

Technical Report Summary for the Alta Mesa Uranium Project, Brooks and Jim Hogg Counties, Texas, USA

**US SEC Subpart 1300 Regulation S-K Compliant Report
National Instrument 43-101-*Standards of Disclosure for Mineral Projects*
Compliant Report
Initial Assessment**

Prepared by



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Effective Date: December 31, 2021

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This Initial Assessment titled "Technical Report Summary for the Alta Mesa Uranium Project, Brooks and Jim Hogg counties, Texas, USA" which has an effective date of December 31, 2021. I am a co-author of the report.

Dated this February 10, 2022

"original signed and sealed"

/s/ Travis Boam, PG

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1.0 EXECUTIVE SUMMARY

This Initial Assessment has been prepared for Energy Fuels Inc. (EFR or Energy Fuels) by Travis Boam and Douglas Beahm (collectively, authors), on the Alta Mesa Uranium Project (the Project), located in Brooks and Jim Hogg Counties, Texas, USA and is based on and supersedes a 2016 Canadian NI 43-101 compliant report by independent mining consultant Douglas Beahm, PE, Principal Engineer for BRS Engineering (BRS).

Mr. Boam is a Senior Geologist employed by EFR, while Mr. Beahm is an independent consultant and Principal Engineer of BRS. This Initial Assessment conforms to the US Securities and Exchange Commission (SEC) S-K 1300 disclosure requirements and policies for mining properties and the requirements of the Canadian Securities Administrators National Instrument 43-101 -Standards of Disclosure for Mineral Projects ("NI 43-101") and the Canadian Institute of Mining (CIM) Best Practice Guidelines for the Estimation of Mineral Resources and Mineral Reserves ("CIM standards").

Energy Fuels is incorporated in Ontario, Canada. Energy Fuels Resources (USA) Inc., a US- based subsidiary, is a uranium and vanadium mining company, with projects located in Colorado, Utah, Arizona, Wyoming, Texas and New Mexico. EFR operates the White Mesa Mill in Blanding Utah, the only conventional uranium mill operating in the U.S. today with a licensed capacity of over eight million pounds of U₃O₈ per year. EFR is listed on the NYSE American Stock Exchange (symbol UUUU), and the Toronto Stock Exchange (symbol EFR) and is subject to the disclosure requirements of NI 43-101 and S-K 1300. All costs and prices are listed in US dollars (US\$).

The Alta Mesa Uranium Project, (the Project) is an in-situ (ISR) recovery mining project, and past producer consisting of two distinct properties; the Alta Mesa property, which is composed of the Alta Mesa mine area and processing facility, South Alta Mesa (SAM) and Indigo Snake. The second property is the Mesteña Grande, which is composed of Mesteña Grande Goliad (MGG) Mesteña Grande North (MGN), Mesteña Grande Central (MGC), Mesteña Grande Alta Vista (MGAV), and El Sordo. The Project's central processing facility and mine office is located at the Alta Mesa property approximately 11 miles west of the intersection of US 281 and Ranch Road 755, which is also 22 miles south of Falfurrias, Texas. Figure 4-1 shows the location of both properties making up the project in Southeastern Texas.

The Project is located within a portion of the private land holdings of the Jones Ranch, founded in 1897 and includes surface and mineral rights as well as oil and gas and other minerals including uranium. Active uses of the lands in addition to uranium exploration and production activities include agricultural use (cattle), oil and gas development, and private hunting. Previous owners include Chevron Minerals, Total Minerals, Cogema, Uranium Resources Inc. and Mesteña Uranium LLC (MULLC), formed by landowners. In 2016 EFR acquired the Project from MULLC. Section 6.2 (Ownership History) discusses this in more detail.

The Project consists of Uranium Mining Leases for uranium ISR mining (4,598 acres) and Mineral Options (195,501 acres) comprising some 200,099 total acres consisting of acreage associated with currently approved mining permits issued by the Texas Commission on Environmental Quality (TCEQ) and 9 prospect areas as described in Section 4.2.

The Project produced approximately 4.6 million pounds of uranium oxide between 2005 and 2013 via in-situ recovery (ISR) mining using an alkaline lixiviant and is processed at a plant located in Alta Mesa. The facility was in production from 2005 until primary production ceased February 2013. The Project operated in a groundwater clean-up mode until February 2015; therefore, any uranium mined since 2013 remains as in-circuit inventory. The first wellfield (PAA-1) has completed final groundwater restoration and was approved by the Texas Commission on Environmental Quality in March 2018. All other wellfields are being maintained by a small bleed (less than 100 gpm) for permit compliance. The bleed solutions are disposed of in the deep disposal wells.

Mineralization within the South Texas Uranium Province is interpreted to be dominantly roll-front type mineralization and primarily of epigenetic origin (Finch, 1996). Roll-fronts are formed along an interface between oxidizing groundwater solutions which encounter reducing conditions within the host sandstone unit. This boundary between oxidizing and reducing conditions is often referred to as the Reduction/Oxidation (REDOX) interface or front.

This report provides estimates of Mineral Resources within the Project area. Only the Alta Mesa property has had previous ISR mining. No preliminary economic assessment, pre-feasibility study or feasibility study has been completed to NI 43-101 and S-K 1300 standards; thus, no mineral reserves are stated in this report.

Exploration Target(s) have been identified within the project areas and the range of possible quantity and grade of mineralization. Future exploration plans include closer spaced drilling of the inferred resource at Alta Mesa and at Mesteña Grande with the goal of promoting this Mineral Resource to the Indicated category, though there is no guarantee of positive results in this work. Additional plans at Mesteña Grande also consists of additional geological, metallurgical, and hydrological studies to assess the economics of future extraction. Presuming positive results, it is recommended that exploration of a sufficient portion of the Mesteña Grande inferred resources areas be conducted to define sufficient Mineral Resources to support a preliminary feasibility study for a satellite facility. Section 26.0 (Recommendations) discusses future exploration plans in greater detail.

The current Mineral Resource estimate for the Project is summarized in Table 1-1.

Table 1-1 Alta Mesa and Mesteña Grande Mineral Resource Summary

Classification	COG (G.T.)	Area	Tonnage	Grade (% U₃O₈)	Contained Metal (lbs. U₃O₈)
Measured	0.3	Alta Mesa	54,000	0.152	164,000
Total Measured	0.3		54,000	0.152	164,000
Indicated	0.3	Alta Mesa	1,397,000	0.106	2,959,000
	0.3	Mesteña Grande	119,000	0.120	287,000
Total Indicated	0.3		1,516,000	0.107	3,246,000
Total Measured & Indicated	0.3		1,570,000	0.109	3,410,000
Inferred	0.3	Alta Mesa	1,263,000	0.126	3,192,000
	0.3	Mesteña Grande	5,733,000	0.119	13,601,000
Total Inferred	0.3		6,996,000	0.120	16,793,000

Notes:

1. NI 43-101 and S-K 1300 definitions were followed for all Mineral Resource categories.
2. Mineral Resources are estimated at a 0.3 GT (0.02% U₃O₈ minimum)
3. Mineral Resources are estimated using a long-term Uranium price of US\$65 per pound
4. Total measured Mineral Resource is that portion of the in-place or in situ Mineral Resources that is estimated to be recoverable within existing well fields. Wellfield recovery factors have not been applied to indicated and inferred Mineral Resources
5. Bulk density is 0.0588 tons/ft³ (17.0 ft³/ton)
6. Mineral Resources are exclusive of Mineral Reserves and do not have demonstrated economic viability.
7. Numbers may not add due to rounding

1.1 Conclusions

The authors consider the data and information available for this report to be accurate and reliable for the purposes of estimating Mineral Resources for the Project. Significant Mineral Resources remain within the Project area which may be tributary to the Alta Mesa central processing facility which is fully licensed and has operated continuously from 2005 until production standby in February 2013.

Mineral Resources have been estimated for both the Alta Mesa and Mesteña Grande areas in accordance with NI 43-101 and S-K 1300 standards and definitions and are summarized in Table 1-1 in the measured, indicated and inferred mineral resource category.

The authors feel the risks to put the Alta Mesa portion of the Project into production are low since all permit for operating are in place and is tributary to the existing Alta Mesa ISR production facility, which is fully licensed to operate. For each new wellfield a production area authorization (PAA) permit will need to be obtained through the permitting process with TCEQ. However, the Mesteña Grande portion of the Project, which will operate as a satellite facility to the Alta Mesa ISR facility, will require full permitting requirements prior to production and operation of its well fields.

The Project does have some risks similar in nature to other mining projects and uranium mining projects specifically, including:

- Future commodity demand and pricing;
- Environmental and political acceptance of the project;
- Variance in capital and operating costs; and
- Mine and mineral processing recovery and dilution.

There is a risk that additional drilling may not locate additional Mineral Resources and that mineralization may not be found or may not be continuous along the REDOX boundary and that the actual grade times thickness (GT) along the trends will fall outside the estimated range, either higher or lower. A substantial portion of the Mineral Resource is based on wide-spaced drilling and has been classified as inferred. Inferred Mineral Resources are too speculative to have economic considerations applied to them which would enable them to be categorized as mineral reserves. Inferred Mineral Resources can be assessed in the context of a Initial Assessment which is allowed under NI 43-101 and S-K 1300 standards, the latter as a Preliminary Economic Assessment (PEA). The tonnages, grades, and contained pounds of uranium, as stated in this report, for exploration targets should not be construed to reflect a calculated Mineral Resource (inferred, indicated, or measured). The potential quantities and grades for exploration targets, as stated in this report, are conceptual in nature, and there has been insufficient work to date to define a NI 43-101 and S-K 1300 compliant resource. Furthermore, it is uncertain if additional exploration will result in any of the exploration targets being delineated as a Mineral Resource.

The authors are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors which would materially affect the Mineral Resource estimates presented in this report. To the authors knowledge there are no other significant factors that may affect access, title, or the right or ability to perform work on the property provided the conditions of all mineral leases and options, and relevant operating permits and licenses, are met. The reader is cautioned that additional drilling may or may not result in discovery of an economic Mineral Resource on the property.

1.2 Recommendations

Recommendations which follow separately are for the restart of operations at the Alta Mesa Facility and continued exploration and delineation drilling. These recommendations are independent of one another.

1.3 Restart of operations at the Alta Mesa Facility:

The following recommendations presume the Alta Mesa Central Processing facility is to resume production under favorable market conditions. Under this scenario the following phased work program is recommended.

Phase 1 - Restart Alta Mesa Operations

- Updating of existing operating permits and licenses as necessary to authorize well field and plant operations.
- Rehabilitation and modernization of the Alta Mesa processing facility and rehabilitation of the PAA-6 wellfield to allow for resumption of production from PAA-6.
- Estimated cost: \$980,000

Phase 2 - Delineate PAA-7 to allow for start of production in PAA-7

- Advance well field delineation and initiate installation of initial wellfields to allow for production start-up at PAA-7 including.
 - PAA-7 Upper LCU1 indicated resource area
 - PAA-7 Upper LCU2 indicated resource area
 - PAA-7 Lower LCU1 indicated resource area
 - PAA-7 Lower LCU2 indicated resource area
- Estimated cost: \$12,000,000

Phase 3 - Complete exploration of Alta Mesa inferred Mineral Resource areas

Assumptions for the purposes of estimating the costs of drilling program assume that drilling will be completed across the trend on close spacing and along the trend at a greater spacing (referred to as fence drilling) and include:

- Drilling Inferred Mineral Resources to drill hole density of Indicated Mineral Resources
- Requires 5 holes per 200 feet of trend length
- Approximate 500-600 foot depth, \$5,000 per drill hole, approximately \$10 per foot
- Approximate 1,000-1,200 foot depth per drill hole, \$15,000 per drill hole, approximately \$15 per foot

Table 1-2 provides cost estimates each of the areas recommended for delineation drilling within the overall Alta Mesa project area.

Table 1-2 Cost Estimates to Elevate Inferred Mineral Resources to Measured and Indicated Mineral Resources

Inferred Zone	Number of Holes	Total Footage	Cost US\$ (\$000s)
Alta Mesa: LC Sand Inferred	580	23,256	\$2,900
D Sand Inferred	370	14,800	\$1,850
South Alta Mesa, A Sand Inferred	720	28,616	\$3,600
South Alta Mesa, B Sand Inferred	625	25,011	\$3,125
South Alta Mesa Inferred	150	6,125	\$2,250
Total \$US (rounded)			\$14,000

1.4 Exploration and delineation drilling:

Concurrent with or after Phase 3, continued exploration of the Mesteña Grande is recommended. This would include delineation drilling of the Oakville Central indicated resource area sufficiently to define the mineralization and complete sufficient geological, metallurgical, and hydrological studies to preliminarily assess the economics of future extraction. Presuming positive results, it is recommended that exploration of a sufficient portion of the Mesteña Grande inferred resources areas be conducted to define sufficient Mineral Resources to support a preliminary feasibility study for a satellite facility at Mesteña Grande. The estimated costs to complete the foregoing recommendations are summarized in Table 1-3.

Table 1-3 Cost Estimates to Elevate Inferred Mineral Resources to Measured and Indicated Mineral Resources

Inferred Zone	Cost (\$000s)
Mesteña Grande: Goliad and El Sordo Sands	\$9,900
Mesteña Grande: Oakville Sands	\$75,000
Total \$US (rounded)	\$85,000

It is also recommended that EFR conducts further exploration drilling to gain additional information about exploration targets to possibly upgrade these areas to Mineral Resources. Exploration targets have been defined primarily in the South Alta Mesa area of the Alta Mesa Project. The estimated costs to complete the foregoing recommendations are summarized in Table 1.4 summarizes the costs associated with additional drilling of the inferred Mineral Resources and Exploration Targets.

Table 1-4 Cost for Exploration Target Drilling to Elevate to Inferred Mineral Resources

Exploration Target	Cost (\$000s)
Alta Mesa: LC Sand	\$1,000
South Alta Mesa: E Sand	\$10,950
Indigo Snake	\$4,050
Total	\$16,000

The cost estimates for exploratory and delineation drilling assume that the entirety of each trend would need to be drilled including all holes along a fence. Drilling would likely begin in the most prospective locations and, assuming successful results, work away along trend. If drilling were unsuccessful, drilling would likely be curtailed. Also, if a drill hole penetrated the planned drill target along a fence, then the additional drill holes planned along that fence would not be needed. Conversely, if the planned drill target was not penetrated with the planned fence additional drilling may be required.

2.0 INTRODUCTION

2.1 Introduction

The authors, each of which is a QP in accordance with NI 43-101 and S-K 1300 standards, prepared this Initial Assessment of EFR on their Alta Mesa Uranium Project (the Project), located in Brooks and Jim Hogg Counties, Texas, USA and satisfies the updated US Securities and Exchange Commission (SEC) disclosure requirements and policies for mining properties and the requirements of the Canadian Securities Administrators National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and the Canadian Institute of Mining (CIM) Best Practice Guidelines for the Estimation of Mineral Resources and Mineral Reserves ("CIM standards").

This technical report is based on a previous NI 43-101 compliant report completed for EFR by BRS with an effective date of July 2016. BRS was retained to develop a Mineral Resource estimate and Initial Assessment for the Project by Energy Fuels Inc. based on a site visit and reviewing data at the main Corpus Christi office of Mesteña Uranium in April 2014. Specific work completed during BRS's site visit include:

- Review of drill data including original geophysical and lithological logs;
- Review of quality control procedures relating to drilling and geophysical logging;
- Review of procedures and data relating to geophysical logging and instrument calibration;
- Visited numerous drill sites and;
- Observed and reviewed surveying methodology;

Based on the authors' review, the drilling and exploration practices are in keeping with industry standards and the drill hole database is reliable as a basis for Mineral Resource estimation.

Additionally, the authors endorse the previous technical report as a basis for this updated report, since no material change has occurred at Alta Mesa from the effective date of the previous BRS report.

The Alta Mesa Uranium Project (Project) is made up of the Alta Mesa and Mesteña Grande properties. The Alta Mesa property produced approximately 4.6 million pounds of uranium oxide between 2005 and 2013 via in-situ Recovery (ISR) mining. The facility was in production from 2005 until primary production ceased February 2013. The Project operated in a groundwater clean- up mode until February 2015; therefore, any uranium mined since 2013 remains as an in-circuit inventory.

This report provides estimates of Mineral Resources for the Alta Mesa and Mesteña Grande properties in addition to exploration target(s) within the project areas and discloses the potential quantity and grade of mineralization, expressed as ranges, for further exploration. The tonnages, grades, and contained pounds of uranium, as stated in this report for exploration targets are estimates and could change once exploration activities are completed. Such exploration targets are conceptual in nature and not a calculated Mineral Resource (inferred, indicated, or measured) under NI 43-101 and S-K 1300 regulations. Furthermore, it is uncertain if additional exploration will result in any of the exploration targets being delineated as a Mineral Resource.

