Technical Report on the La Sal Project, San Juan County, Utah, USA

Energy Fuels Inc.

SLR Project No: 138.02544.00003

February 22, 2022

Technical Report on the La Sal Project, San Juan County, Utah, USA

SLR Project No: 138.02544.00003

Prepared by
SLR International Corporation
1658 Cole Blvd, Suite 100
Lakewood, CO 80401
for

Energy Fuels Inc.
255 Union Blvd., Suite 600
Lakewood, Colorado 80228
USA

Effective Date – December 31, 2021
Signature Date - February 22, 2022

Qualified Person
Mark B. Mathisen, C.P.G.

FINAL

Distribution: 1 copy – Energy Fuels Inc.
1 copy – SLR International Corporation

CONTENTS

TABLES

FIGURES

1.0 SUMMARY

1.1 Executive Summary

This Independent Technical Report (Technical Report) was prepared by Mark B. Mathisen, C.P.G., of SLR International Corporation (SLR), for Energy Fuels Inc. (Energy Fuels), the parent company of Energy Fuels Resources (USA) Inc. (EFR), with respect to the La Sal Project (La Sal or the Project), located in San Juan County, Utah, USA. The purpose of this Technical Report is to disclose the current Mineral Resource estimate.

Energy Fuels is incorporated in Ontario, Canada. EFR is a US-based uranium and vanadium exploration and mine development company with projects located in the states of Colorado, Utah, Arizona, Wyoming, Texas, and New Mexico. Energy Fuels is listed on the NYSE American Stock Exchange (symbol: UUUU) and the Toronto Stock Exchange (symbol: EFR).

This Technical Report satisfies the requirements of Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) and United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary. Mark B. Mathisen is a Qualified Person (QP) within the meaning of both S-K 1300 and NI 43-101 (SLR QP). The SLR QP visited the La Sal property on November 11, 2021.

The Project is comprised of seven individual mines and properties, Energy Queen, Redd Block, Beaver, La Sal, Pandora, Snowball, and Pine Ridge, which are sandstone-type uranium deposits located within the Colorado Plateau physiographic province in southwestern Utah. The Colorado Plateau has been a relatively stable structural province since the end of the Precambrian. During the Paleozoic and Mesozoic, the Colorado Plateau was a stable shelf without major geosynclinal areas of deposition, except during the Pennsylvanian when several thousand feet of black shales and evaporates accumulated in the Paradox Basin of southwestern Colorado and adjacent Utah. The Pine Ridge property has been reclaimed and any Mineral Resources on that portion of the project will be mined from the Pandora decline, but these resources are excluded from the Mineral Resource estimate. Remaining resources at the Snowball Mine have been incorporated into the Mineral Resource estimates for Pandora.

The Project forms a narrow east-west band, 11 miles long, of contiguous parcels in San Juan County, Utah, near the town of La Sal, Utah. It is located approximately 24 miles southeast of Moab, Utah, and the main facilities at the La Sal Decline are less than one mile west of the town of La Sal, Utah.

The Project, consisting of the five remaining properties (Energy Queen, Redd Block, Beaver, La Sal, and Pandora), is a historical mine currently in standby status with all infrastructure in place needed to restart operations. The mine could quickly be put into operations as an underground uranium or vanadium mine depending on improvements in market conditions. Ore will be processed at Energy Fuel's White Mesa Mill (the Mill), 70 miles away in Blanding, Utah. The Mill is on a reduced operating schedule while processing materials as they become available.

A Mineral Resource estimate for the Project, based on 14,326 drillholes totaling 2,899,916 ft, was completed by EFR, and audited and accepted by the SLR QP. Table 1-1 summarizes Mineral Resources based on a $65/lb uranium price using a cut-off grade of 0.17% eU_3O_8. The effective date of the Mineral Resource estimate is December 31, 2021.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

Table 1-1: Summary of Mineral Resources – Effective Date December 31, 2021
Energy Fuels Inc. – La Sal Project

Classification	Deposit	Tonnage (000 tons)	Grade (% eU_3O_8)	Contained Metal (000 lb eU_3O_8)	Grade (% V_2O_5)	Contained Metal (000 lb V_2O_5)	Recovery (%)	EFR Basis (%)
Inferred	Pandora	222	0.24	1,061	1.02	4,551	96	100
	Beaver/La Sal	118	0.23	552	1.01	2,388	96	100
	Redd Block	336	0.29	1,918	1.14	7,679	96	100
	Energy Queen	147	0.25	749	1.07	3,129	96	100
Total Inferred		823	0.26	4,281	1.08	17,746	96	100

Notes:

1. SEC S-K 1300 definitions were followed for all Mineral Resource categories. These definitions are also consistent with CIM (2014) definitions in NI 43-101.
2. Uranium Mineral Resources are estimated at a cut-off grade of 0.17% U_3O_8.
3. Vanadium Mineral Resources are estimated based on calculations from U_3O_8 vs V_2O_5 regression analysis.
4. The cut-off grade is calculated using a metal price of $65/lb U_3O_8
5. No minimum mining width was used in determining Mineral Resources.
6. Mineral Resources are based on a tonnage factory of 14.5 ft^3/ton (Bulk density 0.0690 ton/ft^3 or 2.21 t/m^3).
7. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
8. Total may not add due to rounding
9. Mineral Resources are 100% attributable to EFR and are in situ.

1.1.1 Conclusions

The SLR QP offers the following interpretations and conclusions on the Project:

- EFR's protocols for drilling, sampling, analysis, security, and database management meet industry standard practices and are appropriate for the estimation of Mineral Resources.
- EFR project geologists have a good understanding of the regional, local, and deposit geology and controls on mineralization.
- The Project has been the site of considerable past mining and exploration including the drilling and logging of approximately 17,397 surface and underground drillholes rotary holes, of which 14,326 were used to prepare the current Mineral Resource estimate. In the opinion of the SLR QP the drilling database is adequate and acceptable for the purposes of Mineral Resource estimation.
- The SLR QP considers the estimation procedures employed at La Sal, including capping, compositing, and interpolation, to be reasonable and in line with industry standard practice for the style of mineralization and deposit type, but notes the following:
    - Use of unfolding and dynamic anisotropy works well with the Mineral Resource estimation where used and allows for more accurate estimation of grade values along trends of grade continuity.

- Over extrapolation of mineralization wireframe boundaries in areas of sparse or widely spaced drilling using the spline option tool in Vulcan is impacting the accuracy of the wireframes volumes and includes large amounts of internal waste.
- Estimation Methodology:
  - Not applying a minimum mining thickness has resulted in some portions of the wireframes to pinch down, disallowing for block model estimations to occur.
  - Wireframes are not properly snapped to all drillholes intercepts.

- The SLR QP is of the opinion that the use of a regression analysis to estimate V_2O_5 grade values is acceptable given the small amount of valid V_2O_5 assays compared to number of radiometric log values for U_3O_8.
- The SLR QP considers the classification criteria to be reasonable.
- The SLR QP considers that the Mineral Resource estimate completed on the Project conforms to the SEC S-K 1300 and NI 43-101 definitions for reporting mineral resources.
- The SLR QPs are not aware of any environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors that could materially affect the current resource estimate.
- The SLR QP is of the opinion that there is a moderate risk that in some portions of the interpolated wireframes, estimated uranium grades will not reconcile to future drilling results due to the over extrapolating of the wireframes using the spline option in Vulcan in areas of widely spaced drilling and known morphology of Colorado Plateau uranium mineralization. These areas of barren or low-grade uranium mineralization may be areas of potential vanadium mineralization.

1.1.2 Recommendations

1.1.2.1 Phase 1: Exploration/Development Drilling Program

1. Conduct a 50 drillhole exploration/development drilling program to advance the La Sal property to a pre-feasibility study (PFS) level. Average depth per hole is projected to be approximately 630 ft.

The SLR QP estimates the cost of the Phase 1 work will range from US$750,000 to US$850,000 (estimated cost per drill foot is US$25).

1.1.2.2 Phase 2: Pre-Feasibility Study and Updated Resource Estimate

1. Following completion of the Phase 1 confirmation drilling program, revisit, and update Mineral Resource estimates for the Project.
2. Complete a PFS of the Project based on an updated Mineral Resource estimate.

The SLR QP estimates the cost of Phase 2 to be US$60,000 for the updated Mineral Resource estimate and approximately US$300,000 for the PFS for a total of approximately US$410,000 for Phase 2.

The recommended budget for Phase I and Phase II is presented in Table 1-2.

Table 1-2: Recommended Budget
Energy Fuels Inc. – La Sal Project

Item	Cost (US$)
Phase 1	
Drill Beaver/Redd Block Connection (50 holes)	$800,000
Assaying and Geophysical Logging	$45,000
Phase 1 Total	**$845,000**
Phase 2	
Redd Block Shaft/Decline Trade-off	$50,000
Resource Update	$60,000
Pre-Feasibility Study	$300,000
Phase 2 Total	**$410,000**

In support of the two-phase program outlined above, the SLR QP makes the following recommendations:

1. Compile lithologic data from existing radiometric log data and construct a geologic model that defines mineralized horizons within the Salt Wash. The geologic model will be used to constrain future resource estimations by limiting the amount of internal waste in the wireframes.
2. Continue implementation of the recently completed (2019) V_2O_5 sampling program to support and supplement resource estimations.
3. Procure a vanadium standard to monitor vanadium assay performance as more vanadium assays are expected to be collected in the future for vanadium resource estimation.
4. Apply a minimum thickness of two feet when constructing wireframes to align with current mining operations more appropriately.
5. Treat missing and unsampled intervals contained within the wireframes as waste.
6. Continue to use dynamic anisotropic models for all estimations where appropriate.
7. Revisit and confirm the historical density values prior to any future resource estimations.

1.2 Technical Summary

1.2.1 Property Description and Location

The Project is comprised of seven individual mines and properties. From east to west, these are Pine Ridge (reclaimed mine), Pandora Mine, Snowball Mine, La Sal Decline, Beaver Shaft, Redd Block IV (property), and the Energy Queen Mine.

The area encompassed by the Project is located on two U.S. Geological Survey 7½ minute quadrangle topographic maps, La Sal West and La Sal East. The geographic coordinates for the approximate center of the Project are latitude 38°18'48.20" N and longitude 109°15'56.28" W. All surface data coordinates are State Plane 1983 Utah South FIPS 4303 (US feet) system.

The Project is easily accessed from the all-weather Utah State Highway 46. Utah 46 enters the Project land about one mile west of the Energy Queen lease. Utah 46 stays within or very near the Project for the next eight miles to the east. The Energy Queen headframe, visible from the highway, is located approximately 500 ft south of Utah 46 and is accessed by a gravel road.

The area of the Project is semi-arid. Temperatures range between an average low of 41°F to an average high of 72°F. Less than 10 in. of precipitation falls per year. Winters are not particularly severe, although there are numerous snowstorms. The temperature drops below 0°F at times, and snow can accumulate to over a foot in the lower elevations and more than two feet at higher elevations.

It is anticipated that most personnel will be hired from the local area with other personnel being hired from other mining districts around the country.

La Sal, Utah, is a small town consisting of a Post Office and general store. Most supplies necessary for mining operations can be found locally in the towns of Moab, Utah, or Monticello, Utah, 24 mi northwest or 34 mi south of the Project respectively.

1.2.2 Land Tenure

The Project, comprised of Pine Ridge, Pandora Mine, Snowball Mine, La Sal Decline, Beaver Shaft, Redd Block IV, and the Energy Queen Mine, is 100% controlled by Energy Fuels' wholly owned subsidiaries, Energy Fuels Resources Colorado Plateau LLC and Energy Fuels Resources Corporation (collectively referred to as EFR).

1.2.3 Existing Infrastructure

The primary infrastructure as well as electricity and water are already in place at the Project. The mines associated with the Project were in commercial production between 2009 and 2012, before being placed on standby.

1.2.4 History

Prior to the 1960s, the region, including the Project and nearby area, was mined for vanadium, radium, and uranium. Uranium became the emphasis in the region in 1943 when the U.S. Army's Manhattan Project came to the area. After World War II, between 1948 and 1954, exploration work on Morrison Formation outcrops resulted in the discovery of the Rattlesnake Pit two miles southwest of the Energy Queen shaft (U.S. Atomic Energy Commission, 1959). The majority of the work on the Project took place from the 1960s through the 1980s.

Exploration for uranium deposits, both regionally and in the Project area, generally consists of rotary drilling into the Morrison Formation, specifically the Saltwash Member. The drill holes are then probed utilizing a calibrated gamma probe. The gamma probe records gamma radiation given off by the daughter products of uranium decay and that data can be used to determine an equivalent U_3O_8 grade (eU_3O_8). At the Project, core was collected from drilling to use for vanadium assays and as a check on the eU_3O_8 grades.

Uranium and vanadium deposits were discovered east of the Project in the La Sal Creek area by the Raw Materials Division of the Atomic Energy Commission (AEC) in 1952. That program was successful in identifying new and extending known deposits (Vanadium Queen, Gray Daun, Firefly-Pigmy, and others). Private mining increased in 1953 with drilling outlining a favorable belt about 3,000 ft wide by five miles long to Lion Creek. By 1955, other deposits found farther north of La Sal Creek canyon, Hop Creek, suggested other belts might occur on the east flank of the La Sal Mountains and to the southeast (Carter and Gualtieri, 1965 and Chenoweth, 1981).

Throughout the 1960s and into the 1970s, drilling progressed westward from the head of La Sal Creek canyon discovering Morrison uranium deposits at depth at the Pandora, Snowball, and La Sal mines. Drilling continued westward and intensified in the late 1970s, discovering large uranium-vanadium deposits later accessed by shafts, the Beaver Shaft and Hecla Shaft (Energy Queen Mine). The Redd Block IV property was also located and mostly defined during this time.

1.2.5 Geology and Mineralization

The Colorado Plateau covers nearly 130,000 square miles in the Four Corners regions. The Project lies in the Canyon Lands Section in the east-central part of the Plateau in Utah. The La Sal Mountains Intrusion is located to the north and east of the Project and the peaks are visible from most of the Project.

The La Sal deposits are classified as sandstone hosted uranium-vanadium deposits. Sandstone-type uranium deposits typically occur in fine to coarse grained sediments deposited in a continental fluvial environment. The La Sal Trend uranium-vanadium deposits are a similar type to those elsewhere in the Uravan Mineral Belt. The Uravan Mineral Belt was defined by Fisher and Hilpert (1952) as a curved, elongated area in southwestern Colorado where the uranium-vanadium deposits in the Salt Wash Member of the Morrison Formation generally have closer spacing, larger size, and higher grade than those in adjacent areas and the region as a whole. The location and shape of mineralized deposits are largely controlled by the permeability of the host sandstone. Most mineralization is in trends where Top Rim sandstones are thick, usually 40 ft or greater.

The La Sal Trend is a large channel of Top Rim sandstone that trends due east, possibly as a major trunk channel to tributaries that fanned-out to the east to make a portion of the Uravan Mineral Belt. The Energy Queen deposit appears to be at the location of the junction of a tributary channel that joins the main channel from the southwest. The uranium may be derived from a weathered rock containing anomalously high concentrations of uranium, leached from the sandstone itself or an adjacent stratigraphic unit. It is then transported in oxygenated groundwater until it is precipitated from solution under reducing conditions at an oxidation-reduction interface. The reducing conditions may be caused by such reducing agents in the sandstone as carbonaceous material, sulfides, hydrocarbons, hydrogen sulfide, or brines.

1.2.6 Exploration Status

EFR conducted surface exploration drilling on the Energy Queen portion of the Project in 2007 and 2008 prior to EFR acquiring the rest of the Project through its acquisition of Denison Mines in 2012. Following the acquisition of Denison, EFR conducted both surface and underground drilling as part of a test mining program in 2018-2019. During a test mining program, EFR drilled 30 surface holes on the La Sal/Beaver portions of the Project and cored 56 underground longholes from three different underground stopes. The purpose of this longhole campaign was to collect core for vanadium assays.

1.2.7 Mineral Resources

Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300, which are consistent with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM, 2014) definitions which are incorporated by reference in NI 43-101.

The SLR QP has reviewed and accepted the Mineral Resource estimate prepared by EFR based on block model values based on radiometric drillhole logs on the five principal mineralized domains (La Sal West, Energy Queen, Redd Block, Beaver/La Sal, and Pandora). Mineral Resources have been estimated by EFR using Vulcan software using inverse distance squared (ID^2) methods. This Mineral Resource provides estimates for uranium and calculated vanadium mineralization.

For reporting purposes, the five estimates have been summarized into four deposits with EFR electing to combine the La Sal West and Energy Queen resource to remain consistent with previously reported resource estimates.

In the SLR QP's opinion, the assumptions, parameters, and methodology used for the La Sal Mineral Resource estimate are appropriate for the style of mineralization and mining methods. The effective date of the Mineral Resource estimate is December 31, 2021.

2.0 INTRODUCTION

This Independent Technical Report (Technical Report) was prepared by Mark B. Mathisen, C.P.G., of SLR International Corporation (SLR), for Energy Fuels Inc. (Energy Fuels), the parent company of Energy Fuels Resources (USA) Inc. (EFR), with respect to the La Sal Project (La Sal or the Project), located in San Juan County, Utah, USA. The purpose of this Technical Report is to disclose the current Mineral Resource estimate.

Energy Fuels is incorporated in Ontario, Canada. EFR is a US-based uranium and vanadium exploration and mine development company with projects located in the states of Colorado, Utah, Arizona, Wyoming, Texas, and New Mexico. Energy Fuels is listed on the NYSE American Stock Exchange (symbol: UUUU) and the Toronto Stock Exchange (symbol: EFR).

This Technical Report satisfies the requirements of Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) and United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary. Mark B. Mathisen is a Qualified Person (QP) within the meaning of both S-K 1300 and NI 43-101 (SLR QP).

The Project is comprised of seven individual mines and properties, Energy Queen, Redd Block, Beaver, La Sal, Pandora, Snowball, and Pine Ridge, which are sandstone-type uranium deposits located within the Colorado Plateau physiographic province in southwestern Utah. The Colorado Plateau has been a relatively stable structural province since the end of the Precambrian. During the Paleozoic and Mesozoic, the Colorado Plateau was a stable shelf without major geosynclinal areas of deposition, except during the Pennsylvanian when several thousand feet of black shales and evaporates accumulated in the Paradox Basin of southwestern Colorado and adjacent Utah. The Pine Ridge property has been reclaimed and any Mineral Resources on that portion of the project will be mined from the Pandora decline, but these resources are excluded from the Mineral Resource estimate. Remaining resources at the Snowball Mine have been incorporated into the Mineral Resource estimates for Pandora.

The Project forms a narrow east-west band, 11 miles long, of contiguous parcels in San Juan County, Utah, near the town of La Sal, Utah. It is located approximately 24 miles southeast of Moab, Utah, and the main facilities at the La Sal Decline are less than one mile west of the town of La Sal, Utah.

The Project, consisting of the five remaining properties (Energy Queen, Redd Block, Beaver, La Sal, and Pandora), is a historical mine currently in standby status with all infrastructure in place needed to restart operations. The mine could quickly be put into operations as an underground uranium or vanadium mine depending on improvements in market conditions. Ore will be processed at Energy Fuel's White Mesa Mill (the Mill), 70 miles away in Blanding, Utah. The Mill is on a reduced operating schedule while processing materials as they become available.

2.1 Sources of Information

Sources of information and data contained in this Technical Report or used in its preparation are from publicly available sources in addition to private information owned by EFR, including that of past property owners.

This Technical Report was prepared by the SLR QP. The SLR QP visited the La Sal property under care and maintenance on November 11, 2021. The SLR QP toured the operational areas and project offices, inspected various parts of the property, drillhole locations, and infrastructure, and conducted discussions with EFR Project geologists and Mine Superintendent on the current and future plans of operations. The SLR QP is responsible for all sections and the overall preparation of the Technical Report.

During the preparation of this Technical Report, discussions were held with personnel from EFR:

- Gordon Sobering, Senior Mine Engineer, Energy Fuels Resources (USA) Inc.
- Daniel Kapostasy, P.G., Chief Geologist Conventional Mining, Energy Fuels Resources (USA) Inc.
- Race Fisher, Mine Superintendent, Energy Fuels Resources (USA) Inc.

This Technical Report supersedes the previous NI 43-101 Technical Report completed by Peters Geosciences, dated March 25, 2014.

The documentation reviewed, and other sources of information, are listed at the end of this Technical Report in Section 27 References.

2.2 List of Abbreviations

The U.S. System for weights and units has been used throughout this Technical Report. Tons are reported in short tons (ton) of 2,000 lb unless otherwise noted. All currency in this Technical Report is US dollars (US$) unless otherwise noted.

Abbreviations and acronyms used in this Technical Report are listed below.

Unit Abbreviation	Definition	Unit Abbreviation	Definition
µ	micron	L	liter
a	annum	lb	pound
A	ampere	m	meter
bbl	barrels	m^3	meter cubed
Btu	British thermal units	M	mega (million); molar
°C	degree Celsius	Ma	one million years
cm	centimeter	MBtu	thousand British thermal units
cm^3	centimeter cubed	MCF	million cubic feet
d	day	MCF/h	million cubic feet per hour
°F	degree Fahrenheit	mi	mile
ft ASL	feet above sea level	min	minute
ft	foot	MPa	megapascal
ft^2	square foot	mph	miles per hour
ft^3	cubic foot	MVA	megavolt-amperes
ft/s	foot per second	MW	megawatt
g	gram	MWh	megawatt-hour
G	giga (billion)	ppb	part per billion
Ga	one billion years	ppm	part per million
gal	gallon	psia	pound per square inch absolute
gal/d	gallon per day	psig	pound per square inch gauge
g/L	gram per liter	rpm	revolutions per minute
g/y	gallon per year	RL	relative elevation
gpm	gallons per minute	s	second
hp	horsepower	ton	short ton
h	hour	stpa	short ton per year
Hz	hertz	stpd	short ton per day
in.	inch	t	metric tonne
in^2	square inch	US$	United States dollar
J	joule	V	volt
k	kilo (thousand)	W	watt
kg/m^3	kilogram per cubic meter	wt%	weight percent
kVA	kilovolt-amperes	WLT	wet long ton
kW	kilowatt	y	year
kWh	kilowatt-hour	yd^3	cubic yard

3.0 RELIANCE ON OTHER EXPERTS

This Technical Report has been prepared by the SLR QP for EFR's parent company, Energy Fuels. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to the SLR QP at the time of preparation of this Technical Report,
- Assumptions, conditions, and qualifications as set forth in this Technical Report, and
- Data, reports, and other information supplied by Energy Fuels and other third party sources.

3.1 Reliance on Information Provided by the Registrant

For the purpose of this Technical Report, the SLR QP has relied on ownership information provided by Energy Fuels in a legal opinion by Energy Fuels Inc. dated February 18, 2022 entitled Legal Opinion Regarding La Sal Project Ownership, and this opinion is relied on in Section 4 and the Summary of this Technical Report. The SLR QP has not researched property title or mineral rights for the Project as we consider it reasonable to rely on Energy Fuels' legal counsel, who is responsible for maintaining this information.

The SLR QP have taken all appropriate steps, in his professional opinion, to ensure that the above information from Energy Fuels is sound.

Except as provided by applicable laws, any use of this Technical Report by any third party is at that party's sole risk.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Project is comprised of seven individual mines and properties (Figure 4-1). From east to west, these are Pine Ridge (reclaimed mine), Pandora Mine, Snowball Mine, La Sal Decline, Beaver Shaft, Redd Block IV (property), and the Energy Queen Mine. All the properties that make up the Project are 100% controlled by Energy Fuels' wholly owned subsidiaries, Energy Fuels Resources Colorado Plateau LLC and Energy Fuels Resources Corporation (collectively referred to as EFR).

4.1 Property Description and Location

The Project forms a narrow east-west band, 11 miles long, of contiguous parcels in San Juan County, Utah, near the town of La Sal, Utah (Figure 4-1). The Project is located approximately 24 miles southeast of Moab, Utah, and the main facilities at the La Sal Decline are less than one mile west of the town of La Sal, Utah. Material mined from the Project will be processed at the Mill in Blanding, Utah, approximately 70 road miles south of the Project (Figure 4-1).

The area encompassed by the Project is located on two U.S. Geological Survey 7½ minute quadrangle topographic maps, La Sal West and La Sal East. The geographic coordinates for the approximate center of the Project are latitude 38°18'48.20" N and longitude 109°15'56.28" W. All surface data coordinates are State Plane 1983 Utah South FIPS 4303 (US feet) system.

4.2 Land Tenure

The Project consists of approximately 9,500 acres of mineral rights in a combination of unpatented mining claims owned by EFR, unpatented mining claims leased by EFR, State of Utah mineral leases, a San Juan County surface use, access, and mineral lease, and mining leases on private mineral rights, all located in the La Sal Mining District (Figure 4-2). The land surface overlying some mineral rights is also of varying ownership. Where the federal government controls the surface and minerals, EFR has the right to access, explore, develop, and mine on unpatented mining claims located on land managed by the U.S. Bureau of Land Management (BLM) or U.S. Forest Service (USFS), as long as National Environmental Protection (NEPA) regulations are met. All other properties, regardless of ownership, are covered by access or surface lease agreements with landowners, including ranchers, San Juan County, and the State of Utah (Figure 4-2).

4.2.1 Claims Held by EFR

EFR holds 90 unpatented mining claims on various sections of both USFS and BLM land across the Project. A mining lease between Robert H. Sayre, Jr. and Umetco Minerals, dated July 11, 1973, applies to the 10 unpatented Martha claims at the east end of the Pandora claims. EFR is successor to this lease. Production from these claims is subject to a royalty to Sayre's successors of 10% of the contained value of uranium and vanadium, less certain allowable deductions. The Martha claims lie in Section 31, Township 28 South, Range 25 East and Section 5, Township 29 South, Range 25 East. The mining lease does not include any requirement for annual advance royalties or other lease payments.

All claims, which are renewed annually in September of each year, are in good standing until September 1, 2022 (at which time they will be renewed for the following year as a matter of course). All unpatented mining claims are subject to an annual federal mining claim maintenance fee of $165 per claim plus approximately $10 per claim for county filing fees to the BLM. Table 4-1 lists all claims held by EFR. The SLR QP investigated these claims and found all fees are paid and in good standing through August 31, 2022.

