RENO CREEK URANIUM PROPERTY
Campbell County, Wyoming

National Instrument 43-101
Mineral Resource Report

Prepared For:

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. SUMMARY

The Reno Creek Uranium Property, Campbell County Wyoming, totals approximately 2,400 acres and consists of 123 unpatented lode mining claims. The Property was acquired in two stages in 2004 and 2005 by Strathmore Resources (US) Ltd., a Nevada Corporation and wholly-owned subsidiary of Strathmore Minerals Corp. TSX-V: STM (Strathmore). The Property is located in the Pumpkin Buttes Uranium District, of the Powder River Basin, northeastern Wyoming, within Sections 27-30, 33-35, Township 43 North, Range 73 West (T43N, R73W), Wyoming 06^{th} Principal Meridian.

The host for known mineralization at the Property is the lower Wasatch Formation of Eocene age. The Wasatch Formation is a fluvial sedimentary sequence deposited during a period of wet, subtropical climatic conditions as the Powder River Basin subsided and filled with synorogenic deposits during the Laramide orogeny. The major source of the sands was from highlands to the south and southwest of the basin. Sediments were laid down by meandering streams which deposited channel and point bar deposits that fine upwards through the sequence. In addition to the medium- and coarse-grained sands, there are lesser amounts of overbank deposits of clay and siltstones, carbonaceous shale, and thin coal seams. The Wasatch Formation at Reno Creek lies nearly horizontal, dipping less than ½° to the northwest.

The lower Wasatch Formation sands hosting the uranium mineralization are commonly trough cross-bedded, graded sequences fining upward from very coarse at the base to fine grained at the top, representing sedimentary cycles from five to twenty feet thick. Stacking of depositional cycles resulted in sand bodies up to 200 feet thick however the uranium mineralization seldom exceeds 30 feet thick. The mineralization was produced by the down-gradient movement of oxidizing, groundwater solutions flowing through arkosic-rich sands and tuffaceous sediments. The uranium was precipitated where (oxidation-reduction contact) the action of pyrite-rich sediments and carbonaceous materials developed a reducing environment. The uranium mineralization is contained in typical Wyoming roll-front deposits that are highly sinuous in map view.

The greater Reno Creek Property was extensively drilled (>5,800 bore holes) and explored during the late 1960s through the early 1990s. Rocky Mountain Energy (RME), a wholly owned subsidiary of the Union Pacific Railroad, began drilling on and adjacent to the Reno Creek Property in the 1960s, and by the late 1980s, at least 1,083 exploratory bore holes were completed on the portion of the Property detailed in this report. This previous drilling occurred on mostly 50 and 100 foot centers along the main trend of the mineralization, with exterior drilling of 200 to 400 foot centers. Significant uranium mineralization was encountered at depths of 170-450 feet, lying beneath the local groundwater table.

An historical resource estimate for the Reno Creek Property was generated by Energy Fuels Inc (subsequent operator to RME) in 1991. This estimate contains pounds that are currently not controlled by STM. This is due in part that the estimate included historical lands not currently controlled by STM and the sinuous nature of the roll-fronts as they trend on and off of the Strathmore controlled lands. This historical resource totaled 2,619,967 tons at an average grade of 0.079% eU_3O_8 for a total of 4,160,402 pounds U_3O_8.

This report is a summary of newly calculated mineral resources. Mineral resources are not mineral reserves as defined by National Instrument 43-101 and are not demonstrated here economically. For this report, Measured, Indicated and Inferred mineral resources were calculated by the perpendicular-bisector polygon method using bisectors one-half the distance between the nearest drill-hole locations. The resulting polygons were capped at a 100ft x 100ft ($10{,}000ft^2$) area of influence (AOI) for the Measured resource class, at a 200ft x 200ft (40,000 ft^2) AOI for the Indicated resource class, and at a 400ft x 400ft (160,000 ft^2) AOI for the Inferred resource class. A tonnage factor of 16 cubic feet per ton was used for the host sandstone in addition to a minimum grade cutoff of 0.03% eU_3O_8. The resources were then calculated at a grade times thickness (GT) product of 0.3. The grade and GT parameters were selected because it is recognized that low grade, thick deposits can be successfully mined using the in-situ recovery (ISR) method. A summary of the estimated mineral resources are tabulated below:

Measured Mineral Resource

Cutoff	Tons	Ave. Grade (%)	Pounds	Ave. Thick.	GT
0.03% @ 0.3GT	**3,133,271**	**0.068**	**4,286,779**	**12.3**	**0.84**

Indicated Mineral Resource

Cutoff	Tons	Ave. Grade (%)	Pounds	Ave. Thick.	GT
0.03% @ 0.3GT	**2,544,658**	**0.062**	**3,146,720**	**11.5**	**0.71**

Inferred Mineral Resource

Cutoff	Tons	Ave. Grade (%)	Pounds	Ave. Thick.	GT
0.03% @ 0.3GT	**2,633,800**	**0.065**	**3,406,771**	**13.2**	**0.86**

It is recommended that Strathmore perform work to determine the economic viability of the Reno Creek project and to convert the mineral resources to Canadian Institute of Mining (CIM) compliant Mineral Reserve estimates. It is also recommended to:

1. Acquire any additional drill logs and other pertinent data not currently held by Strathmore that may be available for the Property.
2. Confirm and expand upon the previous metallurgical studies including the collection of additional core samples for amenability leach studies.
3. Confirm and expand upon previous hydrologic studies including verification of pump test data and determination of current ground water levels and qualities.
4. Acquire additional properties of interest to consolidate Strathmore's holdings.
5. Test by drilling additional areas of mineralization noted by previous exploration.
6. Complete a bankable feasibility study for a planned in-situ recovery operation (satellite and/or centralized facility).

2. INTRODUCTION AND TERMS OF REFERENCE

2.1 Purpose of Report

Strathmore Resources (US) Ltd., a Nevada Corporation and wholly-owned subsidiary of Strathmore Minerals Corp. TSX-V: STM (Strathmore) requested that the author prepare a technical report for the Reno Creek Uranium Property, Campbell County Wyoming, in compliance with the requirements of the Canadian National Instrument 43-101 and 43-101F. This technical report addresses the Property's geology, uranium mineralization, historical exploration/development work, and includes the results of new resource (measured, indicated, and inferred) estimations that meet the Canadian Institute of Mining (CIM) standards for reporting to the Canadian Securities Administration.

2.2 Terms of Reference

Units of measurement unless otherwise indicated are feet (ft), miles, acres, pounds avoirdupois (lbs.), and short tons (2,000 lbs.). Uranium is expressed as % U_3O_8, the standard market unit. Values reported for historical resources and the new mineral resources reported here are % eU_3O_8 (equivalent U_3O_8 by calibrated geophysical logging unit). AOI refers to Area of Influence in square feet. GPM refers to gallons per minute (hydrologic parameter) and GPL refers to grams per liter. ISR refers to in-situ recovery, also termed ISL or in-situ leach. Unless otherwise indicated, all references to dollars ($) refer to the United States currency. Additional units of measurement are tabulated as follows:

Unit	Metric Equivalent
1 foot	0.3048 meters
1 inch	2.54 centimeters
1 pound (avdp.)	0.4536 kilograms
1 acre	0.4047 hectare

2.3 Sources of Information and Data

This technical report is based upon unpublished factual data including drill-hole maps, drill-hole gamma logs, mineralized intercept data, resource calculations, geologic cross-sections, and other information predominantly from the original files and records of Rocky Mountain Energy (RME), and to a lesser extent from Energy Fuels Inc (EFI), International Uranium Corporation (IUC: successor company to EFI) and Power Resources Inc (PRI: US Subsidiary of Cameco). The data and map information was purchased from PRI in the autumn of 2007 and is in the possession of Strathmore. The files were researched and reviewed by the author in detail. The quality of the data is excellent and was prepared by employees and consultants of these mining companies in the course of their normal exploration, mine permitting and development programs.

2.4 Extent of Author's Field Involvement

The author has previously visited the Property in the field and is familiar with the historical work and present claim status.

2.5 Extent of Author's Past Involvement

The author has worked in the Powder River Basin-Pumpkin Buttes area during 1962-64 conducting uranium exploration and development drilling. Work included design and mining an open pit adjacent to State Route 50, circa eight miles to the northwest of this report area. In the 1970s, the author reviewed and surveyed the exploration drilling conducted by Pathfinder Mines on the Pine Tree Project located six miles west of the mineralized area of this report. The uranium mineralization at Pine Tree is within the same sand unit as the Reno Creek Property; the Wasatch Formation. The Pine Tree Project is also controlled by Strathmore but it is not detailed in this report.

The author has 40 years of mining exploration and development experience, including over 22 years of uranium experience in the Gas Hills Uranium District, Wyoming, during the period of 1956 to 1978, as a Geologist, Mine Foreman, Chief Mine Engineer, and as Assistant Manager of Utah International/Pathfinder's Exploration and Development Department.

3. DISCLAIMER

The author has relied upon the unpublished company files and records of EFI, IUC, PRI, and RME pertaining to the Reno Creek Property in the possession of Strathmore. In the author's opinion, the data collected by these mining companies was prepared in a professional manner in the course of exploring for and producing uranium, and that the data is reliable and meets the necessary standards for preparing and reporting new mineral resource estimates (Section 17).

4. PROPERTY DESCRIPTION AND LOCATION

4.1 Size and Location

The Reno Creek Property consists of 123 unpatented lode mining claims (SC 1-45, WR 3-80) totaling approximately 2,400 acres, located in Sections 27-30, 33-35, T43N, R73W, Wyoming 06th Principal Meridian. The Property is located in northeastern Wyoming (Figure 4-1), lying along the eastern margin of the Pumpkin Buttes Uranium District.

4.2 Mining Claims

The 123 unpatented mining claims (Figure 4-2) are located on split-title lands (see Section 5.4 for explanation) where the surfaces are owned by private landowners and the underlying minerals are owned by the federal government and administered by the U.S. Department of Interior's Bureau of Land Management (BLM). The claims are contiguous and consist of the following claim names and numbers: SC 1-45 (Wyoming Mining Claim {WMC} 272862-272906) and WR 3-80 (WMC 261871-261948). The claims are listed on the BLM Geographic Index Report (LR2000) with location dates of December 13, 2005 (SC 1-45) and September 18 and 20, 2004 (WR 3-50, 51-80, respectively) with a current assessment year of 2008. A copy of the letter from Strathmore to the BLM, dated August 13, 2007, enclosing payment of Annual Claim Maintenance Fees for the assessment year beginning September 1, 2007 for all of Strathmore's Wyoming claims, including claims SC 1-45 and WR 3-80, was examined by the author.

A copy of the notarized and recorded Affidavit of Annual Mining Claim Maintenance Fee Payment for the assessment year beginning September 1, 2007 dated December 11, 2007 on behalf of Strathmore Resources (US) Ltd. for the claims SC 1-45 and WR 3-80 was also examined. The Affidavit was stamped as recorded on December 18, 2007 by the Office of the Clerk, Campbell County Wyoming, under Instrument # 903955 and recorded in Book 107, Pages 621-636.

Copies of the original Claim Location Notices were also examined. The claims SC 1-45 were staked and recorded in 2005; all in the name Strathmore Resources (US) Ltd., and claims WR 3-80 were staked and recorded in 2004; all in the name David Miller and Associates, LLC.

Holding costs of the unpatented lode mining claims include a claim maintenance fee of $125.00 per claim payable to the BLM on or before September 1 of each calendar year and those for recording an affidavit and Notice of Intent to hold with the Office of the Clerk, Campbell County Wyoming.

County filing fees for documents is $8.00 for the first page and $3.00 per page thereafter, with up to 10 sections of land noted per document. The above BLM maintenance fees will be due again before September 1, 2008, and each year thereafter, the affidavit and Notice of Intent fees will be due again before December 31, 2008, and each year thereafter, with both as modified by future legislation.

Figure 4-1 State of Wyoming: Reno Creek Property Location Map

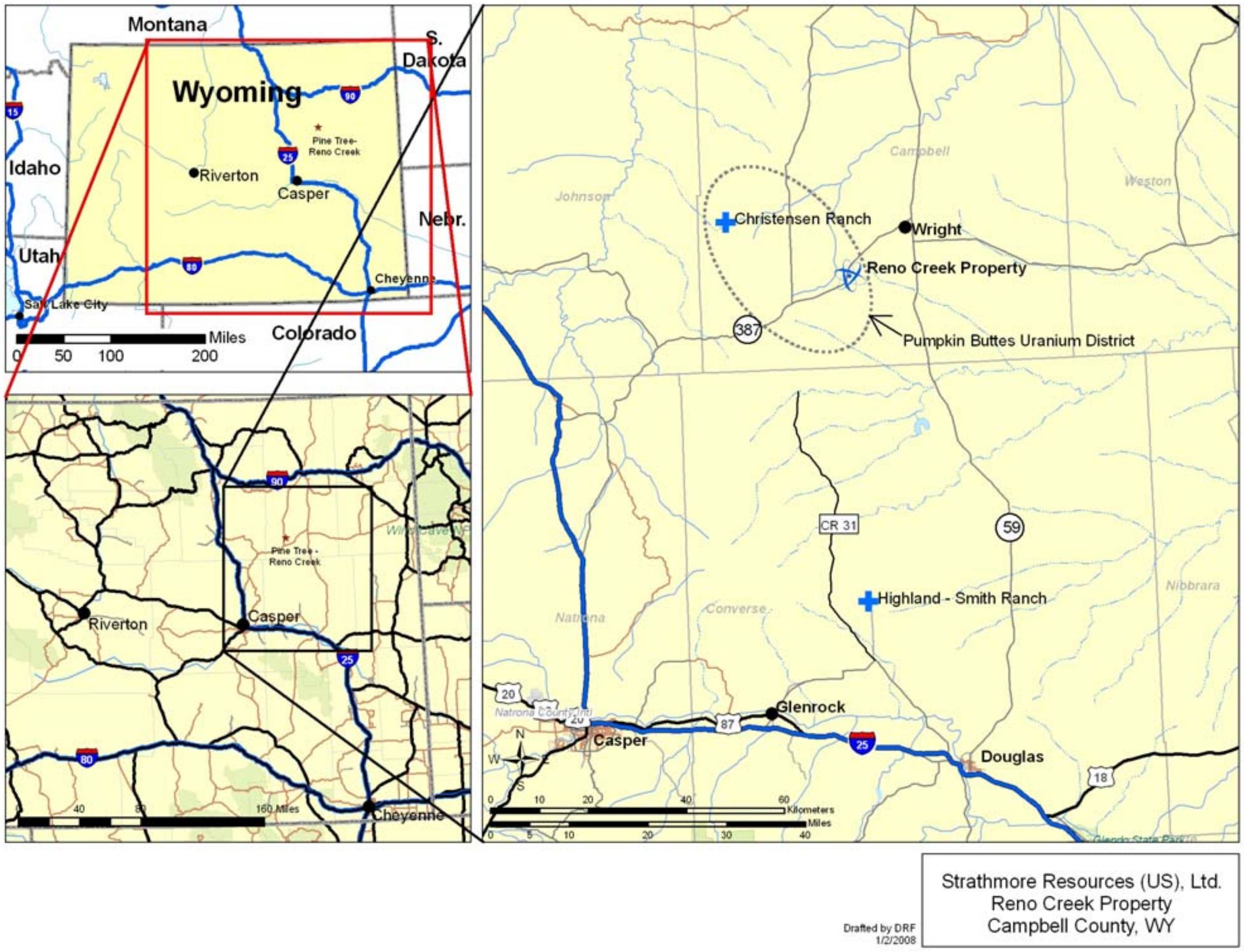
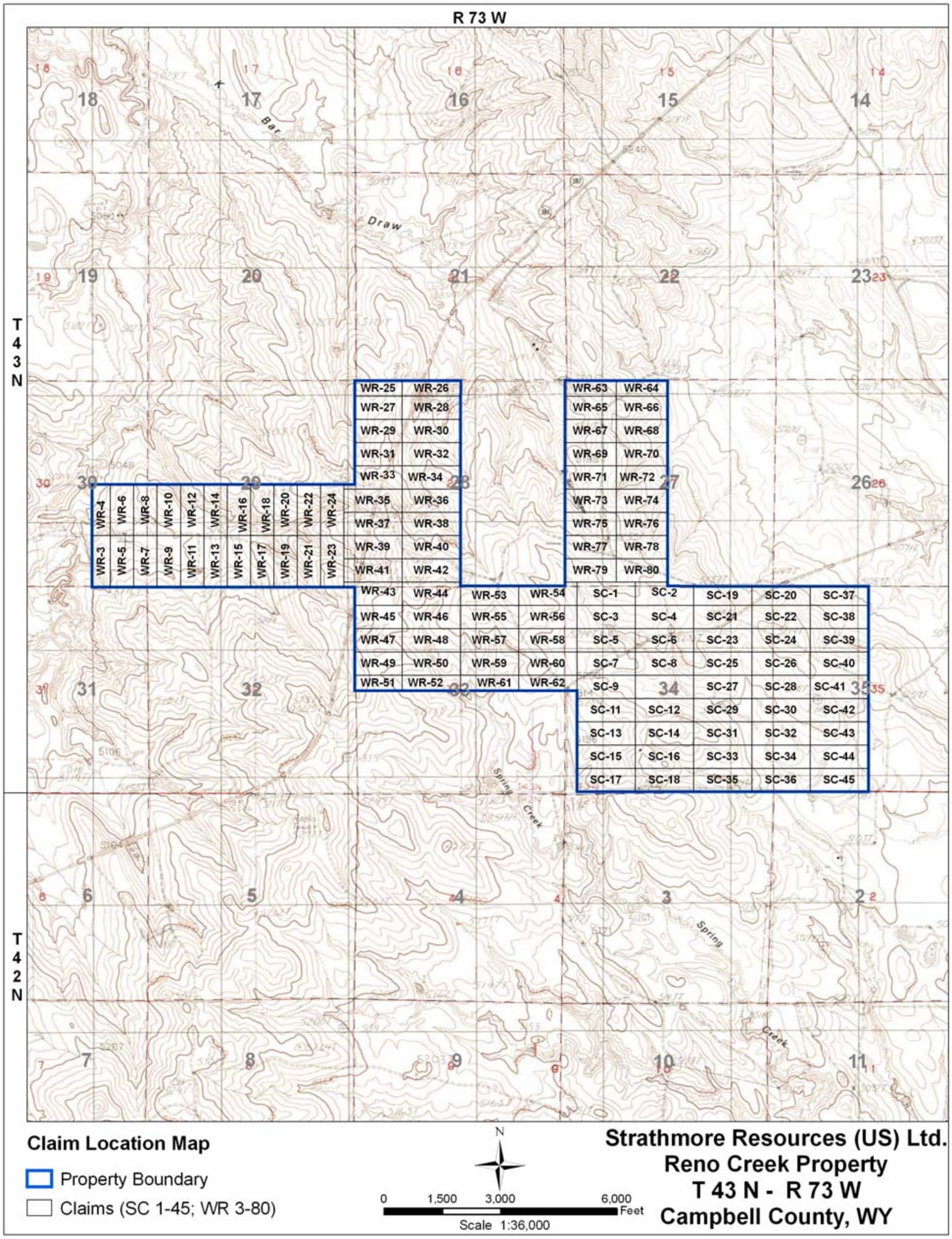


Figure 4-2 Reno Creek Property: Claim Location Map



4.3 Legal Surveys

No known mineral surveys to advance the Reno Creek Property toward Patent have been executed.