2.2 Registrant of Filing

Energy Fuels is incorporated in Ontario, Canada; its subsidiary, Energy Fuels Resources (USA) Inc. is a US-based uranium and vanadium exploration and mine development company with projects located in 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) and is subject to the disclosure requirements of S-K 1300 and NI 43-101.

2.3 Terms of Reference

This work is based on an independent Initial Assessment conforming to Canadian NI 43-101 and S-K 1300 Standards of Disclosure for Mineral Projects completed by BRS on the Alta Mesa Uranium Project in 2016 and is available on the Canadian Securities Administrators (CSA) filing system ("SEDAR", https://www.sedar.com/homepage_en.htm).

Since the Project has been on care and maintenance since the effective date of the previous report, there has been no material change in the project.

The purpose of this report is to declare Mineral Resources and to constitute the inaugural S-K 1300 compliant technical report summary for the Project.

2.4 Sources of Information

This Initial Assessment is based on an original independent Technical Report conforming to Canadian NI 43-101 Standards of Disclosure for Mineral Projects completed by BRS on the Alta Mesa and Mestena Grande Project in 2016. A representative of BRS visited the Project in April of 2014.

The authors of this report and the sections they are responsible for, include:

Travis Boam, PG, Energy Fuels Senior Geologist: Sections 3, 4, 5, 6, 7, 8, 9, 10, 13 and contributions to relevant portions of Sections 1, 2, 14 and Sections 23 to 27.

Douglas Beahm, PE, PG, BRS: Sections 11, 12, and contributions to relevant portions of Sections 1, 2, 14 and Sections 23-27.

The documentation reviewed and other sources of information utilized in this report are listed in Section 24 (References).

2.5 Site Visit

Douglas Beahm visited the project and local geologic offices during the period of April 15 through April 17, 2014, after reviewing data at the main Corpus Christi office of Mestena Uranium on April 14, 2014.

During this time Mr. Beahm:

- Reviewed drill data including original geophysical and lithological logs;
- Reviewed quality control procedures relating to drilling and geophysical logging;
- Reviewed procedures and data relating to geophysical logging and instrument calibration;
- Visited numerous drill sites and;
- Observed and reviewed surveying methodology.

During the site visit copies of all drill data pertinent to the current evaluation was provided in electronic format. Based on review of the data collection and preservation methods employed by MULLC, the author is of the opinion that the drilling and exploration practices employed are in keeping with industry standards and the author concludes that the drill hole database available for the Project is reliable.

Travis Boam visited the site in November of 2019 and can attest to the condition of the facility and wellfields.

2.6 Purpose of Report

The authors have prepared this Initial Assessment on the Alta Mesa project in accordance with NI 43-101 and S-K 1300 requirements for Mineral Resources properties. The purpose of this report is to declare Mineral Resources and to constitute the inaugural S-K 1300 compliant technical report summary for the Project.

2.7 Effective Date

The effective date of this report is December 31, 2021. The effective date of the Mineral Resource estimate is April 2014.

2.8 List of Abbreviations

Table 2-1 summarizes the list of terms and abbreviations used in this report:

Table 2-1 Terms and Abbreviations

URANIUM SPECIFIC TERMS AND ABBREVIATIONS					
Grade	Parts Per Million	ppm U ₃ O ₈	Weight Percent	%U ₃ O ₈	
Radiometric Equivalent Grade		ppm eU ₃ O ₈		% eU ₃ O ₈	
Thickness	meters	m	Feet	Ft	
Grade Thickness Product	grade x meters	GT(m)	grade x feet	GT(Ft)	

GENERAL TERMS AND ABBREVIATIONS					
	METRIC Term	Abbreviation	US Term	Abbreviation	Metric : US Conversion
Area	Square Meters	M ²	Square Feet	Ft ²	10.76
	hectare	Ha	Acre	Ac	2.47
Volume	Cubic Meters	m ³	Cubic Yards	Cy	1.308
Length	Meter	m	Feet	Ft	3.28
	Meter	m	Yard	Yd	1.09
Rod	Meter	5.03	Feet	Ft	16.5
Distance	Kilometer	km	Mile	mile	0.6214
Weight	Kilogram	Kg	Pound	Lb	2.20
	Metric Ton	km ³	Short Ton	Ton	1.10

3.0 RELIANCE ON OTHER EXPERTS

3.1 Reliance on Information Required by the Registrant

Qualified Person Travis Boam of EFR has relied on commodity pricing provided by Mr. Curtis Moore, EFR's V.P. Marketing and Corporate Development. Mr. Moore has provided his expertise in determining future uranium pricing, which is included in Section 14.2.9 (Metal Price) and was used as the basis of determining cut-offs. Mr. Boam has reviewed Mr. Moore's recommendations for commodity pricing and is of the opinion that it is reasonable for the purposes of this report.

Similarly, Mr. Boam has relied upon information provided by EFR, including Bruce Larson (P.G), Energy Fuels Director Geology and Land for Sections 4.2, 4.4 and 5.7, and Scott Bakken (P.G), Energy Fuels Director of Regulatory Affairs, in Section 4.3 of this report, specifically mineral tenor, surface rights, taxes, permitting, and environmental liabilities.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Introduction

The Project is a ISR recovery mining project consisting of two distinct properties; the Alta Mesa property, which is composed of the Alta Mesa mine area and processing facility, South Alta Mesa (SAM), and Indigo Snake; and the Mesteña Grande property, which is composed of Mesteña Grande Goliad (MGG) Mesteña Grande North (MGN), Mesteña Grande Central (MGC), Mesteña Grande Alta Vista (MGAV), and El Sordo. The Project's central processing facility and mine office is located at the Alta Mesa project area at 755 CR 315, Encino, Texas 78353, in Brooks County, Texas, at approximately 26° 54' 08" North Longitude and 98° 18' 54" West Latitude. The site is located approximately 11 miles west of the intersection of US 281 and Ranch Road 755, which is 22 miles south of Falfurrias, Texas. Figure 4-1 shows the location of both project areas in Southeastern Texas

The Project is located within a portion of the private land holdings of the Jones Ranch, founded in 1897. The ranch comprises approximately 380,000 acres. The ranch holdings include surface and mineral rights including oil and gas and other minerals including uranium. Active uses of the lands in addition to uranium exploration and production activities include agricultural use (cattle), oil and gas development, and private hunting. Previous owners include Chevron Minerals, Total Minerals, Cogema, Uranium Resources Inc. and Mesteña Uranium LLC (MULLC), formed by landowners. In 2016 EFR acquired the Project from MULLC. Section 6.2 (Ownership History) discusses this in more detail.

The Project consists of Uranium Mining Leases for uranium ISR mining (4,598 acres) and Mineral Options (195,501 acres) comprising some 200,099 total acres.

For the purposes of this report the Project is defined as constituting several project areas, as shown on Figure 4-1. Alta Mesa and Mesteña Grande Location Map.

The Alta Mesa project area, Brooks County, Texas, comprising 16,010 acres, including,

- The Alta Mesa mine area and central processing facility;
- The South Alta Mesa and
- The Indigo Snake.

The Mesteña Grande project areas, Jim Hogg County, Texas, comprising 47,088 acres, including,

- Mesteña Grande Goliad;
- Mesteña Grande North;
- Mesteña Grande Central;
- Mesteña Grande Alta Vista and
- El Sordo

An additional 137,001 acres are leased by EFR outside the designated project areas. These areas have mineral potential but have not been explored.

4.2 Land Tenure

Mineral ownership in Texas is a private estate. Private title to all land in Texas emanates from a grant by the sovereign of the soil (successively, Spain, Mexico, the Republic of Texas, and the state of Texas). By a provision of the Texas Constitution the state released to the owner of the soil all mines and mineral substances therein. Under the Relinquishment Act of 1919, as subsequently amended, the surface owner is made the agent of the state for the leasing of such lands, and both the surface owner and the state receive a fractional interest in the proceeds of the leasing and production of minerals (<http://www.tshaonline.org/handbook/online/articles/gym01>).

The Project consists of a private Mining Lease (4,598 acres) and Options (195,501 acres) for uranium comprising some 200,099 total acres consisting of acreage associated with currently approved mining permits issued by TCEQ and 9 prospect areas as described.



Figure 3-1. Alta Mesa and Mestena Grande Location Map

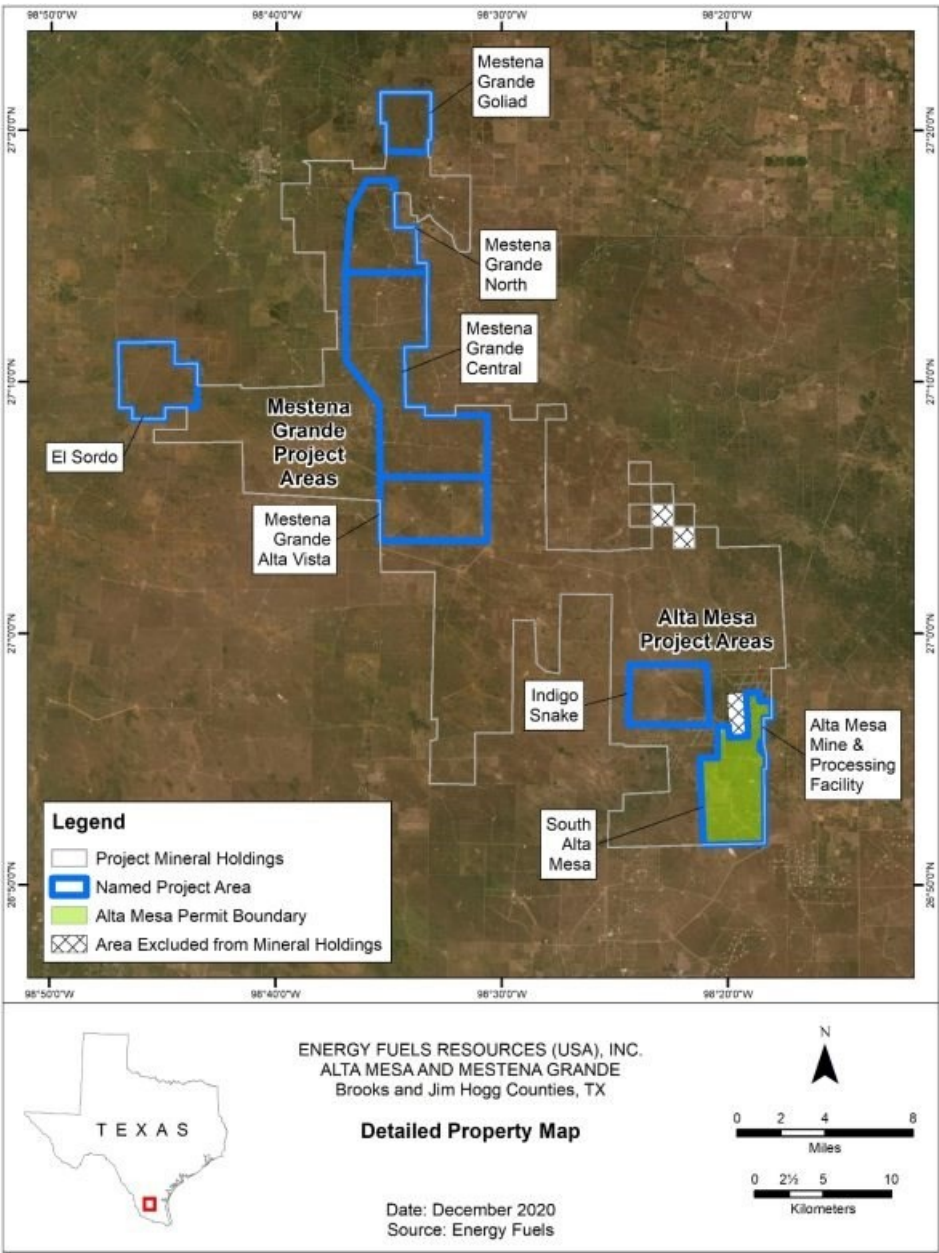


Figure 3-2. Alta Mesa and Mestena Grande Property Map

4.2.1 Amended and Restated Uranium Solution Mining Lease

The Uranium Solution Mining Lease, originally dated June 1, 2004, covers approximately 4,575 acres, out of the "La Mesteñas" Ysidro Garcia Survey, A-218, Brooks County, Texas and the "Las Mesteñas Y Gonzalena" Rafael Garcia Salinas Survey, A-480, Brooks County, Texas; these have been superseded by the Amended and Restated Uranium Solution Mining Lease dated June 16, 2016, as part of the share purchase agreement between EFR and the various holders of the Mesteña project. The Lease now comprises Tract 5 and a portion of Tracts 1, 4, and 6 of "W.W. Jones Subdivision", said tract being out of the "La Mesteña Y Gonzalena" Rafael Garcia Salinas Survey, Abstract N0. 480 and the "La Mesteñas" Ysidro Garcia Survey, Abstract No. 218, Brooks County, Texas. The Lease now covers uranium, thorium, vanadium, molybdenum, other fissionable minerals, and associated minerals and materials under 4,597.67 acres.

The term of the amended lease is fifteen (15) years which commenced on June 16, 2016, or however long as the lessee is continuously engaged in any mining, development, production, processing, treating, restoration, or reclamation operations on the leased premises. The amended lease can be extended by the Lessee for an additional 15 years.

The lease includes provisions for royalty payments on the net proceeds (less allowable deductions) received by the Lessee. The royalties range from 3.125 to 7.5% depending on the price received for the uranium. The lease also calls for a royalty on substances produced on adjacent lands but processed on the leased premises as shown on Table 4.1.

Table 4.1 Amended Uranium Solution Mining Lease Royalties

Royalty Holders	Number of Acres	Lessor Royalty	Primary Term
Mesteña Unproven Ltd., Jones Unproven Ltd., Mestaña Proven Ltd. Jones Proven Ltd.	4597.67 +/-	7.5% Market value > \$95.00/lb. U ₃ O ₈ 6.25% of Market Value > \$65/lb. & <= \$95/lb. U ₃ O ₈ 3.125% of Market Value <= \$65/lb. U ₃ O ₈	15 years from amendment date with option for additional 15 years or as long uranium mining operations continue

4.2.2 Amended and Restated Uranium Testing Permit and Lease Option Agreement

The Uranium Testing Permit and Lease Option Agreement (Table 4.2), originally dated August 1, 2006, covers all land containing mineral potential as identified through exploration efforts and covers uranium, thorium, vanadium, molybdenum, and all other fissionable materials, compounds, solutions, mixtures, and source materials; this agreement has been superseded by the Amended and Restated Uranium Testing and Lease Option Agreement dated June 16, 2016, as part of the share purchase agreement between Energy Fuels Inc. and the various holders of the Mesteña project. It now covers 195,501 acres.

The term of the amended lease and option agreement is for eight (8) years which commenced on June 16, 2016. The amended lease and option agreement can be extended by the grantee for an additional seven (7) years. Certain payments by the Grantee to the Grantor are required prior to year three (3) of the initial eight (8) year lease. The amended Lease Option Agreement provides for designating acreage to be leased for production by making certain payments to the Grantor (cash or stock). If acreage designation occurs within the first three (3) years of the initial eight (8) year lease, the payments will be deducted from the certain payments required by year three (3) in the lease option agreement. The grantor then has sixty (60) business days to execute and return the lease.

Table 4.2 Amended and Restated Uranium Testing Permit and Lease Option Agreement Royalties

Mesteña Unproven Ltd, Jones Unproven Ltd, Mesteña Proven Ltd Jones Proven Ltd	195,501 +/-	7.5% of Market value > \$95.00/lb U ₃ O ₈ 6.25% of Market Value > \$65/lb. & <= \$95/lb. U ₃ O ₈ 3.125% of Market Value <= \$65/lb. U ₃ O ₈	8 years from amendment date with option for additional 7 years or as long uranium mining operations continue
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4.2.3 Surface Rights

The mineral leases and options include provisions for reasonable use of the land surface for the purposes of ISR mining and mineral processing. Alta Mesa is a fully licensed, operable facility with sufficient sources of power, water, and waste disposal facilities for operations and aquifer restoration. While the current staff level has been reduced, sufficient local personnel were available for mine operations. Alta Mesa LLC either has in place or can obtain the necessary permits and/or agreements, and local resources are sufficient for current and future ISR operations within the Project.

Amended surface use agreements have been entered into with all the surface owners on the various prospect areas as part of the Membership Interest purchase agreement between Energy Fuels Inc and the various holders of the Mesteña Project. These amended agreements, unchanged from those originally entered into on June 1, 2004, provide, amongst other things, for stipulated damages to be paid for certain activities related to the exploration and production of Uranium.