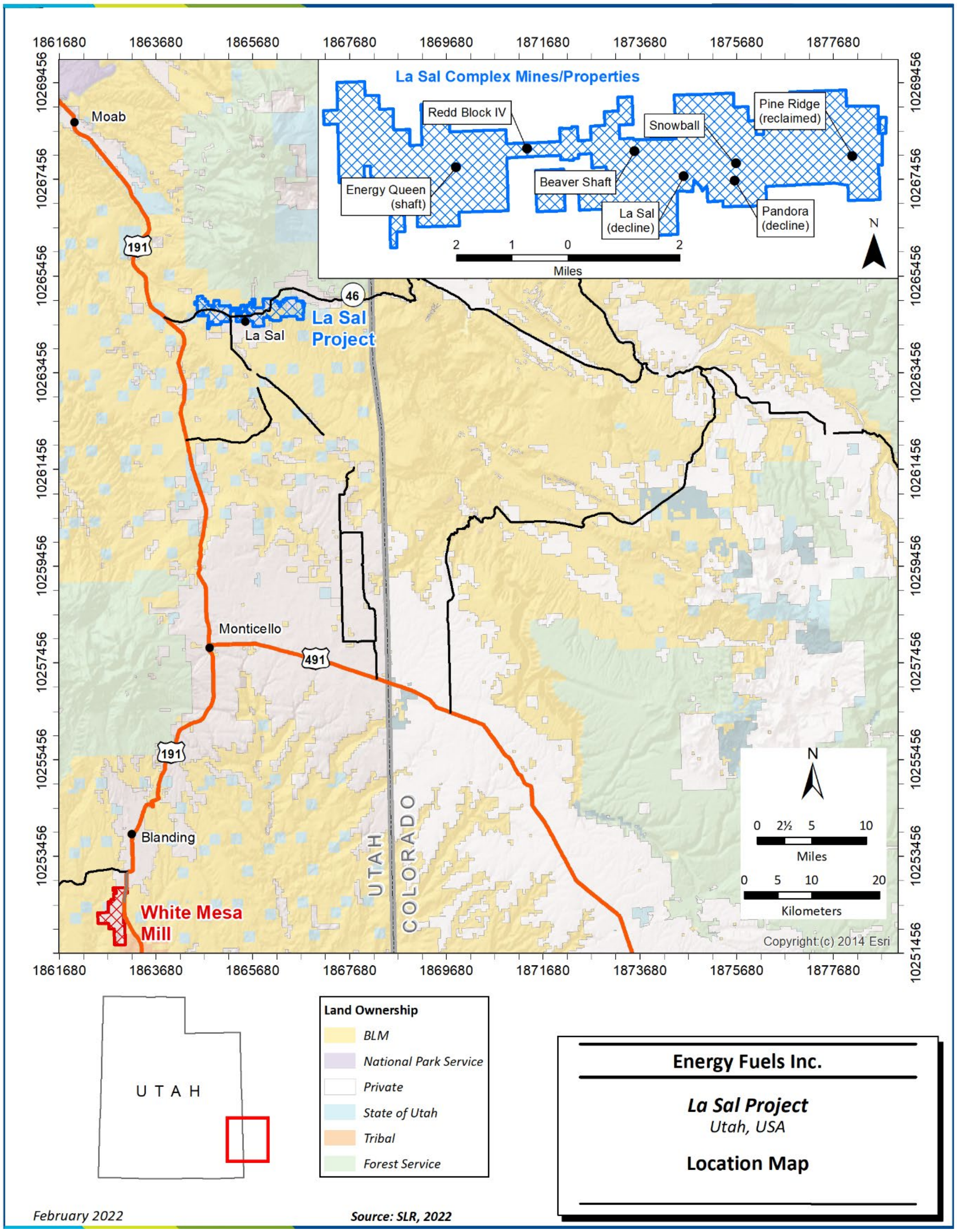


Figure 4-1: Location Map

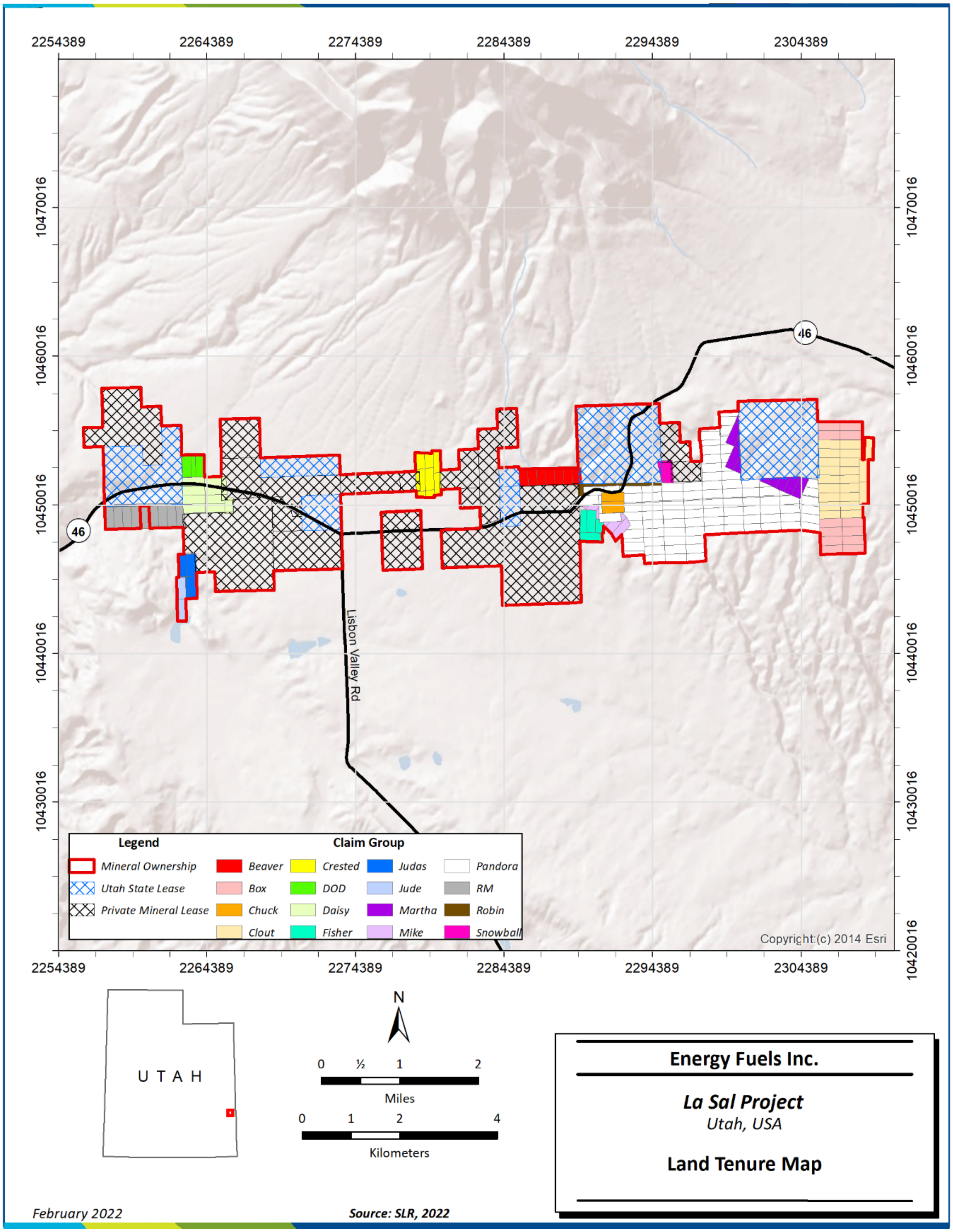


Figure 4-2: Land Tenure Map

Table 4-1: List of Claims Held by EFR
Energy Fuels Inc. – La Sal Project

Claim Name	¼ Sec	Sec-Twp-Rng[1]	BLM Serial No	County	Location Date (DD-MM-YY)	In Good Standing To (DD-MM-YY)
BUCK # 1	SE	1-29S-23E	UT101514092	San Juan	10-Dec-04	31-Aug-22
DAISY 1	SW	31-28S-24E	UT101680271	San Juan	22-Nov-10	31-Aug-22
DAISY 2	SE,SW	31-28S-24E	UT101680272	San Juan	22-Nov-10	31-Aug-22
DAISY 3	SW	31-28S-24E	UT101680273	San Juan	22-Nov-10	31-Aug-22
DAISY 4	SE,SW	31-28S-24E	UT101680274	San Juan	22-Nov-10	31-Aug-22
DAISY 5	NW	6-29S-24E	UT101680275	San Juan	22-Nov-10	31-Aug-22
DAISY 6	NE,NW	6-29S-24E	UT101680276	San Juan	22-Nov-10	31-Aug-22
DAISY 7	NW	6-29S-24E	UT101671773	San Juan	09-Dec-10	31-Aug-22
DAISY 8	NE,NW	6-29S-24E	UT101671774	San Juan	09-Dec-10	31-Aug-22
DOD 1	SW	31-28S-24E	UT101680269	San Juan	22-Nov-10	31-Aug-22
DOD 2	SW	31-28S-24E	UT101680270	San Juan	22-Nov-10	31-Aug-22
DOD 3	SW	31-28S-24E	UT101880498	San Juan	01-Sep-08	31-Aug-22
HEC 23	NE,NW	6-29S-24E	UT101526670	San Juan	02-Sep-05	31-Aug-22
JUDAS 10	SE	1-29S-23E	UT101526671	San Juan	05-Sep-05	31-Aug-22
JUDAS 11	SW	6-29S-24E	UT101526672	San Juan	05-Sep-05	31-Aug-22
JUDAS 12	NW	7-29S-24E	UT101526673	San Juan	05-Sep-05	31-Aug-22
JUDAS 13	SE	1-29S-23E	UT101373691	San Juan	24-Mar-07	31-Aug-22
JUDE # 1	SE	1-29S-23E	UT101514090	San Juan	10-Dec-04	31-Aug-22
JUDE # 2	NE	12-29S-23E	UT101514091	San Juan	10-Dec-04	31-Aug-22
BEAVER # 22	SW	35-28S-24E	UT101408972	San Juan	30-Aug-69	31-Aug-22
BEAVER # 23	SW	35-28S-24E	UT101401704	San Juan	30-Aug-69	31-Aug-22
BEAVER # 24	SE,SW	35-28S-24E	UT101492775	San Juan	30-Aug-69	31-Aug-22
BEAVER # 25	SE	35-28S-24E	UT101409163	San Juan	30-Aug-69	31-Aug-22
BEAVER # 26	SE	35-28S-24E	UT101409149	San Juan	31-Aug-69	31-Aug-22
BEAVER # 27	SE	35-28S-24E	UT101408560	San Juan	31-Aug-69	31-Aug-22
BEAVER # 28	SE	35-28S-24E	UT101529408	San Juan	31-Aug-69	31-Aug-22
BOX 1	NW	33-28S-25E	UT101428895	San Juan	13-May-11	31-Aug-22
BOX 10	SE,SW	4-29S-25E	UT101429168	San Juan	15-May-11	31-Aug-22
BOX 11	SW	4-29S-25E	UT101429169	San Juan	15-May-11	31-Aug-22
BOX 12	SE,SW	4-29S-25E	UT101429170	San Juan	15-May-11	31-Aug-22

Claim Name	¼ Sec	Sec-Twp-Rng[1]	BLM Serial No	County	Location Date (DD-MM-YY)	In Good Standing To (DD-MM-YY)
BOX 2	NE,NW	33-28S-25E	UT101428896	San Juan	13-May-11	31-Aug-22
BOX 3	NW	33-28S-25E	UT101428897	San Juan	13-May-11	31-Aug-22
BOX 4	NE,NW	33-28S-25E	UT101428898	San Juan	13-May-11	31-Aug-22
BOX 5	SW	4-29S-25E	UT101428899	San Juan	15-May-11	31-Aug-22
BOX 6	SE,SW	4-29S-25E	UT101428900	San Juan	15-May-11	31-Aug-22
BOX 7	SW	4-29S-25E	UT101428901	San Juan	15-May-11	31-Aug-22
BOX 8	SE,SW	4-29S-25E	UT101428902	San Juan	15-May-11	31-Aug-22
BOX 9	SW	4-29S-25E	UT101428903	San Juan	15-May-11	31-Aug-22
CAL FRAC	SE	31-28S-25E	UT101492539	San Juan	13-Oct-69	31-Aug-22
CHUCK NO 1	NW	1-29S-24E	UT101421050	San Juan	22-Sep-70	31-Aug-22
CHUCK NO 2	NW	1-29S-24E	UT101496903	San Juan	22-Sep-70	31-Aug-22
CLOUT 1	SE,SW	33-28S-25E	UT101526072	San Juan	01-Oct-05	31-Aug-22
CLOUT 10	SW	33-28S-25E	UT101526081	San Juan	01-Oct-05	31-Aug-22
CLOUT 11	SW	33-28S-25E	UT101526082	San Juan	01-Oct-05	31-Aug-22
CLOUT 12	SW	33-28S-25E	UT101526083	San Juan	01-Oct-05	31-Aug-22
CLOUT 13	SW	33-28S-25E	UT101520591	San Juan	02-Jul-05	31-Aug-22
CLOUT 14	SW	33-28S-25E	UT101520592	San Juan	02-Jul-05	31-Aug-22
CLOUT 15	NW	4-29S-25E	UT101520593	San Juan	02-Jul-05	31-Aug-22
CLOUT 16	NW	4-29S-25E	UT101526084	San Juan	01-Oct-05	31-Aug-22
CLOUT 17	NW	4-29S-25E	UT101526085	San Juan	01-Oct-05	31-Aug-22
CLOUT 18	NW,SW	4-29S-25E	UT101526086	San Juan	01-Oct-05	31-Aug-22
CLOUT 2	SE,SW	33-28S-25E	UT101526073	San Juan	01-Oct-05	31-Aug-22
CLOUT 3	SE,SW	33-28S-25E	UT101526074	San Juan	01-Oct-05	31-Aug-22
CLOUT 4	SE,SW	33-28S-25E	UT101526075	San Juan	01-Oct-05	31-Aug-22
CLOUT 5	SE,SW	33-28S-25E	UT101526076	San Juan	01-Oct-05	31-Aug-22
CLOUT 6	NE,NW	4-29S-25E	UT101526077	San Juan	01-Oct-05	31-Aug-22
CLOUT 7	NE,NW	4-29S-25E	UT101526078	San Juan	01-Oct-05	31-Aug-22
CLOUT 8	NE,NW	4-29S-25E	UT101526079	San Juan	01-Oct-05	31-Aug-22
CLOUT 9	NE,NW,SE,SW	4-29S-25E	UT101526080	San Juan	01-Oct-05	31-Aug-22
CLOUT G1	NE,SE	33-28S-25E	UT101429171	San Juan	13-May-11	31-Aug-22
CLOUT G2	SE	33-28S-25E	UT101429172	San Juan	13-May-11	31-Aug-22
CLOUT G3	NE	4-29S-25E	UT101429173	San Juan	13-May-11	31-Aug-22

Claim Name	¼ Sec	Sec-Twp-Rng[1]	BLM Serial No	County	Location Date (DD-MM-YY)	In Good Standing To (DD-MM-YY)
FISHER	NW,SW	1-29S-24E	UT101456033	San Juan	28-May-96	31-Aug-22
FISHER 1	NW,SW	1-29S-24E	UT101883769	San Juan	13-Oct-09	31-Aug-22
FISHER 2	NW,SW	1-29S-24E	UT101883770	San Juan	13-Oct-09	31-Aug-22
FISHER 3	SW	1-29S-24E	UT101883771	San Juan	13-Oct-09	31-Aug-22
ROBIN # 1	NE	1-29S-24E	UT101423374	San Juan	26-Aug-70	31-Aug-22
ROBIN # 2	NE,NW	1-29S-24E	UT101420551	San Juan	26-Aug-70	31-Aug-22
ROBIN # 3	NW	1-29S-24E	UT101405941	San Juan	26-Aug-70	31-Aug-22
ROBIN # 4	NW	1-29S-24E	UT101752795	San Juan	26-Aug-70	31-Aug-22
ROBIN # 5	NW	1-29S-24E	UT101402167	San Juan	26-Aug-70	31-Aug-22
SNOWBALL # 2	SW	31-28S-25E	UT101404898	San Juan	18-Jun-68	31-Aug-22
MARTHA NO 20	NE	5-29S-25E	UT101423262	San Juan	27-May-66	31-Aug-22
MARTHA NO 21	NE	5-29S-25E	UT101495305	San Juan	28-May-66	31-Aug-22
MARTHA NO 22	NE,NW	5-29S-25E	UT101407590	San Juan	28-May-66	31-Aug-22
MARTHA NO 23	NW	5-29S-25E	UT101543302	San Juan	28-May-66	31-Aug-22
MARTHA NO 24	NW	5-29S-25E	UT101401664	San Juan	28-May-66	31-Aug-22
MARTHA NO 59	SE	31-28S-25E	UT101407737	San Juan	02-Jun-66	31-Aug-22
MARTHA NO 60	NE,SE	31-28S-25E	UT101409159	San Juan	02-Jun-66	31-Aug-22
MARTHA NO 60A	SE	31-28S-25E	UT101605537	San Juan	22-Oct-68	31-Aug-22
MARTHA NO 61	NE,SE	31-28S-25E	UT101403398	San Juan	06-Jun-66	31-Aug-22
MARTHA NO 62	NE	31-28S-25E	UT101404397	San Juan	06-Jun-66	31-Aug-22
RM 17	NW	1-29S-23E	UT101352679	San Juan	24-Aug-06	31-Aug-22
RM 18	NW	1-29S-23E	UT101352680	San Juan	24-Aug-06	31-Aug-22
RM 19	NW	1-29S-23E	UT101352681	San Juan	24-Aug-06	31-Aug-22
RM 20	NW	1-29S-23E	UT101352682	San Juan	24-Aug-06	31-Aug-22
RM 22	NE	1-29S-23E	UT101352683	San Juan	24-Aug-06	31-Aug-22
RM 23	NE	1-29S-23E	UT101352684	San Juan	24-Aug-06	31-Aug-22
RM 24	NE	1-29S-23E	UT101352685	San Juan	24-Aug-06	31-Aug-22
RM 25	NE	1-29S-23E	UT101353635	San Juan	24-Aug-06	31-Aug-22

Notes:

1. Sec-Twp-Rng = Section-Township-Range

4.2.2 Claims Held by Others

EFR leases the mineral rights on 119 claims located across the Project. These claims are held through four separate mineral leases (MLs) described in detail below. Table 4-2 presents a list of claims held by others. The SLR QP investigated these claims and found all fees have been paid and these are in good standing through September 1, 2022.

4.2.2.1 Crested and T&A Claims

Six Crested and two T&A claims are covered by a Mining Lease dated February 1, 2009, between eight individual owners and Denison, which was acquired by EFR in June 2012. These claims are located in Sections 33 and 34, Township 28 South, Range 24 East and Section 3, Township 29 South, Range 24 East. EFR pays an annual advance royalty determined by the long-term uranium price in the preceding twelve months. Production royalties are on a sliding scale for both uranium and vanadium depending on the respective commodity's market price. The uranium royalty varies from 3% to 8% and the vanadium royalty from 2% to 6%, less allowable deductions. The annual $165/claim annual BLM fees are the responsibility of EFR. No other lease costs apply to these claims.

4.2.2.2 Mike Claims

Six Mike claims are covered by a Mining Lease dated August 1, 2001, between various stakeholders of the Mike claims and Denison, which was acquired by EFR in June 2012. This lease supersedes the original 1970 lease between Umetco and the owners. The claims lie in Section 1, Township 29 South, Range 24 East. Production royalties are on a sliding scale for both uranium and vanadium depending on the respective commodity's market price. The uranium royalty varies from 3% to 8% and the vanadium royalty from 2% to 6%, less allowable deductions. The annual $165/claim annual BLM fees are the responsibility of EFR. No other lease costs apply to these claims.

4.2.2.3 Pandora Claims

The Pandora Mining Lease, dated June 16, 1967, was originally between Robert H. Sayre, Jr. and American Metal Climax, Inc. (American Metal). Successors to American Metal include Atlas Minerals in 1973 and Umetco Minerals Corporation (Umetco) in 1988. EFR is the current successor to the Pandora Mining Lease and its amendments. The Pandora Mining Lease and amendments apply to 105 unpatented Pandora claims. The claims lie in Sections 1 and 12, Township 29 South, Range 24 East, Section 31, Township 28 South, Range 25 East, and Sections 5, 6, and 7, Township 29 South, Range 25 East. Production from these claims is subject to a royalty to Sayre's successors of 10% of the contained value of uranium and vanadium, less certain allowable deductions. The annual $165/claim annual BLM fees are the responsibility of EFR. No other lease costs apply to these claims.

Table 4-2: List of Claims Held by Others
Energy Fuels Inc. – La Sal Project

Claim Name	¼ Sec	Sec-Twp-Rng	BLM Serial No	County	Location Date (DD-MM-YY)	In Good Standing To (DD-MM-YY)
CRESTED # 20	NW	3-29S-24E	UT101403110	San Juan	14-May-66	31-Aug-22
CRESTED # 22	SE	33-28S-24E	UT101349772	San Juan	14-May-66	31-Aug-22
CRESTED # 39	NW	3-29S-24E	UT101408216	San Juan	15-May-66	31-Aug-22
CRESTED # 40	SE	33-28S-24E	UT101406248	San Juan	15-May-66	31-Aug-22
CRESTED # 41	NW	3-29S-24E	UT101408489	San Juan	15-May-66	31-Aug-22
CRESTED # 42	SW	34-28S-24E	UT101456369	San Juan	15-May-66	31-Aug-22
T AND A-1	NW	3-29S-24E	UT101404958	San Juan	14-Jun-72	31-Aug-22
T AND A-2	SW	34-28S-24E	UT101608576	San Juan	14-Jun-72	31-Aug-22
MIKE # 10	NE,SE,SW	1-29S-24E	UT101502185	San Juan	09-Apr-66	31-Aug-22
MIKE # 2	NW	1-29S-24E	UT101426425	San Juan	09-Apr-66	31-Aug-22
MIKE # 2 FRAC	NW	1-29S-24E	UT101401687	San Juan	14-Sep-67	31-Aug-22
MIKE # 4	NW	1-29S-24E	UT101404866	San Juan	09-Apr-66	31-Aug-22
MIKE # 6	NW,SW	1-29S-24E	UT101550229	San Juan	09-Apr-66	31-Aug-22
MIKE # 8	NE,NW,SW	1-29S-24E	UT101409177	San Juan	09-Apr-66	31-Aug-22
PANDORA # 101A	NE	31-28S-25E	UT101493252	San Juan	10-Nov-82	31-Aug-22
PANDORA # 102A	NE	31-28S-25E	UT101404019	San Juan	10-Nov-82	31-Aug-22
PANDORA # 104A	NE	31-28S-25E	UT101407746	San Juan	10-Nov-82	31-Aug-22
PANDORA # 106A	NE	31-28S-25E	UT101404927	San Juan	10-Nov-82	31-Aug-22
PANDORA # 109	NE,NW	1-29S-24E	UT101347029	San Juan	27-May-83	31-Aug-22
PANDORA # 110	NE	1-29S-24E	UT101420857	San Juan	27-May-83	31-Aug-22
PANDORA # 111	NW	6-29S-25E	UT101340222	San Juan	26-May-83	31-Aug-22
PANDORA # 112	NE,NW	6-29S-25E	UT101425835	San Juan	26-May-83	31-Aug-22
PANDORA # 113	NE	6-29S-25E	UT101300732	San Juan	02-Jun-83	31-Aug-22
PANDORA # 114	NW	5-29S-25E	UT101424487	San Juan	02-Jun-83	31-Aug-22
PANDORA # 115	NW	5-29S-25E	UT101425315	San Juan	14-Jun-83	31-Aug-22
PANDORA # 116	NW	5-29S-25E	UT101403074	San Juan	14-Jun-83	31-Aug-22
PANDORA # 117	NE,NW	5-29S-25E	UT101408516	San Juan	15-Jun-83	31-Aug-22
PANDORA # 118	NE	5-29S-25E	UT101402521	San Juan	15-Jun-83	31-Aug-22
PANDORA # 12	SE	1-29S-24E	UT101404017	San Juan	16-Dec-66	31-Aug-22
PANDORA # 16	SE	1-29S-24E	UT101404251	San Juan	16-Dec-66	31-Aug-22

Claim Name	¼ Sec	Sec-Twp-Rng	BLM Serial No	County	Location Date (DD-MM-YY)	In Good Standing To (DD-MM-YY)
PANDORA # 20	NE,SE	1-29S-24E	UT101405986	San Juan	16-Dec-66	31-Aug-22
PANDORA # 24	NE	1-29S-24E	UT101402730	San Juan	16-Dec-66	31-Aug-22
PANDORA # 28	NE	1-29S-24E	UT101349158	San Juan	16-Dec-66	31-Aug-22
PANDORA # 32	NE	1-29S-24E	UT101780639	San Juan	16-Dec-66	31-Aug-22
PANDORA # 36	NE	1-29S-24E	UT101404316	San Juan	16-Dec-66	31-Aug-22
PANDORA # 4	NE	12-29S-24E	UT101503405	San Juan	16-Dec-66	31-Aug-22
PANDORA # 8	SE	1-29S-24E	UT101421112	San Juan	16-Dec-66	31-Aug-22
PANDORA # 81	NE	5-29S-25E	UT101600541	San Juan	18-Dec-66	31-Aug-22
PANDORA 7A	SE	1-29S-24E	UT101422553	San Juan	10-Nov-82	31-Aug-22
PANDORA NO # 100	NE,SE	31-28S-25E	UT101404233	San Juan	19-Dec-66	31-Aug-22
PANDORA NO # 102	NE,NW	31-28S-25E	UT101401326	San Juan	19-Dec-66	31-Aug-22
PANDORA NO # 104	NE,NW	31-28S-25E	UT101401647	San Juan	19-Dec-66	31-Aug-22
PANDORA NO # 46	NE,NW	6-29S-25E	UT101408521	San Juan	17-Dec-66	31-Aug-22
PANDORA NO # 48	NE,NW	6-29S-25E	UT101409099	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 49	NW	6-29S-25E	UT101604547	San Juan	17-Dec-66	31-Aug-22
PANDORA NO # 50	NE,NW	6-29S-25E	UT101404373	San Juan	17-Dec-66	31-Aug-22
PANDORA NO # 51	NE	6-29S-25E	UT101402393	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 52	NE,NW	5-29S-25E	UT101601706	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 53	NW,SW	6-29S-25E	UT101502177	San Juan	17-Dec-66	31-Aug-22
PANDORA NO # 55	NE,SE	6-29S-25E	UT101339317	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 57	SW	6-29S-25E	UT101401423	San Juan	17-Dec-66	31-Aug-22
PANDORA NO # 60	SW	5-29S-25E	UT101453508	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 61	SW	6-29S-25E	UT101405574	San Juan	17-Dec-66	31-Aug-22
PANDORA NO # 64	SE,SW	6-29S-25E	UT101602290	San Juan	17-Dec-66	31-Aug-22
PANDORA NO # 67	SW	5-29S-25E	UT101347335	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 69	NW,SW	5-29S-25E	UT101339949	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 71	NW	5-29S-25E	UT101477332	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 73	NW	5-29S-25E	UT101407646	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 75	NW	5-29S-25E	UT101405943	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 77	SW	32-28S-25E	UT101402169	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 80	SE	32-28S-25E	UT101500934	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 82	NE	5-29S-25E	UT101423850	San Juan	18-Dec-66	31-Aug-22

Claim Name	¼ Sec	Sec-Twp-Rng	BLM Serial No	County	Location Date (DD-MM-YY)	In Good Standing To (DD-MM-YY)
PANDORA NO # 84	NE	5-29S-25E	UT101423204	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 86	NW	4-29S-25E	UT101401804	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 88	NW,SW	4-29S-25E	UT101402082	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 90	SW	4-29S-25E	UT101405564	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 92	SW	32-28S-25E	UT101402716	San Juan	18-Dec-66	31-Aug-22
PANDORA NO # 94	SE	31-28S-25E	UT101402326	San Juan	19-Dec-66	31-Aug-22
PANDORA NO # 96	SE	31-28S-25E	UT101420433	San Juan	19-Dec-66	31-Aug-22
PANDORA NO # 98	SE	31-28S-25E	UT101339936	San Juan	19-Dec-66	31-Aug-22
PANDORA NO 101	NE	31-28S-25E	UT101549848	San Juan	19-Dec-66	31-Aug-22
PANDORA NO 11	SE	1-29S-24E	UT101493251	San Juan	16-Dec-66	31-Aug-22
PANDORA NO 15	SE	1-29S-24E	UT101405957	San Juan	16-Dec-66	31-Aug-22
PANDORA NO 19	NE,SE	1-29S-24E	UT101456707	San Juan	16-Dec-66	31-Aug-22
PANDORA NO 22	NE,NW	1-29S-24E	UT101401333	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 23	NE,SE	1-29S-24E	UT101405183	San Juan	16-Dec-66	31-Aug-22
PANDORA NO 26	NE,NW	1-29S-24E	UT101601932	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 27	NE,NW	1-29S-24E	UT101426209	San Juan	16-Dec-66	31-Aug-22
PANDORA NO 29	NW	1-29S-24E	UT101422565	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 30	NE,NW	1-29S-24E	UT101421177	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 31	NE,NW	1-29S-24E	UT101408274	San Juan	16-Dec-66	31-Aug-22
PANDORA NO 33	NW	1-29S-24E	UT101407715	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 34	NE,NW	1-29S-24E	UT101404868	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 35	NE,NW	1-29S-24E	UT101405589	San Juan	16-Dec-66	31-Aug-22
PANDORA NO 37	SW	31-28S-25E	UT101408595	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 38	SE,SW	31-28S-25E	UT101528260	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 39	SE	31-28S-25E	UT101348469	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 40	SE	31-28S-25E	UT101425245	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 41	NW	6-29S-25E	UT101423215	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 42	NE,NW	6-29S-25E	UT101424896	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 43	NE	6-29S-25E	UT101491843	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 44	NE,NW	5-29S-25E	UT101424941	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 45	NW	6-29S-25E	UT101753812	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 47	NE	6-29S-25E	UT101405932	San Juan	18-Dec-66	31-Aug-22

Claim Name	¼ Sec	Sec-Twp-Rng	BLM Serial No	County	Location Date (DD-MM-YY)	In Good Standing To (DD-MM-YY)
PANDORA NO 54	NE,NW,SE,SW	6-29S-25E	UT101347030	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 56	NW,SW	5-29S-25E	UT101495442	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 58	SE,SW	6-29S-25E	UT101425445	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 59	SE	6-29S-24E	UT101403084	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 62	SE,SW	6-29S-25E	UT101404302	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 63	SW	6-29S-25E	UT101405583	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 65	SW	6-29S-25E	UT101600501	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 66	SE,SW	6-29S-25E	UT101505843	San Juan	17-Dec-66	31-Aug-22
PANDORA NO 68	SE,SW	5-29S-25E	UT101423618	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 7	SE	1-29S-24E	UT101339721	San Juan	16-Dec-66	31-Aug-22
PANDORA NO 70	NE,NW,SE,SW	5-29S-25E	UT101408221	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 72	NE,NW	5-29S-25E	UT101406987	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 74	NE,NW	5-29S-25E	UT101406988	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 76	NE,NW	5-29S-25E	UT101752796	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 78	SE,SW	32-28S-25E	UT101401696	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 79	SE	32-28S-25E	UT101404377	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 83	NE	5-29S-25E	UT101601555	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 85	NE	5-29S-25E	UT101425910	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 87	NE,SE	5-29S-25E	UT101458194	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 89	SE	5-29S-25E	UT101409105	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 91	SE	31-28S-25E	UT101609109	San Juan	18-Dec-66	31-Aug-22
PANDORA NO 93	SE	31-28S-25E	UT101407140	San Juan	19-Dec-66	31-Aug-22
PANDORA NO 95	SE	31-28S-25E	UT101477291	San Juan	19-Dec-66	31-Aug-22
PANDORA NO 97	SE	31-28S-25E	UT101494026	San Juan	19-Dec-66	31-Aug-22
PANDORA NO 99	NE,SE	31-28S-25E	UT101408974	San Juan	19-Dec-66	31-Aug-22

4.2.3 State of Utah School and Institutional Trust Lands Administration Mineral Leases

EFR holds approximately 2,182 acres under mineral lease from the State of Utah School and Institutional Trust Lands Administration (SITLA) in seven separate leases. Three of the leases (ML-18301, -49313, and –51440), covering 900 acres of the surface area, are owned by the State of Utah and thereby grant access to EFR for exploration and mining related work. The other 1,282 acres of surface are under private ownership. The private parcels are all subject to valid access and surface use agreements with the landowners. The production royalty for all SITLA leases is 8% on uranium and 4% on vanadium. It is based on the gross value received under contract for the processed products less the actual processing and refining costs. Mining costs are not allowable deductions.

4.2.3.1 ML-18301

The Utah State mineral lease ML-18301, covering all of the 640 acres in Section 36, T28S, R24E, was originally issued to an individual, Robert Manly, on April 25, 1960. Through a series of assignments and amendments, the lease is now held by EFR. The current term of the lease runs through December 31, 2022; it is renewable annually by making an annual rental payment as well as advance royalty payments. The annual rental is $1.00/acre ($640 total) and the advance royalty payment is based on the previous January through November's average uranium and vanadium market prices. Rentals and annual minimum royalties are credited against actual production royalties for the year in which they accrue. Mining costs are not allowable deductions. The surface of approximately 384 acres of the western part of the lease parcel is owned by Charles Hardison Redd and EFR has a surface access agreement with Redd. The surface of the eastern part of the lease, a total of 256 acres, is owned by the State of Utah State. Rights to necessary surface use are granted by the mineral lease. The eastern part of the Beaver/La Sal mine lies within this lease.

4.2.3.2 ML-27247

Mineral lease ML-27247 covers 40 acres in the SW¼, SW¼, Section 35, T28S, R24E. The lease was originally issued on December 4, 1970, to an individual, Gregory Hoskin. Through a series of assignments and amendments, the lease is now held by EFR. The current term of the lease runs through December 31, 2022; it is renewable annually by making advance royalty payments. The surface of the western 20 acres of the lease parcel is owned by Redd Agri LLC (Redd Agri) and the eastern 20 acres is owned by La Sal Livestock. EFR has a surface access agreement with both Redd Agri and La Sal Livestock. Portions of the western part of the Beaver mine lie on this lease parcel. The lease is held by paying an annual rental payment and an annual minimum royalty based on the previous January through November's average uranium and vanadium market prices. Rentals and annual minimum royalties are credited against actual production royalties for the year in which they accrue.