4.4 Mineralized Areas, Surface Disturbance, Environmental Liability

The uranium deposits on the Reno Creek Property are shallow dipping (~½°) to the northwest and lie at depths of 170-450 feet from the surface. The majority of the mineralization lies below 300 feet. There is no surface expression of the deposits; therefore all information and data defining the mineralization is from exploratory drill holes. To the best of the author's knowledge, there has been no full-scale mining production of the Reno Creek deposits. There has been previous surface disturbance consisting of drill roads, drill pads and development/reclamation of a pilot, in-situ recovery plant. Where examined, the drill pits had been backfilled and leveled, the sites reclaimed, and drill holes abandoned in an appropriate fashion as dictated by state law. The status of the drill hole abandonment (plugging) in the historical data is unknown and will need to be addressed prior to any future in-situ recovery operations otherwise excursion of the recovery lixiviants may lead to potential extraction and regulatory difficulties.

In Wyoming, there are drill hole plugging requirements for all drill holes that encounter water. Forms describing the method of plugging and other required information must be submitted to the Wyoming's State Engineer's Office and State Department of Environmental Quality, Land Quality Division, (WY DEQ) within 365 days of encountering water in the bore hole.

A new drilling program will require an approved exploration permit from the WY DEQ under the Cooperative Agreement between the State and the BLM (43 CFR 3809).

4.5 Other Permits Required

In addition to the above surface and drilling permits required, any injection or pumping operations will require permits from the WY DEQ which has authority under the Safe Water Drinking Act that stems from a grant of primacy from the U.S. Environmental Protection Agency (EPA) for administering underground injection control programs in Wyoming. Any uranium in-situ recovery plant operations with injection, production and monitor wells will require an extensive permitting procedure. The Nuclear Regulatory Agency (NRC) has the responsibility to issue source material licenses to "receive title to, receive, possess, use, transfer, or deliver any source material after removal from its place of deposit in nature" (CFR 40.1 and 40.3). Source nuclear material is defined as uranium and/or thorium in any form, or ores containing 0.05% or more by weight uranium and/or thorium. The NRC is required to implement National Environmental Policy Act (NEPA) regulations. This procedure will require an approved Environmental Impact Statement (EIS) prior to any production activities.

To the best of the author's knowledge, there are no current environmental permits for the project area. However, EFI developed all required baseline information and applied for both a WY DEQ mining permit (No. 479) in November 1993, and a U.S. NRC Source Materials License (SUA-1558) under Docket No. 40-9048 (and subsequently No. 40-9024) in July 1993.

5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The Property is located approximately 80 highway miles northeast of Casper, 40 miles south of Gillette, and 9 highway miles west of Wright (see Figure 4-1). Access to the project area is excellent, with Wyoming Highway 387 passing through the Property boundary. Well-maintained, graveled county and gas-oil field roads in conjunction with ranchers' two-track trails provide good access for drilling locations (see Figure 4.2).

5.2 Climate, Vegetation and Soil Parameters

5.2.1 Climate

The Property climate is semi-arid and receives an annual precipitation of approximately 12-15 inches, the most falling in the form of late autumnal to early spring snows. The summer months are usually hot, dry and clear except for infrequent heavy rains. Because of the dry climate, all streams in the area are intermittent, with no perennial streams near the Property. The annual mean temperature is 58.3°F; with the January mean being 24.8°F and the July mean of 70.5°F. Temperature extremes range from -30°F to over 100°F (Dames and Moore, 1978).

5.2.2 Vegetation

Vegetation of the Reno Creek area is characteristic of the Shortgrass Prairie (Costello, 1954) and is located in the Saskatchewan biotic province (Dice, 1943) of central North America. Range site investigations conducted by the U.S. Soil Conservation Service (USDA SCS) in Wyoming designated the area as Northern Plains with an average of 10" to 14" of annual precipitation. A more recent study of major land resource areas conducted by the SCS designated the area as part of the Northern Rolling High Plains of the Western Great Plains Range and Irrigated Region. The vegetation of the area is described by Dames and Moore (1978) as Grama-needlegrass-wheatgrass (Bouteloua-Stipa-Agropyron) with occurrences of Pine-Douglas Fir (Pinus-Pseudotsuga) communities (not found within the Property boundary).

Porter (1962) described vegetation of the area as grasslands covered by a "rather uniform stand of relatively tall grasses and forbs" represented by Needlegrass (Stipa sp.), Little Bluestem (Andropogon scoparius), Buffalograss (Buchloe dactyloides), and Blue Grama (Bouteloua gracilis).

According to mapped vegetation types, the Reno Creek Property lies almost entirely within the sagebrush type environment. Undoubtedly site-specific variations occur and transitions between sagebrush and grassland communities will be present in the Property area.

5.2.3 Soil Parameters

The Reno Creek Property is included in a soil survey of the southern part of Campbell County, as part of the National Cooperative Soil Survey, performed by the U.S. Soil Conservation Service. This survey (e.g. Dames and Moore, 1978) was made by direct inspection of soils and soil associations and by use of aerial photographs. The detail of the survey is evident in the fact that 80 mapping units, including 29 soil series, were described in the study area. A published report for the southern part of the neighboring Johnson County, Wyoming, soil district is also available (e.g. Dames and Moore, 1978). Johnson County borders Campbell County on the west and is within 15 miles of the Reno Creek Property. This survey is an additional soils reference having applicability to the subject study area. It is in the same general precipitation zone, and the same Major Land Resource Area (e.g. Dames and Moore, 1978). Soils information presented here is based on the SCS data and other referenced materials.

The SCS 1955 reconnaissance survey (e.g. Dames and Moore, 1978) identified 33 mapping units and 19 soil series. The Reno Creek area encompasses 17 of the 33 mapping units and 8 of the soil series. The SCS 1955 reconnaissance survey soil mapping units can be used to identify land areas having similar characteristics. Soils can be grouped in stability ratings based on their resistance to erosion, their plant growth favorability, their ability to withstand surface disturbances, and their rate of recovery by plant succession or artificial seeding.

The absence of extensive areas of aeolian (loess) soils (e.g. Dames and Moore, 1978) is significant. Soils derived from these parent materials are common over a vast area of the Great Plains, including eastern Wyoming. They are often associated with wind erosion problem areas on marginal dry croplands and overgrazed rangelands. When plant cover and surface soils are disturbed on aeolian soils, especially in high-wind areas in low precipitation zones, severe wind erosion is certain to occur. Parent materials common to the study area such as shales, clays, alluvium and sandstone are generally not as highly susceptible to wind erosion as are the wind-laid soils.

It was estimated that 30 percent of the mapping units in the Reno Creek area are high in stability and suitable for use in reclamation work. Approximately 40 percent have medium stability and would be moderately suitable for materials for reclamation or for their restoration following disturbance. An estimated 20 percent of the soils have limitations putting them in the low stability class or they are only marginal in their suitability for use in reclamation. The remaining estimated 10 percent would be very low in stability. The following table lists the principle soil mapping units of the Reno Creek area.

Table 5-1 Principal Soils of Reno Creek Property

Mapping Unit*	**Principal Soil Property**
	Affecting Stability
High Stability	
Fort Collins loam	Depth and Texture
Renohill loam	Depth and Texture
U1m loam	Depth and Texture
Medium Stability	
Arvada loam	Salinity-Alkalinity
Renohill clay loam	Slow Permeability
Renohill-rolling phase	Slope
Low Stability	
Renohill clay	Fine Texture
Banks fine sandy loam	Coarse Texture
Searing gravelly loam	Slope-Draughtiness
Terry loamy sand	Depth
Very Low Stability	
Rough broken land	Slope-Depth

* Mapping units from U.S. SCS Campbell County Reconnaissance Survey, 1955 (Dames and Moore, 1978)

5.3 Physiography and Elevation

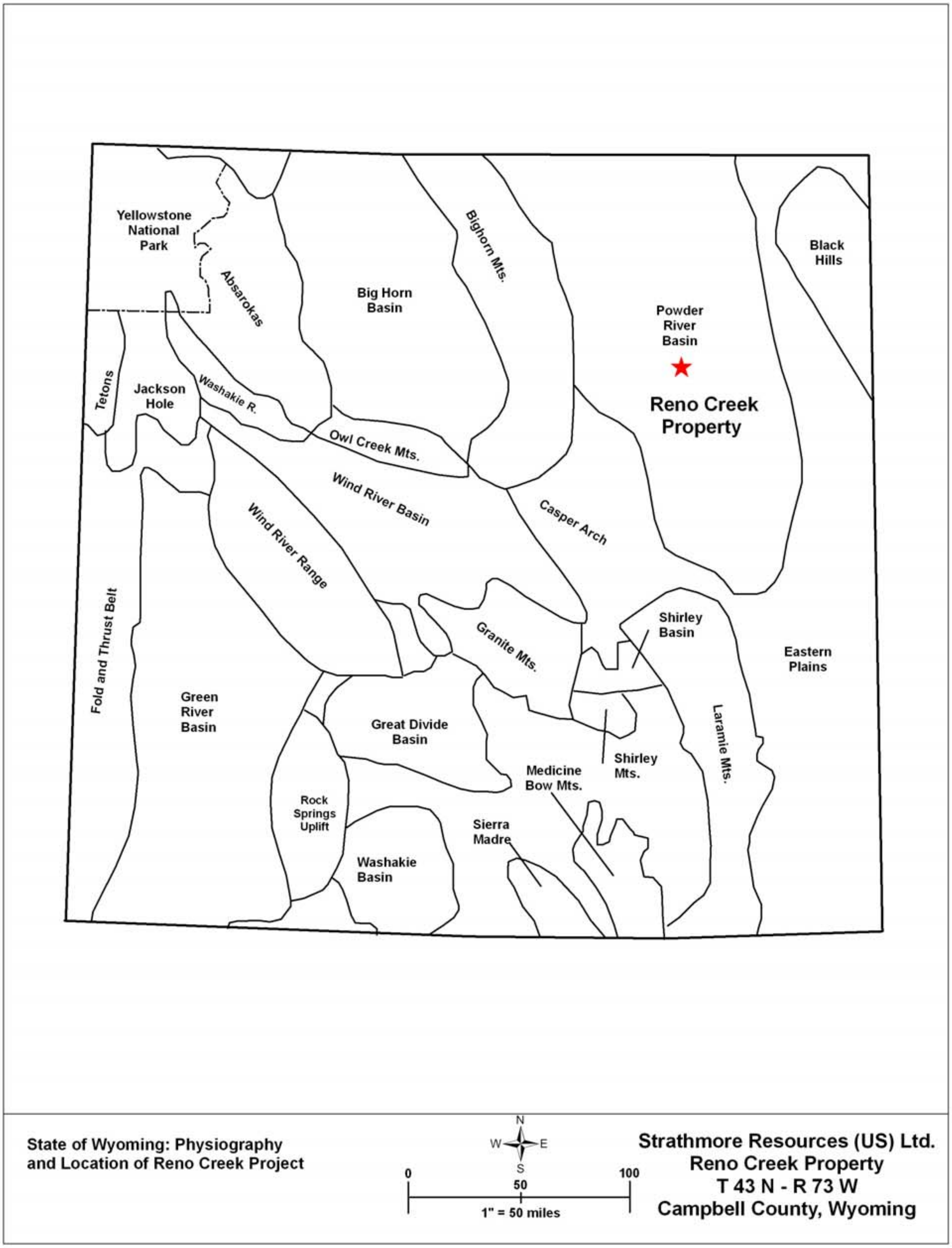
The Powder River Basin is a north-south trending, intermontane, structurally-bounded basin. The basin is bounded on the west by the Big Horn Uplift, to the southwest by the Casper Arch, to the south by the Laramie Uplift, to the southeast by the Hartville Uplift, and to the east by the Black Hills Uplift. The basin is open to the north, extending into Montana (Figure 5.1).

The western extent of the Powder River Basin is drained by the Powder River whereas tributaries to the Belle Fourche and Cheyenne Rivers drain the eastern half of the basin. The topographic highs of Pumpkin Buttes lie near the center of the drainage system, with runoff going to all three major rivers. The Belle Fourche flows just to the west of the Property and drains the western portion of the Property by way of ephemeral, tributary streams.

Elevations at the Property range from 5,000 to 5,300 feet above sea level. Low, rolling sagebrush-covered grasslands characterizes the area, with scattered intermittent drainages sometimes producing steep channel walls. The Pumpkin Buttes, located 13 miles west-northwest of the Property, are the major topographic features in the area, reaching elevations over 6,000 feet.

Land use in the Reno Creek vicinity is dominated by cattle and sheep ranching. Crops are limited to hay and forage. Gas/oil field activity occurs in the area, with significant infrastructure in place.

Figure 5-1 State of Wyoming: Physiography



5.4 Surface Rights and the Stock Raising Homestead Act of 1916

The SC and WR claims are located on private lands wherein the underlying minerals are owned by the federal government and administered by the U.S. Department of Interior's Bureau of Land Management (BLM). As part of the Stock Raising Homestead Act (SRHA) of 1916, lands that were not suitable for cultivation but were suitable for stock grazing were patented with the mineral rights retained by the government of the United States. This act allows for the locating of mining claims atop federal minerals on privately held lands. The lands on which the SC and WR claims lie were patented under the SRHA of 1916.

In 1993, the federal government amended the SRHA by requiring notification to the private landowners of intent to enter their lands to stake mineral claims with a Notice of Intent to Locate (NOITL). This notice process entailed sending the appropriate documentation to the private landowners and the BLM. Filing of a NOITL segregates the land from all forms of appropriation for 90-days for the party filing the NOITL. As noted in BLM documents (see www.blm.gov), a NOITL must contain the following information:

Statutory Information (the following statutory information must be present on the NOITL)

- Surface owner name and address.
- Claimant name and address.
- Legal description of the lands covered by the NOITL. The legal description shall be based on the public land survey or other sufficient description so that the NOITL can be noted to the public land status records.
- A map of the lands subject to mineral exploration.
- Dates of when exploration and/or location of claims will begin and end.

Regulatory Information (the NOITL must have the following regulatory information)

- $25.00 service fee.
- Proof of ownership. A copy of the county records showing who is paying the taxes on the property is sufficient proof of ownership. A certificate of title or proof of title insurance will also be accepted.
- A copy of the certified mail receipt card proving the surface owner was served a copy of the NOITL.
- The telephone number of the surface owner.
- The telephone number of the claimant.
- Total number of acres covered by the NOITL.
- Brief description of proposed mineral activity.
- Map showing access routes.

In addition to the above, provisions of the NOITL include:

- All land covered by the NOITL must be owned by the same person or group. In order for one NOITL to be accepted for multiple surface owners, all owners must jointly own the land described in the NOITL, otherwise individual NOITLS will need to be filed with each property owner.
- Each claimant is allowed 1,280 acres covered by NOITLs per surface owner. The maximum acreage that may be covered by NOITLs for a single claimant is 6,400 acres statewide at any time.
- Serving the surface owner does not start the 90-day segregation period. The segregation is not effective until the BLM accepts and posts the NOITL.
- The 90-day segregation period ends on the 90th day even if it falls on a weekend or a holiday.

- The claimant must wait 30 days after the date the owner signs the certified mail receipt card to begin exploration and staking claims. The claimant is not allowed to enter the land covered by the NOITL during this 30-day period. The claimant may explore and stake mining claims during the remainder of the segregation period, approximately 60 days.

For future exploration/development activities, surface damage provisions will be needed with the land owners and a Notice of Intent and/or Plan of Operations must be submitted to the BLM prior to exploration and development drilling/construction activities. The BLM has 60 days from receipt of the Notice of Intent to approve the Plan, or notify the claimant/operator of any deficiencies with the Plan. The 60-day time frame to approve the Plan may be extended for an unspecified amount of time if necessary to comply with other applicable requirements of law. Additionally, a reclamation bond shall be filed and maintained with the BLM State office, pending final reclamation of the project area.

6. HISTORY

6.1 Ownership History of the Property

The Reno Creek Property (in addition to others not reported here and/or controlled by Strathmore) was acquired by Rocky Mountain Energy (RME: a wholly owned mining subsidiary of the Union Pacific Railroad) and initially explored in the late 1960s and early 1970s. Exploration drilling delineated several miles of roll front uranium deposits. By the mid 1970s, a partnership was formed between RME (32.475% and operator), Mono Power Company (42.525%) and Halliburton Services (25%). The partnership, informally called “ISLCO”, was formed to develop the Reno Creek project into a commercial mining operation.