Specifically, the agreements call for US Consumer Price Index (CPI) adjusted payments for the following disturbances: exploratory test holes, development test holes, monitor wells, new roads, and related surface disturbances. The lease also outlines an annual payment schedule for land taken out of agricultural use around the area of a deep disposal well, land otherwise taken out of agricultural use, and pipelines constructed outside of the production area.

Surface rights are expressly stated in the lease and in general provide the lessee with the right to ingress and egress, and the right to use so much of the surface and subsurface of the leased premises as reasonably necessary for ISR mining. Open pit and/or strip mining is prohibited by the lease.

4.3 Permits

The Alta Mesa Project area is permitted for ISR mining and recovery of uranium. These permits include a Radioactive Materials License, Class III Underground Injection Control (UIC) Mine Area Permit, Aquifer Exemption, Production Area Authorizations, and a Class I UIC Deep Disposal Well Permit from the Texas Commission on Environmental Quality (TCEQ). Similar permits would be required for the Mesteña Grande project area depending upon the nature of operations and their integration with the Alta Mesa facility.

Table 14.3 summarizes the current permits held by Alta Mesa LLC (previously known as MULLC). Similar permits would be required for the Mesteña Grande project area depending upon the nature of operations and their integration with the Alta Mesa facility.

Table 4-1 EFR Alta Mesa Permit Register

Permit/License or Action	Frequency	Permit Expiration Date or Date Due	Permit Status
FCC - Radio License FRN0020106654	10 years	10/25/2026	Active
Sewage System OSSF	N/A	no expiration	Active
PAA-1	N/A	no expiration	Active
PAA-2	N/A	no expiration	Active
PAA-3	N/A	no expiration	Active
PAA-4	N/A	no expiration	Active
PAA-5	N/A	no expiration	Active
PAA-6	N/A	no expiration	Active
PAA-7	N/A	no expiration	Active
Uranium Exploration Permit 125	Annual	7/24/2022	Active
Radioactive Material License - R05360	Until Terminated	9/20/2009	Timely Renewal
L05939 - Sealed Source RML for PFN	10 years	9/30/2025	Active
TCEQ Aquifer Exemption	N/A	no expiration	Active
EPA Aquifer Exemption	as needed	no expiration	Active
UIC Class III Mine Area Permit UR03060	10 years	4/4/2023	Active
USCOE 404 exemption SWG-1998-02466	as needed	no expiration	Active
UIC Class I disposal well permit WDW-365	10 years	10/20/2020	In Renewal
UIC Class I disposal well permit WDW-366	10 years	10/20/2020	In Renewal

4.3.1 Environmental Liabilities

Financial assurance instruments are held by the state for completed wells, ISR mining, and uranium processing to ensure reclamation and restoration of the affected lands and aquifers in accordance with State regulations and permit requirements. The current (June 2021) approved closure cost estimate for the Alta Mesa Project is provided in Table 4-2.

Table 4-2 Decommissioning Cost Summary

Program	Amount
TCEQ - Radioactive Materials License	\$8,073,697
TCEQ - UIC Class I and Class III Permits	\$1,653,301
	\$9,726,998

4.4 State and Local Taxes and Royalties

Ad valorem tax rates per \$ 100 of taxable value applicable to tangible property and royalty for 2013 were as follows:

Brooks County	0.79500000
Brooks County Rd and Bridge	0.14409300
Brooks County ISD	1.5280100
Brooks County FM FC	0.08898200
Brush Country Groundwater	0.02700000

Production from properties is subject to a 15% mineral royalty obligation.

4.5 Encumbrances and Risks

To the authors knowledge there are no other significant factors or risks that may affect access, title, or the right or ability to perform work on the property, if the aforementioned requirements, payments, and notifications are met.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The Project is accessible year-round and is located approximately 11 miles west of the intersection of US Highway 281 (paved) and Ranch Road 755 (paved), 22 miles south of Falfurrias, Texas. Commercial airlines serve both San Antonio and Corpus Christi. Many of the local communities have small airfields and there are numerous private airfields in the region.

5.2 Physiography

The Project is in the Texas counties of Brooks and Jim Hogg, on the coastal plain of the Gulf of Mexico. Three major rivers in the region from south to north are: the Nueces River, which flows into Corpus Christi Bay, and the San Antonio and Guadalupe Rivers, which flow into San Antonio Bay southeast of the city of Victoria (Nicot, et al 2010). Figure 5-1 shows the general topographic conditions for the Project and region.

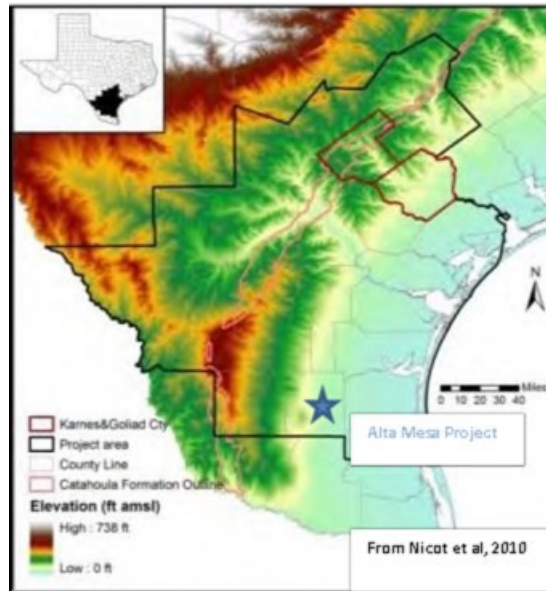


Figure 4-1. Topography of the South Texas Uranium Province

5.2 Topography and Elevation

Topography of the lower Gulf Coast is relatively flat, whereas the upper Gulf Coast, including most of the current and past mining operations of the South Texas Uranium Province, generally has low relief, rolling plains, except where it is locally dissected by rivers and streams. Elevations range from sea level to about 800 feet above sea level in the southwest.

5.3 Climate, Flora and Fauna

Overall, the climate in the area is warm and dry, with hot summers and relatively mild winters. However, the region is strongly influenced by its proximity to the Gulf of Mexico and, as a result, has a much more marine-type climate than the rest of Texas, which is more typically continental. Monthly mean temperatures in the region range from 55°F in January to 96°F in August (Nicot, et al 2010). The area rarely experiences freezing conditions and as a result most of the processing facility and infrastructure is located outdoors, and wellfield piping and distribution lines do not require burial for frost protection. Annual precipitation ranges from 20 to 35 inches in the area. Primary risk for severe weather is related to heavy thunderstorms and potentially effects of hurricanes of the Gulf Coast.

Regionally, the area is classified as a coastal sand plain. Brooks County comprises 942 square miles of brushy mesquite land. The near level to undulating soils are poorly drained, dark and loamy or sandy; isolated dunes are found. In the northeast corner of the county the soils are light-colored and loamy at the surface and clayey beneath. The vegetation, typical of the South Texas Plains, includes live oaks, mesquite, brush, weeds, cacti and grasses. In addition to domestic stock, wildlife is abundant in the area including a variety of reptiles, amphibians, birds, small mammals, and big game (White Tail Deer).

5.4 Infrastructure

Local infrastructure includes electricity service which is adequate for mine and mineral processing activities. Supplies, including consumables and capital equipment can be obtained from the major centers of Corpus Christi and Laredo, Texas. The Alta Mesa facility also has telephone and internet service in the form of a T-1 fiber optics line. The processing plant has an automated control and monitoring system which allows remote monitoring of the facility and includes fail safe systems which can shut down portions of the system in the event of an upset condition. The facility is fully secured with on-site and remote monitoring. Water supply for the Project is from established and permitted local wells. Liquid waste from the processing facility is disposed via deep well injection through two permitted Underground Injection Control (UIC) Class I disposal wells. Solid waste from the processing facilities is disposed off-site at licensed disposal facilities. No tailings or other related waste disposal facilities are needed.

5.5 Land Use

The Project is located on an operating cattle ranch. In addition, there is significant local oil and gas development and production. The Alta Mesa area was first developed as an oilfield in the 1930s with production ongoing, primarily for natural gas. Other land uses include farming and recreational uses such as hunting.

5.6 Personnel

While the current staff has been reduced during the care and maintenance stage of the project, sufficient local personnel are available once mine operations are restarted, as has been the case in the past. Senior staff may be transferred from existing EFR locations or recruited from local or regional towns and cities as needed.

5.7 Surface Rights and Local Resources

The mineral leases and options described in Section 4 include provisions for reasonable use of the land surface for the purposes of mining and mineral processing. Alta Mesa is licensed operable facility with sufficient sources of power, water, and waste disposal facilities for operations and aquifer restoration. While the current staff level has been reduced, sufficient local personnel were available for mine operations. The author concludes that EFR either has in place or can obtain the necessary permits and/or agreements, and local resources are sufficient for current and future ISR operations within the Project.

6.0 HISTORY

6.1 Introduction

The deposits associated with the Alta Mesa Uranium Project (the Project) were discovered by Chevron in the mid 1970s while researching oil and gas logs for natural gamma geophysical signatures. Since that time the Project has been explored and owned by a number of different operators.

6.2 Ownership History

Ownership of the Alta Mesa Project has changed several times in the past.

- Early 1970's through June 1985, Chevron Minerals.
- June 1985 mineral leases reverted to landowners.
- July 1988 to 1993 Total Minerals.
 - Total Minerals engaged Uranium resource Incorporate (URI) to complete a feasibility study of the project.
 - 1993 Total relinquished mineral leases to Cogema under directive from French government.
- 1993 to 1996 Cogema.
- 1996 to 1998 Uranium resource Incorporate (URI) who obtained the Radioactive Materials License for the facility.
- 1999 Mesteña Uranium LLC (MULLC) was formed by landowners.
 - MULLC completed most of the drilling on the project.
 - MULLC began construction of the ISR facility in 2004
 - Production began in the 4th quarter of 2005.
 - MULLC operated the facility through February 2013 and the project has been on care and maintenance standby since that time.
- June 17, 2016, Energy Fuels Resources (USA) Inc. (EFR) acquired the Project, including both the Alta Mesa and Mesteña Grande.

6.3 Historical Drilling

EFR has not completed any drilling at the Project and therefore, all drilling is considered historical. Initial drilling at the Alta Mesa portion of the project was done by Chevron between 1981 and 1984 when they drilled approximately 360 holes. These holes included exploration, some coring and well completions. Minor drilling and monitor well installation were also completed by Total Metals and Cogema.

Most of the drilling was completed by MULLC between 1999 and 2013. From these drill programs, drill data is available for a total of 10,744 drill holes in the Alta Mesa portion of the project of which 5,620 drill holes were considered barren. Of the remaining 5,124 drill holes approximately 3,000 are within the existing wellfields. However, many of the drill holes within the wellfield have mineralized intercepts in sands that were not mined either above or below the mining units. Wellfields PAA-1 through PAA-3 were mined within the Goliad middle C sand. Wellfield PAA-5 was mined within the B sand and wellfields PAA-4 and PAA-6 are within the lower C sand. In addition, data is available for 460 drill holes in the Mesteña Grande portion of the Project.

6.4 Historical Production

Between 2005 and 2013, the Project produced approximately 4.6 million pounds of U_3O_8 via ISR mining. The facility was in production from 2005 until primary production ceased February 2013 due to unfavorable market conditions. During this production period, the maximum and average annual production was 1.07 and 0.57 million pounds of ore concentrate (U_3O_8 or yellowcake) respectively; with maximum and average annual sales volumes of 0.86 and 0.52 million pounds of yellowcake respectively. Production occurred from six permitted wellfields with one additional wellfield permitted but not developed at the time.

6.5 Historical Resource Estimates

Historical Mineral Resource/reserve estimates were prepared before the implementation of Canada's NI 43-101 and SEC's S-K 1300 standards and do not necessarily use the categories for mineral reserve and Mineral Resource reporting as defined by those standards. The reader should not rely on the historical reserve estimates as they are superseded by the Mineral Resource estimate presented in Section 14.0 of this report.

7.0 GEOLOGICAL SETTING, MINERALIZATION, AND DEPOSIT

7.1 Introduction

The Project is located in the South Texas Uranium Province, which is known to contain more than 100 uranium deposits which were developed during the 2nd half of the 20th century (Nicot, et al., 2010). Surface geology of the Texas Gulf Coast is composed of Paleogene through Quaternary sedimentary strata and deposits (Figure 7-1).

7.2 Regional Geology

Within the South Texas Uranium Province, uranium mineralization is primarily hosted by four formations. Those in order of descending age are the Miocene/Pliocene Goliad Formation, the Miocene Oakville Formation, the Oligocene/Miocene Catahoula Formation, and the Eocene Jackson Group. These Paleogene and Neogene aged formations are overlain regionally by Pliocene and Pleistocene sands, gravels, silts, and clays (Figure 7-2). The four host sandstones are described in detail below. Descriptions given below (Sections 7.2.1 through 7.2.4) are summarized from a report by Nicot, et al., 2010 on the South Texas Uranium Province

7.2.1 Goliad Formation

The Goliad Formation overlies the Oakville and Fleming Formations with a low-angle truncation and is the oldest "Pliocene" stratum. It also has a high proportion of coarse-grained sediments, including sands and cobbles (Hosman, 1996). Thickness is between 900 and 1,800 ft (Brogdon et al., 1977). The upper part of the Goliad includes finer-grained sands that are cemented by calcium carbonate caliche (Hosman, 1996). Clays are interbedded locally.

7.2.2 Oakville Formation

The Miocene-age Oakville Formation overlies the Catahoula Formation and represents a major pulse in sediments thought to be due to uplift along the Balcones Fault Zone. The Oakville Sandstone is composed of sediments deposited by several fluvial systems, each of which had distinct textural and mineralogical characteristics (Smith et al., 1982). Together with the overlying Fleming Formation, they formed a major depositional episode. These two units are commonly grouped because they are both composed of varying amounts of interbedded sand and clay. Average thickness varies from 300 to 700 ft at the outcrop (Galloway et al., 1982), and the formation is thicker in the subsurface (Henry et al., 1982). The Oakville Sandstone grades into the mixed-load sediments of the overlying Fleming Formation and into the thicker deltaic and barrier systems farther downdip. Sand percentage is high in the paleochannels, whereas finer-grained floodplain deposits are more common in adjacent interchannel environments. Paleosols are not as frequent as in the previous formations, such as the Catahoula Formation and Jackson Group. Farther downdip the amount of sand increases as the formation thickens, but the sand fraction decreases because of additional mud facies. The Jackson Group and Oakville Sandstone also display an important contrast in organic material content, abundant in the Jackson sand bodies (which contain their own reducing material) but lacking in that of the Oakville. An important conclusion related to uranium mineralization is that Oakville- and Goliad-hosted deposits need an external reducing factor, namely reducing fluids coming up faults to precipitate uranium.