4.2.3.3 ML-27248

As with ML-27247, the Mineral Lease ML-27248 was originally issued to Gregory Hoskin in December 1970 and is now held by EFR following several assignments and amendments. It covers 80 acres in the W½, NW¼, Section 2, Township 29 South, Range 24 East. With the exception of small parcels owned by the San Juan School District and the La Sal Recreation District, the surface is owned by Redd Agri. EFR has a surface use agreement with Redd Agri for those portions held by Redd Agri. Portions of the western part of the Beaver mine are located on this lease. EFR's operations of the Beaver mine and any expected exploration drilling are not affected by access restrictions to the School and Recreation District's acreage. The lease is held by paying in advance an annual rental and an annual minimum royalty based on the previous January through November average uranium and vanadium market prices. Rentals and annual minimum royalties are credited against actual production royalties for the year in which they accrue.

4.2.3.4 ML-49313

In December 2010, EFR purchased Utah State mineral lease ML-49313 from Uranium One with the seller retaining a 1% overriding royalty. Uranium One acquired the lease from the original assignee, William Sheriff. The lease was renewed by EFR on May 1, 2014, for a second 10-year term. This lease covers about 484 acres in the S½, S½ of NW¼, and E½ of NE¼, Section 36, Township 28 South, Range 23 East. The southeast corner of this section is about one mile west of the Energy Queen shaft. It is connected to the Energy Queen lease property by BLM land (W½, Section 31, Township 28 South, Range 24 East, and part of NW¼, Section 6, Township 29 South, Range 24 East) currently covered by unpatented mining claims (Daisy and DOD claims) held by EFR. ML-49313 is contiguous to the north border of the RM and Judas claims. No mining has taken place on this lease. The surface is owned by SITLA. Rights to necessary surface use are granted by the lease. This lease is held by an annual payment. No annual minimum royalties apply.

4.2.3.5 ML-49314

This lease was issued on April 30, 2004, to William Sheriff. Mr. Sheriff assigned it to Energy Metals Corporation in 2006, which then became Uranium One in 2009. In February 2011, Denison (acquired by EFR in June 2012) purchased it from Uranium One. The lease was renewed by EFR on May 1, 2014, for a second 10-year term. The lease covers 640 acres, all of Section 32, Township 28 South, Range 25 East. This lease lies north of the eastern part of the Pandora Mine, but no mining has occurred on this lease. The surface is owned by Paul Redd. EFR has a surface access agreement with Mr. Redd to access a Pandora Mine ventilation hole. The lease is held by paying in advance an annual rental. No annual minimum royalties apply.

4.2.3.6 ML-49315

This lease was issued on April 30, 2004, to William Sheriff. Mr. Sheriff assigned it to Energy Metals Corporation in 2006, which then became Uranium One in 2009. In February 2011, Denison (acquired by EFR in June 2012) purchased it from Uranium One. The lease was renewed by EFR on May 1, 2014, for a second 10-year term. The lease covers almost 138 acres, mostly in the NE¼ and parts of the NW¼, Section 5, Township 29 South, Range 24 East. A portion of the Redd Block Mineral Resource is located on this lease. The surface is owned by SITLA. Rights to necessary surface use are granted by the lease. No mining has yet occurred. This lease is held by paying in advance an annual rental. No annual minimum royalties apply.

4.2.3.7 ML-51440

In September 2008, EFR was the highest bidder on a State of Utah mineral lease, ML-51440, which covers 160 acres in the N½ S½, Section 32, Township 28 South, Range 24 East. This lease was renewed by EFR on October 31, 2018, for a second 10-year term. This lease borders the Redd Block Mineral Resource on the north side. The surface is owned by SITLA. Rights to necessary surface use are granted by the lease. An annual payment is required to hold this lease. No annual minimum royalties apply.

Table 4-3 presents a list of the Utah School and Institutional Trust Lands.

Table 4-3: Utah School and Institutional Trust Lands (SITLA)
Energy Fuels Inc. – La Sal Project

SITLA Lease Number	Number of Acres	Public Land Survey System Location
ML-18301	640	Sec. 36, T28S, R24E
ML-27247	40	SW¼, Sec. 35, T28S, R24E
ML-27248	80	W½ NW¼, Sec. 02, T29S, R24E
ML-49313	484	S½ S½, NW¼ and E½ NE¼, Sec. 36, T28S, R23E
ML-49314	640	Sec. 32, T28S, R25E
ML-49315	138	NE in part, NW in part, Sec. 5, T29S, R24E
ML-51440	160	N½ S½, Sec. 32, T28S, R24E
Total	**2,182**	

4.2.4 Private Mineral Leases

The private land in the La Sal region is mostly agricultural land. The primary use is dry land ranching, specifically livestock grazing. Several parcels of irrigated hay fields exist as well.

EFR has leased the mineral rights on numerous parcels from various private landowners. The Redd family, as individuals or in legal entities, namely La Sal Livestock and Redd Agri, LLC, has owned much of the subject land for many decades, both mineral rights and surface. A few small parcels have joint ownership of minerals with parties other than the Redd family. The surface estate has been split from the minerals on numerous parcels. EFR has surface use and access agreements in place with all the private landowners that allow for any activities pertaining to exploration, development, and mining.

Most of the mineral ownership east and north of the Energy Queen Mine is vested in Redd Royalties, Ltd. The Energy Queen lease at the west end of the district is not owned by Redd Ranches (a partnership of 11 members of the Redd family) or its affiliates.

4.2.4.1 Superior Uranium – Energy Queen Mining Lease

EFR entered into a 30-day option with Markle Ranch Holdings, LLC on November 15, 2006, to lease the Energy Queen surface rights. A lease was signed on December 15, 2006, for a term of twenty years, which is extendable if mineral production occurs on a continuing basis. The lease gives EFR the right to use any of the 702 acres for exploration, development, or mining purposes. Markle will be paid a small percentage of market value for any material mined on adjoining properties, if such minerals are removed by use of the mineshaft located on the Markle property.

EFR also entered into a 30-day option to lease the Energy Queen mineral rights from Superior Uranium (Superior) on November 15, 2006. A Mining Lease Agreement was signed on December 13, 2006, for a term of twenty years, which is extendable if mineral production occurs on a continuing basis.

The mineral lease and surface lease cover the same 702 acres located in most of Section 6 and the N½ NE¼ and NE¼ NW¼ Section 7, Township 29 South, Range 24 East. A production royalty will be paid on a sliding scale for both uranium and vanadium depending on the market prices of uranium.

The surface and minerals of this parcel were leased previously to Hecla Mining with the surrounding properties controlled by Umetco. These two companies operated the mine, then known as the Hecla Shaft, in a joint venture. The shaft and other surface facilities for the Energy Queen Mine are located in the northeast corner of Section 6.

4.2.4.2 Redd Royalties Block 1-A Mining Lease

The leased parcel referred to as Redd 1-A covers 160 acres in the SE¼ Section 31, Township 28 South, Range 24 East, immediately north of the Energy Queen Mine. This lease was once part of a much larger mining lease dated June 1, 1971, between Union Carbide Corporation (Union Carbide) and Redd Ranches, a partnership of 11 members of the Redd family. The other parcels were released in November 1999. Through a succession of assignments, EFR became the owner of the Mining Lease with the acquisition of Denison's U.S. Mining Division in June 2012. It is the intent of EFR to continue to hold the lease. No mining has occurred on this parcel. The production royalty is a percentage of "gross value". The gross value is the combination of the Uranium Base plus the Vanadium Base. The Uranium Base is determined by a table that has specified dollar amounts based on the U_3O_8 grade of the ore produced. The Uranium Base is adjusted from the table value by the actual price received for sale of concentrates in the preceding six months. The Vanadium Base is determined by the V_2O_5 component of an ore purchase price offered by the Mill or other price of V_2O_5 contained in ore prevailing in the area at the time the ore is fed to the initial process. Surface access is granted to this land in an agreement with La Sal Livestock.

4.2.4.3 Redd Royalties Block 1-B Mining Lease

The leased parcel referred to as Redd 1-B was entered at the same time and in the same form as the Redd 1-A lease described above but covering different parcels of land. The Redd 1-B Mining Lease applies to 1,720 acres in the following sections: S½ SW¼ and SW¼ SE¼, Section 25, NE¼, Section 35, N½ NW¼ and W½ SW¼ Section 36, Township 28 South, Range 23 East; E½ SE¼ and SE¼ NE¼ Section 34 and W½ NW¼ Section 35, Township 28 South, Range 24 East; all of Section 2, Township 29 South, Range 24 East, except the W½ NW¼; the SE¼, E½ SW¼ and E¼ NE¼, Section 3, Township 29 South, Range 24 East; and the N½ Section 11, Township 29 South, Range 24 East. An annual advance royalty is paid to hold this lease. It is the intent of EFR to continue to hold the lease. The production royalty is a percentage of the "gross value"; gross value is defined the same here as under the Redd Royalties Block 1-A mining lease. EFR is granted access to the surface of this Mining Lease under agreements with both La Sal Livestock and Redd Agri.

4.2.4.4 Redd Royalties La Sal Unit Mining Lease

This lease was entered into on February 5, 2008, between Denison (acquired by EFR in June 2012) and Redd Royalties for a 20-year term to cover some of the land previously part of the Redd 1-A that had been released from the 1-A lease in 1999. The leased land lies in the following parcels: NE¼ Section 31, Township 28 South, Range 24 East; S½ NE¼ and SE¼ Section 4, Township 29 South, Range 24 East; and SE½ Section 5, Township 29 South, Range 24 East. It totals approximately 683 acres. An annual advance royalty is paid to hold this lease. No mining has occurred on the subject land. If mining occurs on the lease, a "market value" production royalty will be due on a sliding scale. The "market value" is determined to be the published prices for the two products, uranium and vanadium, in the month the ore is fed to process multiplied by the contained pounds less allowable deductions. The allowable deductions include sales brokerage fees, costs of transporting processed concentrates to point of sale, and applicable production and sales taxes. Payments for surface access agreements are made to Lowry Redd and Charles Redd for specific surface parcel ownership.

4.2.4.5 Redd Royalties Pine Lodge Unit Mining Lease

On January 31, 1968, Union Carbide entered a mining lease with Redd Ranches, a partnership of 11 members of the Redd family, for the rights to more than 3,680 acres north and east of La Sal, Utah. Since then, various parcels have been dropped from the lease. The current lease held by EFR is applicable to only 60 acres described as SE¼ SW¼ and E½ SW¼ Section 31, Township 28 South, Range 25 East. It is the intent of EFR to continue to hold the lease. A production royalty is based upon the "gross value"; gross value is defined the same here as under the Redd Royalties Block 1-A mining lease. Mining in portions of the Snowball Mine took place on the subject land up to the cessation of mining in the Pandora/Snowball Mines in December 2012.

4.2.4.6 Redd Royalties West Pine Lodge Unit Mining Lease

Denison (acquired by EFR in June 2012) entered into a mining lease with Redd Royalties on February 5, 2008, to cover an area previously in the Pine Lodge Unit (described above) that had been dropped from the older lease. The current lease held by EFR applies to 100.4 acres described as W½ NE¼ SW¼; NW¼ SW¼; and Lots 2 and 3, Section 31, Township 28 South, Range 25 East. An annual advance royalty is paid to hold this lease. It is the intent of EFR to continue to hold this lease. No mining has occurred on the subject land. When ore production commences, a "market value" production royalty will be due on a sliding scale. The "market value" is determined to be the published prices for the two products, uranium and vanadium, in the month the ore is fed to process multiplied by the contained pounds, less allowable deductions. The allowable deductions include sales brokerage fees, costs of transporting processed concentrates to point of sale, and applicable production and sales taxes.

4.2.4.7 Redd Royalties Portion of Redd-Mullins Mining Lease

Union Carbide entered into a lease with Katheryn Anne Redd Mullins and 10 other members of the Redd family on April 16, 1973. It covered 50% of the mineral ownership of 280 acres located in S½ SW¼ and S½ SE¼, Section 33, Township 28 South, Range 24 East, and SE¼ SW¼ and W½ SE¼, Section 34, Township 28 South, Range 24 East. The remaining 50% mineral ownership of these parcels is discussed in the subsections Crawford-Kelly portion of Redd-Mullins Land and Barton Norton Estate portion of Redd-Mullins Land.

The lease has undergone various assignments and amendments. The lease is held by an annual advance royalty payment. It is EFR's intent to continue to hold this lease. The production royalty on the 50% mineral ownership on this leased land is due at a percentage of "gross value"; gross value is defined the same here as under the Redd Royalties Block 1-A mining lease. Production from the western end of the Beaver Shaft has occurred on the Section 34 portion of this lease. Surface access is secured through agreements with both La Sal Livestock and Redd Agri for various portions of the leased land.

4.2.4.8 Crawford-Keller portion of Redd-Mullins Land

A 20-year mining lease was entered into between Denison (acquired by EFR in June 2012) and the Erma Crawford Family Trust on April 1, 2008. It applies to the Crawford's 25% mineral ownership of 240 acres of land situated in S½ SW¼ and SW¼ SE¼, Section 33, Township 28 South, Range 24 East, and SE¼ SW¼ and W½ SE¼, Section 34, Township 28 South, Range 24 East. An annual advance royalty payment is made to hold this lease. The production royalty is based on a sliding scale. The "market value" is determined to be the published prices for the two products, uranium and vanadium, in the month the ore is fed to process multiplied by the contained pounds, less allowable deductions. The allowable deductions include sales brokerage fees, costs of transporting processed concentrates to point of sale, and applicable production and sales taxes.

Two additional, identical mining leases were made effective May 1, 2008, and May 12, 2008, between Denison (acquired by EFR in June 2012) and Robert and Pamela Fergusson, and between Denison (acquired by EFR in June 2012) and Carole and Fay Giles, respectively, to lease equally the remaining 25% of mineral rights in the same land parcels. These two leases combined are referred to as the Keller Estate portion of the Redd-Mullins Mining Lease. The annual advance royalty, determined in the same manner as the Crawford portion, is paid in four equal parts to the heirs of the Keller Estate. The Keller Estate lease carries the same production royalty as the Crawford portion.

4.2.4.9 Barton Norton Estate portion of Redd-Mullins Land

Denison (acquired by EFR in June 2012) entered into a mining lease with Joel Norton, representative of the Thora Barton Norton Estate on April 25, 2008. The lease covers a 50% mineral ownership on 40 acres located in the SE¼, Section 33, Township 28 South, Range 24 East. The other 50% mineral right resides with Redd Royalties, as described in the Redd-Mullins Mining Lease subsection. An annual advance royalty payment is made to hold the Barton Norton mineral lease. The vanadium “market value” royalty is variable. The “market value” is determined to be the published prices for the two products, uranium and vanadium, in the month the ore is fed to process multiplied by the contained pounds, less allowable deductions. The allowable deductions include sales brokerage fees, costs of transporting processed concentrates to point of sale, and applicable production and sales taxes. A portion of the Redd Block Mineral Resource is located on this parcel. No mining has taken place on this mineral lease. Surface access is covered by the La Sal Livestock Agreement.

4.2.4.10 San Juan County Mineral Lease

A Metalliferous Mineral Lease between San Juan County, Utah, and Hecla Mining Company was signed April 17, 1967. This gave Hecla the right to explore and mine 262.69 acres located in the S½, Section 32, Township 28 South, Range 24 East, and most of the NW¼, Section 5, Township 29 South, Range 24 East. Two small private parcels in the NW¼ of Section 5 are excluded. A very small parcel, 0.18 acres in Section 10, Township 29 South, Range 24 East, is included in the lease. Hecla assigned 50% interest in the lease to Union Carbide in December 1976 as part of the Hecla-Union Carbide joint venture (JV). This JV operated the Hecla Shaft (now Energy Queen) immediately west of Section 5 on the Superior Uranium Lease. The San Juan County Mineral Lease is held by an annual payment. It is the intent of EFR to continue to hold this lease. An amendment to the lease in January 1968 changed the production royalty to match that used by the State of Utah on it metalliferous leases. When the Energy Queen Mine (Hecla Shaft) ceased operation in 1983, a development drift had advanced into the County land by a few tens of feet. Very little if any ore was produced at that time. The drift was developing toward mineral resources that are now part of the Redd Block Mineral Resources. The mineral lease allows for surface use as necessary for exploration and mining.

Table 4-4 presents a summary of the private and county mineral leases held by EFR.

Table 4-4: Summary of Private and County Mineral Leases Held by EFR
Energy Fuels Inc. – La Sal Project

Lease Name	Number of Acres	Public Land Survey System Location
Superior Uranium Energy Queen	702.0 gross/net	All (except claims Daisy 5-8 HEC 23, Judas 10-13) Sec. 6, N½ NE¼ and NE¼ NW¼ Sec. 7, T29S, R24E
Redd Royalties Block 1-A	160.0 gross/net	SE¼ Sec. 31, T28S, R24E
Redd Royalties Block 1-B	1720.0 gross/net	S½ SW¼ and SW¼ SE¼ Sec. 25, NE¼ NE¼ Sec. 35, N½ NW¼, W½ SW¼ Sec. 36, T28S R23E; E½ SE¼, SE¼ NE¼ Sec. 34, W½ NW¼ Sec. 35, T28S R24E; All of Sec. 2, T29S, R24E, except W½ NW¼; SE¼, E½ SW¼ and E¼ NE¼, Sec. 3, N½ Sec. 11 T29S R24E;
Redd Royalties La Sal Unit	683.0 gross/net	NE¼ Sec. 31, T28S, R24E; S½ NE¼ and SE¼ Sec. 4, T29S, R24E; SE½ Sec. 5, R29S, R24E
Redd Royalties Pine Lodge	60.0 gross/net	SE¼ SW¼ and E½ SW¼ SW¼, Sec. 31, T28S, R25E
Redd Royalties West Pine Lodge	100.4 gross/net	W½ NE¼ SW¼; NW¼ SW¼ and Lots 2 and 3, Sec. 31, T28S, R25E
Redd Royalties Redd-Mullins (50% net)	280.0 gross/160.0 net	S½ SW¼ and S½ SE¼, Sec. 33, T28S, R24E; SE¼ SW¼, W½ SE¼, Sec. 34, T28S, R24E
Crawford-Keller portion of Redd Mullins (25% Net)	240.0 gross/50.0 net	S½ SW¼ and SW¼ SE¼, Sec. 33, T28S, R24E; SE¼ SW¼, W½ SE¼, Sec. 34, T28S, R24E
Barton Norton (50% Net)	40 gross/20 net	SE¼ SE¼, Sec. 33, T28S, R24E
San Juan County Lease	262.69 gross/net	S½ S½, Sec. 32, T28S, R24E; NW¼ in part, Sec. 5, T29S, R24E

4.3 Permits

EFR's La Sal mines are located on a mixture of private, state, and federal lands. Mines on private, state, and federal lands require an approved Notice of Intent (NOI) with the Utah Division of Oil, Gas and Mining (DOGM). As the mines that make up the Project were assembled over a period of time in the 2000s, each had its own set of permits. EFR combined all the permits into a single Project-wide permit in 2018. The entire Project is currently permitted and mining can commence at any time as long as certain permit requirements are met:

- If the mine generates water, a ground water discharge permit is required for the treatment plant and ponds and a surface water discharge permit is required for discharge of treated water. Both permits are issued through the Utah Division of Water Quality (DWQ).
- Air permits for air emissions including radon are issued by the Utah Division of Air Quality (DAQ), however, smaller mines are typically exempt.
- Water well permits, water rights, and stream alteration permits are issued through the Division of Water Resources (DWR).
- On federal land, all the state permits listed above are required; however, a Plan of Operations (POO) and a review under NEPA are also required by the federal land managing agency. The Project mines are all existing mines in historic mining areas and approvals by the BLM and U.S. Forest Service (USFS) have been obtained under Environmental Assessments (EAs) and Findings

of No Significant Impact (FONSI). The counties in southeastern Utah are rural and sparsely populated, and their county permitting requirements are typically limited to building and utility permits. Agreements for maintaining portions of the county roads used for ore haulage are also fairly common.

The SLR QP is not aware of any significant encumbrances to the Project including current and future permitting requirements and associated timelines, permit conditions, and violations and fines.

The SLR QP is not aware of any environmental liabilities on the Project. Energy Fuels has all required permits to conduct the proposed work on the property. The SLR QP is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Project.

4.4 Royalties

Royalties have been discussed above as part of Land Tenure.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Project is easily accessed from the all-weather Utah State Highway 46. Utah 46 enters the Project area about one mile west of the Energy Queen lease. Utah 46 stays within or very near the Project for the next eight miles to the east. The Energy Queen headframe, visible from the highway, is located approximately 500 ft south of Utah 46 and is accessed by a gravel road. The Beaver Shaft headframe is also visible from the highway, located a quarter mile north of the La Sal Post Office, store, and school. The Beaver Shaft headframe is accessed by a gravel road. The La Sal Decline portal and surface facilities are also about a quarter mile off the highway on County Road Wilcox N, approximately three-quarters of a mile east of the La Sal Post Office. A gravel road continues eastward, past the La Sal Decline facilities for about 1.2 miles to reach the portal of the Pandora Mine. The Snowball Mine portal is approximately a half mile north of the Pandora Mine surface facilities. The Snowball Mine is only used for ventilation, so the road is not well maintained. Locations of each of the six mines/properties, as well as access, is shown on Figure 4-1.

All State and U.S. Highways in this area are paved roads with weight limits for 18-wheel trucks of 80,000 lb and are maintained year-round. Utah allows trucks to pull an auxiliary trailer, which results in some trucks hauling more than 75,000 net pounds per trip.

Haulage of material from the Project to the Mill in Blanding, Utah, is by Utah 46 and U.S. Highway 191. The distance from the Project to the Mill is approximately 70 miles as shown in Figure 4-1.

5.2 Vegetation

All elevations within four miles of the center and west end of the Complex support moderate growths of sage and rabbitbrush along with other brush, forbs, cacti, yucca, and grasses. Higher elevations contain juniper and piñon pine in the rocky soils, along with scrub oak, aspen, and ponderosa pine on Pine Ridge to the east.

5.3 Climate

The Project is located in Southeastern Utah on the east side of the Colorado Plateau. The climate of the region lends itself to year-round mining operations.

The area of the Project is semi-arid. Temperatures range between an average low of 41°F to an average high of 72°F. Less than 10 in. of precipitation falls per year. Winters are not particularly severe, although there are numerous snowstorms. The temperature drops below 0°F at times, and snow can accumulate to over a foot in the lower elevations and more than two feet at higher elevations. Based on historic operating experience, it is anticipated that mining operations will occur year-round.

All elevations within four miles of the center and west end of the Project support moderate growths of sage and rabbitbrush along with other brush, forbs, cacti, yucca, and grasses. Higher elevations contain juniper and pinyon pine in the rocky soils, along with scrub oak, aspen, and ponderosa pine on Pine Ridge to the east.

5.4 Local Resources

Due to the history of uranium mining near La Sal, Utah, there are a number of miners who live locally in the small towns in the region but travel to other regions of the country to work while the local uranium mines are not operating. It is anticipated that most personnel will be hired from the local area with other personnel being hired from other mining districts around the country.

La Sal, Utah, is a small town consisting of a Post Office and general store. Most supplies necessary for mining operations can be found locally in the towns of Moab, Utah, or Monticello, Utah, 24 mi northwest or 34 mi south of the Project respectively. Young's Machine Company, which builds most of the trucks used in mining activities, is also located in Monticello, Utah. Larger cities with industrial supply houses and services include Grand Junction, Colorado, (140 miles north) and Cortez, Colorado (100 miles south). Additional supplies could be sourced from regional major cities, including Salt Lake City, Utah, and Denver, Colorado, as needed.

5.5 Infrastructure

The primary infrastructure as well as electricity and water are already in place at the Project. The mines associated with the Project were in commercial production between 2009 and 2012, before being placed on standby. A test-mining program that began in April 2018 and ran through May 2019 included the rehabilitation of both the La Sal and Pandora declines and re-established underground utilities to most of the mine workings. An airport in Moab, Utah provides daily service to Salt Lake City, Utah, and Denver, Colorado, both of which have international airports.

Electric transmission and distribution lines exist throughout the project area, of sufficient size to supply the load the mines demanded in the past. Many portions of the electrical distribution system were replaced or refurbished as part of a test-mining and rehabilitation program that occurred at the Project between April 2018 and May 2019. The electrical supply is also adequate for additional demand should more ventilation fans, compressors, and even another production shaft with hoisting equipment be added when production resumes and expands. Natural gas is also available for any future production needs.

Water for the mine is purchased from a local rancher who maintains a water well near the Beaver Shaft. Water pumped from the well is either transported by truck to the facilities where it is distributed to the mines or by utility drops located throughout the Project. The eastern end of the Project, including all the current mine workings associated with the Beaver Shaft, La Sal Decline, and Pandora Mines are dry. The Energy Queen Mine workings and shaft are currently flooded and will need to be dewatered prior to mining. La Sal is a historical mine currently on standby while continuing environmental compliance activities with all infrastructure in place needed to restart operations.

5.6 Physiography

The majority of the Project area between the Energy Queen Shaft and the La Sal Decline is characterized by a broad shallow valley of hay fields and pasturelands at elevations between 6,400 feet above sea level (ft ASL) and 7,000 ft ASL. The eastern edge of the Project area, including areas east of the La Sal Decline, around the Pandora and Snowball Mines to Pine Ridge is hilly and rougher terrain that ranges in elevations between 7,000 ft ASL and 7,800 ft ASL. The north side of the Project area slopes south and southwest, radially away from the La Sal Mountains, which attain an elevation of 11,817 ft ASL at South Mountain, six miles to the north. The south-southwest slopes consist of boulder gravels shed from the mountains, variably covered by windblown loam. Underlying sedimentary rocks dip to the southwest, ranging from steep dips near the mountains to shallow dips near Utah Highway 46.

The surface of the western part of the Project area is drained by small tributaries to West Coyote Creek, which flows westerly to Hatch Creek, thence northwesterly to Kane Spring Creek, and ultimately to the Colorado River. The eastern end of the Project area is drained by south-flowing tributaries to East Coyote Wash, which flows southeasterly for about 10 mi, and then turns to the east for another seven miles before joining the Dolores River in a deeply incised meandering canyon a few miles into Colorado. The Dolores is a tributary of the Colorado River with the confluence about 60 mi to the north of the Project.

6.0 HISTORY

Prior to the 1960s, the region, including the Project and nearby area, was mined for vanadium, radium, and uranium. Uranium became the emphasis in the region in 1943 when the U.S. Army's Manhattan Project came to the area. After World War II, between 1948 and 1954, exploration work on Morrison Formation outcrops resulted in the discovery of the Rattlesnake Pit two miles southwest of the Energy Queen shaft (U.S. Atomic Energy Commission, 1959). The majority of the work on the Project took place from the 1960s through the 1980s.

6.1 Prior Ownership

In the late 1960s, three mining companies controlled most of the Project. Union Carbide had leases and claims in the central portion of the Project including the La Sal Decline, Snowball Mine, Beaver Shaft, and most of the Redd Block IV property; Union Carbide reorganized in the early 1980s and became Umetco. American Metal Climax held the lease on the Pandora Mine as the east end of the Project; that lease was assigned to Atlas Minerals in 1973 and Atlas Minerals assigned it to Umetco in 1988, retaining an overriding royalty. Hecla Mining held the Energy Queen and San Juan County leases on the west end of the Project. Hecla and Union Carbide formed a joint venture on those properties in 1976.

Umetco and Energy Fuels Nuclear, Inc. (EFNI) (no relation to current EFR) entered into an agreement in 1984 whereby Umetco owned 70% capacity in, and was the operator of, the Mill. That operating agreement was restructured in 1988 wherein EFNI became 20% owner of the Umetco uranium-vanadium properties in Colorado and Utah, including the La Sal properties. In 1994, Umetco gave back its interest in the Mill to EFNI and assigned all interest in the La Sal properties, among others, to EFNI, thereby giving EFNI control of all previous Umetco, Hecla, and Atlas properties in the Project. Many of the Umetco personnel continued working for EFNI. Original data of the previous operators also transferred to EFNI ownership. EFNI bought-out the Atlas Minerals royalty on the Pandora Mine in the mid-1990s. The Hecla 50% interest was also acquired by EFNI.

International Uranium Corporation (IUC) bought all assets of EFNI in 1997 including the Project and the Mill. IUC did not retain the Superior Uranium lease (Energy Queen lease). Again, many personnel and all data on the Project transferred to IUC. In 2006, IUC acquired Denison and changed its name to Denison Mines Corporation (Denison). EFR entered into a new lease on the Energy Queen property in late 2006. EFR acquired Denison's U.S. Mining Division in June 2012, thereby becoming owner and operator (through various subsidiaries) of the entire Project and the Mill. Several persons now on the EFR staff have been associated with all or portions of the Project since the 1980s. All historical data on the Project is the property of EFR.

Since the end of commercial mining at the Project in October 2012, EFR has maintained the Project on care and maintenance. To reduce maintenance costs, EFR has dropped a number of unpatented mining claims on the edges of the Project since 2014. In total, approximately 1,385 acres of claims have been dropped.

6.2 Exploration and Development History

Exploration for uranium deposits, both regionally and in the Project area, generally consists of rotary drilling into the Morrison Formation, specifically the Saltwash Member. The drill holes are then probed utilizing a calibrated gamma probe. The gamma probe records gamma radiation given off by the daughter products of uranium decay and that data can be used to determine an equivalent U_3O_8 grade (eU_3O_8). At the Project, core was collected from drilling to use for vanadium assays and as a check on the eU_3O_8 grades.

Uranium and vanadium deposits were discovered east of the Project in the La Sal Creek area by the Raw Materials Division of the Atomic Energy Commission (AEC) in 1952. That program was successful in identifying new and extending known deposits (Vanadium Queen, Gray Daun, Firefly-Pigmy, and others). Private mining increased in 1953 with drilling outlining a favorable belt about 3,000 ft wide by five miles long to Lion Creek. By 1955, other deposits found farther north of La Sal Creek canyon, Hop Creek, suggested other belts might occur on the east flank of the La Sal Mountains and to the southeast (Carter and Gualtieri, 1965 and Chenoweth, 1981).