In 1992, the Reno Creek Project and other nearby properties were acquired by EFI from RME. Over the next decade, EFI continued to advance the main Reno Creek property toward full permitting and mine production. In fiscal year 2001 the Reno Creek property was sold by IUC (merger successor to EFI) to Rio Algom Mining Corp. Thereafter, the property was acquired by Power Resources Inc before being relinquished in 2003.

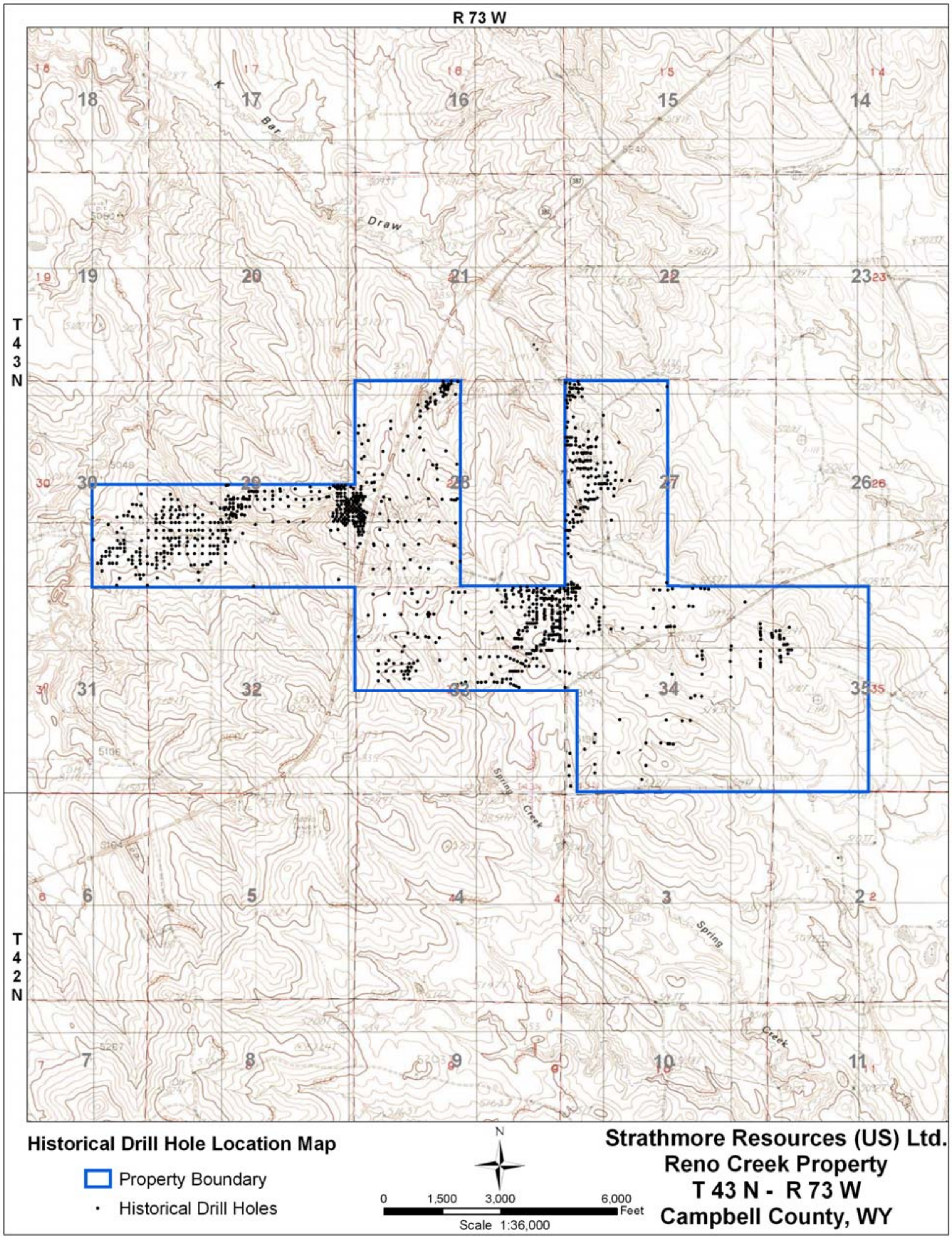
In 2004, Strathmore initiated land acquisition in the Pumpkin Buttes Uranium District, on way to acquiring over 16,000 acres of uranium-hosting or highly prospective lands. In September, 2004, David Miller (now CEO of Strathmore Minerals Corp) located the WR 3-80 lode mining claims. Later, in December 2005, Strathmore located the SC 1-45 lode mining claims. All the claims have been held continuously since their original dates of location, and are not encumbered by royalties.

In May 2007, Strathmore entered into a joint venture partnership with American Uranium Corporation Inc of Nevada, to bring the Reno Creek Property, and other claims/leases in the Pumpkin Buttes area not detailed in this report, to full-scale in-situ recovery operation. The joint venture is detailed below (Section 18.3).

6.2 Exploration and Development Work Undertaken

Substantial historical exploration, development, and mine permitting was performed on the Reno Creek Property. Beginning in the late 1960s and continuing into the mid 1980s, RME drilled 1,000s of exploration borings on the Reno Creek Property and on their other holdings not covered within this report. Summary reports indicate over 5,800 exploratory bore holes were drilled by RME in the greater Pumpkin Buttes area, with at least 1,083 borings completed on that portion of lands detailed in this report (Figure 6-1 below). Significant mine permitting studies, including construction, successful operation and subsequent reclamation of an in-situ recovery pilot plant, were also performed over the years and these activities are detailed in part below.

Figure 6-1 Reno Creek Property: Historical Dill Hole Location Map



6.2.1 In-situ Recovery (historical development testing)

By the mid 1970s, RME delineated a significant mineral resource (see Section 6.3 and Figure 6-3) at Reno Creek and a decision was made to bring the property to full-scale, mining production using the in-situ recovery method. The following is a synopsis of their studies and findings from operating a pilot in-situ recovery plant in 1979-80 (RME, unpublished data, 1986) on lands currently controlled by Strathmore and detailed in this report (see Figure 6-2 below):

In the summer of 1975, RME began its examination of in-situ recovery of their Wyoming uranium assets by conducting a small leach test at their Bear Creek mine, located 30 miles to the south of Reno Creek. This acid lixiviant test was sufficiently encouraging to justify the initiation of a pilot plant testing program at their Nine Mile Lake project, located 70 miles to the SW of Reno Creek.

In 1976, bench testing was begun on Reno Creek ores to determine their applicability to in-situ recovery. The following Table 6-1 shows some of the key results from the amenability testing on the Reno Creek ore samples. These tests were conducted by Hazen Research Inc. (HRI) and the Colorado School of Mines Research Institute (CSMRI) during the late 1970s.

Table 6-1 Ore Leach Amenability Test Results

	Extraction %			Leach	Ore	
Lixiviant	**U_3O_8**	**V_2O_5**	**Lab**	**Period**	**Grade**	**Date**
Agitated Leach Test						
$NaHCO_3$, 2.8 gpl	76.0	-	HRI	48 hr	0.078	10-13-76
H_2SO_4, pH = 1.0	98.2	-	HRI	48 hr	0.078	10-13-76
H_2SO_4, pH = 1.5	97.3	58.6	HRI	24 hr	0.033	6-29-76
Rolling Bottle Test						
H_2SO_4, pH = 1.5	96.1	63.6	CSMRI	96 hr	0.049	2-22-79
$NaHCO_3$, 4.0 gpl	68	69.2	CSMRI	96 hr	0.049	2-22-79
$Mg(HCO_3)_2$, 3 gpl	63.2	50.7	CSMRI	96 hr	0.049	2-22-79
$NaHCO_3$, 2 gpl	61.3	45.7	CSMRI	96 hr	0.049	2-22-79
$Mg(HCO_3)_2$, 1.5 gpl	59.9	28.6	CSMRI	96 hr	0.049	2-22-79
$NaHCO_3$, 2.8 gpl	76.1	-	HRI	5 day	0.109	2-7-78
$NaHCO_3$, 2.0 gpl	61.4	-	HRI	96 hr	0.091	1-3-79

Although the test data indicated superior uranium extraction with acid (H_2SO_4) compared to carbonate lixiviants ($NaHCO_3$, $Mg\{HCO_3\}_2$), acid also tended to mobilize significantly more magnesium, calcium, Al_2O_3, SiO_2, and caused greater particle size degradation than the carbonate lixiviants.

Further amenability tests using column leaching techniques to more closely simulate downhole conditions were conducted by the University of Texas. These tests were conducted by placing uniform samples of one-inch diameter by one-foot high into glass columns, and then pumping various lixiviants upflow through the columns. Leaching performance, expressed as a function of pore volumes rather than leaching time is summarized in the following Table 6-2:

Table 6-2 University of Texas Column Leach Test

Lixiviant	Max. U_3O_8 Grade %	Recovery	Pore Volumes Leaching	Pore Volumes Restoration	Date
3 gpl H_2SO_4	380 ppm	88%	30	120+	1-10-80
2 gpl $K_2CO_3/KHCO_3$	266 ppm	85%	34	98	1-10-80
2 gpl NH_4CO_3	950 ppm	86.9%	24	90+	4-21-80
2 gpl $NaHCO_3/Na_2CO_3$	106 ppm	57%	20	n/a	1-10-80

The column leach tests confirmed that acid yielded higher head grades and better recoveries than carbonate lixiviants. However, significantly more pore volumes were required to complete restoration. The 57% recovery indicated for the $NaHCO_3/Na_2CO_3$ lixiviant was unusually low due to severe permeability loss; that test was discontinued after 20 pore volumes.

6.2.1.1 Pattern I Pilot Operations History

The Reno Creek in-situ recovery testing program commenced with the completion of a 100 gpm pilot plant (see Figure 6.2 below for location) in January 1979. Acid lixiviant was selected because of the higher recoveries indicated in the amenability tests. The testing began in February 1979 and was terminated in November 1979 because results from this pattern were very disappointing. Severe permeability loss resulted in loss of injectivity and production to the point that operations had to be curtailed. The permeability loss resulted from high levels of calcium mobilized by the acid precipitating as gypsum within the ore sand void spaces, effectively sealing off the formation.

Pattern I was operated with H_2SO_4 at a pH of 1.7. In addition to significant calcium levels in the pregnant solution, a fungus strain, similar to one observed at RME's Nine Mile Lake operation, also propagated. Analysis indicated that over 20 pounds of calcium were being mobilized from dissolution of calcareous material in the formation for each pound of uranium recovered. Despite attempts to improve production and injectivity, the acid pattern ultimately proved that this formation is not leachable using acid lixiviants.

6.2.1.2 Pattern II Pilot Operations History

Unfavorable results with Pattern I testing coupled with the column leach test results led RME to the decision to switch to carbonate lixiviant for further testing. Pattern II leaching began October 1980 using a $Na_2CO_3/NaHCO_3$ lixiviant and H_2O_2 oxidant. Pattern II was constructed as a modified 5-spot; consisting of two production wells, four injection wells, and six monitor wells.

Key objectives of the Pattern II test were to demonstrate the effectiveness of the $Na_2CO_3/NaHCO_3$ lixiviant, to establish performance criteria for commercial development, and to demonstrate groundwater restoration in accordance with Wyoming DEQ standards. The following Table 6-3 summaries the test results:

Table 6-3 Reno Creek Pattern II Key Results and Conditions

Uranium Production	967 lbs U_3O_8
Peak Head Grade	70 ppm U_3O_8
Average Head Grade	40 ppm U_3O_8
Pattern II Reserves	1,600 lbs U_3O_8
Estimated Recovery	60%
Wellhead Pressure	0-5 psi
Injection Flow Rates	20 gpm
Production Flow Rates	23 gpm
Injection pH	6.8-7.3
Leaching *Pore Volumes	10.0
Restoration *Pore Volumes	6.6
Ore Grade	0.037% U_3O_8
Grade x Thickness Product	0.388 Ft % - U_3O_8
Lixiviant Conc. (HCO_3-)	1.5 gpl
Oxidant H_2O_2, O_2	0.5 gpl
Resin Loading Capacity	2.8 lbs U_3O_8/ft^3 resin

* Calculated pore volume equals 259,000 gallons

Reno Creek Pattern II demonstrated the need to verify bench testing results with field pilot testing. The column leach testing performed by the University of Texas indicated severe loss of permeability with carbonate lixiviant but no significant permeability loss with acid. However, pilot test results were just the opposite. Pattern II injectivity was never a problem with wellhead pressures frequently 0-5 psi and never exceeding 10 psi. Formation plugging in the Pattern I acid lixiviant test frequently caused wellhead pressures to exceed 100 psi. Carbonate lixiviant did however, cause severe ion exchange (IX) column fouling due to $CaCO_3$ precipitation in the resin beds. This problem was solved by sparging CO_2 ahead of the columns to maintain a pH of 6.8 to 7.0.

Uranium recovery and average headgrade were especially encouraging. Pattern II was located in a zone typical of average permeabilities however the average ore grade and GT product there were substantially below the deposit averages. In fact, the average "recovered" GT of Pattern II was below the cutoff GT used in the feasibility study.

6.2.1.3 Site Restoration and Reclamation

Restoration of the test Pattern II began December 22, 1980 when chemical refortification of lixiviant was discontinued. Circulation of production fluid through the well field and the processing plant to lower uranium concentration began.

During the initial phase of restoration, it was suggested that pre-treatment of the production fluid by an IX process prior to reverse osmosis would greatly speed restoration. Accordingly, IX columns were prepared to strip divalent cations from the production fluid by means of a weak acid resin. Evaluation of the effectiveness of this treatment method indicated that the IX process was performing well enough to eliminate the need for reverse osmosis treatment.

Groundwater restoration using the IX resin began on February 17, 1981. This phase of the restoration program continued until March 13, 1981 during which time approximately 2 pore volumes were circulated through the leached pattern.

Analysis of production zone water quality following this restoration phase indicated that groundwater affected during leaching had been restored to background ranges for the parameters of concern, with the exception of uranium and vanadium. Uranium levels were effectively reduced from about 15 mg/l to less than 2 mg/l while vanadium concentrations dropped to approximately 1 mg/l. Both elements remained in the 1 to 2 mg/l range during the final 10 days of IX treatment without dropping noticeably.

Because of the relatively low concentrations, further removal by means of IX or reverse osmosis was impracticable. Therefore, an attempt to lower uranium and vanadium concentrations by means of a groundwater sweep of the production zone was initiated. The groundwater sweep began on March 13, 1981 and continued until April 16, 1981. During this restoration phase, a total of approximately 4.5 aquifer pore volumes were recovered from the pattern. On April 16, the pattern was shut down in order to evaluate restoration stability.

Analysis of water quality data following completion of the restoration program indicated that restoration of groundwater affected during mining was successful. All parameters returned to baseline ranges with the exception of pH, uranium and vanadium. Of these parameters, all are either below WY DEQ Class I Groundwater Standards (domestic use) or do not have Class I maximum concentration limits (WY DEQ, 1980).

Water quality in the restored pattern was monitored for compositional stability by monthly sampling of the production, injection and monitor wells for a six month period which began April 16, 1981. Initial samples collected at the time of shut down and final samples collected at the end of the six month stabilization period were analyzed for a variety of constituents (e.g. pH, conductivity, carbonate, bicarbonate, TDS, etc).

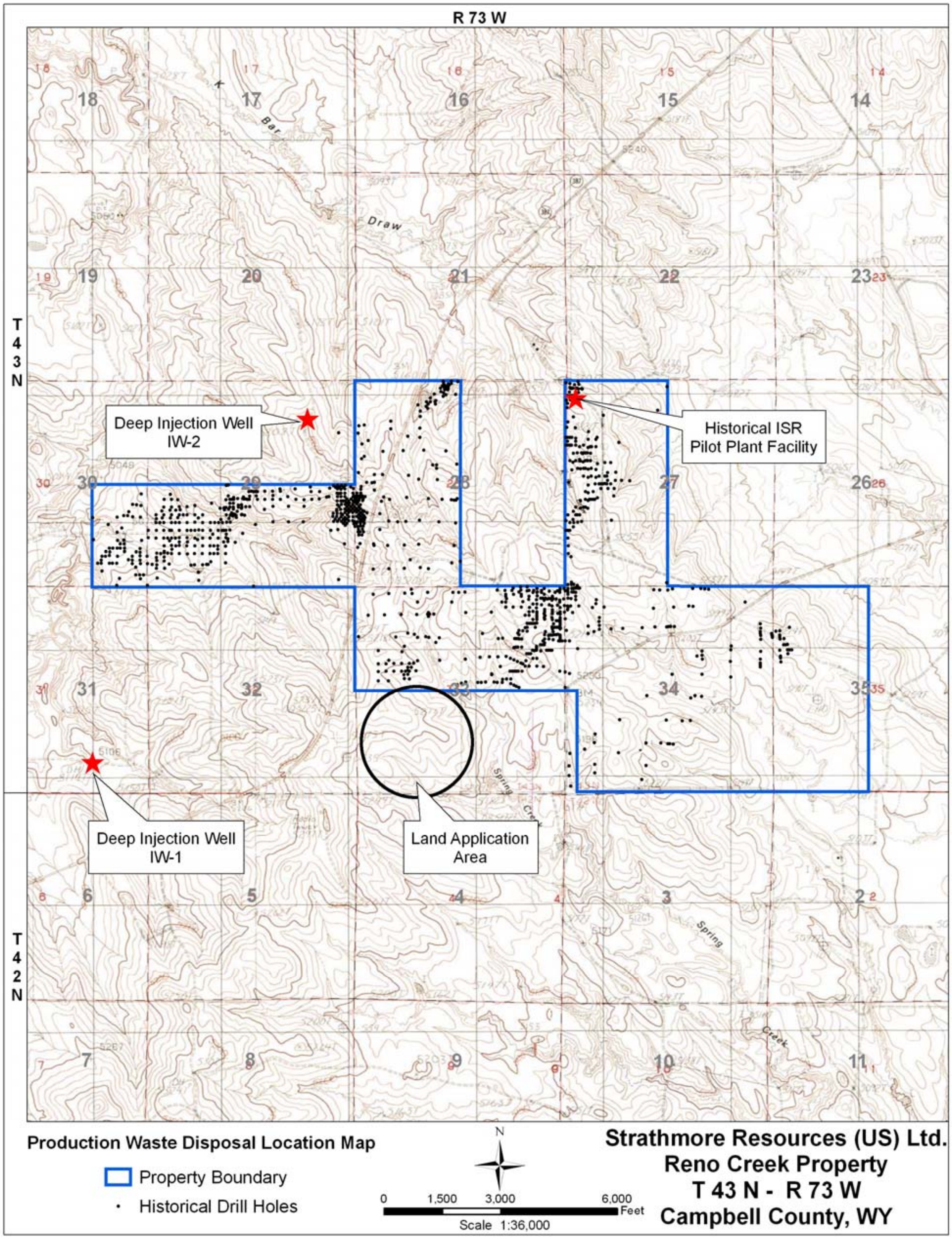
Restoration and stabilization of the groundwater of Pattern I was acknowledged and signed off by the U.S. NRC in February of 1986. Pattern II pilot testing culminated in regulatory signoff in March 1983 with the approval of carbonate leaching for commercial operations at Reno Creek under Material License Number SUA-1338 as part of NRC Docket Number 40-8697. Additional restoration activities included removal of reservoir contents (~1.5 million gallons) to RME's Bear Creek uranium facility for tailings impoundment, gamma surveys on the entire pilot project, and testing with removable alpha smears on the buildings, equipment and reservoir liner. By June, 1986, site reclamation was completed including disconnection of utilities, and the remaining buildings were cleaned and final radiation surveys performed.