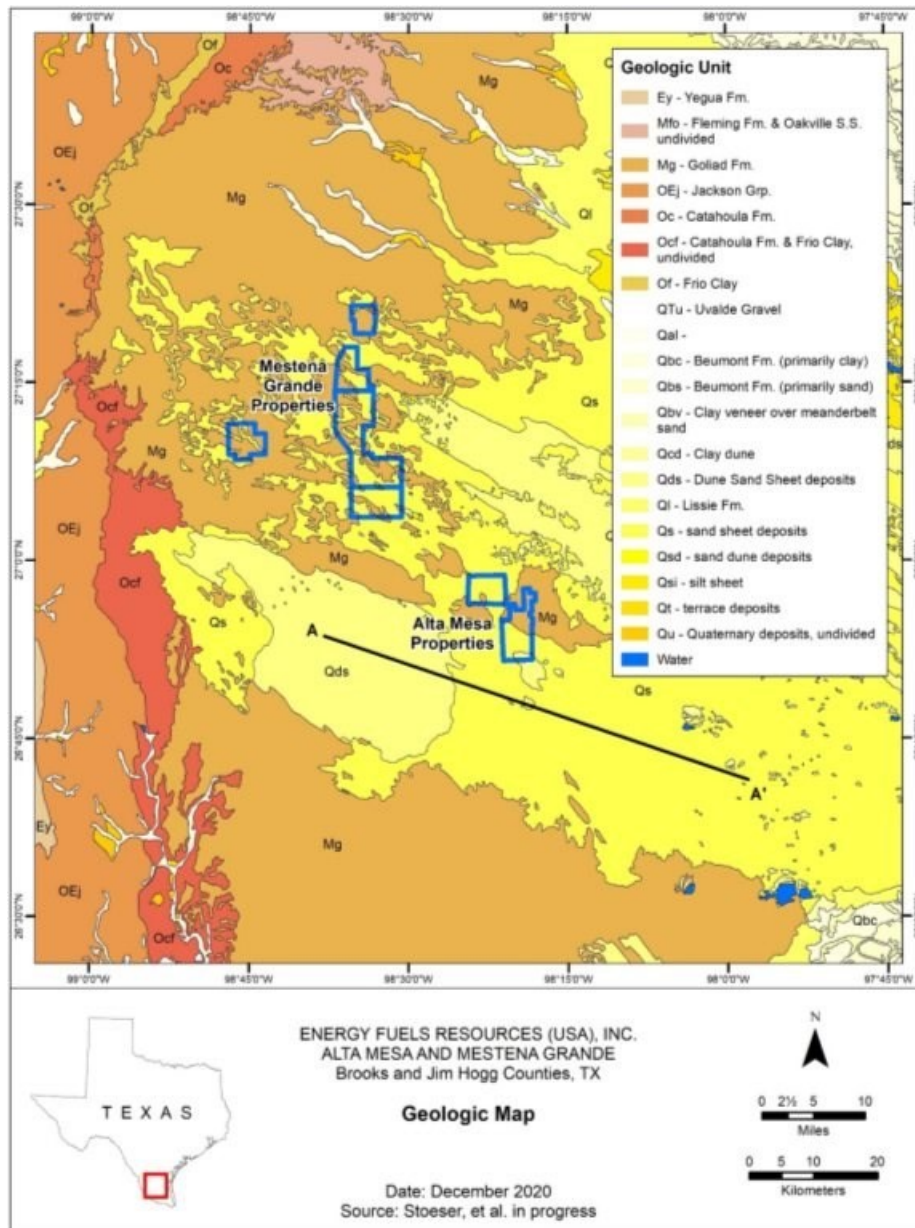


Figure 7-1. Geologic Map of the Alta Mesa Project Area

System	Series	Group	Geologic Unit		Description
QUATERNARY	Holocene	Flood-plain Alluvium			Sand, Gravel, Silt, Clay
		Fluvial Terrace Deposits			Sand, Gravel, Silt, Clay
	Pleistocene	Pleistocene Deweyville Formation, Beaumont Clay, Montgomery Formation, Bentley Formation, and Pliocene (?) Willis Sand			Sand, Gravel, Silt, Clay
	Pliocene	Goliad Sand ★★ ★			Fine to coarse sand and conglomerate; calcareous clay; basal medium to coarse sandstone. Strongly calchified
	Miocene	Fleming Formation			Calcareous clay and sand
		Oakville Sandstone ★★			Calcareous, cross-bedded, coarse sand. Some clay and silt and reworked sand and clay pebbles near base
	TERTIARY	Oligocene	Catahoula Formation	Chusa Tuff	Calcareous tuff; bentonitic clay; some gravel and varicolored sand near base. Soledad in Duval County, grades into sand lenses in northern Duval and adjacent counties
				Soledad Conglomerate ★	
				Fant Tuff	
			Frio Clay		
Eocene		Jackson	Whitsett Formation	Fashing Clay	Chiefly clay; some lignite, sand, <i>Corbicula coquina</i> , oysters
			Tordilla Sandstone	Very fine sand	
			Dubose Clay	Silt, sand, clay, lignite	
			Deweesville Sandstone	Mostly fine sand; some carbonaceous silt and clay	
			Conquista Clay	Carbonaceous Clay	
			Dilworth Sandstone	Fine sand, abundant <i>Ophiomorpha</i>	

★ Host Formations in order of economic importance (Uranium)

Stratigraphic Column - modified from Nicot et al, 2010

Figure 7-2. Regional Stratigraphic Column

7.2.3 Catahoula Formation

The Catahoula Formation unconformably overlies the Oligocene sediments of the Jackson Group. Catahoula sediments are fluvial rather than marine derived and are composed in varying proportions of sands, clays, and volcanic tuff, depending on location. Sediments of the Catahoula Formation reflect a strong volcanic influence, including numerous occurrences of airborne volcanic ash (Galloway 1977). Thicknesses of strata at the outcrop range from 200 to 1,000 ft. The formation also thickens gulfward as is typical of other Gulf Coast sequences. Sand content ranges from <10% to a maximum of about 50% (Galloway, 1977). Sediments in the lower Catahoula Formation are predominantly gray tuff, whereas pink tuffaceous clay is more common in the upper strata, suggesting a change to more humid climatic conditions during deposition. Volcanic conglomerates and sandstone are most common in the midlevel of the unit. Bentonite and opalized clay layers and alteration products of volcanic glass (zeolites, Camontmorillonite, opal, and chalcedony) are present throughout the formation and indicate syndepositional alteration of tuffaceous beds. Widespread areas of calichification indicate long periods of exposure to soil-forming conditions at the surface (McBride et al., 1968).

7.2.4 Jackson Group

The Jackson Group is part of a major progradational cycle that also includes the underlying Yegua Formation. The Jackson Group includes, from older to younger, the Caddell, the Wellborn, the Manning, and the Whitsett Formations (Eargle, 1959; Fisher et al., 1970). Total thickness averages 1,100 ft in the subsurface but becomes thinner in the outcrop area and is characterized by a complex distribution of lagoon, marsh, barrier-island, and associated facies. The lower part of the Jackson Group consists of a basal 100-ft sequence of marine muds (Caddell Formation) overlain by 400 ft of mostly sands: Wellborn / McElroy Formation with the Dilworth Sandstone, Conquista Clay, and Deweesville / Stones Switch (Galloway et al., 1979) Sandstone members toward the top. The middle part consists of 200 to 400 ft of mostly muds (including the Dubose Clay Member). Several sand units are present in the 400- to 500-ft-thick upper section, including the Tordilla / Calliham Sandstone overlain by the Flashing Clay Member. As indicated in Figure 7-2, units from the Dilworth unit on up are grouped under the Whitsett Formation name (Eargle, 1959). Only the latter contains significant amounts of uranium mineralization in the Deweesville and Tortilla sand members. Kreitler et al. (1992, 38 Section 2) provided more details on these units near the Falls City Susquehanna-Western mill. Uranium mineralization occurs where the strike-oriented barrier sand belt intersects the outcrop. Sand, generally fine and heavily bioturbated by burrows and roots, also contains lignitic material and silicified wood. Discontinuous lignite beds are also present (Fisher et al., 1970).

7.3 Local Geologic Detail

Within the Alta Mesa portion of the Project, Quaternary formations are exposed at the surface (Figure 7-1).

These are conformably underlain by the Goliad Formation, the primary uranium host.

Figure 7-3 is a type-log for the Alta Mesa area which defines the local stratigraphic units and nomenclature used in this report. At the Project, in order of importance, uranium is hosted by the Goliad, Oakville, and Catahoula formations.

Alta Mesa ISR mine units have exploited uranium mineralization in the Goliad C sands within PAA-1, PAA-2, PAA-3, PAA-4, and PAA-6. The B sand was targeted in PAA-5. As discussed in Section 14.0, Mineral Resources have been estimated for the A, B, C, and D sands. Section 9.0 discusses exploration targets in the South Alta Mesa area within successively deeper D, E, F, G, and H sands of the Goliad. Within the Mesteña Grande portion of the project, mineralization is also present in the Goliad Formation but is dominantly found in the Oakville Formation (Refer to Figure 7-2). In the western portion of Mesteña Grande mineralization is found in the Catahoula Formation. The nomenclature between Alta Mesa and Mesteña Grande varies with individual sands at Mesteña Grande designated by number, i.e., 10, 20, 30, etc. rather than by letter A, B, C, etc. as they are in the Alta Mesa portion of the Project. Mineral resources have been estimated for all areas within the Mesteña Grande portion of the project, as discussed in Section 14.0.

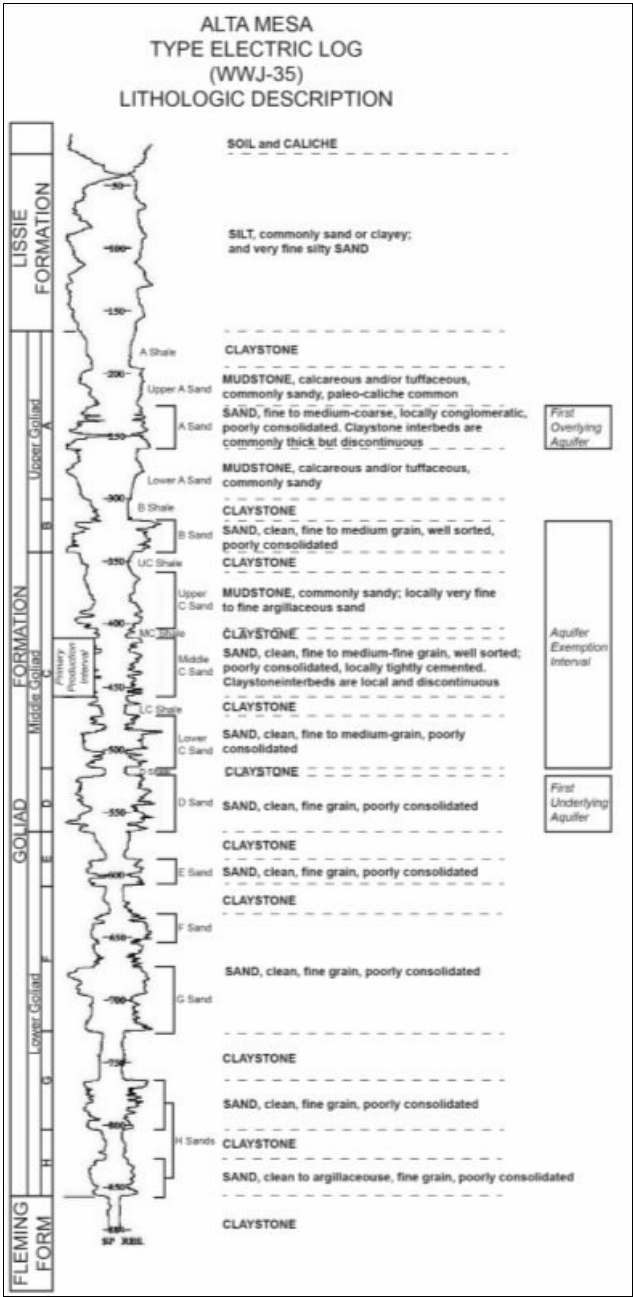


Figure 7-3. Alta Mesa Type Log Showing Individual Sand Units of the Goliad Fm.

7.4 Structural Geology

The structure of the Gulf Coast area is dominated by an abundance of growth faults that trend with, or are slightly oblique to, stratigraphic strike, which is nearly parallel to the Gulf of Mexico. In addition, local structural features such as salt domes influence the distribution and deposition of uranium mineralization potentially through various mechanisms including effects on groundwater flow and the introduction of additional reductant via the migration of H₂S gas along the faulting related to the salt dome intrusion. This mechanism is thought to be of importance at Alta Mesa as shown on Figure 7-4 (Collins and Talbott, 2007). The presence and effects of salt domes are also recognized at other uranium deposits such as Palangana (UEC, 2010). Note that the location of the cross-section shown in Figure 7-4 is shown as section line A-A' on Figure 7-1.

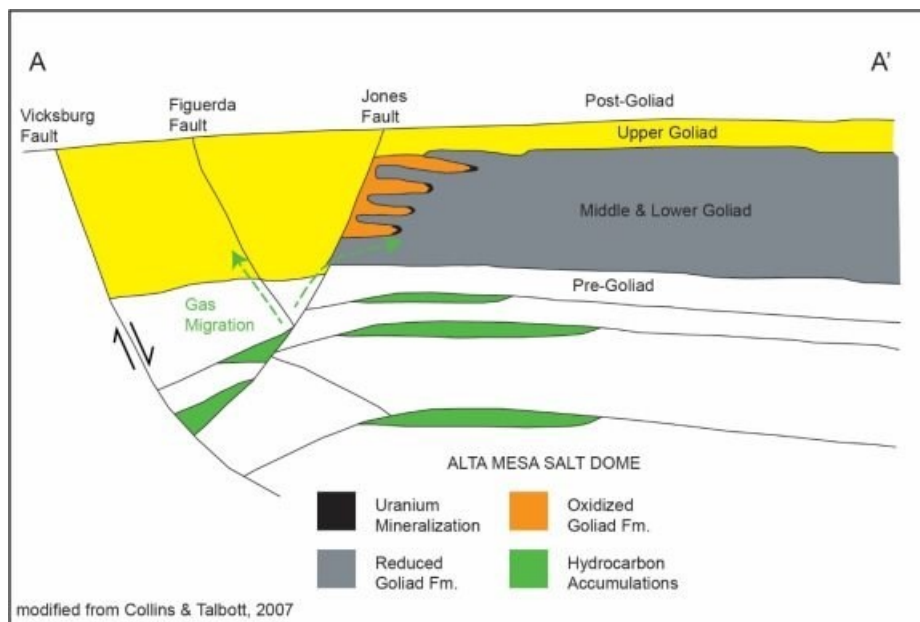


Figure 7-4. Generalized Cross Section of the Alta Mesa Project Area

7.5 Mineralization

Mineralization within the South Texas Uranium Province is interpreted to be dominantly roll-front type mineralization and primarily of epigenetic origin (Finch, 1996). Roll-fronts are formed along an interface between oxidizing groundwater solutions which encounter reducing conditions within the host sandstone unit. This boundary between oxidizing and reducing conditions is often referred to as the REDOX interface or front.

Sandstone uranium deposits are typically of diagenetic and/or epigenetic origin formed by low temperature oxygenated groundwater leaching uranium from the source rocks and transporting the uranium in low concentrations down gradient within the host formation where it is deposited along a REDOX interface. Parameters controlling the deposition and consequent thickness and grade of mineralization include the host rock lithology and permeability, available reducing agents, groundwater geochemistry, and time in that the groundwater geochemical system responsible for leaching; transportation and re-deposition of uranium must be stable long enough to concentrate the uranium to potentially economic grades and thicknesses.

8.0 DEPOSIT TYPES

South Texas uranium deposits are sandstone roll-front uranium deposits as defined in the "World Distribution of Uranium Deposits (UDEPO) with Uranium Deposit Classification", (IAEA, 2009). The key components in the formation of roll-front type mineralization, as shown on Figure 8.1, include:

- A permeable host formation:
 - Sandstone units of the Goliad, Oakville, and Catahoula formations.
- A source of soluble uranium:
 - Volcanic ash-fall tuffs coincidental with Catahoula deposition containing elevated concentration of uranium is the probable source of uranium deposits for the South Texas Uranium Province (Finch, 1996).
- Oxidizing groundwaters to leach and transport the uranium:
 - Groundwaters regionally tend to be oxidizing and slightly alkaline.
- Adequate reductant within the host formation:
 - Conditions resulting from periodic H_2S gas migrating along faults and subsequent iron sulfide (pyrite) precipitation created local reducing conditions.
 - Time sufficient to concentrate the uranium at the oxidation/reduction interface.
 - Uranium precipitates from solution at the oxidation/reduction boundary (REDOX) as uraninite which is dominant (UO_2 , uranium oxide) or coffinite ($USiO_4$, uranium silicate).
- The geohydrologic regime of the region has been stable over millions of years with groundwater movement controlled primarily by high-permeability channels within the predominantly sandstone formations of the Tertiary.

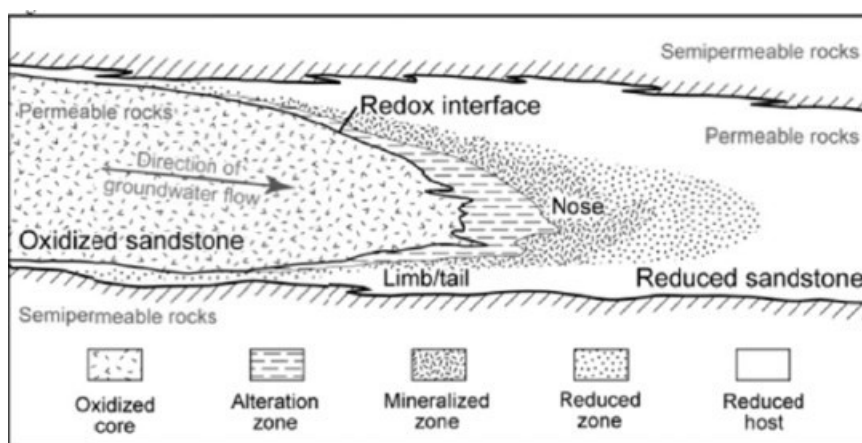


Figure 8-1 Idealized Cross Section of a Sandstone Hosted Uranium Roll-Front Deposit
(Modified from Granger and Warren -1974 and De Voto- 1978)

9.0 EXPLORATION

9.1 Historical Exploration

Uranium was first discovered in Texas via airborne radiometric surveys in 1954 along the northern boundary of the South Texas Uranium Province where host formations outcrop. These initial discoveries led to the development of numerous conventional open pit mines. Subsequent exploration primarily by drilling extended mineralization down dip from the outcrop. At Alta Mesa, oil and gas drilling had been ongoing since the 1930's. Interpretation of oil and gas logs led to the recognition of potential host sand units and, in some cases, gamma anomalies. As a result of these anomalies and additional drilling, Chevron discovered uranium at Alta Mesa in the mid 1970's.

