 of NI 43-101 (the CIM Definition Standards [CIM Council, 2014]).
4. All reported resources occur below the historical, pre-mining static water table.
5. Average grades are calculated as weighted averages.

To develop the above-described uranium resources, infrastructure, including wellfields, a satellite IX plant and liquid waste disposal facilities, will need to be constructed at the Project. A total of three mine units are planned. Within a production wellfield, the most fundamental component of mine development and production is the production pattern. A pattern consists of one production well and injection wells which feed lixiviant to it. Injection wells are commonly shared by multiple production wells. Header houses serve multiple patterns and function as both distribution points for injection flow and collection points for production flow from the production wells. The satellite IX plant feeds injection lixiviant to the header houses for distribution to the injection wells, and also receives and processes production flow from the header houses.

Economic analysis is based on a conceptual wellfield design which assumes pattern sizing based on a combination of 5-spot and line drive configurations. Pattern sizing is also based on a consistent injection to production well spacing of approximately 70 ft., which is the distance the lixiviant will flow between wells. Based on the conceptual wellfield design it is estimated that there will be a total of 1,131 patterns project wide which are divided into three mining units: MU1, MU2 and MU3. The total cumulative pattern area accounting for the stacked nature of the roll fronts for the Project is approximately 234 acres. This conceptual wellfield design requires 2,261 injection wells and 1,131 production wells for a total of 3,392 wells. In addition, 222 monitor wells would be required for the theoretical wellfield design, including 132 perimeter monitor ring wells and 90 interior monitor wells. The average well depth for the Project is estimated to be 321 ft.

Using the estimated CAPEX, OPEX and closure costs presented herein, a cash flow statement is provided in Table 18. The statement assumes no escalation, no debt, no debt interest or capital repayment and no depreciation or income tax costs. Details on the cash flow statement are discussed in Sections 22.0 through Section 22.2.

This PEA includes tax estimates for state severance taxes, county ad valorem taxes and property taxes, all of which are directly attributable to the Project. Wyoming has no state income tax and federal income tax is not included. Ur-Energy USA Inc., the parent company of PMC, files consolidated federal tax returns in the United States and had approximately $91.0 million in tax loss carry forwards as of December 31, 2013. Ur-Energy USA Inc., does not anticipate paying federal income taxes until the existing, and any future, tax loss carry forwards are utilized. In addition, reclamation costs can be deducted in the early years of the Project, thus extending the time before any possible tax liability. Estimating federal income taxes for the Project therefore becomes speculative and, as a result, has not been included in this PEA.

The sale price for the produced uranium is assumed to vary based on an average of the projections of Cantor Fitzgerald, Dundee Capital Markets, Laurentian Bank, Raymond James Ltd., and the Ux Consulting Company, LLC (UxC Spot Midpoint). The revenue for the cash flow estimate was developed using the GT contour mineral resource estimate for the Project, and further assumes that, based on an 80% recovery factor of those pounds potentially under pattern, approximately 6.3 million pounds of U_3O_8 will be recovered from the Project's currently identified resources.

. The CAPEX cost estimates presented herein are based on personnel and capital equipment requirements, as well as wellfield layouts, process flow diagrams, tank and process equipment and buildings at URE's Lost Creek Mine which were used to estimate costs at the Project. The Project has pre-mining development and capital costs of $30.6 million including: plant and associated structures cost of $15.2 million, initial wellfield installation cost of $8.2 million, deep disposal wells (DDW) cost of $4.0 million and rolling stock costs of $3.2 million. Remaining CAPEX costs are for sustaining capital requirements at the mine site and are primarily associated with replacement equipment used in future operations of the plant and the wellfields. The sustaining capital cost is estimated to be $0.7 million. The sustaining capital estimate is based on the actual previous purchases of the same equipment and/or vendor prices. There is no contingency included in the capital estimates as they are based on recent purchases at URE's Lost Creek Mine adjusted using the Consumer Price Index updated to November 2014.

OPEX estimates were developed by evaluating each process unit operation and associated operating services (power, water, air, waste disposal), infrastructure (offices, change rooms, shop), salary plus benefit burden, and environmental control (heat, air conditioning, monitoring). The OPEX estimate is based on URE's permitting and development plan, deliverables, process flow sheets, process design, materials balance and project manpower schedule. The annual OPEX and closure cost summary is provided in Table 17.

The Net Present Value (NPV) calculations assume that cash flows occur in the middle of the accounting periods. The NPV is calculated from the discounted cash flow model and is based on the CAPEX, OPEX and closure cost estimates, a variable future uranium price and the anticipated construction and production schedule. The Project is estimated to generate net cash flow over its life, before income tax, of $215.9 million. Payback is estimated during the third quarter of 2018. The Project has a calculated before tax IRR of 117.0% and a before tax NPV of $146.0 million applying an 8% discount rate, based on year 2017 through year 2029. For NPV and IRR purposes, 2017 includes all undiscounted costs from 2015 and 2016. The estimated cost of uranium produced is $31.26 per pound including severance taxes plus all operating and capital costs, with an estimated operating cost of $14.54 per pound.

Satellite construction is expected to commence in early 2017. The Project is estimated to generate net earnings over its life, before income tax, of $230.1 million. Due to the fact that URE has utilized current costing data for both CAPEX and OPEX available from the Lost Creek Mine, the costing numbers used in this analysis are believed to be very reliable. However, since the final detailed designs for the Project are not yet complete, the predicted level of accuracy of this PEA is estimated at +/- 10% subject to the assumptions herein.

***Cautionary Statement*:**

This* Preliminary Economic Assessment *is preliminary in nature and includes mineral resources. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The estimated mineral recovery used in this* Preliminary Economic Assessment *is based on site-specific laboratory recovery data as well as URE personnel and industry experience at similar facilities. There can be no assurance that recovery of mineral resources at this level will be

achieved. There is no certainty that the preliminary economic assessment will be realized.

The Qualified Persons (QPs) have assumed that URE's operations at the Project will be conducted in conformance with applicable laws, regulations and requirements of the various federal and state agencies. It is also assumed that organization and management controls have been and will continue to be established to ensure compliance with applicable regulations and implement URE's policies for providing a safe working environment including the philosophy of maintaining radiation exposures as low as reasonably achievable (ALARA).

The QPs have weighed the potential benefits and risks presented in this report and have found the Project to be potentially viable and meriting further evaluation and exploration. There is no certainty that the mineral recovery or the economic analysis presented in this PEA will be realized. In order to advance the Project to the full potential benefits described in this PEA, positive results are required on the following recommended activities, as discussed in Section 26.0.

1. Complete baseline data collection and continue toward submittal of applications to amend the Shirley Basin Permit to Mine and NRC License to allow production at the Project, and

2. Further evaluation of water management and deep disposal well alternatives.

2.0 INTRODUCTION

WWC has been retained by URE and its subsidiary, PMC, to oversee and supervise preparation of this independent PEA for the Project, located in Carbon County in central southeast Wyoming, USA (see Figure 1). This PEA has been prepared for URE in accordance with the guidelines set forth under Canadian National Instrument 43-101 "Standards of Disclosure for Mineral Projects" (NI 43-101). The purpose of this PEA is to assess the potential viability of *in-situ* recovery (ISR) operations at Shirley Basin.

Completion of this PEA was under the direction and supervision of Mr. Benjamin J. Schiffer, P.G. and Mr. Ray Moores, P.E., of WWC Engineering. Both individuals are independent Qualified Persons as defined by NI 43-101. Mr. Schiffer and Mr. Moores visited the site on December 3, 2014. The purpose of the visit was to observe the geography and geology of the Project site, verify work done at the site by URE, observe the potential locations of Project components, current site activities and location of confirmation drilling activities and gain knowledge on existing site infrastructure. Additionally, Mr. Schiffer and Mr. Moores have approved the technical disclosure contained in this report.

Technical information was provided to the QPs by URE, which includes data from other professional consultants, and follows generally accepted uranium ISR practices. Mineral resource estimates were based on information presented in the Technical Report on Resources, Shirley Basin Uranium Project, Carbon County, Wyoming, USA. The NI 43-101 Technical Report is dated August 27, 2014, and prepared under the supervision of QP, Benjamin J. Schiffer, P.G. of WWC Engineering.

URE was incorporated on March 22, 2004, and is a junior exploration company engaged in the identification, acquisition, evaluation, exploration, development and operation of uranium mineral properties in the United States. Through one of its wholly-owned subsidiaries, URE operates the Lost Creek Mine in south-central Wyoming. The Lost Creek processing facility has a nameplate design capacity of two million pounds U_3O_8 per year. URE's U.S. land portfolio includes properties in the Great Divide Basin, Shirley Basin, Gas Hills and the Black Hills region of Wyoming.

Units of measurement, unless otherwise indicated, are feet (ft.), miles, acres, pounds avoirdupois (lbs.), and short tons (2,000 lbs). Uranium is expressed as pounds U_3O_8, the standard market unit. All references to dollars ($) are in U.S. dollars. Grades reported for the mineral resources and used herein are percent eU_3O_8 (equivalent U_3O_8 by calibrated geophysical logging unit). ISR refers to *in-situ* recovery, sometimes also termed ISL or *in-situ* leach.

The following is a list of abbreviations and acronyms used in this PEA.

AEC	U.S. Atomic Energy Commission
AQD	Air Quality Division of Wyoming Department of Environmental Quality

BGS	Below Ground Surface
BLM	U.S. Bureau of Land Management
CAPEX	Capital Expenditure
COC	Chain of Custody
CPS	Counts per Second
DDW	Deep Disposal Well
DEF	Disequilibrium Factor
District	Shirley Basin Mining District
DOE	U.S. Department of Energy
E-Log	Electric Log
EMP	Electron Microprobe
EPA	U.S. Environmental Protection Agency
Fm	Formation
Getty	Getty Oil Company
gpm	Gallons per Minute
gpd/ft	Gallons per Day per Foot
GT	Grade × Thickness
Hazen	Hazen Research, Inc.
ICP-MS	Inductively Coupled Plasma Mass Spectrometry
IML	Inter-Mountain Labs, Inc.
ISL	*In-Situ* Leach
ISR	*In-Situ* Recovery
IX	Ion Exchange
LQD	Land Quality Division of Wyoming Department of Environmental Quality
Lucky Mc	Lucky Mc Uranium Mine
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NRC	U.S. Nuclear Regulatory Commission
OPEX	Operating Expense
PEA	Preliminary Economic Assessment
Petrotomics	Petrotomics Company

PFN	Prompt Fission Neutron
PMC	Pathfinder Mines Corporation
Project	Shirley Basin Uranium Project
PVs	Pore Volumes
QA/QC	Quality Assurance/Quality Control
QP	Qualified Person
RES	Single point resistance
RO	Reverse Osmosis
SEO	Wyoming State Engineer's Office
SP	Spontaneous potential
Teton	Teton Exploration
Tidewater	Tidewater Oil Company
Twdr	Tertiary Wind River Formation
Twr	Tertiary White River Formation
UIC	Underground Injection Control
UII	Utah International Inc.
Uranium One	Uranium One Americas, Inc.
URE	Ur-Energy Inc.
Utah	Utah Mining Corporation
Utah CM	Utah Construction and Mining Company
WDEQ	Wyoming Department of Environmental Quality
WGFD	Wyoming Game and Fish Department
WQD	Water Quality Division of Wyoming Department of Environmental Quality
WWC Engineering	Western Water Consultants d/b/a WWC Engineering
XRD	X-Ray Diffraction

3.0 RELIANCE ON OTHER EXPERTS

This PEA has been prepared under the supervision of Mr. Benjamin J. Schiffer, P.G. and Mr. Ray Moores, P.E., of WWC Engineering. John Cash, Vice President Regulatory Affairs for URE, provided information on the regulatory status and environmental liabilities on the Project. Steve Hatten, Vice President Operations for URE, supplied personnel, equipment and material cost data, along with operational and financial analyses based on URE's operating Lost Creek Mine.

In addition to URE personnel routinely reviewing land status and title records, the QPs have relied on formal title reports prepared for URE from time to time by outside mineral title attorneys. Davis Graham & Stubbs, LLP prepared title reports in 2014 related to the lands controlled by PMC within the FAB Trend and Area 5. The QPs have relied on aspects of the conclusions set forth in those reports in Section 1.0 and Section 4.0.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location and Size

The Project consists of approximately 3,536 acres and is located in central southeast Wyoming, approximately 40 miles south of the city of Casper. As shown in Figure 1, the Project is in an unpopulated area located in the northeastern portion of Carbon County, Wyoming. It is centered at approximately 42 degrees, 22 minutes north latitude and 106 degrees, 11 minutes west longitude, in Township 28 North, Range 78 West, within the 6th principal meridian.

4.2 Mineral Tenure

The Project is located in the northern portion of the historic Shirley Basin Mining District. This was the second largest uranium producing district in Wyoming, with over 51 million pounds of U_3O_8 production from 1960 through 1992. Surface mining ceased in 1992 and the mined areas underwent extensive reclamation activities (i.e., backfilling of pits, re-contouring of overburden piles, re-vegetation, etc.). Figure 2 illustrates the results of this reclamation. Most of the old mine areas are now rolling grasslands, with five pit lakes occupying the low lands. One of the lakes on a nearby property is now being used for recreational purposes.

Figure 2. Photo from FAB Trend Looking Northeast over Reclaimed PMC Pit 3

The Project currently includes 2,965 acres of mineral rights to locatable minerals. This total consists of 1,615 acres of U.S. lode mining patents (11 patents), 851 acres of federal unpatented lode mining claims (45 claims), 160 acres held by one private mining lease, and 339 acres (4 tracts) of URE-acquired fee minerals. Table 2 summarizes the mineral title position of URE at the Project.

Additionally, URE owns 536 acres of surface with no mineral rights in patented mill site claims (five patented claims: 49-69-0016, 49-73-0074, 49-79-0007, 49-79-0008, and 49-86-0009) and holds approximately 35 acres of unpatented mill site claims in seven unpatented claims (WMC247755 through WMC247761). The total property position of mineral rights and surface is approximately 3,536 acres (see Figure 3). The surface of all unpatented lode mining claims is controlled by the U.S. Bureau of Land Management (BLM), with URE possessing the right to use as much of the surface as is necessary for exploration and mining of the claims, subject to compliance with all federal, state and local laws and regulations. Surface use on BLM-administered federal lands is governed by federal regulations.

Table 2. Shirley Basin Uranium Project Mineral Title Position

Property	Serial # or Legal Location	Acres
U.S. Patent Nos. (lode claims)	1198523, 1207111, 1207112, 1231199, 49-68-0029, 49-69-0017, 49-69-0020, 49-69-0025, 49-73-0065, 49-73-0072, 49-73-0073	1,615 acres
45 Unpatented Lode Claims	WMC251621, WMC251623, WMC251625, WMC255170, WMC255172, WMC295574 through WMC295601, WMC297733 through WMC297735, WMC298825, WMC311012 through WMC311016 and WMC311018 through WMC311020	851 acres
Private Mining Lease	Portions of Sections 25 and 26, Township 28 North, Range 78 West, 6^{th} Principal Meridian	160 acres
Company-acquired Fee Minerals (4 separate tracts)	Portions of Sections 20, 22, 26, and 27, Township 28 North, Range 78 West, 6^{th} Principal Meridian	339 acres
Total Mineral Acres: 2,965 acres		

4.3 Title to Property

URE, through its wholly-owned subsidiary PMC, owns the patented lands at the Project and controls the federal unpatented lode mining claims, unpatented mill site claims and private lease interests which make up the balance of the Project, and through which legal access to the Project is provided. The mineral interests on the lands on which the

Figure 3. Property Map

reported resources are located are 100% owned or controlled by URE, subject to the royalty interests described here.

The Project is subject to a mortgage securing a financing agreement with RMB Australia Holdings Ltd, recorded in Carbon County, Wyoming on December 27, 2013 (Rec. Bk. 1247, pg. 25).

Title to the unpatented mining claims is subject to rights of *pedis possessio* against all third-party claimants as long as the claims are maintained. The unpatented mining claims and mill site claims do not have an expiration date. Affidavits have been timely filed with the BLM and recorded with the Carbon County Recorder attesting to the payment of annual maintenance fees to the BLM as those fees are established by law from time to time. In addition to routine periodic land status reviews by company personnel, formal mineral title reports are prepared from time to time for URE by mineral title attorneys.

4.4 Royalties, Taxes and Fees

As a part of the December 2013 Amended and Restated Share Purchase Agreement for the acquisition of PMC, the Project is subject to a 5% production royalty under certain conditions. That royalty will be limited by the following uranium market conditions: (i) if the reported spot price exceeds $55 prior to June 30, 2016, the 5% gross royalty is capped at $6,625,000; (ii) if the reported spot price exceeds $45 but does not exceed $55 prior to June 30, 2016, the royalty cap is reduced to $3,700,000; (iii) if the reported spot price does not exceed $45 prior to June 30, 2016, the royalty is terminated. The amount of production royalty, if triggered, may be purchased back at any time at URE's election. This production royalty pertains to all of the Project area, including production from the FAB and Area 5 Resource Areas. There are no other production royalties at the FAB Resource Area. Current estimates do not anticipate the spot price exceeding the contractual limits, and therefore, this PEA does not include the royalty in its economic projections.

Within Area 5, approximately 202 acres are subject to a formulaic royalty interest which totals approximately 0.5%. On two other tracts at Area 5 (30 acres in the southern portion and 40 acres in the southeastern portion), uranium and associated minerals are subject to different formulaic royalties which are approximately 1%. Currently, there is no known mineral resource on these 70 acres. Prior to the URE acquisition, early AREVA title work left unresolved a question as to an additional 0.5% royalty on 83 acres in the northern portion of Area 5. Further research and analysis has concluded that there is no such royalty. A 0.5% royalty was included for the resources in Area 5.

URE is also required to pay various state and local taxes related to production and the assessed value of the property. These taxes are in the form of severance, ad valorem gross products, and personal and real property taxes. There is no state income tax in Wyoming. Maintenance fees will be paid to the BLM on an annual basis, pursuant to the existing regulations, for the unpatented mining claims and mill site claims held at the Project.

4.5 Environmental Liabilities

The environmental liability for the Project falls under the jurisdiction of the State of Wyoming, Department of Environmental Quality (WDEQ) Land Quality Division (LQD), which regulates the conventional mine and associated infrastructure, and the U.S. Nuclear Regulatory Commission (NRC), which regulates the tailings facility.

The current cost estimate to reclaim the disturbance resulting from conventional mining is $9.24 million, and URE maintains a reclamation bond to cover these costs. This estimate, approved by the LQD, includes third-party costs for applying topsoil, demolition of the existing buildings, removal of roads, correction of the slope failure on the south end of Pit Lake 8, final seeding, and other miscellaneous reclamation work. There are no other known environmental liabilities associated with the Project.

The current cost estimate to reclaim the tailings facility is $2.35 million as submitted to the NRC. URE currently maintains a bond of $2.30 million to cover these costs until the NRC approves the new estimate, at which time the bond will be increased appropriately. This estimate includes the third-party costs for closure of an 11e.(2) byproduct material disposal cell that URE operates at the facility, revegetation, long-term monitoring and other miscellaneous costs. Water seepage from the tailings facility has impacted shallow groundwater at the toe of the dam. In response to this seepage, PMC submitted an Alternate Concentration Limit Plan to the NRC, which was subsequently approved. To date, the water quality in the shallow aquifer is well within the range approved by the NRC with no trends of concern; therefore, no further restoration is now required or expected.

4.6 Permitting

In order to initiate ISR, a number of permit amendments will be required from federal and state agencies. These permit amendments would add additional lands and/or modify the activities allowed. In addition, several new permits will be required from federal, state and local agencies. The NRC will require PMC to apply for and obtain an amendment to the existing Source and Byproduct Material License pursuant to 10 CFR Part 40 regulations. The application must address a number of matters including but not limited to: groundwater quantity and quality, aquifer characteristics, surface water quality, wildlife, vegetation, radiologic characteristics of air and soil, archaeological and cultural resources, meteorological data, soils and operations and reclamation plans. The need for archaeological surveys will be greatly minimized since the area has already been largely disturbed by historical conventional mining. The NRC will complete a National Environmental Policy Act (NEPA) analysis (Environmental Impact Statement or Environmental Assessment) as part of its licensing action pursuant to 10 CFR Part 51 regulations.

Since greater than 5 acres of disturbance will occur on lands managed by the BLM, the BLM will require the submittal of a Plan of Operations for review and approval. The Plan of Operations is virtually the same document as the Permit to Mine amendment submitted to the State of Wyoming and described below. The BLM will also need to complete a NEPA analysis. However, since the amount of BLM-administered land to be affected is relatively small, it is likely that the BLM will act as a cooperating agency with the NRC instead of completing a separate NEPA review. For uranium recovery licensing actions where both the BLM and NRC have a role, they cooperate in the review under a Memorandum of Understanding (MOU) in order to efficiently process the applications.

The involvement of the U.S. Environmental Protection Agency (EPA) will depend on the method(s) of wastewater disposal, which have not yet been determined. If Class I Underground Injection Control (UIC) well(s) (DDWs) are utilized, the EPA must consider the issuance of an aquifer exemption if the receiving aquifer has a total dissolved solids concentration less than 10,000 mg/L. If holding or evaporation ponds are constructed, the EPA will review the plans pursuant to 40 CFR Part 61, Subpart W. Prior to ISR, the production zone aquifer must be exempted from classification as an underground source of drinking water (USDW) under the Safe Drinking Water Act. The EPA must review the Class III UIC Aquifer Exemption Statement of Basis prepared jointly by the WDEQ/LQD and Water Quality Division (WQD). The EPA ultimately has authority to approve or deny the proposed aquifer exemption. The WQD also permits domestic wastewater disposal systems, which would be required at a future facility (e.g., septic tank and drainfield). In addition, the WQD would review permit application for UIC Class I and Class V DDWs.

The State of Wyoming, through its various WDEQ divisions, plays a significant role in permitting a proposed *in-situ* mine. URE currently holds a Permit to Mine from the State of Wyoming (345C) for the Project using open pit mining methods. However, in order to initiate ISR mining operations it will be necessary for URE to amend the existing Permit to Mine. The LQD takes the lead role by reviewing the amendment application to the existing Permit to Mine. This amendment application must contain a description of the ambient environmental condition of the site in a similar format as the license amendment application submitted to the NRC. However, since the LQD does not have jurisdiction over radiologic hazards, the health physics program is not submitted as part of the Permit to Mine amendment application. As mentioned previously, the LQD, in conjunction with the WQD, considers whether to recommend to the EPA issuance of a Class III aquifer exemption. Prior to commencing the 14-hole confirmation drilling program described in Section 7.3, URE completed a Drilling Notification with the LQD and posted a reclamation bond.

The Project is located within a designated greater sage-grouse “core area” in accordance with the stipulations in the Wyoming Governor’s Executive Order 2011-05. The LQD, with significant input from the Wyoming Game and Fish Department (WGFD), will review the potential impacts of the mine on greater sage-grouse and determine if those impacts are consistent with the Governor’s Executive Order.

The WDEQ Air Quality Division (AQD) will require an air quality permit prior to beginning construction at the site. Since the Project will be a satellite facility with minimal chemical processing, the air quality permit will focus primarily on fugitive dust control.

The Wyoming State Engineer's Office (SEO) manages the use of water throughout the state and will require Block Permits for each 40 acres of ISR wellfield. The permit application requires a description of the well construction technique, depth of water withdrawal, and volume of water to be used. Recently, the SEO determined that monitor wells do not require a permit, so baseline monitor wells can be installed without specific SEO authorization.

The proposed facility lies wholly within Carbon County. Carbon County regulates land usage and will require review and approval of proposed operations by the Planning and Zoning Commission.

4.7 Other Significant Factors and Risks

There are ongoing reclamation and surface stabilization activities associated with historical mining. There is a monitored sage-grouse lek within 2 miles of the Area 5 Resource Area (see Section 25.3.3 Risk Assessment – Operations for discussion of this issue). No other significant factors and risks have been identified that may affect access, title, or the right or ability to perform work on the Project.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Topography, Elevation and Vegetation

The Project is located in the northeastern portion of the Shirley Basin, which is a high, intermontane basin encompassing approximately 500 square miles in south-central Wyoming. The Basin lies within the Wyoming Basin Physiographic Province within the Rocky Mountain System and is situated between the Central and Southern Rocky Mountain Provinces (Dyman et al. 2005). It is bounded on the north and east by the Laramie Range, on the west by the Granite Mountains and on the southwest by the Shirley Mountains.

Elevations in the Shirley Basin Mining District (District) range from approximately 6,900 to 7,300 ft. Topography is dominated by low rolling hills mildly dissected by minor ephemeral drainages. This is locally modified by overburden dumps and mine pits from past operations which may diverge from natural ground level by as much as 250 ft. Most pits and dumps in the District have been re-contoured and re-vegetated.

Primary drainage in the District is provided by the perennial Little Medicine Bow River, which lies approximately one-half mile east of the Project. A secondary perennial drainage, Spring Creek, flows through the northern and northeastern portions of the Project.

Vegetation in the Project is dominated by cool season perennial grasses and sagebrush. The grasses are a combination of native species and re-vegetated species in reclaimed areas of historical mining. The sagebrush (*Artemisia tridentata*) is generally short and stunted, but is well adapted to the cold winter temperatures and limited precipitation that characterize the Shirley Basin. Other vegetation identified at the Project includes perennial forbs, cushion plants, semi-shrubs, cacti, shrubs and lichens.

Land use in the Shirley Basin is limited almost exclusively to summer range livestock grazing, with seasonal recreational hunting.

5.2 Access

The Project area is served by Wyoming Highway 487 as depicted on Figure 1. Wyoming Highway 487 is a state maintained, two-lane, sealed asphalt road providing year around access. Access to this highway from the north (Casper) is via Wyoming Highway 220, and access from the south (Laramie or Rawlins) is via US Highway 30/287. Once on the Project, there is a crown-and-ditched gravel access road to the former mill site area. The proposed access to the ISR production areas will require upgrading approximately 1.9 miles of an existing graded access road which is reached by Carbon County Road 2 (Shirley Ridge Road). In addition to the designated routes, there are a number of tertiary or ”two-track” roads that traverse the area for recreation and grazing access, as well as various other uses, including mineral exploration.

5.3 Proximity to Population Centers

The Project is located in a remote area. The nearest town is Medicine Bow with a population of less than 300 people, located about 32 miles south of the Project. Casper is approximately 40 miles north of the Project. Casper, with a population of 55,316 (U.S. Census 2010), has well-established infrastructure and service industry capabilities and is a source of experienced mining personnel. The city of Laramie (population 31,000 – U.S. Census 2010) is located approximately 78 miles south-southeast of the Project. Rawlins, Wyoming (population 9,100 – U.S. Census 2010) is located approximately 66 miles to the southwest. Federal and Wyoming highways link all these cities and towns to the Project (see Figure 1).

5.4 Climate and Operating Season

The climate of the Shirley Basin ranges from arid in the central portions to semi-arid along the flanks. There is a National Oceanic and Atmospheric Administration-sponsored, calibrated and maintained meteorological station located at the Heward Ranch, approximately 2.5 miles northeast of the Project. For the period of record from 1971 to 2000, the average annual precipitation measured at this station was 10.05 inches. Temperatures range from moderate in the summer to harsh in the winter. As recorded at the Heward Ranch station, average maximum temperatures in the summer (June, July and August) range from 71.8° to 78.8° Fahrenheit (F), while average minimum temperatures in the winter (December, January and February) range from 1.6° to 1.7° F. Due to the high elevation of Shirley Basin, summers are short, but the weather is favorable for working most of the year. However, there can be periods of time when exploration and drilling activities on the Project will be affected by winter weather, spring storms or adverse ground conditions.

5.5 Surface Rights and Property Infrastructure

URE controls the surface rights on lands over the FAB and Area 5 Resource Areas, as presently known, within the Project. Specifically, the FAB and Area 5 Resource Areas are located on lands where locatable minerals and surface rights to mine those minerals were acquired through the United States Patenting Act of June 17, 1943 (62 Stat. 467) by URE's predecessors-in-interest. Through these patents, URE controls the surface rights over all areas in the two resource areas except Patent No. 49-69-0017 (Area 5); however, there are in place perpetual surface use and access agreements for the purpose of mining the minerals granted under the patent. The Project's satellite facilities will be sited on surface owned by URE. In addition, URE has surface use and access agreements on 70 acres of fee surface, contiguous to Area 5, on which URE owns the minerals.

Site infrastructure is excellent. A well-graded road traverses the Project and access from the south will be upgraded as discussed in Section 5.2. The former mill facility has been dismantled and disposed of; however, several support facilities remain, including a modular field office building and a large, heated wash and lubrication bay which is currently used for storage and equipment maintenance. A regional power transmission line (69 kV) passes through the northern portions of the Project. Also, an existing energized power line leads to a substation near the field office, and from there a currently inactive powerline (power poles only) extends to the FAB Trend. An NRC-licensed active waste disposal site for 11e.(2) byproduct material is currently operating adjacent to the fully reclaimed tailings complex. Heavy equipment on-site for that operation includes a D-9 bulldozer and a medium sized backhoe.

Water supply needs are currently limited to drilling water, which is being supplied by a well capable of producing over 25 gallons per minute (gpm). A backup water well is also present but has not been utilized to date. The two water wells installed at the Project are capable of providing sufficient supply for domestic and other potential operational requirements. Water impounded in the reclaimed mine pits is also suitable for use in drilling and would be available pending construction of approach ramps.

6.0 HISTORY

The District is the second largest uranium producing district in Wyoming. It has a rich mining history that includes the first commercial uranium ISR operation in the United States and the earliest development of roll front geologic concepts. Over 51 million pounds of uranium were produced from this District from 1960-1992, including over 28 million pounds produced from the lands currently controlled by URE.

The initial uranium exploration and early discoveries within this remote basin were made by Teton Exploration (Teton) in 1954 and 1955. However, this remained largely unknown to the public until July 1957 when a land rush swept the region. Utah Mining Corporation (Utah) acquired a large land position at this time in search of additional resources to feed its Lucky Mc mill in the Gas Hills Mining District. Utah's position focused mainly on the northern portions of the District.