6.2.2 Production Waste Disposal: Land Applications and Deep Well Disposals

As part of the in-situ recovery process, excess well field solutions (bleed) are produced. After treatment for removal of radium and uranium, the bleed is disposed of in a manner which will not adversely impact the environment and is operationally feasible. In addition, following the uranium recovery activities, the well field's aquifer is restored to pre-mining conditions by successive groundwater sweeps. Lastly, following groundwater sweep of the aquifer, the groundwater is treated using reverse osmosis.

During the 1990s, EFI studied and proposed how to dispose of these three types of wastewaters. These studies included the application of the waste streams to surface disposal (sprinkler irrigation system and/or trenched subsurface infiltration) and the spent eluate and yellowcake wash waters to deep well injection disposal. The following summarizes the findings of these studies and the resulting permit applications sent to the WY DEQ. The locations of the proposed land application area and the two deep injection wells are shown on Figure 6-2 below.

Figure 6-2 Reno Creek Property: Production Waste Disposal Location Map



6.2.2.1 Land Application

On January 28, 1994, EFI submitted an application to the WY DEQ for a permit to construct and operate a wastewater facility for land application of wastewaters from their proposed ISR operation. The area for the proposed land application is shown on Figure 6-2 above, lying just to the south of the present Property boundary.

Land application was to be carried out by trunk-line distribution from the mine facility's reservoir ponds with disposal of the wastewaters to the irrigation fields by sprinkler system. This method of wastewater disposal is currently being used at Cameco's Smith Ranch ISR operation 30 miles to the south.

In March, 1998, IUC submitted to the WY DEQ a revised application for a permit to construct and operate a wastewater facility in their application titled "Modified Land Application Facility Permit Application". IUC decided to submit the revision because the modified method for wastewater disposal would utilize subsurface infiltration rather than surface infiltration and evaporation via sprinkler distribution. The modified land application system was selected as the preferred method for wastewater disposal because it provides several advantages over standard surface land application. These advantages include:

1. Minimizes the bioavailability of chemical constituents because they are trapped in the subsurface soils below the primary rooting zone.
2. Reduces the likelihood of impacts to livestock and wildlife.
3. Limits disturbance of the topsoil to the areas where trenches will be installed.
4. Minimizes disruption of land use during operation because the discharge is in the subsurface soils rather than on the surface.
5. Allows year-round utilization of the system.
6. Eliminates surface runoff and erosion concerns.
7. Limits reclamation activities to replacing topsoil and reseeding the trench areas after mining ceases.

IUC proposed to infiltrate within a 93-acre area with a current land use of domestic stock grazing and wildlife use. The operator proposed to install a subsurface infiltration system below the frostline and the primary root zone and operate it continuously for the life of the mining project. The site of the proposed modified land application area is the same as proposed in 1994 for land application, the SW ¼, Section 33, T43N, R73W (see Figure 6.2 above).

As part of the Land Application permitting, EFI submitted in January, 1993, with subsequent revisions made in 1993-94, to the WY DEQ and the State Engineer's Office (SEO) an application to construct and operate a surface storage reservoir for mine water wastes prior to final disposal by the aforementioned land and deep injection methods. The SEO issued a permit to EFI in May, 1994.

6.2.2.2 Class I Well Deep Injection

In 1993, EFI commissioned Simon Hydro-Search of Golden, Colorado, to perform and report on the results of an engineering/hydrogeologic evaluation and feasibility study concerning utilization of Class I wells for deep injection disposal of in-situ mining wastes. The hydrogeologic study was carried out in two parts, Phases I and II:

Phase I:

Generalized Evaluation of hydrogeologic/engineering criteria including TDS/water quality, injection/confining zones characteristics: porosity, permeability, thickness, etc. of potential host receiver zones and screening and selection of best suited existing well(s) for potential conversion.

Phase II:

Specific Evaluation of target zone(s) and well(s) incorporating operational parameters such as injection rates, injection pressures, injection volumes, etc. and pressure buildup/area of review calculations.

The engineering and hydrogeologic evaluation of suitable subsurface geologic units was conducted with a focus on identifying the optimum geologic units to serve as injection zones for waste streams from the Reno Creek Project. In addition, the evaluation sought to identify operating and abandoned oil and gas wells and possibly oil/gas exploration holes that could be converted to a Class I disposal well(s).

Upon completion of the Phases I and II, a decision was made by EFI to proceed with the Class I deep well disposal option and preparation and submittal of a Class I permit application to the appropriate state (WY DEQ), and/or federal agencies (EPA, NRC).

6.2.2.3 Permit Application

In March 1998, IUC submitted to the WY DEQ and the NRC an application for "Reno Creek In-Situ Leaching (ISL) Project, Campbell County, Wyoming: Permit Application For Two Class I Non-Hazardous Waste Injection Wells". The following details the application:

The locations of the two proposed deep injection wells are shown on Figure 6-2 above. As noted, both of these locations fall outside of the present Property boundary described herein. However, proposed well IW-1 was to be located on lands that are controlled by Strathmore by way of private mineral lease. This private mineral lease is not part of the Reno Creek Property as described herein. The following details the locations of IUC's proposed injection wells:

> Reno Creek IW-1: Sinadin #1 is an existing dry and abandoned well located 660 feet FSL (from south line) and 1,982 feet FEL in the SW ¼ SE ¼, Section 31, T43N, R73W, and will be converted to a Class I injection well.
>
> Reno Creek IW-2: This well will be drilled as a new Class I injection well and will be located 1,000 feet FNL and 1,600 feet FEL of Section 29, T43N, R73W. The need for IW-2 will depend on the test and performance results obtained from IW-1 and plant disposal capacity requirements.

The following Table 6-4 summarizes the depths, thicknesses, rock properties, and pressure values for the proposed receiver units (Parkman and Teapots Sandstones of the Mesaverde Group: See Figure 7-1 below):

Table 6-4 Receiver Units' Parameters for Deep Injection Wells

Parameters	Parkman unit	Teapot unit
Lithology	Sandstone	Sandstone
Depth to Top of Sand	7,870 ft	7,582 ft
Depth of Bottom of Sand	8,390 ft	7,755 ft
Gross Thickness (ft)	520 ft	173 ft
Average Porosity (%)*	17 %	15 %
Average Permeability (md)**	8.1 milidarcies	4.7 milidarcies
Water Saturation (%)	89 %	100 %
Initial Pressure (psi) at Mid-Point of Perforations***	2,940 psi @ 7,947 ft	2,825 psi @ 7,636 ft

Note: Depths are presented as feet below Kelly Bushing and as Mean Sea Level elevations.
* For porosity greater than 8%.
** Estimated from porosity and induction logs.
*** Initial reservoir pressure estimated at the midpoint of each sand from offset Drill Stem Test data.

In addition to the above receiver units' parameters, the following details the confining shales that over/underlie the potential receiver units:

Table 6-5 Confining Zones for Proposed Injection Wells

Confining Layer	Overlying Lewis Shale	Underlying Steele Shale
Lithology	Shale	Shale
Depth to Top of Shale	6,370 ft	8,390 ft
Depth at Bottom of Shale	7,164 ft	8,915 ft
Gross Thickness (ft)	434 ft	525 ft
Water Saturation (%)	100 %	100 %

6.2.3 Cultural Resource Studies

In 1993, EFI commissioned Frontier Archaeology of Worland, Wyoming, to study and prepare a report concerning the cultural resources of the Reno Creek Project (Lieb and Rosenberg, 1993). The findings of the cultural study were submitted to the WY DEQ and the NRC as part of EFI's mine permit application documents. A review of this document suggested the cultural findings would not impede development of the Reno Creek Property for a proposed in-situ recovery operation.

6.2.4 Wildlife Baseline Studies

In 1993, EFI commissioned Powder River Eagle Studies Inc., of Gillette, Wyoming, to study and prepare a report concerning the wildlife resources of the Reno Creek Project (PRESI, 1993). The findings of the wildlife and threatened/endangered species study were submitted to the WY DEQ and the NRC as part of EFI's mine permit application documents. The following details the findings of the PRESI study:

"It is unlikely the in-situ uranium mining will have any significant impact on wildlife resources in the vicinity of the Reno Creek permit area. Although well field drilling and maintenance activities may temporarily displace some animals, those actions will not result in large-scale or long-term surface disturbance. At any given time, activities associated with the mine will be limited to approximately 300 acres."

6.3 Historical Mineral Resource Estimates and Their Reliability

Historical resource estimates for the Reno Creek Property are available and tabulated (Table 6-6) below. Because of the nature of the current landownership, and the sinuosity of the roll-fronts, these historical resource estimates include those portions of the ore bodies beneath adjacent lands not controlled by Strathmore (see Figure 6.3 below). Therein, it is difficult to separate the historical resources and assign ones to just Strathmore's lands. Regardless, the historical estimates indicate that significant mineralization is present at the Reno Creek Property controlled by Strathmore and that it, with the significant historical development/permitting activities described herein, justifies future exploration and development work to bring the Property to production.

The following historical resource estimates were taken from a 1991 EFI document (unpublished) and the assigned mine units are shown on Figure 6-3. The resource estimates for the mine units were based on the following parameters:

Minimum Grade	0.02% U_3O_8
Minimum Ore Thickness	2.0 feet
Minimum Internal Waste Thickness	2.0 feet
Minimum Depth below Static Water Level	20.0 feet
Density	17 ft^3/ton
Disequilibrium Ratio	1.0

- A total GT product per hole of greater than 0.60 was used to determine the mine units' reserve boundaries by contouring.

- Areas of influence per drill hole were determined by the polygonal resource method inside of the 0.60 GT reserve boundary.

- Addressability and wellfield design criteria were applied where the mineral: 1) exceeds the specified GT cutoff; 2) is not deposited in a low permeability or lithologically flow-inhibiting environment; 3) is continuous enough both horizontally and vertically to include in a wellfield design, and 4) has at least 50 feet of hydrologic head above the ore zones.

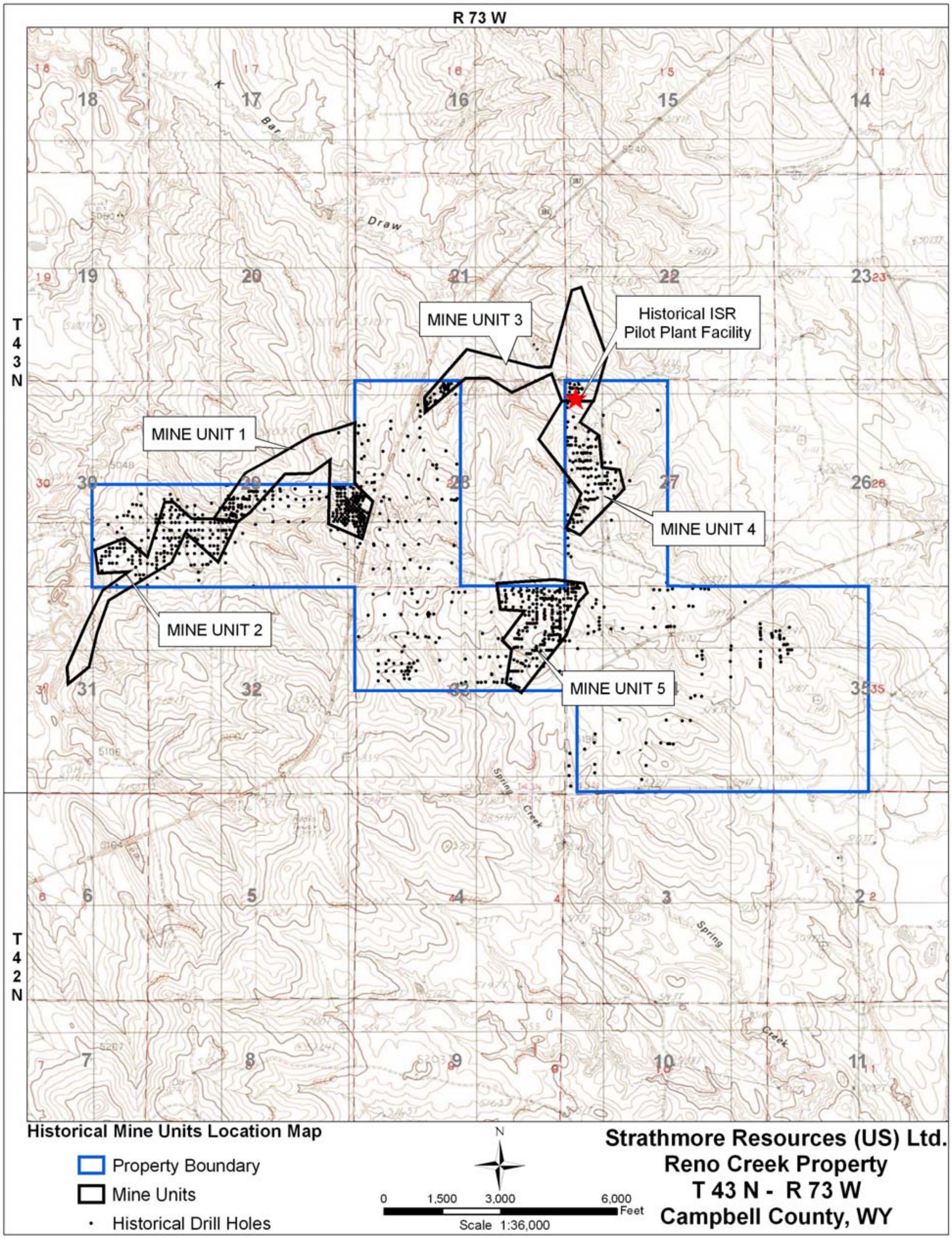
The resource calculation sheets used and generated by EFI were not available for examination; only the final resource totals calculated as shown in Table 6-6 were found.

Table 6-6 Historical Resource Estimates

Mine Unit	Tons	Ave. Grade %	Pounds	Ave. Thickness	Ave. GT
Mine unit 1	1,021,860	0.084	1,711,681	17.00	1.42
Mine unit 2	267,168	0.084	449,412	15.78	1.33
Mine unit 3	627,592	0.067	846,136	20.63	1.39
Mine unit 4*	n/a	n/a	n/a	n/a	n/a
Mine unit 5	703,347	0.082	1,153,173	16.48	1.35
TOTAL	**2,619,967**	**0.079**	**4,160,402**	**17.61**	**1.39**

* Resource estimates for Mine Unit 4 were not found in the database.

Figure 6-3 Reno Creek Property: Historical Mine Units Location Map



6.4 Production History

There has been limited historical production (~200,000 lbs) in the greater Reno Creek Property area, consisting of shallow open pits and adits mined during mostly the 1950s. The nearest full-scale production facility is located 25 miles to the northwest at the Irigaray/Christensen Ranch operations (see Figure 4.1). The Christensen Ranch facility, an in-situ recovery operation, is currently idled but the operator, AREVA of France, is considering bringing the operation back on line in the near future. The Smith Ranch facility of Cameco, also an in-situ recovery operation, is located approximately 30 miles south of the Reno Creek Property (see Figure 4.1). This operation produced approximately 1.5 million pounds of uranium concentrate in 2006 and is the only operating uranium mine in the state of Wyoming.

7. GEOLOGIC SETTING

7.1 Regional Geology

During Paleozoic time the greater area of northeastern Wyoming lay beneath shallow marine waters overlying the Continental shelf. Throughout this time, gentle subsidence of the shelf and intermittent uplifts were accompanied by the deposition of marine limestone, shale and sandstone.

Periods of mild oceanic regression and transgression began in the region during the late Paleozoic and increased in the Mesozoic. These cycles resulted in the deposition of thin layers of marine sand and carbonates interbedded with coarse-grained, non-marine clastic sediments.

Following this long period of stability during the Mesozoic, tectonic forces of the late Paleocene to early Eocene Laramide orogeny (mountain building) began to affect the western continental margin and modify the landscape of central and eastern Wyoming (Seeland, 1988). As a result of these tectonic forces, the Powder River Basin was the site of active subsidence surrounded by orogenic uplifts (Big Horn Mountains, Laramie Mountains, Black Hills, etc). The Tullock Member of the Fort Union (see Section 7.2 below) marks the first evidence of basin downwarp and synorogenic filling.