9.2 Recent Exploration

Although drilling remains the primary exploration method at the Project, 3D seismic data developed for oil and gas exploration has recently been used to as an exploration tool to locate sand channels and define structures. This exploration technique led to the exploration of the Indigo Snake area and to a lesser extent has aided exploration of the South Alta Mesa area. Figures 9.1 and 9., respectively, show the South Alta Mesa and Indigo Snake interpreted trends.

No exploration has been conducted on the Alta Mesa or Mesteña Grande properties by EFR.

9.3 Exploration Target Definition

For the project areas defined as Exploration Targets there is sufficient geologic evidence from limited drilling and other information to interpret that mineralization may extend from areas of resource production and/or defined Mineral Resources. For Exploration Target areas, favorable conditions for the occurrence of mineralization were determined based on the presence of host sand units and evidence of REDOX interfaces within those host sand units. No estimate of Mineral Resources or reserves in accordance with CIM guidelines has been made for Exploration Target areas. Rather, the following calculations are intended to quantify an Exploration Target for those portions of the Project, as allowed under NI 43-101 Part 2.3.2 and S-K 1300 standards. All tonnages, grade, and contained pounds of uranium, as stated in this report, should not be construed to reflect a calculated Mineral Resource (inferred, indicated, or measured). The potential quantities and grades, as stated in this report, are conceptual in nature and there has been insufficient work to date to define a NI 43-101 or S-K 1300 compliant resource. Furthermore, it is uncertain if additional exploration will result in discovery of an economic Mineral Resource on the property.

9.4 Exploration Targets

For the project areas defined as Exploration Targets there is sufficient geologic evidence from limited drilling and other information to interpret that mineralization may extend from areas of resource production and/or defined Mineral Resources into the targeted areas. For Exploration Target areas, favorable conditions for the occurrence of mineralization were determined based on the presence of host sand units and evidence of REDOX interfaces within those host sand units. No estimate of Mineral Resources or Mineral Reserves in accordance with NI 43-101 and S-K 1300 guidelines has been made for Exploration Target areas. Rather, the following calculations are intended to quantify an Exploration Target for these portions of the Project, as allowed as a Restricted Disclosure under NI 43-101 and the S-K 1300 regulations. The tonnages, grades, and contained pounds of uranium, as stated in this report, for exploration targets should not be construed to reflect a calculated Mineral Resource (inferred, indicated, or measured). The potential quantities and grades for exploration targets, as stated in this report, are conceptual in nature, and there has been insufficient work to date to define a NI 43-101 or S-K 1300 compliant resource. Furthermore, it is uncertain if additional exploration will result in any of the exploration targets being delineated as a Mineral Resource.

Exploration target calculations are based on a minimum grade cut-off of 0.02 % U_3O_8 and minimum GT of 0.30. A bulk dry density of 17 cubic feet per ton was used.

Exploration Targets were estimated by applying a range of GT values, determined from all drill data available for the Project, to an interpreted trend length and average width of mineralization.

For the exploration target areas, the REDOX boundary or trend for each of the target areas was defined from drilling and/or in the case of Indigo Snake and to a lesser extent South Alta Mesa, through 3D seismic imaging of the sand channels. There is a risk that mineralization may not be found or may not be continuous along the REDOX boundary and that the actual GT along the trends will fall outside the estimated range.

Trend width was determined from PAA-6 and portions of PAA-4 where drilling density was sufficient to estimate the average trend width. Mineralization in both areas is in the C horizon of the Goliad Formation. The average trend width recommended by EFR is 35 feet. The authors have reviewed this recommendation and are of the opinion it is reasonable and in keeping with industry practice. There is a risk that the average width of mineralization may vary geographically and within other sand units and formations.

Average GT values above a GT cut-off of 0.30 were determined for each host sand unit and are summarized in Table 9-1. A GT range reflecting the standard deviation about the mean was utilized for the estimation of exploration targets. As with the trend width the available data is weighted by intercepts from the C horizon of the Goliad Formation. There is a risk that the average GT may vary in other sand units and formations.

By convention for ISR Mineral Resources the contained pounds of uranium are calculated from the GT value applied to the respective area of mineralization. As such average thickness is not a critical parameter in the determination of the pounds contained but is needed to calculate tonnage and average grade. Based on the typical geometry of the sands a thickness of 10 feet was assumed for exploration targets. This thickness generally corresponds with the average screened interval for wells. Table 9-1 summarizes the minimum GT used in each host sand in the Project.

Table 9-1 GT Average and Range

Host Sand	Minimum GT 0.30	# Intercepts
A Sand	0.74	72
B Sand	0.87	273
MCU Sand	1.33	588
MCM Sand	1.46	527
MCL Sand	1.25	894
LCU Sand	1.00	526
LCL Sand	0.95	390
DU Sand	0.60	24
DL Sand	0.83	4
Total Intercepts		3,298
Mean GT	1.00	
Standard Deviation	0.23	
GT Range	0.77 to 1.23	

From the forgoing parameters, including trend length (estimated for each area), average trend thickness (10 feet), trend width (35 feet), GT range (0.77 to 1.23), and bulk density (17 ft³/ton), an estimate of the potential quantity and grade of the exploration targets was completed and is summarized in Table 9-2. This estimation was based on a GT cut-off of 0.30.

Table 9-2 Alta Mesa Exploration Targets

Area	Zone	Low Range Estimate			High Range Estimate		
		Tons (000s)	Grade (%U ₃ O ₈)	Pounds (000s)	Tons (000s)	Grade (%U ₃ O ₈)	Pounds (000s)
Alta Mesa	LCL Sand West of PAA-7	271	0.077	417	271	0.123	666
	LC Sands North of PAA-7	185	0.077	285	185	0.123	456
	Indigo Snake Area	342	0.077	526	342	0.123	841
	SAM - E SANDS	559	0.077	864	559	0.123	1,375
South Alta Mesa	SAM - F SANDS	155	0.077	240	155	0.123	382
	SAM - G SANDS	213	0.077	330	213	0.123	526
	SAM - H SANDS	203	0.077	314	203	0.123	499
	SAM - D UPPER SANDS	347	0.077	537	347	0.123	854
	SAM - D LOWER SANDS	395	0.077	611	395	0.123	973
Alta Mesa Subtotal		798	0.077	1,229	798	0.123	1,963
South Alta Mesa Subtotal		1,872	0.077	2,896	1,872	0.123	4,610
Grand Total		2,670	0.077	4,125	2,670	0.123	6,573

The potential tonnages, grade, and contained pounds of uranium for the exploration targets are estimates and could change as proposed exploration activities are completed. They should not be construed to reflect a calculated Mineral Resource (inferred, indicated, or measured). Furthermore, it is uncertain if additional exploration will result in any of the exploration targets being delineated as a Mineral Resource.

The areas for which Exploration Targets have been defined include:

- The LCL Sand West of PAA-7 - Figure 9.1.
- The LC Sands North of PAA-7 - Figure 9.1
- The South Alta Mesa Area in the D, E, F, G, and H sands - Figure 9.1
- The Indigo Snake Area - Figure 9.2
- Catahoula Formation (CF) Area - Figure 9.2

The REDOX boundary shown on Figure 9.1, for the LCL sand of the Goliad Formation west of PAA-1 is defined by wide-spaced drilling and is an extension of the area for which inferred Mineral Resources have been estimated in the same geologic horizon. The depth to mineralization is less than 600 feet. The REDOX trend length is 13,200 feet.

The REDOX boundary shown on Figure 9.1 for the LC sands of the Goliad Formation north of PAA-7 is defined by wide-spaced drilling. The depth to mineralization is less than 600 feet. The REDOX trend length is 4,500 feet for which the estimate applies. This trend length is applicable to both the LC lower and upper sands (LCL and LCU) for a total trend length of 9,000 feet.

REDOX boundaries for the South Alta Mesa area are shown on Figure 9.1.. In cross section, oxidation within the system proceeds generally from east to west. The individual drill logs show the oxidation/reduction conditions observed from lithological logging. Correlation of sands was based on the resistivity and SP logs. Within some of the drill holes, elevated gamma levels indicate proximity to mineralization and show gamma signatures typical of roll-front mineralization. Various sands of the Goliad Formation, including the D upper and lower sands, the E sand, the F sand, the G sand, and the H sand, are present.

South Alta Mesa is a large area. REDOX trends are based primarily on data from a total of 78 drill holes, however, the interpretation of trend locations was influenced by the 3D seismic data. The seismic image shows the major sand concentrations as shades of gray and the margins of the sand channels in shade of pink. The interpreted trends for the D sands tend to follow the northern margin of the channel system and the E sand is sub-parallel to the southern margin of the channel system. The F, G and H sands are more central to the channel system but tend to be sympathetic to transition areas within the main channel system as depicted by the seismic data.

Depth to mineralization, depending on the sand horizon, may vary from approximately 500 feet to slightly over 800 feet.

Most of the South Alta Mesa area is defined as an exploration target, however, within a limited portion of the area containing the E sand, drilling indicates the presence of mineralization, and the location of the trend is reasonably defined by drilling. For this area an inferred Mineral Resource has been estimated as discussed in Section 14.0.

The REDOX boundary shown on Figure 9.2 follows the sand channel indicated by the 3D seismic profile. Only two drill holes have been completed in the area. Both showed slight mineralization in the Catahoula Formation at depths in the range of 1,600 to 2,200 feet. The mineralized trend is projected based on the seismic data and the limited drill hole data.

Figure 9-1 South Alta Mesa Exploration Targets

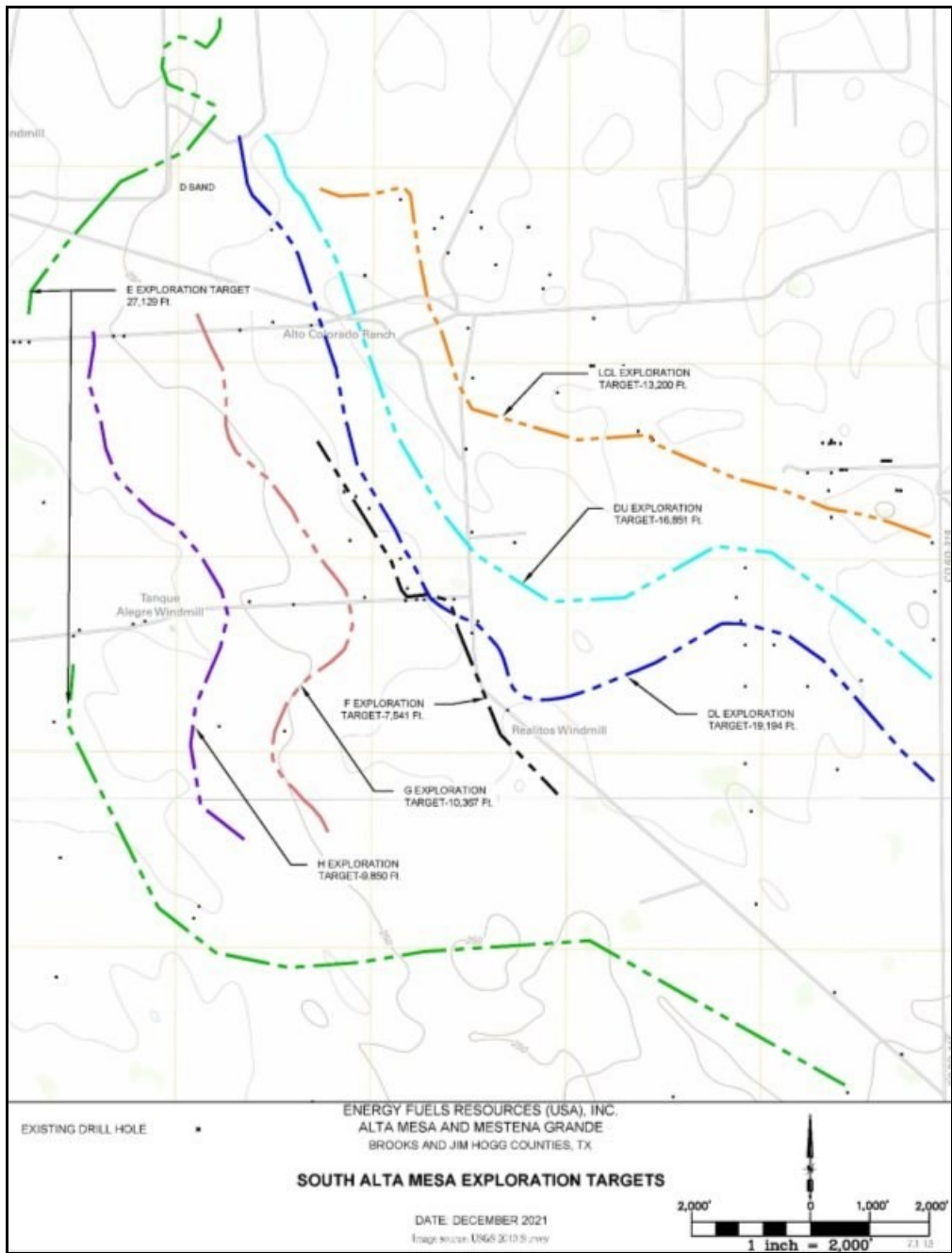
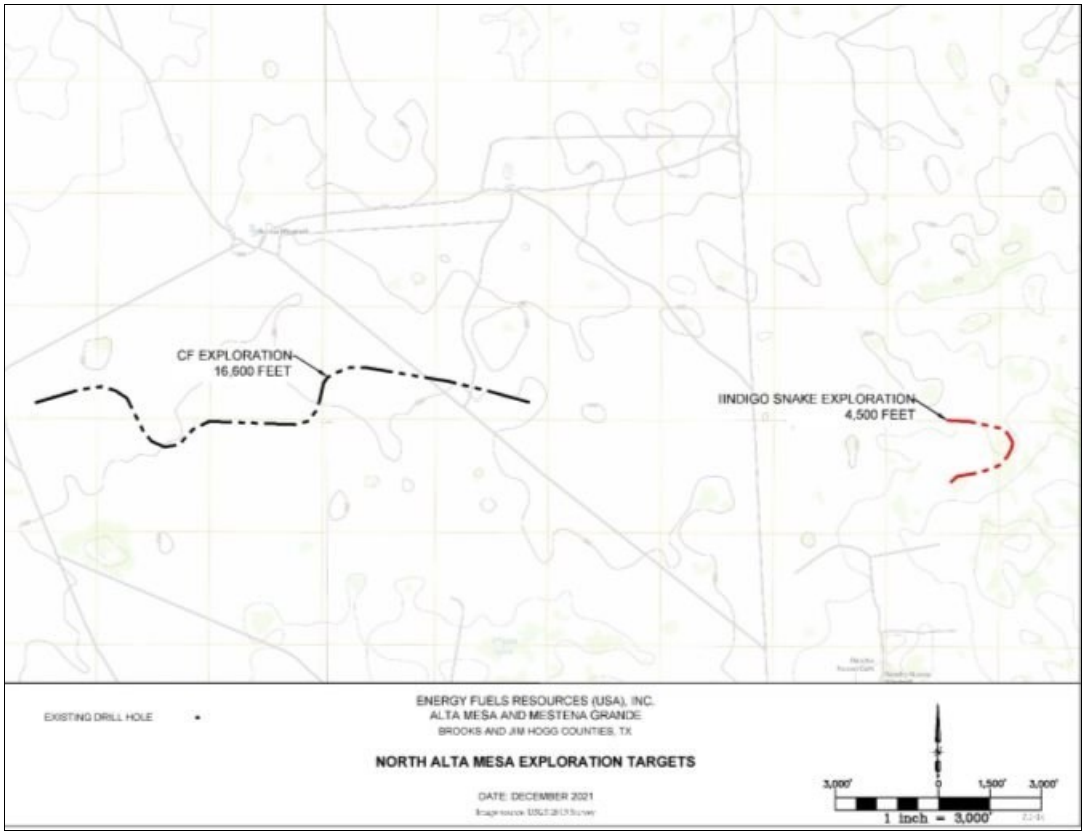


Figure 9-2. North Alta Mesa Exploration Targets



10.0 DRILLING

Drill data is available for a total of 10,744 drill holes in the Alta Mesa portion of the project. Of this total 5,620 drill holes were considered barren. Of the remaining 5,124 drill holes approximately 3,000 are within the existing wellfields. However, many of the drill holes within the wellfield have mineralized intercepts in sands that were not mined either above or below the mining units. Wellfields PAA-1 through PAA-3 were mined within the middle C sand. Wellfield PAA-5 was mined within the B sand and wellfields PAA-4 and PAA-6 are within the lower C sand. In addition, data is available for 460 drill holes in the Mesteña Grande portion of the Project. Maps showing drill hole locations are provided in Section 14 of this report, Figures 14.3 through 14.16.