Other significant early operators in the District were Tidewater Oil Company (Tidewater) later, Getty Oil Company (Getty), Petrotomics Company (Petrotomics) and Kerr-McGee Nuclear. These companies focused primarily in the southern portions of the District. Petrotomics started an open pit mine/mill operation in 1962 just south of the Utah property and operated through 1985. All of Kerr-McGee Nuclear's production was processed through the Petrotomics mill. In addition, ore from the Jenkins Mine operated by the Uranium Supply Services Corporation in the southern portion of the District was also processed at the Petrotomics mill.

6.1 Prior Ownership and Ownership Changes

Most of the initial land acquisition throughout much of the Project was conducted by Utah and Tidewater (particularly Tidewater in the western FAB Resource Area) in the late 1950s. Area 5 and the eastern FAB Resource Area were initially acquired by Utah from third parties who had located unpatented lode claims. By 1963, Utah had acquired title and interest to the unpatented lode claims from various third parties, and after doing so, merged with Utah Construction and Mining Company (Utah CM). In 1968, Utah CM patented the lode claims, which make up the majority of the Area 5 and eastern FAB Resource Areas. In 1973, Utah CM conveyed its interests to Utah International Inc. (UII). In 1976, UII conveyed its interest to Lucky Mc Uranium Corporation, which subsequently changed its name to Pathfinder Mines Corporation (PMC). PMC was purchased by COGEMA in the 1980s, and, in December 2013, URE acquired PMC.

With respect to portions of the FAB Resource Area, Tidewater initially located unpatented lode claims, then sought and received patents (early 1960s). Tidewater then merged with Getty, who received additional patents for lode and mill site claims (1973), which completes the interests in the western FAB Resource Area. Subsequently, in 1984, Getty conveyed its interest to Getty Mining Company, which subsequently conveyed the interest to Petrotomics. In 1985, Petrotomics deeded all of its interest in what is now the FAB Resource Area to PMC. Additionally, between 1996 and 2009, PMC staked nine unpatented lode mining claims within the FAB Resource Area.

In 2005, PMC acquired a 100% interest (subject to a royalty) on 70 contiguous acres from two mineral and surface fee owners southeast of, and contiguous to, the Area 5 Resource Area.

6.2 Exploration and Development by Previous Owners and Operators

Because of experience gained at the Gas Hills, Utah's exploration operations at Shirley Basin were well managed and extremely efficient. After staking mining claims, Utah immediately commenced a successful exploratory drilling program in July 1957. Utah's first ore-hole was drilled in August 1957 in what is now Pit 3, followed by an extensive exploration drilling program. Sufficient reserves were soon discovered to warrant development, and in June 1959 underground mine construction was started in what is now the northern portions of Pit 2. Production by Utah/PMC over the years was by three different methods. Initial mining was by underground methods, with the ore shipped to Utah's Lucky Mc mill in the Gas Hills. However, underground mine dewatering proved difficult. Consequently, underground activities were abandoned in 1964 and replaced by the first successful commercial solution mining (ISR) operation in the United States, employing acid leach methods. In 1970 production demands caused Utah to switch to open pit mining. All mining past that point was by open pit mining. A mill to process the ore on-site was commissioned in 1971.

Prior to acquisition by URE a total of over 9,400 exploration and development rotary drilled holes had been drilled and logged by Utah/PMC and Petrotomics within or near the current Project area. Most had been drilled prior to 1984 as delineation holes for past mined open pits and as regional exploration holes; however, more than 3,200 holes were drilled within the current FAB Trend and Area 5. Pre-stripping of portions of the FAB Trend had been initiated adjacent to Pit 8, and also at the east end of the trend adjacent to Pit 3. Pre-stripping had progressed to approximately 50-75 ft. in depth by the time mining ceased. Production history is discussed further in Section 6.4.

6.3 Significant Historical Mineral Resource and Mineral Reserve Estimates

When PMC open pit operations within the District ceased in 1992, substantial resources remained in the ground. COGEMA formed an ISL Resource Assessment Group in 1994 to evaluate remaining identified resources in the Project and their suitability for ISR. The primary resource area was identified as the FAB Resource Area or FAB Trend, which is primarily located in the southern portions of Sections 33, 34 & 35, Township 28 North, Range 78 West (Figure 4). The majority of this resource represents the connecting mineral trend within the Main Sand between past production in the Pit 2/8 complex and that in Pit 3. The Pit 2/8 complex produced approximately 18 million lbs. of U_3O_8 and Pit 3 produced approximately 7 million lbs. U_3O_8. A second area (Area 5 Resource Area), located in the northwest portion of the Project (Figure 4), was also evaluated by the ISL Resource Assessment Group.

In annual uranium reserve summary reports from 1994 to 1998, COGEMA identified approximately 7.0 million lbs. of U_3O_8 in the FAB Trend and Area 5 as resources that

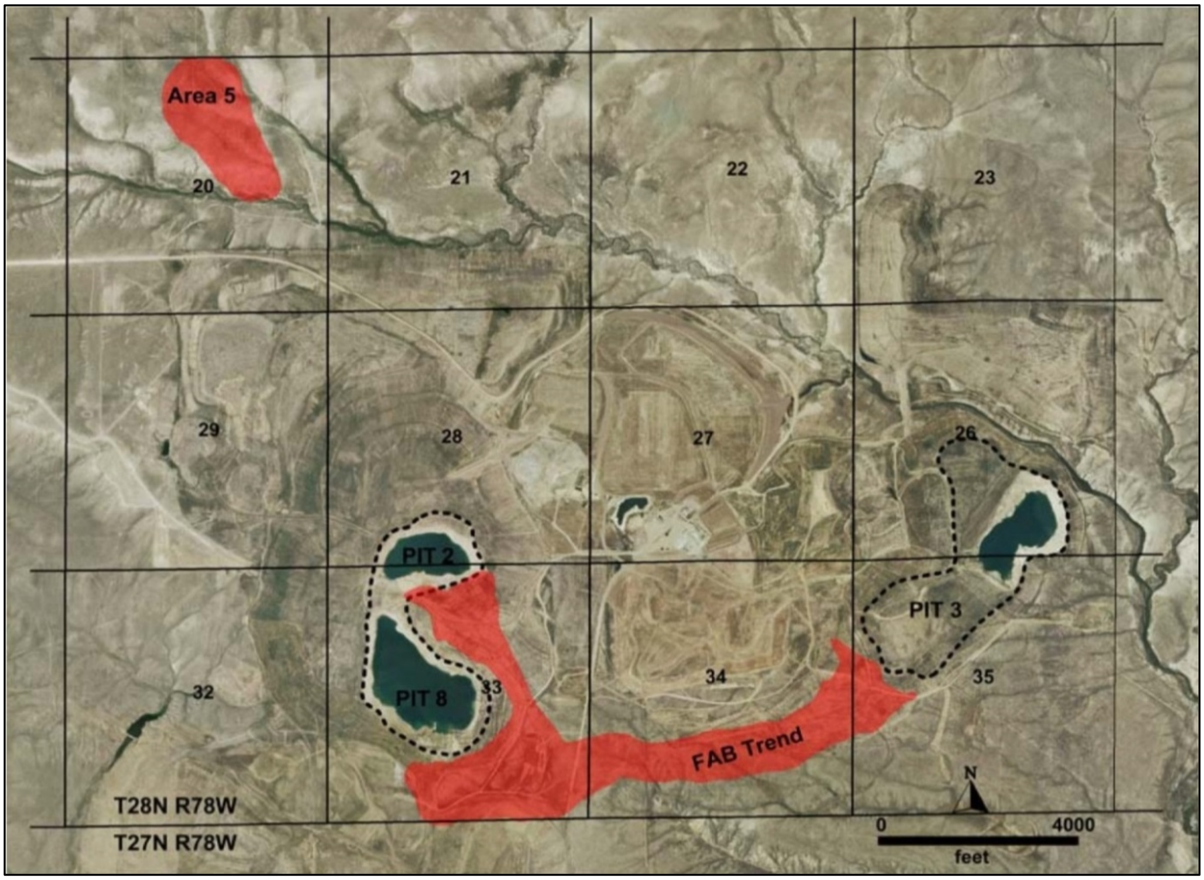


Figure 4. Shirley Basin Uranium Project Resource Areas

could potentially be mined by solution methods. These earlier resource estimates are relevant as they provide an indication of the mineralization in the area; however, they do not differentiate resources in terms of currently recognized resource categories (Measured, Indicated and Inferred), and they do not meet the CIM definition standards and guidelines for the reporting of exploration information, mineral resources and mineral reserves for the purpose of NI 43-101. URE is not treating this historical estimate as current mineral resources or mineral reserves, and it is superseded by the current mineral resource estimate in Section 14.0 of this report.

In 2010, AREVA (formerly COGEMA) completed a more comprehensive resource evaluation for the FAB Trend and Area 5. Termed a "GT Layer Resource Model," it was largely a geostatistical approach based on mineralized intercept data from historical delineation drill holes completed in the two resource areas. GT values for mineralized holes were accumulated per each 10-ft. elevation slice. The resulting GT values were contoured for each elevation slice using a kriged or distance-weighted average GT contour method, and the sub-total resources for each slice were calculated. The totals listed in Table 3 represent the total of all slices and include some mineralization in the White River Formation. No geological interpretation was involved. The estimation was done using multiple GT cutoffs for both the FAB and Area 5 Resource Areas.

Table 3. 2010 Historical PMC Shirley Basin Uranium Project Resource Summary

GT Cutoff		0.01	0.10	0.25	0.50	1.00
FAB Area	lbs U_3O_8 Avg GT Avg Grade	15.81M 0.025 0.030%	12.43M 0.359 0.138%	9.28M 0.631 0.218%	6.25M 1.035 0.322%	3.43M 1.784 0.493%
Area 5	lbs U_3O_8 Avg GT Avg Grade	2.58 M 0.022 0.016%	1.47M 0.239 0.106%	0.80M 0.450 0.188%	0.35M 0.772 0.275%	0.10M 1.334 0.461%
Total Resource	lbs. U_3O_8	**18.39M**	**13.90M**	**10.08M**	**6.60M**	**3.53M**

This historical resource estimate is relevant as it provides an indication of the magnitude of remaining resources in the FAB and Area 5 Resource Areas. However, not all of the resources in this historical estimate should be considered as suitable for ISR production. Also, this historical resource estimate does not differentiate resources in terms of currently recognized resource categories (Measured, Indicated and Inferred), and does not meet the CIM definition standards and guidelines for the reporting of exploration information, mineral resources and mineral reserves for the purpose of NI 43-101. URE is not treating this historical estimate, which is superseded by the current mineral resource estimate in Section 14.0 of this report, as current mineral resources or mineral reserves.

6.4 Production

No production has taken place within the District since 1992. Prior to that time, based on internal PMC reports, a combined 51,263,100 lbs. of uranium were mined from the District. Of this total, PMC (and its predecessor company - Utah) produced 28,263,100 lbs. PMC's total production was the result of a combination of underground mining, ISR operations and open pit mining within property currently controlled by URE. Historical production within the District is listed in Table 4.

Table 4. Shirley Basin Historical Uranium Production (1960-1992)

Company	Method	Pounds U_3O_8
Utah	Underground	1,200,000
Utah	*In-situ* Leach	1,500,000
Utah/PMC	Open Pit	25,563,100
Petrotomics	Open Pit	22,000,000
Homestake/Others	Open Pit	1,000,000
	Total	**51,263,100**

Underground Mining – Utah began underground mine construction in June 1959. Underground methods were selected because portions of the reserves were too deep for open pit mining under the small production quotas allocated at the time by the U.S. Atomic Energy Commission (AEC). The first ore was produced in March 1960. The ore was transported to Utah's Lucky Mc mill in the Gas Hills Uranium District for processing. Unstable mining conditions, attributed to the unconsolidated nature of the ore sands and high flow of groundwater, resulted in high mining costs. Near the end of this mining phase, 4,000-5,000 gpm had to be pumped from the mine in order to maintain the operation. Underground drifting stopped in November 1963 when the decision was made to switch to solution mining. A total of 110,000 tons of ore were mined from underground operations containing 1.2 million lbs. of uranium.

<u>ISR Operations</u> – It was recognized early in the underground mining phase that the troublesome issues related to unconsolidated permeable host sands and high groundwater flow could be positive factors for ISR. For this reason, research into ISR began in 1961. This research focused on the site hydrological conditions, optimum geometry of wellfield patterns and production/injection well designs.

Commercial ISR operations commenced in 1963 and continued into 1970, when dewatering associated with open pit mining stopped operations. These were the first commercial ISR operations in the United States and were considered technologically and economically successful. Produced mining solutions were pumped to a uranium recovery plant on the property, containing ion exchange, elution and stripping columns. A uranium slurry from this plant was concentrated and shipped to the Lucky Mc mill for final processing. A total of 1.5 million lbs. of uranium were produced through ISR methods.

<u>Open Pit Mining</u> – In November 1968, Utah announced plans to initiate large-scale open pit mining operations and to construct a 1,800 ton/day mill on its Shirley Basin property. Overburden stripping began in 1969 and, in July 1970, ISR production was halted. The mill first began processing ore from open pit operations in 1971. Production came from three large open pits: Pits 2, 3 and 8. Pit 3 and most of Pit 2 were on ground initially acquired by Utah. Pit 8 was on ground acquired from Petrotomics. All historical underground workings and the area mined by ISR were eventually removed by open pit mining within Pit 2. PMC's open pit mining operations were terminated in 1992 and produced a total of 25,563,100 lbs. of uranium.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geological Setting

The Shirley Basin is a small structural basin with a complex structural history. The latest and most prominent structural events were associated with the Laramide Orogeny of Late Cretaceous to Early Tertiary age. During this orogeny, basement uplifting within the surrounding Granite and Shirley Mountains to the west and southwest and within the Laramie Mountains to the east and northeast formed a broad, shallow, southward-plunging basin. Within this basin, post-Laramide Tertiary sediments were unconformably deposited on an eroded surface of mid Cretaceous strata. These Cretaceous sediments dip approximately 2-12° to the southwest.

7.2 Shirley Basin Stratigraphy

Cenozoic and Mesozoic sediments present on the surface and in the sub-surface at Shirley Basin are illustrated stratigraphically on Figure 5. The following summarizes the geologic formations, from shallowest to deepest, below, above and including the host sandstones of the Eocene-age Wind River Formation.

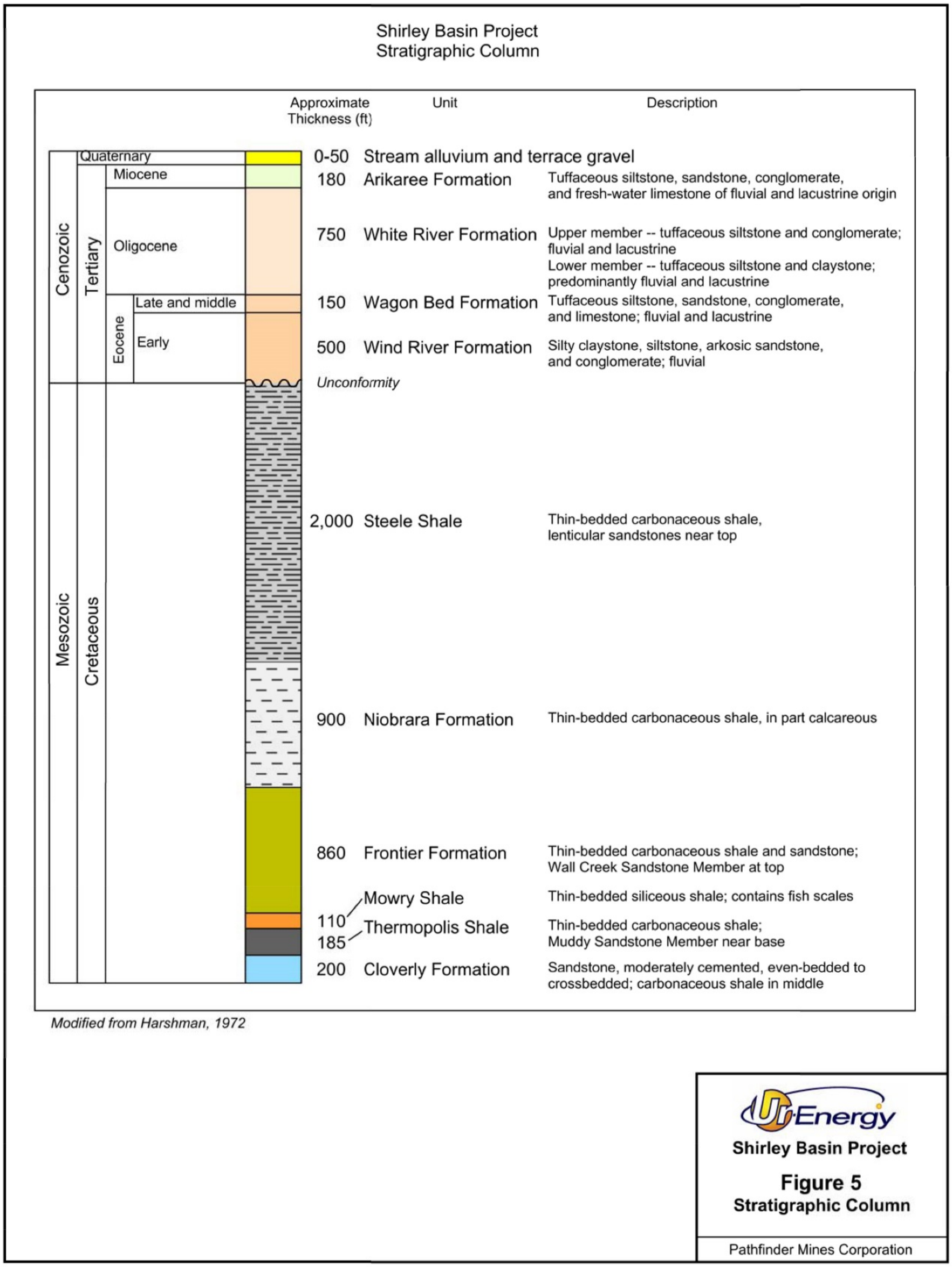
Quaternary – Thin sequences of alluvial sediments occur along intermittent and perennial stream drainage systems. These fine-grained sediments have been eroded from Tertiary and Cretaceous rocks.

Arikaree Formation (Miocene), fluvial and lacustrine – This formation consists of alternating beds of fine to medium-grained, calcareous, light-gray, tuffaceous sandstones; lenticular conglomerates; and fresh-water limestones. The maximum thickness of this formation is 180 ft. While the Arikaree is not present within the District, exposures on the periphery of the structural basin have been described by Harshman 1972.

White River Formation (Oligocene), fluvial and lacustrine – This thick sequence of tuffaceous sediments has a maximum thickness of 750 ft. An upper member consists of tuffaceous siltstones, interbedded with coarse-grained sandstone and boulder conglomerates. A lower member is predominately tuffaceous siltstones, but contains sequences of claystones, sandstones, conglomerates and fresh-water limestone. Locally the White River Formation contains small concentrations of uranium mineralization.

Wagon Bed Formation (Eocene), fluvial and lacustrine – Where present, it consists of interbedded coarse-grained arkosic sandstones, silicified siltstones and claystones, and fresh-water limestones. The maximum observed thickness of this formation is 155 ft. It is not present in the Project area, having been removed by erosion prior to deposition of the White River Formation.

Figure 5. Stratigraphic Column



Wind River Formation (Eocene), fluvial – This formation is the primary host for uranium deposits in the Shirley Basin and consists of sequences of medium to coarse-grained arkosic sandstones, interbedded with claystone shale, clayey siltstones and thin lignites. Locally, there are intervals of boulder conglomerates, although these have not been observed within the Project area. The maximum thickness of this formation ranges from 450-550 ft.

Steele Shale (Cretaceous), marine – This is the youngest Cretaceous formation recognized in the Shirley Basin. This formation consists of thin-bedded, dark gray clay shale and some siliceous, medium-grained, light-gray sandstones. The Steele Shale is soft and easily eroded. It has an estimated thickness of 1,500-2,000 ft. This formation has been removed by pre-Tertiary erosion in the Project area and is present only in the far northeastern portion of the District.

Niobrara Formation (Cretaceous), marine – This formation consists of dark gray to black locally calcareous shale, interbedded with thin limey sandstones. Total estimated thickness of this formation is 900 ft.

Frontier Formation (Cretaceous), marine – The majority of the formation consists of gray to dark gray, thin-bedded carbonaceous shale. The top of the Frontier Formation is represented by the Wall Creek Sandstone member. This member consists of a series of fine to medium-grained sandstones, interbedded with dark gray shale. The sands are cemented with calcium carbonate and are very resistive to erosion. They have also been a prolific oil producer throughout Wyoming. Thickness is approximately 110 ft. Total estimated thickness of the Frontier Formation (including the Wall Creek Sandstone) is 900 ft.

7.3 Project Geology

In the Project area, the primary hosts for uranium mineralization are arkosic sandstones of the Eocene-age Wind River Formation. This formation was unconformably deposited on gently-dipping shales and sandstones of the Cretaceous-age Niobrara and Frontier Formations. The White River Formation unconformably overlies the Wind River Formation and outcrops on the surface throughout most of the Project, with thicknesses ranging from a thin veneer in the FAB Resource Area to over 250 ft. in Area 5 (see Figure 6).

The Wind River sediments in the Project area were deposited as part of a large fluvial depositional system. The lithology of the Wind River Formation is characterized by thick, medium to coarse-grained, arkosic sandstones separated by thick claystone units. Sandstones and claystones are typically 20 - 75 ft. thick. Minor thin lignite and very carbonaceous shale beds occur locally. These fluvial sediments are located within a large northwest-trending paleochannel system with a gentle 1° dip to the north (Bailey and Gregory 2011).

The average thickness of the Wind River Formation within the Project area is approximately 230 ft. (see Figure 7). The two most dominant sandstones are named the

Figure 6. Geology Map

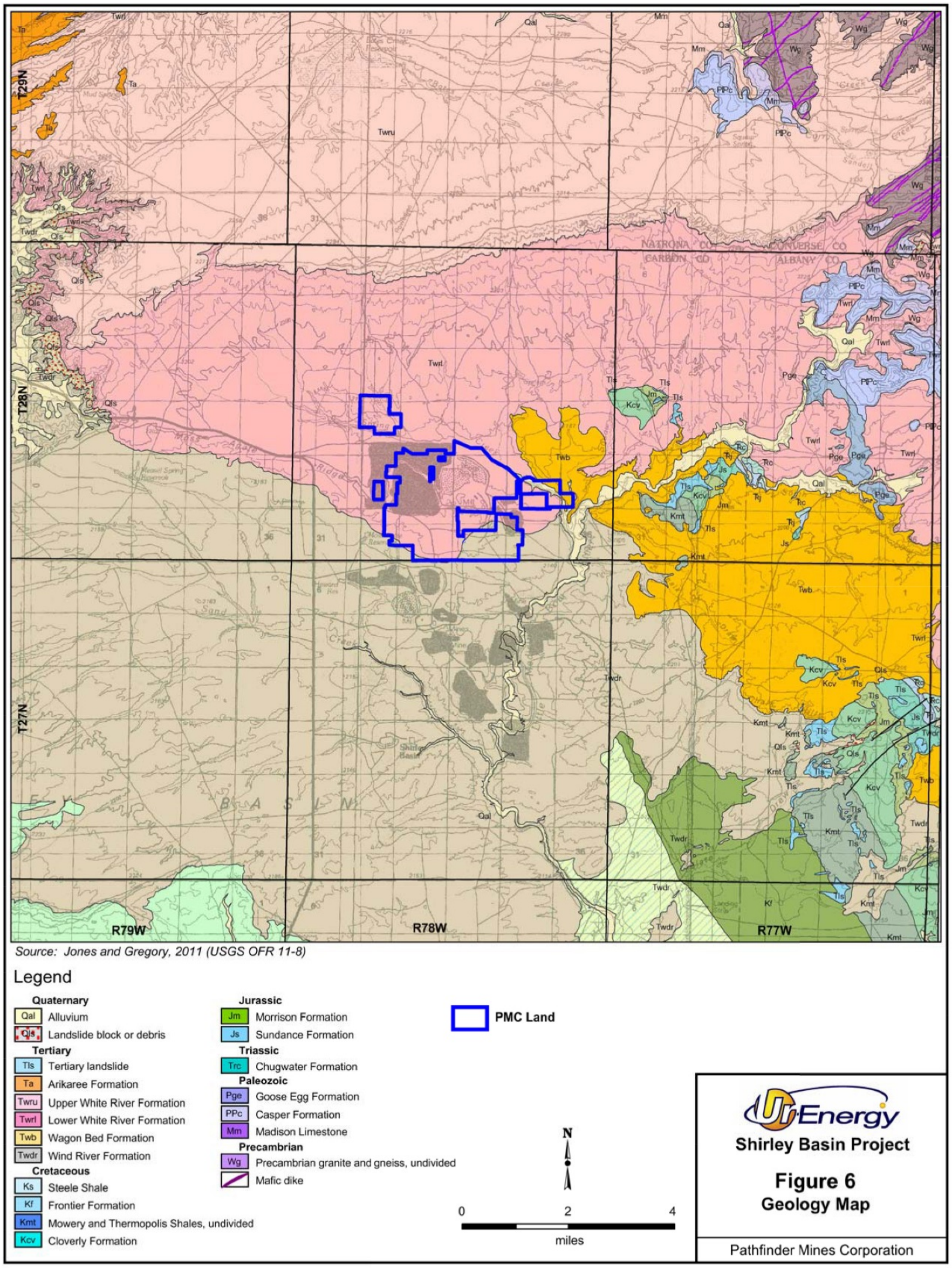
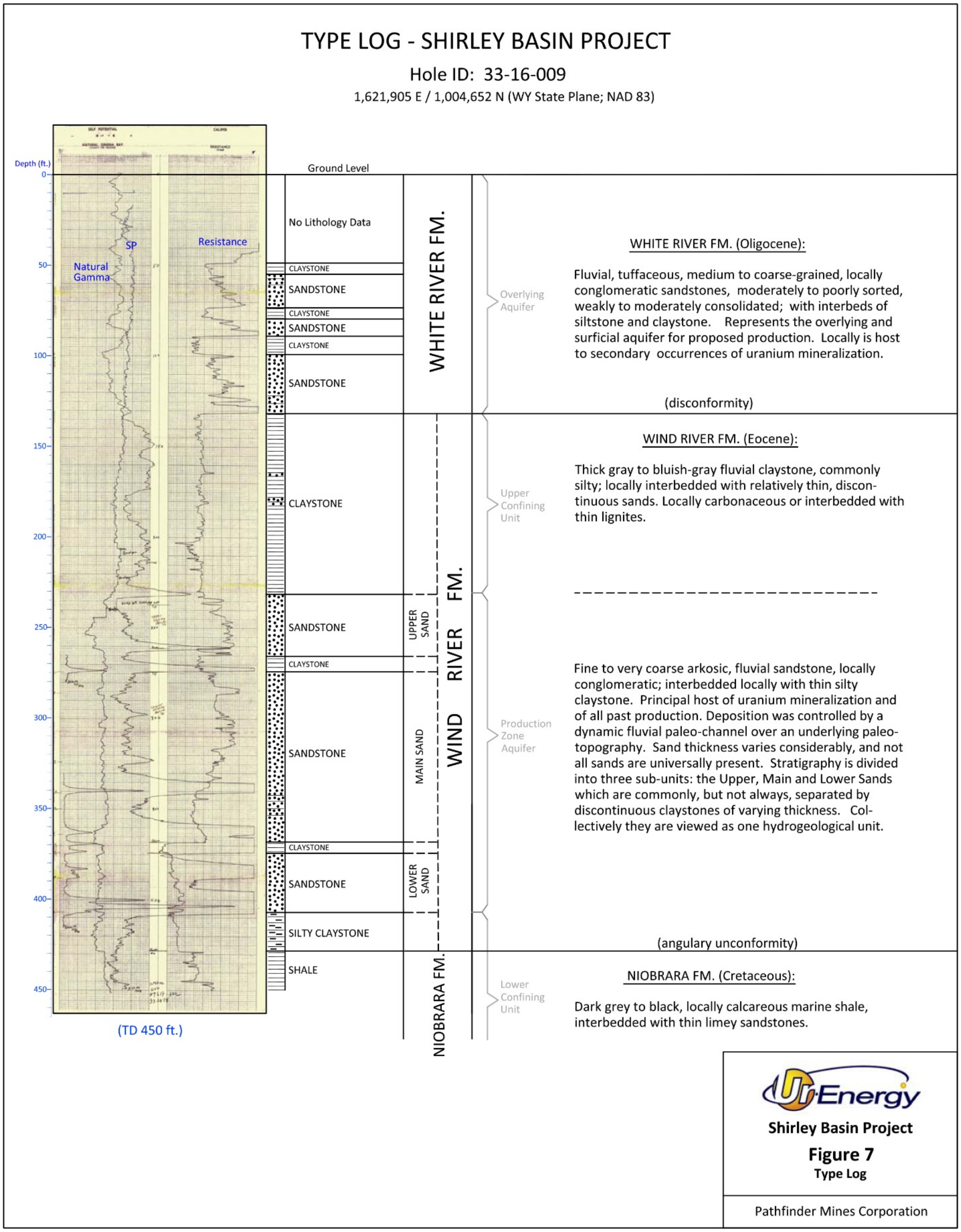


Figure 7. Type Log



Main and Lower Sands. The Lower Sand represents the basal sand unit of the Wind River Formation and in places lies directly above the underlying Cretaceous formations. The Main Sand typically lies approximately 15 - 25 ft. above the Lower Sand. Locally the two merge where the intervening claystone unit is absent. Typical thickness of the Lower Sand ranges from 25 - 50 ft. and that of the Main Sand from 40 - 75 ft. Less dominant sands are common within the Wind River Formation. One in particular has been referred to as the Upper Sand and is present within much of the FAB Trend, lying approximately 25 ft. above the Main Sand. Claystone units are normally at least 10 ft. thick and commonly are 20 - 50 ft. thick.

The average depth to the top of the Main Sand in the FAB Trend is approximately 270 ft. and the average depth to the base of the Lower Sand is 400 ft. Area 5 is down-dip; therefore, the units are slightly deeper. The average depth to the top of the Main Sand in Area 5 is approximately 360 ft. and the average depth to the base of the Lower Sand is 490 ft.