Throughout the Paleocene the Big Horn, Laramie and Black Hills surrounding the Powder River Basin continued to uplift. Erosion of these highlands sent clastic material which now constitutes upper members of the Fort Union Formation into the basinal flood plain. Thick sequences of mudstone in the Lebo Shale Member around the margins of the basin indicate a typical Laramide depositional environment. The Laramide orogeny was near its peak activity in Tongue River time as indicated by a marked increase in the formation of coarse sandstones. A period of deformation and erosion accompanied by westward tilting of the basin preceded a final Laramide surge and gave rise to clastic rocks of the Wasatch Formation, the uranium-bearing host of interest in this report.

During the Oligocene, local volcanism in ranges surrounding the basin resulted in tuffaceous claystone, sandstone and conglomerate of the White River Formation. Downwarping of the basin was completed in early Cenozoic time and subsidence of the enclosing mountain ranges after deposition of the White River caused local tilting of these and older beds toward the mountains.

Throughout the Miocene, most of Wyoming was an upland over which windblown sands were being deposited. Erosion prevailed throughout most of the region during the Pliocene but locally tuffaceous clay and fresh water limestone were deposited in low lying, regional lakes.

In late Pliocene time the region again underwent uplift and, since the Pleistocene, has been undergoing exhumation. Most of the White River Formation and much of the Wasatch Formation has been removed. Remnants of the White River conglomerate resisted erosion to generate the high mesas of the Pumpkin Buttes. Concurrently, upper Cenozoic and Quaternary gravels were deposited on terraces, flood plains and valley floors. More recently, Holocene alluvium has filled channels eroded in the older rocks and windblown sand has formed dunes, predominantly in the southwest corner of the basin.

7.2 Regional Sedimentary Lithology

The Powder River Basin contains a sequence of rock ranging in age from the Precambrian to Recent. The Precambrian igneous and metamorphic rocks are exposes in the mountains surrounding the Powder River Basin and progressively younger sedimentary rocks overly and thicken toward the center of the basin away from the mountain fronts. Bedrock exposed within the basin and underlying the project area consists of sediments of late Cretaceous and Cenozoic in age. The Cretaceous rocks include, from older to younger, the Pierre Shale, the Fox Hills Sandstone and the Lance Formation; the Cenozoic rocks consist of the Fort Union Formation of Paleocene age, the Wasatch Formation of late Paleocene to Eocene age, and the White River Formation of Oligocene age. Younger Pleistocene and Holocene deposits of unconsolidated clay, silt, sand and gravel occur as terrace deposits and valley-fill alluvium along stream channel courses. Figure 7-1 below presents a stratigraphic column of the sedimentary deposits underlying the Powder River Basin, from the Mississippian to Recent.

The Lance, Forth Union, Wasatch and White River formations are all known to contain economic amounts of uranium mineralization in Wyoming. While the Wasatch Formation is the only sandstone of interest at Reno Creek, the following details the lithology of the other formations as well.

The Lance Formation, lying unconformably atop older, folded-faulted Mesozoic deposits, has been described as 1,000 to 3,000 feet of thinly-bedded, brown to gray sand and shale. The upper part contains some dark carbonaceous shale and thin coal seams.

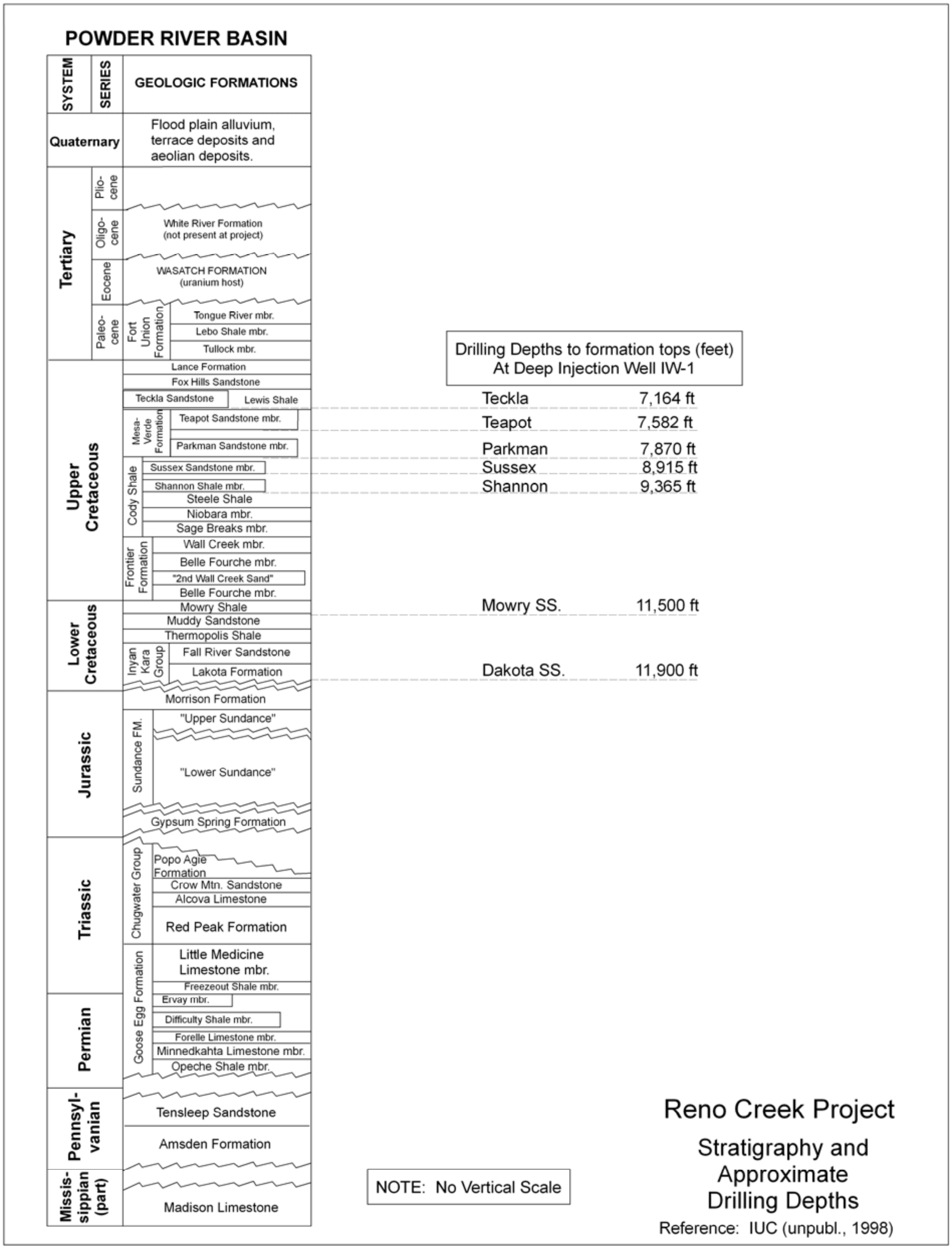
The Fort Union Formation conformably overlies the Lance Formation. The Fort Union contains three members; the Tullock (lower), the Lebo Shale (middle) and the Tongue River (upper). The Tullock Member consists of light gray to tan, massive to thin sandstone; dark gray and brown siltstone, shale, carbonaceous shale and thin coalbeds. It ranges from about 950 to 1,300 feet thick with a general thickening toward the southwest area of the Powder River Basin. The Lebo Shale Member is predominantly medium to dark shale and claystone with varying amounts of interbedded siltstone, light gray, fine-grained to conglomeratic sandstone, brownish carbonaceous shale and thin to thick coalbeds. The Tongue River Member is about 800 feet thick and consists of interbedded light-gray fine-grained sandstone, siltstone, sandy shale and coalbeds.

The Wasatch Formation unconformably overlies the Fort Union Formation and is the principal surface rock in the greater Reno Creek area. The formation is upwards of 1,600 feet thick in the vicinity of the Pumpkin Buttes to the west of the project area, but elsewhere less than 1,000 feet are preserved in the basin. The Wasatch consists of predominantly yellowish-gray, fine-grained to conglomeratic, arkosic sandstone interbedded with siltstone, carbonaceous shale, gray clay-shale, and numerous coal seams. The sandstones of the lower Wasatch Formation are the host materials for economic sources of uranium mineralization at the Reno Creek Property.

The White River Formation caps Pumpkin Buttes to the west of the project area and is exposed elsewhere in the extreme southern part of the Powder River Basin but has been removed from the remainder of the basin by erosion. The White River consists of a basal conglomerate up to 60 feet thick made up of igneous and metamorphic rock pebbles and cobbles, overlain by brown, pink, gray and green tuffaceous siltstone, sandstone and conglomerate beds with local beds of limestone and volcanic tephra. The formation may have been as much as 1,000 feet thick, but only 500 feet remains where present.

The youngest materials in the region are Quaternary alluvial sands and gravel present in the largest river valleys. In addition, gravel deposits cap many hills and ridges in the greater area. Much of this material appears to be residual in nature, eroded from once overlying conglomerate of the White River and Wasatch formations.

Figure 7-1 Reno Creek Property: Powder River Basin Stratigraphic Column



7.3 Local and Property Geology

The host for known mineralization at the Property is sandstones of the lower Wasatch Formation of Eocene age. The Wasatch Formation is a fluvial sedimentary sequence deposited during a period of wet, subtropical climatic conditions (Seeland, 1988). The major source of the sands was from highlands to the south and southwest that were uplifted by the Laramide tectonic forces. Sediments were deposited by meandering streams which deposited channel and point bar sediments that fine upwards through the sequence. In addition to the medium grained sands, there are lesser amounts of overbank deposits of clay and siltstones, carbonaceous shale, and thin coal seams. The Wasatch Formation at Reno Creek lies nearly horizontal, dipping less than ½° to the northwest.

Sands hosting the uranium mineralization are commonly trough crossbedded, graded sequences fining upward from very coarse at the base to fine grained at the top, representing sedimentary cycles from five to twenty feet thick. Stacking of depositional cycles resulted in sand bodies up to 200 feet thick.

Alteration of host sandstones in the Reno Creek area was produced by the down-gradient movement of oxidizing, uranium bearing groundwater solutions. Uranium mineralization was precipitated by the reducing action of pyrite and carbonaceous materials in the gray, reduced sands. The host sandstones, where altered, exhibit hematitic (pink, light red, brownish-red, orange-red) and limonitic (yellow, yellowish-orange, yellowish-brown, reddish-orange) alteration colors which are easily distinguished from the unaltered medium-bluish gray sands. Feldspar alteration, which gives a "bleached" appearance to the sands from the chemical alteration of feldspars into clay minerals, is also present. Limonitic alteration dominates near the "nose" of the roll fronts. The thickest barren portions of the altered sands are usually brownish-red in color. The uranium mineralization is contained in typical Wyoming roll-front deposits that are highly sinuous in map view. The uranium deposits generally do not exceed 30 feet in thickness at the mineralized "nose" area.

Carbon trash is occasionally present in both the altered and reduced sands. In general, the unaltered sands have a greater percentage of organic carbon (~0.2%) than the altered sands (0.13%) in selected cores (historical data) analyzed. Carbon in unaltered sands is shiny; while it is dull and flaky in the altered sands.

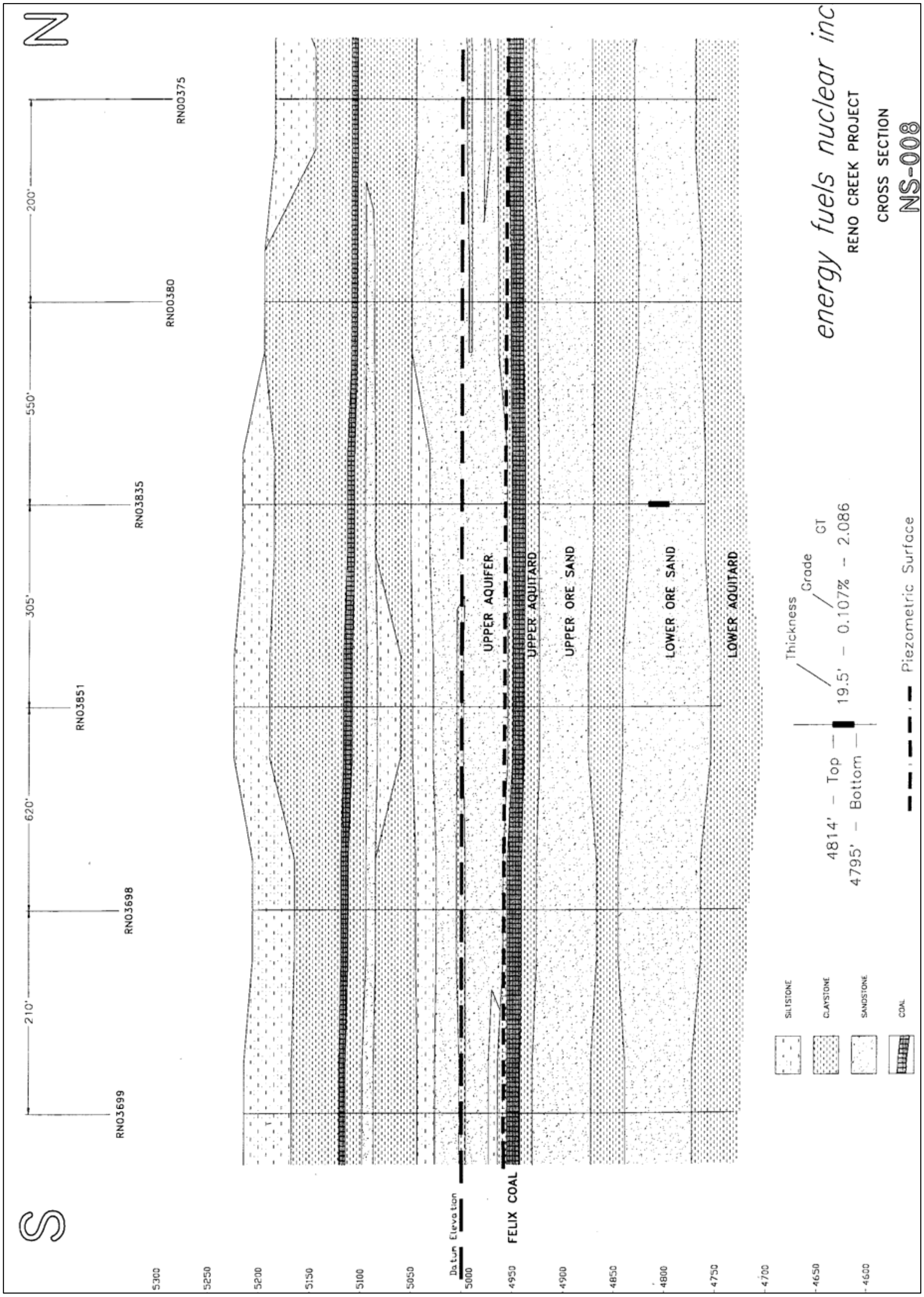
7.3.1 Local Sedimentary Package

The sedimentary deposits lying beneath the Property are chiefly flood-plain and stream channel materials, but there are also lesser amounts of lacustral and volcanic tuffaceous materials. These sedimentary deposits dip gently (½°) to the northwest. The sandstones of the Wasatch Formation are the host rocks for economic important quantities of uranium mineralization at the Reno Creek Property.

The sandstones of the Wasatch were deposited during the period following uplift of the mountain ranges surrounding the Powder River Basin and are composed of debris eroded from these highland areas. Deposited in basin-margin alluvial fans, main-basin stream channels, lakes, flood plains, and swamps, the Wasatch Formation varies in thickness from a few feet at the basin margins to over 1,500 feet in the central part of the basin. Depositional processes were influenced by the Eocene climate, which was mostly humid, warm-temperate to sub-tropical in nature (Seeland, 1976, 1988).

The Wasatch is upwards of 1,600 feet thick in the vicinity of the Pumpkin Buttes to the west of the project area, but elsewhere less than 1,000 feet are preserved in the basin. The Wasatch consists of predominantly yellowish-gray, fine-grained to conglomeratic, arkosic sandstone interbedded with siltstone, carbonaceous shale, gray clay-shale, and numerous coal seams. Figure 7-2 below depicts a typical cross section (north-south) through the sedimentary package lying beneath the Property.

Figure 7-2 Reno Creek Property: Typical Cross-Section (north-south)



7.4 Hydrology

Specific hydrogeologic conditions are necessary for a successful in-situ recovery project. The uranium deposits must be located in a permeable environment below the water table and the host sand must be hydrogeologically isolated from overlying and/or underlying aquifers.

A hydrogeologic study was conducted during the spring and summer, 1982, in the Reno Creek area by RME and the results detailed in an unpublished report titled "Hydrogeologic Integrity Evaluation of the Reno Creek Project Area, Campbell County, Wyoming: Volumes I and II: November 1982". The purpose of the study was to evaluate the characteristics of aquifers and aquitards in the area and to define potential solution mining problems that might result from incomplete production zone confinement of the extraction lixiviant. In particular, the study was directed at investigating the "self-sealing" capabilities of naturally occurring clays in the area to ascertain whether or not exploration drill holes might present avenues for vertical migration of fluids during extraction operations.

A total of 16 pump tests were run in the Reno Creek area during the hydrogeologic study. Both "confined" and "unconfined" aquifer characteristics were verified. No evidence of vertical communication between the host aquifer and an upper aquifer was discovered in the confined aquifer area. Therefore, it appears that the old exploration holes were indeed sealed by natural swelling of clay units and will not provide avenues for lixiviant to migrate outside the host formation during in-situ recovery operations. A thin intermittent sandstone unit just below (10-20 feet) the host sand is hydraulically connected and should, therefore, be treated as one hydrologic unit with the overlying host sand. Due to high interstitial clay content, this lower sand exhibits aquifer characteristics of a mudstone.

Hydrology test results indicated that the ore sandstone has good permeability and will be amenable to ISR extraction. Hydraulic conductivity values ranged from 7 and 31 gallons/day/ft^2 with a mean of 18 gallons/day/ft^2. The storage coefficient values ranged between 1.0×10^{-3} and 5.7×10^{-6} having a mean of 2.9×10^{-4}. The 1982 pump tests indicate there are no hydrologic fatal flaws that would compromise an ISR operation at Reno Creek.