10.1 Drilling and Logging Procedures

MULLC maintains written standard operating procedures for drilling, lithological logging and geophysical logging, and provided copies of these to the Author. Virtually all drilling for the purposes of exploring and resource development, completed by MULLC, consists of rotary drilling. MULLC collected rotary mud samples for lithological logging by 5 foot increments. Lithological logs of the samples are completed in the field by geologists following the standard written procedures and using standard lithological log forms.

Drill hole locations are staked in the field using a Trimble hand-held GPS capable of sub-meter accuracy. The holes are surveyed prior to drilling. As discussed in Section 12, the BRS surveyed 8 exploration drill holes and one well with the MULLC GPS unit. The well location was within 0.13 feet of the recorded location. The drill hole locations deviated from the reported location by 1.33 to 11.28 feet with an average variance of 6.06 feet. It is BRS's conclusion that the majority of the variance is due to the driller not accurately locating the drill hole at the staked location rather than the accuracy of the GPS unit, and thus, recommends that the drill hole location procedure be modified to include both pre and post drilling surveys of the drill holes. Despite this observed variance, it is the Author's opinion that for the purposes of estimating indicated and inferred Mineral Resources the drill hole survey data is reliable. Prior to detailed drilling final wellfield delineation, it is recommended that the drill holes be re-surveyed.

During drilling operations MULLC operated two standard logging trucks which were purchased from Century Geophysical and are capable of natural gamma, resistivity, and Spontaneous Potential (SP) logging. The units are equipped with software to convert downhole gamma measurements to equivalent %eU₃O₈ by user specified depth increments. MULLC processes all natural gamma data at 0.5 foot increments.

These logging trucks are also equipped to measure downhole deviation by azimuth and declination. The location for the bottom of each drill hole and the true depth is included in the electronic database and was used for Mineral Resource calculations. Of the total 10,744 drill holes in the database only 76 did not have downhole drift surveys, thus, drift surveys were available for over 99% of the drill holes. The average depth of all drill holes was 546 feet the corrected depth for all drill holes for downhole deviation was 543.5 feet or a factor of 0.9954. Based on this average, the actual length of a 10 foot mineralized zone is 9.954 feet or a difference of less than one half of one percent. The Author concludes that the effect of downhole deviation with respect to sample thickness is insignificant for the purposes of this report.

In addition to the standard logging trucks MULLC operated two Prompt Fission Neutron (PFN) logging trucks. The PFN logging provides a direct measurement of uranium content in the borehole and is thus considered to provide direct assay results. MULLC logs all gamma intercepts above 0.02 %eU₃O₈ with PFN and utilizes only the PFN data for resource calculation. This mitigates the effects of radiometric disequilibrium as the PFN is essentially equivalent to other common uranium assay methods such as X-ray diffraction (XRF). Calibration data for both natural gamma logs and PFN is discussed Section 12. When drilling was active both the natural gamma and PFN logging trucks are calibrated routinely. The Author concludes that the drilling and logging procedures followed by MULLC are in keeping with current industry standards and that the data generated by such procedure is reliable for the purposes of this report.

10.2 Summary of Drilling Results

As previously stated, the Alta Mesa drill hole database consists of some 10,744 drill holes. Of this total 5,620 or 52% of the drill holes were considered barren. All of the drill data was collected using the same procedures and equipment as described in Section 10.1. Historic drilling by other operators generally was limited to the current Alta Mesa wellfields, and, as a matter of procedure, the exploratory drill holes have been replaced with delineation drill holes. Those holes meeting cut-off criteria during wellfield delineation were converted to wells. MULLC's procedure following wellfield installation is to then recalculate Mineral Resources with the results from the new drill data. Table 10-1 summarizes the drilling results by sand horizon for the Alta Mesa portion of the Project.

Table 10-1- Alta Mesa Drill Holes Summary

Alta Mesa Data		GT> .5	GT> .3	GT> .1
A sand	GT	1.15	0.74	0.43
	Grade	0.200	0.153	0.117
	Thickness	5.74	4.81	3.65
	Count	33	72	162
B sand	GT	1.22	0.87	0.54
	Grade	0.176	0.146	0.119
	Thickness	6.90	5.97	4.54
	Count	160	273	527
MCU sand	GT	1.68	1.33	0.93
	Grade	0.220	0.194	0.167
	Thickness	7.65	6.86	5.54
	Count	428	588	911
MCM sand	GT	1.79	1.46	1.08
	Grade	0.245	0.218	0.190
	Thickness	7.33	6.67	5.69
	Count	402	527	749
MCL sand	GT	1.51	1.25	0.99
	Grade	0.187	0.171	0.157
	Thickness	8.11	7.30	6.32
	Count	685	894	1186
LCU sand	GT	1.28	1.00	0.68
	Grade	0.171	0.145	0.121
	Thickness	7.50	6.86	5.63
	Count	357	526	862
LCL sand	GT	1.22	0.95	0.64
	Grade	0.178	0.154	0.126
	Thickness	6.90	6.17	5.11
	Count	262	390	647
DU sand	GT	0.88	0.60	0.40
	Grade	0.099	0.089	0.078
	Thickness	8.82	6.79	5.17
	Count	11	24	44
DL	GT	1.29	0.83	0.30
	Grade	0.166	0.147	0.085
	Thickness	7.75	5.63	3.47
	Count	2	4	19
Total Intercepts		2340	3298	5107

The Mesteña Grande portion of the Project is subdivided into five areas with a total of 460 drill holes. As discussed in Section 14, drill hole spacing is generally widely spaced and as a result the majority of the Mineral Resources are classified as inferred. Table 10-2 summarizes the drill results for the Mesteña Grande portion of the Project.

Table 10-2- Massena Grande Drill Holes Summary

Zone	Horizon(s) or Formations	Total Drill Holes	Barren Holes	GT >0.1	0.1 < GT < 0.3	0.3 < GT < 0.5	GT > 0.5
Oakville North	OK10 and OK20	30	28	2	1	0	1
Oakville Central	OK10 and OK20	320	282	38	28	5	5
Goliad	G10 and G20	50	49	1	1	0	0
Alta vista	Alta Vista OK 20	22	19	3	3	0	0
El Sordo	Catahoula	38	33	5	2	1	2
Totals		460	411	49	35	6	8

11.0 SAMPLE PREPARATION, ANALYSIS, AND SECURITY

All pertinent data related to the project is housed in a secure facility at the Alta Mesa site. All assay data is in the form of downhole geophysical log data and was completed by the previous owners, MULLC and Alta Mesa LLC. The author of this section has concluded that the data utilized in this report is accurate, reliable and adequate for the purposes of its use in this report and that the sample preparation, security and analytical procedures for all relevant data is adequate.

11.1 Gamma Logging

The primary assay data for the Alta Mesa Uranium Project (the Project) is downhole geophysical log data. Mesteña Uranium LLC, the previous owner of the Project, relied entirely on prompt-fission-neutron (PFN) logging for uranium grade assay and used the natural gamma logging to screen intervals for PFN logging. Of the 10,744 drill holes in the Alta Mesa database, PFN logging data was available for 94.8% of the drill holes. For the Mesteña Grande portion of the Project, all 460 drill holes were completed by Alta Mesa LLC and all gamma intercepts greater than 0.02 %eU₃O₈ were logged by PFN. When drilling is active both the natural gamma and PFN logging trucks are calibrated on a quarterly basis, or after repairs have been made to the equipment. As an example, according to calibration data, the PFN tools were calibrated 8 times per year in both 2009 and 2010. Natural gamma and PFN calibration are performed at standard facilities. Figure 11-1 shows a typical calibration curve for the PFN tool.

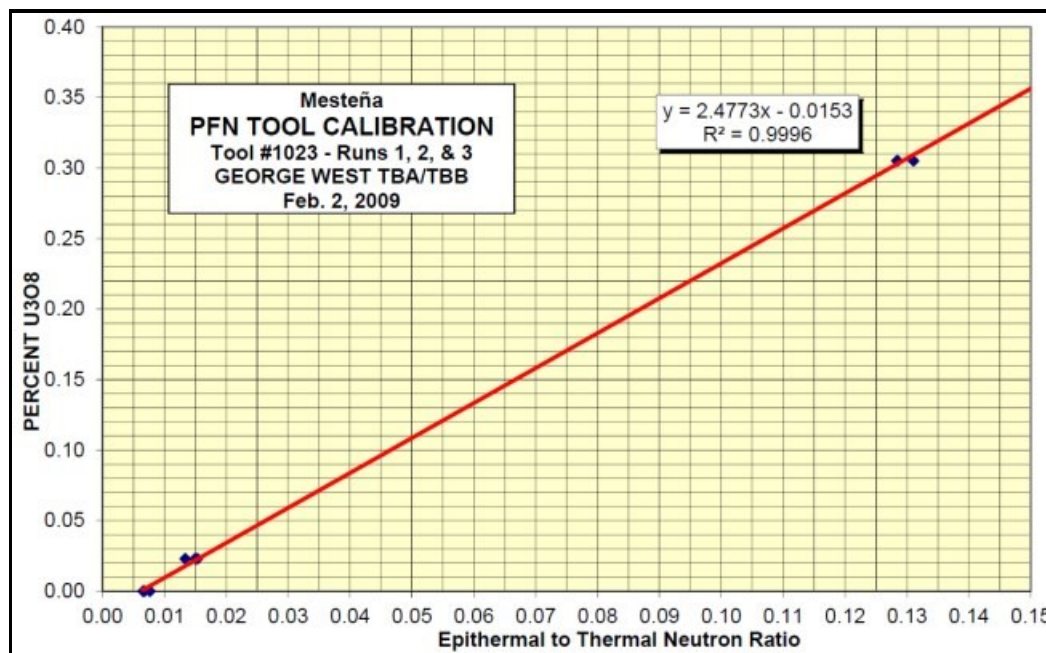


Figure 11-1. PFN Tool Calibration

11.2 Disequilibrium

Core assays are available from historic drilling completed by Chevron and Total Minerals Incorporated; however, only 7.2% of the current database includes any of this historical data. Both Chevron and Total Minerals Incorporated concluded that the Alta Mesa mineral deposit exhibited positive disequilibrium.

Radioactive isotopes decay until they reach a stable non-radioactive state; the radioactive decay chain isotopes are referred to as daughters. When all the decay products are maintained in close association with the primary uranium isotope U^{238} for the order of a million years or more, the daughter isotopes will be in equilibrium with the parent isotope (McKay et.al., 2007). Disequilibrium occurs when one or more decay products are dispersed because of differences in solubility between uranium and its daughters. Disequilibrium is considered positive when there is a higher proportion of uranium present compared to daughters and negative where daughters are accumulated, and uranium is depleted. The disequilibrium factor (DEF) is determined by comparing radiometric equivalent uranium grade eU_3O_8 to chemical uranium grade. Radiometric equilibrium is represented by a DEF of 1, positive DEF by a factor greater than 1, and negative DEF by a factor of less than 1. Total Minerals Incorporated applied a positive DEF of 1.13 to their Mineral Resource estimation (Total, 1989). Whereas MULLC relied on PFN log data for determination of uranium grade and this method is a direct measurement of uranium content not equivalent radiometric assay, assessment of DEF is not applicable in this case where 92.8% of the data is PFN assay. Figure 11-2 shows a disequilibrium graph comparing natural gamma U_3O_8 equivalent grades with PFN assays.

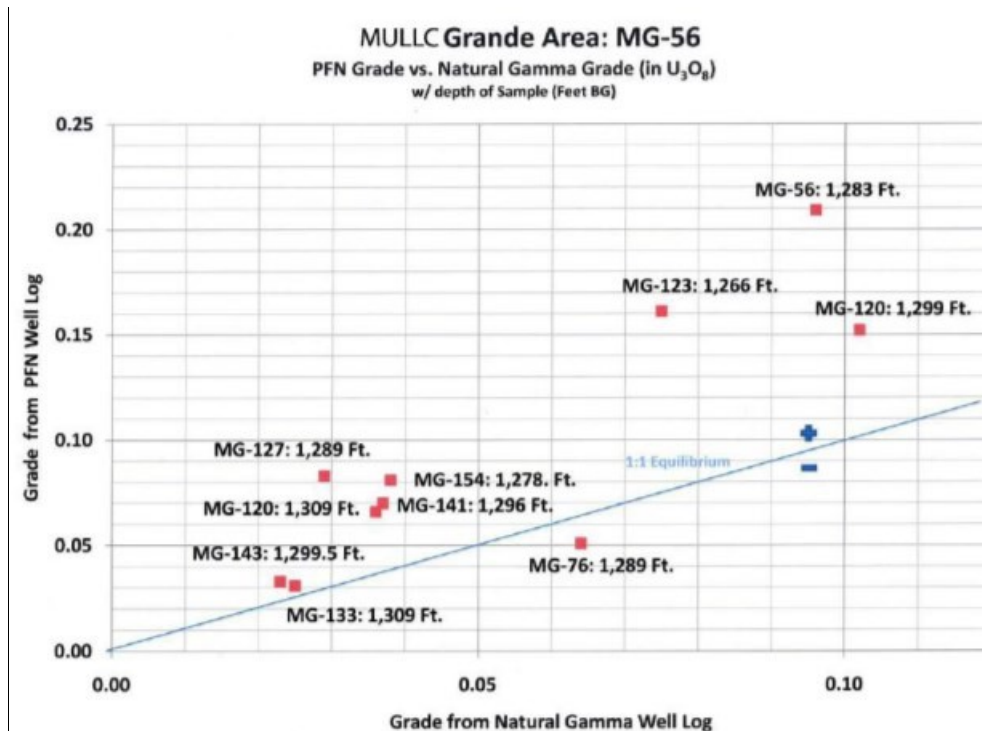


Figure 11-2. Disequilibrium Graph: Natural Gamma vs PFN Grade

11.3 Core Sampling

As is common with uranium projects, the primary assay data for the Project is downhole geophysical log data, including both natural gamma equivalent logs and PFN logs. Core for the Project was not collected by the previous owner/operator, Mesteña Uranium LLC. EFR has standard operating procedures in place for lithologic logging and core collection should core be collected from future drilling programs.

11.4 Quality Assurance/Quality Control

MULLC maintained written standard operating procedures for drilling, lithological logging and geophysical logging. Virtually all drilling completed by MULLC for the purposes of exploring and resource development consists of rotary drilling. MULLC collected rotary mud samples for lithological logging by 5-foot increments. Lithological logs of the samples are completed in the field by geologists following the standard written procedures and using standard lithological log forms.

Drill hole locations are staked in the field using a Trimble hand-held GPS capable of sub-meter accuracy. The holes are surveyed prior to drilling. Field surveys of 8 exploration drill holes and one well with the Alta Mesa GPS unit as a check. The well location was within 0.13 feet of the recorded location. The drill hole locations deviated from the reported location by 1.33 to 11.28 feet with an average variance of 6.06 feet. It is this author's conclusion that the majority of the variance is due to the driller not accurately locating the drill hole at the staked location rather than the accuracy of the GPS unit, and thus, recommends that the drill hole location procedure be modified to include both pre and post drilling surveys of the drill holes. Despite this observed variance, the author's opinion is that for the purposes of estimating indicated and inferred Mineral Resources the drill hole survey data is reliable. Prior to final wellfield delineation it is recommended that the drill holes be re-surveyed.

MULLC operated two standard logging trucks which were purchased from Century Geophysical and are capable of natural gamma, resistivity, and SP logging. The units are equipped with software to convert downhole gamma measurements to equivalent %eU₃O₈ by user specified depth increments. MULLC processed all natural gamma data at 0.5-foot increments.

These logging trucks are also equipped to measure downhole deviation by azimuth and declination. The location for the bottom of each drill hole and the true depth is included in the electronic database and was used for Mineral Resource calculations. Of the total 10,744 drill holes in the database only 76 did not have downhole drift surveys, thus, drift surveys were available for over 99% of the drill holes. The average depth of all drill holes was 546 feet, the corrected depth for all drill holes for downhole deviation was 543.5 feet or a factor of 0.9954. Based on this average, the actual length of a 10-foot mineralized zone is 9.954 feet or a difference of less than one half of one percent. Based on this, the authors conclude that the effect of downhole deviation with respect to sample thickness is insignificant for the purposes of this report.

In addition to the standard logging trucks MULLC operated four Prompt Fission Neutron (PFN) logging trucks along with 8 PFN logging tools. The PFN logging provides a direct measurement of uranium content in the borehole and is thus considered to provide direct assay results. MULLC logged all gamma intercepts above 0.02 %eU₃O₈ with PFN and utilizes only the PFN data for resource calculation. This mitigates the effects of radiometric disequilibrium as the PFN is essentially equivalent to other common uranium assay methods such as X-ray diffraction (XRF). When drilling is active, both the natural gamma and PFN logging trucks are calibrated routinely.