Regional alteration systems related to roll front development followed the Wind River Formation depositional patterns. Two major alteration systems developed, one in the Lower Sand and one in the Main Sand. Major historical ore bodies in the southern portions of the District were mainly in the Lower Sand and lower alteration system, while those in the central and northern portions of the District were in both the Lower and Main Sands. PMC's Pit 3 was mined only in the Main Sand. Pits 2 and 8 were mined in both sands and both alteration systems.

Mineralized core of the Main Sand, collected during URE's 2014 confirmation drilling program, was described by geologists as medium- to coarse-grained, friable sandstone, clean, uncemented but weakly to moderately compacted. Laboratory testing of physical parameters of these core samples yielded an average horizontal permeability (to air) of 3,319 millidarcies, and an average porosity of 26.8%. In addition, similar testing of an overlying claystone unit yielded a vertical permeability of 4.56 millidarcies, and a sample from the underlying claystone unit had a vertical permeability of 0.93 millidarcy. The results of these initial tests indicate conditions are suitable for uranium ISR, a high permeability host aquifer confined by low permeability aquitards.

Bulk density analyses were also conducted on two core samples from the Main Sand. These analyses yielded an average tonnage factor (density) of 15.7 cubic (cu.) ft. per ton for the host sandstone. This compares favorably to the historical PMC tonnage factor of 16.0 cu. ft. per ton, which was used in URE's current resource estimate.

Chemical analyses for trace metals and accessory minerals of 33 samples collected from the two 2014 core holes were performed by Inter-Mountain Labs, Inc. (IML). Trace metal analysis was done using ICP-MS methods employing 3-acid digestion (nitric, hydrochloric and hydrogen peroxide: EPA Method 3050). All samples represent approximately one-foot intervals and were collected from within, or adjacent to, mineralized intervals. Results for selected analytes which could potentially impact uranium ISR or processing are listed Table 5 below:

Table 5. Summary of Select Analytical Results from Shirley Basin Core

Analyte	Average Concentration
As	9.5 ppm
Mo	10.4 ppm
Pb	15.8 ppm
Se	2.9 ppm
V	71.0 ppm
C(org)	0.17%
$CaCO_3$	1.88%

None of the analytes shows contents which would impede uranium recovery. Vanadium values are elevated; however, as described in Section 13.0, vanadium recovery during bottle roll leach tests was very low.

Petrographic and mineralogical analyses were conducted by Hazen Research, Inc. (Hazen) on behalf of PMC in October 2014 on two mineralized core samples. The samples were selected from two core holes, each testing the "nose" environment of separate roll fronts in the Main Sand within the FAB Trend. Uranium analysis by Hazen showed the grade of sample FAB-8C 248.5 to be 0.26% U_3O_8, near the average grade for the FAB Trend. Sample FAB-9C 344.4 is of higher grade at 0.70% U_3O_8. Mineralogical analysis was performed on polished sections using QEMSCAN technology. Selected portions of the samples were also analyzed by x-ray diffraction (XRD).

Table 6 lists the semi-quantitative abundance analysis of the minerals identified in the two samples. The results are consistent with that of a clean uranium bearing arkosic sandstone. The main minerals are quartz, potassium-rich feldspar, and clay minerals (possibly swelling). The clay fraction varied from 9% to 14% (by mass). Clay mineralogy was not identified but is likely mostly smectite with some kaolin. Pyrite content is lower than expected, at 0.9% to 1.5%. Carbonate (calcite) content is variable. Sample FAB-8C 248.5 contained very little carbonate, while FAB-9C 344.4 was locally calcite cemented, showing a total of 6.1% carbonate. Uranium mineralization is not prevalent in calcite-rich zones. Microscopic estimation of porosity for both samples is 25%.

Other minerals identified in the sand include mica or clinochlore (or both) and trace levels of zircon, epidote, titanite (sphene), and calcium sulfate (probably gypsum). The "miscellaneous" and "unidentified" categories in Table 6 include minerals that occur at very low levels or analysis points that could not be positively identified.

Uranium mineralogy was identified as uraninite [UO_2], possibly with coffinite [$U(SiO_4)_{1-x}(OH)_{4x}$], occurring in an undiscernible crystal morphology smaller than 1μm. The uranium minerals are mainly finely disseminated and adhered to clays that occur in the interstitial spaces between quartz and feldspar grains. They also occur in clay-rich coatings on quartz and feldspar grains, as fracture fillings in the sand grains, in weathered or altered grains of feldspar, and locally as inclusions within pyrite grains.

Table 6. Semi-quantitative Mineral Abundance Analysis

Sample	FAB-8C 248.5	FAB-9C 344.4
Mineral	**Analysis, mass%**	
Uraninite	0.001	0.09
Uraninite or coffinite with clay	3.9	9.3
Quartz	47	38
Feldspar	31	32
Mica or clinochlore	2.1	2.8
Clay (Mg–Ca–K–Fe–Al silicate)	14	9
Pyrite	0.9	1.5
Carbonate	0.1	6.1
Zircon	0.03	0.01
Epidote	0.4	0.1
Titanite	0.02	0.03
Ca-sulfate	0.001	0.2
Miscellaneous	0.3	0.8
Unidentified	0.1	0.1
Total	**100**	**100**

Figure 8 is a backscatter electron image of a polished section from sample FAB-9C 344.4. It illustrates the presence of uranium associated with interstitial clay and with clay-rich coatings on sand grains.

The results of the Hazen petrographic analyses indicate that the mineralogical characteristics of the FAB Trend should be amenable to uranium ISR and are similar in most respects to those of other Wyoming deposits which have been successfully mined by ISR methods.

7.4 Significant Mineralization

All uranium mineralization at the Project occurs as roll front deposits. Virtually all significant mineralization, including all of the past production, is hosted by the Main Sand or the Lower Sand. Limited uranium mineralization has also been encountered in the less dominant upper Wind River Formation sandstones and in sandstones of the overlying White River Formation. These upper sandstones, however, are viewed as marginal targets and evaluation to date has been limited.

Each of the primary host sands is occupied by a regional roll front alteration system which closely follows the depositional patterns established by Wind River-age fluvial paleo channels. The alteration systems, in turn, develop multiple stacked roll fronts at their terminal ends or lateral edges, such that the Main Sand has as many as ten distinct roll fronts and the Lower Sand up to five roll fronts.

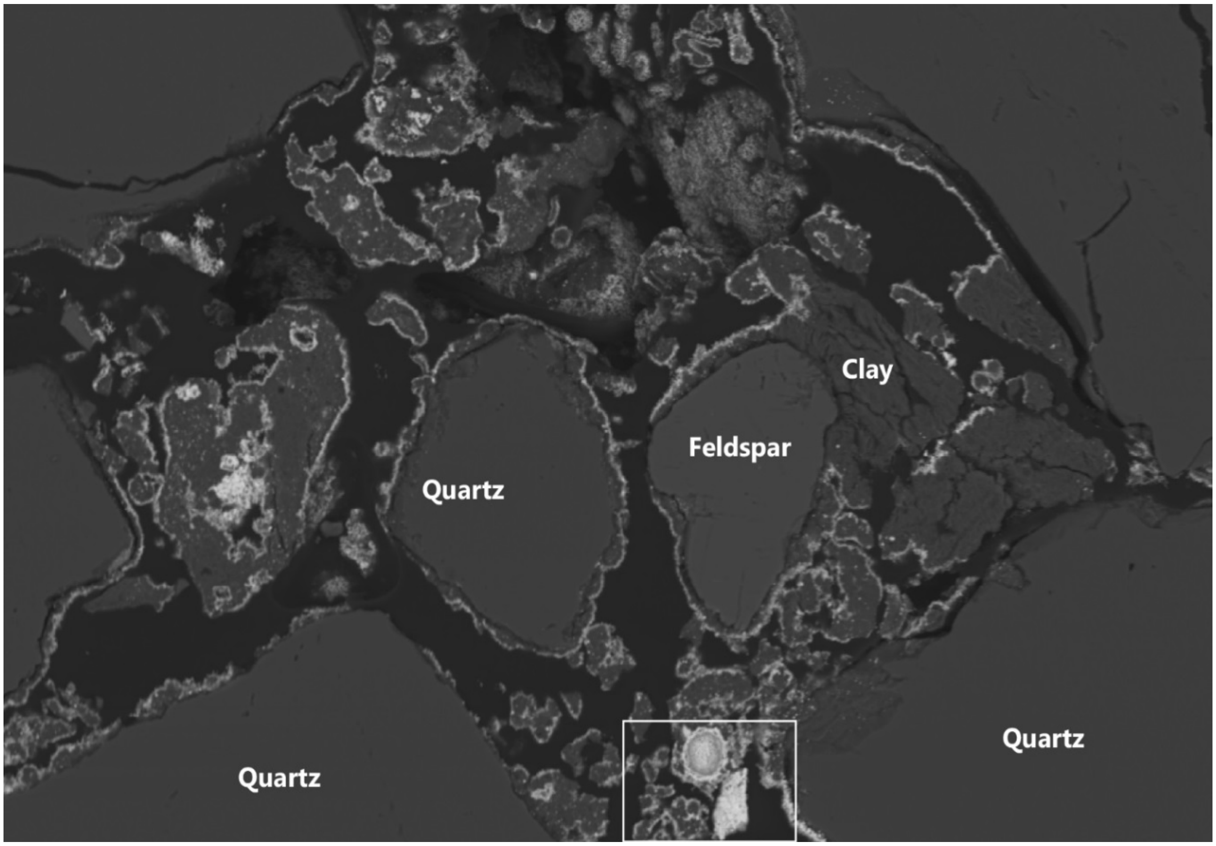


Figure 8. Backscatter Electron Image – Uranium Mineralization (Bright) Associated with Clays Surrounding Quartz and Feldspar Grains

The FAB Trend is the major target for potential uranium ISR. Mineralization occurs primarily in the Main Sand and represents an arcuate trend which links past Main Sand production in Pits 2/8 to that in Pit 3. (see Figure 9). The trend represents a composite of multiple stacked roll front mineral horizons spanning a length of approximately 11,000 ft. (2 miles) and varying in width from 250-1,000 ft. Mineralization occurs within a 200-ft. depth interval, ranging from 200-400 ft. Within a given roll front, mineralization exhibits strong horizontal continuity parallel to the orientation of the reduction-oxidation (redox) interface.

Mineralization in Area 5 is also viewed as an objective for uranium ISR. Mineralization in Area 5 is hosted in both the Main and Lower Sands near the northern terminus of those regional alteration tongues. Resources occur in two loosely defined, north-south oriented trends which are located along the lateral flanks of the alteration tongues (see Figure 9). The western trend contains the highest contents of mineralization. The eastern trend is less defined and holds fewer resources. The western trend is approximately 3,000 ft. long by 1,000 ft. wide, and the eastern trend is approximately 2,500 ft. long by 500 ft. wide. Together, the two trends represent a resource area approximately 3,000 ft. long by 2,000 ft. wide. Similar to the FAB Trend, each sand

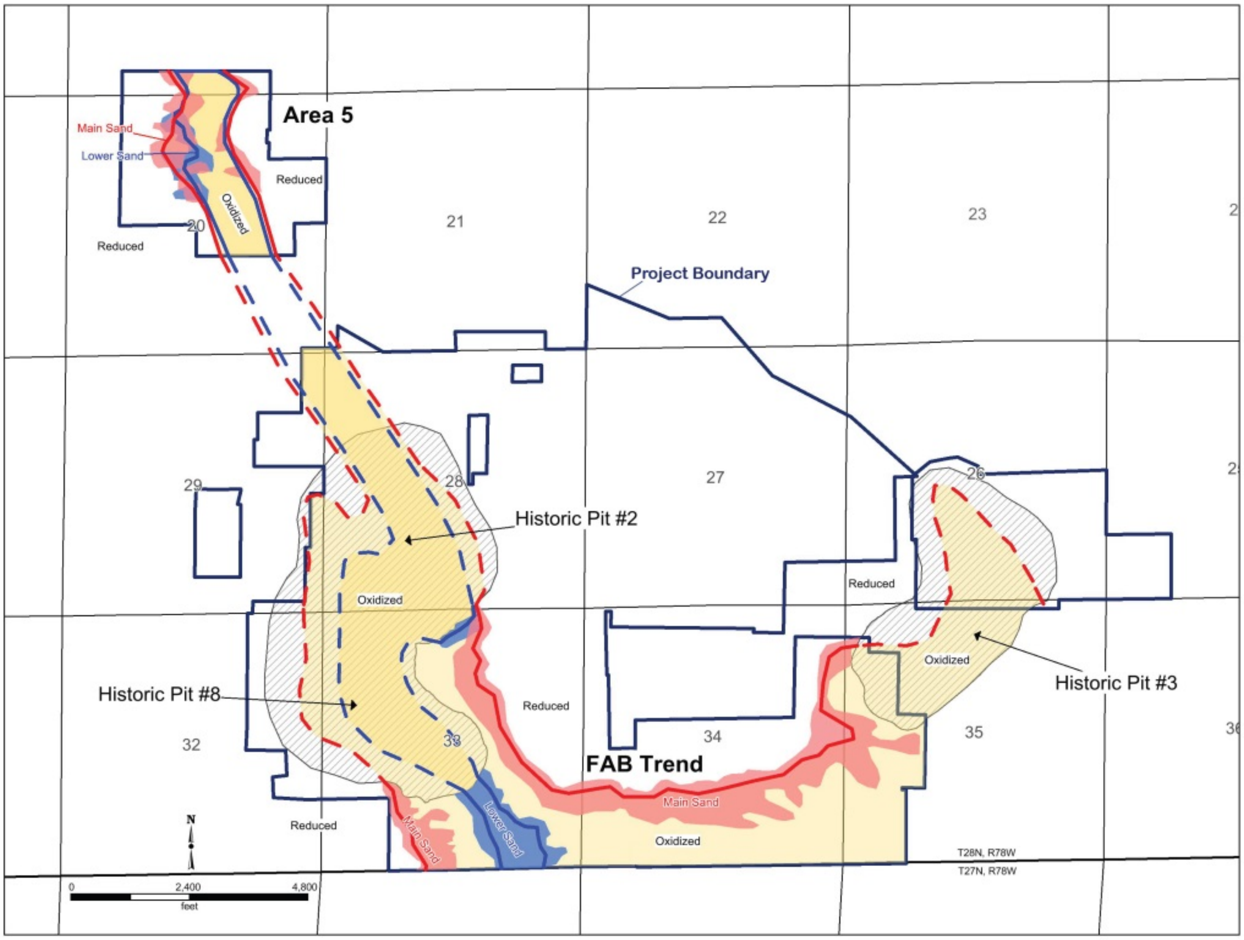


Figure 9. Mineralized Trends

hosts multiple stacked roll fronts. Depth to mineralization in the Main Sand in Area 5 ranges from 380-500 ft. and from 470-530 ft. in the Lower Sand. Geometry of the individual roll fronts in this area is very similar to that described above for the FAB Trend.

For a detailed explanation of roll front mineralization on the Project, please see Section 8.0 Deposit Type, Section 10.0 Drilling and Section 14.0 Mineral Resources Estimates.

8.0 DEPOSIT TYPE

Uranium mineralization identified throughout the District occurs as roll front-type deposits. Because of the extensive uranium exploration activities conducted in the Shirley Basin during the early years of the U.S. uranium industry (the late 1950s through early 1960s), many of the fundamental concepts of the roll front model were developed by early Shirley Basin geologists studying the underground and open pit workings. Harshman, 1972, provides a detailed analysis of the geology and uranium deposits of the Shirley Basin area.

The photograph shown in Figure 10 was taken in one of the Shirley Basin open pits and illustrates a cross sectional view of a roll front. In this case, the roll front has migrated from left to right. The crescent shape configuration of the mineralization within the sand is clearly evident. Oxidized sand is observed to the left of the roll. Colors in this photo are distorted due to the age of the photo.

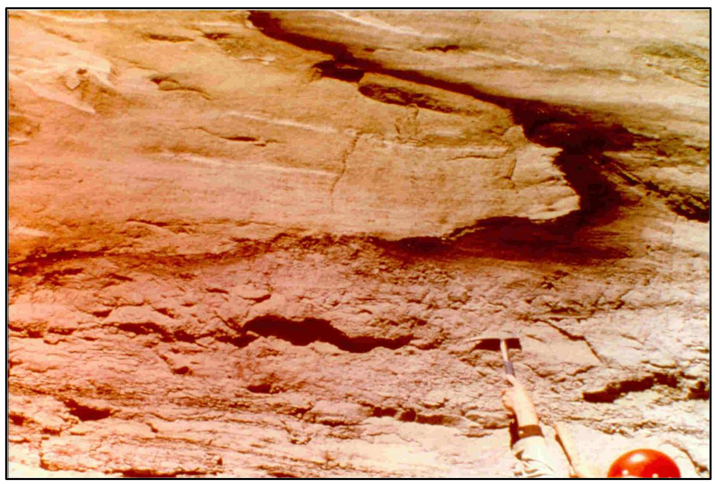
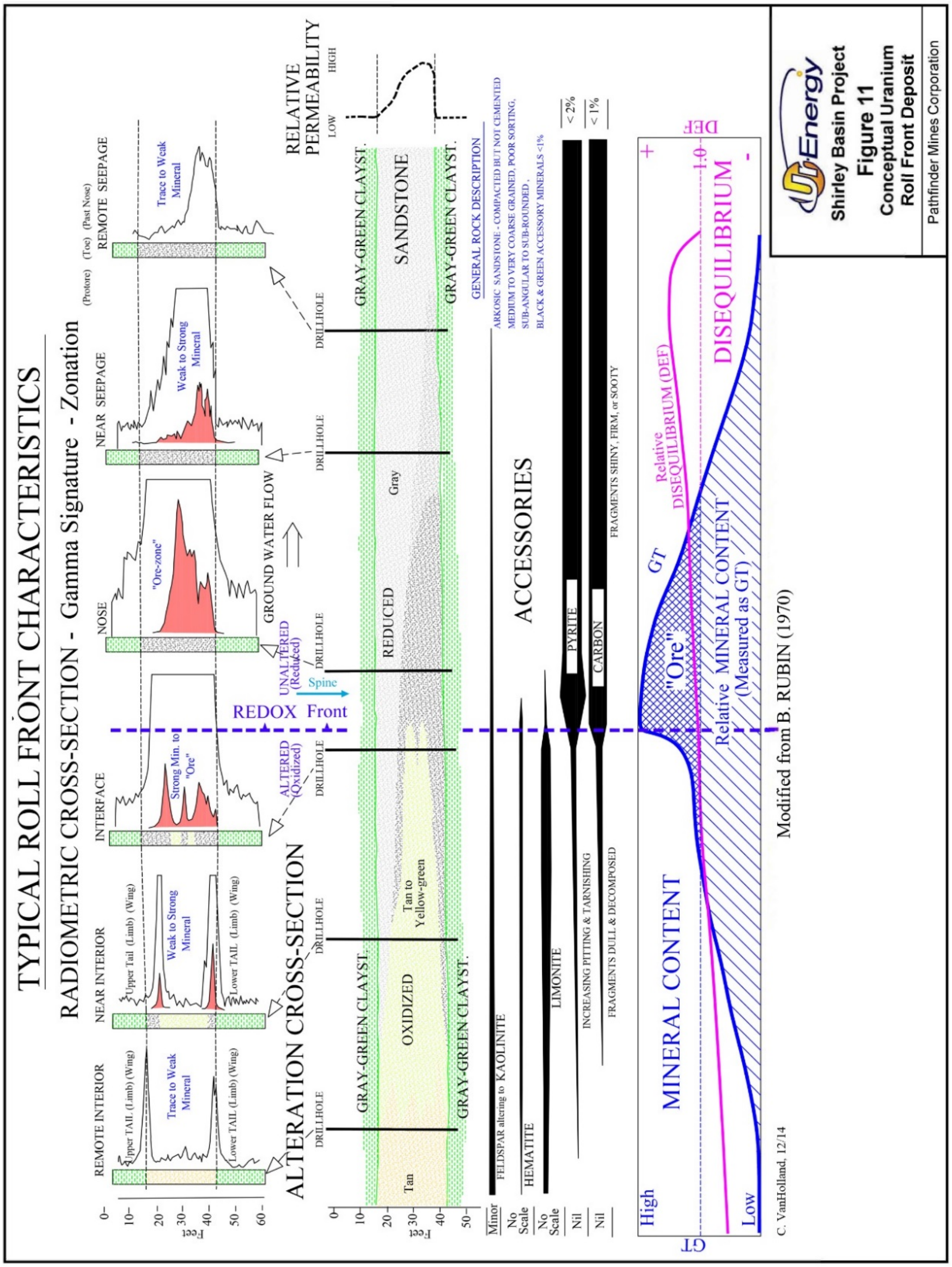


Figure 10. Photo of Shirley Basin Roll Front

In the western United States and South Texas, roll front-type deposits have been successfully produced through ISR mining for over 50 years. The formation of roll front deposits is largely a groundwater process that occurs when uranium-rich, oxygenated groundwater interacts with a reducing environment in the subsurface and precipitates uranium. The most favorable host rocks for roll fronts are permeable sandstones within large aquifer systems. Interbedded mudstone, claystone and siltstone are commonly present and aid in the formation process by focusing groundwater flux. The geometry of mineralization is dominated by the classic roll front "C" shape or crescent configuration at the alteration interface as shown conceptually in Figure 11. The highest grade portion of the front occurs in a zone termed the "nose" within reduced ground just ahead of the alteration front. Ahead of the nose, at the leading edge of the solution front, mineral quality gradually diminishes to barren within the "seepage" zone. Trailing behind the nose, in oxidized (altered) ground, are weak remnants of mineralization referred to as "tails" which have resisted re-mobilization to the nose due to association with shale, carbonaceous material or other lithologies of lower permeability. Tails are generally not amenable to ISR because the uranium is typically found within strongly reduced or impermeable strata, therefore making it difficult to leach.

Figure 11. Conceptual Uranium Roll Front Deposit



There are two potential sources of the uranium for the District: (1) leaching of uraniferous Oligocene volcaniclastics which once covered the region and (2) weathering and leaching of uraniferous Archean granite of the Laramie and Shirley Mountains (north, east and southwest of the District) which also represent the provenance of the arkosic sands within the Wind River Formation in the District.

Oxygenated surface water passing through the overlying thick sequences of volcaniclastic material may have leached metals, including uranium. These metal-enriched fluids may have also leached additional uranium from the granitic content of the arkosic sands which compose the aquifers. The enriched, oxidizing fluids subsequently entered the regional groundwater systems within the basin and migrated down-gradient through the aquifers as large oxidizing geochemical cells referred to as solution fronts.

Uranium precipitated in the form of roll front deposits at the leading edge of the geochemical cells where it encountered reducing geochemical environments within the host sands. Mineral quality was enhanced where groundwater flux was focused horizontally by paleochannels or vertically by aquitards. Continuity of these conditions produced a significant accumulation of uranium at the redox interface. Renewed supply of oxygen to the system allowed slow migration of the uranium deposit down-dip over geologic time.

The oxidized mineralizing solutions typically carry and precipitate other metals in addition to uranium. At Shirley Basin, Harshman (1974) documented the deposition of vanadium, selenium and epigenetic iron as pyrite in close association with the uranium roll front.

The reducing environment in the host sand is generally the result of carbonaceous material within the formation or leaked reductant gases originating from deep hydrocarbon sources. Pyrite is inherently associated with both and is a significant indicator of a reducing environment. Reduced sands are typically light to medium gray and represent the regional framework prior to mineralization. The reducing environment is subsequently altered by the passage of the oxidizing solution front. Alteration typically involves oxidation of pyrite and other iron-bearing minerals to limonite/goethite, or locally hematite, and destruction of carbonaceous material. As a result, altered (oxidized) sands in Shirley Basin are typically yellowish green, pale yellow, tan and, less commonly, reddish brown in color.

Mineralization within a roll front varies considerably in size and shape, but is generally long, narrow and sinuous in map view. The total length of a mineral trend may extend for several miles. Commonly, a deposit or mineral trend will consist of a composite of multiple roll fronts. Typical width of an individual roll front is generally 25-50 ft. However, in the case of multiple fronts, the composite width may be several hundred feet across. Typical thickness of an individual roll front is roughly 5-25 ft. and the composite thickness of multiple fronts may be as much as 70 ft.

Roll front development in the District is the product of two large, regional geochemical alteration systems, or tongues, each occupying either the Main Sand or the Lower Sand of the Wind River Formation. Multiple individual roll fronts developed at the terminal ends and also along the lateral perimeters of these regional tongues. Where contents of uranium were sufficiently high, these roll fronts were developed as mines, each mine addressing multiple fronts.

9.0 EXPLORATION

No site-specific exploration surveys, other than the confirmatory drilling program described in the following section, have been conducted by URE on the Project. An extensive review of historical PMC drill hole data, however, was undertaken by URE in order to estimate existing uranium resources within the property boundaries. Over 3,200 drill holes in the FAB Trend and Area 5 Resource Areas were evaluated.

This evaluation included the use of historical down-hole electric logs, lithology logs, drill hole location maps, summaries of mineralized drill hole intercepts and survey coordinates for drill holes. Procedures used in the verification and utilization of these historical data, as well as results of this evaluation, are described in Section 12.0 Data Verification and Section 14.0 Mineral Resource Estimate.

10.0 DRILLING

Since acquiring the Project, URE has completed a limited drilling campaign within the FAB Trend and Area 5 Resource Areas. The primary goals of the program were:

- Confirmation of the location and nature of mineralization as reported by historical PMC data;
- Stratigraphic investigation to confirm lithology and to confirm overlying and underlying hydrogeological confinement; and
- Collection of core for leach testing and analysis of uranium, mineralogy, trace metals, disequilibrium, permeability, porosity and density.

The drilling campaign was completed in May 2014 and consisted of 14 near-vertical rotary drill holes, including two core holes for a total drilling footage of 6,588 ft. (see Table 7). In the FAB Trend, drilling consisted of eight rotary holes and the two core holes (see Figure 15, Section 14.6). The remaining four rotary holes were drilled in Area 5 (see Figure 16, Section 14.6). All drilling was mud-rotary type conducted by contracted drill rigs. The drill rigs were truck-mounted, water well-style rigs rated to depths of 1,000-1,500 ft. The non-core holes served a dual purpose of mineral confirmation and stratigraphic investigation. All were positioned in locations intended to approximate that of selected historical drill holes with the goal of replicating reported mineralization. In addition, the lithology of overlying and underlying clay units was evaluated as potential aquitards for ISR. The total depth of these holes extended at least 60 ft. below the mineralized zones to evaluate the lithology and hydrogeological characteristics of underlying Wind River claystones and Cretaceous shales.

Table 7. Summary of 2014 URE Drilling Results

Resource Area	# Holes	Total Drilled Depth (ft.)	Avg Depth (ft.)	# Holes with Potentially Economic Mineral	# Mineral Intercepts (gamma)	# PFN Logged Holes	# PFN Logged Intercepts
FAB	10	4,260	426	8	9	6	8
Area 5	4	2,328	582	2	4	1	2
Total	**14**	**6,588**		**10**	**13**	**7**	**10**

The rotary drill hole data confirmed the presence and nature of the uranium mineralization and substantiated the validity of historical PMC data. Open-hole gamma and prompt fission neutron (PFN) logging of the confirmation drill holes verified the presence of high-grade roll front uranium mineralization in locations identified by historical PMC data and exhibited similar grade and thickness values. The majority of the mineral intercepts were interpreted as encountering the “nose” portion of the roll front system within the targeted sandstone. Deviation surveys were conducted on these near-vertical drill holes, revealing an average bottom-hole deviation of only 3.19 ft. As shown in Table 8, the gamma results include a total of 13 intercepts containing mineralization which meets or exceeds criteria defined by URE as potentially economic for the Project (i.e., GT ≥ 0.25 with a minimum grade cutoff of 0.020% eU_3O_8). The PFN results on 10 of these logged gamma intercepts show an average Disequilibrium Factor (DEF) of 1.03, indicating that the uranium mineralization is at or near chemical equilibrium and confirms that measurement of mineralization by gamma methods is a valid tool at the Project. Additional discussion on PFN logging is contained in Sections 11.1 and 13.0.

Table 8. Summary of Mineralized Intercepts – 2014 Confirmation Drilling

Hole No.	Depth (ft.)	Thickness (ft.)	Grade (eU_3O_8[1])	GT (gamma)	GT (PFN)
A5-002	427.5	9.5	0.067%	0.64	---
A5-004	403.0	6.5	0.147%	0.96	1.03
A5-004	415.0	6.5	0.059%	0.39	0.38
A5-004	528.5	11.0	0.039%	0.43	---
FAB-002	311.5	8.0	0.502%	4.02	3.27
FAB-004	223.5	6.0	0.056%	0.34	0.33
FAB-004	255.0	12.0	0.230%	2.76	2.30
FAB-005	242.0	12.5	0.321%	4.01	4.51
FAB-006	331.0	19.0	0.160%	3.04	---
FAB-007	312.0	9.0	0.224%	2.02	2.01
FAB-007	322.0	7.0	0.076%	0.53	0.62
FAB-008C	242.0	13.0	0.225%	2.93	3.32
FAB-009C	331.0	19.0	0.189%	3.59	4.02

(1) % eU_3O_8 is a measure of gamma intensity from a decay product of uranium and is not a direct measurement of uranium. Numerous comparisons of eU_3O_8 and chemical assays of Shirley Basin core samples, along with historical mining experience, indicate that eU_3O_8 is a reasonable indicator of the chemical concentration of uranium.

The drilling results also provided valuable information regarding the distribution and character of the Main and Lower Sands of the Wind River Formation. Hydrogeological confinement above the host sandstones is provided by competent overlying Wind River Formation shale, generally in excess of 20 ft. thick, and underlying confinement is provided by both Wind River and Cretaceous shales, which, in combination, are typically in excess of 50 ft. thick.