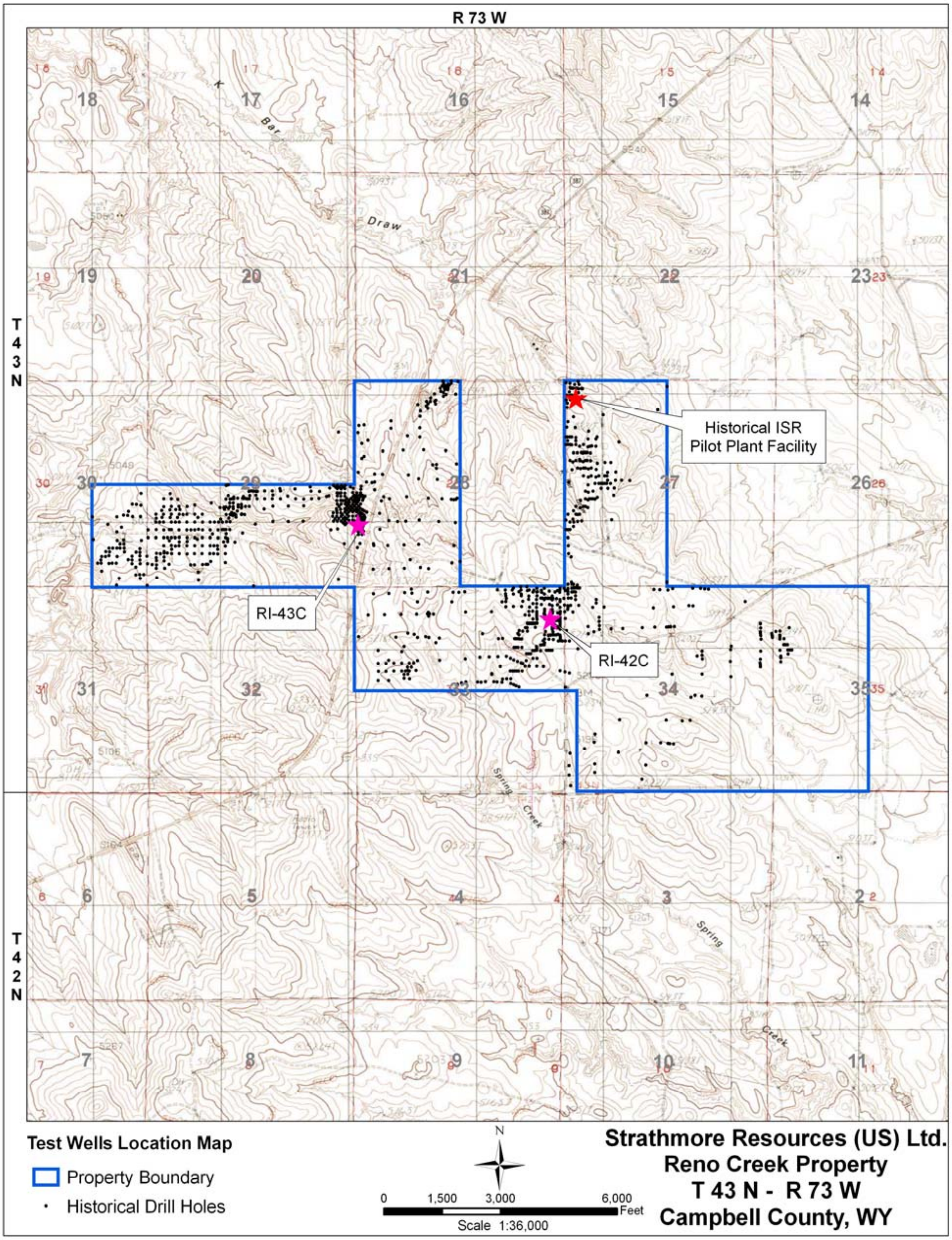
The water quality of Reno Creek was also tested at this time. The following are the ranges of the major constituents based on samples from regional monitor wells:

Table 7-1 Water Quality: 1982 Test

Constituent	Minimum	Maximum
pH	7.3	9.0
HCO_3/CO_3 (mg/l)	98	537
Cl (mg/l)	5.2	42
SO_4 (mg/l)	326	1,875
Na (mg/l)	15	370
Ca (mg/l)	25	465
TDS (mg/l)	520	3,307
U_3O_8 (mg/l)	.001	1.10

In 1993, EFI commissioned PRI Environmental Inc, of Denver, Colorado, to install wells and perform pump tests on the Reno Creek Property. The purpose of this work was to estimate the maximum sustainable flow rate and the water quality of the production aquifer of the proposed Reno Creek in-situ uranium project. Two well locations (RI-42C, RI-43C) were selected and are shown on Figure 7-3 below.

Figure 7-3 Reno Creek Property: Test Wells Location Map



Core samples were collected from each drill hole and frozen for future agitation leach testing. The wells were screened in the production zone. A single well aquifer pump test was conducted on each well to estimate the maximum sustained flow rate. The author believes that the pump test wells were installed in a professional manner and that the data is considered relevant and of good quality. The following is a synopsis of the study's findings:

Well RI-42C was completed to a depth of 400 feet with a screened interval of 19.4 ft from 338 to 357.4 ft. The hole was cored from 330 to 366.5 ft. The production zone aquifer is unconfined in the area of the well. The pump test was conducted at a constant discharge rate of 20 gpm. Analysis of the time-drawdown data indicates a transmissivity of 3,770 gal/day/ft and a hydraulic conductivity of 51 gal/day/ft^2. It was estimated that the maximum sustainable flow rate for this well would be approximately 20 gpm.

Well RI-43C was completed to a total depth of 460 feet with a screened interval of 19.4 ft from 406 to 425.4 ft. The hole was cored from 386 to 426 ft. The production zone aquifer is confined in the area of the well. The pump test was conducted at a constant rate of 15 gpm. Analysis of the time-drawdown data indicates a transmissivity of 1,520 gal/day/ft and a hydraulic conductivity of 17 gal/day/ft^2. It is estimated that the maximum sustainable flow rate for this well will be between 20 and 25 gpm.

Analyses of groundwater samples from these wells indicate that the classification of the water quality is Class III – Livestock Use. The total dissolved solids (TDS) content of the water sample for well RI-42C was 1,339 mg/l and the sulfate concentration is 891 mg/l. The sample from well RI-43C had a TDS value of 589 mg/l and a sulfate concentration of 355 mg/l.

As part of these two pump tests, Hydro-Engineering of Casper, Wyoming, detailed (1993 unpublished report "Appendix 10: Hydrology of the Reno Creek Permit Area, Campbell County, Wyoming") depths to the groundwater table in the two wells previously drilled:

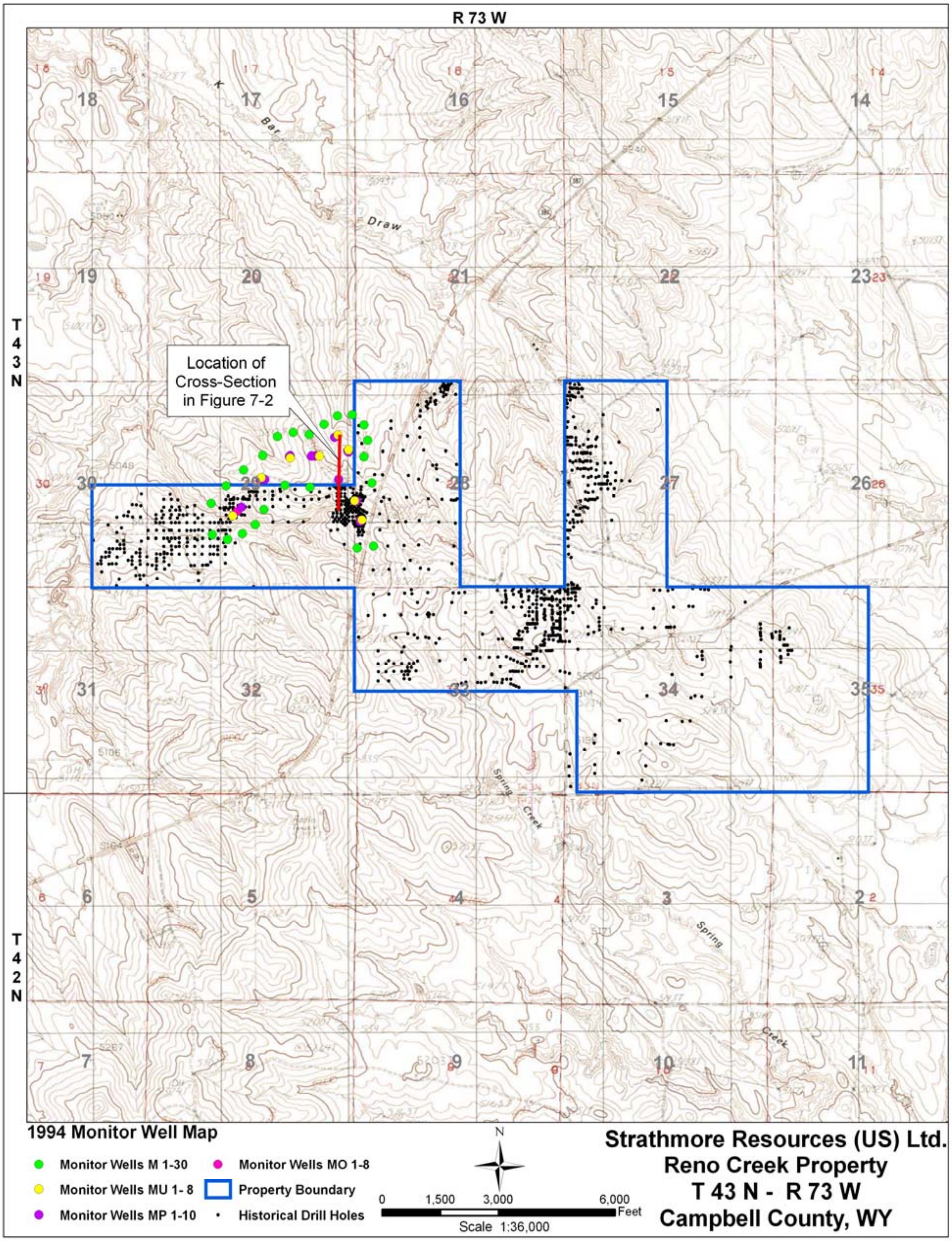
Well	Ground Elevation (amsl)	Depth Drilled	Top Sand	Bottom Sand	Sand Thick	Screen Interval	Depth to Water (6/93)	Static Water Level
RI-42	5,242.56	400.0	5,142	5072	70.0	338-357	295.52	4,949.34
RI-43	5,234.73	460.0	4,870	4777	93.0	406-425	279.28	4,956.55

An additional 24 wells were also tested by Hydro-Engineering. Static water level varied from 4,937 feet amsl to 5,072 feet amsl, with depths varying from shallow (36 feet) to a high of 321 feet, depending upon the varying topography; shallow (<100 feet) beneath valley floors and deeper (>100 feet) beneath adjacent ridge tops. The mineralized ore sand lies completely beneath the local water table.

7.4.1 1994 Monitor Well Installation

In 1994, as part of their Mine Unit 1 mining plans, EFI proposed installing 30 perimeter wells (M 1-30) to monitor horizontal excursion outside of the mining unit, 8 wells (MO 1-8) to monitor vertical excursion into the overlying aquifer, 10 wells (MP 1-10) to monitor production zone baseline qualities, and 8 wells (MU 1-8) to monitor conditions in the sand above the upper aquitard. The locations of the monitor wells and that of the cross-section depicted in 7-2 above is shown on Figure 7.4 below. Those monitor wells that intercepted ore grade mineralization were utilized in the new resource calculations presented below in Section 17.

Figure 7-4 Reno Creek Property: 1994 Monitor Well Location Map



8. DEPOSIT TYPES

Deposits at the Reno Creek Property, and within the Pumpkin Buttes Uranium District as a whole where extensive drilling, research and some mining production have occurred, are sandstone-type uranium deposits. Sandstone-type deposits are irregular in shape, roughly tabular and elongate, and range from thin pods a few feet in width and length, to bodies several tens or hundreds of feet in length. The deposits are roughly parallel to the enclosing beds, but may form rolls that cut across bedding. Roll-front deposits are typified by a C-shaped morphology, in which the outside of the "C" extends down-gradient (direction of historical groundwater flow) and the tails of the "C" extend up-gradient. The tails are typically caught up in the finer sand deposits that grade into the over and underlying mudstones, whereas the heart of the roll-front (ore-grade mineralization) lies within the more permeable and porous sandstones toward the middle of the fluvial deposits.

9. MINERALIZATION

9.1 Summary

In the Pumpkin Buttes area, almost all important economic uranium deposits occur in the medium- to coarse-grained sand facies of the Wasatch Formation, and within the lower portion of the formation at the Reno Creek Property. The uranium mineralization occurs as interstitial filling between and coatings on the quartz sand grains in irregular blanket-like bodies at the geochemical boundary or reduction-oxidation (redox) front of ancestral and current groundwater systems. The main ore minerals in the unoxidized zone are coffinite and pitchblende (a variety of uraninite). Low concentrations of vanadium (~100 ppm) are associated with the uranium deposits. Only trace amounts of molybdenum and selenium are found. Scattered lenses of calcium carbonate cement occur throughout the area, but only rarely contain anomalous uranium.

Uranium mineralization at the Reno Creek Property has accumulated in c-shaped forms or roll-fronts at the edge of oxidized sandstone tongues. The primary solution-front deposits occur within sandstones, interbedded with lenses of siltstone and claystone. Even though the top and bottom limbs are mineralized, the uranium content rapidly diminishes in the direction of the altered ground. The thickness of the ore is controlled by the thickness of the sand bed containing the solution-front. The maximum dimensions of an ore body are at the leading edge of the solution-front where the altered ground has ballooned out and forms a protrusion down gradient of the original depositing groundwater flow direction (Anderson, 1969).

While in solution, uranium is readily transported and remains mobile as long as the oxidizing potential of the groundwater is not depleted. When the dissolved uranium is introduced to a reducing environment it is precipitated and deposited at the interface between the oxidizing and reducing environments known as the redox front. The redox front will progress down gradient as new influxes of oxygenated water redissolve and transport the uranium. Although groundwater flow through porous sands can be quite fast, it is believed the progression of the redox front is several magnitudes slower.

The Reno Creek Property lies within the southeastern extent of the Pumpkin Buttes Uranium District. Fluvial deposits and uranium mineralization at the Property are similar to others found in the District. The uranium deposits formed when oxygen-rich groundwater flowed through the granitic-rich arkosic host sediments, dissolving the uranium from matrix into solution. To a lesser extent, the dissolution by meteoric waters of uranium from inter-formational and overlying tuff beds of the White River Formation was possibly a secondary uranium source into the Wasatch-hosted roll-front deposits.

9.2 Geologic Controls

The Eocene Wasatch Formation is ~500 ft thick in the Property area, and the uranium mineralization is confined to the sandy facies and clay/sand boundaries in the lower part of the formation. The host is a north-south trending fluvial channel which contains discontinuous clay lenses. Uranium occurs in sinuous pods along the channel margins or in the interior abutting the clay lenses. Ore is generally found within thick sand units (~20-100 ft thick), extending from depths of ~170 to 450 ft, and occurring within thick accumulations (up to 30 feet thick) in the more permeable horizons of the sands. Thin low grade residual deposits are found in the less permeable zones where they are protected from oxidation.

Figure 9-1 below shows the results of the down-hole logging of Drill hole RN-3937 and the lithologic interpretation of the strata encountered (RME, unpublished data, 1994). Figure 9-2 below shows an idealized ore body (roll-front) map of the Property and the location of Drill Hole RN-3937 detailed in Figure 9-1.