Throughout the 1960s and into the 1970s, drilling progressed westward from the head of La Sal Creek canyon discovering Morrison uranium deposits at depth at the Pandora, Snowball, and La Sal mines. Drilling continued westward and intensified in the late 1970s, discovering large uranium-vanadium deposits later accessed by shafts, the Beaver Shaft and Hecla Shaft (Energy Queen Mine). The Redd Block IV property was also located and mostly defined during this time.

6.2.1 Exploration

Most of the exploration completed at the Project occurred before EFR acquired the Project in June 2012. As mentioned, the primary method of exploration for these uranium-vanadium deposits was by surface drilling. Once mining commenced, a number of underground longhole drill holes were completed for both exploration and definition.

6.2.2 Drilling

Historical drilling was conducted primarily by Union Carbide, Atlas Minerals, the Union Carbide/Hecla JV, and Denison. The drilling is a combination of surface exploration and development rotary drilling and underground longhole drilling. Data on both surface and underground drilling is currently in the possession of EFR. Details regarding surface and underground drilling are discussed below.

6.2.2.1 Surface Drilling

Most of the historical drilling across the Project was completed by Union Carbide, Atlas Minerals, or the Union Carbide/Hecla JV. Denison also drilled several holes after their acquisition of the Project. Data associated with this drilling is in the form of geologic logs, assay certificates, composited data on maps, and geophysical logs. Table 6-1 summarizes the historical surface drilling at the Project. Total holes drilled include all the records available to EFR and the useable holes are those that were used as part of the Mineral Resource estimate. The most common reason for a hole that had a record but was not used is that the collar coordinates could not be found or validated.

Table 6-1: Summary of Historical Surface Drilling at the Project
Energy Fuels Inc. – La Sal Project

Company	Total Holes Drilled	Useable Holes	% Usable
Union Carbide (includes Hecla JV)	2,720	1,808	67%
Atlas Minerals	2,157	1,264	59%
Denison	227	220	97%
Total	**5,104**	**3,292**	**65%**

6.2.2.2 Longhole (Underground) Drilling

Union Carbide, Atlas Minerals, and Denison conducted extensive underground longhole drilling during production mining to explore or develop the deposit. In most cases, these were short holes, less than 100 ft, and were probed with a handheld gamma meter. Denison completed much longer holes, up to 400 ft, and logged the holes for gamma with a downhole gamma probe. The data for these holes is in the form of handwritten log sheets, electronic gamma logs, and data on maps. Table 6-2 summarizes the historical underground drilling at the Project. There is no record of underground drilling at the Energy Queen (Hecla) mine. The primary reason that some underground drilling is not useable is that no assay data was available for the hole; additionally, some holes could not be located using their collar coordinates.

Table 6-2: Summary of Historical Underground Drilling at the Project
Energy Fuels Inc. – La Sal Project

Company	Total Holes Drilled	Useable Holes	% Usable
Union Carbide	2,394	1,736	73%
Atlas Minerals	8,549	8,148	95%
Denison	1,293	1,271	98%
Total	**12,236**	**11,155**	**91%**

6.3 Past Production

6.3.1 Pandora

American Metal Climax and Atlas Minerals were the two primary producers from the Pandora Mine from the 1960s through 1988 when Atlas Minerals assigned the Pandora mining lease to Umetco. EFR does not have any records on mine production from either of these two companies.

6.3.2 Snowball/La Sal Decline/Beaver Shaft

Union Carbide controlled the Snowball Mine, La Sal Decline, and Beaver Shaft portions of the Project from early exploration in the 1970s through 1994. Production from these mines occurred during two main phases, between 1977 and 1982 and between 1985 and 1990. A June 29, 1989, review of the Umetco properties states that production from the Beaver and La Sal mines by Union Carbide was approximately

550,000 tons. Given that report was issued prior to when Union Carbide shut down the mines, it is estimated the actual number of tons mined is closer to 580,000 tons.

6.3.3 Energy Queen Shaft (Hecla-Umetco Joint Venture)

The Energy Queen Shaft (formerly known as the Hecla Shaft) was a joint venture between Hecla Mining and Umetco. A shaft was sunk in the late 1970s into the early 1980s and underground development work followed completion of shaft sinking in 1981 to 1982. The mine never reached full production and the majority of the ore mined was as part of development work. Table 6-3 gives production numbers during the development period. The mine was shut down in late 1982 due to low uranium prices.

Table 6-3: Historical Energy Queen Shaft (Hecla) Production
Energy Fuels Inc. – La Sal Project

Year	Tonnage (tons)	Grade (% U_3O_8)	Contained Metal (U_3O_8)	Grade (% V_2O_5)	Contained Metal[1] (lb V_2O_5)
1979	0.0	0.000	0	0.00	0
1980	0.0	0.000	0	0.00	0
1981	5,066.1	0.146	14,762	0.62	62,739
1982	7,733.6	0.176	27,160	0.78	115,429
1983	0.0	0.000	0	0.00	0
Totals/Avg.	**12,799.7**	**0.164**	**41,922**	**0.70**	**178,167**

Notes:

1. Pounds of V_2O_5 are estimated using a 4.25 V_2O_5:1 U_3O_8 ratio

6.3.4 Denison

In response to improving uranium prices, Denison resumed production at the Pandora Mine in late 2006. Rehabilitation work began at the Beaver Shaft and La Sal Decline in December 2008, with production resuming three months later. The production by Denison and EFR (following acquisition of Denison's U.S. Mining Division in June 2012), between 2006 and December 2012 from the mines in the Project area (excluding Energy Queen) was 412,000 tons of ore (1,658,000 lb U_3O_8 at an average grade of 0.20% U_3O_8 and 8,431,000 lb V_2O_5 at an average grade of 1.02% V_2O_5). Due to declining uranium prices, the production at the Beaver Shaft and La Sal Decline ceased in October 2012 and at the Pandora Mine in December 2012.

6.3.5 Energy Fuels Resources

EFR conducted a test mining program in late 2018 through early 2019. The main objective of the test-mining program at La Sal was to determine if there were areas in the mine that were abandoned due to low uranium grades but contained economic vanadium. Handheld x-ray fluorescence spectrometers (XRFs) were the main tool used to quantify the vanadium . The project mined over 5,000 tons of material with average grades of 1.51% V_2O_5 and 0.18% U_3O_8.

Following the test-mining program additional rehabilitation work was done at both the La Sal and Pandora mines. During this time, a decision was made to start commercial production, which began on April 1, 2019, and ran through May 2, 2019. A total of 5,545 tons were produced from both mines at an average grade of 1.43% V_2O_5 and 0.21% U_3O_8.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Colorado Plateau covers nearly 130,000 square miles in the Four Corners region (Figure 7-1). The Project lies in the Canyon Lands Section in the east-central part of the Plateau in Utah. The La Sal Mountains Intrusion is located to the north and east of the Project and the peaks are visible from most of the Project.

Minor uplifts, subsidences, and tiltings have taken place on the Colorado Plateau since Paleozoic times, but mostly the Plateau has been relatively stable resulting in the deposition of fairly flat-lying sedimentary rocks ranging from evaporates, limestones, and marine clastic sediments, through eolian sandstones, to detrital fluvial sediments. The Plateau's basement rocks consist mostly of Proterozoic metamorphics and igneous intrusions.

The Uncompahgre Uplift, forty miles northeast of the La Sal Trend, was active during the late Paleozoic so that Pennsylvanian through early Jurassic sedimentary rocks, which wedge out against the pre-Cambrian crystalline rocks, thicken in the Paradox Basin to the southwest. During the late Mesozoic era the area was inundated by the warm, shallow Cretaceous Seaway, and thick marine shales with sequences of limestone, siltstone, and sandstone were deposited. The Laramide Orogeny during the late Mesozoic caused uplift of the Colorado Plateau region as a relatively intact stratigraphic sequence, with minor folding and faulting.

The thick late Paleozoic-Mesozoic stratigraphic sequences are interrupted locally by salt-cored anticlines (e.g., Lisbon Valley) in the Paradox Basin area, basement fault-related monoclines, and Tertiary laccolithic intrusions (e.g., La Sal Mountains). The salt anticlines are elongated in a northwest-southeast direction, as is the Uncompahgre Uplift. Subsurface flow of the salt was erratically active from the Permian through late Jurassic Periods, thereby affecting deposition of the Triassic and early Jurassic sediments, including the flow of the streams that deposited the Morrison Formation. Sedimentary rocks exposed in the canyons and hogbacks around the La Sal Mountains range from Pennsylvanian through recent and are over 8,500 ft thick (Carter and Gualtieri, 1965).

Approximately four miles to 15 mi north of the Project area are the La Sal Mountains, which consist of Tertiary laccoliths that intruded about 25 million years ago into several different horizons of Paleozoic and Mesozoic sedimentary rocks. There are three main stocks which make the North, Middle, and South Mountains, which are aligned due north-south. Diorite porphyry is the dominant rock type, with minor monzonite porphyry and syenite. The individual intrusive bodies of North and South Mountains are controlled by the salt anticlines and elongate in a northwest direction. The La Sal Mountains were uplifted in the late Tertiary, concurrently with the collapse of the salt anticlines. Deep canyon cutting occurred, continuing through the Pleistocene. The headward canyon-cutting of West and East Coyote Creeks has not yet reached the Project area, leaving the present broad valley. Figure 7-2 is a stratigraphic column of the rock units exposed in the La Sal, Utah, area.

Major uranium deposits of the east-central Colorado Plateau occur principally in two of the fluvial sequences. The older one is located at or near the base of the upper Triassic Chinle Formation. Areas of uranium deposits occur where the basal Chinle consists of channels filled with sandstone and conglomerate that scoured into the underlying sediments. This channel system is known as the Shinarump Member in southern Utah. Farther north, in eastern Utah, the basal member of the Chinle is a younger channel system known as the Moss Back. This is the host of the bulk of the ore mined from the nearby Big Indian District (Lisbon Valley). The Chinle deposition followed a period of tilting and erosion; therefore, the basal contact is an angular unconformity. Where the Chinle channels are in contact with sandstones of the Permian Cutler Formation, good uranium deposits locally occur in the Cutler. The basal Chinle beds at the Project are greater than 2,700 ft below ground surface. Potential for Chinle uranium deposits was explored by Umetco in 1977. A hole drilled in the Mike claims area found minor uranium mineralization in the Moss Back at a depth greater than 2,800 ft. In the western part of Section 2, T29S, R23E, west of the Lisbon Valley Fault, the basal Chinle would be approximately 1,600 ft below ground surface, but, to EFR's knowledge, has not been tested with drilling.

The other significant Colorado Plateau uranium deposits occur in the late Jurassic Morrison Formation. The Morrison comprises two members in the La Sal area. The lower member, the Salt Wash, is the main uranium host. The upper part of the Morrison is the Brushy Basin Member. The Salt Wash consists of about equal amounts of fluvial sandstones and mudstones deposited by braided and meandering river systems. The Brushy Basin was deposited mostly on a large mud flat, probably with many lakes and streams. Much of the material deposited to form the Brushy Basin originated from volcanic activity to the west. The majority of the uranium production has come from the upper sandstones of the Salt Wash Member, known as the Top Rim (historically referred to as the ore-bearing sandstone or OBSS).

In addition to the uranium, many of the deposits contain considerable amounts of vanadium. In general, the Cutler and Shinarump deposits contain very little vanadium, whereas the Salt Wash deposits usually contain large amounts of vanadium. The V_2O_5:U_3O_8 ratio for Salt Wash deposits averages approximately 4:1 and can range up to 15:1 in parts of the Uravan Mineral Belt. The economics of the Salt Wash deposits are enhanced by the vanadium content, even when the vanadium prices are depressed. The west end of the La Sal Trend near the Energy Queen Mine generally has a lower vanadium content than the east end at the Pandora Mine. The average historical vanadium content for the La Sal Trend is a 5.25:1 ratio.

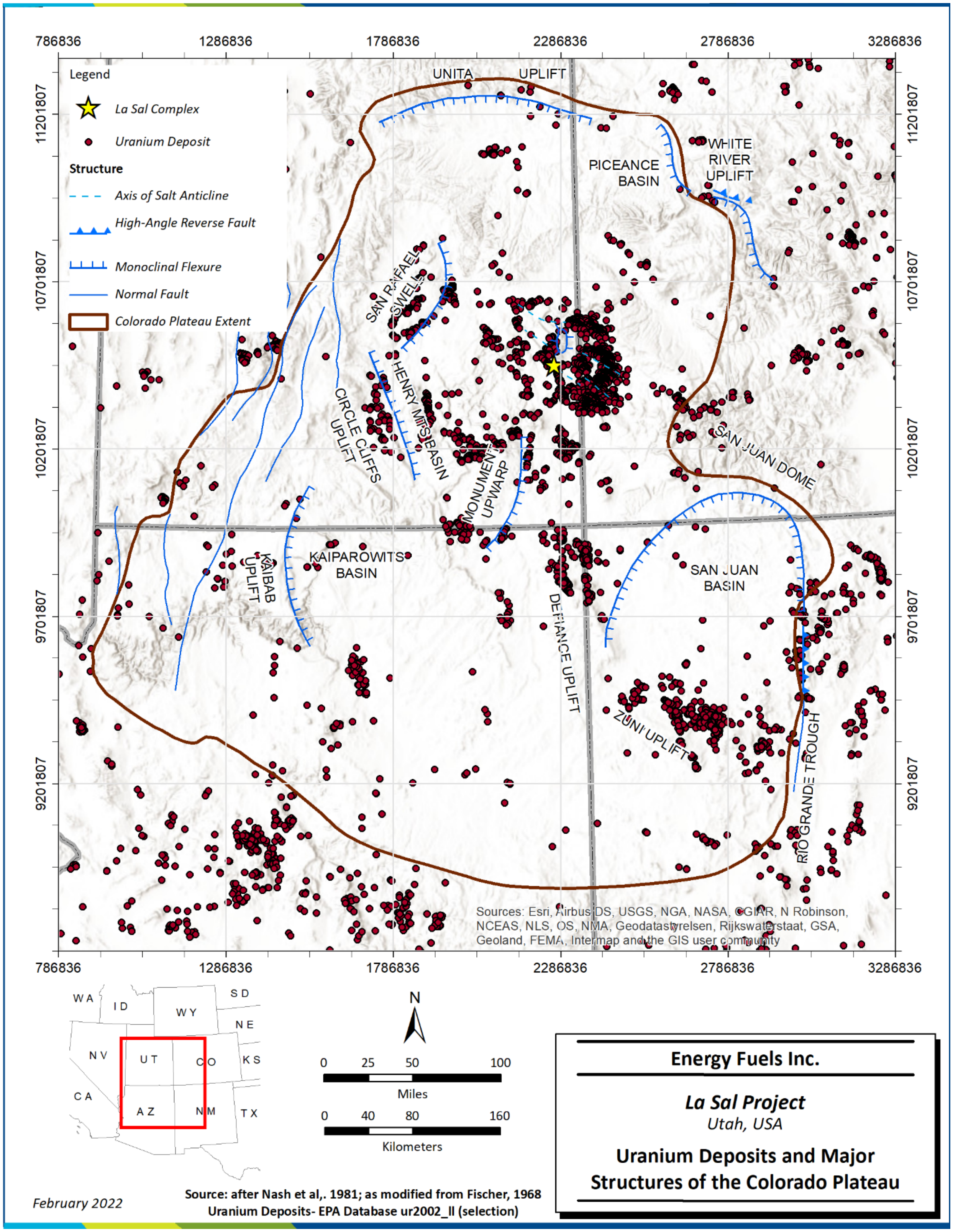


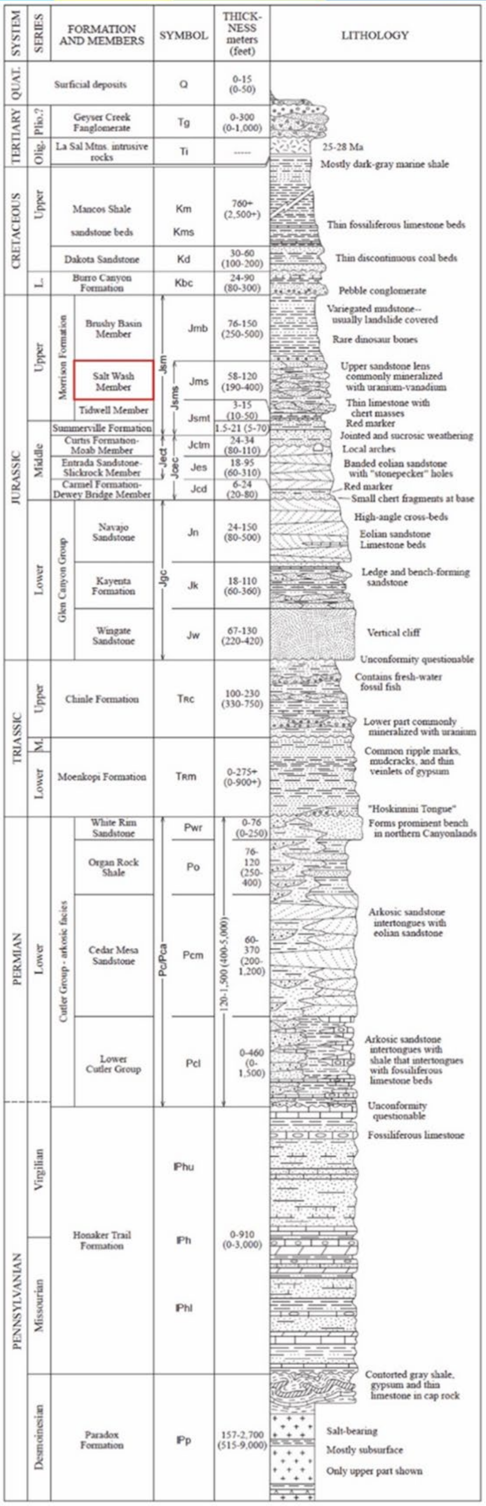
Figure 7-1: Uranium Deposits and Major Structures of the Colorado Plateau

7.2 Local Geology

7.2.1 Geology and Stratigraphy

The central part of the Project, from the Beaver Shaft to west of the Energy Queen Mine, lies in the Browns Hole-Coyote Wash syncline. It is overlain by Quaternary gravel deposits and mixed eolian and alluvium deposits. This alluvial fill consists of moderately rounded pebbles, cobbles, and some boulder-sized rocks with interstitial silts and sands deriving from the La Sal Mountains. Thickness ranges from 0 ft to 120 ft, controlled primarily by paleoweathering surfaces of the underlying units, usually the Mancos Shale. In the western part of the Project, erosion has exposed older geologic units of the Cretaceous Mancos Shale, Dakota Sandstone and Burro Canyon Formation. The lithology of these and the underlying stratigraphy is discussed below. These units crop out as small, isolated windows through the wind-blown sandy soil and Quaternary gravels and as a band along the west edge of the Energy Queen lease where West Coyote Wash has cut somewhat deeper. State lease ML-49313 (Section 36) has experienced more erosion, exposing the upper part of the Morrison Formation. Farther southwest in sections 1, 2, and 12, T29S, R23E, older sedimentary rocks are also exposed because of displacement related to the Lisbon Valley Fault and subsequent erosion. Jurassic rocks exposed here include the Entrada Sandstone, Summerville Formation, and both members of the Morrison Formation. At the east end of the Project area, the Pandora-Pine Ridge portion is structurally higher than the Coyote Wash syncline. Here, the Dakota and Burro Canyon rocks cap the southwest sloping ridge. South-flowing tributaries to East Coyote Wash are eroding steep-walled canyons into the Ridge, exposing the underlying Brushy Basin Member of the Morrison Formation.

Rocks of interest in the subsurface at the Project range from the Permian Cutler Formation to the Cretaceous Mancos Shale. A stratigraphic column is presented in Figure 7-2. The units are described below. A portion of the published Utah Geologic Survey geologic map of the area is presented as Figure 7-3. Figure 7-4 shows a generalized cross section of the area adapted from Weir et al. (1960).



Morrison Formation Descriptions
(from Utah Geological Survey Map 205)

Jmb Brushy Basin Member of Morrison Formation: Variegated siltstone, mudstone, smectitic clay, and lesser amounts of calcareous sandstone and conglomerate, locally with thin lentils of dense limestone; siltstone and mudstone are principally maroon, light purple, grayish red, and light to medium gray; crops out as gentle slopes and steep rounded hills, locally in steep slopes with slight ledges; sandstones range from poorly sorted, conglomeratic, and coarse-grained to well sorted, very fine grained to silty; locally has lenticular conglomeratic sandstone at base with bright-colored chert pebbles and cobbles; lower contact is generally a poorly exposed transition zone of frothy-weathering variegated mudstone and thin light-brown sandstone between the basal conglomeratic sandstone of the Brushy Basin Member and the uppermost sandstone lens of the Salt Wash Member; locally contains petrified dinosaur bone and wood; 76 to150 meters (250-500 ft) thick; Upper Jurassic.

Jms Salt Wash Member of Morrison Formation: Interbedded lenses of light-brown, white, yellow-gray, and very-pale-orange sandstone and medium red-brown and green-gray siltstone and mudstone; has local minor gray limestone and conglomeratic sandstone; sandstones are mostly medium grained with moderate sorting, however, some are fine grained and silty, others are conglomeratic; some are well sorted and others poorly sorted; conglomeratic sandstone is common at the base of the thick lenticular sandstone beds; sandstone lenses are thick and resistant, siltstone and mudstone form slopes or recesses between sandstone lenses; upper sandstone lens is generally mineralized with uranium and vanadium; 58 to 120 meters (190-400 ft) thick, thickening to the south; Upper Jurassic.

Jsmt Tidwell Member of Morrison Formation and Summerville Formation, undivided: These two units form a red ledgy slope between the Salt Wash Member of the Morrison and the Moab Tongue of the Curtis Sandstone; the entire ledgy slope was mapped as the Summerville Formation on previous geologic maps (see "Primary Map Sources" references); the lower part of the ledgy slope is the Summerville Formation, equivalent to the Summerville Formation of the San Rafael Swell (some investigators have called this interval the Wanakah Formation); the upper part of the ledgy slope is the Tidwell Member of the Morrison Formation; the Tidwell (Upper Jurassic) and Summerville (Middle Jurassic) are separated by the J-5 unconformity.

Energy Fuels Inc.

La Sal Project
Utah, USA

Regional Stratigraphic Column

February 2022 **Source: Utah Geological Survey Map 205**

Figure 7-2: Regional Stratigraphic Column

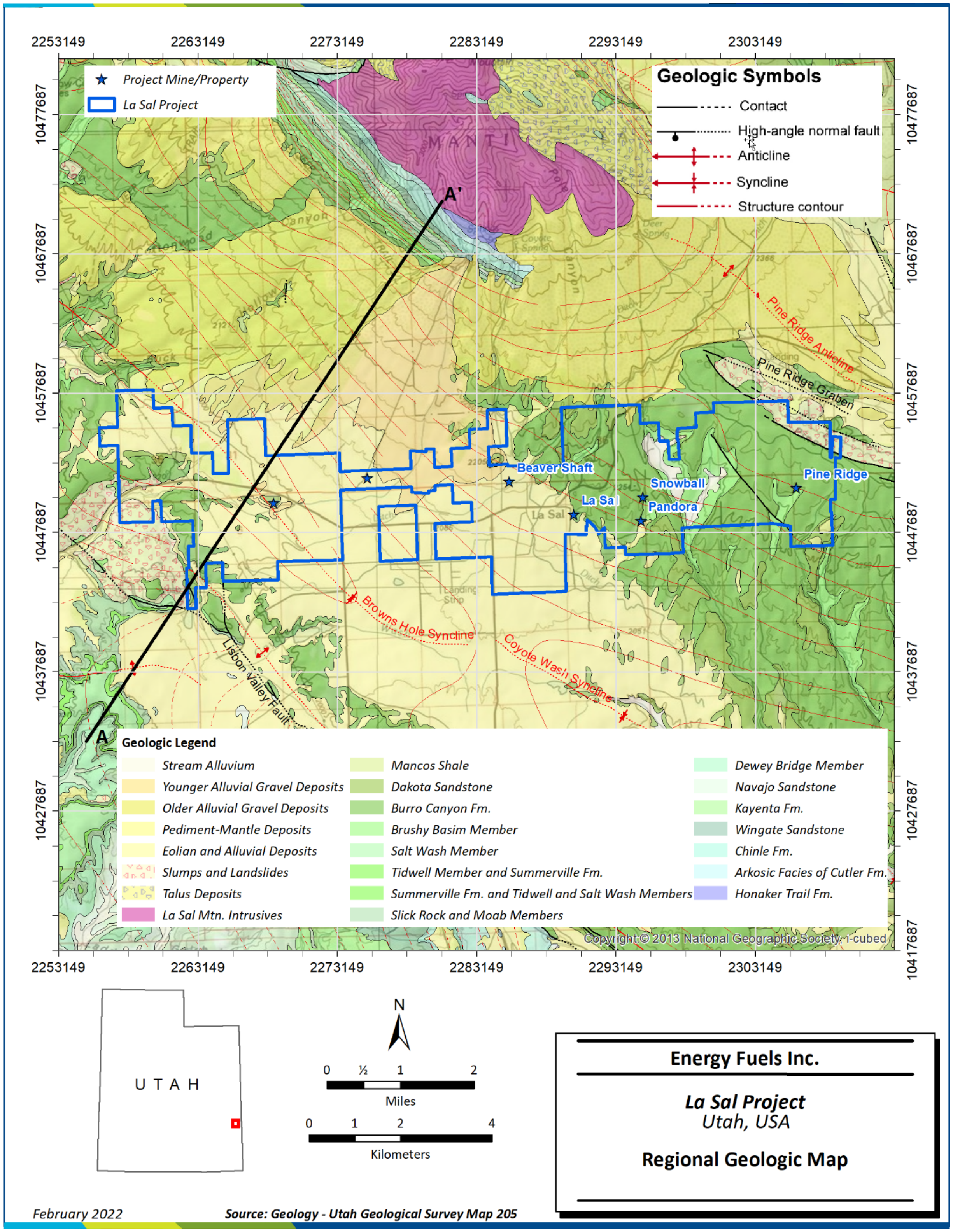


Figure 7-3: Regional Geologic Map

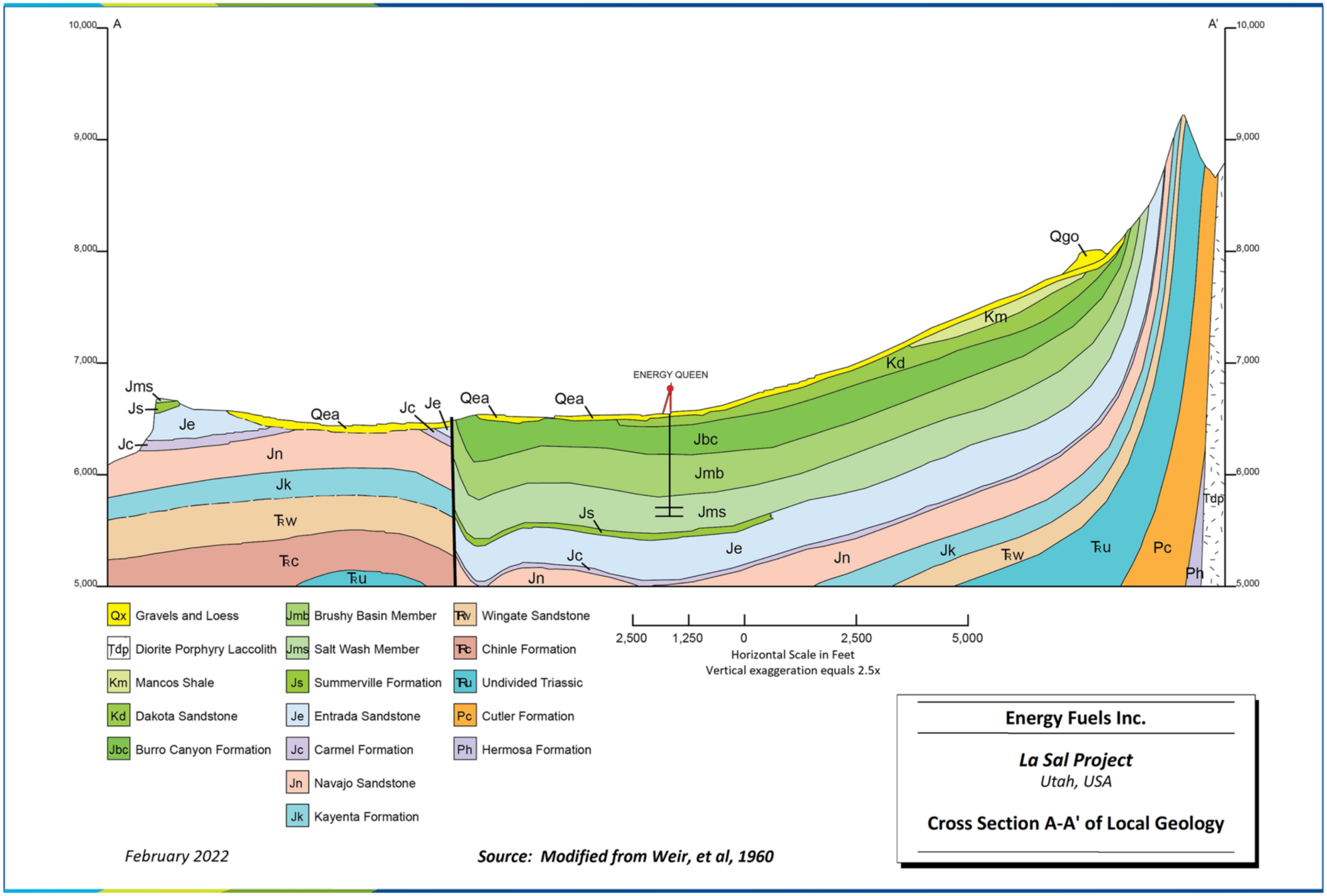


Figure 7-4: Cross Section A-A' of Local Geology

7.2.1.1 Colluvium

Surface colluvium consisting of sands, cobbles and boulders shed from the La Sal Mountains make up the surface geology west of the La Sal Decline east towards the Energy Queen Mine. The colluvium is 0 ft to 120 ft thick in this area. This unit poses challenges in the Project area where exploration drilling occurs as a surface casing is typically needed in this area to stabilize the upper portion of the hole. This unit will be a concern for development of the Redd Block IV property where the development of a shaft or decline would need to go through approximately 50 ft of this unit.