The seven best intercepts had GTs ranging from 2.02 to 4.01, with an average grade of 0.24% eU_3O_8. Included within these mineralized intercepts are several significantly higher grade intervals:

2.5 ft. of 1.02% eU_3O_8 (hole FAB-002)

2.5 ft. of 0.74% eU_3O_8 (hole FAB-004)

2.5 ft. of 0.67% eU_3O_8 (hole FAB-005)

The two core holes were approximately 10 ft. offsets of two URE non-core holes which were representative of the mineral character in the FAB Trend. Mineralization in the two core holes exhibited continuity of grade and thickness with mineralization encountered in the offset rotary drill holes. Coring was done only in selected intervals for the purpose of collecting undisturbed samples for various types of analyses. Results of the analyses are discussed in Section 13.0. A total of 64.9 ft. was cored. Average core recovery for the two holes was 80.3%. Field processing of the core is described in Section 11.0. All holes were geophysically logged from surface to total depth by a geophysical logging unit owned and operated by URE (see Section 11.0). Both core holes were PFN logged in addition to gamma logging. Coring provided 33 samples on one-foot intervals which were sent to laboratories for various chemical analyses and testing of physical properties (see Section 11.0).

All 14 drill holes and core holes were plugged and abandoned in accordance with LQD regulations. The holes were cemented from the bottom of the hole to the surface. After the cement dried and settled, the holes were “topped-off” with bentonite chips to within 10 ft. of the surface. A cement cap was placed from a depth of 10 ft. to 2 ft. from the surface. The remaining 2 ft. of hole was filled with soil.

No drilling, sampling or recovery factors were recognized that could materially impact the accuracy and reliability of the resource estimates presented in this PEA.

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

All mineralization at the Project occurs at depth and does not outcrop. Therefore, investigation of the mineralization is accomplished solely by means of drilling. Similarly, "sampling" of mineralization is accomplished by one or more of three methods derived from the drilling activities, including: 1) down-hole geophysical logging, 2) coring, and 3) drill cuttings. These are described in the following subsections.

11.1 Down-hole Geophysical Logging

All holes drilled on the Project by URE and its predecessors have been geophysically logged using a down-hole electronic probe. This is standard practice for the U.S. uranium industry. There are two basic types of logs: 1) gamma log and 2) PFN log. A discussion of these follows.

<u>Gamma Logs:</u>

Gamma logs provide an indirect measurement of uranium content in the host rock. They detect the gamma irradiated by a daughter product of uranium decay (^{214} Bi) under the presumption that chemical equilibrium exists between the source uranium and its progeny. A vehicle-mounted electronic probe is lowered down the hole to total depth and then the natural gamma radiation of the formation is measured as the probe is drawn to the surface. Modern logging instruments collect gamma radiation measurements on 0.1-ft. depth intervals. An industry standard U.S. Department of Energy (DOE) algorithm is used by the logging unit software to convert the gamma ray readings, measured in counts per second (cps), into mineral grade reported as equivalent percent uranium (% eU_3O_8). The results are reported in 0.5-ft. increments. Mineralized thickness from gamma logs is considered an accurate representation of the true thickness because the strata are essentially horizontal and drill holes are nearly vertical. Mineralized intervals (intercepts) are then defined by applying these pre-established grade cutoffs to the report:

- <u>Thickness</u> of each mineralized zone (ft.) exceeding grade cutoff,
- <u>Average grade</u> within the thickness interval (% eU_3O_8),
- <u>Depth</u> (below ground surface) to the top of the intercept (ft.), and
- <u>GT (Grade x Thickness)</u>: Calculated as the <u>average grade</u> multiplied by <u>thickness</u> for each intercept interval (%-ft., but usually expressed without units).

Gamma logs are customarily accompanied by Spontaneous Potential (SP) and Single-Point Resistance (Res) or multi-point resistivity curves. In combination, SP and Resistance curves are commonly referred to as an electric log (E-Log) and are used to interpret formation lithology.

Historical logging by Utah/PMC was done by company-owned and operated units. Log formats that were employed by Utah/PMC varied considerably over the years. Despite the variation in this historical down-hole gamma data, the overall quality of the data was sufficient to successfully guide PMC mining efforts for over 30 years and to allow consistent mapping of subsurface sandstones and mineralized intervals.

URE geophysical logging data were obtained using a Company-owned and operated logging unit which employs technology from GeoInstruments, Inc. of Nacogdoches, Texas. Down-hole measurements include gamma logs, RES, SP, and hole deviation. Quality control on the logging unit is performed by calibration of the logging unit at the Casper, Wyoming DOE test pit (a known source concentration) no less than once a month during periods of drilling activity. Calibration is performed using industry established procedures. URE maintains detailed calibration records. When employed by URE, logging contractors are required to calibrate using the same test pit and method and on a similar schedule.

PFN Logs:

The PFN tool provides a direct down-hole analysis of true uranium content by means of in-place fission of ^{235}U initiated by the emission of high energy neutrons. It is used by URE to verify the grades of mineral intercepts previously reported by gamma logging. PFN logging is accomplished by a down-hole probe in much the same manner as gamma logs; however, only the mineralized interval plus a buffer interval above and below are logged. After review of the gamma log from each drill hole, the URE field geologists determine if any intercepts warrant PFN logging based on the GT of the gamma intercepts (GT ≥ 0.10). If selected by the field geologist, the hole is logged by PFN. As such, the PFN results are employed only as a confirmation of gamma-derived results, but not as a complete replacement or duplication of them. Quality control for the PFN is performed at the DOE test pit in a manner similar to that described previously for the gamma tool and records are maintained by URE.

Output of the PFN logging is in much the same format as that from the gamma logging tool. For any given intercept, GT values are derived from both the gamma and PFN data. Comparison of the values yields a Disequilibrium Factor (DEF) reported as the ratio of GT values*: PFN GT ÷ Gamma GT*. Thus, a value greater than 1.0 indicates chemical enrichment compared to gamma, and a value less than 1.0 represents chemical depletion (Rosholt, 1959).

11.2 Coring

In the U.S. uranium industry, coring is typically performed on only a small percentage of drill holes. The primary purposes for collecting core have been to provide relatively undisturbed samples for chemical analyses and host rock physical properties. Chemical analyses typically are conducted to evaluate uranium disequilibrium as well as to evaluate trace elements and constituents of interest. Physical properties of interest are typically permeability, porosity and density. Cored intervals are normally limited to geologically selected intervals. Rarely are holes cored from surface to total depth.

Utah/PMC drilled more than 58 core holes within the FAB Trend, Area 5 and the mined open pits. Some evaluation reports and memos are in the historical files, but complete records of these activities are not available; however, it is understood that most of the chemical analyses were conducted by in-house laboratories at either the Lucky Mc or Shirley Basin mill sites. Records indicate that, based on the results of these coring studies, a DEF of 1.066 (slightly enriched with respect to chemical uranium) was uniformly applied to all down-hole gamma logging intervals by Utah/PMC.

Core samples were obtained from two core holes drilled by URE within the FAB Trend in 2014. Core holes were located as close offsets of URE confirmation holes that showed mineral intercepts of interest. Select intervals within the holes were cored by means of a mud-rotary drilling rig employing a 10-ft. long, split-tube core barrel. Core recovery for the two holes was 80.3%. URE-specified field procedures for handling of core included:

- Core was measured after removal from core barrel to determine percentage of core recovery;
- Core was described in detail by URE geologists;
- Core was photographed in the field;
- Core was scanned in the field on 0.5-ft. intervals with a hand-held scintillometer to identify sections of higher radioactivity for sampling. The scintillometer results were also employed at a later date to provide a detailed depth correlation and comparison between the gamma log and driller's core depths. Depth correlation accuracy of approximately 0.5 ft. is normally obtained; and
- Core was then vacuum sealed in plastic bags.

Samples selected for laboratory chemical analyses were later cut in 1-ft. intervals, split by hand longitudinally and bagged by URE employees for shipping. In addition, selected samples were tested for specific gravity, permeability and other physical features, as well as leach amenability. Samples for leach testing were vacuum sealed again immediately after selection and prior to shipping to the lab.

11.3 Drill Cuttings

During drilling of all holes, cuttings are collected at 5-ft. depth intervals. Detailed descriptions of each of these samples are then documented by the Company's field geologists. Drill cutting samples are valuable for lithologic evaluation, confirmation of electric log (E-Log) interpretation, and for description of redox conditions based on sample color. Identifying redox conditions in the host formation is critical for the interpretation and mapping of roll fronts. Note, however, that cuttings samples are not analyzed for uranium content because there is considerable dilution and mixing that occurs as the cuttings are flushed to the surface. In addition, the samples are not definitive with regard to depth due to variation in the lag time between cutting at the drill bit and when the sample is collected at the surface.

11.4 Analyses and Security

After collection and documentation in the field, cores derived from URE's drilling activities at the Project were delivered to IML for chemical and gamma analyses for uranium, as well as analyses for associated elements. IML is an independent, commercial laboratory in Sheridan, Wyoming and considered to be qualified to secure, handle and analyze samples in accordance with industry standards. IML has an industry-standard, internal QA/QC system including routine equipment calibration and the use of standards, blanks, duplicates and spikes. The lab is licensed by the NRC, is EPA-certified and accredited by the National Environmental Laboratory Accreditation Program. EPA Method 200.8 was used for radionuclide analyses and EPA Method ASA9 29-2.2 was used for the analyses of organic compounds. For multi-element analysis, results were obtained using inductively coupled plasma mass spectrometry (ICP-MS) using EPA Method 6010C. For these analyses, core samples were subjected to a three-acid digestion (EPA Method 3050).

Physical properties of the core (porosity, permeability and density) were measured by Weatherford Laboratories of Casper, Wyoming. Weatherford Laboratories provides rock property analyses, geochemical testing and specialized core testing services to the oil and gas industry worldwide. Testing procedures were performed in accordance with standards presented in the American Petroleum Institute Report 40 – Recommended Practices for Core Analysis. Two samples from the mineralized Main Sand of the Wind River Formation (the primary host rock for the Project) were submitted for analyses, along with a core sample from the overlying and underlying clay horizons. Results are discussed in Section 7.3

Hazen was contracted to perform mineralogical studies on two selected core samples. This work consisted of three separate analyses:

1. X-Ray Diffraction (XRD) analysis - Each sample was analyzed by XRD to determine the major mineral constituents.
2. Electron Microprobe (EMP) analysis - Each as-received sample was mounted in a polished section for EMP analysis to characterize the uranium minerals in terms of their mode of occurrence, textural features, specific associations, and intergrowth relationships.
3. QEMSCAN analysis - For quantitative mineralogy, each polished section was subjected to QEMSCAN analysis, which provides a detailed mineral abundance analysis.

Data from historical sampling were obtained from Utah/PMC records. Procedural details are unavailable, but because these companies were considered to be reputable exploration/production companies, previous samples are assumed to have been collected, secured and analyzed in accordance with standard industry practices at the time.

11.5 Quality Control Summary

URE maintains a number of quality control procedures associated with its coring program:

- Scanning the core with a scintillometer to provide a detailed depth correlation and comparison between the gamma log and driller's core depths;
- Vacuum sealing core in plastic bags to prevent contamination and oxidation;
- Completing a Chain of Custody (COC) Record for all core samples sent to laboratories for analyses;
- Obtaining a signature on the COC Record (along with instructions) from the URE person who relinquished the samples to the laboratory;
- Receiving a signed COC Record from the laboratory with the signature of the individual who received the samples;
- Validation of laboratory quality control procedures which typically include method blanks of low metal concentrations and spikes of known metal concentrations;
- Evaluation and comparison of results against previous analysis and other projects (outlier test or similar, i.e., "red face check"); and
- Sample splits between two laboratories and subsequent analysis.

Other quality control procedures included the detailed logging of drill cuttings by URE geologists to gain an understanding of redox conditions within host sandstones and also the consistent calibration of both the in-house gamma logging and PFN logging units at the Casper, Wyoming DOE test pit.

11.6 Opinion on Adequacy

In the opinion of Mr. Schiffer, URE sample collection methods, preparation, security and analytical procedures used by contract laboratories are adequate and typical of the U.S. uranium industry.

12.0 DATA VERIFICATION

Drilling data used to support this PEA come from historical drilling activities by previous operators and those conducted by URE since acquisition of the Project. Quality control of URE drill data has been discussed in Section 11.0. The tabulations of mineral intercepts compiled by URE are consistent with the original down-hole gamma logs and the geophysical operator's mineral intercept calculations. URE has verified historical drill data by conducting confirmation drilling and coring in the Project adjacent to historical exploration holes with results which validate the historical data (see Figure 12). The tabulations of mineral intercepts compiled by URE have been confirmed by Mr. Schiffer to be consistent with the original down-hole E-Logs and the geophysical operator's mineral intercept estimates.

Furthermore, historical mineral intercept data collected by previous operators on the Project have been evaluated and selectively checked for accuracy. For those historical drill holes with gamma log interpretation sheets and down-hole probe K-factors (calibration factors), a selective confirmation of uranium intercept grade and thickness was performed by re-calculation, using standard methods established by the AEC. For those historical drill holes with gamma log interpretation sheets and no K-factors, a selective review of the process used for conversion from counts per second (cps) on gamma logs to percentage eU_3O_8 was made. In these cases, the previous operators had developed a conversion factor, which included dead time correction, a water factor, a DEF and a K-factor that were applied to the cps values from the gamma log in order to derive a percentage of eU_3O_8.

After a review of that data, it is Mr. Schiffer's opinion that the historical mineral intercept data are valid, do not require re-calculation and are suitable for resource estimation in this PEA.

Figure 12. Photo of URE Confirmation Drilling

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Previous mineralogical studies by Utah/PMC and Harshman (1972), consisting of thin sections and polished sections of Shirley Basin mineralization, show the primary uranium mineral in these deposits to be uraninite (UO_2). It is found coating sand grains, filling interstitial spaces between sand grains and filling fractures within sand grains. Uraninite is a common uranium mineral in sedimentary-hosted roll front deposits and is soluble in the bicarbonate lixiviants used in modern ISR operations. As discussed in Section 7.3 and Section 11.0, URE collected core samples from uranium mineralization for additional mineralogical studies.

As described in Section 10.0, preliminary analyses using a down-hole PFN logging tool indicate that the uranium mineralization from URE's recent confirmation drilling program is at or near chemical equilibrium. PFN logging provides a direct measurement of chemical uranium, and a positive DEF of 1.03 was determined for the 2014 confirmation drill holes that were logged with this method. Utah/PMC analyzed sufficient uranium mineralization at its Shirley Basin mining operation to assign a positive DEF to its historical ore reserve calculations. This DEF, as shown on many down-hole gamma logs, was 1.066 as discussed in Section 11.2. A complete and meaningful comparison between PFN results and ICP-MS analyses was not possible due to the 20% core loss on URE's recent confirmation drilling program.

There is a suite of trace metals that is commonly precipitated along with uranium in roll front deposits. Harshman (1974) published diagrams showing the relationship between various trace metals and uranium at several uranium mining districts, including the Shirley Basin Mining District. These diagrams show a strong correlation between uranium and pyrite (FeS_2), along with minor correlations between uranium and vanadium, arsenic and selenium. As expected, ICP-MS analytical results on 33 individual samples for iron (Fe) and sulfur (S) were high, confirming the strong relationship between uranium and FeS_2. Iron values averaged 1.2% and sulfur values averaged 1.1%. The minor relationships were also confirmed with vanadium averaging 71 mg/kg, arsenic averaging 9.5 mg/kg and selenium being detected in only one sample with a value of 18 mg/kg. These trace metals are common and expected in sedimentary roll front deposits and should not have a significant effect on potential economic extraction.

Energy Labs of Casper, Wyoming performed duplicate analyses for chemical uranium and 11 other analytes on 4 randomly selected core samples using the same analytical testing methodologies. The results from Energy Labs compared favorably with those from IML. Not surprisingly, there were variations seen in analytes with very low concentrations; however, average chemical uranium values were very close. On a composite basis, the relative percent difference in uranium values between the two labs was only 3.6%.

Historical metallurgical testing was performed in 1980 by In-situ Consulting, Inc. on behalf of PMC on sandstone core samples collected in the northwestern portion of Area 5. Core was gathered from two mineralized intervals, one in the Main Sand and the other from the Lower Sand. A composite of these intervals was then compiled and used for metallurgical testing. The average uranium grade of the composite sample was not recorded. No historical metallurgical testing was performed on mineralization within the FAB Trend.

Six sealed bottle-roll tests were conducted by PMC on splits of the composite sample. Four of the tests employed an ammonium carbonate lixiviant and are therefore not currently considered of relevance. The other two tests used a sodium carbonate lixiviant with either oxygen or hydrogen peroxide as the oxidant. The results of these tests are shown in Table 9. Uranium extraction rates ranged from 91.8% to 93.5%; however, tabulation of these test results were related to *hours* of leaching rather than to *pore volumes*, as is currently standard. The QPs did note that the testing period represented the equivalent of approximately 50 pore volumes.

Table 9. Leach Test Results, 1980 – Area 5

Sample ID	Sodium Carbonate (Na_2CO_3) Concentration	Oxidant Concentration or Pressure	pH	Uranium Recovery
SX-816C	3,000 mg/L	O_2 100 psi	10.4	91.8 %
SX-816C	3,000 mg/L	H_2O_2 1,000 mg/L	10.4	93.5 %

In June 2014 URE submitted ten core samples to IML for agitation leach (bottle-roll) testing. The samples were obtained from core-hole FAB-8C located in the eastern portion of the FAB Trend. The core samples were from mineralized sand in the Main Sand occurring in a “nose” roll front environment. The samples consisted primarily of gray, medium to coarse-grained sandstone, locally with minor to moderate amounts of carbonaceous fragments and minor to abundant fresh pyrite. All of the samples represented a reduced geochemical environment. Core recovery within this interval was 87%. Some of the mineral intercept was not recovered.

The gamma log of FAB-8C showed the target mineral intercept to be:

- 13.0 ft. of 0.225% eU_3O_8 at 242.0 ft. / GT 2.93

The PFN log for the same intercept showed:

- 14.0 ft. of 0.237% U_3O_8 at 241.5 ft. / GT 3.32

The 10 one-foot interval core samples were composited and homogenized by IML to create a composite representative of a 12 ft. mineralized depth interval (driller’s depths 242ft.-254ft.). The chemical analysis of the composite sample is shown in Table 10. Core samples from the mineralized interval showed an average dry bulk density of 2.07 grams per cubic centimeter and 27% porosity. The uranium content of the composite sample was determined to be 0.266% which corresponds closely to the average grade (0.23%) of Measured plus Indicated Resources within the Project. Trace metal contents (As, Mo, Se, V) are low to very low. Sulfur and SO_4 contents are noticeably higher.

Table 10. Core Composite Sample Geochemistry

Analyte	Concentration in mg/kg
Uranium (ICP-MS)	2,660
Arsenic	9.0
Molybdenum	15.4
Selenium	<5
Thorium	8
Vanadium	80
Sulfate	26,130
Sulfur	8710
Moisture	14.4%

Native groundwater for the testing was drawn from well WI-3, which is completed in the Main Sand in the south-central portion of the FAB Trend. Analysis of the groundwater is shown in Table 11.

Table 11. Natural Groundwater – Chemistry

Analyte	Result	Units
pH	6.9	s.u.
Electrical Conductivity	247	μmho/cm
Alkalinity	45	mg/L
Bicarbonate	55	mg/L
Calcium	21	mg/L
Arsenic	<0.005	mg/L
Molybdenum	<0.005	mg/L
Selenium	<0.005	mg/L
Sulfur	20.7	mg/L
Sulfate	62.1	mg/L
Uranium (ICP-MS)	0.0068	mg/L
Vanadium	0.016	mg/L

Seven bottle roll leach tests were performed at ambient pressure on splits of the composite. The objective of the testing was to analyze several chemical lixiviant combinations to provide information on uranium recovery relative to the various lixiviants. The testing was not designed to approximate *in situ* conditions, but intended only to provide indications of the reaction rates. Three variables were evaluated during the tests:

1. Water character: Natural Groundwater or Distilled
2. Concentration of HCO_3: 500, 1,000 mg/L, 1,500 or 2,000 mg/L
3. Strength of Oxidant (H_2O_2) 250 or 500 mg/L

The initial plan called for testing to proceed to 30 pore volumes (PVs). At 30 PVs the testing was extended to 60 PVs, and then once again to 90 PVs. Testing was halted at 90 PVs. The final test results after tails analyses of the tested material are shown in Table 12 and in the recovery curves illustrated in Figures 13 and 14. Bumps in the Head

Grade curves in Figure 14 at 35 PVs and 65 PVs are due to short delays between the testing stages (at 30 PVs and 60 PVs), which allowed for greater reaction time relative to the next subsequent sampling.

Table 12. Bottle Roll Leach Test Results – 2014

Sample ID	Solution Base	Bicarbonate ($NaHCO_3$) (mg/L)	Peroxide (H_2O_2) (mg/L)	Uranium Recovery* %	Average Solution Concentration ppm
FAB-8C Test #1	Native Groundwater	Natural	250	**8.1%**	**20.3**
FAB-8C Test #2	Native Groundwater	1,000	250	**78.3%**	**210.5**
FAB-8C Test #3	Native Groundwater	1,500	250	**86.9%**	**261.4**
FAB-8C Test #4	Native Groundwater	2,000	250	**89.6%**	**264.3**
FAB-8C Test #5	Native Groundwater	2,000	500	**90.0%**	**257.5**
FAB-8C Test #6	Distilled Water	500	500	**28.8%**	**87.3**
FAB-8C Test #7	Distilled Water	1,000	500	**66.0%**	**192.0**

*Uranium recovery after 90 PVs except for Test 4, which was terminated after 85 PVs.

These results show that the core is leachable under ambient laboratory conditions using native groundwater from the host sandstones. Bicarbonate content appears to be the most significant parameter. Reasonable recoveries can be achieved with lixiviant concentrations equal to or greater than 1,000 mg/L bicarbonate and 250 mg/L peroxide, and optimum recoveries can be achieved with a higher bicarbonate concentration of 2,000 mg/L. The percent recovery of uranium shown in Table 12 is based on 90 PVs. The recovery of arsenic, selenium and vanadium from these solutions was very low.

In the economic analysis of this PEA, uranium production is based on an average wellfield head grade of 37 mg/L (ppm). This estimated head grade is conservatively lower than the average solution concentration encountered in the agitation leach (bottle-roll) testing (Table 12).

Figure 13. Uranium Recovery (%) Recovery Curves

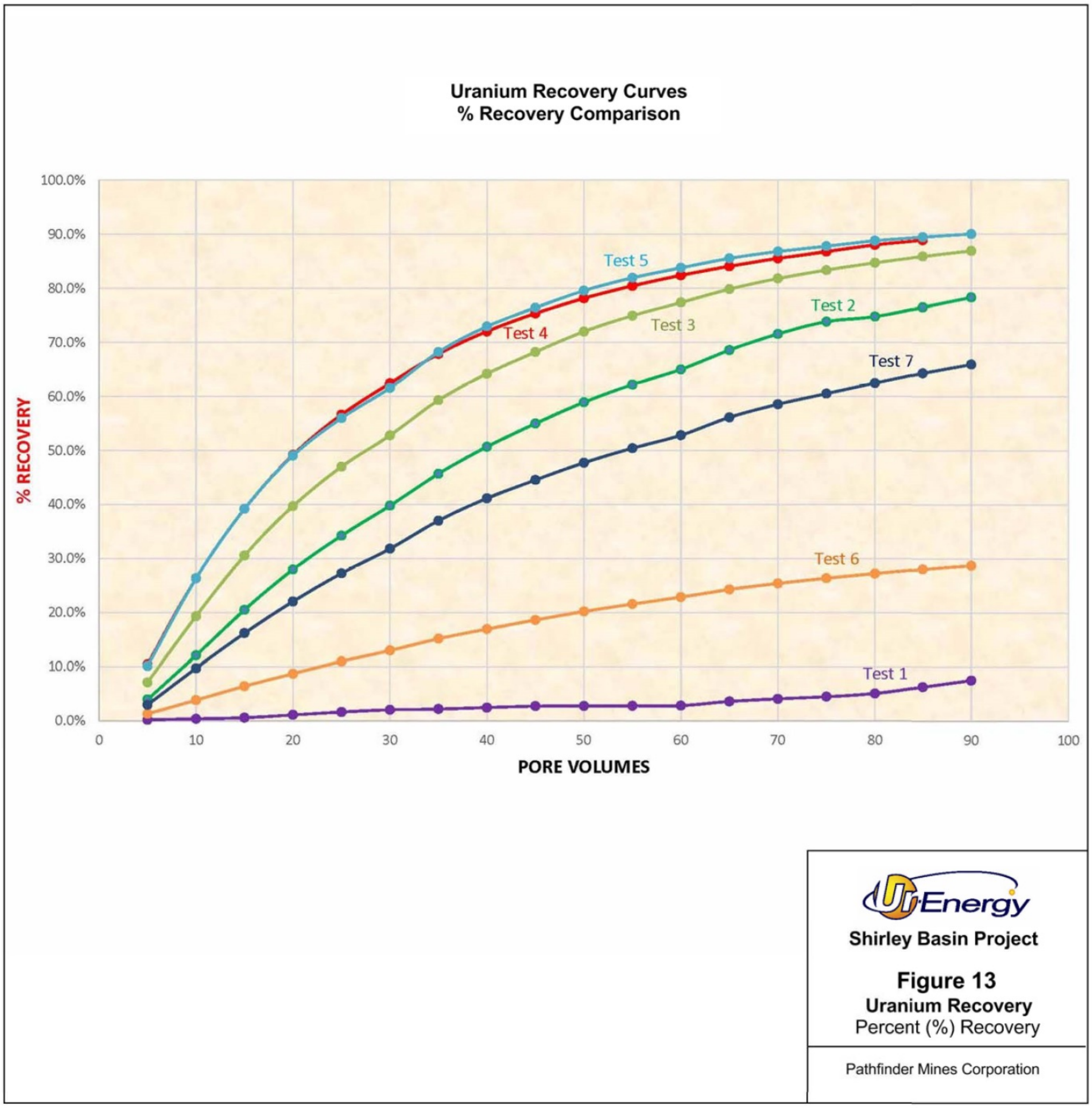
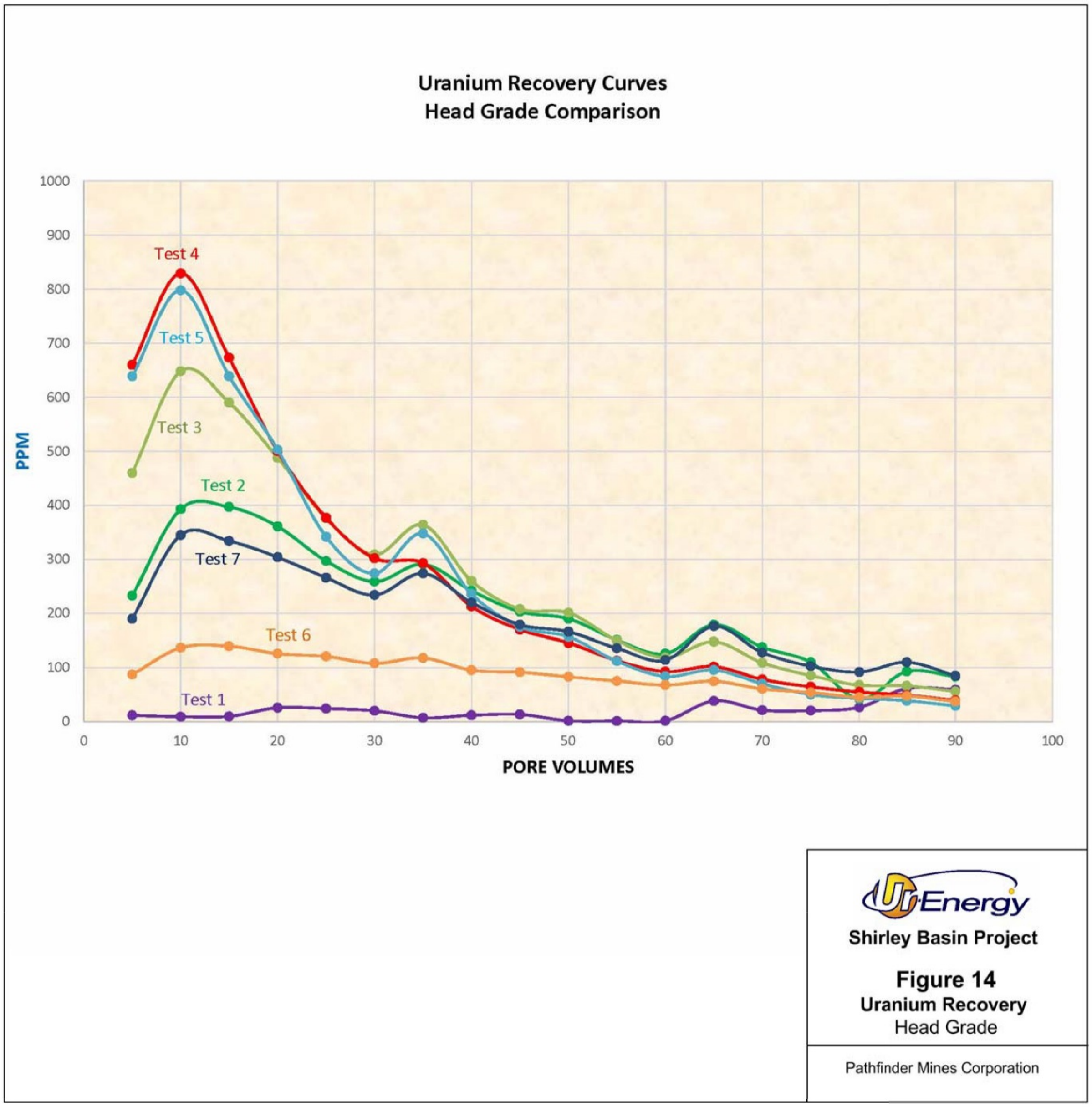


Figure 14.   Uranium Recovery Head Grade



14.0 MINERAL RESOURCE ESTIMATE

The mineral resources for the Project reported in this section have been estimated utilizing the GT contour method. The GT contour method is well accepted within the uranium ISR industry and is suited to guide detailed mine planning and estimates of recoverable mineral resources for roll front-type deposits such as those found in the Project. A discussion of the methodology is presented in Section 14.4. See also the notes below Tables 1 and 13.

14.1 Assumptions

Resources within the Project are identified recognizing that roll front mineralization occurs in long, narrow, sinuous bodies which are found adjacent and parallel to alteration (redox) fronts. These commonly occur in multiple, vertically stacked horizons, each of which represents a unique resource entity. Resource classification requires horizontal continuity within individual horizons. Accumulation of resources in a vertical sense (i.e., accumulating multiple intercepts per drill hole) is not valid in ISR applications. Individual roll front mineral horizons are assumed to be no wider than 50 ft., unless sufficient information is available to establish otherwise.