11.5 Density

Bulk density data is available for the Project (Babbitt, 1987) in a study commissioned by Total Mineral Incorporated supporting their bulk density. MULLC uses a bulk density of 17cf/ton. Total Minerals Incorporated used a density factor of 16.5cf/ton (Total, 1989). MULLC's use of 17cf/ton rather than 16.5 cf/ton is conservative in that it calculates approximately 3% less tonnage per unit volume. The Author used the conservative value for bulk density of 17 cf/ton in all calculations.

11.6 Opinion of Author

The author of this section has concluded that the data utilized in this report is accurate and, reliable and adequate for the purposes of its use in this report and that the sample preparation, security and analytical procedures for all relevant data is adequate.

12.0 DATA VERIFICATION

12.1 Data Verification

In April of 2014, co-author Beahm (BRS, 2014) examined numerous original hard copy drill hole files selected from the various remaining Mineral Resource areas and representing a range of reported drill hole results. Summary and conclusions follow.

The previous owner/operator, Mesteña Uranium LLC, who conducted most of the drilling on the project had written procedures for the collection of drill data including lithological logging, natural gamma logging, and PFN logging, and for the entry of said data into the Geographic Information System (GIS) based master database. All data is stored on a secure server at the Alta Mesa Facility. Hard copies of all original drill hole data are maintained at the facility. The Alta Mesa Facility is secured with external fencing and automated security gates. The building has automatic locking security doors. The facility is continuously monitored by alarm and video surveillance equipment. This equipment is monitored both by on-site staff and remotely.

During drilling both the natural gamma and PFN logging trucks are calibrate routinely as previously discussed (Gamma Logging).

12.2 Drill Hole Database

During the site visit conducted from April 15 through 17, 2014, BRS examined numerous original hard copy drill hole files selected from the various remaining Mineral Resource areas and representing a range of reported drill hole results. Given the volume of data (over 10,000 drill holes), this review was not complete but did allow the author to reach the following conclusions.

- The data entered into the Mineral Resource database reflected only those intercepts which could be reasonably extracted by ISR methods. Several examples were noted where thin low-grade intercepts interpreted to be within the oxidized portion of the roll-front were not entered into the database.
- Data entry honored GT. Some errors in grade and thickness were noted but the GT values, from which contained pounds are calculated, were consistent with the drill data reviewed.
- Although lower grade halo mineralization was noted within the zones for which intercept data was entered into the database, this mineralization was not included in the database.

The author concluded that the drill hole database is adequate for the purposes of calculating Mineral Resources and fairly represents the actual drill data. Further, if any bias exists it would be of a conservative nature whereas mineralization not reasonably extractable by ISR methods was not included in the database

12.3 Opinion of Adequacy

It is the opinion of the authors that the data collection, assay procedures (geophysical logging), database maintenance, and storage and security for all relevant data are adequate. Further, it is the EFR's opinion that the data is suitable for the purposes of resource estimation as necessary for this report.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Alta Mesa Uranium Project (the Project) is an ISR facility that was in production from 2005 until being placed on standby in February 2013. As such, actual mineral recovery data is available for several wellfields. This data is summarized in Table 13-1.

Table 13-1 Actual Mineral Recovery from Alta Mesa

Wellfield	Horizon	Pre-Mining Mineral Resource Estimate (lbs. U ₃ O ₈)	Production (lbs. U ₃ O ₈)	% Recovery
PAA-1	C middle	1,921,300	1,610,000	84%
PAA-2	C middle	2,030,000	1,498,200	74%
PAA-3	C middle	262,000	290,400	111%
PAA-4	Lower C Upper	527,027		
	Lower C Lower	453,960		
	TOTAL	980,987	850,000	87%
PAA-5	B Ring - B Sand	41,000		
	C Ring - B Sand	48,672		
	TOTAL	89,672	35,000	58%
PAA-6	Lower C Upper	377,000		
	Lower C Lower	331,000		
	TOTAL	708,000	338,000	NA on standby

From the production data in Table 13-1, the author concludes the following with respect to mineral recovery:

- Uranium is recoverable by ISR methods at the Project.
- The weighted average recovery of wellfields PAA-1 through PAA-5 is 81%.
- Wellfield PAA-5 experienced lower than expected recovery. Whether this is related to the nature of the B sand in general or PAA-5 specifically is not known.
- Based on the performance of wellfields PAA-1 and PAA-3 it is likely that with continued effort and/or during wellfield restoration to recover additional uranium from wellfield PAA-2 which is in the same geologic horizon.
- PAA-6 was placed on standby and has remaining resources still under pattern.
- The assumed recovery factor used for the Mineral Resource estimate is 70%, which is conservative and in keeping with CIM guidance.

13.1 Opinion of Author

The author of this section has concluded that the data and information utilized is accurate, reliable and adequate for the purposes of its use in this report.

14.0 MINERAL RESOURCE ESTIMATES

14.1 General Statement

The Mineral Resource estimate stated in this Initial Assessment was initially completed by BRS as part of a NI 43-101 compliant Technical Report (2014) completed for the Alta Mesa Uranium Project (the Project) for Mesteña Uranium and updated in 2016 for EFR. The Mineral Resource was estimated using the GT-Contour Method, an industry accepted method and Canadian Institute of Mining (CIM) best practice for uranium deposits mined by in-situ recovery. No material changes have occurred in the subsurface data available for the Project since the Mineral Resource was published in 2016.

14.2 Mineral Resource Estimate

Table 14-1 gives the classified Mineral Resources associated with the Project. The cut-off grade is a grade multiplied by thickness (abbreviated GT) cut-off of 0.3 GT and assumes a minimum grade of 0.02% U₃O₈.

Table 14-1 Alta Mesa and Mesteña Grande Resource Summary

Classification	COG (G.T.)	Area	Tonnage	Grade (% U ₃ O ₈)	Contained Metal (lbs. U ₃ O ₈)
Measured	0.3	Alta Mesa	54,000	0.152	164,000
Total Measured	0.3		54,000	0.152	164,000
Indicated	0.3	Alta Mesa	1,397,000	0.106	2,959,000
	0.3	Mesteña Grande	119,000	0.120	287,000
Total Indicated	0.3		1,516,000	0.107	3,246,000
Total Measured & Indicated	0.3		1,570,000	0.109	3,410,000
Inferred	0.3	Alta Mesa	1,263,000	0.126	3,192,000
	0.3	Mesteña Grande	5,733,000	0.119	13,601,000
Total Inferred	0.3		6,996,000	0.120	16,793,000

Notes:

1. NI 43-101 and S-K 1300 definitions were followed for all Mineral Resource categories.
2. Mineral Resources are estimated at a 0.3 GT (0.02% U₃O₈ minimum)
3. Mineral Resources are estimated using a long-term Uranium price of US\$65 per pound
4. Total measured Mineral Resource is that portion of the in-place or in situ Mineral Resources that is estimated to be recoverable within existing well fields. Wellfield recovery factors have not been applied to indicated and inferred Mineral Resources
5. Bulk density is 0.0588 tons/ft³ (17.0 ft³/ton)
6. Mineral Resources are exclusive of Mineral Reserves and do not have demonstrated economic viability.
7. Numbers may not add due to rounding

14.2.1 Resource Database

Alta Mesa

The Alta Mesa drill hole database consists of some 10,744 drill holes. Of this total 5,620 or 52% of the drill holes were considered barren. All the drill data was collected using downhole geophysical tools including both gamma and PFN logging. Historic drilling by other operators generally was limited to the current Alta Mesa wellfields, and, as a matter of procedure, the exploratory drill holes have been replaced with delineation drill holes using PFN logging. Those holes meeting cut-off criteria during wellfield delineation were converted to wells. Alta Mesa procedure following wellfield installation is to then recalculate Mineral Resources with the results from the new drill data.

Table 14-2 summarizes the drilling results by sand horizon for the Alta Mesa portion of the Project.

Table 14-2 Alta Mesa Drill Holes Summary

Alta Mesa Data		GT >0.5	GT>0.3	GT>0.1
<i>A Sand</i>	GT	1.15	0.74	0.43
	Grade	0.200	0.153	0.117
	Thickness	5.74	4.81	3.65
	Count	33	72	162
<i>B Sand</i>	GT	1.22	0.87	0.54
	Grade	0.176	0.146	0.119
	Thickness	6.90	5.97	4.54
	Count	160	273	527
<i>MCU Sand</i>	GT	1.68	1.33	0.93
	Grade	0.220	0.194	0.167
	Thickness	7.65	6.86	5.54
	Count	428	588	911
<i>MCM Sand</i>	GT	1.79	1.46	1.08
	Grade	0.245	0.218	0.190
	Thickness	7.33	6.67	5.69
	Count	402	527	749
<i>MCL Sand</i>	GT	1.51	1.25	0.99
	Grade	0.187	0.171	0.157
	Thickness	8.11	7.30	6.32
	Count	685	894	1,186
<i>LCU Sand</i>	GT	1.28	1.00	0.68
	Grade	0.171	0.145	0.121
	Thickness	7.50	6.86	5.63
	Count	357	526	862

Mesteña Grande

The Mesteña Grande portion of the Project is subdivided into five areas with a total of 460 drill holes. Drill hole spacing at Mesteña Grande is generally wide spaced. Table 14-3 summarizes the drill results for the Mesteña Grande portion of the Project.

Table 14-3 Mesteña Grande Drill Holes Summary

Zone	Horizon(s) or Formations	Total Drill Holes	Barren Holes	GT >0.1	0.1 < GT <0.3	0.3 < GT <0.5	GT > 0.5
Oakville North	OK10 and OK20	30	28	2	1	0	1
Oakville Central	OK10 and OK20	320	282	38	28	5	5
Goliad	G10 and G20	50	49	1	1	0	0
Alta vista	Alta Vista OK 20	22	19	3	3	0	0
El Sordo	Catahoula	38	33	5	2	1	2
Totals		460	411	49	35	6	8

14.2.2 Geologic Modeling

The primary geologic modeling associated with roll-front deposits in Texas is first identifying the sand in which the uranium mineralization is contained. The geophysical logs obtained following drilling contain gamma data as described in previous sections as well as electrical properties of the rock formations. A trained geologist can interpret these electrical logs as different rock types and therefore assign a formation or sand unit to a uranium intercept. The gamma signature and the cuttings logged during drilling can be used to tell what where the drill hole is within the roll front. The drill hole can be on the oxidized or reduced side of the roll front or within the mineralized "nose" of the roll front. All this information is used to define geologic continuity and the location of the mineralization.

14.2.3 Grade Capping

Grade capping was not used in estimating the Mineral Resources at the Project. The GT contour method limits the influence of a high-grade sample by containing an outlier GT interval to a single small contour.

14.2.4 Compositing

Mineralized intercepts meeting a minimum thickness of 1 ft. and grade of 0.02% U_3O_8 were composited to determine the thickness, grade and thus the GT of the drill hole within each sand. If the composite GT met the minimum criteria of 0.3 GT it would be included in the Mineral Resource estimation.

14.2.5 Density

Bulk density data for the Project was determined from a study commissioned by Total Minerals. EFR used a density factor of 16.5 ft³/ton in its Mineral Resource estimates (Total, 1989), while the Mineral Resource in this report uses a value of 17 ft³/ton, which is conservative in that it calculates approximately 3% less tonnage per unit volume.

14.2.6 Radiometric Equilibrium

Data used in this Mineral Resource relies on PFN log data for determination of uranium grade as this method is a direct measurement of uranium content, not an equivalent radiometric assay; PFN assays are considered by to be reasonably equivalent to chemical assays. PFN assay data is available for 92.8% of the drill data used in the report and thus a correction of drill hole data for DEF is not applicable.

14.2.7 GT Contouring Method

Where drilling density was sufficient to complete GT contour calculations, resource estimates were completed in accordance with industry standards, in areas where this was not possible, trend width was determined from producing wellfields PAA-6 and portions of PAA-4 or average GT values where estimated based on overall averages for all Alta Mesa drill hole data. Estimation parameters used for each resource area are provided in the discussions that follow.

When dealing with ISR Mineral Resources, the contained pounds of uranium are calculated from the GT value applied to the respective area of mineralization with the application of the appropriate bulk density. As such average thickness is not a critical parameter in the determination of the pounds contained but is needed to calculate tonnage and average grade. Based on the typical geometry of the sands, a thickness of 10 feet was assumed for exploration targets and corresponds generally with the average screened interval for wells. Mineral resource tonnages were thus calculated assuming an average thickness of 10 feet unless specific data relating to thickness was available.

14.2.8 Resource Classification

NI 43-101 and S-K 1300 standards define a Mineral Resource 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, taking into account 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 Initial Assessment have been classified according to the definitions below which are in accordance with both SEC S-K and NI 43-101 definitions.

***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 Mineral Resources at the Project have been classified as measured, indicated and inferred for the Alta Mesa Property and indicated and inferred for the Mesteña Grande Property. Measured mineral resources at the Alta Mesa facility and production area are those Mineral Resources calculated by the GT contour method after a well field is fully delineated. In existing well fields such as PAA-2 and PAA-6, the geologic and mineralized continuity defined by tight drill hole spacing, less than 100 feet, is adequate to estimate the mineral resource to a high level of confidence. As such, they could be classified as a measured mineral resource in accordance with NI 43-101 and S-K 1300 standards. In some cases, outside the existing wellfields, the drill density would allow classifications of certain portions of the mineral resource as measured, these areas have been defined as indicated as they are not part of a fully delineated well field. For the purposes of this report measured mineral resources are within existing well fields and represent only that portion of the remaining resource that can reasonably be recovered from the existing wellfields through continued operation of the well fields. EFR considers the remaining mineral resources within the PAA-6 wellfield as having reasonable prospects for future economic extraction. At present it has not been determined whether the PAA-2 meets the criteria for reasonable prospects for future economic extraction. Thus, only the remaining mineral resource within wellfield PAA-6 are considered a current measured mineral resource.

Indicated mineral resources are based on detailed and reliable exploration, sampling, and testing information gathered through appropriate techniques that are spaced closely enough for both geological and grade continuity to be reasonably assumed. Given the nature of the mineralization in the Project area and the demonstrated continuity of mineralization along the REDOX front from the existing wellfields, indicated mineral resources, are those areas where the location of the REDOX front can be reasonably defined by drill data and where along a continuously mapped REDOX front there are drill holes that intersect the mineralized front and reasonably confirm the presence of mineralization which has reasonable prospects for economic extraction. For the Project, drill hole spacing in areas for which indicated mineral resources are defined range from less than 100 feet to as much as 800 feet along the REDOX front.

Inferred mineral resources are defined as that part of the mineral resource for which quantity and quality can be estimated based on geologic evidence, limited sampling and reasonably assumed but not verified geological and grade continuity. For the Project, the basis of geologic evidence and sampling is drill hole data which is adequate to define the presence and general location of the REDOX front but for which there may not be drill holes which intersect the mineralized front and reasonably confirm the presence on mineralization meeting the criteria for indicated mineral resources. For the Project, drill hole spacing in areas where inferred mineral resources are defined may exceed 800 feet if there is geologic evidence that the REDOX front is present, and its location can reasonably be assumed.

14.2.9 Metal Price

Neither the S-K 1300 nor NI 43-101 rules require a market study for a Technical Report nor preliminary economic assessment respectively. However, EFR has included this section to determine an appropriate metal price in determining the GT breakeven cut-off grade which, in turn, is used to calculate Mineral Resources for Alta Mesa.

Uranium does not trade on the open market and many of the private sales contracts are not publicly disclosed since buyers and sellers negotiate contracts privately. Monthly long-term industry average uranium prices based on the month-end prices are published by Ux Consulting, LLC, and TradeTech, LLC (TradeTech). As a result, an accepted mining industry practice is to use "Consensus Prices" obtained by collating publicly available commodity price forecasts from credible sources.

The authors use TradeTech, an independent provider of uranium prices and nuclear fuel market information; EFR produces a quarterly uranium market study which is based on their comprehensive knowledge of the factors affecting the nuclear fuel cycle industry globally.

Figure 4-1 and Figure 4-2 provides a Long-Term Uranium Price Forecast through 2039 from TradeTech's Uranium Market Study, 2021: Issue 4. The Forward Availability Model (FAM 1 and 2) forecast differ in assumptions as to how future uranium supply enters the market. "FAM 1 represents a good progression of planned uranium projects incorporating some delays to schedules, while FAM 2 assumes restricted project development because of an unsupportive economic environment." (TradeTech, 2021). Currently most US producers are in a mode of care and maintenance and numerous facilities globally are also slowing or shutting in production at least on a temporary basis. At this time in the US, no new projects are being constructed, and very few are moving forward with permitting and/or licensing. This condition aligns more with the FAM 2 projections.