7.2.1.2 Mancos Shale

The Mancos Shale is a black to brown to gray, thinly laminated marine shale with thin siltstone beds. Limestone as nodules and thin lenses contains marine fossils, predominately bivalves. Thickness in the area is between 20 ft and 60 ft with an unconformable contact with the overlying alluvial cover and a gradational and intertonguing contact with the underlying Dakota Sandstone.

7.2.1.3 Dakota Sandstone

The Dakota Sandstone consists of interbedded yellowish-brown sandstone and conglomerate with beds of gray carbonaceous shale containing discontinuous thin coal seams. It can be 150 ft to 200 ft thick where all units are present. On the Energy Queen lease, the Mancos and most of the Dakota were eroded prior to deposition of the Quaternary gravels. A very small exposure of the Mancos occurs in a window through the gravels in the northeast corner of Section 36, T28S, R23E. The Mancos was eroded from the south flank of Pine Ridge before any gravels were deposited. The gravel fan from the La Sal Mountains may never have been deposited as far southeast as the Pandora claims.

7.2.1.4 Burro Canyon Formation

The Burro Canyon Formation consists mostly of light-brown and gray sandstones and conglomerates. It contains interbedded green and purplish mudstones with a few thin limestone beds. Locally, silicification altered the limestones to chert and some of the sandstones to orthoquartzite. Orthoquartzite cobbles and boulders litter the slopes in Section 2, T29S, R23E. Massive lenticular sandstone beds form cliffs and ledges when exposed in outcrop in the Pine Ridge canyons. Local thickness is between 80 ft and 120 ft in the east part of the district. The unit is about 180 ft to 220 ft thick in the Energy Queen area and is an aquifer in the region east of the Lisbon Valley Fault to the west end of the Beaver Shaft. The lower contact with the Morrison Formation is unconformable and represents a hiatus of about 30 million years.

7.2.1.5 Brushy Basin Member of the Morrison Formation

Approximately 90% of the Brushy Basin Member of the Morrison Formation is reddish-brown and gray-green mudstone, claystone, and siltstone composed of clays derived from detrital glassy volcanic debris originating from volcanic activity to the southwest (Cadigan, 1967). This material settled on a large floodplain, and fine-grain clastic material is interbedded with a few channel sandstones and conglomerates. A conglomerate found near the base of the Brushy Basin, called the Christmas Tree Conglomerate, commonly contains red and green chert pebbles. The Brushy Basin also contains a few thin fresh-water limestone beds, some of which have been silicified. Devitrification of the volcanic ash may have been a major source of the uranium that leached downward into the Salt Wash Member sandstone and weakly mineralized some of the Brushy Basin sandstone lenses. The Brushy Basin is 350 ft to 450 ft thick in the Project area. The sandstones can be aquifers. The Brushy Basin crops out in most of sections 1, 2, and 12, T29S, R23E. In section 1 and 12, however, much of it is covered by landslide debris. Good exposures are found in the Rattlesnake open pit southwest of Energy Queen and canyons cut in Pine Ridge east of Pandora.

7.2.1.6 Salt Wash Member of the Morrison Formation

The Salt Wash Member of the Morrison Formation consists of interbedded fluvial sandstones (about 60%) and floodplain-type mudstone units (40%) and is the primary host of uranium mineralization at the Project. The Salt Wash sandstones are usually more fine-grained that Brushy Basin sands. They are varieties of orthoquartzite, arkose, and tuffs. Major detrital components are quartz, feldspars, and rock fragments. Minor components include clays, micas, zircon, tourmaline, garnet, and titanium and iron minerals. The cement is authigenetic silicates, calcite, gypsum, iron oxides, and clays. The sandstone units crop out as cliffs or rims, whereas the mudstones form slopes in nearby La Sal Creek Canyon and the Browns Hole-Black Ridge area. These intervening mudstones contain considerable volcanic ash, similar to the Brushy Basin mudstones. Generally, in the upper part of the Salt Wash, the numerous channel sandstones have coalesced into a relatively thick unit referred to as the Top Rim. Similarly, there is a thick sequence of channel sandstones at the base of the member called the Bottom Rim. Usually there are several thinner sequences or lenticular channel sandstones in the central part of the member, which are termed Middle Rim sands. The largest deposits in the Uravan Mineral Belt, the Moab District, and the La Sal Trend are in the Top Rim, commonly referred to as the OBSS. The Salt Wash is over 300 ft thick in the Project area. Good exposures of the Top Rim sandstones (OBSS) are seen in the floor and lowest walls of the Rattlesnake open pit.

The streams that deposited the Salt Wash sandstones flowed mostly in large meander belts across an aggrading, partly eroded plain with varying subsidence rates. The source area for most of the Morrison Formation was a highland about 400 mi to the southwest. The rocks eroding in the source area included volcanic, intrusive igneous, metamorphic, and minor sedimentary strata. Salt Wash streams generally flowed northeastward, however, some of the channel systems were locally diverted by contemporaneous uplifting of the salt-cored anticlines. Kovschak and Nylund (1981) report the lower part of the Salt Wash is missing in the west end of the La Sal Trend as observed in Union Carbide drill holes. They attribute this to the northwestern nose of the Lisbon Valley anticline being slightly positive topographically during early Salt Wash deposition.

The Salt Wash sandstones exhibit several facies and sedimentary features. The sandstone facies are produced from vertically stacked, aggrading stream channels. These features can be seen in some outcrops, sometimes in drill core and in underground mines, however, these features are often too thin to be identified in borehole logs, such as neutron or resistivity logs. Large cross-bedding is common indicating stream thalwegs. Channel sandstone deposits generally fine upward. Flat, thin bedding of low energy areas can be seen along with apparent levies and crevasse splays. Channel overbank deposits within the Salt Wash form discontinuous, upward coarsening clay lenses. Channel scouring is also common as are the associated point bar deposits of the meandering streams. The point bars are characterized by mudstone galls, which are rip-up clasts from the scouring on the outside of previous meanders. The sand grains become finer upstream. There are often abundant logs and other carbonaceous plant material in the point bars, which make them a prime location for uranium deposition. Isolated oxbow lake deposits are also common.

The major Top Rim sandstones of the La Sal Trend have been interpreted as two channels joining in the vicinity of the Energy Queen Mine, then flowing as one large channel due east. The Mike Claims and part of the Pandora Claims are thought to be in a large meander to the south (Kovschak and Nylund, 1981). It is possible that the entire La Sal Trend is a meander belt rather than a straight-flowing channel. The channel or meander belt is about one mile wide in the center part, near the town of La Sal. In this central area, the upper sandstone attains a thickness of about 120 ft with very few thin mudstone beds. At both ends of the La Sal Trend, the Top Rim interval consists of multiple, thinner sandstone beds (35 ft to 50 ft thick) separated by thicker mudstones (up to 10 ft thick). Sandstone grain size is fine to medium, which is somewhat coarser than farther east in the Uravan Mineral Belt.

Fossils in the Morrison include petrified wood and carbonized plant material, dinosaur bone, tracks, and embryos and sparse microfossils in the thin fresh-water limestone beds.

7.2.1.7 Underlying Units

The Morrison Formation overlies the Jurassic and Triassic San Rafael and Glen Canyon Groups. These consist of several hundred feet of red beds. The uppermost is the reddish-brown, thinly bedded mudstone and shale of the Summerville Formation, containing a few thin, slabby sandstone beds. It varies in thickness from about 25 ft to 80 ft thick. Very small exposures of the Summerville exist only along the Lisbon Valley Fault in Sections 2 and 12, T29S, R23E. Underlying the Summerville is the eolian Entrada Sandstone, which is 250 ft to over 300 ft thick. It is an orange-brown, fine- to medium-grained, bleached sandstone consisting of subrounded and moderately sorted grains. Large cross-bed sets are common throughout the unit. In outcrop it often weathers to smooth, massive exposures. Within the project boundary, the Entrada only crops out on the footwall of the Lisbon Valley Fault in the southwest corner of Section 2. It is the oldest stratigraphic unit exposed on the project property. Under the Entrada is a thin shale unit, about 35 ft thick, named the Carmel. The upper unit of the Glen Canyon Group is the Navajo Sandstone. It is a light-brown, massive, cross-bedded eolian sandstone. Its thickness in the region is variable (100 ft to 450 ft), pinching out against most of the salt anticlines. It is 425 ft thick in a drill hole in Section 5, T29S, R24E. The Navajo Sandstone is above the Kayenta Formation. The Kayenta is up to 230 ft thick and composed of lenticular sandstones interbedded with minor siltstones, shales, and conglomerates. The basal unit of the Glen Canyon Group is the Wingate Sandstone. It is also a massive eolian sandstone over 250 ft thick.

The Late Triassic Chinle Formation consists of bright red and red-brown mudstone and siltstone containing lenticular sandstones in the middle part, as well as thin beds of limestone-pebble conglomerate. Important uranium deposits occur in the basal, calcareous, gray conglomerate (Moss Back Member) which has been mined four miles south of the Project area. Minor amounts of vanadium occur with the uranium (0.47% V_2O_5). The thickness of the Chinle varies greatly in the area, partly due to salt movement, ranging from 200 ft to 600 ft. It was found to be 445 ft thick in the Chinle test hole drilled in Section 5, T29S, R24E. Nearly 78 million pounds (Mlb) of U_3O_8 (averaging 0.30% U_3O_8) have been produced from the Moss Back (Chenoweth, 1990), mostly on the southwest limb of the Lisbon Valley Fault. One large mine, the Rio Algom Lisbon mine, produced from approximately 2,700 ft deep on the down dropped side of the Lisbon Valley Fault (Huber, 1981). The depth of the Moss Back is approximately 2,650 ft at the Energy Queen Mine, 2,800 ft to 2,900 ft elsewhere at the Project to the east of the Energy Queen Mine, and about 1,600 ft deep west of the Fault in the southwest corner of Section 2, T29S, R23E. A historic hole at the Mike claims in Section 1, T29S, R24E reportedly encountered 3.0 ft of 0.10% U_3O_8 in the Moss Back at a depth of approximately 2,800 ft.

Unconformably underlying the Chinle is the Triassic Moenkopi Formation. It is an evenly bedded, chocolate-brown shale and mudstone unit containing thin-bedded ripple-marked sandstone, sporadic limestone lenses, and gypsum layers. The salt anticlines were active following Moenkopi deposition, so it was mostly removed by erosion in the Big Indian District (Huber, 1981).

The Permian Cutler Formation was deposited as a thick clastic wedge derived almost entirely from the Precambrian rocks of the ancestral Uncompahgre Uplift. It contains a variety of rock types from mudstones to conglomerates. Where sandstones lie subjacent to the Moss Back, uranium deposits occur locally. The Cutler overlies the limestones, clastics, and evaporites of the Pennsylvanian Hermosa Formation.

7.2.2 Structural Geology

The local geologic structure at the Project is dominated by the La Sal Mountains intrusion, Pine Ridge Anticline, Browns Hole-Coyote Wash Syncline, and the Lisbon Valley Anticline. The majority of the uranium deposits lie on the eastern flank of the Browns Hole-Coyote Wash Syncline and western flank of the Pine Ridge Anticline. The syncline is the result of the Pine Ridge Anticline, a salt diaper structure formed by underlying Pennsylvanian evaporates on the northeast, and the Lisbon Valley Anticline, also salt-flow related, to the southwest. Dips of the host rocks toward the syncline axis are usually shallow, less than five degrees. The La Sal Mountain intrusion was localized by the same salt-cored structure as the Pine Ridge Anticline. The intrusion of the La Sal Mountains locally bowed the Salt Wash to as much as 40° around the base of the mountains. The Lisbon Valley Fault truncates the deposit to the southwest with approximately 400 ft to 800 ft of displacement. At the west edge of the Project, the Salt Wash is eroded and is not present any further west.

Structurally, the west part of the Project lies in the northwest-trending Browns Hole Syncline formed between the north end of the Lisbon Valley Anticline and the South Mountain intrusion. The Energy Queen shaft is located on the Syncline axis, which has a slight northwest plunge. The beds containing the known deposits at Energy Queen dip gently to the northeast, about one to three degrees, throughout most of the Energy Queen lease and the claims and SITLA lease (ML-49313) to the north and northwest. The west end of the Beaver Shaft and the Redd Block IV property are on the other side of the Browns Hole Syncline axis and dip at about 3.5° to the southwest. As the synclinal structure axis continues to the southeast it flattens, then begins plunging to the southeast and becomes the Coyote Wash Syncline. The host horizon at the Pandora Mine dips southwesterly into the Coyote Wash Syncline at about three degrees. The Pine Ridge Anticline parallels the Coyote Wash Syncline about five miles to the northeast. A collapse feature associated with salt removal at depth (the Pine Ridge graben) occurs along the anticline axis two miles north of the Pandora Mine.

The faults associated with the Pine Ridge graben are far enough north that they have not affected the mining at the Pandora Mine. No faulting occurs in the area of the Beaver Shaft, nor at Redd Block. The proposed mining area of the Energy Queen lease is minimally affected by the Lisbon Valley faulting. Minor faults that are splits of the Lisbon Valley Fault are mapped crossing the claims in Sections 1 and 12, T29S, R23E. These are normal faults striking north-northwest to west-northwest, of small displacement (50 ft to 400 ft), downdropped to the northeast. The main fork of the Lisbon Valley Fault continues northerly in the east part of the claims with about 400 ft of displacement, which is decreasing to the north.

7.3 Mineralization

The uranium and vanadium bearing minerals tend to occur as fine-grained coatings on the detrital sand grains. Minerals fill the pore spaces between the sand grains, and they replace some carbonaceous material and detrital quartz and feldspar grains.

The primary uranium mineral is uraninite (pitchblende – UO_2) with minor amounts of coffinite ($USiO_4OH$). Montroseite (VOOH) is the primary vanadium mineral, along with vanadium clays and hydromica. Traces of metallic sulfides occur. In outcrops and shallow oxidized areas of older mines in the surrounding areas, the minerals now exposed are the calcium and potassium uranyl vanadates, tyuyamunite, and carnotite. The remnant deposits in the ribs and pillars of older workings show a variety of oxidized minerals common along the La Sal Trend. These brightly colored minerals result from the moist-air oxidation of the primary minerals. Minerals from several oxidation stages can be seen, including corvusite, rauvite, and pascoite. Undoubtedly, the excess vanadium forms other vanadium oxides depending on the availability of other cations and the pH of the oxidizing environment (Weeks et al., 1959). The Energy Queen Mine has been full of standing water since 1990, so no direct observations have been made of the mine's workings by the SLR QP.

Some stoping areas in the mine workings are well over 1,000 ft long and several hundred feet wide. Individual mineralized beds vary in thickness from several inches to over six feet. There are three horizons in the Top Rim of the Salt Wash that host mineralization in the La Sal Trend, which are 25 ft to 40 ft apart.

8.0 DEPOSIT TYPES

The Project's uranium-vanadium deposits in the Jurassic Salt Wash Member of the Morrison Formation are sandstone-type deposits that fit into the U.S. Department of Energy's (DOE) classification as defined by Austin and D'Andrea (Mickle and Mathews, 1978) Class 240-sandstone; Subclass 244-nonchannel-controlled peneconcordant. Any future deep drilling to explore for deposits in the Triassic basal Chinle Formation (Moss Back Member) would fit the DOE classification as Class 240-sandstone; Subclass 243-channel-controlled peneconcordant. These classes are very similar to those of Dahlkamp (1993) Type 4-sandstone; Subtype 4.1-tabular/peneconcordant; Class 4.1.2 (a) Vanadium—Uranium (Salt Wash type) and Class 4.1.3-basal-channel (Chinle type).

The La Sal Trend uranium-vanadium deposits are a similar type to those elsewhere in the Uravan Mineral Belt. The Uravan Mineral Belt was defined by Fisher and Hilpert (1952) as a curved, elongated area in southwestern Colorado where the uranium-vanadium deposits in the Salt Wash Member of the Morrison Formation generally have closer spacing, larger size, and higher grade than those in adjacent areas and the region as a whole. The location and shape of mineralized deposits are largely controlled by the permeability of the host sandstone. Most mineralization is in trends where Top Rim sandstones are thick, usually 40 ft or greater.

The La Sal Trend is a large channel of Top Rim sandstone that trends due east, possibly as a major trunk channel to tributaries that fanned-out to the east to make a portion of the Uravan Mineral Belt. The Energy Queen deposit appears to be at the location of the junction of a tributary channel that joins the main channel from the southwest. The Rattlesnake open pit is located upstream of this tributary channel (U.S. Atomic Energy Commission, 1959). The deposit in Section 36 (ML-49313) is in the western extension of the main channel. The channel remains relatively straight, and the uranium deposits get larger as it continues eastward through the Redd Block IV and Beaver Shaft deposits. East of the Beaver Shaft, the channel appears to widen and contain large meanders as it continues through the Mike claims of the La Sal Decline and the Snowball and Pandora Mines to the east.

Most of the La Sal Trend and the Uravan Mineral Belt consist of oxidized sediments of the Morrison Formation, exhibiting red, hematite-rich rocks. Individual deposits are localized in areas of reduced, gray sandstone and gray or green mudstone (Thamm et al., 1981). The Morrison sediments accumulated as oxidized detritus in a fluvial environment; however, there were isolated environments where reduced conditions existed, such as oxbow lakes and carbon-rich point bars. During early burial and diagenesis, the through-flowing ground water within the large, saturated pile of Salt Wash and Brushy Basin material remained oxidized, thereby transporting uranium in solution. When the uranium-rich waters encountered the zones of trapped reduced water, the uranium precipitated. Vanadium may have been leached from the iron-titanium mineral grains and subsequently deposited along with, or prior to uranium.

The habits of the deposits in the La Sal Trend have been reported to be typical of the Uravan Mineral Belt deposits. Where the sandstone has thin, flat beds, the mineralization is usually tabular. In massive sections, it "rolls" across the bedding, reflecting the mixing interface of the two waters. This accounts for several horizons within the Top Rim that are mineralized. Very thin clay layers on cross-beds appear to have retarded ground water flow, which enhanced uranium precipitation. The beds immediately above mineralized horizons sometimes contain abundant carbonized plant material and green or gray clay galls. The mudstone beds adjacent to mineralized sandstone are reduced but can grade to oxidized within a few feet. Lithology logs by Union Carbide of core from historical drilling along the La Sal Trend record these same characteristics, as do interpretations of electric bore hole logs and logging of cuttings in rotary drill holes by Denison and EFR geologists. There are no significant differences between mineral depositional habits in the Top Rim and those in lower Salt Wash sands. EFR drilling (2007 to 2008) near the Energy Queen Mine indicated mineralization occurring at the tops of carbonaceous trash zones in drill holes EQ-07-1, EQ-07-16, and EQ-08-18.

The thickness, gray color, and pyrite and carbon contents of sandstones, along with gray or green mudstone, were recognized by early workers as significant and these still serve as exploration guides. The entire main La Sal Trend exhibits these favorable features, however, the bulk of the uranium deposits identified to date are aligned along the south of the Trend. This is the down-dip edge of the channel where the thick reduced sandstone grades and interfingers into pink and red oxidized sandstone and overbank mudstones (Kovschak and Nylund, 1981).

9.0 EXPLORATION

EFR has not conducted any exploration on the Project other than drilling described in Section 10 of this Technical Report since acquiring the properties in 2012.

10.0 DRILLING

EFR conducted surface exploration drilling on the Energy Queen portion of the Project prior to EFR acquiring the rest of the Project through its acquisition of Denison Mines in 2012. Following the acquisition of Denison, EFR conducted both surface and underground drilling as part of a test mining program in 2018 to 2019. Drilling at La Sal is used to determine lithology, uranium content using radiometric probes, and vanadium mineralization from drill core. Energy Fuels has not conducted any drilling since 2019.

10.1 Surface Drilling

EFR drilled 20 surface holes on the Energy Queen portion of the Project in 2007 and 2008 and drilled an additional seven surface holes on the Energy Queen portion of the Project in 2012. During a test mining program, EFR drilled 30 holes on the La Sal/Beaver portions of the Project in 2019. None of the holes drilled on the Energy Queen portion of the Project were cored. Those holes were drilled to an average depth of approximately 565 ft. and probed with a gamma probe, which is typical for uranium exploration. Of the 30 holes drilled in 2019, 20 were cored through the Top Rim of the Saltwash Member, which is the zone containing uranium and vanadium mineralization at the Project. All 30 holes were logged with a gamma probe as well. Table 10-1 summarizes the surface drilling completed by EFR between 2007 and 2019.

Drillhole collar locations are recorded on the original drill logs and radiometric logs created at the time of drilling, including easting and northing coordinates in local grid or modified NAD 1983 Utah State Plane FIBPS 4303 (US feet) and elevation of collar in feet above sea level. Due to the horizontally stratified nature of mineralization, downhole deviation surveys are not typically conducted as all drillholes are vertical.

Table 10-1: Surface Drilling Completed by EFR
Energy Fuels Inc. – La Sal Project

Year	Mine Area	No. Drill Holes	No. Core Holes	Total Footage (ft)
2007	Energy Queen	16	0	11,840 (est.)
2008	Energy Queen	4	0	2,970.0
2012	Energy Queen	7	0	4,470.0
2019	La Sal/Beaver	30	20	16,961.5
Total		**57**	**20**	**36,241.5**

10.2 Underground Drilling

As part of a 2019 test mining program, EFR drilled and cored 56 underground longholes from three different underground stopes. The purpose of this longhole campaign was to collect core for vanadium assays. All holes were planned to 100 ft, but some were stopped short of that if the geology indicated that the hole was no longer in a mineralized zone. In total, 5,198 ft were drilled and cored. Core recovery was above 95%. The test mining program was shut down prior to the collars of these holes being surveyed. Therefore, they are reported here, but are not used as part of the database for the Mineral Resource estimate completed for this Initial Assessment. Table 10-2 presents the 2019 underground drilling at the Project.

Table 10-2: 2019 Underground Drilling at the Project
Energy Fuels Inc. – La Sal Project

Stope ID	No. Drill Holes	Footage (ft)
2310	19	1,781
2210	11	1,067
721	26	2,350
Total	**56**	**5,198**

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Sample Preparation and Analysis

11.1.1 Gamma Logging

Drilling for uranium is unique in that core does not need to be recovered from a hole to determine the metal content. Due to the radioactive nature of uranium, probes that measure the decay products or "daughters" can be read with a downhole gamma probe; this process is referred to as gamma logging. While gamma probes do not measure the direct uranium content, the data collected (in counts per second or CPS) can be used along with probe calibration data to determine an equivalent U_3O_8 grade in percent (%eU_3O_8). These grades are very reliable as long as there is not an unquantified disequilibrium problem in the area. Disequilibrium will be discussed below. Gamma logging is common in non-uranium drilling to discern rock types. Gamma logging cannot be used to determine vanadium grades.

11.1.1.1 Calibration

For the gamma probes to report accurate %eU_3O_8 values the gamma probes must be calibrated regularly. The probes are calibrated by running the probes in test pits maintained historically by the AEC and currently by the DOE. There are test pits in Grand Junction, Colorado, Grants, New Mexico, and Casper, Wyoming. The test pits have known %U_3O_8 values, which are measured by the probes. A dead time (DT) and K-factor can be calculated based on running the probes in the test pits. These values are necessary to convert CPS to %eU_3O_8. The dead time accounts for the size of the hole and the decay that occurs in the space between the probe and the wall rock. DT is measured in microseconds (µsec). The K-factor is simply a calibration coefficient used to convert the DT-corrected CPS to %eU_3O_8.

Quarterly or semi-annual calibration is usually sufficient. Calibration should be done more frequently if variations in data are observed or the probe is damaged.

11.1.1.2 Method

Following the completion of a rotary hole, a geophysical logging truck will be positioned over the open hole and a probe will be lowered to the hole's total depth. Typically, these probes take multiple different readings. In uranium deposits, the holes are usually logged for gamma, resistivity, standard potential, and hole deviation. Only gamma is used in the grade calculation. Once the probe is at the bottom of the hole, the probe begins recording as the probe is raised. The quality of the data is impacted by the speed the probe is removed from the hole. Experience shows a speed of 20 feet per minute is adequate to obtain data for resource modeling. Data is recorded in CPS, which is a measurement of uranium decay of uranium daughter products, specifically Bismuth-24. That data is then processed using the calibration factors to calculate a eU_3O_8 grade. Historically, eU_3O_8 grades were calculated using the AEC half amplitude method, which gives a grade over a thickness. Currently, the eU_3O_8 grades tend to be calculated on 0.5-foot intervals by software. Depending on the manufacturer of the probe truck and instrumentation, different methods are used to calculate the eU_3O_8 grade, but all, including the AEC method, are based on the two equations given below.

The first equation converts CPS to CPS corrected for the dead time (DT) determined as part of the calibration process

$$DT\ Corrected\ CPS\ (N) = CPS/(1 - (CPS * DT))$$

The second equation converts the Dead Time Corrected CPS (N) to $\%eU_3O_8$ utilizing the K-factor (K)

$$\%eU3O8 = 2KN$$

Depending on the drilling and logging environment, additional multipliers can be added to correct for various environmental factors. Typically, these include a water factor for drill hole mud, a pipe factor if the logging is done in the drill steel, and a disequilibrium factor if the deposit is known to be in disequilibrium. Tables for water and pipe factors are readily available.

11.1.2 Core Sampling

Historically, core samples were only collected to verify uranium grades from gamma logging operations and determine a disequilibrium factor, if any. Core was also collected to determine vanadium grades to establish a vanadium to uranium ratio for use in resource calculations and milling. More recently, Denison and EFR collected core to verify gamma logs and to understand the vanadium grade distributions. Of the 3,300+, surface drill holes used in the Mineral Resource calculations for the Project, only approximately 600 cored and had samples assayed. Most of those samples (98%) were taken by Union Carbide, with the others from EFR and Atlas Minerals

11.1.2.1 Sample Preparation

No record of sample preparation is available for historical operations at the Project. In 2019, EFR drilled 30 surface holes, of which 20 were cored. For those 20 holes, the core was logged by a staff geologist. During logging, the core was scanned with both a scintillometer for gamma measurements and a handheld X-ray Fluorescence Spectrometer (XRF) for metal content. Areas of abnormal gamma measurements or showing uranium or vanadium metal were sampled for assay. Core samples were split with half the core being assayed and the other half archived for later use. The hydraulic core splitter was cleaned prior to splitting to prevent contamination. Samples were bagged and labeled with a sample ID, date, and footage interval. Samples were delivered by a staff geologist to the Mill in Blanding, Utah, for uranium and vanadium assay. The White Mesa Mill Laboratory holds no certifications and no accreditations.

Due to an increase of vanadium prices in 2018, EFR started a test-mining program in October 2018 to investigate mining vanadium as a primary product rather than mining it simply as a coproduct with uranium. This involved muck pile sampling, which to that point had never occurred during production mining at the Project. Samples were collected by staff geologists from every six-ton truck exiting the La Sal and Pandora Declines. For a given blast round, trucks were dumped on the surface in windrows and staked with their blast location. As a blast could range anywhere between one and 10 piles, the geologist waited until the entire round was on the surface and then determined how many samples were needed per round. A single sample, which was a 5-gallon bucket, could contain anywhere from one to four piles worth of material. For a given pile, approximately 1-gallon of material was collected randomly from all sides of the pile. Samples that were made up of more than a single pile were combined into a single 5-gallon bucket and mixed. Samples were given a sample ID based on the mine location and round number and were taken to the Mill for analysis on a bi-weekly basis.

11.1.2.2 Assaying and Analytical Procedure

No record of the assaying or analytical procedures are known from historical operations. Assay certificates from Union Carbide indicate that assays were performed at their in-house lab in Grand Junction, Colorado. Samples analyzed in 2019, at the Mill, were analyzed using a set of in-house standard operating procedures using equipment calibrated in line with the manufacturer's recommendations.

11.1.3 Radiometric Equilibrium

Disequilibrium in uranium deposits is the difference between equivalent (eU_3O_8) grades and assayed U_3O_8 grades. Disequilibrium can be either positive, where the assayed grade is greater than the equivalent grades, or negative, where the assayed grade is less than the equivalent grade. A uranium deposit is in equilibrium when the daughter products of uranium decay accurately represent the uranium present. Equilibrium occurs after the uranium is deposited and has not been added to or removed by fluids after approximately one million years. Disequilibrium is determined during drilling when a piece of core is taken and measured by two different methods, a counting method (closed-can) and chemical assay. If a positive or negative disequilibrium is determined, a disequilibrium factor can be applied to eU_3O_8 grades to account for this issue.

Kovschak and Nylund (1981) report no apparent disequilibrium problems during mining along the La Sal Trend. Mining and milling by Denison and EFR shows that well-calibrated gamma probes used by the mining personnel equate well to the mill head grades, indicating no significant disequilibrium problems. This is generally true of Salt Wash uranium deposits due to the age of the mineralization and the hydrologic history of the host rocks. Therefore, EFR has no reason to anticipate any disequilibrium conditions within the unmined portions of the deposit within the Project area.

11.2 Sample Security

ERF's surface drilling program used split-half core for assays. The remaining half core was returned to the core box for archiving. The core was transported to a storage facility owned by Energy Fuels where it remains in a locked shed.

The underground core had a one inch diameter so the entire core was used for assay. At the end of the program, the non-sampled intervals were added to the waste dump.

Samples for both the test mining and drilling were transported to the Mill by an Energy Fuels employee. All samples were transported with Chain of Custody documentation.

11.3 Quality Assurance and Quality Control

No record of the quality assurance and quality control (QA/QC) procedures from historical operations are known. Historical production based on the available data of millions of pounds of uranium and vanadium demonstrate that the quality of the data justified and sustained production. It is assumed that a company the size of Union Carbide had in house QA/QC procedures during sampling and analysis of core samples.

As part of EFR's 2019 drilling program and test-mining program, standards and blanks were submitted to the Mill as part of the sampling program. Vanadium standards of the grades found at La Sal (>1% V_2O_5) were not found to be readily available through typical suppliers. One standard from a black shale hosted vanadium deposit was found, but due to its color and the titrations performed for vanadium assay, it proved to be unusable. Sandstone hosted uranium standards were purchased from Oreas of various grades (0.0243%, 0.0480%, 0.0973%, and 0.2098% U_3O_8) and submitted to the Mill regularly. Blanks, consisting of quartz sand, were also submitted. In addition to the standards and blanks, the Mill sent 19 fine grained reject duplicates to a third-party laboratory (Inter-Mountain Laboratory in Sheridan, Wyoming) for analysis as check assay samples. Inter-Mountain Laboratory (now Pace Analytical) holds certifications from the DOE, the US Environmental Protection Agency (EPA) and several other accreditations (http://intermountainlabs.com/certifications.html).