In addition, certain assumptions were incorporated throughout all estimates:

1. The unit density of mineralized rock is 16.0 cu. ft. per ton, based on numerous core density measurements by PMC.
2. All geophysical logs are assumed to be calibrated per normally accepted protocols, and grade calculations are accurate.
3. All mineral classified as a resource occurs below the historical, pre-mining static water table.

14.2 Cutoff Selection

Mineral reportable as resources must be below the historical, pre-mining static water level and meet the following cutoff criteria (see also Section 14.4):

Minimum Grade: 0.020% eU_3O_8
Grade measured below this cutoff is considered as zero value.

Minimum GT (Grade × Thickness): 0.25
Intercepts with GT values below this cutoff are mapped exterior to the GT contours employed for resource estimation, given zero resource value and, therefore, excluded from reported resources.

Minimum Thickness: No minimum thickness is applied but is inherent within the definition of GT (Grade × Thickness).

The cutoffs used in this report are typical of ISR industry standard practice and represent appropriate values relative to current ISR operations. Experience at other ISR operations and URE's recent experience at its Lost Creek Mine have demonstrated that grades below 0.020% can technologically be successfully leached and recovered, given supporting economics. Due to the nature of roll front deposits and production well designs, the incremental cost of addressing low grades is minimal (given the presence of higher grades). Furthermore, a GT cutoff of 0.25 is representative of past ISR operations in similar geologic and economic conditions. Note, however, that the above cutoffs were selected without direct relation to any associated commodity price. Definition of the term potentially economic as applied by URE is subjective and employed simply to identify higher quality mineralization which could potentially be pursued for production.

14.3 Resource Classification

Resource estimates were prepared using parameters relevant to the proposed mining of the deposit by ISR methods. The methodology relies on detailed mapping of mineral occurrences to establish continuity of intercepts within individual host sandstone units. The mineral resource estimates in this report were reviewed and accepted by QP, Ben Schiffer.

URE employs a conservative resource classification system which is consistent with standards established by the CIM. Mineral resources are identified as Measured, Indicated and Inferred based on the density of drill hole spacing, both historical and recent, and continuity of mineralization within the same mineral horizon (roll front).

In simplest terms, to conform to each classification, resources determined using the GT contour method (see Section 14.4) must meet the following criteria:

1. Meet the 0.020% grade cutoff;
2. Occur within a contiguous mineral horizon (roll front);
3. Fall within the mapped 0.25 GT contour; and
4. Extend no farther from the drill hole than the radius of influence specified below for each category.

Employing these considerations, mineral which meets the above criteria is classified as a resource and assigned a level of confidence via the following drill spacing guidelines:

<u>Measured:</u>
≤100 ft. (i.e., mineral on trend, within the 0.25 GT contour, and which does not extend beyond 100 ft. from any given drill hole with potentially economic mineralization)

<u>Indicated:</u>
100 - 200 ft. (i.e., mineral on trend, within the 0.25 GT contour, and which extends from 100-200 ft. from any given drill hole with potentially economic mineralization)

<u>Inferred:</u>
200 - 400 ft. (*i.e.*, mineral on trend, within the 0.25 GT contour, and which extends from 200-400 ft. from any given drill hole with potentially economic mineralization)

URE resources are contained in the designated FAB and Area 5 Resource Areas. PMC's historical drilling had focused on these designated resource areas to support future mining operations. This drilling consisted of a 100-ft. grid throughout the FAB and most of Area 5 Resource Areas, and included multiple drill hole fences at 10-ft. to 50-ft. spacing. Due to this high density drilling within the resource areas, all resources were classified as Measured or Indicated, with no resources in the Inferred category. See Section 14.4 Methodology for additional discussion.

14.4 Methodology

Fundamentals

The Project resources are defined by utilizing both historical and recent drilling information. The basic unit of mineral identity is the "mineral intercept" and the basic unit of a mineral resource is the "mineral horizon", which is generally synonymous to a roll front. Mineral intercepts are assigned to named mineral horizons based on geological interpretation by URE geologists founded on knowledge of stratigraphy, redox, and roll front geometry and zonation characteristics. Resources are derived and reported per mineral horizon (i.e., per roll front). In any given geographic area, resources in multiple mineral horizons may be combined into a "resource area" (further defined in Section 14.3).

Mineral Intercepts

Uranium intercepts are derived from drill hole gamma logs and represent where the drill hole has intersected a mineralized zone. Calculation of uranium content detected by gamma logs is traditionally reported in terms of mineral grade as eU_3O_8% on 0.5-ft. depth increments. A mineral intercept is defined as a continuous thickness interval in which the uranium concentration meets or exceeds the grade cutoff value, which is 0.020% for the Project. Uranium values below the cutoff grade are treated as zero value with regard to resource estimation. A mineral intercept is defined in the following terms:

- Thickness of the mineralized interval that meets cutoff criteria,
- Average Grade of mineral within that interval, and
- Depth below ground surface (bgs) to the top of that interval.

In addition, a GT value is assigned to each mineral intercept. GT is a convenient and functional single term used to represent the overall quality of the mineral intercept. It is employed as the basic criterion to characterize a potentially economic intercept, which at the Project is defined as GT ≥ 0.25. Intercepts which do not make the potentially economic GT cutoff are excluded from the resource calculation, but may be taken into consideration when drawing GT contours. As noted above, use of the term "potentially economic" by URE is applied in a generic sense and has no direct relation to any associated commodity price.

Each intercept is assigned to a stratigraphic and mineral horizon by means of geological evaluation. The primary criterion employed in assignment of mineral intercepts to mineral horizons is roll front correlation. Depth and elevation of intercepts are secondary criteria which support correlation. The evaluation also involves interpretation of roll front zonation (position within the roll front) by means of gamma curve signature, redox state, lithology, stratigraphic position and relative mineral quality (see Figure 11). Mineral intercept data and associated interpretations are stored in a drill hole database inventoried per drill hole and mineralized horizon. This database includes mineral intercept data from approximately 2,482 historic and current drill holes. Using GIS software, this database is employed to generate map plots displaying GT values and interpretive data for each mineral horizon of interest. These maps become the basis for GT contouring as described below.

GT Contouring and Resource Estimation

For the map plots of GT values mentioned above, the GT contour lines are drafted honoring all GT values. Contours are carefully drawn by URE geologists to reflect knowledge of roll front geology and geometry. The GT contour maps thus generated for each mineral horizon form the foundation for resource calculation. In terms of geometry, the final product of a GT-contoured mineral horizon typically represents a mineral body that is fairly long, narrow, sinuous, and which closely parallels the redox front boundary. The following parameters are employed to characterize the mineral body:

Thickness: Average thickness of intercepts assigned to the mineral horizon (inherent in GT values)

Grade: Average grade of mineral intercepts assigned to the mineral horizon (inherent in GT values)

Depth: Average depth of mineral intercepts below surface assigned to the top of the mineral horizon

Area: Defined as the area interior to the 0.25 GT contour lines, more specifically:

Width: Defined by the plan-view breadth of the 0.25 GT contour boundaries. Where sufficient data are unavailable (i.e., wide-spaced drilling) the width is assumed to be no greater than 50 ft.

Length: Defined by the endpoints of the 0.25 GT contour boundaries. Where sufficient data are unavailable, length is limited to 400 ft. (i.e., 200 ft. on either side of a drill hole containing potentially economic intercept(s) – Indicated Resource category).

For resource estimation the area of a mineral horizon is further partitioned into banded intervals between GT contours, to which the mean GT of the given contour interval is applied. Area values for each contour interval are then determined by means of GIS software. Once areas are derived and mean GT values are established for each contour interval, resources are then calculated for each contour interval employing the following equation. Resources per contour interval are then compiled per mineral horizon and per mineral ”pod” as discussed below.

$$\textbf{POUNDS} = \frac{\textbf{AREA x GT x 20}}{\textbf{TF}}$$

Where:

POUNDS	= Resources (lbs.)
AREA	= Area measured within any given GT contour interval (ft.^{2})
GT	= Mean GT within any given contour interval (%-ft.)
20	= Conversion constant: grade percent and tons to unit lbs. (1% of a ton)
TF	= Tonnage Factor: Rock density, a constant (=16.0 cu. ft./ton) (enables conversion from volume to weight)

In map-view resources for any given mineral horizon commonly occur in multiple ”pods” rather than as a single, continuous body. Individual pods are then compiled per mineral horizon, summed and categorized by level of confidence (Measured or Indicated) using the criteria discussed in Section 14.3. The resource calculation process is streamlined using the same GIS software in which the mapping and GT contouring took place.

As is evident, the GT contour method for resource estimation is dependent on competent roll front geologists for accurate correlation and accurate contour depiction of the mineral body. Uranium industry experience has shown that the GT contour method remains the most dependable for reliable estimation of resources for roll front uranium deposits.

14.5 Resource Estimation Auditing

The resource estimate detailed herein was evaluated for quality control and assurance using the following methods.

1. Random historical log files from PMC and others within the FAB Trend and Area 5 Resource Areas were examined in detail to confirm gamma interpretations as well as grade calculations.
2. Multiple historical logs were reviewed to confirm geologic and grade continuity in both the FAB Trend and Area 5 Resource Areas.
3. Drilling density as depicted on maps and observed in the field was evaluated to demonstrate that the uranium mineralization at the Project was consistent with CIM resource definitions.
4. Gamma and PFN probe calibration logs were reviewed.
5. Detailed examination of significant resource bearing roll front systems was conducted in collaboration with URE geologists to confirm log interpretations, continuity of mineralization and nature of GT contour development.

6. Random mineralized pods within the resource model were evaluated to confirm the area assigned to the particular GT contour.
7. Resource classification methods and results were reviewed against standard industry practices and CIM resource definitions for at least 25 pods of mineralization.

In summary, Mr. Schiffer accepts PMC and URE interpretations as having been properly done and as reasonable representations of the mineral present. These interpretations provide a reasonable basis for the calculation of uranium mineral resources at the Project.

14.6 Summary of Resources

Mineral resources are summarized in Table 1, and also in Table 13 where they are listed by Resource Area and mineral horizon. Individual mineral horizons are related to the stratigraphy at the Project as illustrated in Figure 7 and consist of mineralized trends (roll fronts) in the 1) White River Formation (Twr) sandstones and 2) Wind River Formation (Twdr) sandstones. The Wind River sandstones are further split into the Upper, Main and Lower sand units.

The current mineral resource estimate for the Project has a total of 8.816 million lbs. in the Measured and Indicated categories. This total consists of 7.521 million lbs. of Measured Resources and 1.295 million lbs. of Indicated Resources. There are no reported Inferred Resources because of the high drilling density at the site. Historical delineation drilling was conducted on a 100-ft. grid, including multiple drill hole fences with drill holes spaced as close as 10-50 ft. The average depth to the top of these resources is 312 ft. bgs.

Figure 15 illustrates the location of resources as defined by outlines of the 0.25 GT contour mineral ”pods” and trends for the FAB Trend, and Figure 16 shows the same for Area 5. Figure 17 is a cross section that illustrates the mineralization and strata in the FAB Trend. Note the change in the original topography, due to pre-stripping in areas adjacent to historical open pit mining operations.

Table 13. Shirley Basin Uranium Project – Resource Summary by Mineral Horizon

Mineral Interval		FAB								
		Measured			**Indicated**			**Measured+Indicated**		
		Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8	Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8	Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8
Twr		0.101	71,273	143,818	0.060	10,940	13,156	0.095	82,214	156,975
Twdr	Upper	0.180	44,434	159,761	0.136	30,461	82,768	0.162	74,895	242,529
	Main	0.297	972,857	5,779,880	0.115	374,445	859,718	0.246	1,347,302	6,639,598
	Lower	0.294	83,288	490,433	0.158	39,845	125,834	0.250	123,133	616,266
		0.280	**1,171,853**	**6,573,891**	**0.119**	**455,691**	**1,081,476**	**0.235**	**1,627,544**	**7,655,368**

Mineral Interval		Area 5								
		Measured			**Indicated**			**Measured+Indicated**		
		Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8	Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8	Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8
Twr		---	---	---	---	---	---	---	---	---
Twdr	Upper	---	---	---	---	---	---	---	---	---
	Main	0.250	152,128	762,143	0.116	71,084	164,769	0.208	223,212	926,912
	Lower	0.217	42,591	184,647	0.112	21,830	48,791	0.181	64,421	233,438
		0.243	**194,719**	**946,790**	**0.115**	**92,914**	**213,559**	**0.202**	**287,633**	**1,160,350**

Mineral Interval		Project Total								
		Measured			**Indicated**			**Measured+Indicated**		
		Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8	Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8	Avg. Grade (%e U_3O_8)	Short Tons	Pounds U_3O_8
Twr		0.101	71,273	143,818	0.060	10,940	13,156	0.095	82,214	156,975
Twdr	Upper	0.180	44,434	159,761	0.136	30,461	82,768	0.162	74,895	242,529
	Main	0.291	1,124,986	6,542,023	0.115	445,528	1,024,48	0.241	1,570,514	7,566,509
	Lower	0.268	125,878	675,080	0.142	61,676	174,624	0.227	187,554	849,704
		0.275	**1,366,572**	**7,520,682**	**0.118**	**548,606**	**1,295,036**	**0.230**	**1,915,177**	**8,815,717**

Notes:

1. Twr – Tertiary White River Formation
2. Twdr – Tertiary Wind River Formation
3. Sum of Measured and Indicated tons and pounds may not add to the reported total due to rounding.
4. Based on grade cutoff of 0.020% eU_3O_8 and a grade x thickness cutoff of 0.25 GT.
5. Measured, Indicated, and Inferred Mineral Resources as defined in Section 1.2 of NI 43-101 (the CIM Definition Standards (CIM Council, 2014)).
6. Resources are reported through July 2014.
7. All reported resources occur below the historical, pre-mining static water table.
8. Sandstone density is 16.0 cu. ft./ton.

Figure 15. FAB Trend Resources

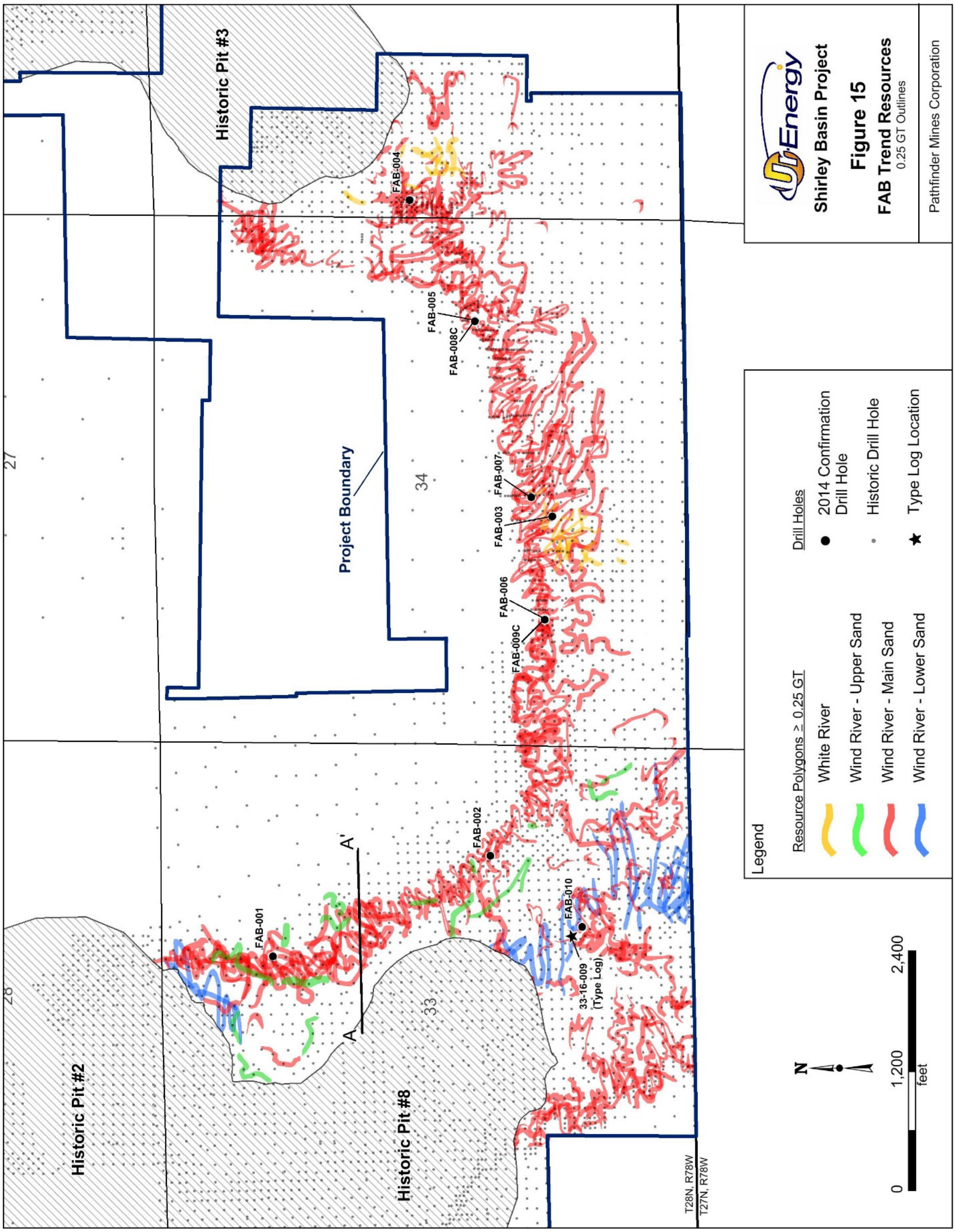


Figure 16. Area 5 Resources

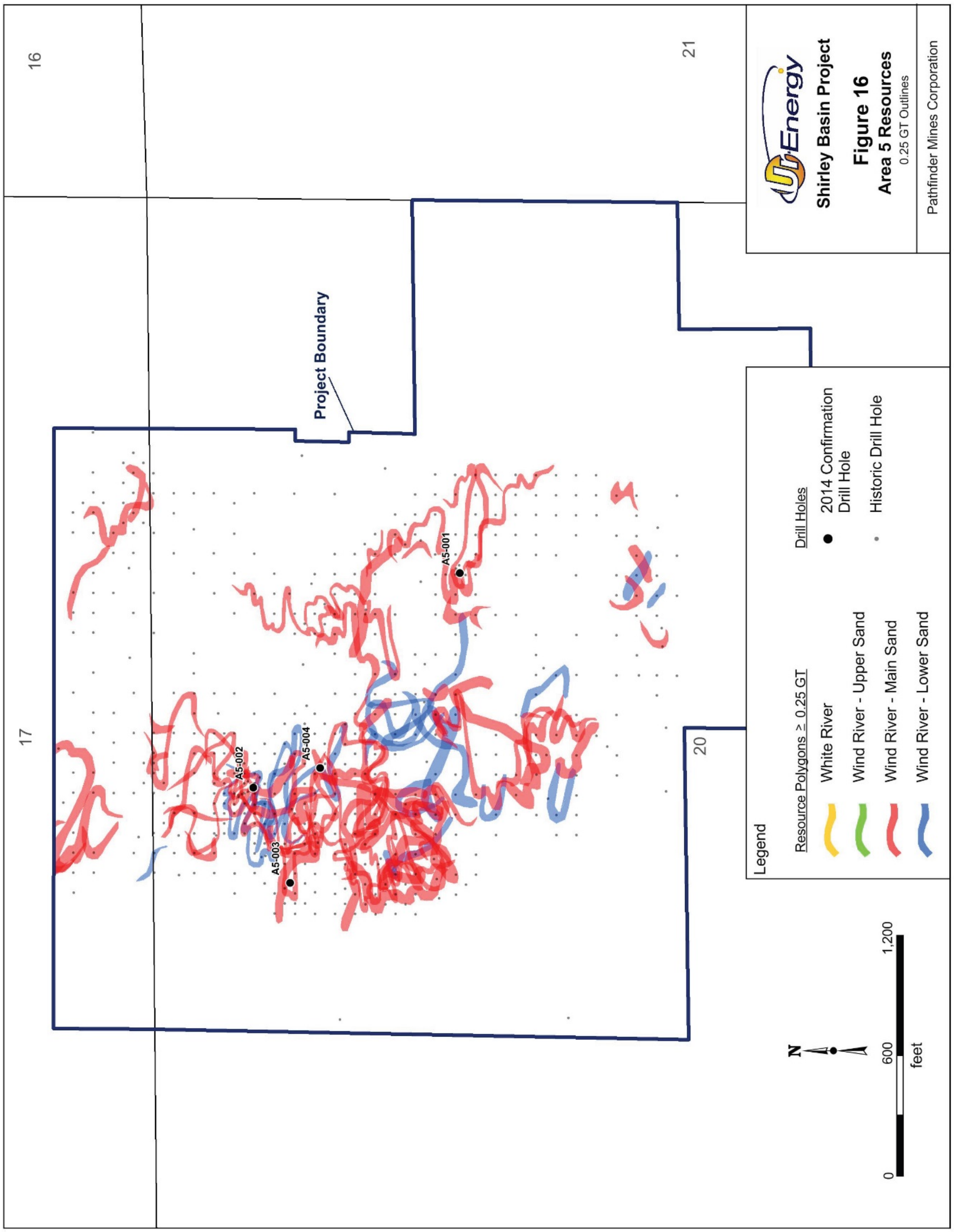
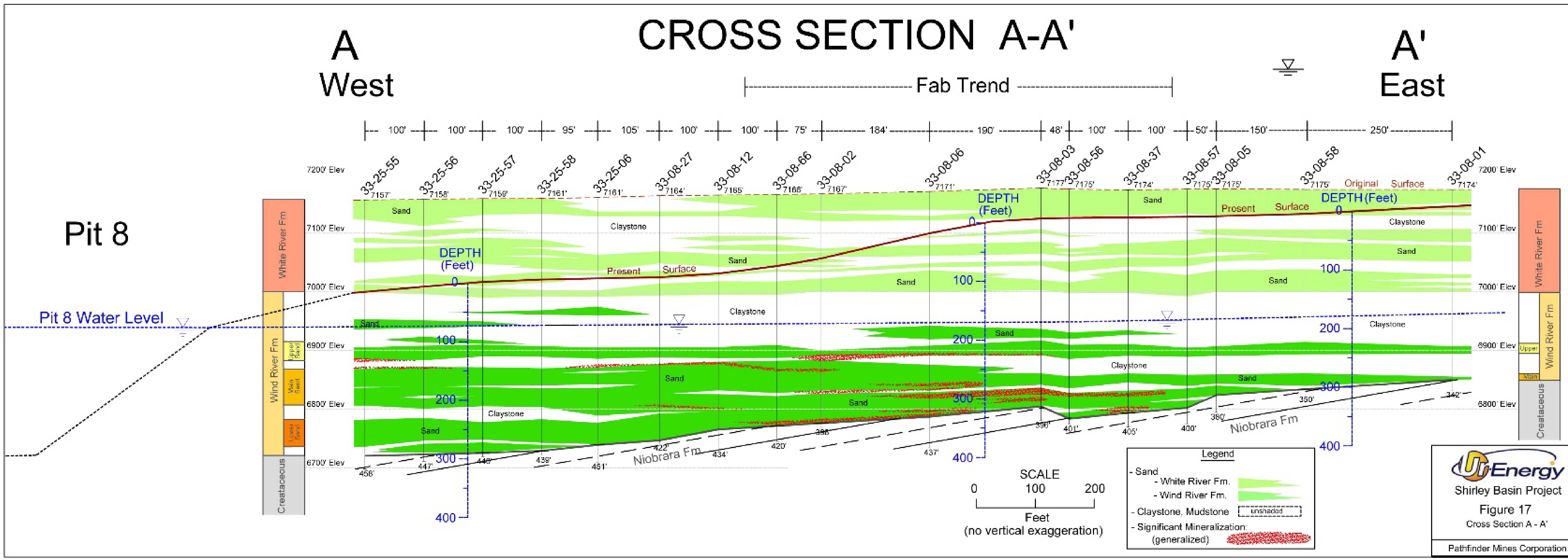


Figure 17. FAB Trend Cross Section A – A'



14.7 Mineral Resource Estimate Risk

To the extent known, there are no current environmental, permitting, legal, title, taxation, socio-economic, marketing, or political factors which could materially affect the accessibility of the estimated resources.

Potential future risks to the accessibility of the estimated resource may include future designation of the greater sage-grouse as an endangered species by the U.S. Fish and Wildlife Service. The Project lies within a greater sage-grouse core area as defined by the State of Wyoming, which could potentially have an impact on future expansion operations. However, URE continues to work closely with the WGFD and the BLM to mitigate any potential impacts on greater sage-grouse.

As is typical for mineral resource estimates, there is risk of improper interpretation of geological data such as grade or continuity. Improper geological data interpretation could impact the estimated resource estimate, either positively or negatively. URE has expended considerable effort to ensure the accuracy and validity of drilling and mineral data used as the foundation of the resource estimates, as discussed in Section 7.0, Section 11.0 and Section 12.0. Additionally, geologists contributing to this PEA are thoroughly trained in understanding the nature of roll front uranium deposits to ensure realistic and accurate interpretations of the extent of mineralization.

15.0 MINERAL RESERVES

There are no current mineral reserves on the Project.

16.0 MINING METHODS

The mining method addressed in this PEA is uranium ISR. There is no excavation of ore and no mining dilution with this method. Only minerals that can be taken into solution are recovered.

16.1 Mineral Deposit Amenability

URE plans to use the ISR mining technique at the Project. As discussed in Section 6.0, Shirley Basin Mining District was the site of the first successful, commercial ISR operations in the U.S. From 1963-1970, 1.5 million lbs. of uranium were produced through ISR methods. This historical production demonstrated the host Wind River Formation sandstones and the hydrological conditions of the site to be suitable for ISR production.

ISR is employed because this technique allows for the low cost and effective recovery of roll front mineralization. An additional benefit is that ISR is relatively environmentally benign when compared to conventional open pit or underground recovery techniques. ISR does not require the installation of tailings facilities or significant surface disturbance.

This mining method utilizes injection wells to introduce a lixiviant into the mineralized zone. The lixiviant is made of native groundwater fortified with oxygen as an oxidizer, sodium bicarbonate as a complexing agent, and carbon dioxide for pH control. The oxidizer converts the uranium compounds from a relatively insoluble +4 valence state to a soluble +6 valence state. The complexing agent bonds with the uranium to form uranyl carbonate, which is highly soluble. The dissolved uranyl carbonate is then recovered through a series of new production wells and piped to a processing plant where the uranyl carbonate is removed from the solution using ion exchange. The groundwater is re-fortified with the oxidizer and complexing agent and sent back to the wellfield to recover additional uranium.

In order to use the *ISR* technique, the mineralized body must be saturated with groundwater, transmissive to water flow, and amenable to dissolution by an acceptable lixiviant. While not a requirement, it is beneficial if the production zone aquifer is relatively confined by overlying and underlying aquitards so it is easier to maintain control of the mining lixiviant. In addition to numerous historical monitor wells, URE completed 13 monitor wells at the Project in 2014 to determine the elevation of the water tables. The natural hydrostatic pressure within the Main and Lower Sands cause the water to rise in the well casing to approximately 145 to 240 ft. bgs. The Main and Lower Sands are completely saturated at the Project. Five hydrogeologic pump tests were performed within the Project in 2014 to demonstrate that the Main and Lower Sands are sufficiently transmissive to allow the lixiviant to flow through the production zone and dissolve the uranium mineral. The transmissivity of these sands measured during these pump tests ranged from 2,460 to 8,300 gpd/ft. This range of transmissivities is consistent with the rates at other successful ISR operations.

Production well flow rates observed to date confirm aquifer characteristics are suitable for uranium ISR mining. See Section 16.2 Hydrology for additional discussion.

Several agitation leach (bottle-roll) tests have been carried out on core samples from the Project to ensure leachability with an acceptable lixiviant. Test results show that recoveries of approximately 80% can be expected. See Section 13.0 for a complete discussion of leach test results.

16.2 Hydrology

16.2.1 Hydrogeology

The regional geology and Project stratigraphy are discussed in detail in Section 7.0 of this report and are not repeated here. What follows is a discussion of the hydrologic regime and its relevance to ISR based on site geology.

Within the Project area, groundwater occurs in three different geologic strata: the surficial alluvial sediments along Spring Creek, the underlying White River Formation and the underlying Wind River Formation. Only the White River and Wind River Formations are present in the proposed ISR mining areas.

The White River Formation consists of a series of arkosic sand and clay layers aggregating to 150 to 200 ft. in thickness. This formation is exposed at the surface across most of the project area, and receives direct aquifer recharge via precipitation. Within the Project area, the White River Formation shields the underlying Wind River Formation from direct recharge. However, due to the Wind River Formation's shallow northeasterly dip, the formation outcrops about 0.75 mile south of the FAB Trend where direct recharge occurs.

Underlying the White River Formation is a 50 to 80 ft. thick silt and clay sequence containing scattered lenses of arkosic sands and thin limestone beds. Melin (1961,) comments, and the drill data confirm, that these arkosic sands are "discrete channel deposits rather than extensive sheets"; therefore, hydraulically separate. The 50 to 80 ft. thick silty clay layer acts as an aquitard between the White River Formation and underlying Wind River Formation sands.

For hydrogeologic discussion purposes, the Wind River Formation is subdivided into three zones: the Lower Sand, Main Sand and Upper Sand. Uranium mineralization is found in all three zones. Melin (1961, p. 6) states that "the bottom most member of the Wind River Formation is a clay lying on an eroded Cretaceous surface overlain by as much as 100 ft. of conglomeratic arkose", which is commonly called the "Lower or Basal Sand." This is overlain by up to 50 ft. of clay, which is overlain by another conglomeratic arkosic sand as much as 75 ft. thick (commonly called the "Main Sand"). Quoting Melin, "In much of Section 28, south of the Utah shaft, the ore-bearing unit is medium to very coarse-grained, and is locally pebbly, and locally contains carbonized wood. The unit becomes silty west, and it wedges out against Cretaceous formations to the northeast. Near the shaft (Pit 2 area) the lower part is conglomeratic and uncommonly clean, and is highly permeable. The upper part is medium-grained and silty, carbonaceous in places, moderately to heavily cross-bedded, and affected locally by slumping shortly after deposition." Melin (1961, p. 7).