Figure 9-1 Reno Creek Property: Drill Hole RN-3937 Lithologic Log Interpretation

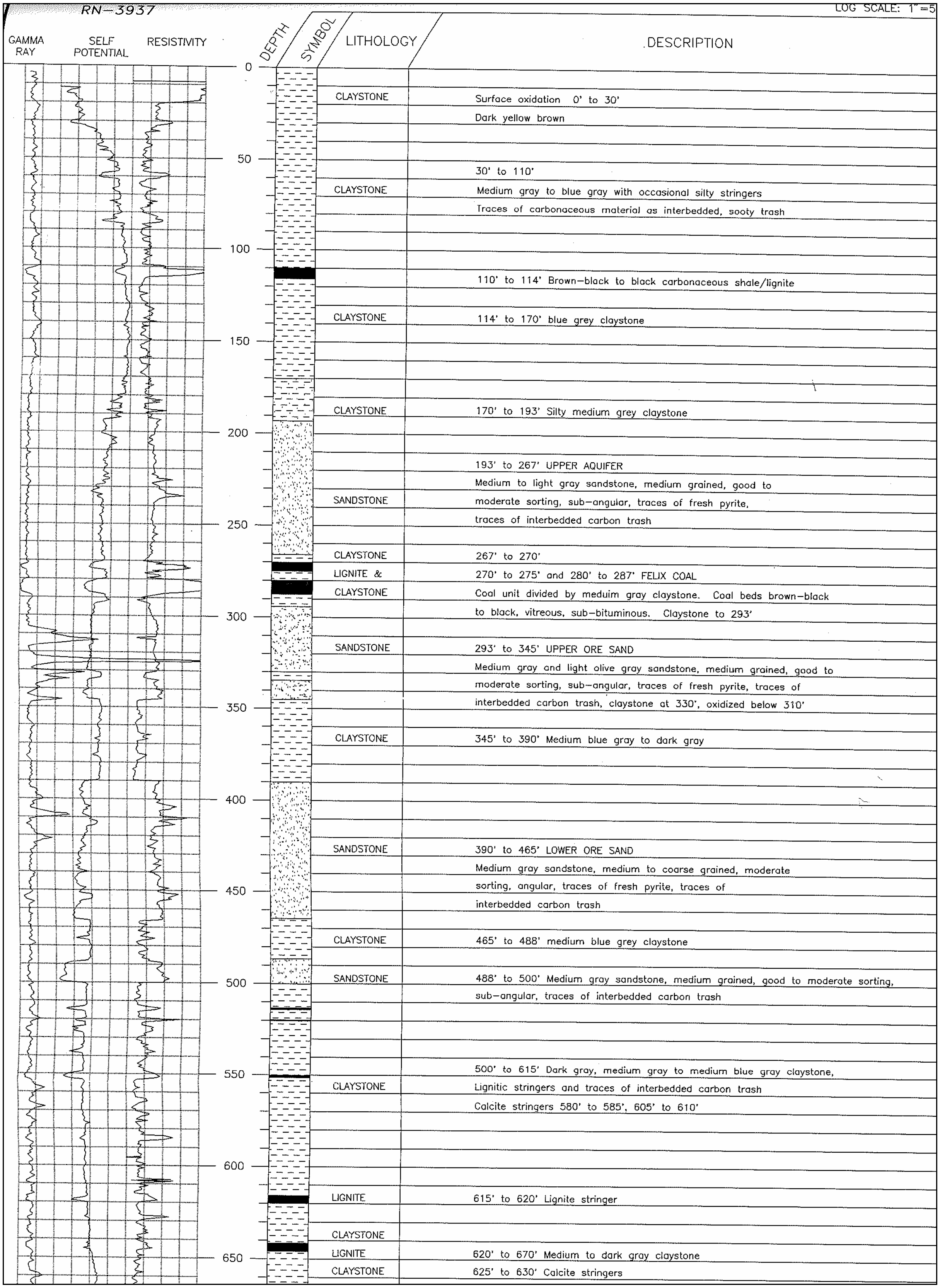
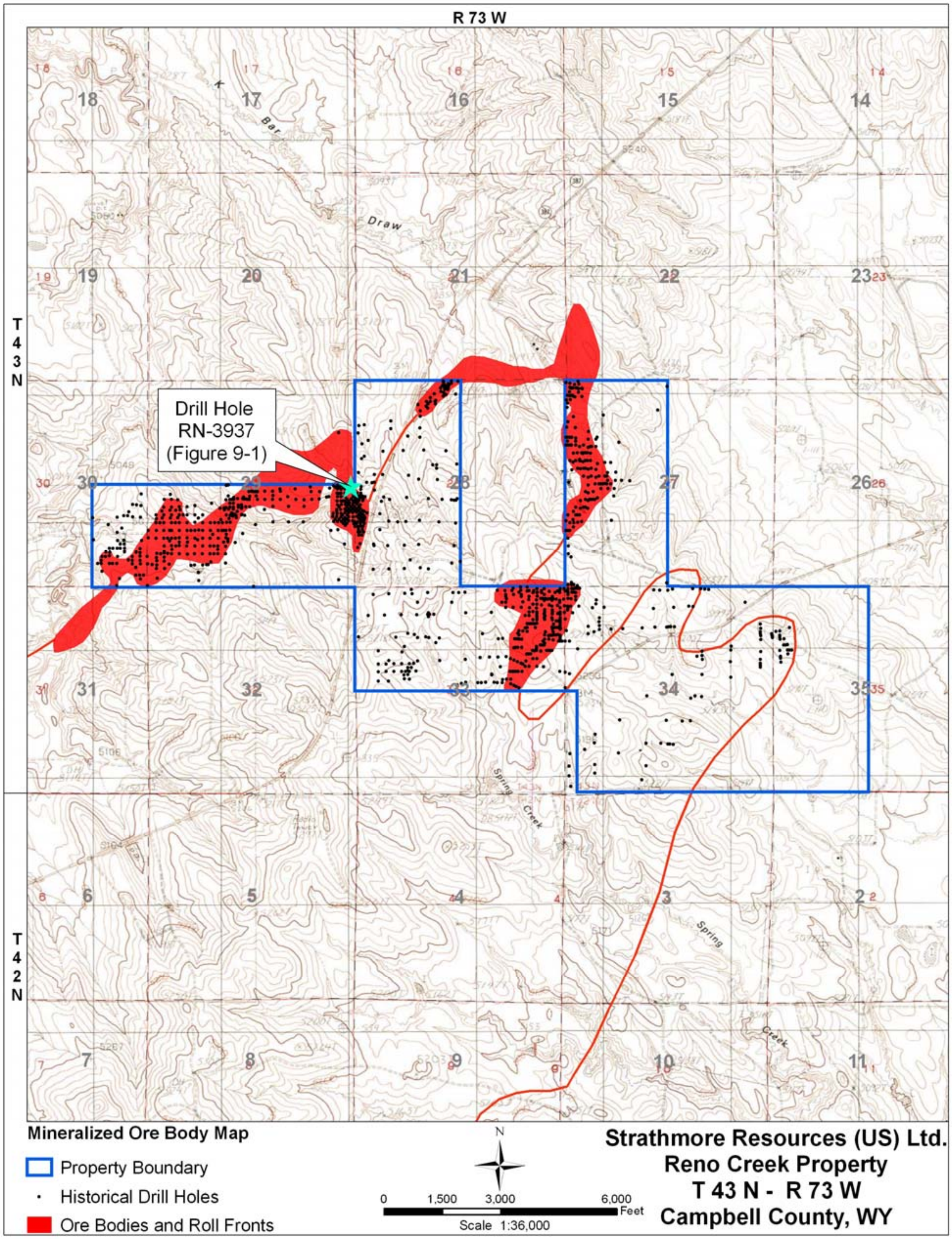


Figure 9-2 Reno Creek Property: Mineralized Ore Body Map



10. EXPLORATION

Exploration methods for sandstone-hosted uranium deposits differ from those methods for other metals. The uranium deposits at the Reno Creek Property do not outcrop at the surface and thus require exploratory drilling for discovery and grade/thickness determinations. Common practice in a virgin area is to drill wide-spaced, random holes to gather geologic information, including alteration bleaching, traces of mineralization and sandstone development. This information, along with the gamma signature from the logging probe, is used to guide the location of subsequent bore holes.

Strathmore has not yet conducted its own exploration of the Property. The relevant exploration data for the current Property is the historical drill data as previously discussed. This data was collected by the previous mining operators and their consultants using standard exploration and development drilling over several years time. The data consists of drill hole location maps, drill hole gamma logs, drill hole intercept data, historical resource estimate reports, and a plethora of documentation concerning the in-situ recovery testing and mine permitting documents/correspondences submitted to, and received from, the WY DEQ and the NRC. The data from the historical exploration and development programs is considered reliable as discussed in this report under Sections 6 and 16.

11. DRILLING

Common practice in the Pumpkin Buttes Uranium District was to drill bore holes using 4 ¾ to 5 ¼ - inch diameter bits by conventional rotary drill rigs circulating drilling mud. The cuttings were typically collected over 5 ft intervals and laid out on the ground in rows of 20 samples (100 ft) by the driller. The site geologist examined the cuttings in the field to determine lithology and geochemical alteration.

Upon completion of the drilling, the bore holes were logged, from the bottom of the hole upward, with a gamma-ray, self-potential, and resistivity probe by either a contract logging company or possibly a company-owned logging truck. In some of the drill holes, after running the log, a drift tool (film-shot) was lowered into the hole for survey at 50 or 100 ft intervals to record drilling deviations from vertical. Deviations were typically less than 1-3º, and since the dip of the beds is very gentle (½º), the mineralized intercepts recorded represent essentially true thickness.

At least 5,860 drill holes were previously completed by RME, and subsequent operators, on what was then a much larger land package than the current Reno Creek Property. On that portion of the Reno Creek Property controlled by Strathmore and presented herein, at least 1,083 bore holes were completed (see Figure 6-1 above) and are used here to calculate the new mineral resource estimates (see section 17).

12. SAMPLE METHOD AND APPROACH

12.1 Gamma-ray Logs

All of the mineralized intercepts for the historical resource estimates were calculated by the previous operators from the geophysical logs developed from probing of each drill hole. Each log consisted of gamma-ray, self-potential, and resistivity curves plotted by depth. The self-potential and resistivity curves are used to define bedding boundaries and for correlation of sandstone units and mineralized zones between bore holes. The equivalent U_3O_8 content from the gamma logs were calculated by geologists or engineers using the industry-standard method developed by the Atomic Energy Commission (now the Department of Energy):

> For zones greater than 2 feet thick, first pick an upper and lower boundary by choosing a point approximately one-half height from background to peak of gamma anomaly. Then determine the counts per second (cps) for each half-foot interval, convert the cps to GT (grade times thickness) using the appropriate k-factor for the specific logging unit used, and divide by thickness to obtain %U_3O_8 (eU_3O_8).

12.2 Disequilibrium

Disequilibrium defines the disparity between uranium and its naturally occurring radioactive daughter products. This disparity occurs by either mobilization of the readily soluble uranium from its original site of deposition, leaving the less soluble daughter products behind or from a lack of significant time (approx. 1 million years) for the daughter products to accumulate and reach equilibrium.

Disequilibrium is an important issue because of the way uranium concentration is measured in drill holes. Uranium is measured indirectly by measuring the amount of gamma-emitting daughter isotopes in the uranium decay series, especially the daughter Bismuth-214. If some of the uranium has been removed, leaving behind its daughter isotopes, an overestimation of uranium content will be calculated. Conversely, if new uranium has been transported into the area and not had time to equilibrate, than the uranium concentration will be underestimated (CIM, 2003).

Disequilibrium at the Reno Creek Property was addressed by RME in 1986 (unpublished data) from chemical testing of roughly 150 core holes scattered over the greater area of property controlled by RME at the time. These tests indicated that no serious problems existed and that radiometric and chemical values are very near a one to one ratio, tending toward enrichment where mineralized intercept grades are $\geq 0.05\%$ eU_3O_8.

12.3 Drill Cuttings

Drill cuttings are useful for mapping alteration and in conjunction with the geophysical logs for lithologic mapping, but are too dilute to analyze for uranium content. Although present, the lithologic logs were not reviewed for this study.

13. SAMPLE PREPARATION, ANALYSES, AND SECURITY

The data available is historical in nature. As previously discussed in Section 6, the data is considered reliable and accurate for the purpose of completing and reporting mineral resource estimates.

14. DATA VERIFICATION

The radiometric drill data was drafted on 1:1,200 scale drill maps and included collar elevation, depth to top of the mineralization, thickness of mineralization, grade of mineralization and depth of the bore hole. Drill-hole locations were digitized for the coordinate locations of each bore hole, and the resulting drill maps were confirmed for accuracy by overlaying with the historical drill maps.

15. ADJACENT PROPERTIES

The nearest mineral rights held by Strathmore are located approximately 0.25 miles to the southwest of the Property. This report does not cover these and other nearby properties controlled by Strathmore in the Pumpkin Buttes Uranium District.

16. MINERAL PROCESSING AND METALLURGICAL TESTING

In 1979, RME commissioned Hazen Research, Inc, of Golden, Colorado, to perform and report on a metallurgical evaluation of the Reno Creek uranium ores, and also commissioned the Colorado School of Mines Research Institute (CSMRI) to conduct amenability studies on cores from three drill holes. The author believes these studies and the accompanying reports were prepared in a professional manner and that the data obtained is relevant and reliable for the purpose of detailing their major findings in this report.

16.1 Hazen Report

The 1979 unpublished Hazen report "Metallurgical Evaluation of Rocky Butte (Reno Creek) Uranium Cores" details the results of a leach amenability study of unoxidized core from the Reno Creek Property. Four core intervals from two drill holes (RNCH 42, 43) were examined (see Figure 16-1 below). The following details the study preparation:

Four core samples, taken from two drill holes, were received from RME on April 30, 1979. The samples arrived frozen and sealed from the air by layers of Saran wrap, aluminum foil, and wax. These samples consisted of the four following footage intervals: from hole RNCH 42, 292 ft to 303 ft (Upper 42), and 330.5 ft to 332 ft (Lower 42), from hole RNCH 43, 301 ft to 309 ft (Upper 43), and 364 ft to 368 ft (Lower 43).

In order to retain the ore in its natural unoxidized state, it was dried, prepared (to minus 14-mesh Tyler feed) under nitrogen, and finally stored under nitrogen. As a further precaution, the material was stored in a tightly sealed plastic bottle, purged with nitrogen, and stored in a freezer until needed. Each sample was blended and representative portions split out for head analyses, wet screening, or leaching.

The results of the Hazen study of the four core samples are summarized below:

- All core samples were most amenable when acid was leached in the presence of hydrogen peroxide. Extractions for uranium ranged from 97.3% for Sample RNCH 42 Upper, to a low of 80.8% for Sample RNCH 43 Upper. Vanadium extractions, when leaching with acid and peroxide, range from 58.6% for Sample RNCH 42 Upper, to a low of 0% for Sample RNCH 43 Lower.

- The next most effective lixiviant was sulfuric acid without the peroxide. Uranium extractions ranged from a high of 79.2% for Sample RNCH 43 Lower to a low of 73.7% for Sample RNCH 42 Upper. Vanadium extractions ranged from a high of 52.9% extraction for sample RNCH 42 Upper to a low of 18.0% for Sample RNCH 43 Lower.

- As expected, the core samples were least amenable to leaching when using the carbonate/bicarbonate lixiviant. However, in the presence of peroxide, somewhat higher extractions were realized for both uranium and vanadium values. In the absence of peroxide, vanadium often precipitated from solutions.

  In the presence of peroxide, uranium extractions ranged from a high of 69.55% with Sample RNCH 42 Upper, to a low of 36.6% with Sample RNCH 42 Lower. Vanadium extractions ranged from a high of 48.8% with Sample RNCH 42 Upper to a low of 20.0% with Sample RNCH 43 Lower.

- The least effective lixiviant, as expected, was the carbonate/bicarbonate without peroxide. Uranium extractions ranged from a high of 46.1% for Sample RNCH 43Lower to a low of 18.7% for Sample RNCH 42 Lower.

  Vanadium extractions without oxidant ranged from a high of 36.9% from Sample RNCH 43 Upper to lows of 0% from Samples RNCH 42 Lower and RNCH 43 Lower. In the absence of peroxide at these lower core reaches, vanadium appeared to very readily precipitate from solution.

- The minus 400-mesh fractions, in all the samples, were high in uranium and vanadium. Uranium distributions ranged from 45.2% of the U_3O_8 in RNCH 42 Upper to a low of 19.5% in RNCH 42 Lower. The corresponding weight percents of the above fractions are 5.6% and 9.2% respectively.

16.2 CSMRI Report

Also in 1979, RME commissioned the Colorado School of Mines Research Institute to conduct amenability studies on core samples from three drill holes (see Figure 16-1 below). Eleven samples were analyzed. The objective of this study was to produce data as a result of using several lixiviants in a leaching system as specified by RME. The following is a summary of their findings from “Reno Ranch Ore Amenability Study” (unpublished data, 1979):

The laboratory investigation was performed to determine the amenability of Reno Ranch uranium ores to acid and alkaline leaching systems. The results of the acid system study indicated that approximately 96.7% of the uranium and 79.0% of the vanadium could be extracted from the ores under relatively mild acid leaching conditions. In comparison, for the carbonate systems investigated, an average of 63.1% of the uranium and 48.6% of the vanadium was solubilized.

A total of 11 ore samples were received from the Reno Creek property for the amenability studies. The samples are described below together with their corresponding analyses for uranium and vanadium.