The SLR QP reviewed the EFR data provided for QA/QC. Figure 11-1 is a Z-Score graph of the U_3O_8 results for standards submitted with respect to their standard deviation. Figure 11-2 is a graph depicting the Duplicates rerun within the White Mesa Laboratory. The results show a minimal amount of bias towards the duplicate sample. Figure 11-3 is a graph showing the check assay samples submitted to the third part laboratory with respect to the original values measured at the Mill. The results show a minimal about of bias towards the third party laboratory.

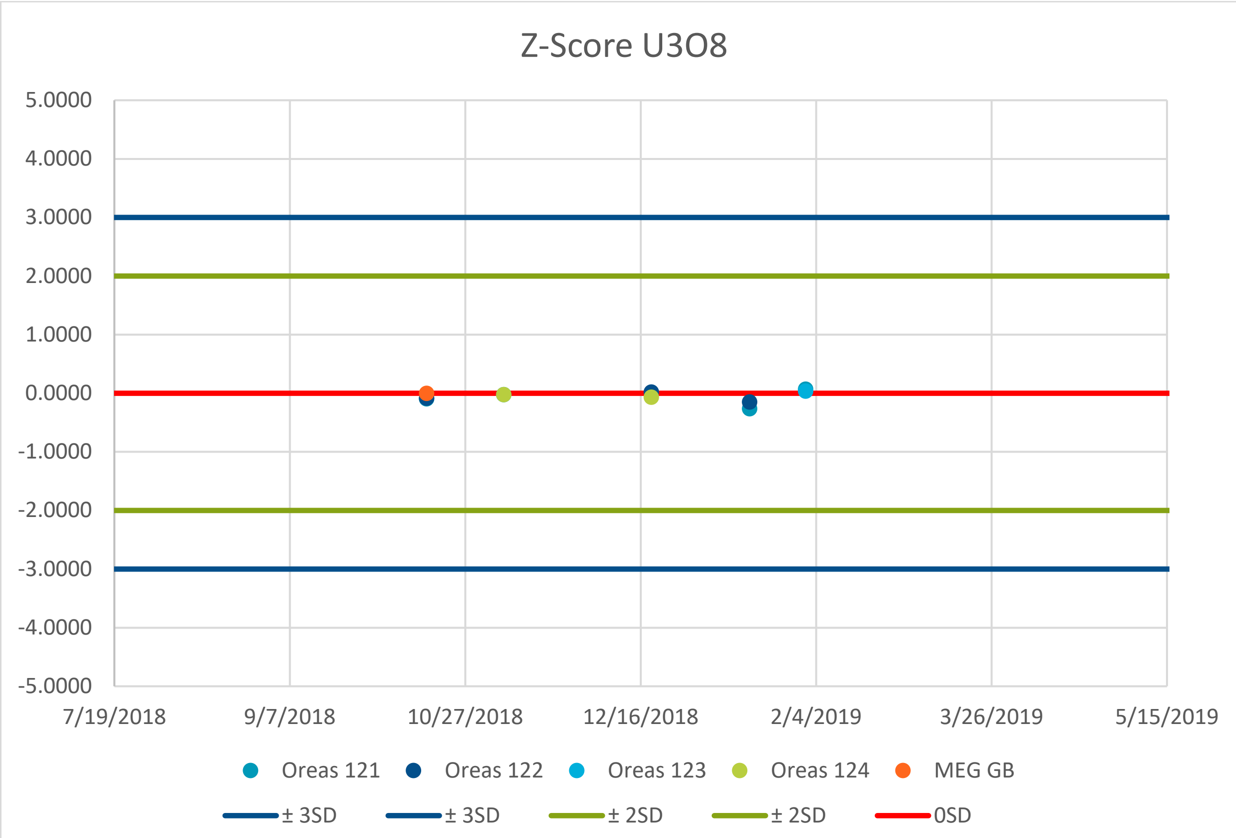


Figure 11-1: Z-Score for Uranium Standards

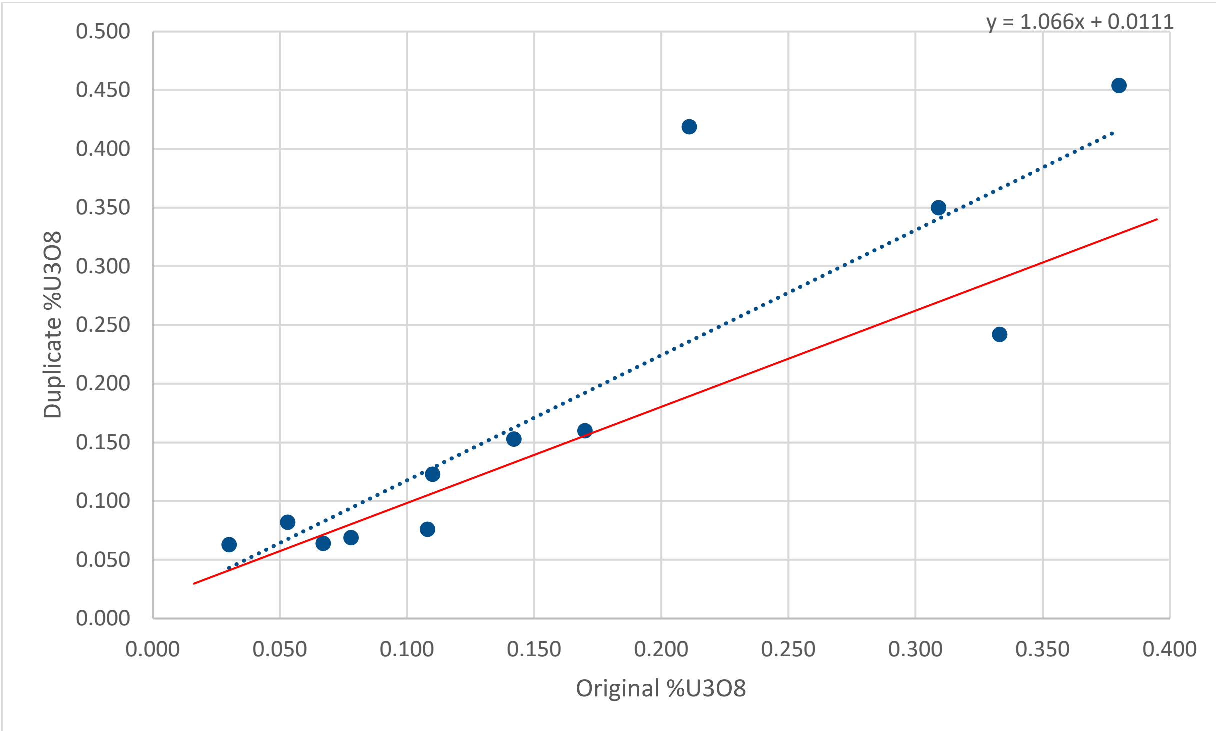
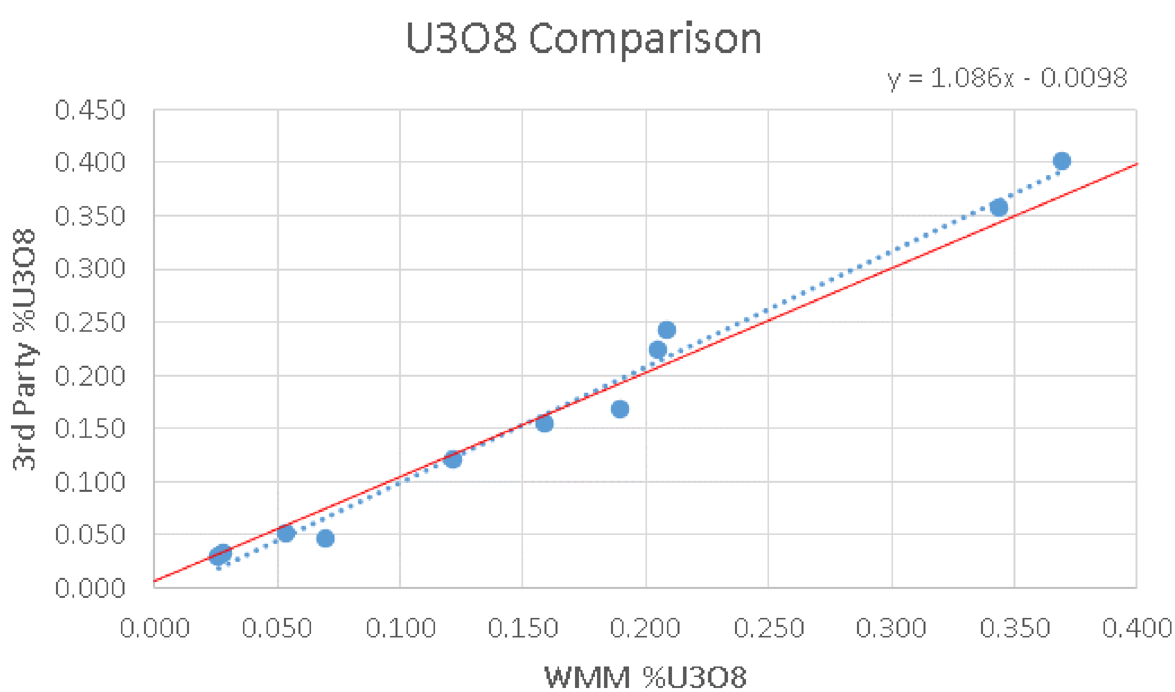


Figure 11-2: Original vs Duplicate Samples for Uranium – White Mesa Mill



Notes:

1. WMM: White Mesa Mill.

Figure 11-3: Original vs Third Party Check Assay Samples for Uranium

11.4 Conclusions

The SLR QP is of the opinion that the QA/QC protocols set in place by EFR are of industry standard and are appropriate for supporting the use of the data in resource estimation.

The SLR QP recommends procuring a vanadium standard to monitor vanadium assay performance.

In the SLR QP's opinion, the historical and most recent radiometric logging, analysis, and security procedures at the Project are adequate for use in the estimation of the Mineral Resources. The SLR QP also opines that, based on the information available, the original gamma log data and subsequent conversion to % eU_3O_8 values are reliable. Furthermore, there is no evidence that radiometric disequilibrium would be expected to negatively affect the uranium resource estimates.

The SLR QP is of the opinion that the sample security, analytical procedures, and QA/QC procedures used by EFR meet industry best practices and are adequate to estimate Mineral Resources.

In the future, EFR should locate a usable vanadium standard or create one using material from the Project to assess the grades from the White Mesa Mill laboratory. In addition, some density analyses should be completed to determine if the used historical value is accurate for the Project.

12.0 DATA VERIFICATION

Data verification is the process of confirming that data has been generated with proper procedures, is transcribed accurately from its original source into the project database and is suitable for use as described in this Technical Report.

As part of this Technical Report, all of the historical data associated with the Project was compiled, organized, and entered into a new database by EFR personnel and audited by the SLR QP for completeness and validity. The data was in the form of assay certificates, probe data, drill hole maps, drill hole logs, assay data sheets, drill logs, and reports. This includes data from Union Carbide, Atlas Minerals, Denison, and EFR (data prior to 2018). Specifically, any data which appears higher or lower than the surrounding data is confirmed by reviewing the original geophysical log. This data review includes confirming that the drill depth was adequate to reflect the mineralized horizon, that the geologic interpretation of host sand is correct, and that the thickness and grade of mineralization is correct.

Certification of database integrity is accomplished by both visual and statistical inspections comparing geology, assay values, and survey locations cross-referenced to historical paper logs. Any discrepancies identified are corrected by the EFR resource geologist referring to hard copy assay information or removed from use in the Mineral Resource estimation.

12.1 SLR Data Verification (2021)

The SLR QP visited the Project on November 11, 2021. Discussions were held with the EFR technical team and found them to have a strong understanding of the mineralization types and their processing characteristics, and how the analytical results are tied to the results. The SLR QP received the project data from EFR for independent review as a series of MS Excel spreadsheets and Vulcan digital files. The SLR QP used the information provided to validate the Mineral Resource interpolation, tons, grade, and classification.

12.1.1 Audit of Drillhole Database

In preparing this Technical Report, the SLR QP conducted audits of EFR records and a series of verification tests on the drillhole database to assure that the grade, thickness, elevation, and location of uranium mineralization used in preparing the current Mineral Resource estimate correspond to mineralization indicated by the EFR geologists

The SLR QP's tests included a search for unique, missing, and overlapping intervals, a total depth comparison, duplicate holes, property boundary limits, and verifying the reliability of the % eU_3O_8 grade conversion as determined by downhole gamma logging. The SLR QP did not encounter any significant discrepancies with the La Sal data in the vicinity of modeled mineralized zones.

The SLR QP did not identify any significant problems with the interpretations and U_3O_8 conversion and calculations and is of the opinion that the calibration factors are acceptable. The SLR QP conducted a review of grade continuity for each mineralized sandstone unit. Results indicate continuity of mineralization within the Saltwash sandstone unit in both plan and section in elongate tabular or irregular shapes. The SLR QP is of the opinion that, although continuity of mineralization is variable, drilling confirms that local continuity exists within individual sandstone units.

12.2 Limitations

There were no limitations in place restricting the ability to perform an independent verification of the Project drillhole database. There has been adequate drilling to develop the Mineral Resource models. EFR notes the major limitation associated with the data from drilling completed by Union Carbide and Atlas Minerals is that the data contains no gamma logs that verify probe truck data for holes where no core was collected and assayed. This data is reported on data sheets or maps with a bottom elevation of mineralization, the %eU_3O_8 grade, and an intercept thickness. While EFR assumes the data is accurate, it is possible there could be a typographical error or misinterpretation of the data.

Another issue identified by EFR is that the majority of the holes drilled by these two companies contain no downhole survey data. The holes are therefore represented as vertical, when it is known these holes drifted from the collar location. It is evident from holes with downhole survey data and from mining that intersected a hole that the holes tend to wander 10 ft to 20 ft to the north of the collar location.

12.2.1 Conclusions

La Sal has been subject to a number of production periods for almost 60 years. There has been adequate drilling to develop the Mineral Resource models that have been used for historically successful mine planning. The Mineral Resource models have performed well, indicating the drill hole database contains valid data. The SLR QP is of the opinion that database verification procedures for La Sal comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

While the exclusion of some gamma logs and downhole deviation data due to missing collar coordinates or radiometric logs requires further investigations the SLR QP opines the fact that millions of pounds of uranium and vanadium have been produced from the Project indicates that the mineralization is present and has been used successfully for mine planning in the past. All previous operators were respected large producers in the uranium mining industry and there is no reason to suspect the data is inaccurate. Methods have been utilized in underground mining to account for the deviation of a drill hole. As the deposit is fairly continuous, the miner can usually “chase” the mineralization towards the drill hole intercept they are trying to mine. Underground drilling can be used to delineate the mineralization during production mining.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Material mined from the Project, including material mined between 2009 and 2012, has been successfully processed at the Mill in Blanding, Utah. Any material mined in the future will be processed at the Mill.

The Mill is located six miles south of Blanding in southeastern Utah. Construction commenced in June 1979 and was completed in May 1980. Its construction by EFNI was based on the anticipated reopening of many small low-grade mines on the Colorado Plateau, and the Mill was designed to treat 2,000 tons of ore per day. The Mill has operated at rates in excess of the 2,000 tons per day design rate. The Mill has been modified to treat higher grade ores from the Arizona Strip, as well as the common Colorado Plateau ores. Processing of Arizona Strip ores is typically at a lower rate of throughput than for the Colorado Plateau ores. The basic mill process is a sulfuric acid leach with solvent extraction recovery of uranium and vanadium.

Since 1980, the Mill has operated intermittently in a series of campaigns to process ores from the Arizona Strip as well as from a few higher-grade mines of the Colorado Plateau. Overall, the Mill has produced approximately 30 million lb U_3O_8 and 33 million lb V_2O_5.

13.1 Metallurgical Testing

Metallurgical testing data is not available for the Project. Historically, material mined at the Project has been processed at multiple uranium/vanadium mills in the region with no known issues. Material mined at the Project during the last major mining campaign, 2009 through 2012, was processed at the Mill. During that campaign, the Mill ran approximately 445,000 tons of material mined from the Project. Recovery numbers were 96% for uranium and 70% for vanadium. Since that time, additional work has been conducted on the vanadium circuit and EFR anticipates vanadium recoveries of 75% are achievable. For this Technical Report recoveries of 96% for uranium and 75% for vanadium have been used in the Mineral Resource estimate.

13.2 Opinion of Adequacy

The SLR QP supports the conclusions of the expected performance of the metallurgical processes based on test work conducted by EFR. It is also the SLR QP's opinion that the successful historical mining operations at La Sal supersede any metallurgical testing program and the available operating data is more than adequate to support the stated expected recovery.

14.0 MINERAL RESOURCE ESTIMATE

14.1 Summary

Mineral Resources have been classified in accordance with the definitions for Mineral Resources in S-K 1300, which are consistent with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM, 2014) definitions which are incorporated by reference in NI43-101.

The SLR QP has reviewed and accepted the Mineral Resource estimate prepared by EFR based on block model values based on radiometric drillhole logs on the five principal mineralized domains (La Sal West, Energy Queen, Redd Block, Beaver/La Sal, and Pandora). Mineral Resources have been estimated by EFR using Vulcan software using inverse distance squared methods. This Mineral Resource provides estimates for uranium and calculated vanadium mineralization.

For reporting purposes, the five estimates have been summarized into four deposits with EFR electing to combine the La Sal West and Energy Queen resource to remain consistent with previously reported resource estimates.

Table 14-1 summarizes Mineral Resources based on a $65/lb uranium price using a cut-off grade of 0.17% eU_3O_8. The effective date of the Mineral Resource estimate is December 31, 2021.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

Table 14-1: Summary of Mineral Resources – Effective Date December 31, 2021
Energy Fuels Inc. – La Sal Project

Classification	Tonnage (000 tons)	Grade (% eU_3O_8)	Contained Metal (000 lb eU_3O_8)	Grade (% V_2O_5)	Contained Metal (000 lb V_2O_5)	Recovery (%)	EFR Basis (%)
Total Inferred	823	0.26	4,281	1.08	17,746	96	100

Notes:

1. SEC S-K 1300 definitions were followed for all Mineral Resource categories. These definitions are also consistent with CIM (2014) definitions in NI 43-101.
2. Uranium Mineral Resources are estimated at a cut-off grade of 0.17% U_3O_8.
3. Vanadium Mineral Resources are estimated based on calculations from U_3O_8 vs V_2O_5 regression analysis.
4. The cut-off grade is calculated using a metal price of $65/lb U_3O_8
5. No minimum mining width was used in determining Mineral Resources.
6. Mineral Resources are based on a tonnage factory of 14.5 ft^3/ton (Bulk density 0.0690 ton/ft^3 or 2.21 t/m^3).
7. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
8. Total may not add due to rounding
9. Mineral Resources are 100% attributable to EFR and are in situ.

14.2 Resource Database

From 1967 to 2019, EFR and its predecessors have completed 17,397 holes (5,159 surface and 12,236 underground) totalling 3,031,208 ft, of which 14,326 drillholes totalling 2,899,916 ft of drilling have been used in this resource estimation (Figure 14-1). The Project resource database, dated October 2019, includes drilling results from 1967 to 2019 and includes surveyed drillhole collar locations (including dip and azimuth), assay, and radiometric probe (Table 14-2).

Table 14-2: Summary of Available Drillhole Data for Resources
Energy Fuels Inc. – La Sal Project

Parameter	Number of Records
Collar	14,326
Survey	42,713
Probe	718,630
Assay U_3O_8	6,166
Total Footage (ft)	2,899,916

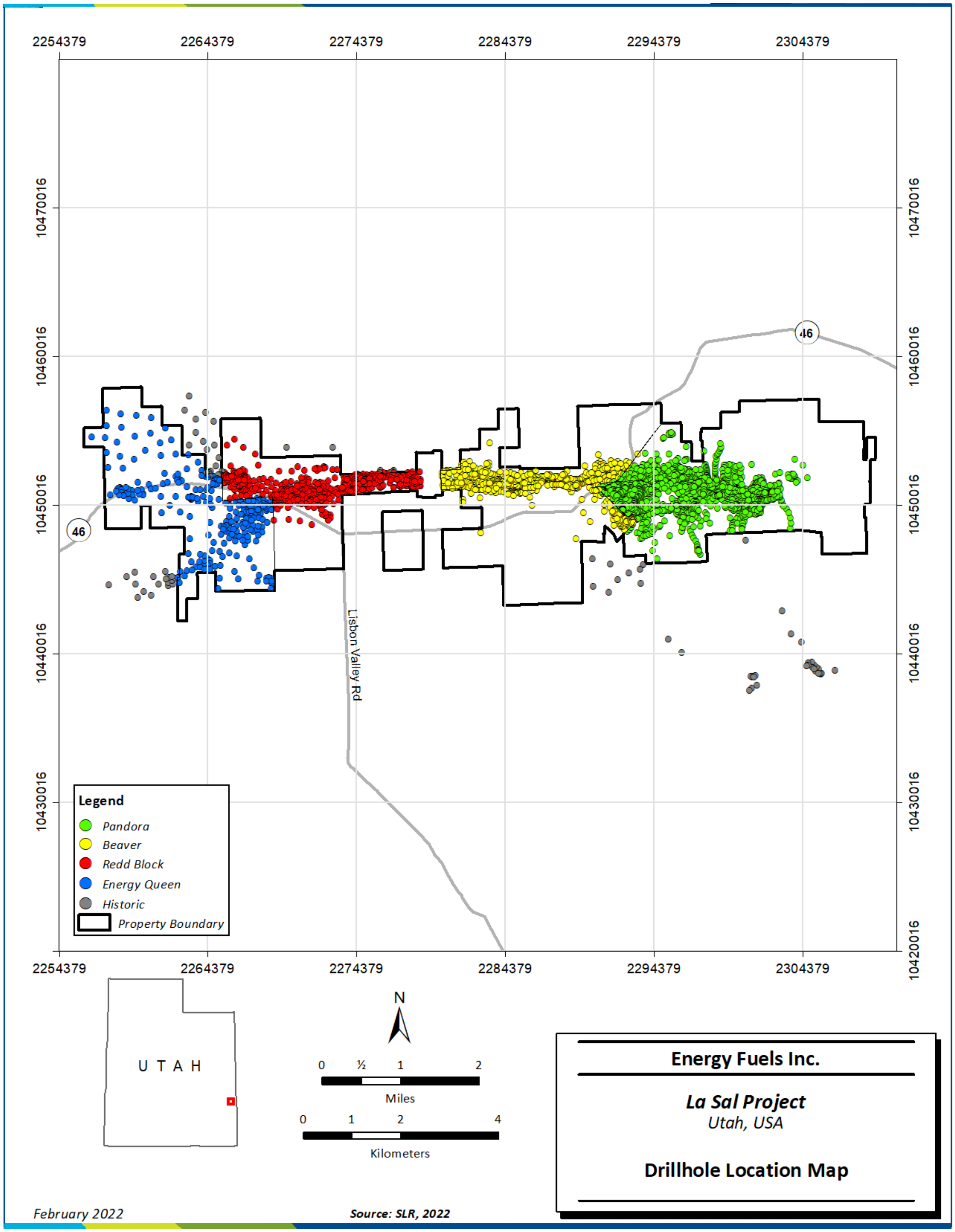


Figure 14-1: Drillhole Location Map

14.3 Geological Interpretation

Mineralized wireframe models were constructed for all five estimated areas of the Project. Mineralization is confined to the Top Rim sandstones of the Salt Wash at the Project. EFR, however, has not completed a geological model that can be used for guiding mineralized wireframes. Therefore, the mineralized wireframes were constructed using the natural uranium cut-off grade of 0.05% U_3O_8. In Salt Wash hosted uranium deposits, there is often a very sharp boundary between mineralized and barren material; at the Project, that value is defined as the natural cut-off.

14.3.1 Surface Drilling Only (La Sal West, Energy Queen, and Redd Block)

For Mineral Resource estimation areas that contained only surface drill holes, the following method was used to construct wireframe models. In vertical surface drill holes, the natural cut-off clearly defines the top and bottom of the mineralized zone. The lateral extents were determined by using Theissen or Voroni polygons, which use half the distance between two drill holes to define a lateral extent. If the spacing between two drill holes was greater than 150 ft, the radius of a circle of 150 ft was used as the maximum lateral extend. These polygonal shapes were constructed in 2D and then projected to the top and bottom of the mineralized intercept of the surface drill hole. The polygons were analyzed in cross section and adjacent polygons at the same vertical levels were connected. A spline function was used to then draw a boundary around the compiled polygons. These splines were constructed for the top and bottom of the zone and a triangulation was projected from those tops and bottoms.

The SLR QP inspected the wireframes and agree with their interpretations, however, the spline function can create unnecessary fluctuations in the boundaries and cause an increase and decrease in the volumes which may be artificial. Some of the decreases in the wireframes become too thin for block model estimation.

The SLR QP recommends removing the spline function from the wireframe construction. The SLR QP further recommends using a minimum thickness when creating the wireframes so that pinch outs do not unnecessarily remove the ability for blocks to be estimated.

14.3.2 Surface and Underground Drilling (Beaver/La Sal and Pandora)

In areas that contained both surface drilling and underground longholes, the process was more complex. The first step followed that described above using only the surface drill hole data. Then the spline shape was adjusted to the longhole data. Again, a top and bottom of mineralization were defined by the spline surface and a triangulation was created. The triangulation was then viewed in cross section along strike and barren zones were defined by polygons using both the surface and underground drilling.

The SLR QP inspected the wireframes and agrees with the overall interpretations of the wireframes, however, the wireframes incorporating the underground drilling created large volumes of waste that should have been removed in the wireframing process. Furthermore, the wireframes using the longhole data were not snapped to all data.

For future resource estimation, the SLR QP recommends that a geologic model be completed prior to wireframing to help in the estimation process. Geologic information can be compiled from the downhole radiometric logs to create a lithology model that clearly defines the boundaries of the Salt Wash Formation, which can be used to help guide the mineralized wireframes. In addition, the SLR QP recommends updating the wireframes to remove the waste material found between mineralized intercepts and ensuring the wireframes are snapped to drillhole data points.

14.4 Resource Assays

La Sal West Project mineralization wireframes contain a total of 260 mineralization intercepts. Grade statistics were generated for each of the five block model zones to better understand the uranium mineralization. Samples only represent those contained within the mineralized wireframe models. Some barren zones (0.00 %U_3O_8) were included in the wireframes to maintain continuity. General uranium statistics for each of the zones are presented in Table 14-3.

Table 14-3: Assays for the La Sal Project (% U_3O_8)
Energy Fuels Inc. – La Sal Project

Stat	La Sal West	Energy Queen	Redd Block	Beaver/La Sal	Pandora
Count	92	388	583	222,100	199,957
Mean	0.277	0.202	0.212	0.026	0.037
Std. Dev.	0.305	0.391	0.312	0.191	0.242
Variance	0.093	0.153	0.097	0.040	0.060
Coef. Of Var.	1.344	1.941	1.471	7.390	6.470
Max.	1.660	6.370	2.960	41.150	80.820
Upper Quartile	0.218	0.221	0.250	0.009	0.020
Median	0.140	0.110	0.110	0.003	0.005
Lower Quartile	0.080	0.060	0.050	0.001	0.001
Min.	0	0	0	0	0

14.5 Treatment of High Grade Assays

14.5.1 Capping Levels

Where the assay distribution is skewed positively or approaches log-normal, erratic high grade assay values can have a disproportionate effect on the average grade of a deposit. One method of treating these outliers to reduce their influence on the average grade is to cut or cap them at a specific grade level.

The SLR QP is of the opinion that the influence of high grade uranium assays must be reduced or controlled and uses a number of industry best practice methods to achieve this goal, including capping of high grade values. The SLR QP employed a number of statistical analytical methods to determine an appropriate capping value including preparation of frequency histograms, probability plots, decile analyses, and capping curves. Using these methodologies, the SLR QP examined the selected capping values for the mineralized domains for the Project.

Examples of the capping analysis log probability graphs for each deposit are shown in Figure 14-2 through Figure 14-6 as applied to the data set for the mineralized domains. The middle grade circled is the used capping level. Capped assay statistics by deposit are summarized in Table 14-4 and compared with uncapped assay statistics.

In the SLR QP's opinion, the selected capping values are reasonable. Capping was applied to the raw assay values during compositing.