Jacob and Fisk (1961) state that "the Main Sand is overlain by a silty clay layer approximately 15 ft. thick that has been eroded through in places before deposition of the overlying arkose layer, which is up to 30 ft. thick." This arkosic layer is called the "Upper Sand."

Pump test results (1980s) indicated that the surficial aquifer is hydraulically separate from the underlying White River Formation. Various historical hydrologic studies as well as recent pump tests have demonstrated that the White River and underlying Wind River Formations are also hydrologically separated. Further confirmation of this separation is evident by the measured head differences whereby the static water level in the Wind River is lower than the level in the overlying White River Formation, thus creating a vertical downward gradient. The 2014 static water level in the Main Sand is 57 to 105 ft. above the top of the sand in the FAB Resource Area and 188 to 211 ft. above the mineralized sand in the Area 5 Resource Area. A limited amount of mineralization occurs in the Upper Sand within the FAB Resource Area where the static water level is approximately 20 ft. above the top of the sand.

Within the mineralized horizons in the Wind River Formation, the Upper, Main and Lower Sand horizons are all in direct contact one place or another in Area 5 and the FAB Trend, thus in direct hydrologic communication in these areas.

According to Harshman (1972), the groundwater flow direction in the White River and Wind River Formations was to the southeast prior to the commencement of open pit mining. However, as the result of years of open pit mining, pit lakes at the Sullivan/Walker, Jenkins, Petrotomics and Pathfinder properties were created. The pit lakes have altered the natural groundwater flow direction and gradient as they continue to fill and equilibrate with the intercepted aquifers.

16.2.2 Main Sand Hydraulic Properties

Numerous hydrogeologic investigations have been conducted over the years that generated an abundance of aquifer characteristics data. Between 1959 and 1991, consultants for Pathfinder performed 24 single and/or multiple well pump tests throughout the Project. Pump test results indicated that flow characteristics of the Main Sand vary considerably across the FAB Resource Area. Transmissivity values ranged from 2,000 to 5,200 gpd/ft. in the Pit 3 area, increasing westward from 5,000 to 10,000 gpd/ft. in the Pit 2/8 area. Typical storage coefficient values range from 2×10^{-2} to 1×10^{-4}. The transmissivity variability is likely attributable to different fluvial depositional environments: one that created a deeper, coarser-grained primary paleo-stream channel traversing through what is now Pit 2/8, versus a secondary paleo-side tributary comprised of finer-grained sediments that traversed through the Pit 3 area.

In 2014, URE conducted five Main Sand pump tests: four located in the FAB Trend and one in Area 5. The test durations ranged from 4 hours for a single well test to 51 hours for multiple well tests. Transmissivity values ranged from 2,500 to 3,500 gpd/ft. in the eastern FAB area, increasing westward from 5,500 to 8,300 gpd/ft. in the Pit 2/8 area (western FAB). Area 5 transmissivity values were less variable, ranging from 2,460 to 2,560 gpd/ft. Storage coefficient values ranged from 1.53 x 10^{-4} to 1.17 x 10^{-3}. A representative storage coefficient for both Resource Areas is 1.8 x 10^{-4}.

In summary, current pump test results are consistent with and validate historical test results. As previously mentioned in Section 6.0, Utah Construction successfully operated an ISR mine from 1963 to 1970 in the Pit 2 area. The most recent hydrogeological data indicate that the FAB and Area 5 Resource Areas are also amenable to solution mining. Furthermore, sufficient head is available within the Main Sand to conduct uranium ISR.

16.2.3 Historical Drill Holes

The five pump tests conducted in 2014 were all completed in areas with extensive historical drilling activities which could represent potential avenues of leakage between aquifers. However, there was no observed communication between the Wind River sandstones and the overlying White River Formation during the recent pump tests. This is due to the presence of a thick (up to 80 ft.) Wind River Formation claystone, which overlies the Wind River host sandstones. This stratigraphic relationship is illustrated in Figure 7.

There is a high content of bentonite clay in this claystone unit, causing it to swell and quickly create a natural seal. During the 2014 drilling program, down-hole electric logs of the drill holes had to be conducted within one to two hours of drilling completion or the bore hole would swell to the point that the hole could not be re-entered. This swelling characteristic has created an effective barrier to groundwater migration between the Wind River and White River Formations. This natural sealing of historical drill holes will eliminate intra-formational groundwater movement during pump testing and planned ISR mining on the Project.

16.3 Conceptual Wellfield Design

The most fundamental component of ISR mine development and production is the *production pattern*. A pattern consists of one production well and the injection wells which feed lixiviant to it. Injection wells are commonly shared by multiple production wells. *Header houses* serve multiple patterns and function as both distribution points for injection flow and collection points for production flow from the production wells. The *processing plant* feeds injection lixiviant to the header houses for distribution to the injection wells and also receives and processes production flow from the header houses.

16.3.1 Revised Resources

The total resource base was evaluated based on physiographic and depth criteria to judge whether it is addressable with current ISR mining methods. The evaluation determined that portions of the total mineral resource are not addressable using current

ISR methods for the purpose of this PEA, those portions of the mineral resource were excluded from economic consideration. These excluded resources are still available to non-conventional ISR techniques and other mining methods.

Groundwater Table

For ISR mining operations, it is necessary that the uranium resources be located below the static water table. Within the Project, all resources within the Wind River Formation meet this important criterion, being at least 20-40 ft. below the water table. However, some of the resources within the overlying White River Formation are located at or very near the static water table and therefore have insufficient hydraulic head for ISR production. This was identified by evaluating monitoring results from 13 monitor wells drilled by URE throughout the Project area for the purpose of measuring water levels and conducting pump tests. As a result, all of the White River resources, totaling 156,975 lbs., have been removed from consideration as economically mineable resources.

Topography

Some resources have been removed from consideration as economically mineable resources due to adverse topographic considerations. Reclamation of the historical open pit mines did not involve complete backfilling. Rather, the pit walls were sloped and partially backfilled and the pit floors were allowed to flood, creating pit lakes as observed today. Locally the pit walls remain quite steep. Portions of the mineral resource in the western regions of the FAB Trend extend too close to pit lakes or occur on pit slopes too steep to efficiently construct ISR production patterns. Resources in these areas totaling 710,821 lbs. consequently have been removed from consideration as economically mineable resources.

The total resource base has been reduced by 867,796 lbs. due the above factors to yield a minable resource estimate of 7,947,921 lbs. U_3O_8.

16.3.2 Wellfield Patterns

Traditionally the industry standard wellfield pattern is a *5-spot* configuration consisting of four injection wells 100 ft. apart squarely placed around a central production well, resulting in a pattern of approximately 10,000 sq./ft. in area with an injection to production well distance of approximately 70 ft. However, in practicality, patterns are designed to best fit the sinuosity of the target mineral trends, and thus in most cases are not perfectly square. Furthermore, where fronts are narrow, it is prudent to combine 5-spots with other pattern configurations such as “line-drives” for maximum layout efficiency. (A line-drive pattern is a sequence of two injection wells feeding a single production well and has a much smaller area. The line-drive patterns are normally linked together following the roll front trend). It is anticipated that incorporating line-drive configurations along with modified 5-spots into the wellfield design will result in an average pattern size of approximately 9,000 sq. ft. for the Project. This average pattern size was used in conjunction with the total acreage associated with the resources that may potentially be mined to estimate the total number of patterns needed for the Project. This approach to estimating preliminary wellfields is comparable to the work done at URE's operating Lost Creek Mine.

In plan-view, patterns will be designed to overlay mapped roll fronts. Well completion intervals in each pattern will be carefully evaluated using available data to optimize lixiviant flow paths through targeted resources. Typically, patterns are planned to target up to two or three individually mapped and vertically stacked roll fronts. Targeting more would result in an undesirably thick and inefficient well completion interval. Operational experience has demonstrated the optimum injection/production well completion thickness to be between 10 and 25 ft. Consequently, the multitude of individually mapped fronts in portions of the Project results in the "stacking" of wellfield areas. This occurs when two or more mining completions are planned for the same pattern area in an overlapping fashion. This is due to multiple mineralized horizons or the presence of more mineralized thickness than can be efficiently mined with a single well completion. Stacking occurs in approximately 30 % of the total anticipated wellfield area. Therefore the plan view composite acreage of the resources that may potentially be mined (180 acres) was multiplied by an estimated rate of overlapping pattern area in order to more accurately estimate the number of patterns required. Accounting for pattern overlap, the resulting cumulative area for the projected wellfields is approximately 234 acres. Using this area, 1,131 patterns are estimated for the Project using an average pattern area of 9,000 sq. ft.

The Project-wide wellfield area has been divided into three mine units: MU1 and MU2 in the FAB Trend and MU3 in Area 5. Figures 18 and 19 illustrate the distribution of resources within the three mine units. A general description of the dimensions of each mine unit follows. MU1 is approximately 5,500 ft. long, varies in width from 500 to 1,800 ft. and has a composite wellfield area of 83 acres. MU2 is approximately 5,400 ft. long, varies in width from 300 to 3,000 ft. and has a composite wellfield area of 106 acres. MU3 is approximately 3,300 ft. long and 1,800 ft. wide with a composite wellfield area of 45 acres. Within these mine units 2,261 injection wells and 1,131 production wells are estimated, using a 2:1 injection to production well ratio, for a total of 3,392 wells (Table 14). The average estimated well depth and completion thickness for the Project are approximately 321 ft. and 16 ft., respectively. In some areas of MU1 and MU2, partial stripping of overburden by past mining operations will result in significant reduction of total well depths and subsequently a reduction in development costs.

Figure 18.   Mine Units – FAB Trend

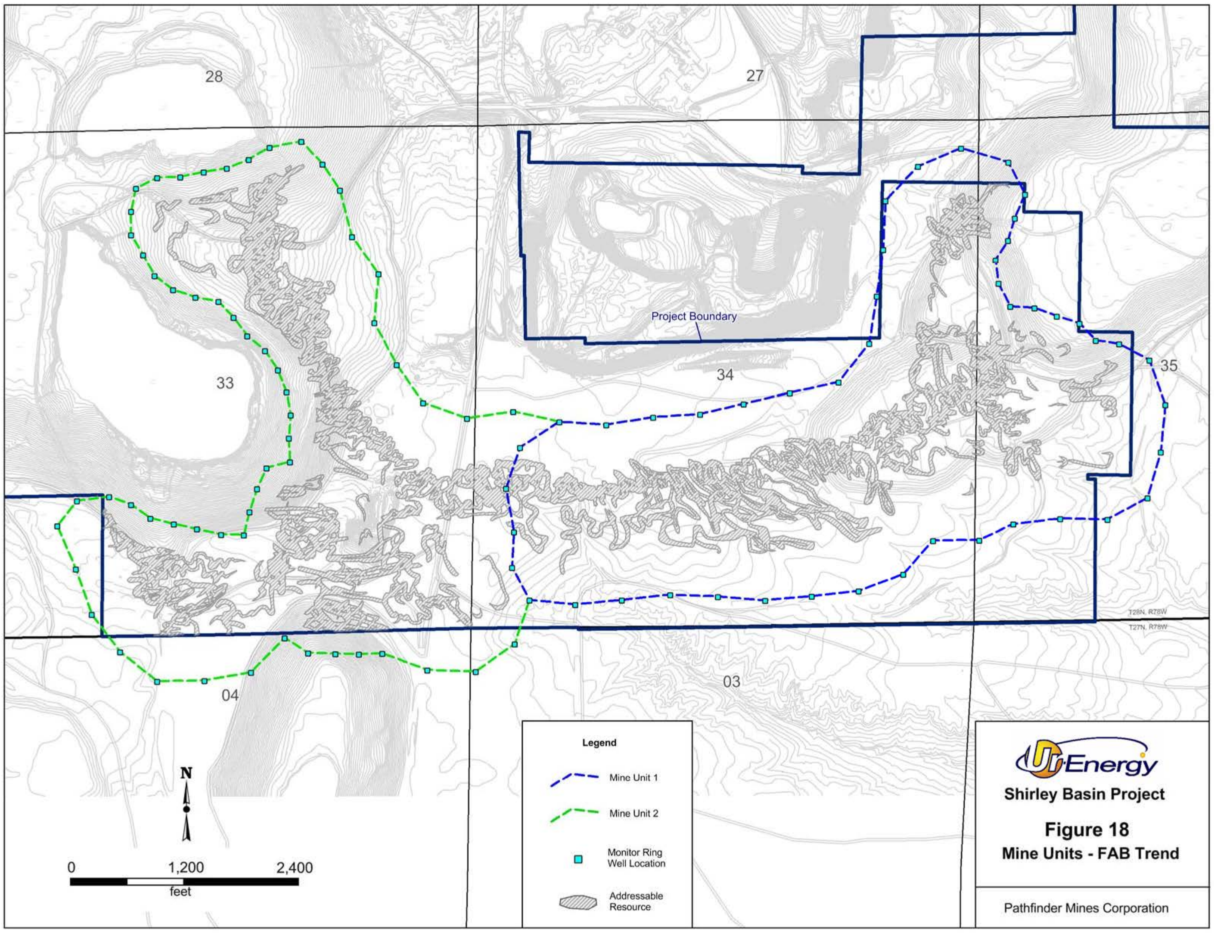
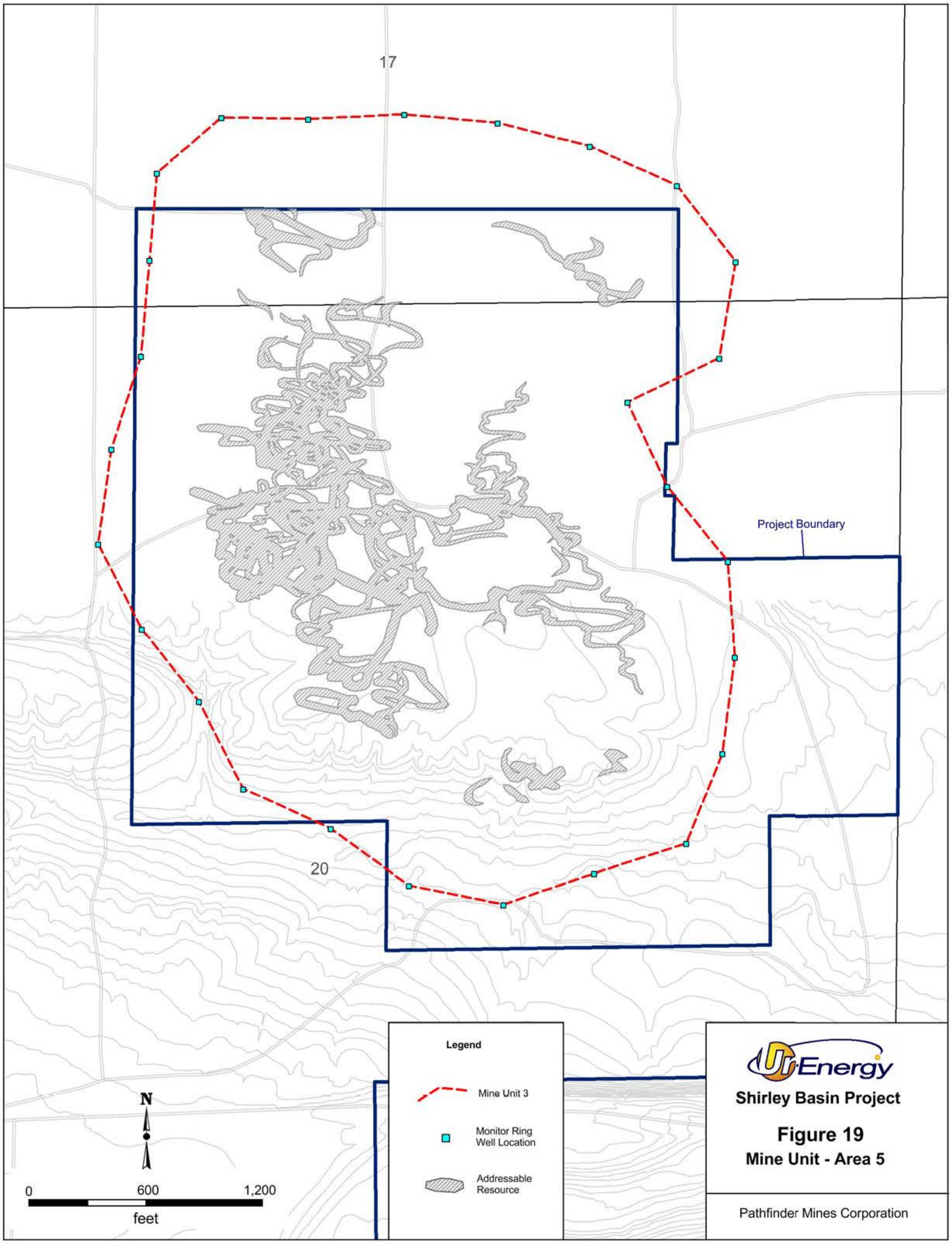


Figure 19. Mine Units – Area 5



The number of patterns estimated for each mine unit is then used to calculate an average resource per pattern and an average recoverable resource per pattern, as shown in Table 14. The Project is estimated to have an overall average under pattern resource of 7,030 lbs./pattern and an average recoverable resource of 5,624 lbs./pattern.

Table 14. Development Summary by Mine Unit

Mine Unit	Resource Area	Resource (lbs. x 1000)[1]	Recoverable Resource (lbs. x 1000)	Average lbs./Pattern	Average Recoverable lbs./Pattern	Injection Wells	Production Wells	Header Houses	Average Well Depth (ft.)[2]	Monitor Wells
MU1	FAB Trend	3,246	2,597	8,126	6,501	799	399	16	276	81
MU2	FAB Trend	3,541	2,833	6,878	5,503	1,030	515	21	298	98
MU3	Area 5	1,160	928	5,366	4,293	432	216	9	461	48
Project Total		**7,948**	**6,358**	**7,030**	**5,624**	**2,261**	**1,131**	**46**	**321**	**222**

[1] Sum of pounds may not add to the reported total due to rounding.
[2] Project totals reflect weighted average.

16.3.3 Monitor Wells

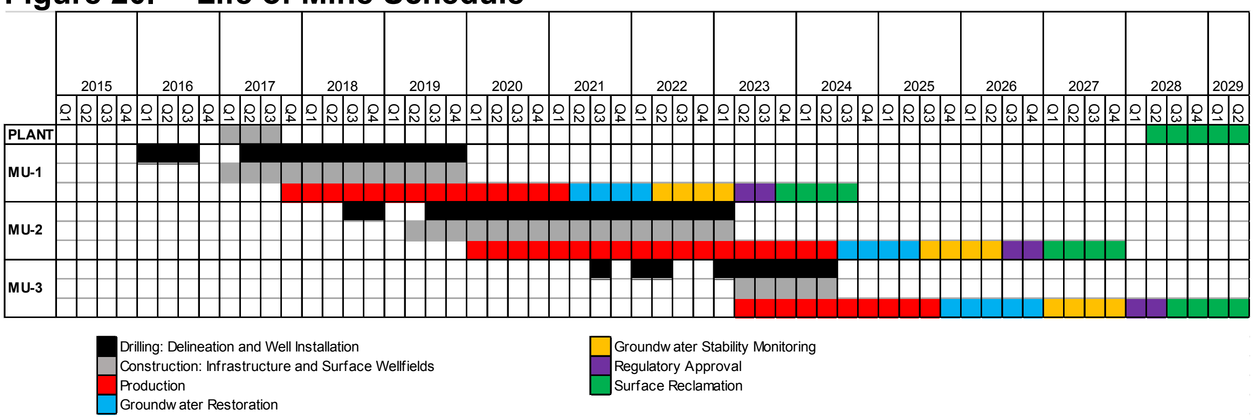
The planned monitor well network associated with the mine units is based on applicable regulatory requirements and guidance set forth by the WDEQ and the NRC. In total, 222 monitor wells are estimated to be required, including 132 perimeter monitor ring wells and 90 interior monitor wells.

Perimeter monitor wells will surround each mine unit at an estimated spacing of 500 ft. from each other and 500 ft. from the nearest production pattern (Figures 18 and 19). Locally, an alternative closer spacing of perimeter monitor wells is assumed in areas where production patterns are planned near existing pit lakes or backfill, both resulting from past mining operations. These areas exhibit hydrologic conditions that is anticipated to require a more robust monitor well network with spacing of 250 ft. from each other and 250 ft. from the nearest production pattern. Monitor wells interior to the wellfield are also required on a one well per 4-acre spacing within areas covered by patterns. These interior wells typically consist of monitor wells completed in the overlying aquifer, the underlying aquifer and the production zone. However, in the Project area the Wind River production zone is underlain by thick Cretaceous marine shales and consequently no underlying aquifer has been identified. Therefore, the interior monitor wells are assumed to consist of only overlying and production zone monitor wells. These wells will be placed in clusters evenly distributed through each mine unit, with each cluster composed of one of each type of well.

16.3.4 Mining Schedule

The mine life sequence can be described as development, production and groundwater restoration followed by surface reclamation (Figure 20). Construction activities which include delineation drilling, deep disposal test well investigation and the installation of initial monitor wells are planned to begin first quarter 2016. Production is proposed to begin in late 2017 and continue into 2025. Annual production is estimated to be approximately one million pounds per year. Restoration and reclamation activities are scheduled to start soon after production is completed in a mine unit. Final decommissioning will occur simultaneously with reclamation of the last production area.

Figure 20. Life of Mine Schedule



16.4 Piping

Pipelines transport the wellfield solutions to and from the planned satellite IX plant. The flow rates and pressures of the individual well lines are monitored in the header houses. Flow and pressure of the field production systems are also monitored and controlled as appropriate at the header houses. High density polyethylene (HDPE), PVC, stainless steel, or equivalent piping is used in the wellfields and will be designed and selected to meet design operating conditions. The lines from the satellite IX plant, header houses, and individual well lines will be buried for freeze protection and to minimize pipe movement.

16.5 Header Houses

Header houses are used to distribute lixiviant injection fluid to injection wells and collect pregnant solution from production wells. Each header house is connected to two trunk lines, one for receiving barren lixiviant from the satellite IX plant and one for conveying pregnant solutions to the satellite plant. The header houses include manifolds, valves, flow meters, pressure gauges, instrumentation and oxygen for incorporation into the injection fluid, as required. Each header house may service up to 75 wells (injection and production) depending on pattern geometry.

16.6 Wellfield Reagents and Electricity

The evaluation presented in this report assumes, based on the production schedule and plan at full satellite flow, the use of the following reagents and electricity in the wellfields and satellite plant on an annual basis:

Oxygen	59	million standard cu. ft.
Carbon dioxide	1,661	tons
Corrosion inhibitor	21.2	barrels
Electricity	8.8	million kilowatt-hours (kWh)

16.7 Mining Fleet Equipment and Machinery

This evaluation includes the cost of the required equipment and machinery to support the installation and operation of wellfields, a 6,000 gpm satellite IX plant and post-mining reclamation activities. A summary listing of this equipment and machinery includes:

- 15 ¾-ton pickup trucks
- 4-8 trucks
- 1 pulling unit
- 5 resin trailers
- 3 cementers
- 6 units – heavy equipment
- 3 forklifts
- 1 seeder
- 1 hose reel
- 4 frac tanks
- 4 portable generators
- Hand tools, radios and computers

17.0 RECOVERY METHODS

ISR operations consist of four major solution circuits as described in Section 17.1 and Section 17.3. Because the Project will be a satellite to URE's Lost Creek Mine, only the first major solution circuit will be located at the Project (Figure 21). Loaded resin will be contract transported to the Lost Creek Mine, where the remainder of the processing will be completed. The four major solution circuits are:

1. Uranium recovery/extraction circuit (IX);
2. Elution circuit to remove the uranium from the IX resin;
3. Yellowcake precipitation circuit; and the
4. Dewatering, drying and packaging circuit.

Figure 21 presents a simplified process flow diagram illustrating the relationship between the Project satellite facility and the Lost Creek Mine.

17.1 Satellite Operations

Production fluid containing dissolved uranyl carbonate from the wellfields is pumped to the satellite IX plant for beneficiation as described below.

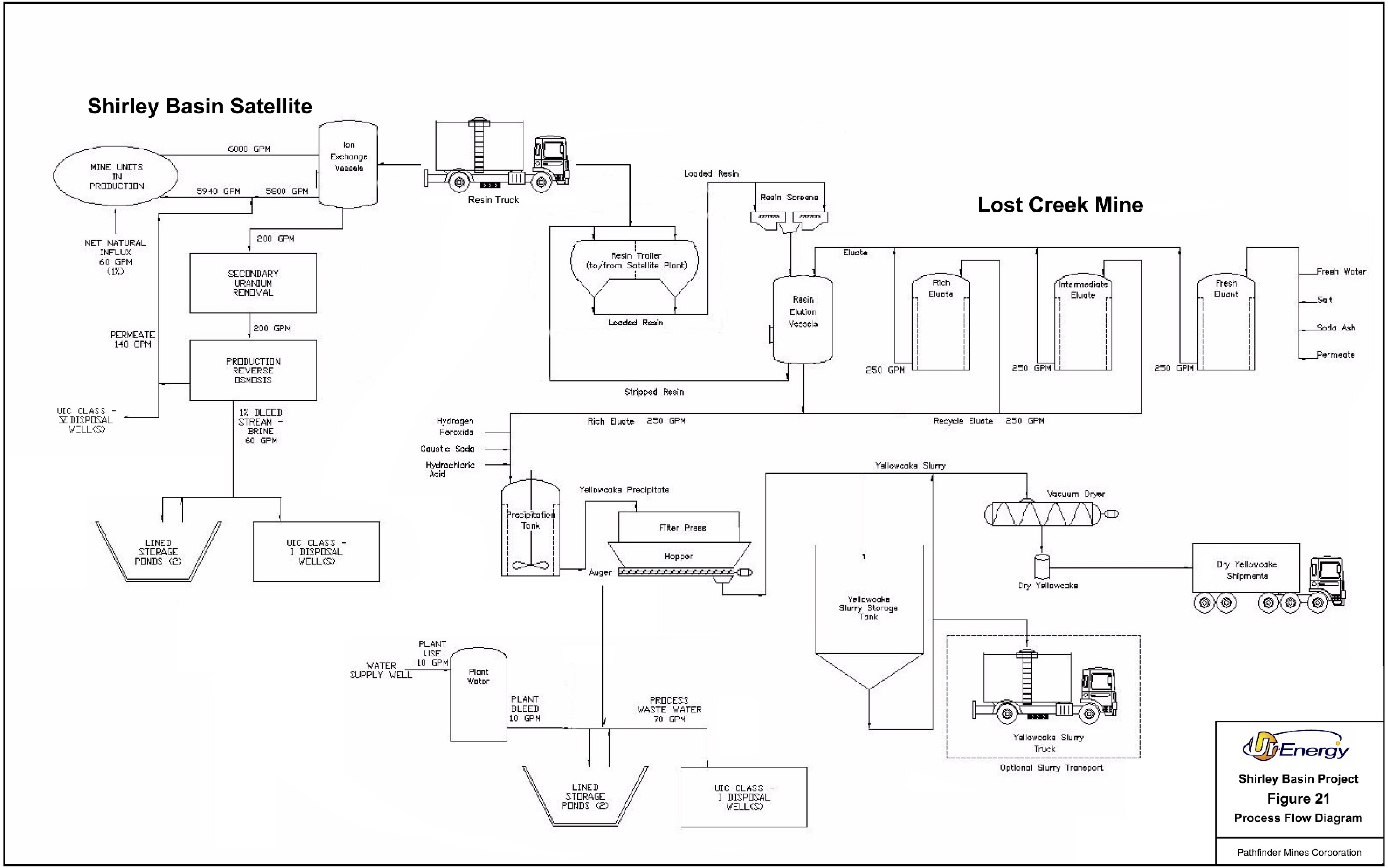
IX Circuit – The IX circuit will be housed in a metal building which will also house the resin transfer equipment as well as the restoration circuit. Uranium liberated from the underground deposits is extracted from the pregnant solution in the 6,000 gpm IX circuit. Subsequently, the barren lixiviant is reconstituted to the proper bicarbonate strength, as needed, and pH is corrected using carbon dioxide prior to being pumped back to the wellfield for reinjection. A low-volume bleed is permanently removed from the lixiviant flow in order to maintain an inward gradient to the wellfields. The bleed is treated by reverse osmosis (RO) to remove metals and salts (e.g., calcium, sodium, sulfate) and the clean permeate is reused in the process. This clean permeate is of better quality than the native groundwater. Brine is disposed of by injection into Underground Injection Control (UIC) Class I DDWs while any excess permeate will be reinjected in the overlying formation via shallow Class V disposal wells. See Section 17.5 for a detailed description of the planned wastewater management system.

Associated with the satellite operations will be office, construction, maintenance, warehouse and drilling support buildings. Satellite construction is expected to commence in early 2017 upon the receipt of the last required permit.

17.2 Transportation

Once the IX resin is loaded to a point where it is no longer economically capturing uranium from the production solution, the IX resin column is taken offline and the loaded resin is moved to a trailer. The resin typically will be shipped in 500 cu. ft. loads and will have the majority of the water drained off prior to shipping. Bulk pneumatic trailers are planned to transport the resin to and from the Lost Creek Mine processing plant approximately 32 miles north of Wamsutter, Wyoming. The mode of hauling is proposed

Figure 21. Process Flow Diagram



to be a contract carrier licensed to haul radioactive materials in the State of Wyoming. An example of such a carrier would be RSB Logistics who is currently contracted to haul the end product, yellowcake, from Lost Creek Mine to Metropolis, Illinois for final processing.

There are two possible routes from the Project to the Lost Creek Mine. The preferred route is south on Wyoming Highway 487, west on U.S. Highway 30/287 continuing west on Interstate 80, then north on the Wamsutter – Crooks Gap road to the Lost Creek Mine. The total length for this route is approximately 175 miles. The alternate route is north on Wyoming Highway 487, west on Wyoming Highway 220, continuing northwest on Wyoming Highway 287 then south on the Wamsutter – Crooks Gap road. The total length for this route is approximately 160 miles. While this route is shorter by 15 miles, it is the lesser traveled trucking route of the two.

Once the truck delivers the loaded trailer to Lost Creek Mine, an empty trailer will be immediately returned to the Shirley Basin satellite plant.