Table 16-1 CSMRI Chemical Analysis Results

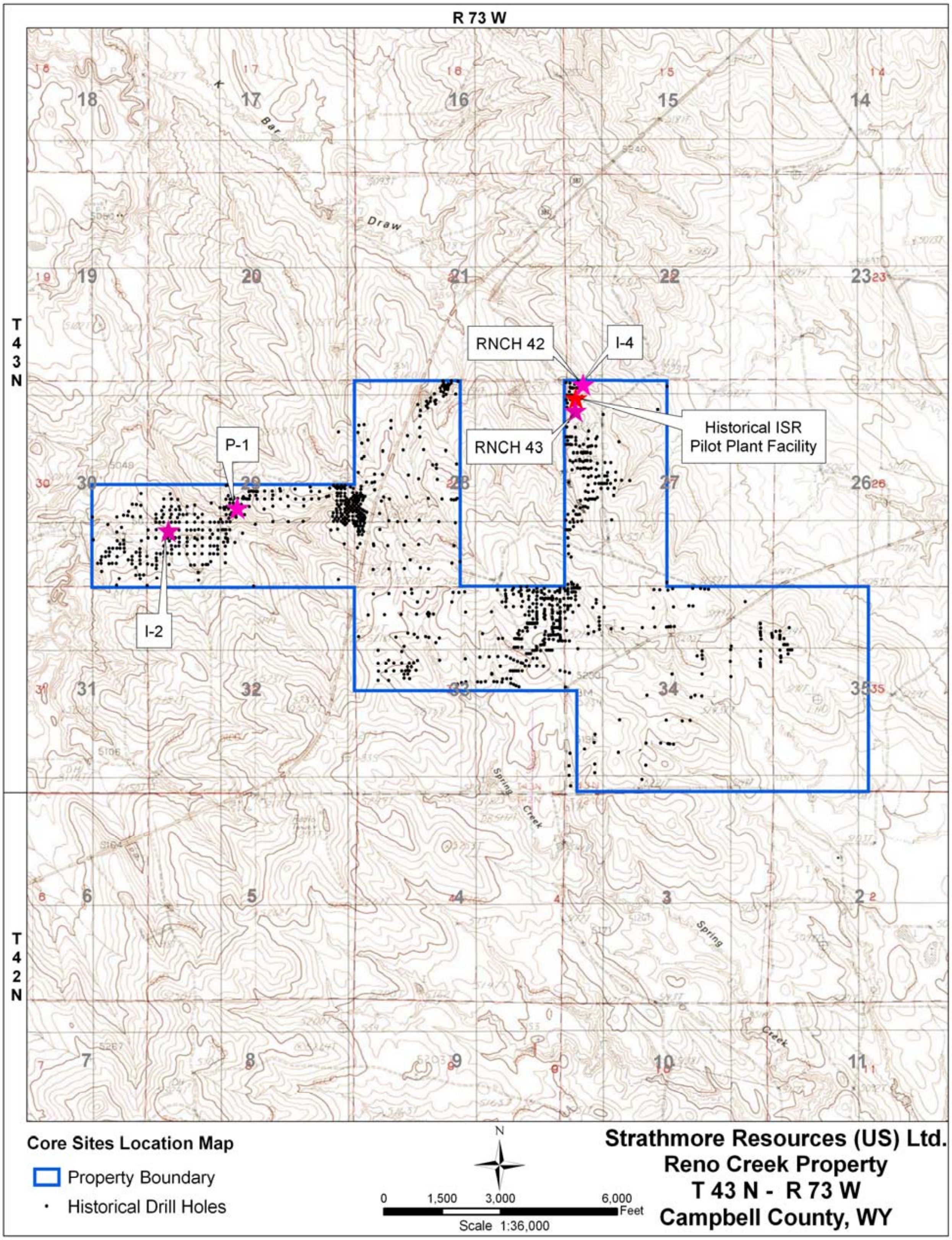
CSMRI Sample No.	Sponsor Designation	Chemical Analysis U_3O_8%	V_2O_5
1	I-4 (317-324 ft)	0.017	0.012
2	I-4 (329-337 ft)	0.007	0.010
3	I-4 (349-355 ft)	0.003	0.011
4	P-1 (323-330 ft)	0.097	0.024
5	P-1 (330-342.5 ft)	0.035	0.011
6	P-1 (350-362 ft)	0.038	0.018
7	P-1 (362-367 ft)	0.048	0.027
8	I-2 (320-332 ft)	0.069	0.025
9	I-2 (332-338 ft)	0.200	0.058
10	I-2 (361-370 ft)	0.047	0.023
11	I-2, P-1, I-4	0.055	0.023

The ores were subjected to rolling-bottle leaching on both acid and alkaline systems. Sample 11 was a composite of core separated from each of the three borings. The results of the testing are summarized as follows:

Table 16-2 CSMRI Extraction Analysis Results

CSMRI Sample	Sponsor Designation	Leach Test No	Lixiviant	Extraction of Values U_3O_8%	V_2O_5 %
1	I-4 (317-324 ft)	1	$H_2SO_4 - H_2O_2$	96.2	50.0
2	I-4 (329-337 ft)	2	$H_2SO_4 - H_2O_2$	90.0	36.4
3	I-4 (349-355 ft)	3	$H_2SO_4 - H_2O_2$	85.0	36.4
4	P-1 (323-330 ft)	4	$H_2SO_4 - H_2O_2$	98.9	80.6
5	P-1 (330-342.5 ft)	12	$H_2SO_4 - H_2O_2$	98.0	78.1
6	P-1 (350-362 ft)	5	$H_2SO_4 - H_2O_2$	97.1	36.4
7	P-1 (362-367 ft)	6	$H_2SO_4 - H_2O_2$	98.2	61.1
8	I-2 (320-332 ft)	7	$H_2SO_4 - H_2O_2$	99.0	75.9
9	I-2 (332-338 ft)	8	$H_2SO_4 - H_2O_2$	99.1	76.1
10	I-2 (361-370 ft)	9	$H_2SO_4 - H_2O_2$	99.5	88.4
11	I-2, P-1, I-4	10	$H_2SO_4 - H_2O_2$	98.8	75.9
11	I-2, P-1, I-4	11	$H_2SO_4 - H_2O_2$	99.2	78.1
11	I-2, P-1, I-4	19	H_2SO_4 – none	89.8	--
11	I-2, P-1, I-4	15	$NaHCO_3 - H_2O_2$	65.3	34.4
11	I-2, P-1, I-4	16	$NaHCO_3 - H_2O_2$	67.3	43.8
11	I-2, P-1, I-4	17	$Mg(HCO_3)_2 - H_2O_2$	61.2	34.4
11	I-2, P-1, I-4	18	$Mg(HCO_3)_2 - H_2O_2$	67.3	43.8
11	I-2, P-1, I-4	13	Reno water – H_2O_2	26.5	34.4
11	I-2, P-1, I-4	14	Reno water - none	8.2	9.4

Figure 16-1 Reno Creek Property: Core Site Locations



17. MINERAL RESOURCE AND MINERAL RESERVES ESTIMATES

No economic evaluation of the Reno Creek mineralization described herein was completed. Thus, the estimates that follow are solely mineral resource estimates as defined by the NI 43-101 guidelines.

The Reno Creek uranium deposit can be reported as measured and indicated mineral resources based on the fact that the deposit was drilled on a spacing of approximately 50-100 feet within, and 200 feet between, fence lines along the main uranium ore trend. Drill holes outside of this main trend reach a spacing of 200-400 feet and provide sufficient detail to report additional inferred resources for the project.

The mineral resource estimates shown below in Table 17-1 were calculated using the polygon method, also known as areas of equal influence (AOI). The resource blocks (AOI polygons) were generated using perpendicular bisectors halfway between adjoining samples (e.g. Popoff, 1966; Sandefur and Grant, 1976; Parker, 1990, for resource estimation methods). Several bore holes (intercept data) which were drilled outside of the Property boundary were used in the resource calculations because their AOI polygons extended inside the Property boundary and affected the size and configuration of the AOI polygons for bore holes drilled inside the Property boundary. 1,083 drill holes were used in drafting the AOI polygons. The AOI of each polygon was limited by adjoining drill holes, the property boundary and by the maximum capped size of the resources' AOI. Criteria for the mineral resources generated follows:

Measured Resource: AOI is capped at 10,000 ft^2. (AOI of 100ft x 100ft: represents ≤ 100 ft drill hole spacing).

Indicated Resource: AOI is capped at 30,000 ft^2. The Indicated resource is computed by subtracting the Measured AOI resource (AOI of 200ft x 200ft: represents ≤ 200 ft drill hole spacing).

Inferred Resource: AOI is capped at 120,000 ft^2. The Inferred Resource is computed by subtracting the Measured and Indicated AOI resources (AOI of 400ft x 400ft: represents area outside of 200 ft but within 400 ft drill hole spacing).

From the historical drill maps, drill gamma logs, and/or accompanying mineralized intercept data, thickness and grade of each mineralized intercept were assigned to each polygon for computing tonnage. A tonnage factor of 16 cubic feet per ton and a minimum grade of 0.03% eU_3O_8 were used. The resource calculation is reported using a grade times thickness (GT) product of 0.3. The grade cutoff and the GT product were selected because it is recognized that low grade, thick deposits can be successfully mined using ISR extraction methods. Of the 1,083 holes used to draft the AOI polygons, 467 holes had intercepts (662 total) that met the minimum grade and GT. A weighted-average thickness and weighted-average grade were also computed, both relative to tonnage.

Table 17-1 Mineral Resources: Measured, Indicated and Inferred

Measured Mineral Resource

Cutoff	Tons	Ave. Grade (%)	Pounds	Ave. Thick.	GT
0.03% @ 0.3GT	3,133,271	0.068	4,286,779	12.3	0.84

Indicated Mineral Resource

Cutoff	Tons	Ave. Grade (%)	Pounds	Ave. Thick.	GT
0.03% @ 0.3GT	2,544,658	0.062	3,146,720	11.5	0.71

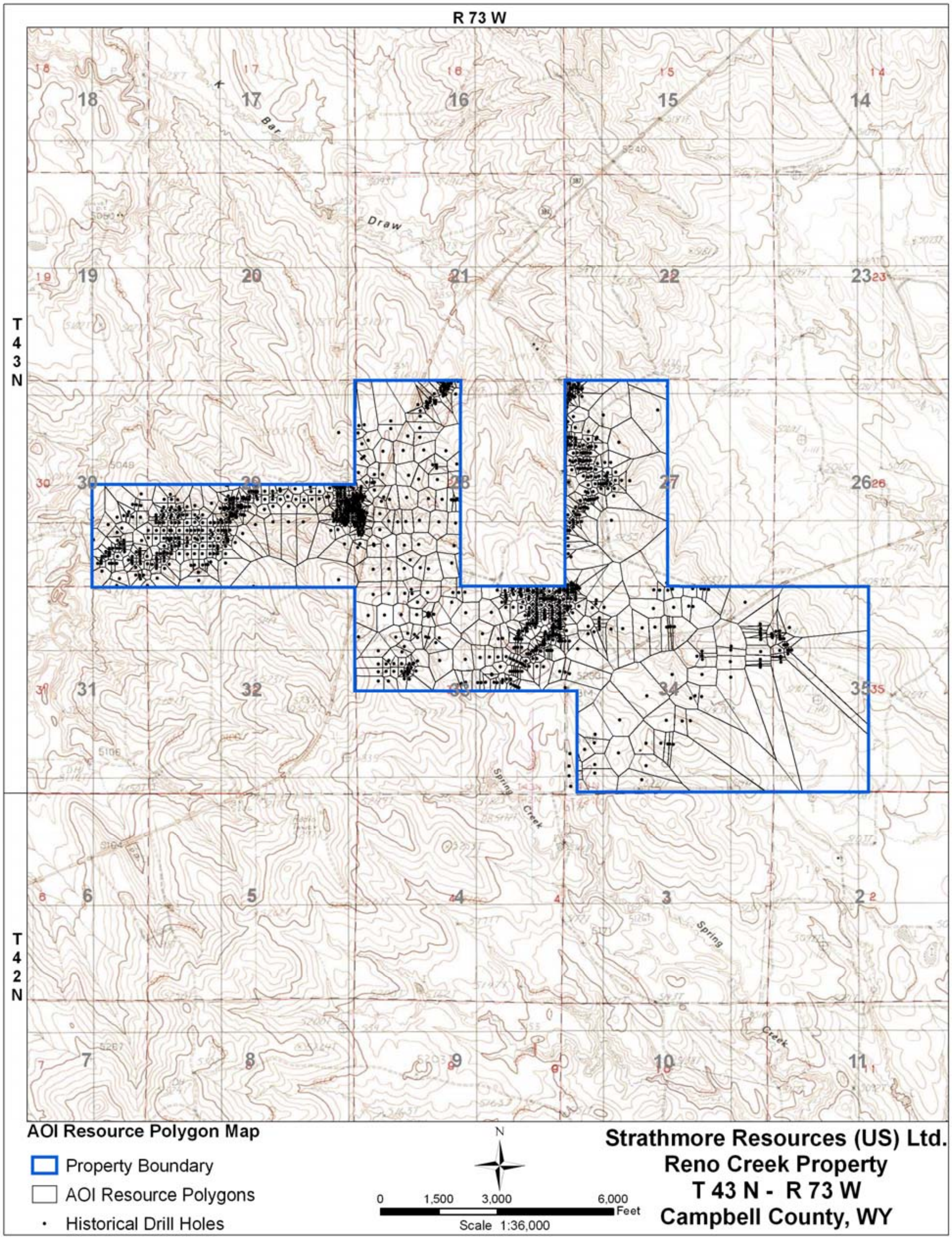
Inferred Mineral Resource

Cutoff	Tons	Ave. Grade (%)	Pounds	Ave. Thick.	GT
0.03% @ 0.3GT	2,633,800	0.065	3,406,771	13.2	0.86

The resulting new resource estimates show that considerable amounts of uranium are located on the Property. This combined with the historically extensive permits and reports generated over the years, including successful operation/reclamation of a pilot in-situ recovery plant, shows that the Reno Creek Project is one of merit and serious consideration should be given to future production of its uranium assets.

The results of the new resource calculations were higher than the reported historical resources of RME (see Section 6.3). This is due to the fact that RME used "addressable" mining parameters including a 0.6GT outline for their mine units' boundaries. In addition, a reserve estimate for RME's Mine Unit 4 (see Figure 6-3 above) was not found in the historical data base. These combined resulted in a significantly lower resource estimate than the new ones presented herein.

Figure 17-1 Reno Creek Property: Mineral Resource Polygon Map



18. OTHER RELEVANT DATA AND INFORMATION

18.1 Exploration Potential

In the author's opinion, there is excellent potential for discovery of additional uranium mineralization on the Reno Creek Property, especially to the east of the main deposits.

18.2 In-situ Recovery Consideration

The Reno Creek Property is considered a viable target for in-situ recovery of the uranium ore. The ore is at depths of 170-450 feet, lying beneath the local water table within permeable sandstones confined by bounding shale and mudstone. Significant permitting and research studies were performed over the years by the previous operators to bring the property to production, including successful operation and reclamation of a pilot in-situ recovery plant that showed bicarbonate lixiviant can be used to leach the uranium. Several of these studies and their findings were discussed above (Sections 6 and 16).

18.3 Strathmore Minerals and American Uranium Corp Inc. Joint Venture Agreement

On May 17, 2007, Strathmore announced it entered into a binding agreement with American Uranium Corporation Inc. (OTC BB: AUUM.OB {AUUM}), a Nevada corporation, to explore and develop the Reno Creek and other nearby properties (altogether called Pine Tree-Reno Creek Property) owned by Strathmore in the Pumpkin Buttes Uranium District. The following details the JV agreement as modified on January 14, 2008:

- AUUM will reimburse 100% of all reasonable expenditures incurred by Strathmore relating to the Pine Tree-Reno Creek Project to a maximum of $300,000, plus any additional funds spent by Strathmore for the purpose of acquiring any additional property leases from the date of the Letter of Intent to the closing of the JV agreement;
- AUUM will issue to Strathmore 6,000,000 common shares in the capital stock of AUUM;
- Once AUUM has spent a total of $12,375,000, AUUM will have earned an initial 22.5% interest in the Pine Tree-Reno Creek Project;
- AUUM will incur a total of $33,000,000 in expenditures on the Pine Tree-Reno Creek Project over a 6 year period, subject to the Project having a least 13 million pounds of U_3O_8;
- Following the third anniversary of the closing date, Strathmore will retain an independent third party firm to calculate the resource. If the third party evaluation is less than 13 million pounds of U_3O_8, then the remaining $28 million that AUUM must spend on the Project between the 3rd and 6th anniversary of closing will be reduced proportionately;
- Strathmore will remain operator of the Project until AUUM has completed its 60% earn-in commitment.

19. INTERPRETATIONS AND CONCLUSIONS

From a review of all the available data, it is concluded that the exploration drilling, log interpretation, map posting and the new resource calculations presented herein are consistent when compared to the historical resources calculated by EFI. In the author's opinion, all historical data was produced in a professional, accurate and competent manner. It is also concluded that there is a very good potential to drill additional mineralization on the Property, especially to the east of the main deposits.

20. RECOMMENDATIONS

The Strathmore Reno Creek Property is a project of merit and justifies additional work. It is recommended to perform work to determine the economic viability and to convert the Measured, Indicated and Inferred Mineral Resources to Mineral Reserves. The amenability of the Reno Creek ore deposits to in-situ recovery was successfully shown in the past and detailed in this report. The recovery of the uranium via in-situ commercial production should be seriously considered. It is also recommended to:

1. Acquire any additional drill logs and other pertinent data not currently held by Strathmore that may be available for the Property.
2. Confirm and expand upon the previous metallurgical studies including the collection of additional core samples for amenability leach studies.
3. Confirm and expand upon previous hydrologic studies including verification of pump test data and determination of current ground water levels and qualities.
4. Acquire additional properties of interest to consolidate Strathmore's holdings.
5. Test by drilling additional areas of mineralization noted by previous exploration.
6. Complete a bankable feasibility study for a planned in-situ recovery operation (satellite and/or centralized facility).

21. REFERENCES

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22. CERTIFICATE OF QUALIFICATION

CERTIFICATE OF QUALIFICATION

CHARLES D. SNOW, P. G. 1064 Wyoming
Consulting Geologist
4725 Travis Way
Reno, Nevada 89502-5358

Telephone / Fax 775-825-3699
email: dsnowgeo@bigplanet.com

I, Charles D. Snow hereby certify that:

1. I am a Consulting Geologist and reside at 4725 Travis Way, Reno, Nevada 89502-5358.

2. I graduated from the University of Utah in 1952 with a Bachelor of Science degree in Geology. I have practiced my geology profession since graduation.

3. I am a member of the following mineral industry technical societies:

   Professional Geologist , Wyoming P.G. 1064.
   Society of Mining Engineers of AIME
   Geological Society of Nevada

4. I have practiced my profession as a geologist continually for 56years.

5. I have read the definitions of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience. I fulfill the requirements to be a "qualified person" for the purposes of 43-101.

6. I am responsible for the preparation of the technical report titled: "Technical Report on the Reno Creek Uranium Property, Campbell County, Wyoming dated January 10, 2008.

7. I have worked in the Powder River Basin - Pumpkin Buttes area during 1962-1964 conducting uranium exploration and development drilling . Work included design and mining of an open pit. In the 1970s reviewed the exploration drilling conducted by Pathfinder Mines on the Pine Tree Project that is about six miles west of the mineralized area of this report. I have had prior involvement in uranium exploration, development and production, as a geologist and as Chief Mine Engineer at the Lucky Mc Mine and their leased properties in the Gas Uranium District. I have had prior involvement in Exploration and Development of mines in Shirley Basin, Green Mountain, and Powder River Basin, Wyoming. I was District Geologist directing discovery of multimillion pound uranium deposits in breccia pipes on the Arizona Strip in northern Arizona.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report, or the omission to disclose which makes the Technical Report misleading.

9. I am independent of Strathmore Resources U.S. Ltd., but I am a Trustee of the Snow Family 1995 Trust that owns 10,000 Shares of Strathmore Minerals Corp., purchased 15 August 2004, 10,000 shares purchased 17 August 2007 and 5,000 shares purchased 14 January 2008.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files or on their websites accessible by the public.

12. I was compensated for preparation of this report by payment of my usual consulting fee charges. I was not offered any stock or stock options as a payment for my services. I shall not purchase or sell any stock in Strathmore Minerals Corp. until after the filing of this document

Signed and dated this 29th day of January, 2008.

Charles D. Snow
Charles D. Snow
Reno, Nevada