Table 14-4: Capped Assays for the La Sal Project (% U_3O_8)
Energy Fuels Inc. – La Sal Project

Stat	La Sal West	Energy Queen	Redd Block	Beaver/La Sal	Pandora
Cap Grade	0.830	1.500	1.110	2.780	3.000
No. Cap Samples	5	2	13	101	45
Count	92	388	583	222,100	199,957
Mean	0.202	0.187	0.200	0.025	0.036
Std. Dev.	0.214	0.231	0.251	0.120	0.121
Variance	0.050	0.050	0.060	0.010	0.010
Coef. Of Var.	1.060	1.230	1.250	4.890	3.330
Max.	0.830	1.500	1.110	2.780	3.000
Upper Quartile	0.210	0.220	0.243	0.009	0.020
Median	0.140	0.110	0.200	0.003	0.005
Lower Quartile	0.080	0.060	0.050	0.001	0.001
Min.	0	0	0	0	0

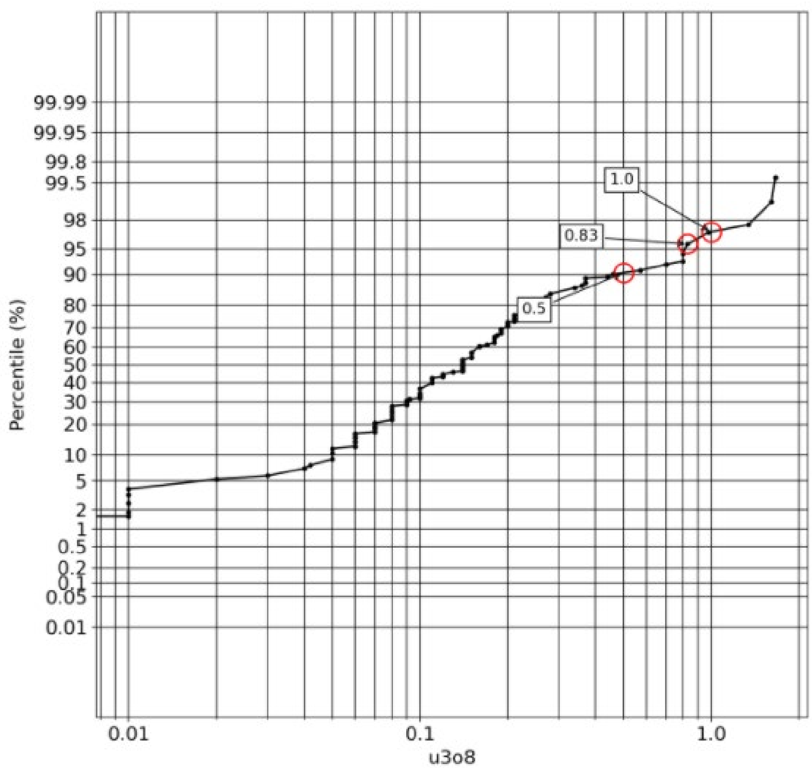


Figure 14-2: La Sal West Log Probability Graph

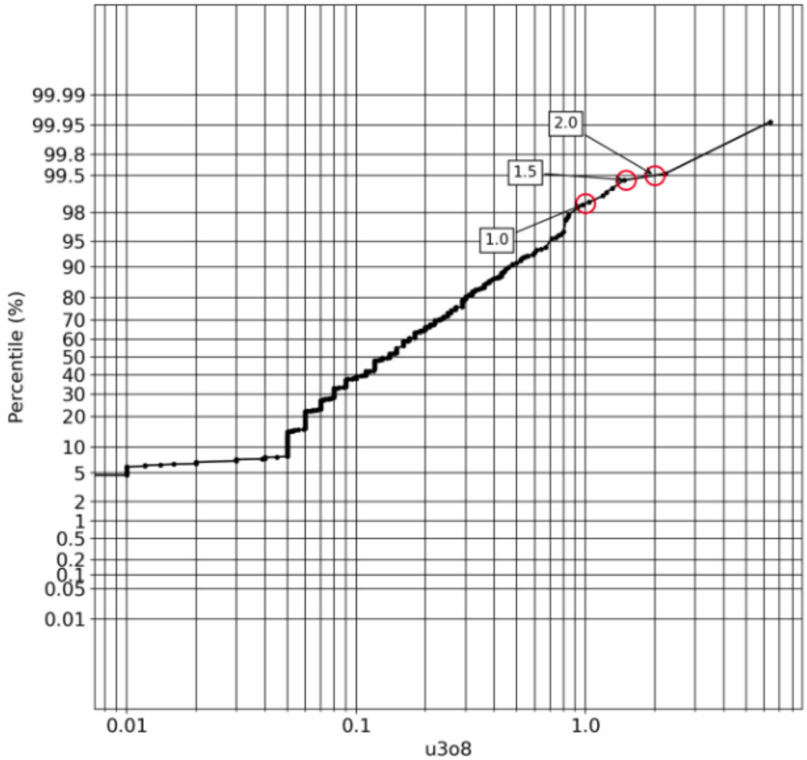


Figure 14-3: Energy Queen Log Probability Graph

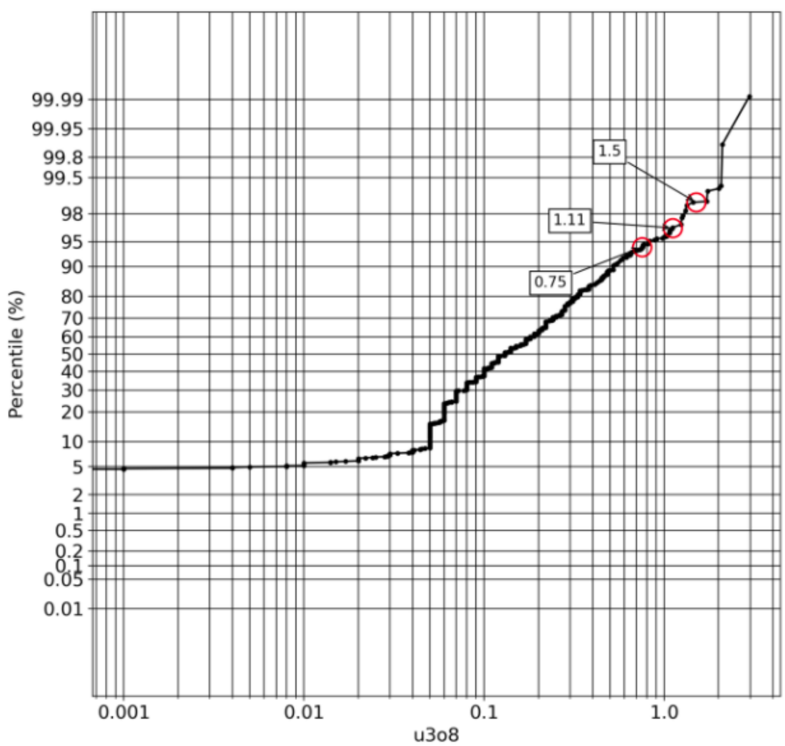


Figure 14-4: Redd Block Log Probability Graph

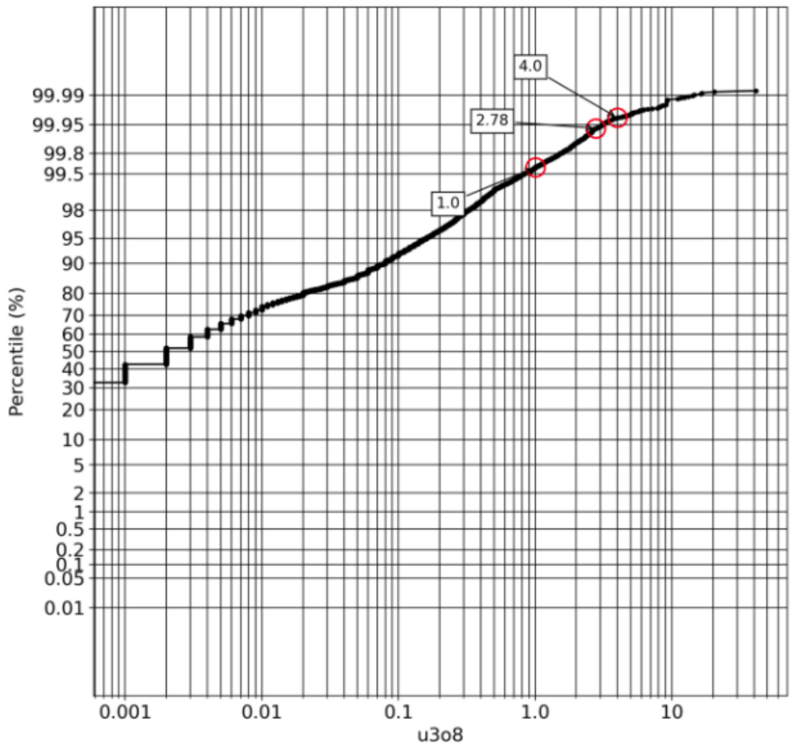


Figure 14-5: Beaver Log Probability Graph

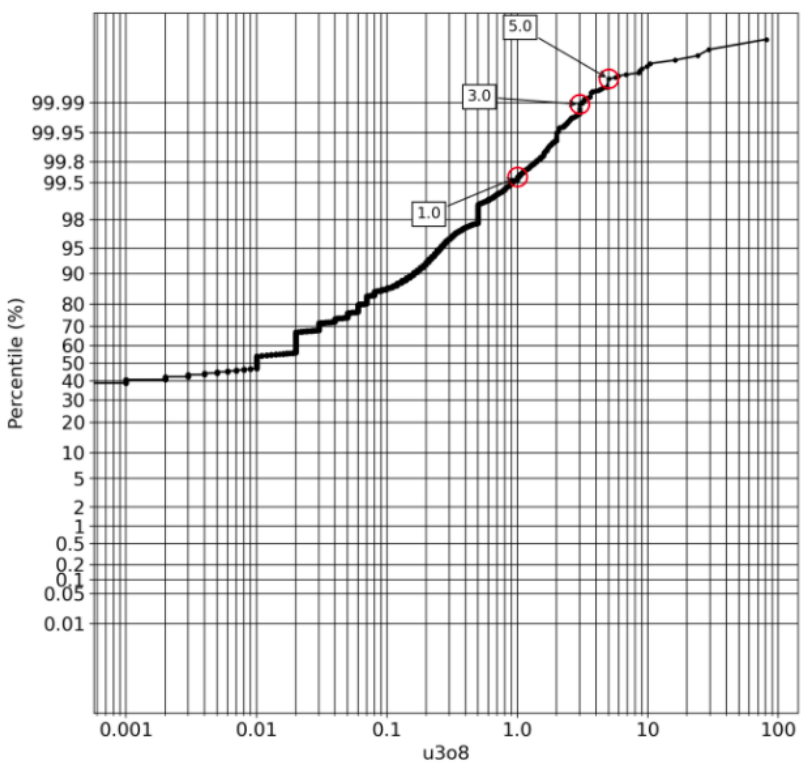


Figure 14-6: Pandora Log Probability Graph

14.5.2 High Grade Restriction

In addition to capping thresholds, a secondary approach to reducing the influence of high-grade composites is to restrict the search ellipse dimension (high yield restriction) during the estimation process. The threshold grade levels, chosen from the basic statistics and from visual inspection of the apparent continuity of very high grades within each estimation domain, may indicate the need to further limit their influence by restricting the range of their influence, which is generally set to approximately half the distance of the main search.

Upon review of the capped assays, the SLR QP agrees with EFR's approach that no high-grade restrictions are required for Mineral Resource estimation.

14.6 Compositing

Composites were created from the capped raw assay values using the downhole compositing function of Maptek's Vulcan modeling software package. The composite lengths used during interpolation were chosen considering the predominant sampling length, the minimum mining width, style of mineralization, and continuity of grade. EFR chose to composite to 1.0 ft, starting at the wireframe pierce point for each wireframe, continuing to the point at which the hole exited the domain (hard boundaries). Composites less than 0.53 m, located at the bottom of the mineralized intercept, were added to the previous interval. A small number of unsampled and missing sample intervals were ignored. Residual composites were maintained in the dataset. The composite statistics by deposit are summarized in Table 14-5.

Table 14-5: Summary of Uranium Composite Data by Deposit
Energy Fuels Inc. – La Sal Project

Description	La Sal West	Energy Queen	Redd Block	Beaver/La Sal	Pandora
Count	71	325	559	173,537	272,808
Mean	0.199	0.214	0.223	0.020	0.055
Std. Dev.	0.192	0.211	0.233	0.097	0.141
Variance	0.040	0.040	0.050	0.010	0.020
Coef. Of Var.	0.960	0.990	1.040	4.720	2.580
Max.	0.830	1.500	1.110	2.780	3.000
Upper Quartile	0.210	0.290	0.280	0.006	0.050
Median	0.140	0.140	0.130	0.001	0.010
Lower Quartile	0.083	0.073	0.070	0.000	0.000
Min.	0.020	0	0	0	0

The SLR QP is of the opinion that the compositing methods and lengths are appropriate for this style of mineralization and deposit type. The SLR QP recommends treating the missing and unsampled intervals contained within a wireframe as waste and assigning a uranium value of 0.0%.

14.7 Trend Analysis

14.7.1 Variography

The SLR QP reviewed a series of variograms prepared by EFR but found the variograms were of poor to fair quality considering the number of composite data based on wide spaced drilling along mineralized trends and not adequate to generate meaningful variograms to derive kriging parameters.

14.8 Search Strategy and Grade Interpolation Parameters

14.8.1 Dynamic Anisotropy and Unfolding

EFR used a combination of dynamic anisotropy (DA) and unfolding techniques where appropriate given the Project shape and grade continuity of mineralization. Mineralization in some parts of the Beaver and Pandora areas were not conducive to using either of these methods so simple oriented search ellipses were used.

For the DA models, EFR created the models within Vulcan and assigned values to the model based on the trend of the mineralization and the wireframe. These values are coded to the block model directly and then used in the individual estimation runs.

For wireframes that contained only two drill holes the unfolding method was used to help guide the search ellipses between the two holes. The top and bottom of each of these wireframes are used to create an unfolded model that is then referenced during the individual estimation runs.

EFR created nearest neighbor (NN) wireframes with an isotropic search ellipse to capture single drill holes with mineralized intercepts that are too far removed from any other drillholes to be considered a continuation of mineralization and that would otherwise be excluded from the Mineral Resource.

14.8.2 Uranium Grade Interpolation

Table 14-6 through Table 14-10 describe the search strategies and parameters used for estimation for each wireframe on a per block model basis. Some search parameters differ within the Beaver and Pandora domains due to denser drill spacing when the underground longholes were included.

The first pass has a search radii ratio of 2 to 1 for the major and semi-major directions and is designed to capture the grade of the drillhole which directly intersects the blocks around it. The minor direction of the ellipse is set at two feet to reflect the average thickness of the mineralization.

The second and third passes retain the 2 to 1 ratio of the major and semi-major search directions and are designed to capture the majority of the blocks contained within the wireframes. Their search ellipses double the major and semi-major radii search distances for each pass. The minor search radius has been set to four feet for both search passes to allow samples from thicker zones to be captured, but still limit the influence of samples in the minor direction.

The fourth pass, for all block models, is a large ellipse (1,600 ft x 800 ft x 8 ft) and is designed to estimate all blocks which are contained within the wireframes and not estimated in the first three passes. Due to the size of the fourth pass, the blocks estimated in these areas are unreasonable for reporting in terms of grade and continuity in this type of deposit given the wide drillhole spacing. Therefore, these blocks are considered exploration potential and have been removed from the reported Mineral Resources.

Table 14-6: Summary Search Strategy for La Sal West
Energy Fuels Inc. – La Sal Project

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
lw_01_min_01.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_01_min_02.00t	ID^2	263°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_01_min_03.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_01_min_05.00t	ID^2	162°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_01_min_07.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_01_min_08.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_01_min_13.00t	ID^2	262°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_01_min_16.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_01_min_19.00t	ID^2	229°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
lw_nn.00t	NN	N/A	Isotropic	5000 x 5000 x 5000	N/A	N/A	N/A

Table 14-7: Summary Search Strategy for Energy Queen
Energy Fuels Inc. – La Sal Project

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
eq_n_min_01.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_n_min_02.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_n_min_03.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_n_min_04.00t	ID^2	156°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_n_min_05.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_n_min_06.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_n_min_09.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_n_min_10.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_n_min_11.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_01.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_02.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_03.00t	ID^2	194°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_04.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_09.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_11.00t	ID^2	249°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_12.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_13.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_m_min_14.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_s_min_05.00t	ID^2	144°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_s_min_06.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
eq_min_nn.00t	NN	N/A	Isotropic	5000 x 5000 x 5000	N/A	N/A	N/A

Table 14-8: Summary Search Strategy for Redd Block
Energy Fuels Inc. – La Sal Project

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
rb_01_min_01.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_01_min_03.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_01_min_06.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_01_min_07.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_01_min_08.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_01_min_09.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_01_min_10.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_01.00t	ID^2	239°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_02.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_03.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_04.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_05.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_06.00t	ID^2	302°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_07.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_08.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_09a.00t	ID^2	239°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_09b.00t	ID^2	183°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_10a.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_10b.00t	ID^2	179°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_11a.00t	ID^2	283°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
rb_02_min_11b.00t	ID^2	158°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_12.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_13.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_02_min_16.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_01.00t	ID^2	187°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_02.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_03.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_04.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_05.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_06.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_07.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_08.00t	ID^2	239°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_09.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_10.00t	ID^2	120°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_11.00t	ID^2	226°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_13.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_14.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_15.00t	ID^2	146°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_16.00t	ID^2	200°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_17.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_03_min_19.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
rb_nn.00t	NN	N/A	Isotropic	5000 x 5000 x 5000	N/A	N/A	N/A

Table 14-9: Summary Search Strategy for Beaver/La Sal
Energy Fuels Inc. – La Sal Project

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
min_bv_01.00t	ID^2	350°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_02.00t	ID^2	251°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_03.00t	ID^2	301°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_10.00t	ID^2	245°/-4°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_11.00t	ID^2	267°/-2.5°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_13.00t	ID^2	0°/0°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_14.00t	ID^2	145°/-4°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_16.00t	ID^2	280°/-1°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_17.00t	ID^2	350°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_18.00t	ID^2	200°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_23.00t	ID^2	238°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_29.00t	ID^2	240°/-9°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_31.00t	ID^2	270°/0.5°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_32.00t	ID^2	220°/1°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_38.00t	ID^2	300°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_39.00t	ID^2	327°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_40.00t	ID^2	235°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_44.00t	ID^2	259°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_46.00t	ID^2	272°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_bv_51.00t	ID^2	118°/-1°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
min_bv_52.00t	ID^2	283°/1°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
bv_43_part_02_relimit_02.00t	ID^2	270°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 2	100 x 50 x 4	400 x200 x 8
bv_20_part_02_relimit_01.00t	ID^2	282°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 2	100 x 50 x 4	400 x200 x 8
bv_50_part_02_relimit_01.00t	ID^2	260°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 2	100 x 50 x 4	400 x200 x 8
min_bv_nn.00t	NN	N/A	Ellipsoid	5000 x 5000 x 5000	N/A	N/A	N/A

Table 14-10: Summary Search Strategy for Pandora
Energy Fuels Inc. – La Sal Project

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
min_pd_01.00t	ID^2	353°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_03.00t	ID^2	254°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_08.00t	ID^2	215°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_09.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_10.00t	ID^2	242°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_16.00t	ID^2	214°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_18.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_24.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_28.00t	ID^2	256°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_30.00t	ID^2	326°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_34.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_35.00t	ID^2	356°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_41.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
pd_44_relimit.00t	ID^2	280°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 4	100 x 50 x 4	400 x 200 x 8
min_pd_45.00t	ID^2	286°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_46.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_47.00t	ID^2	220°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_50.00t	ID^2	300°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_54.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_57.00t	ID^2	225°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
pd_59_relimit_02.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
pd_63_relimit_01.00t	ID^2	260°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 4	100 x 50 x 4	400 x 200 x 8
pd_64_230_relimit_01.00t	ID^2	230°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 4	100 x 50 x 4	400 x 200 x 8
pd_64_270_relimit_02.00t	ID^2	270°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 4	100 x 50 x 4	400 x 200 x 8
pd_65_relimit_02.00t	ID^2	235°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 4	100 x 50 x 4	400 x 200 x 8
min_pd_66.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
pd_67_relimit_1.00t	ID^2	270°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 4	100 x 50 x 4	400 x 200 x 8
pd_70_relimit_02.00t	ID^2	110°/0°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
pd_71_relimit_01.00t	ID^2	250°/0°	Ellipsoid	25 x 12.5 x 2	50 x 25 x 4	100 x 50 x 4	400 x 200 x 8
min_pd_78.00t	ID^2	232°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_81.00t	ID^2	266°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_86.00t	ID^2	182°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_88.00t	ID^2	185°/-4°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
pd_94_relimit_01.00t	ID^2	244°/0°	Ellipsoid	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_96.00t	ID^2	310°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8

Wireframe	Interp. Type	Bearing/Plunge	Dynamic Anisotropy/Unfolding	First Pass Length (ft)	Second Pass Length (ft)	Third Pass Length (ft)	Fourth Pass Dimensions (ft)
min_pd_97.00t	ID^2	320°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_103.00t	ID^2	292°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_104.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_111.00t	ID^2	N/A	Dynamic Anisotropy	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_120.00t	ID^2	218°/0°	Unfolding	50 x 25 x 2	200 x 100 x 4	400 x 200 x 4	1600 x800 x 8
min_pd_NN.00t	NN	N/A	Isotropic	5000 x 5000 x 5000	N/A	N/A	N/A

14.8.3 Vanadium Grade Estimation

Historically core was only collected to understand the disequilibrium associated with the uranium mineralization and vanadium to uranium ratio (V_2O_5:U_3O_8). Upon determining that disequilibrium was not a concern and given that uranium was the primary mineralization of interest, drill core programs were abandoned in favor of the more cost-effective rotary drilling and downhole radiometric logging. Vanadium assaying was discontinued sometime around the late 1970s. As such, there is much more uranium data than vanadium data. Historically, there is only vanadium data from core drilled by Union Carbide, and that was limited. No underground drilling, other those holes drilled by EFR in 2019, collected core or cuttings for vanadium assay.

Determining the concentration of vanadium (V_2O_5) ratio in a deposit is much more costly and time-consuming than making the equivalent determination for uranium (U_3O_8). While indirect determinations of the uranium content may be efficiently made using low cost using gamma logging, chemical analysis is the only way to determine the vanadium content.

The V_2O_5:U_3O_8 weight ratios in Salt Wash-type deposits range from about 1:1 to 20:1 with the V_2O_5:U_3O_8 routinely reported as 5:1 based on U.S. Atomic Energy Commission (AEC) production records of 18,300 tons for the period 1956 to 1965. A previously published technical reports (Energy Fuels, 2012) used the historical mill average vanadium to uranium ratio of 4.25:1 for vanadium resource estimates. That method typically worked well for mine planning in the La Sal district.

Between June 2017 and May 2018, the price of vanadium V_2O_5 spiked nearly 60%, rising from approximately $8/lb to over $30/lb. This prompted EFR to revisit and re-evaluate the V_2O_5:U_3O_8 ratio at the Project between 2018 and 2019. A limited test-mining and assaying program targeting vanadium indicated that locally the V_2O_5:U_3O_8 ratio varied widely between area of the La Sal and Pandora underground mine workings, and that higher-grade vanadium tended to be associated with lower grade uranium with ratios exceeding 10:1.

With this understanding, EFR instead chose to apply a regression analysis study between the two elements incorporating the newly acquired data with chemical assays from the historical Union Carbide drilling.

A power relationship was observed between the uranium grade (% U_3O_8) and the vanadium to uranium ratio (V_2O_5:U_3O_8) (Figure 14-7). The relationship is given by the equation below:

$$y = 2.4805x^{-0.382}$$

Where y is the V_2O_5:U_3O_8 ratio and x is the uranium grade (%U_3O_8). The vanadium grade (%V_2O_5) for La Sal can then be calculated by the equation

$$\%V2O5 = \frac{V2O5:U3O8}{\%U3O8}$$

EFR ran a series of tests applying the regression equation to each individual uranium assay and estimating V_2O_5 on a block-by-block basis. Results of the tests grossly overestimated the amount of contained V_2O_5 metal due to the limited number and localized sampling locations. Until additional data is collected EFR has chosen to apply the regression calculation to the total uranium resources rather than estimating the V_2O_5 mineralization separately.

The SLR QP is of the opinion that the use of a vanadium regression curve and equation is an appropriate way to estimate vanadium resources. The SLR QP recommends that additional V_2O_5 data be collected for future resource work.

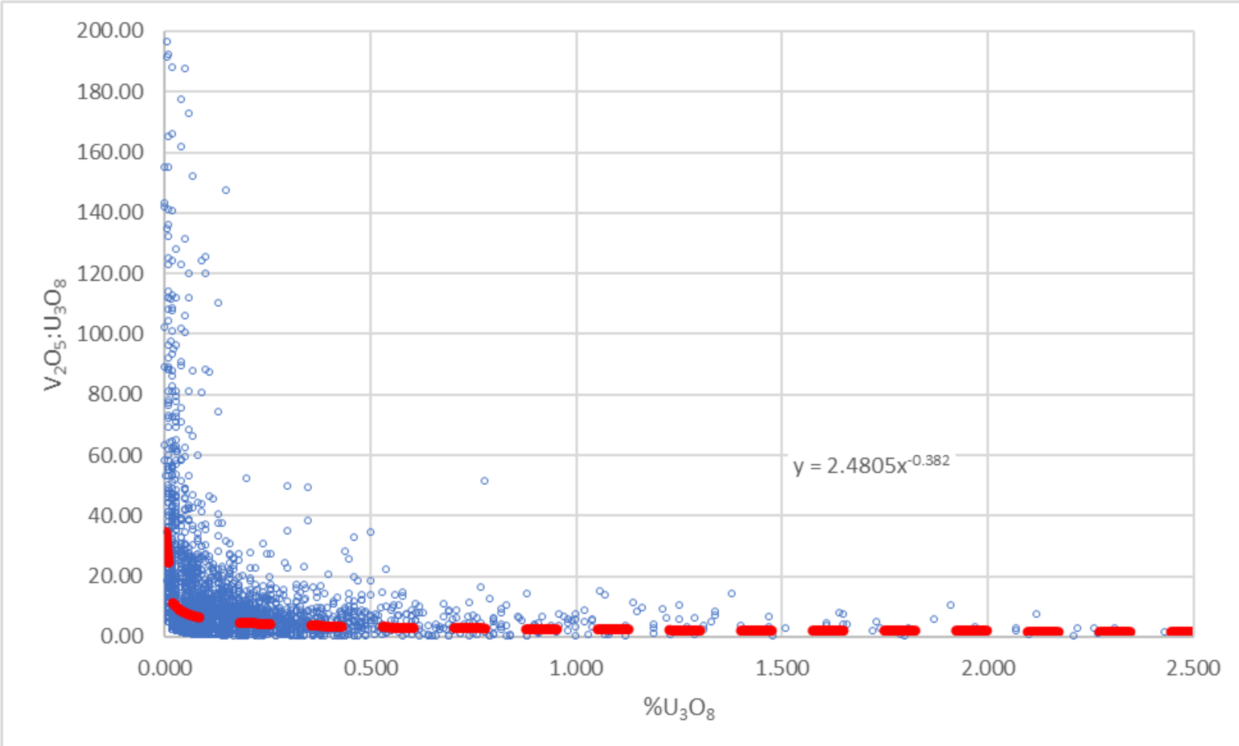


Figure 14-7: $\%U_3O_8$ vs Vanadium:Uranium Ratio for Vanadium Grade Calculations

14.8.4 Removal of Mined Out Material

14.8.4.1 Beaver/La Sal and Pandora

Historical records of mining at both the Beaver/La Sal and Pandora portions of the Project are incomplete and therefore an accounting of all past mining in those areas is not available. When mining took place between 2009 and 2012, an underground survey of all the main haulage ways as well as accessible current and former workings were surveyed. In areas where surveys could not be completed, historic maps were scanned, and the old drifts digitized. This effort resulted in a two-dimensional model of the underground haulage/production ramps and drifts. This 2D model was then projected up and down several thousand feet and a three-dimensional model was made. Blocks intersecting this model were assigned values between 0.0 and 1.0 based on the proportion of the block falling within the 3D mine workings model and that material was then flagged as "mined". Any block which has a value higher than 0 is not counted in the final resource calculations. Note that this method is conservative in that there are some areas where ore is stacked and only one level was mined. This method assumes that all blocks stacked vertically that fall within the 2D mine workings were mined.

14.8.4.2 Energy Queen

Only limited mining took place at the Energy Queen Mine between 1981 and 1982. Most of the underground work was development, and material was only mined when it was encountered during this development. The mine shut down prior to any significant mining activities. Records from the Union Carbide/Hecla joint venture indicate that 11,791 tons at average grades of 0.17% U_3O_8 and 0.84% V_2O_5 (40,043 lb U_3O_8 and 198,607 lb V_2O_5) were mined. Due the underground surveys not being fully reliable to remove the material in the same way as Beaver/La Sal and Pandora, the total tons and pounds were subtracted from the Energy Queen Mineral Resource.

14.9 Bulk Density

There is no known density data for the Project. Historically a tonnage factor of 14.5 ft^3/ton (Bulk Density 0.0690 ton/ft^3) has been used. Mines from within the Project have been producing uranium and vanadium since the 1950s using this tonnage factor and no major issues have been reported. This tonnage factor is used in the calculation of Mineral Resources in this Initial Assessment.

The SLR QP is of the opinion that the density used for the Project is appropriate and can be used in the resource reporting but notes the density value is slightly higher than other similar type deposits in the Colorado Plateau. The SLR QP recommends that EFR revisit and confirm the historical density values prior to any future resource estimations.

14.10 Block Models

Five separate block models were generated as part of this Mineral Resource Estimate. All modeling work was carried out using Maptek's Vulcan software. The Project block models all have block sizes of 20 ft x 20 ft x 1 ft. Before grade estimation, all model blocks were assigned density and mineralized domain codes, based on block centroids. A summary of the block model variables for all block models is provided in Table 14-11. Details regarding the individual block model parameters are given in Table 14-12. The SLR QP notes that not all variables listed were estimated or utilized in the block model estimation.

The SLR QP concludes that the block model parameters are appropriate for this type of deposit and are adequate for use in estimating Mineral Resources.

Table 14-11: Summary of Block Model Variables for all Block Models
Energy Fuels Inc. – La Sal Project

Variable	Type	Default	Description
U_3O_8	Float (Real * 4)	0	estimated u3o8 grade (%)
V_2O_5	Float (Real * 4)	0	estimated v2o5 grade (%)
u_nn	Double (Real * 8)	-99	uranium nearest neighbor estimate
v_nn	Double (Real * 8)	-99	vanadium nearest neighbor estimate
dens	Float (Real * 4)	0.06897	density equal to a tonnage factor of 14.5 cu ft/ton
bound	Name (TranslationTable)	waste	
est_flag_u	Integer (Integer * 4)	0	Estimation Pass (1-4)
est_flag_v	Integer (Integer * 4)	0	Estimation Pass (1-4)
no_samp	Integer (Integer * 4)	0	No of Samples used in Estimation
no_holes	Integer (Integer * 4)	0	No of Holes used in Estimation
nearest_samp	Double (Real * 8)	0	Distance to Nearest Sample
class_build	Integer (Integer * 4)	3	Resource Classification (1=Measured, 2=Indicated, 3=Inferred)
class_final	Integer (Integer * 4)	3	Resource Classification (1=Measured, 2=Indicated, 3=Inferred)
dilution	Integer (Integer * 4)	0	1 = ore and 2 = dilution
royalty	Float (Real * 4)	-99	
an_bear	Float (Real * 4)	-99	anisotropy bearing
an_pl	Float (Real * 4)	-99	anisotropy plunge
an_dip	Float (Real * 4)	-99	anisotropy dip
an_major	Float (Real * 4)	-99	anisotropy major axis
an_semi	Float (Real * 4)	-99	anisotropy semi-major axis
an_minor	Float (Real * 4)	-99	anisotropy minor axis
gt_u	Double (Real * 8)	-99	GT Uranium
gt_v	Double (Real * 8)	-99	GT Vanadium
calc_th	Double (Real * 8)	-99	Calculated thickness from GT Uranium
resource_bound	Name (TranslationTable)	out	resource boundary flag (EQ, RB, BLS, PD)
mined	Double (Real * 8)	0	mined out variable (1 mined, 0 not mined)

Table 14-12: Summary of Block Model Setups
Energy Fuels Inc. – La Sal Project

Set Up		La Sal West	Energy Queen	Redd Block	Beaver/ La Sal	Pandora
Origin	x	58100	64100	68700	80000	89300
	y	43400	47300	49100	50400	47700
	z	5750	5740	5770	6050	6200
Rotation	Bearing	90	90	90	90	90
	Plunge	0	0	0	0	0
	Dip	0	0	0	0	0

14.11 Cut-off Grade

For the inclusion of the blocks in the Mineral Resource estimate, EFR used a cut-off grade of 0.17% eU_3O_8.