17.3 Plant Processing (Lost Creek Mine)

The Lost Creek plant houses most of the process equipment in an approximately 160 ft. by 260 ft. metal building. However, hydrochloric acid, propane, CO_2 and soda ash are stored in silos and tanks outside of the process building. The water treatment system (RO) used for treating the Lost Creek bleed and for aquifer restoration is also located in the plant. An analytical laboratory and offices are located in the same building as the plant. A shop building is located immediately north of the plant. In addition to office space for professional staff and the on-site laboratory, the building includes the computer server room, lunchroom, and restroom/change room facilities. The shop building contains the warehouse, maintenance shop, the construction shop and the drilling shop with all the required tools/equipment and various supplies for performing maintenance and construction of wellfield systems.

Elution Circuit -- When it is fully loaded with uranyl carbonate, the IX resin is subjected to elution. The elution process reverses the loading reactions for the IX resin and strips the uranium from the resin. The resulting rich eluate is an aqueous solution containing uranyl carbonate, salt and sodium carbonate and/or sodium bicarbonate.

Yellowcake Precipitation Circuit -- Yellowcake is produced from the rich eluate. The eluate from the elution circuit is de-carbonated in tanks by lowering the pH to approximately 2 standard units with hydrochloric acid. The uranium is then precipitated with hydrogen peroxide using sodium hydroxide for pH control.

Yellowcake Dewatering, Drying and Packaging Circuit -- The precipitated yellowcake slurry is transferred to a filter press where excess liquid is removed. Following a fresh water wash step that flushes any remaining dissolved chlorides, the resulting product cake is transferred to a yellowcake dryer which will further reduce the moisture content, yielding the final dried free-flowing product. Refined yellowcake is packaged in 55-gallon steel drums.

For the purposes of this PEA, it has been assumed that all drummed yellowcake will be shipped via truck approximately 1,200 miles to the conversion facility in Metropolis, Illinois. This conversion facility is the first manufacturing step in converting the yellowcake into reactor fuel.

17.4 Energy, Water and Process Materials

Estimates used in the evaluation presented in this PEA assume the annual consumption of approximately 57,700 gallons of propane and 8.8 million kWh of electricity to heat and light the satellite plant, operate the process equipment, and wellfields.

Chemicals that are anticipated to be used in the plant processes at the full design flow rate and the assumed annual consumption rates include:

Soda ash	1.53	million lbs./year
Resin (make-up/replacement)	100	cu. ft./year or less

The soda ash will be stored, used and managed so as to ensure worker and environmental safety in accordance with standards developed by regulatory agencies and vendors. It will be stored in a silo outside the satellite plant and blown pneumatically or augered into the facility for mixing into bicarbonate, which will then be added into the injection lixiviant. Additional resin will only be purchased and added as necessary if resin is lost or damaged during normal operating processes. Under normal operating conditions, the resin is anticipated to last the life of the project or longer. For this PEA, due to the potential wear associated with the trucking of resin, the cost of an additional 100 cu. ft. of resin each year was factored into the analysis.

17.5 Liquid Disposal

Typical ISR mining operations generate limited quantities of wastewater that cannot be returned to the production aquifers. The waste water will be derived from two sources: wellfield production bleed and satellite processes. The production bleed is a net withdrawal of water that generates an area of low hydrostatic pressure within the mining zone. Water surrounding the mining zone flows toward the area of low pressure thereby preventing mining solutions from migrating away from the mining zone toward protected waters. The wellfield production bleed rate is estimated at 0.5 to 1.0% of the total mine flow rate. The waste water flow rate from the satellite plant will be minimal, on the order of 1 gpm, because the facility will house only the IX circuit without the elution, precipitation, filtration or drying circuits. The rate of liquid wastes generated from a 6,000 gpm facility will average approximately 20 gpm out of a secondary RO unit for deep disposal, with an additional 35 gpm of Class V permeate injection during production operations. During restoration there will be approximately 80 gpm of DDW brine disposal and 67 gpm of Class V permeate injection.

Waste water treatment will entail passing the fluid through a primary and secondary RO system. Permeate from the primary RO will return to the wellfield, while the brine (RO reject fluid) will flow to a secondary RO unit to further reduce the volume of brine. The secondary RO permeate will pass through a radium IX resin before being injected into one or more shallow UIC Class V wells, while the brine will be injected into one or more UIC Class I DDWs. The secondary RO output will be split between the Class I and Class V disposal wells.

Three UIC DDWs are planned for the Project. The CAPEX and OPEX estimates for this PEA assume that these wells will support the production and restoration operations. In the event that DDWs are not viable for the Project, the alternative use of Zero Liquid Discharge systems to turn waste water into sludge will be examined. The cost associated with this alternative will be examined in the recommended DDW and Water Management Investigation.

17.6 Solid Waste Disposal

Solid wastes consist of empty packaging, miscellaneous pipes and fittings, tank sediments, used personal protective equipment and domestic trash. These materials are classified as contaminated or non-contaminated based on their radiological characteristics.

Non-contaminated solid waste is waste which is not contaminated with radioactive material or contaminated waste which can be decontaminated and re-classified as non-contaminated waste. This type of waste may include trash, piping, valves, instrumentation, equipment and any other items which are not contaminated or which may be successfully decontaminated. Current estimates are that the site will produce approximately 700 cubic yards of non-contaminated solid waste per year. Non-contaminated solid waste will be collected in designated areas at the Project site and disposed of within the permitted, on-site industrial solid waste land fill.

Contaminated solid waste consists of solid waste contaminated with radioactive material that cannot be decontaminated. This waste will be classified as 11e.(2) byproduct material as defined by NRC regulations. This byproduct material consists of filters, personal protective equipment, spent resin, piping, etc. URE owns a licensed, 11e.(2) byproduct material disposal site at Shirley Basin which is capable of handling these materials. It is estimated that the Project will produce approximately 90 cubic yards of 11e.(2) byproduct material as waste per year. This estimate is based on the waste generation rates of similar uranium ISR facilities.

18.0 PROJECT INFRASTRUCTURE

18.1 Roads

Four types of roads will be used for access to the Project and its production areas. They include primary access roads, secondary access roads, temporary wellfield access roads, and well access roads. The Project area is served by Wyoming Highway 487 as depicted on Figure 1. Wyoming Highway 487 is a state maintained, two-lane, sealed, asphalt road providing year around access. Access to this highway from the north (Casper) is via Wyoming Highway 220, and access from the south (Laramie or Rawlins) is via US Highway 30/287. Once on the Project, there is a crown-and-ditched gravel access road to the former mill site area. The proposed access to the ISR production area will require upgrading approximately 1.9 miles of an existing graded access road which is reached by Carbon County Road 2, Shirley Ridge Road. In addition to the designated routes, there are a number of tertiary or "two-track" roads that traverse the area for recreation and grazing access, as well as various other uses, including mineral exploration.

Snow removal and periodic surface maintenance will be performed as needed. The secondary access roads are used at the Project to provide access to the wellfield header houses. The secondary access roads are constructed with limited cut and fill construction and may be surfaced with small sized aggregate or other appropriate material.

The temporary wellfield access roads are for access to drilling sites, wellfield development, or ancillary areas assisting in wellfield development. When possible, URE will use existing two-track trails or designate two-track trails where the land surface is not typically modified to accommodate the road. The temporary wellfield access roads will be used throughout the mining areas and will be reclaimed at the end of mining and restoration.

18.2 Electricity

A regional power transmission line (69 kV) passes through the northern portions of the Project. Also, an existing energized power line leads to a substation with transformer bank near the field office, and from there a currently inactive power line (poles only) extends to the FAB Trend. The line was originally installed to serve the Pathfinder Mine. Service to the area is through High Plains Electric. Onsite power will be owned by PMC and will be constructed by contract overhead power electricians. Prior to operation of the Project, the substation will be upgraded and new lines run to the proposed satellite plant and wellfields. Power lines from header houses to production wells will be placed underground using direct burial wire.

18.3 Holding Ponds

Two holding ponds will be used to contain process waste water when the DDWs are shut down for maintenance and annual testing. Each of the earthen banked ponds will be designed to be approximately 155 by 260 ft., as measured from crest to crest. The ponds will have a double lined containment system with leak detection between the liners. The same rigorous procedures have been established to ensure proper inspection, operation, and maintenance of the holding ponds at the Lost Creek Mine, and it is anticipated that they will be applied at the Project as well.

19.0 MARKET STUDIES AND CONTRACTS

Unlike other commodities, uranium does not trade on an open market. Contracts are negotiated privately between buyers and sellers. Sales contracts vary in quantity and duration from Spot Market transactions, typically one-time, near-term deliveries involving as little as 25,000 lbs. U_3O_8, to long term sales agreements covering deliveries over multiple future years with quantities in the hundreds of thousands to millions of pounds of U_3O_8. This economic analysis assumes a variable price per pound for U_3O_8 over the life of the Project ranging from $56.00 in 2017 up to $68.75 per pound starting in 2024. This price forecast is based on a combination of projections from expert market analysts at institutions including Cantor Fitzgerald, Dundee Capital Markets, Laurentian Bank, Raymond James Ltd. and The Ux Consulting Company, LLC (UxC). Mr. Schiffer and Mr. Moores believe that the estimates are appropriate for use in this evaluation.

URE has not entered into any uranium supply contracts that are tied to production from the PMC properties or specifically from the Project. The price projection model includes components reflective of URE's market strategy of blending both Long Term and Spot Market sales together. The anticipated sales prices are considered within the sensitivities in this PEA (Section 25.2). The income from the estimated production at the anticipated sales price is included in the cash flow estimate.

The marketability of uranium and acceptance of uranium mining is subject to numerous factors beyond the control of URE. The price of uranium may experience volatile and significant price movements over short periods of time. Factors known to affect the market and the price of uranium include demand for nuclear power; political and economic conditions in uranium mining, producing and consuming countries; costs; interest rates, inflation and currency exchange fluctuations; governmental regulations; availability of financing of nuclear plants, reprocessing of spent fuel and the re-enrichment of depleted uranium tails or waste; sales of excess civilian and military inventories (including from the dismantling of nuclear weapons) by governments and industry participants; production levels and costs of production in certain geographical areas such as Russia, Africa and Australia; and changes in public acceptance of nuclear power generation as a result of any future accidents or terrorism at nuclear facilities. The economic analysis and associated sensitivities are within the range of current market variability.

During the construction phase of the plant, several contracts will be required with various construction related venders. No construction contracts have been entered into at the date of this PEA. Operational purchasing agreements will be required with the primary chemical suppliers. The chemicals for which these are required are identified in Section 16.6 and Section 17.4. None of these agreements has been entered into. Finally, agreements will be required with a transportation company for the transport of loaded resin from the Project to the Lost Creek Mine for processing of yellowcake and transport of the yellowcake to the conversion facility.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 Environmental Studies

Extensive environmental studies, including geology, surface hydrology, sub-surface hydrology, geochemistry, fisheries, wetlands, air quality, vegetation, wildlife, archeology, meteorology, background radiometrics, and soils are underway in support of various permitting actions. The geology, hydrology, meteorology and radiometric studies are being performed by URE professionals and staff, while the remaining studies are being performed by contracted experts. All field work is scheduled for completion in June 2015 with a nearly immediate submittal of the data to the permitting agencies identified in Section 20.3. At this time, there are no known environmental factors which could materially impact the permitting process or the ability to recover uranium resources.

20.2 Waste Disposal and Monitoring

20.2.1 Waste Disposal

Non-household waste generated from an ISR uranium mine generally consists of water from the wellfield and processing plant and solid waste generated from the plant, which is described in detail in Section 17.6. Both types of waste are classified as 11e.(2) byproduct material pursuant to the Atomic Energy Act. During production, the waste water will be treated by RO and radium IX resin. The brine will be injected into a UIC Class I DDW, while the excess permeate will be injected into one or more shallow UIC Class V wells.

There are very few deep wells in the Shirley Basin to provide data for deep disposal investigations. In the event that DDWs are not viable for the Project, the alternative use of Zero Liquid Discharge systems to turn waste water into sludge will be examined.

The solid 11e.(2) waste generated at the site will consist of personal protective equipment, filters, and other used process equipment. The solid 11e.(2) byproduct material will be disposed of in the on-site tailings facility, which is currently operated under an NRC license as a commercial disposal facility.

20.2.2 Site Monitoring

Once mining begins there will be considerable site monitoring to ensure protection of the environment and also protection of employees and the public from radionuclide effluent. Each mine unit will be surrounded laterally and vertically with a series of monitor wells to ensure mining solutions do not migrate out of the mining zone. The wells will be sampled twice per month with the results compared against pre-determined upper control limits.

Significant environmental monitoring for radionuclide effluents will also take place during mining and reclamation. Nine sites have been pre-selected for monitoring gamma radiation and radon levels. Sampling devices will be replaced each quarter during operations and continue through groundwater restoration. Additionally, five sites have been selected for monitoring the concentration of airborne radionuclides. The air filters in the devices are changed out about every two weeks and quarterly composites are submitted to a contract laboratory for analysis. The laboratory results will be compared against baseline values to determine if any upward trending is occurring. The radionuclide concentration in local soils, surface water and vegetation will also be monitored to determine if mine effluent is causing impacts.

Finally, wildlife monitoring will continue throughout the life of the mine and will cover a variety of species including greater sage-grouse, big game, migratory birds, fish, lagomorphs, song birds and other species deemed to be of concern by permitting agencies. Third-party contractors will be utilized to perform wildlife monitoring.

20.3 Permitting

Prior to significant construction and mining, several permits/licenses from federal, state, and local agencies will be required as follows:

Federal

- NRC – Amend Existing Source and Byproduct Material License
- EPA – Aquifer Exemption for UIC Class III wells and disposal wells (as necessary) and Holding Pond Permit
- BLM – Plan of Operations

State

- WDEQ-LQD – Permit to Mine Amendment (Permit No. 345C)
- WDEQ-WQD – Class V Injection Permit for shallow disposal of waste water consisting of RO permeate, UIC Class I Permit for deep well injection of waste water generated from wellfield bleed and other plant processes, and Storm Water Discharge Permit which allows for surface discharge of storm water
- WDEQ-AQD – Air Quality Permit
- SEO – Various water use permits for ISR

Local

- Carbon County – Rezoning to mining and Development Plan and septic systems

The BLM and NRC will likely cooperate pursuant to their MOU to complete a NEPA action required to amend URE’s NRC license and approve the BLM Plan of Operation. The NRC’s review will likely take two years and will incorporate the findings from the Generic Environmental Impact Statement, NUREG-1910, completed by the NRC in May 2009. The review will include an opportunity for public comment.

The State of Wyoming, through the WDEQ-LQD, will complete an independent review of an amendment application pursuant to Chapter 11 of its Rules and Regulations and will provide opportunities for public comment. The LQD review will likely take about two years. If LQD determines that a Permit to Mine amendment should be issued, they will seek an aquifer exemption from the Region 8 EPA. The EPA will review the LQD's request against UIC Program requirements found in 40 CFR Parts 144 and 146 to ensure compliance. If the EPA determines the operation will be in compliance, the agency will issue an aquifer exemption which allows mining within a defined portion of the aquifer.

20.4 Social or Community Impact

The Project is proximate to the communities of Casper, Alcova, and Medicine Bow. Casper is approximately 40 miles north of the Project and has a population of 55,316 people according to the 2010 census. Alcova is 30 miles northwest of the site with a population of 76 people. Medicine Bow is located 32 miles south of the site and has a population of 284 people (U.S. Census 2010). URE expects to hire site personnel from these communities as well as from other small, more distant communities. Employment will likely have a positive impact on these communities not only through direct payroll, but through primary and secondary purchases of goods and services.

The immediate area around the facility is very sparsely populated. The nearest home is approximately 2.7 miles from the Project. The next nearest home is greater than 9 miles away.

URE has committed to significant monitoring and regulatory oversight in support of its mining activities. These commitments assist in protecting the mining area and its surrounding resources. In addition, a surety bond, as discussed in Section 4.5, is in place to ensure the proper restoration and reclamation of existing infrastructure. The surety will be updated annually during the life of the Project to account for changes in reclamation liability. Nuisance and hazardous conditions which could affect local communities are not expected to be generated by the facility. The level of traffic in the region will increase slightly but the impact to local roads is expected to be minor.

20.5 Mine Closure Cost

Throughout the life of the mine URE will be required to annually assess the reclamation liability and submit the estimate to the NRC, BLM, and LQD for review and approval. Upon approval by the agencies, a surety instrument sufficient to cover the reclamation liability must be established and maintained. Upon complete facility reclamation the remaining surety would be returned to URE. The current facility surety amounts, which are intended to cover the cost of reclaiming historical activities, are presented in Section 4.5. Table 15 details the proposed total estimated surety amount for each year for the duration of the Project.

Table 15. Reclamation / Restoration Surety Estimate

Year	Bond Estimate ($ x million)	Description of Activities
2015	$ 9.3	Site development drilling for geologic evaluation
2016	$ 9.8	Drill delineation holes in MU1, install MU1 monitor wells and DDW1
2017	$ 12.8	Install satellite plant, roads, DDW2, wells in MU1 and surface construction in MU1
2018	$ 14.2	Install wells and surface construction in MU1, operate MU1, install MU2 monitor wells
2019	$ 16.2	Install wells and surface construction in MU1 and MU2, operate MU1, and Install DDW3
2020	$ 18.2	Install wells and surface construction in MU2, operate MU1 and MU2, restoration in MU1
2021	$ 20.2	Install wells and surface construction in MU2, operate MU1 and MU2, delineation in MU3, restoration in MU1
2022	$ 22.2	Install wells and surface construction in MU2, operate MU2, install monitor wells in MU3, restoration in MU1
2023	$ 23.2	Install wells and surface construction in MU2 and MU3, operate MU2 and MU3, restoration in MU2 and MU3
2024	$ 24.6	Install wells and surface construction in MU3, operate MU2 and MU3, restoration/reclamation signoff in MU1, restoration in MU2
2025	$ 19.2	Operate MU3, restoration in MU2 and MU3
2026	$ 15.2	Restoration in MU2 and MU3, restoration/reclamation signoff in MU2
2027	$ 11.1	Reclamation in MU2, restoration in MU3, original mine reclamation
2028	$ 4.0	Restoration/reclamation signoff in MU3, plant reclamation, original mine reclamation
2029	$ -	All restoration/reclamation complete

20.5.1 Well Abandonment / Groundwater Restoration

Groundwater restoration will begin as soon as practicable after uranium recovery in each wellfield is completed (as determined by project economics). If a depleted wellfield is near an area that is being actively mined, a portion of the depleted area's restoration may be delayed to limit interference with the ongoing recovery operations.

Restoration completion assumes up to 6 PVs of groundwater will be extracted and treated by RO. Following completion of successful restoration activities, the injection and production wells will be plugged and abandoned in accordance with LQD regulations. Monitor wells will also be abandoned following verification of successful groundwater restoration.

20.5.2 Demolition and Removal of Infrastructure

Simultaneous with well abandonment operations, the trunk and feeder pipelines will be removed, tested for radiological contamination, segregated as either solid 11e.(2) or non-11e.(2) byproduct material, then chipped and disposed of on-site in the appropriate disposal facilities. The header houses will be disconnected from their foundations, decontaminated, segregated as either solid 11e.(2) or non-11e.(2) by product material, and disposed of on-site in the appropriate disposal facilities or recycled. The processing equipment and ancillary structures will be demolished, tested for radiological properties, segregated and either scrapped or disposed of on-site in the appropriate disposal facilities based on their radiological properties.

20.5.3 Site Grading and Revegetation

Following the removal of wellfield and plant infrastructure, site roads will be removed and the site will be re-graded to approximate pre-development contours and the stockpiled topsoil placed over disturbed areas. The disturbed areas will then be seeded.

21.0 CAPITAL AND OPERATING COSTS

Capital Costs (CAPEX) and Operating Costs (OPEX) are based on the geological evaluation of the resource as described in Section 14.0 and the installation of conceptual production patterns, header houses, pipelines, powerlines, fences, roads and other infrastructure to produce 80% of the resource as described in Section 16.3.1. The estimated costs for the Project are based on the current costs for materials and services at the Lost Creek Mine as well as capital purchases escalated against the Consumer Price Index adjusted to November 2014. OPEX costs include the drilling and installation of the mine units as well as all operating costs such as chemicals, labor, utilities and maintenance. OPEX costs are most sensitive to wellfield costs – which may increase if well spacing needs to be reduced or additional injection/production wells are required. In addition, a shortage of drilling rigs and the increasing costs of well and piping materials (PVC, HDPE) could also lead to increased OPEX costs.

21.1 Capital Cost Estimation (CAPEX)

CAPEX costs were developed based on the current designs, quantities and unit costs. The cost estimates presented herein are based on personnel and capital equipment requirements, as well as wellfield layouts, process flow diagrams, tank and process equipment and buildings at URE's Lost Creek Mine in Sweetwater County, Wyoming. The Project has pre-mining development and capital costs of $30.6 million, which are detailed on Table 16.

Table 16. Summary of CAPEX Cost Estimation

Initial Capital ($ million)	
Plant Equipment and Buildings	$15.2
Rolling Stock	$ 3.2
Pre-Mining Development ($ million)	
Labor	$ 3.3
Wellfield Drilling	$ 4.0
Wellfield Construction	$ 0.7
Disposal Wells	$ 4.0
Operating Cost	$ 0.2
Total CAPEX	**$ 30.6 million**

After the start of mining, subsequent mine unit drilling and installation costs are considered in the OPEX category. The only items in the CAPEX category for the remainder of the mine life are in the sustaining capital category. These will include replacement of pickup trucks, resin trailers, a backhoe, a forklift and routine replacement of hand tools, 2-way radios, computers and generators used in sampling. The sustaining capital cost is estimated to be $0.7 million. The sustaining capital estimate is based on the previous purchases of the same equipment and/or vendor pricing adjusted utilizing the Consumer Price Index to November 2014. Since costs from Lost Creek Mine are current and wellfield and satellite plant designs at the Project are expected to be similar to Lost Creek Mine, no additional contingency was applied to the CAPEX costs for the purposes of this report.

21.2 Operating Cost Estimation (OPEX)

The OPEX costs have been developed by evaluating and including each process unit operation and the associated required services (power, water, air, waste disposal), infrastructure (offices, shops and roads), salary and benefit burden, and environmental control (heat, air conditioning, monitoring). Also included are the wells to mine portions of MU1, as well as MU2 and MU3. In addition, the third disposal well which will be installed in 2019 to assist in restoration, is included in the OPEX. The Annual OPEX and the closure cost summary for the plant is provided in Table 17. Total OPEX costs, including selling, production and operating costs have been estimated at $90.8 million, or approximately $14.30 per pound. The costs are based on the current agreements, contracts and costs at the operating Lost Creek Mine and therefore have no contingency attached. The prices for the major items identified in this report have been sourced in the United States. Major cost categories considered when developing OPEX costs include wellfield, plant and site administration costs as detailed in Table 17.

21.2.1 Wellfield Development Costs

As discussed in Section 16.0, the first series of header houses will be brought on line sequentially until the nominal plant throughput (approximately 5,500 to 6,000 gpm) is attained. The remainder of MU1 and additional areas will be developed in such a way as to allow for plant capacity to be maintained.

The wellfield development costs include both wellfield drilling and wellfield construction activities and were estimated based on preliminary wellfield designs including the number, location, depth and construction material specifications for wells and header houses and the hydraulic conveyance (piping) system associated with the wellfields. Additionally, trunk and feeder pipelines, electrical service, roads and wellfield fencing are included in the cost estimates. The wellfield development estimate is based on actual costs from vendors, contractors, labor wages and equipment rates used to drill and construct at URE's operating Lost Creek Mine. No contingency is included given that wellfield development is ongoing at Lost Creek Mine and all the costs are current. The estimated wellfield development cost of the Project is $49.6 million or $7.82 per pound and is contained annually in the Cash Flow Statement provided in Table 18.

Table 17. Annual Operating Costs (OPEX) Summary

Life of Mine Operating Costs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Totals	$ / Pound
								($000s except cost per pound data)									
Salaries and Wages (Plant)	$ -	$ -	$ (123.8)	$ (1,486.1)	$ (1,486.1)	$ (1,486.1)	$ (1,486.1)	$ (1,486.1)	$ (1,435.6)	$ (1,381.5)	$ (1,296.0)	$ (712.7)	$ (493.4)	$ (456.5)	$ (146.0)	$ (13,476.2)	$ (2.12)
Salaries and Wages (Wellfield)	$ -	$ -	$ (150.9)	$ (1,892.6)	$ (1,892.6)	$ (1,892.6)	$ (1,879.1)	$ (1,750.4)	$ (1,688.4)	$ (1,301.9)	$ (750.0)	$ (720.8)	$ (720.8)	$ (379.8)	$ (106.5)	$ (15,126.4)	$ (2.38)
Wellfield costs (excludes closure related)	$ -	$ -	$ (52.1)	$ (1,051.9)	$ (1,049.4)	$ (1,215.4)	$ (1,283.6)	$ (1,323.9)	$ (915.1)	$ (1,043.1)	$ (508.5)	$ (225.9)	$ -	$ -	$ -	$ (8,668.8)	$ (1.37)
Processing Plant Costs (excludes closure related	$ -	$ -	$ (176.5)	$ (2,609.1)	$ (2,598.7)	$ (2,733.6)	$ (2,562.9)	$ (2,499.5)	$ (2,016.1)	$ (1,868.5)	$ (405.9)	$ (41.8)	$ (52.5)	$ (42.0)	$ (21.0)	$ (17,628.1)	$ (2.78)
Product Shipping Costs & Conversion Facility Fee	$ -	$ -	$ (10.1)	$ (349.3)	$ (321.4)	$ (341.7)	$ (318.9)	$ (298.6)	$ (248.0)	$ (227.7)	$ (32.9)	$ -	$ -	$ -	$ -	$ (2,148.7)	$ (0.34)
Land Holding & Surface Impact Costs	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ (10.8)	$ -	$ (151.2)	$ (0.02)
NRC Fees	$ (67.6)	$ (1,000.0)	$ (649.5)	$ (94.3)	$ (94.3)	$ (125.3)	$ (94.3)	$ (94.3)	$ (125.3)	$ (94.3)	$ (94.3)	$ (94.3)	$ (94.3)	$ (94.3)	$ (25.0)	$ (2,841.6)	$ (0.45)
Insurance & Bonding	$ (231.1)	$ (264.2)	$ (399.2)	$ (1,239.9)	$ (784.9)	$ (1,018.6)	$ (1,068.6)	$ (1,118.6)	$ (1,168.6)	$ (887.4)	$ (1,020.4)	$ 1,150.0	$ 860.7	$ 4,399.8	$ -	$ (2,791.0)	$ (0.44)
Subtotal	$ (309.5)	$ (1,275.0)	$ (1,573.1)	$ (8,733.9)	$ (8,238.1)	$ (8,824.1)	$ (8,704.3)	$ (8,582.2)	$ (7,608.0)	$ (6,815.3)	$ (4,118.8)	$ (656.3)	$ (511.2)	$ 3,416.4	$ (298.5)	$ (62,831.9)	$ (9.90)
Closure costs (less wages)	$ -	$ -	$ -	$ -	$ (335.8)	$ (1,174.8)	$ (1,149.5)	$ (1,515.7)	$ (1,645.1)	$ (1,816.4)	$ (1,380.4)	$ (1,214.5)	$ (1,234.7)	$ (8,055.3)	$ (4,027.6)	$ (23,549.9)	$ (3.71)
Home Office Support and Allocated Overhead	$ -	$ -	$ (165.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (500.0)	$ (200.0)	$ (5,865.0)	$ (0.92)
Subtotal	$ -	$ -	$ (165.0)	$ (500.0)	$ (835.8)	$ (1,674.8)	$ (1,649.5)	$ (2,015.7)	$ (2,145.1)	$ (2,316.4)	$ (1,880.4)	$ (1,714.5)	$ (1,734.7)	$ (8,555.3)	$ (4,227.6)	$ (29,414.9)	$ (4.64)
Total	**$ (309.5)**	**$ (1,275.0)**	**$ (1,738.1)**	**$ (9,233.9)**	**$ (9,073.9)**	**$(10,498.9)**	**$(10,353.8)**	**$(10,597.9)**	**$ (9,753.1)**	**$ (9,131.7)**	**$ (5,999.2)**	**$ (2,370.8)**	**$ (2,245.8)**	**$ (5,138.9)**	**$ (4,526.1)**	**$ (92,246.8)**	$ (14.54)

1. Wellfield operating costs include power, maintenance, chemicals and other wellfield operating costs.
2. Closure costs assume no salvage value for materials and equipment.
3. NRC fees include $1.6 million of pre-operational licensing costs in 2015, 2016 and 2017, $70,000 for the pre-operational inspection, $8,320 for annual inspections, $12,500 for quarterly project management, $36,000 for annual license fees, and $31,000 for each mine unit amendment.
4. Shipping costs are based on 35,000 pounds U_3O_8 per truckload and shipments from Lost Creek to Metropolis, Illinois.
5. Bonding requires a 2.5% premium to be paid and 30% collateral to be posted. The posted collateral is returned as closure work is completed and the bonding requirement is reduced.
6. Closure costs are based on WDEQ-approved formulas and previously approved surety submittals.

Table 18. Cash Flow Statement

Description	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Totals	$ / Pound
							($000s except pounds and cost per pound data)										
Pounds produced	-	-	117,018	1,005,691	996,889	1,017,613	918,209	888,507	723,905	623,256	53,006	-	-	-	-	6,344,094	
Pounds sold	-	-	-	1,000,000	1,000,000	1,000,000	900,000	900,000	700,000	700,000	144,094	-	-	-	-	6,344,094	
Sales	$ -	$ -	$ -	$ 62,400.0	$ 64,000.0	$ 64,600.0	$ 58,860.0	$ 59,580.0	$ 46,760.0	$ 48,125.0	$ 9,906.5	$ -	$ -	$ -	$ -	$ 414,231.5	$ 65.29
Royalties	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (61.9)	$ (195.2)	$ (21.9)	$ -	$ -	$ -	$ -	$ (279.0)	$ (0.04)
Net sales	**$ -**	**$ -**	**$ -**	**$ 62,400.0**	**$ 64,000.0**	**$ 64,600.0**	**$ 58,860.0**	**$ 59,580.0**	**$ 46,698.1**	**$ 47,929.8**	**$ 9,884.5**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 413,952.4**	**$ 65.25**
Operating costs (see Table 1	$ (309.5)	$ (1,275.0)	$ (1,738.1)	$ (9,233.9)	$ (9,073.9)	$ (10,498.9)	$ (10,353.8)	$ (10,597.9)	$ (9,753.1)	$ (9,131.7)	$ (5,999.2)	$ (2,370.8)	$ (2,245.8)	$ (5,138.9)	$ (4,526.1)	$ (92,246.8)	$ (14.54)
Wyoming severance tax	$ -	$ -	$ -	$ (1,493.1)	$ (1,485.1)	$ (1,459.5)	$ (1,331.6)	$ (1,305.4)	$ (979.5)	$ (1,008.9)	$ (108.8)	$ -	$ -	$ -	$ -	$ (9,172.0)	$ (1.45)
Carbon County ad valorem ta	$ -	$ -	$ -	$ (2,391.9)	$ (2,379.1)	$ (2,338.1)	$ (2,133.1)	$ (2,091.2)	$ (1,569.1)	$ (1,616.1)	$ (174.4)	$ -	$ -	$ -	$ -	$ (14,692.9)	$ (2.32)
Wellfield development	$ -	$ -	$ (138.5)	$ (6,558.9)	$ (9,420.7)	$ (7,726.0)	$ (6,456.4)	$ (6,895.4)	$ (10,240.0)	$ (2,197.8)	$ -	$ -	$ -	$ -	$ -	$ (49,633.6)	$ (7.82)
County property tax	$ -	$ -	$ -	$ (269.6)	$ (226.1)	$ (183.0)	$ (139.4)	$ (99.5)	$ (62.1)	$ (30.3)	$ (2.6)	$ -	$ -	$ -	$ -	$ (1,012.6)	$ (0.16)
Working capital changes	$ -	$ -	$ -	$ -	$ (6,400.0)	$ (60.0)	$ (80.0)	$ (80.0)	$ 6,620.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Project cash flow	**$ (309.5)**	**$ (1,275.0)**	**$ (1,876.6)**	**$ 42,452.7**	**$ 35,015.0**	**$ 42,334.6**	**$ 38,365.7**	**$ 38,510.5**	**$ 30,714.3**	**$ 33,945.0**	**$ 3,599.5**	**$ (2,370.8)**	**$ (2,245.8)**	**$ (5,138.9)**	**$ (4,526.1)**	**$ 247,194.5**	**$ 38.96**
Pre-mine development	$ (37.9)	$ (3,440.1)	$ (8,851.6)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (12,329.6)	$ (1.94)
Initial capital	$ (285)	$ (1,029)	$ (16,993)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (18,307.1)	$ (2.89)
Sustaining capital	$ -	$ -	$ -	$ (9.0)	$ (10.0)	$ (84.0)	$ (4.0)	$ (226.0)	$ (84.0)	$ (228.0)	$ (2.0)	$ (6.5)	$ (2.0)	$ -	$ -	$ (655.5)	$ (0.10)
Net cash flow	**$ (632.4)**	**$ (5,744.7)**	**$ (27,720.8)**	**$ 42,443.7**	**$ 35,005.0**	**$ 42,250.6**	**$ 38,361.7**	**$ 38,284.5**	**$ 30,630.3**	**$ 33,717.0**	**$ 3,597.5**	**$ (2,377.3)**	**$ (2,247.8)**	**$ (5,138.9)**	**$ (4,526.1)**	**$ 215,902.3**	**$ 34.03**

1. Production is based on an 80% recovery of the under-pattern resource. Due to rounding differences in pounds U_3O_8 under pattern, the estimated pounds U_3O_8 used for the purpose of this analysis may vary from the total estimated recoverable resource described in Section 16.3.2 (Table 14).
2. The sale price for the produced uranium is assumed to vary based on an average of the projections of Cantor Fitzgerald, Dundee Capital Markets, Laurentian Bank, Raymond James Ltd., and UxC Spot Midpoint.
3. Wellfield development includes wellfield drilling and wellfield construction costs
4. Working capital changes are primarily related to annual cash flow timing differences in accounts receivable and accounts payable and totals to zero
5. Ur-Energy USA Inc. does not anticipate paying any significant income taxes until existing and future tax loss carry forwards are exhausted. Therefore, income tax is not included in the Cash Flow Statement. See Section 22.3.
6. The NPV and IRR calculations are based on Year 2017 through Year 2029. For NPV and IRR purposes, 2017 includes all undiscounted costs from 2015 and 2016.
7. Due to extensive drilling on the project prior to purchase, no exploration drilling is planned

IRR = 117%

Net Present Value versus Discount Rate

Discount Rate	NPV ($US 000s)
5%	$168,520
8%	$146,012
10%	$132,987

22.0 ECONOMIC ANALYSIS

Cautionary statement: this* Preliminary Economic Assessment *is preliminary in nature and includes mineral resources. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The estimated mineral recovery used in this* Preliminary Economic Assessment *is based on site-specific laboratory recovery data as well as URE personnel and industry experience at similar facilities. There can be no assurance that recovery of the mineral resources at this level will be achieved. There is no certainty that the preliminary economic assessment will be realized.

22.1 Assumptions

The economic assessment presented in this PEA is based on geological evaluation and mapping of production areas, determining which areas are not viable for production activities due to hydrologic or topographic features and obtaining an 80% recovery of the remaining resources, as described in Section 16.3.1, within the FAB and Area 5 Resource Areas.

A cash flow statement has been developed based on the CAPEX, OPEX and closure cost estimates and the production schedule. The sales price for the produced uranium is assumed at a variable price per pound for the life of the Project ranging from $56.00 to $68.75 per pound. This price is based on a combination of projections from expert market analysts at institutions including Cantor Fitzgerald, Dundee Capital Markets, Laurentian Bank, Raymond James Ltd. and UxC. Sensitivities to uranium price are discussed in Section 25.2.

Uranium recovery from the mineral resource is assumed based on an estimated wellfield recovery factor of 80% of the resource, as described in Section 16.3.1. The production rate assumes an average solution uranium grade (head grade) of approximately 37 mg/L. The sales for the cash flow are developed by applying the recovery factor to the resource estimate for the Project. The total uranium production over the life of the Project is estimated to be 6.3 million lbs.

22.2 Cash Flow Forecast and Production Schedule

The NPV assumes cash flows take place in the middle of the periods and is calculated based on a discounted cash flow. The production estimates and OPEX distribution used to develop the cash flow are based on the production and restoration models developed by URE and incorporated in the cash flow (Table 18). The cash flow assumes no escalation, no debt interest or capital repayment. It also does not include depreciation. The estimated payback is in the third quarter of 2018, with net cash flow before income tax over the life of the Project estimated to be $215.9 million. It is estimated that the Project has an IRR of 117.0% and an NPV of $146.0 million applying an 8% discount rate (Table 18). The NPV and IRR calculations are based on year 2017 through 2029 and includes undiscounted costs from year 2015 and year 2016 treated as if they occurred in 2017. The estimated cost of uranium produced is $31.26 per pound including severance taxes plus all operating and capital costs. The NPV for three discount rates has been calculated and is presented in Table 19. The estimated Internal Rate of Return (IRR) is also presented.

22.3 Taxation

The current Wyoming severance tax for uranium is 4.0%, but after the well head deduction it is approximately 3.0% of gross sales. In addition, the ad valorem (gross products) tax varies but is anticipated to average 6.4%. In aggregate and based on the taxable portion of the product, the total tax averages approximately 5.8% of gross sales. At the federal level, profit from mining ventures is taxable at corporate income tax rates. For mineral properties, depletion tax credits are available on a cost or percentage basis, whichever is greater.

Table 19. NPV Versus Discount Rate and IRR

Discount Rate	NPV ($US 000s)
5%	$168,520
8%	$146,012
10%	$132,987
IRR	117.0%

The Project economic analysis includes tax estimates for state severance taxes, county ad valorem taxes and property taxes, all of which are directly attributable to the Project. Wyoming has no state income tax and federal income tax is not included. Ur-Energy USA Inc. files consolidated federal tax returns in the United States and had approximately $91.0 million in tax losses carried forward as of December 31, 2013. Ur-Energy USA Inc. does not anticipate paying federal income taxes until the existing, and any future, tax losses carried forward are utilized. In addition, reclamation costs can be deducted in the early years of the Project, thus also extending the time before any possible tax liability. Estimating federal income taxes for the Project therefore becomes speculative and, as a result, federal income taxes have not been included in this PEA.

23.0 ADJACENT PROPERTIES

Adjacent Properties refers to non-URE mineral properties of interest in close proximity to the Project. Several mineral properties adjacent to or in close proximity to the Project contain unconfirmed uranium resources. As shown in Figure 22, uranium exploration projects, along with past producing properties, are situated within three distinct regions of the Shirley Basin: 1) East Shirley Basin, 2) Central Shirley Basin and 3) West Shirley Basin. All past production has taken place in the East Shirley Basin region. Identified in Figure 22 are uranium exploration/production companies that have developed major property holdings in the District.

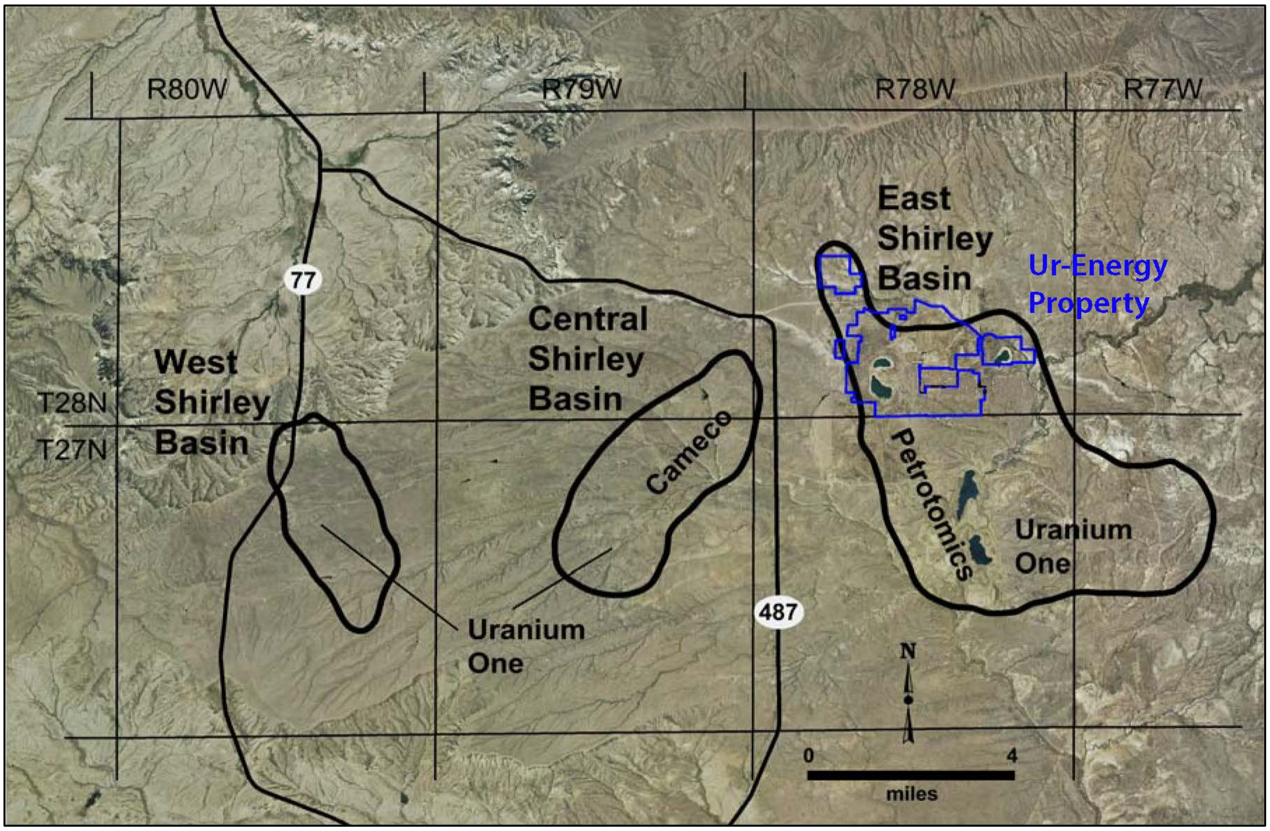


Figure 22. Adjacent Properties

1. East Shirley Basin – URE's Project is located in the northern portion of the area. The historical Petrotomics mine and mill complex, now in perpetual care with the DOE, is immediately south of the Project. Uranium One Americas, Inc. (Uranium One) controls a large exploration project, consisting of unpatented mining claims and State of Wyoming leases, in the southern portion of this area.

2. Central Shirley Basin – Cameco controls the majority of the Central Shirley Basin area through unpatented mining claims and a State of Wyoming lease. On its website, Cameco identifies 4.4 million lbs. of Measured and Indicated Resources,

averaging 0.126% U_3O_8 on this property (Cameco, 2014). Uranium One also has some unpatented mining claims in this area.

3. West Shirley Basin – Uranium One controls one small exploration project in this area, consisting of unpatented mining claims.

This PEA addresses only property and deposits controlled by URE and not the Adjacent Properties identified in Figure 22. Mr. Schiffer believes that any information available on resources on the Adjacent Properties would not necessarily be indicative of the mineralization present at the Project.

24.0 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information to include.

25.0 INTERPRETATION AND CONCLUSIONS

This independent PEA for the Project has been prepared in accordance with the guidelines set forth in NI 43-101. Its objective is to disclose the potential viability of ISR operations at the Shirley Basin Uranium Project.

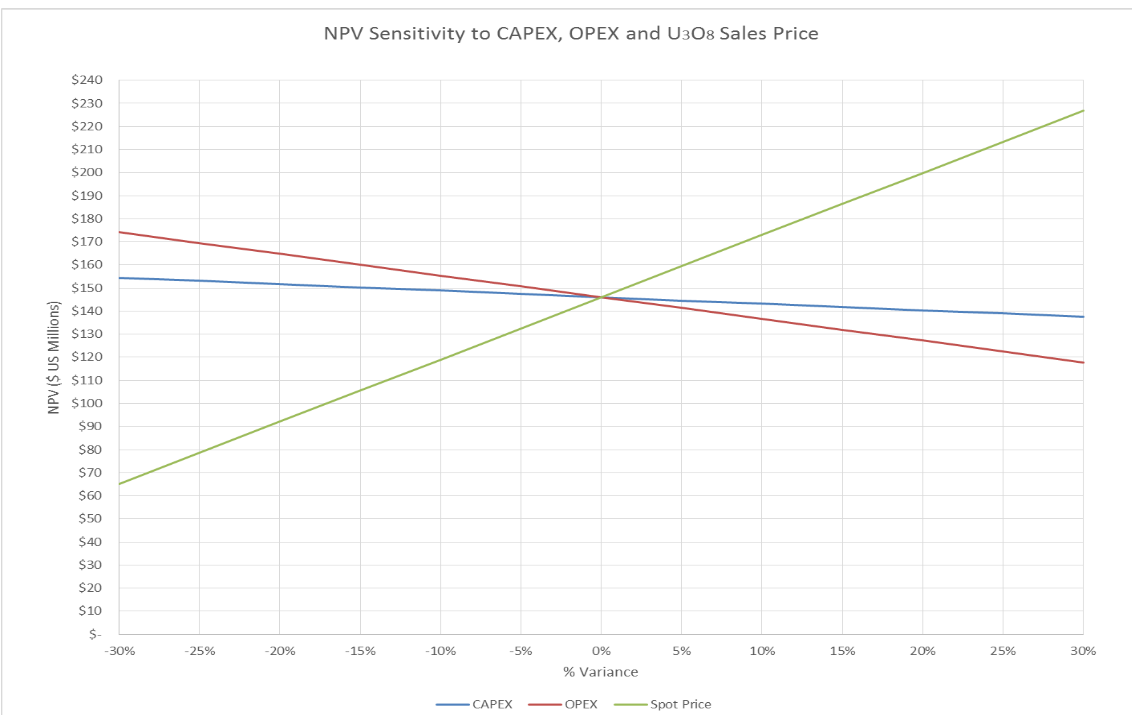
25.1 Conclusions

The QPs have weighed the potential benefits and risks presented in this report and have found the Project to be potentially viable and meriting further evaluation and development.

25.2 Sensitivity Analysis

The Project is sensitive to changes in the price of uranium as shown in Figure 23. A five percent change in the estimated commodity price results in a $13.5 million change to the NPV at a discount rate of eight percent. This analysis is based on a variable commodity price per pound. The Project is also somewhat sensitive to changes in OPEX costs. A five percent variation in OPEX results in a $4.6 million variation in NPV. The Project is only slightly sensitive to changes in CAPEX. A five percent variation in CAPEX results in a $1.4 million variation in NPV.

Figure 23. NPV Sensitivity to Price, OPEX and CAPEX



25.3 Risk Assessment

25.3.1 Resource and Recovery

This PEA is based on the assumptions and information presented herein. The QPs can provide no assurance that recovery of the resources presented herein will be achieved. Bench-scale tests have been performed on various core samples from the Project, as discussed in Section 13.0. The most significant potential risks to meeting the production results presented in this PEA will be associated with the success of the wellfield operation and recovery of uranium from the targeted host sands. The estimated quantity of recovered uranium used in this PEA is based primarily on the recovery data from site-specific, bench-scale testing of mineralized samples. The recovery factor of 80%, used herein, is relatively typical of industry experience for wellfield recovery. A potential problem that could occur in the wellfield recovery process is unknown or variable geochemical conditions resulting in uranium recovery rates from the mineralized zones that are significantly different from previous bench-scale tests.

As noted in Section 16.2.1 the Upper Sand has approximately 20 ft. of hydraulic head above the top of the sand, which may present a challenge for recovery of a small portion of the resources in the planned Mine Unit 2 area. It should be noted that less than three percent of the overall resource base targeted for recovery is hosted within the Upper Sand. An alternate oxidant, such as hydrogen peroxide, may need to be considered with shallower resource recovery such as that within the Upper Sand. The cost associated with alternative oxidants are not currently included in the PEA.

The proposed perimeter monitor well rings surrounding some of the planned mine units have monitor wells located on adjoining lands. As wellfield planning progresses, adjustments to pattern layouts and/or resources under pattern may be required.

Other potential concerns are reduced hydraulic conductivity in the formation due to chemical precipitation during production, lower natural hydraulic conductivities than estimated, high flare and/or recovery of significant amounts of groundwater, the need for additional injection wells to increase uranium recovery rates, variability in the uranium concentration in the host sands and discontinuity of the mineralized zone confining layers. The risks associated with these potential issues have been minimized to the extent possible by extensive delineation and hydraulic studies of the site.

Adequate disposal capacity for waste water is always a risk to be considered when planning a uranium ISR facility. Due to the limited, deep formation characterization in the region, it is not yet proven that an adequate receiver exists that will support the installation and proposed use of three disposal wells at the Project. The sole use of deep wastewater injection is partially mitigated by the use of RO and the proposed use of shallow, Class V injection wells to inject permeate and limit the deep disposal waste to brine. Additionally, if an adequate receiver formation is not found during drilling of the first disposal well, the use of Zero Liquid Discharge water treatment will be evaluated. This technology essentially involves the dewatering wastewater solutions and disposing the resulting sludge in the onsite 11e.(2) byproduct disposal facility.

25.3.2 Markets and Contracts

The marketability of uranium and acceptance of uranium mining are subject to numerous factors beyond the control of URE. The price of uranium may experience volatile and significant price movements over short periods of time. Factors known to affect the market and the price of uranium include demand for nuclear power; political and economic conditions in uranium mining, producing and consuming countries; costs; interest rates, inflation and currency exchange fluctuations; governmental regulations; availability of financing of nuclear plants, reprocessing of spent fuel and the re-enrichment of depleted uranium tails or waste; sales of excess civilian and military inventories (including from the dismantling of nuclear weapons) by governments and industry participants; production levels and costs of production in certain geographical areas such as Russia, Africa and Australia; and changes in public acceptance of nuclear power generation as a result of any future accidents or terrorism at nuclear facilities.

Unlike other commodities, uranium does not trade on an open market. Contracts are negotiated privately by buyers and sellers. Changes in the price of uranium can have a significant impact on the economic performance of the Project. As discussed in Section 22.4, a 5 percent change in the spot commodity price results in a $13.5 million change to the NPV at a discount rate of 8 percent. This analysis assumes the variable pricing utilized in the cash flow analysis is varied by 5 percent throughout the "sales life" of the Project. This PEA assumes U_3O_8 production is sold at a variable price per pound for the life of the Project ranging from $56.00 to $68.75. This price is based on a combination of projections from expert market analysts at institutions including Cantor Fitzgerald, Dundee Capital Markets, Laurentian Bank, Raymond James Ltd. and UxC. The QPs believe these estimates are appropriate for use in this evaluation.

25.3.3 Operations

Some operational risks such as reagents, power, labor and/or material cost fluctuations exist in the Project implementation and could impact the OPEX and Project economic performance. These potential risks are generally considered to be addressable either though wellfield modifications or plant optimization. The satellite plant risk is minimized in that it is only an IX plant used to capture the uranium or resin. Any issues with precipitation and drying can be dealt with at the Lost Creek Mine, which was constructed as a batch precipitation and drying operation, which allows for process variations and enhanced control. Furthermore, the Lost Creek Mine is a proven facility that is currently processing uranium, so there is little risk that the plant cannot successfully process loaded IX resin from the Project.

The IX capture, trucking of resin and elution processes have been, and are being used at other ISR facilities in Wyoming, Texas, and Nebraska. The process does not use any unusual methods and the reagents for the process are readily available from regional sources. Initial process optimization will be required to minimize the use of reagents, minimize loss of product and ensure proper product quality.

Health and safety programs will be implemented to control the risk of on-site and off-site exposures to uranium, operational incidents and/or process chemicals. Standard industry practices exist for this type of operation and novel approaches to risk control and management will not be required.

The political and legal issues surrounding the U.S. Fish and Wildlife Service's listing decision for greater sage-grouse are complex and introduce considerable uncertainty into the permitting process. At this time it is unknown if the species will be listed and, if it is listed, what geographic area will be affected by the listing. Regardless of the listing decision, there will likely be lawsuits filed by government agencies, non-government organizations and/or industry associations which may delay implementation of the listing decision. Therefore, it is unknown what, if any, impact the listing decision may have on ISR operations at the Project. Existing operations will continue to have the right to mine, but additional stipulations may be enforced by state or federal agencies.

26.0 RECOMMENDATIONS

The QPs find the Project is potentially viable based on the assumptions contained herein. There is no certainty that the mineral recovery or the economic analyses presented in this PEA will be realized. In order to realize the full potential benefits described in this PEA, the following activities are recommended, at a minimum.

26.1 Deep Disposal Well and Water Management Investigation

Costs for the DDW investigation are included in the cash flow statement, Table 18. The initial DDW will be drilled as a test well and evaluated prior to being cased. The costs for drilling, coring and engineering evaluation are approximately $1.0 million. Also included in the cash flow are the approximate costs to complete the first well and install two additional DDWs.

26.2 Permit Area Amendments

URE should continue with its work toward submittal of applications to amend the Shirley Basin Permit to Mine and NRC License to allow ISR production at the Project. This is estimated to cost approximately $1.8 million and is included in the cash flow statement as a regulatory cost.

27.0 REFERENCES

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APPENDIX A: CERTIFICATE OF QUALIFIED PERSONS

CERTIFICATE OF QUALIFIED PERSON

Preliminary Economic Assessment for the Shirley Basin Uranium Project, Carbon County, Wyoming, January 27, 2015

I, Benjamin J. Schiffer, Wyoming Professional Geologist, of 1849 Terra Avenue, Sheridan, Wyoming, do hereby certify that:

- I have been retained by Ur-Energy Inc., 10758 W. Centennial Road, Suite 200, Littleton, Colorado, to prepare and supervise the preparation of the documentation for the "Shirley Basin Uranium Project Preliminary Economic Assessment, "January 27, 2015" (the "PEA") to which this Certificate applies.

- I am currently employed by WWC Engineering, 1849 Terra Avenue, Sheridan, Wyoming, USA, as a Senior Geologist/Project Manager.

- I graduated with a Bachelor of Arts degree in Geology in May 1995 from Whitman College in Walla Walla, Washington.

- I am a licensed Professional Geologist in the State of Wyoming. My registration number is 3446 and I am a member in good standing. I am a Registered Member of the Society of Mining, Metallurgy and Exploration. My Registration Number is 4170811 and I am in good standing.

- I have worked as a geologist for 20 years in natural resources extraction.

- I have 10 years' direct experience with uranium exploration, resource analysis, uranium ISR project development, project feasibility and licensing. My relevant experience for the purposes of the Shirley Basin Uranium Project includes Field Geologist at COGEMA Mining, Christensen Ranch Mine (now Uranium One America's Willow Creek Project); Restoration Specialist at COGEMA Mining, Holiday-El Mesquite Mine; Project Manager on multiple due diligence assessments of ISR mines and projects in Wyoming, Texas and New Mexico; Permit Coordinator for Strata Energy, Ross ISR Uranium Project, qualified person on the NI 43-101 assessment (PEA) of Anatolia Energy's Temrezli ISR Project in Yozgat, Turkey and qualified person on the NI 43-101 Technical Report on the Resources of the Shirley Basin Uranium Project, Carbon County, Wyoming, USA, August 27, 2014.

- I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, professional registration, and relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

- Most recently, I visited the Shirley Basin Uranium Project with representatives of Ur-Energy on May 13, 2014 and December 3, 2014.

- I am responsible for the preparation and/or supervision of Section 3.0 (Reliance on Other Experts), Section 4.0 (Property Description and Location), Section 5.0 (Accessibility, Climate, Local Resources, Infrastructure and Physiography), Section 6.0 (History), Section 7.0 (Geological Setting and Mineralization), Section 8.0 (Deposit Type), Section 9.0 (Exploration), Section 10.0 (Drilling), Section 11.0 (Sample Preparation, Analysis and Security), Section 12.0 (Data Verification), Section 13.0 (Mineral Processing and Metallurgical Testing), Section 14.0 (Mineral Resource Estimate), Section 15 (Mineral Reserves), Section 20.0 (Environmental Studies, Permitting and Social or Community Impact), Section 23.0 (Adjacent Properties) and Section 24 (Other Relevant Data and Information).

- I am independent of Ur-Energy Inc. as described in Section 1.5 of NI 43-101.

- I have previously worked at the Shirley Basin Uranium Project, while employed by COGEMA Mining Inc. (1995 – 1999), with responsibilities including evaluating the resource base of the FAB Trend.

- I have read NI 43-101 and certify that this PEA has been prepared in compliance with NI 43-101.

- To the best of my knowledge, information and belief, at the effective date of this PEA, January 27, 2015, the PEA contains all scientific and technical information that is required to be disclosed to make the PEA not misleading.

Dated this 27th day of January, 2015

Signed and Sealed:

/s/ ***Benjamin J. Schiffer***

SME Registered Member, Registration Number 4170811
Professional Geologist, Wyoming (No. 3446)

Benjamin J. Schiffer, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

Preliminary Economic Assessment for the Shirley Basin Uranium Project, Carbon County, Wyoming, January 27, 2015

I, Ray B. Moores, Wyoming Professional Engineer, of 1849 Terra Avenue, Sheridan, Wyoming, do hereby certify that:

- I have been retained by Ur-Energy Inc., 10758 W. Centennial Road, Suite 200, Littleton, Colorado, to prepare and supervise the preparation of the documentation for the "Shirley Basin Uranium Project Preliminary Economic Assessment, "January 27, 2015" (the "PEA") to which this Certificate applies.

- I am currently employed by WWC Engineering, 1849 Terra Avenue, Sheridan, Wyoming, USA, as a Civil Engineer/Project Manager.

- I graduated with a Bachelor of Science degree in Civil Engineering in December 2000 and a Master of Science degree in Civil Engineering in May 2002 from the University of Wyoming in Laramie, Wyoming.

- I am a licensed Professional Engineer in the State of Wyoming. My registration number is 10702 and I am a member in good standing.

- I have worked as an engineer for 13 years primarily in support of natural resources extraction.

- I have 6 years' direct experience with ISR uranium mining, permitting, groundwater modeling, and mine infrastructure design and construction. My relevant experience for the purposes of the Shirley Basin Uranium Project includes development of a groundwater model for Strata Energy's Ross ISR Uranium Project, which included wellfield scale simulations, well spacing evaluations, and restoration evaluations; providing technical assistance for a number of ISR uranium mine projects in Wyoming, South Dakota, Texas and New Mexico, which included aquifer analyses, ISR mining amenability evaluations, and infrastructure evaluations in support of due diligence studies; permit preparer for Strata Energy Ross ISR Uranium Project; providing engineering design, cost estimates, and project management for a number of dams, diversions, evaporation ponds, and other infrastructure associated with Wyoming coal mines and oil and gas projects; and qualified person on the National Instrument 43-101 Preliminary Economic Assessment of Anatolia Energy's Temrezli ISR Project in Yozgat, Turkey.

- I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, professional registration, and relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

- Most recently, I visited the Shirley Basin Uranium Project with representatives of Ur-Energy on December 3, 2014.

- I am responsible for the preparation and/or supervision of Section 1.0 (Summary), Section 2.0 (Introduction), Section 3.0 (Reliance on Other Experts), Section 16.0 (Mining Methods), Section 17.0 (Recovery Methods), Section 18.0 (Project Infrastructure), Section 19.0 (Market Studies and Contracts), Section 20.0 (Environmental Studies, Permitting and Social or Community Impact), Section 21.0 (Capital and Operating Costs), Section 22.0 (Economic Analysis), Section 24.0 (Other Relevant Data and Information), Section 25.0 (Interpretations and Conclusions), and Section 26.0 (Recommendations).

- I am independent of Ur-Energy Inc. as described in Section 1.5 of NI 43-101.

- I have read NI 43-101 and certify that this PEA has been prepared in compliance with NI 43-101.

- To the best of my knowledge, information and belief, at the effective date of this PEA, January 27, 2015, the PEA contains all scientific and technical information that is required to be disclosed to make the PEA not misleading.

Dated this 27th day of January, 2015

Signed and Sealed:

/s/ ***Ray B. Moores***

Professional Engineer, Wyoming (No. 10702)

Ray B. Moores, P.E.