Assumptions used in the determination of cut-off grade are presented in Table 14-13.

- Total operating cost (mining, G&A, processing) of US$209.20 per ton
- Process recovery of 96%
- Uranium price of US$65.00/lb. The price is based on independent, third-party, and market analysts' average forecasts as of 2021, and the supply and demand projections are for the period 2021 to 2035. In the SLR QP's opinion, these long-term price forecasts are a reasonable basis for estimation of Mineral Resources.

Table 14-13: Cut-off Grade Parameters
Energy Fuels Inc. – La Sal Project

Parameter	Quantity
Price in US$/lb U_3O_8	65.00
Process plant recovery	96
Total Operating Costs per ton	209.20
G&A cost per ton	Included
Break-Even Cut-off grade (% eU_3O_8)	0.170

The Project has had a long history of mining and milling ores, as recently as 2019. As a result, operating costs are robust and support an accurate calculation of the cut-off grade. The cut-off grade reflects the costs associated with mining the Beaver/La Sal mine of the Project. The cut-off grades are expected to be the same at the other deposits. As the Project operates as a uranium mining operation with a vanadium by-product, the cut-off grade assumes the mining and processing of only uranium. Decisions on processing the vanadium contained within the mined tons can be determined based on the vanadium price at the time of milling.

The SLR QP reviewed the operating costs and cut-off grade reported by EFR and is of the opinion they are reasonable for disclosing Mineral Resources.

14.12 Classification

Classification of Mineral Resources as defined in SEC Regulation S-K subpart 229.1300 were followed for classification of Mineral Resources. The Canadian Institute of Mining, Metallurgy and Petroleum definition Standards for Mineral Resources and Mineral Reserves (CIM 2014) are consistent with these definitions.

A Mineral Resource is defined as a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, considering relevant factors such as cut-off grade, likely mining dimensions, location, or continuity, that with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.

Based on this definition of Mineral Resources, the Mineral Resources estimated in this Technical Report have been classified according to the definitions below based on geology, grade continuity, and drillhole spacing.

Measured mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

Indicated mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

Inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve.

The SLR QP has considered the following factors that can affect the uncertainty associated with the class of Mineral Resources:

- Reliability of sampling data:
    - Drilling, sampling, sample preparation, and assay procedures follow industry standards.
    - Data verification and validation work confirm drill hole sample databases are reliable.

- No significant biases were observed in the QA/QC analysis results.

- Confidence in interpretation and modelling of geological and estimation domains:
  - Mineralization domains are interpreted manually in cross-sections and refined in longitudinal sections by an experienced resource geologist.
  - While the extensive surface and underground drilling and history of successful uranium and vanadium mining at the Project would lead to a higher level of classification, the lack of vanadium assays supporting the vanadium resource leads to the lower level of classification.
  - As discussed earlier, the vanadium grades associated with the Mineral Resource are based on a calculation equation as a result of regression analysis study between estimated uranium grades.
  - Exploration potential classification is used for internal viewing of the mineralization and has not met the requirements for consideration of Inferred material. All exploration potential material has been removed from the Mineral Resources estimate.
- Confidence in block grade estimates:
  - While reported historical production numbers indicate the presence of vanadium and are in general agreement with the estimated model vanadium grades reported, the numbers in the Mineral Resource for all four zones have not been verified by core assayed grades.
  - The SLR QP recommends that EFR continue to assay core samples for vanadium with any future mining operations.

All the Mineral Resources at the Project are classified as Inferred Mineral Resources.

In the SLR QP's opinion the classification of Mineral Resources is reasonable and appropriate for disclosure.

14.13 Block Model Validation

A number of validation checks were performed on all the block models to verify the grades estimated. These checks included visual checks between composite grades and block grades, statistical checks between composite grades and block grades, swath plots, and reconciliation with mined resources.

All five block models were validated by visual methods. This involved comparing mineralization intercepts and composite grades to block grade estimates. The comparisons showed reasonable correlation with no significant overestimation or overextended influence of high grades. A vertical longitudinal section through the Redd Block deposit is shown in Figure 14-8. A swath plot through the Redd Block zone is provided in Figure 14-9. Overall histogram distributions between the methods were similar as were swath plots looking in at north-south, east-west, and elevation slices for all zones.

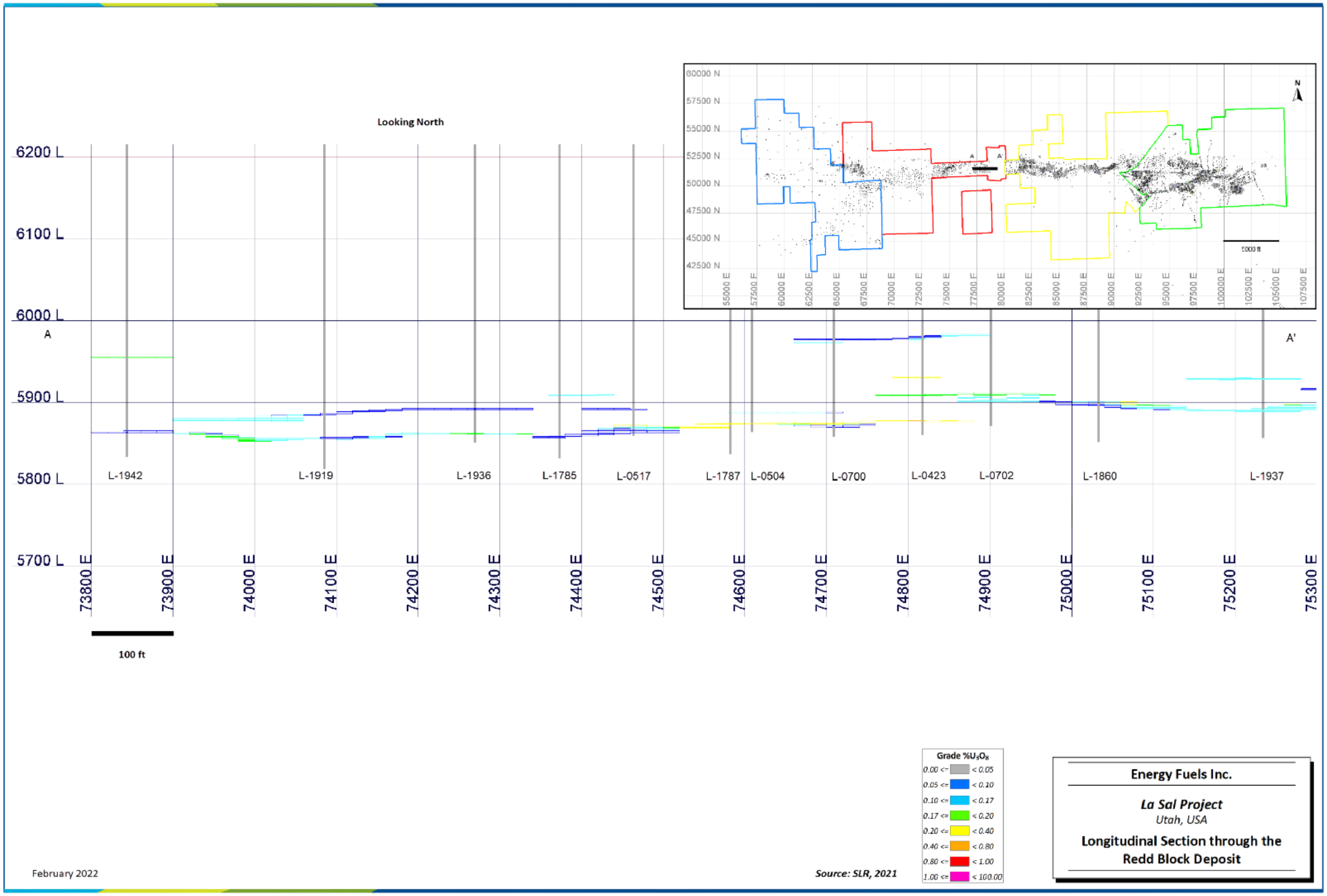


Figure 14-8: Longitudinal Section through the Redd Block Deposit

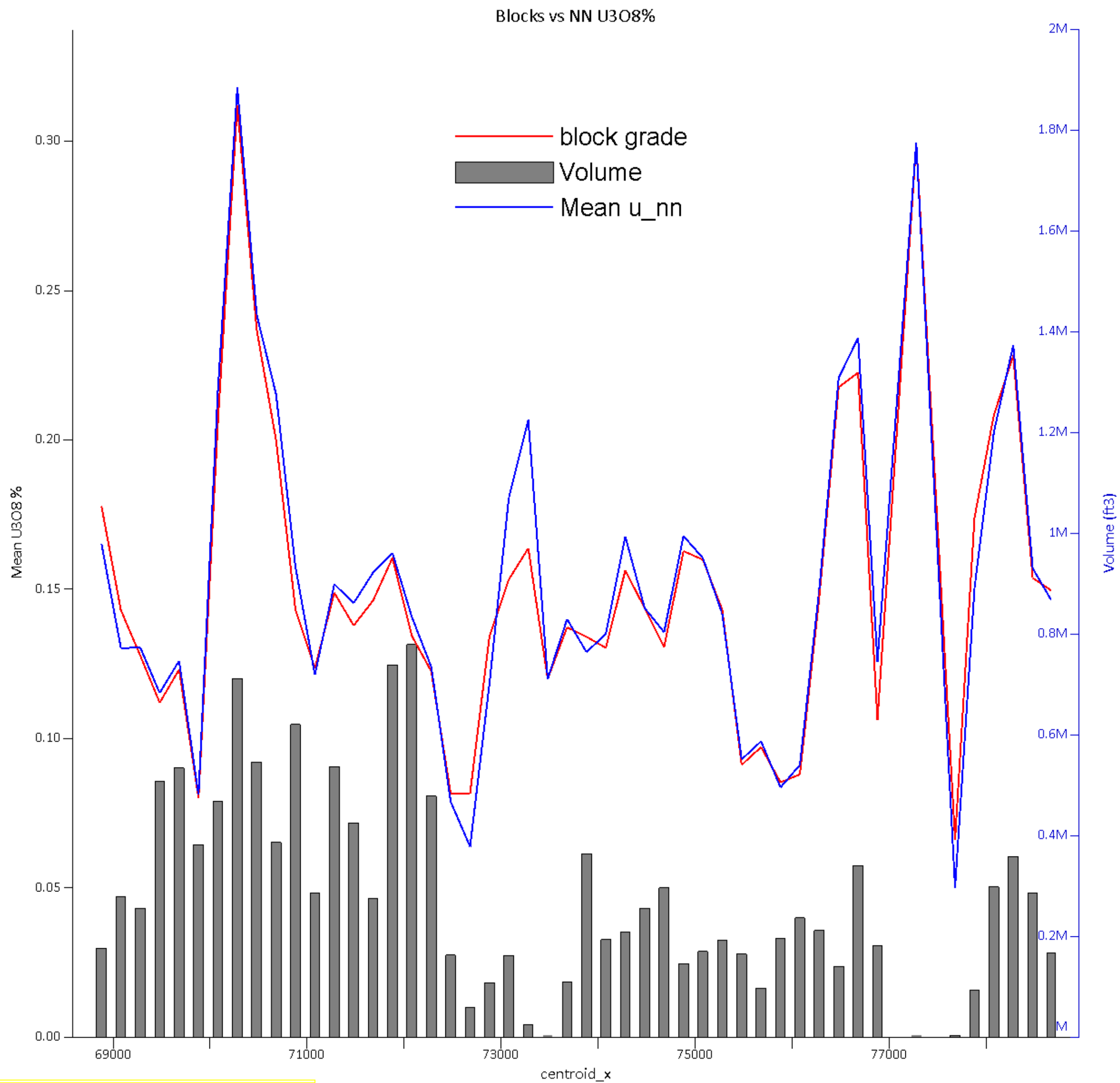


Figure 14-9: Swath Plots through the Redd Block Deposit

14.14 Grade Tonnage Sensitivity

Table 14-14 and Figure 14-10 present the sensitivity of the La Sal Mineral Resource model to various cut-off grades.

Table 14-14: Grade versus Tonnage Curve
Energy Fuels Inc. – La Sal Project

Price ($/lb U_3O_8)	Cut-Off Grade (% U_3O_8)	Cut-Off GT (%-ft U_3O_8)	Tonnage (ton)	Grade (% U_3O_8)	Contained Metal (lb U_3O_8)
$80	0.14	0.28	1,164,644	0.230	5,353,583
$75	0.15	0.30	1,040,829	0.240	4,996,677
$70	0.16	0.32	937,705	0.249	4,676,937
$65	**0.17**	0.34	**836,899**	**0.259**	**4,343,131**
$60	0.18	0.36	749,318	0.269	4,037,845
$55	0.20	0.40	592,839	0.290	3,442,112
$50	0.22	0.44	456,692	0.315	2,873,200
$45	0.24	0.48	366,838	0.335	2,461,051
$40	0.27	0.54	272,294	0.363	1,979,192
$35	0.31	0.62	122,849	0.456	1,121,522
$30	0.36	0.72	51,176	0.618	632,066
$25	0.44	0.88	29,574	0.792	468,659

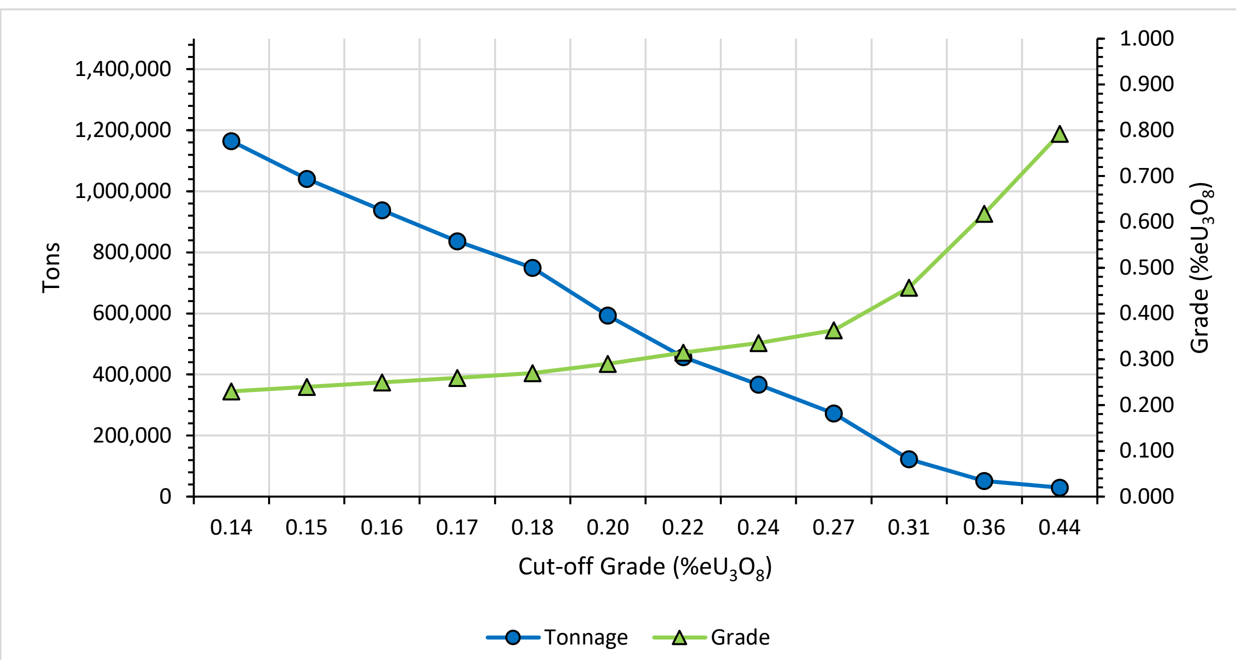


Figure 14-10: Mineral Resource Grade versus Tons at Various Cut-Off Grades

14.15 Mineral Resource Reporting

The Project resource estimate is summarized by area at a cut-off grade of 0.17% U_3O_8 in Table 14-15. In the SLR QP's opinion, the assumptions, parameters, and methodology used for the Project Mineral Resource estimate are appropriate for the style of mineralization. The effective date of the Mineral Resource estimate is December 31, 2021.

The La Sal West resources are reflected within the Energy Queen Zone for historic reporting consistencies.

The SLR QP is of the opinion that with consideration of the recommendations summarized in Section 1 and Section 23, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

Table 14-15: Summary of Mineral Resources –Effective Date December 31, 2021
Energy Fuels Inc. – La Sal Project

Classification	Deposit	Tonnage (000 tons)	Grade (% eU_3O_8)	Contained Metal (000 lb eU_3O_8)	Grade (% V_2O_5)	Contained Metal (000 lb V_2O_5)	Recovery (%)	EFR Basis (%)
Inferred	Pandora	222	0.24	1,061	1.02	4,551	96	100
	Beaver/La Sal	118	0.23	552	1.01	2,388	96	100
	Redd Block	336	0.29	1,918	1.14	7,679	96	100
	Energy Queen	147	0.25	749	1.07	3,129	96	100
Total Inferred		823	0.26	4,281	1.08	17,746	96	100

Notes:

1. SEC S-K 1300 definitions were followed for all Mineral Resource categories. These definitions are also consistent with CIM (2014) definitions in NI 43-101.
2. Uranium Mineral Resources are estimated at a cut-off grade of 0.17% U_3O_8.
3. Vanadium Mineral Resources are estimated based on calculations from U_3O_8 vs V_2O_5 regression analysis.
4. The cut-off grade is calculated using a metal price of \$65/lb U_3O_8
5. No minimum mining width was used in determining Mineral Resources.
6. Mineral Resources are based on a tonnage factory of 14.5 ft^3/ton (Bulk density 0.0690 ton/ft^3 or 2.21 t/m^3).
7. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
8. Total may not add due to rounding
9. Mineral Resources are 100% attributable to EFR and are in situ.

15.0 MINERAL RESERVE ESTIMATE

There are no current Mineral Reserves at the Project.

16.0 MINING METHODS

This section is not applicable.

17.0 RECOVERY METHODS

This section is not applicable.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable.

22.0 ECONOMIC ANALYSIS

This section is not applicable.

23.0 ADJACENT PROPERTIES

This section is not applicable.

24.0 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

The SLR QP offers the following interpretations and conclusions on the Project:

- EFR's protocols for drilling, sampling, analysis, security, and database management meet industry standard practices and are appropriate for the estimation of Mineral Resources.
- EFR project geologists appear to have a good understanding of the regional, local, and deposit geology and controls on mineralization.
- The Project has been the site of considerable past mining and exploration including the drilling and logging of approximately 17,397 surface and underground drillholes rotary holes of which 14,326 were used to prepare the current Mineral Resource estimate. In the opinion of the SLR QP the drilling database is adequate and acceptable for the purposes of Mineral Resource estimation.
- The SLR QP considers the estimation procedures employed at La Sal, including capping, compositing, and interpolation, to be reasonable and in line with industry standard practice for the style of mineralization and deposit type, but notes the following:
  - Use of unfolding and dynamic anisotropy works well with the Mineral Resource estimation where used and allows for more accurate of estimation of grade values along trends of grade continuity.
  - Over extrapolation of mineralization wireframe boundaries in areas of sparse or widely spaced drilling using the spline option tool in Vulcan is impacting the accuracy of the wireframes volumes and includes large amounts of internal waste.
  - Estimation Methodology:
    - Not applying a minimum mining thickness has resulted in some portions the wireframes to pinch down disallowing for block model estimations to occur.
    - Wireframes are not properly snapped to all drillholes intercepts.
- The SLR QP is of the opinion that the use of a regression analysis to estimate V_2O_5 grade values is acceptable given the small amount of valid V_2O_5 assays compared to the number of radiometric log values for U_3O_8.
- The SLR QP finds the classification criteria to be reasonable.
- The SLR QP considers that the Mineral Resources estimate completed on the Project conforms to the SEC S-K 1300 and NI 43-101 definitions for reporting mineral resources on mining properties.
- The SLR QPs are not aware of any environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors that could materially affect the current resource estimate.
- The SLR QP is of the opinion that there is a moderate risk that in some portions of the interpolated wireframes, estimated uranium grades will not reconcile to future drilling results due to the over extrapolating of the wireframes using the spline option in Vulcan in areas of widely spaced drilling and known morphology of Colorado Plateau uranium mineralization. These areas of barren or low-grade uranium mineralization may be areas of potential vanadium mineralization.

26.0 RECOMMENDATIONS

The SLR QP makes the following recommendations regarding advancement of the Project. The two-phase programs are interconnected and progressing to Phase 2 is contingent upon completion of the Phase 1 program:

26.1 Phase 1: Exploration/Development Drilling Program

1. Conduct a 50 drillhole exploration/development drilling program to advance the La Sal property to a Pre-Feasibility Level. Average depth per hole is projected to be approximately 630 ft (Table 26-1).

The SLR QP estimates the cost of the Phase 1 work will range from US$750,000 to US$850,000 (estimated costs per drill foot is US$25).

26.2 Phase 2: Pre-Feasibility Study and Updated Resource Estimate

1. Following completion of the Phase 1 confirmation drilling program, revisit, and update Mineral Resource estimates for the Project.
2. Complete a PFS of the Project based on an updated Mineral Resource estimate.

The SLR QP estimates the cost of this work to be US$60,000 for the updated Mineral Resource estimate and approximately US$300,000 for the PFS for a total of approximately US$410,000 for Phase 2 (Table 26-1).

Table 26-1: Recommended Budget
Energy Fuels Inc. – La Sal Project

Item	Cost (US$)
Phase 1	
Drill Beaver/Redd Block Connection (50 holes)	$800,000
Assaying and Geophysical Logging	$45,000
Phase 1 Total	**$845,000**
Phase 2	
Redd Block Shaft/Decline Trade-off	$50,000
Resource Update	$60,000
Pre-Feasibility Study	$300,000
Phase 2 Total	**$410,000**

In support of the two-Phase program outlined above, the SLR QP makes the following recommendations:

1. Compile lithologic data from existing radiometric log data and construct a geologic model that defines mineralized horizons within the Salt Wash. Geologic model to be used to constrain future resource estimations by limiting the amount of internal waste in the wireframes.

2. Continue implementation of the recently completed (2019) V_2O_5 sampling program to support and supplement resource estimations.
3. Procure a vanadium standard to monitor vanadium assay performance as more vanadium assays are expected to be collected in the future for vanadium resource estimation.
4. Apply a minimum thickness of two feet when constructing wireframes to align with current mining operations more appropriately.
5. Treat missing and unsampled intervals contained within the wireframes as waste.
6. Continue to use dynamic anisotropic models for all estimations where appropriate.
7. Revisit and confirm the historical density values prior to any future resource estimations.

27.0 REFERENCES

Cadigan, R. A., 1967, Petrology of the Morrison Formation in the Colorado Plateau Region, U.S.G.S. Professional Paper 556.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), 2014, CIM Definition Standards for Mineral Resources and Mineral Reserves, adopted by the CIM Council on May 10, 2014.

Carter, W.D. and Gualtieri, J.L., 1965, Geology and Uranium-Vanadium Deposits of the La Sal Quadrangle San Juan County, Utah, and Montrose County, Colorado, U.S.G.S. Professional Paper 508.

Chenoweth, W. L., 1981, The Uranium-Vanadium Deposits of the Uravan Mineral Belt and Adjacent Areas, Colorado and Utah, in Western Slope Colorado, New Mexico Geological Society 32nd Guide Book.

Chenoweth, W. L., 1983, Uranium-Vanadium Deposits on the West Flank of the La Sal Mountains, Grand and San Juan Counties, Utah, Grand Junction Geological Society – 1983 Field Trip

Chenoweth, W. L., 1990, Lisbon Valley, Utah's Premier Uranium Area, A summary of Exploration and Ore Production, Utah Geological and Mineral Survey OFR 188.

Dahlkamp, Franz J., 1993, Uranium Ore Deposits, Springer-Verlag.

Doelling, H. H., 1969, Mineral Resources, San Juan County, Utah, and Adjacent Areas, Part II: Uranium and Other Metals in Sedimentary Host Rocks, Utah Geological and Mineralogical Survey, Special Studies 24.

Doelling, H.H., 2004, Geologic Map of the La Sal 30' X 60' Quadrangle, Utah Geological Survey

Electronic Code of Federal Regulations, Title 17: Commodity and Securities Exchanges, Chapter II, Part 229 Standard Instructions for Filing Forms Under Securities Act of 1933, Securities Exchange Act of 1934 and Energy Policy and Conservation Act of 1975- Regulation S-K.(https://www.ecfr.gov/cgi-bin/text-idx?amp;node=17:3.0.1.1.11&rgn=div5#se17.3.229_11303)

Energy Fuels Inc., 2022, Legal Opinion Regarding La Sal Project Ownership, letter report to SLR International Corporation, February 18, 2022, 626 pp.

Fischer, R. P. and Hilpert, L. S., 1952, Geology of the Uravan Mineral Belt, USGS Bulletin 988-A.

Hollingsworth, J. S., January 25, 1991, Summary of Mineable Reserves: Umetco Minerals Corporation, in-house report.

Huber, G.C., 1981, Geology of the Lisbon Valley Uranium District, Southeastern Utah, in Western Slope Colorado, New Mexico Geological Society 32nd Guide Book.

Kovschak, A. A., Jr. and Nylund, R. L., 1981, General Geology of Uranium-Vanadium Deposits of Salt Wash Sandstones, La Sal Area, San Juan County, Utah, in Western Slope Colorado, New Mexico Geological Society 32nd Guide Book.

Mickle, D.G. and Mathews G.W., 1978, Geologic Characteristics of Environments Favorable for Uranium Deposits, International Atomic Energy Agency 270 p.

Minobras Mining Services Company, 1978, Uranium Guidebook for the Paradox Basin, Utah-Colorado: Bonsall, California (formerly Dana Point, California), 95 p.

Peters, D.C., 2011, Updated Technical Report On Energy Fuels Resources Corporation's Energy Queen Project, San Juan County, Utah: Peters Geosciences, 36 p. March 5, 2011.

Peters, D.C., 2014, Technical Report On La Sal District Project (Including the Pandora, Beaver, and Energy Queen Projects), San Juan County, Utah: Peters Geosciences. March 25,2014.

Scott, J.H., Dodd, P.H., Droullard, R.F., Mudra, P.J., 1960, Quantitative Interpretation of Gamma-Ray Logs: U.S.A.E.C., RME-136.

Thamm, J. K., Kovschak, A. A., Jr., and Adams, S. S., 1981, Geology and Recognition Criteria for Sandstone Uranium Deposits of the Salt Wash Type, Colorado Plateau Province-final report, U.S. Department of Energy Report GJBX-6(81).

Trade Tech, 2013 Uranium Price Information from www.uranium.info

U.S. Atomic Energy Commission, 1959, Guidebook to Uranium Deposits of Western United States, RME-141.

U.S.G.S. Professional Paper 320.

US Securities and Exchange Commission, 2018: Regulation S-K, Subpart 229.1300, Item 1300 Disclosure by Registrants Engaged in Mining Operations and Item 601 (b)(96) Technical Report Summary.

Ux Consulting, 2013 Uranium Price Information from www.uxc.com

Weeks, A. D., Coleman, R.G., and Thompson, M. E., 1959, Summary of the Ore Mineralogy, in Geochemistry and Mineralogy of the Colorado Plateau Uranium Ores,

Weir, G.W., Dodson, C.L., and Puffett, W.P., 1960, Preliminary Geologic Map and Section of the Mount Peale 2 SE Quadrangle San Juan County, Utah, U.S.G.S. Mineral Investigations Field Studies Map MF-143.

28.0 DATE AND SIGNATURE PAGE

This report titled “Technical Report on the La Sal Project, San Juan County, Utah, USA” with an effective date of December 31, 2021, was prepared and signed by the following authors:

(Signed & Sealed) ***Mark B. Mathisen***

Dated at Lakewood, CO
February 22, 2022

Mark B. Mathisen, C.P.G.
Principal Geologist, SLR International Corporation

29.0 CERTIFICATE OF QUALIFIED PERSON

29.1 Mark B. Mathisen

I, Mark B. Mathisen, C.P.G., as an author of this report entitled “Technical Report on the La Sal Project, San Juan County, Utah, USA” with an effective date of December 31, 2021 (the Technical Report), prepared for Energy Fuels, Inc., do hereby certify that:

1. I am Principal Geologist with SLR International Corporation, of Suite 100, 1658 Cole Boulevard, Lakewood, CO, USA 80401.
2. I am a graduate of Colorado School of Mines in 1984 with a B.Sc. degree in Geophysical Engineering.
3. I am a Registered Professional Geologist in the State of Wyoming (No. PG-2821), a Certified Professional Geologist with the American Institute of Professional Geologists (No. CPG-11648), and a Registered Member of SME (RM #04156896). I have worked as a geologist for a total of 23 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Mineral Resource estimation and preparation of NI 43-101 Technical Reports.
   - Director, Project Resources, with Denison Mines Corp., responsible for resource evaluation and reporting for uranium projects in the USA, Canada, Africa, and Mongolia.
   - Project Geologist with Energy Fuels Nuclear, Inc., responsible for planning and direction of field activities and project development for an in situ leach uranium project in the USA. Cost analysis software development.
   - Design and direction of geophysical programs for US and international base metal and gold exploration joint venture programs.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, 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 NI 43-101.
5. I visited the La Sal Project (the Project) on November 11, 2021.
6. I am responsible for all sections and overall preparation of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have been involved previously with the Project from 2006 to 2012 when serving as Director of Project Resources with Denison Mines.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 22nd day of February 2022

(Signed & Sealed) ***Mark B. Mathisen***

Mark B. Mathisen, C.P.G.

www.slrconsulting.com