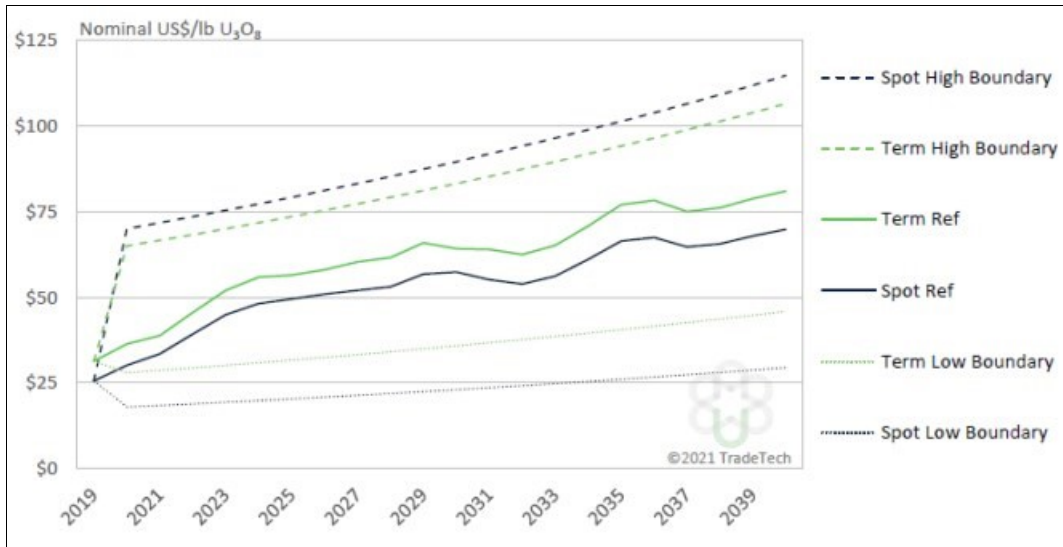


Figure 4-1 TradeTech Uranium Market Price Projections- FAM 1 (Nominal US\$)



Figure 4-2 TradeTech Uranium Market Price Projections - FAM 2 (2020 US\$)

Term forecasts beginning 2026 or later and extending into the future are considered the most reasonable for purposes of this report, as they consider the effects of prices on future existing and new production and long-term contracts with investment-grade nuclear utilities. Therefore, term prices are most appropriate for purposes of this report.

Based on this, the planned production from the project is projected to occur when the price projections under the assumption of FAM 2 are generally more than \$65 per pound uranium oxide (year 2037). EFR recommends the use of a long-term uranium price of \$65.00 per pound uranium oxide for the GT calculation for Mineral Resources at Alta Mesa.

By their nature all commodity price assumptions are forward-looking. No forward-looking statement can be guaranteed, and actual future results may vary materially

14.2.10 Cut-off Parameters

The SEC defines cut-off grade as "the grade that distinguishes material deemed to have no economic value (it will not be mined in underground mining or if mined in surface mining, its destination will be the waste dump) from material deemed to have economic value (its ultimate destination during mining will be a processing facility)".

The cut-off criteria used in this report is a minimum grade cut-off of 0.02% U₃O₈ and minimum GT of 0.30. In addition, with respect to reasonable prospects for economic extraction, areas of isolated mineralization with less than an estimated 2,000 pounds uranium will typically not support the cost of well field installation and are therefore not considered in the Mineral Resource estimate.

The calculated cut-off grade for the Project was based on modifying factors including metal prices, metallurgical recoveries, operating costs, and other operational constraints (Table 14.4). Mining costs were based on historical operating costs for the Project.

Table 14-4: Alta Mesa Uranium Project Cut-off Grade Calculation

Item	Quantity
Price in US\$/lb U ₃ O ₈	US\$65.00
Process plant recovery	70-80%
Total OPEX (includes G&A)	\$27-30/ton
Break-Even Cut-off grade	0.03%

14.2.11 Reasonable Prospects for Future Economic Extraction

The Project produced approximately 4.6 million pounds of uranium oxide between 2005 and 2013 via in-situ recovery (ISR) mining using an alkaline lixiviant and is processed at a plant located in Alta Mesa. The cut-off criteria applied to the current Mineral Resource estimates is consistent with that applied when the Project was producing uranium. Under the stated cut-off criteria and based on a long-term uranium price of \$65.00 per pound uranium oxide, the Mineral Resources stated herein have reasonable prospects for future economic extraction.

The mining and mineral processing methods stated in this report have previously been successfully employed at the project. The project is a brown-field development located in a State, which tends to favor mining and industrial development.

For these reasons, the Authors believe that the Alta Mesa Mineral Resources have a low probability of being affected by risk associated with mining; processing; metallurgical; infrastructure; economic; marketing; legal; environmental compliance; plans, negotiations or agreements with local individuals or groups; and governmental factors. The authors are not aware of any factors including environmental, permitting, taxation, socio-economic, marketing, political, or other factors, which would materially affect the Mineral Resource estimate, herein.

14.3 Mineral Resource Summary

Mineral resources for the Alta Mesa portion of the Project estimated for classifications meeting NI 43-101 and S-K 1300 standards and definitions as measured, indicated, and inferred Mineral Resources, at a 0.30 GT cut-off, are summarized in Table 14-5.

Table 14-5 Alta Mesa Mineral Resource Summary (at 0.30 GT Cut-off Grade)

	Area	Tonnage	Grade (% U ₃ O ₈)	Contained Metal (lbs. U ₃ O ₈)
Classification	PAA-6	54,000	0.152	164,000
Total Measured		54,000	0.152	164,000
Indicated	PAA-7 Upper LCU1	84,000	0.151	256,000
	PAA-7 Upper LCU2	100,000	0.151	303,000
	PAA-7 Lower LCL1	119,000	0.152	361,000
	PAA-7 Lower LCL2	122,000	0.152	372,000
	D Sand - Upper	552,000	0.060	662,000
	D Sand - Lower	204,000	0.083	336,000
	LC - Adjacent to PAA1	58,000	0.171	199,000
	B Sand	92,000	0.146	268,000
	A Sand - A1	43,000	0.153	133,000
	A Sand - A2	23,000	0.153	69,000
Total Indicated		1,397,000	0.106	2,959,000
Total Measured and Indicated		1,451,000	0.108	3,123,000
Inferred	PAA-7 Upper LCU2	58,000	0.151	175,000
	D Sand - Upper	74,000	0.038	57,000
	D Sand - Lower	231,000	0.080	370,000
	LC - W Lower C Upper	99,000	0.171	338,000
	LC - W Lower C Lower	124,000	0.140	350,000
	B Sand	268,000	0.146	781,000
	A Sand - A1	283,000	0.153	869,000
	SAM - E Sand	126,000	0.100	252,000
Total Inferred		1,263,000	0.126	3,192,000

14.3.1 PAA-7 Lower C Sand

The PAA-7 Mineral Resource area is permitted as a wellfield which required expansion of the existing aquifer exemption. The area was drilled on approximately 50 foot by 200-foot centers, across and along the trend, respectively. Mineralization is at a depth of approximately 550 feet. PAA-7 is adjacent to PAA-4. Mineralization in a portion of PAA-4 was estimated using the GT Contour Method. This data was used to determine appropriate parameters for the width, thickness, and GT for Lower C Lower (LCL) and the Lower C Upper (LCU) sands of the Goliad Formation which are mineralized in the area.

Mineral resource estimation parameters PAA-7 at a 0.30 GT cut-off shown in Table 14-6 below.

Table 14-6 PAA-7 Mineral Resource Estimation Parameters

Horizon	Classification	Trend Length (ft)	Width (ft)	Area (ft ²)	Thickness (ft)	Grade (%U ₃ O ₈)	GT
LCU1	Indicated	9,200	34.7	319,507	4.5	0.151	0.68
LCU2	Indicated	10,900	34.7	378,547	4.5	0.151	0.68
LCU2	Inferred	6,300	34.7	218,793	4.5	0.151	0.68
LCL1	Indicated	17,400	29.7	516,542	3.9	0.152	0.59
LCL	Indicated	17,900	29.7	531,385	3.9	0.152	0.59

14.3.2 D Sand

Mineralization in the D sand of the Goliad Formation is defined by drilling within two sub-horizons, the upper and lower sands, DU and DL, respectively. The area is drilled on approximately 50 foot by 200-foot centers, across and along the trend, respectively. Most of the mineralization defined to date is in the DU. Mineralization is at a depth of approximately 550 feet. The average width of mineralization was taken to be equivalent to PAA-7, as discussed previously. The average GT represents average values from drill holes in the D sands above the GT cut-off, 24 drill holes in the DU and 4 in the DL. An average thickness of 10 feet was used. Note that mineralization in the D Sand is projected to extend into the exclusion area. Trend lengths within the exclusion area were excluded from the resource estimate.

Mineral resource estimation parameters for the D sand at a 0.30 GT cut-off are shown in Table 14-7.

Table 14-7 D Sand Mineral Resource Estimation Parameters

Horizon	Classification	Trend Length (ft)	Width (ft)	Area (ft ²)	Thickness (ft)	Grade (%U ₃ O ₈)	GT
D Sand	Indicated	26,600	35	938,000	10	0.060	0.60
D Sand	Inferred	2,300	35	126,000	10	0.060	0.60
D Sand	Indicated	9,900	35	346,500	10	0.083	0.83
D Sand	Inferred	10,900	35	392,000	10	0.083	0.83

14.3.3 Lower C Sand Outside of PAA-7, PAA-6 and PAA-4

The area is defined by drilling on variable centers, across and along the trend, respectively. Mineralization occurs in the lower C sand of the Goliad Formation at a depth of approximately 525 to 575 feet. The area includes a portion within the PAA-1 wellfield (completed in the Middle C sand but with drilling penetrating the Lower C sand as well). This portion of the Mineral Resource was classified as an indicated Mineral Resource but could have been classified as a measured Mineral Resource based on drill hole spacing. Average thickness and GT for the resource area was determined from the portion of the mineralization within the PAA-1 wellfield. Average width was determined from GT contour estimates of PAA-4 and PAA-6, as discussed previously for the PAA-7 Mineral Resource area.

The Lower C Sand Outside of PAA-7, PAA-6, and PAA-4 also includes an area for which an Exploration Target has been defined and is described in Section 9.0 (Exploration).

Mineral resource estimation parameters for the Lower C Sand Outside PAA-7, PAA-6, and PAA-4 at a 0.30 GT cut-off are summarized in Table 14-8.

Table 14-8 Lower C Sand Outside PAA-7, PAA-6, and PAA-4 Mineral Resource Estimation Parameters

Horizon	Classification	Trend Length (ft)	Width (ft)	Area (ft ²)	Thickness (ft)	Grade (%U ₃ O ₈)	GT
LCU Sand	Indicated	6,373	35	223,062	4.44	0.171	0.758
LCU Sand	Inferred	10,822	35	378,785	4.44	0.171	0.758
LUL Sand	Indicated	12,433	35	435,170	4.86	0.140	0.683

14.3.4 B Sand

The B sand of the Goliad Formation is present in the majority of the drill holes within the Project and occurs above the C sand, which was mined in the majority of the existing wellfields. The depth of the B sand is less than 500 feet.

Wellfield PAA-5 was completed in the B sand. A GT contour model was developed for portion of the B sand to determine appropriate Mineral Resource estimation parameters for width. Thickness and GT estimation parameters were determined from the average values from some 273 intercepts for the B sand above the minimum GT cut-off. As a cautionary note the recovery from wellfield PAA-5 was considerably lower than the other wellfields within the C sand units. It is not known whether this was a function of the PAA-5 wellfield specifically or the B sand in a more general sense.

Mineral resource estimation parameters for the B Sand at a 0.30 GT cut-off are shown in Table 14-9:

Table 14-9 B Sand Mineral Resource Estimation Parameters

Horizon	Classification	Trend Length (ft)	Width (ft)	Area (ft ²)	Thickness (ft)	Grade (%U ₃ O ₈)	GT
B Sand	Indicated	3,549	31	262,193	5.97	0.15	0.87
B Sand	Inferred	25,011	31	763,058	5.97	0.15	0.87

14.3.5 A Sand

Mineralization in the A sand of the Goliad Formation is defined by drilling within two sub-horizons, the upper and lower sands, A1 and A2, respectively. The area is drilled on approximately 50 foot by 200 foot centers or closer, across and along the trend, respectively. Most of the mineralization defined to date is in the A1 sand. The A sand is stratigraphically above the B and C sands and is encountered in the majority of the drill holes within the Project. Mineralization is at a depth of less than 500 feet. The average width of mineralization was taken to be equivalent to PAA-7, as discussed previously. The average thickness and GT parameters represent average values from drill holes in the A sands above the GT cut-off, from 72 intercepts.

Mineral resource estimation parameters for the A sand at a 0.30 GT cut-off are shown in Table 14-10.

Table 14-10 A Sand Mineral Resource Estimation Parameters

Horizon	Classification	Trend Length (ft)	Width (ft)	Area (ft ²)	Thickness (ft)	Grade (% U ₃ O ₈)	GT
A1 Sand	Indicated	4,367	35	152,829	4.81	0.15	0.74
A2 Sand	Inferred	28,616	35	1,001,555	4.81	0.15	0.74
A1 Sand	Inferred	2,283	35	79,905	4.81	0.15	0.74

14.3.6 South Alta Mesa

The South Alta Mesa is primarily an exploration target, but within a limited portion of the area, the interpreted REDOX trend, within the E sand of the Goliad, is reasonably defined by drilling. This area meets NI 43-101 and S-K 1300 regulations for classification as an inferred Mineral Resource.

Mineral resource estimation parameters reflecting overall averages for the Alta Mesa drill hole intercepts meeting the minimum GT cut-off criteria are at a width of 35 feet, a thickness of 10 feet, and a GT of 1.00. These parameters were applied to an estimated trend length of 6,125 feet to determine the inferred Mineral Resource for this portion of the South Alta Mesa area.

14.3.7 Mesteña Grande Portion of the Project

Mineral resources for the Mesteña Grande portion of the Project estimated for classifications, meeting NI 43-101 and S-K 1300 standards and definitions as indicated and inferred Mineral Resources, at a 0.30 GT cut-off, as summarized in Table 14-11. Subsequent sections discuss each Mineral Resource area separately.

Table 14-11 Mesteña Grande Mineral Resource Summary

Classification	Area	Tonnage	Grade (% U ₃ O ₈)	Contained Metal (lbs. U ₃ O ₈)
Indicated	Central OK	119,000	0.120	287,000
Total Indicated		119,000	0.120	287,000
Total Measured and Indicated		119,000	0.120	287,000
Inferred	North OK 10	1,064,000	0.120	2,555,000
	North OK 20	233,000	0.120	558,000
	Central OK 10	366,000	0.120	880,000
	Central OK 20	2,178,000	0.120	5,228,000
	Alta Vista OK 20	255,000	0.120	613,000
	Goliad 10	675,000	0.120	1,621,000
	Goliad 20	564,000	0.120	1,354,000
	El Sordo	397,000	0.100	794,000
Total Inferred		5,733,000	0.119	13,601,000

All estimates are rounded. Mineral resources are not mineral reserves and do not have demonstrated economic viability in accordance with NI 43-101 and S-K 1300 standards. The portion of the Project with defined Measured and Indicated Mineral Resources would support a preliminary feasibility study (PFS) or Feasibility (FS) which could enable them to be categorized as mineral reserves. Inferred Mineral Resources are too speculative to have reasonable prospect for economic extraction applied to them which would enable them to be categorized as mineral reserves. Inferred Mineral Resources could be assessed in the context of a preliminary economic assessment or Initial Assessment which is allowed under NI 43-101 and S-K 1300 rules respectively.

14.3.8 Mesteña Grande - Mineral Resource Estimation Parameters

Mineral resource estimation parameters for Mesteña Grande, including defined mineralization in the Goliad, Oakville, and Catahoula formations, were based on data from the Alta Mesa portion of the Project. This approach was taken as the drilling at Mesteña Grande is wide spaced. As discussed in Section 10 and tabulated on Table 10.2, a total of 460 holes were completed in the Mesteña Grande area of which 14 were above the minimum GT cut-off. The drilling did define REDOX trends appropriate for the estimation of mineralization but was not sufficient to determine a reasonable width and GT for the mineralization. An average width of 35 feet was determined from GT contour estimates of PAA-4 and PAA-6, as discussed previously, and for the PAA-7 Mineral Resource area. An average GT value of 1.2 was derived from the average of the C horizon of the Goliad Formation at Alta Mesa which has been the primary ISR mining horizon (nearly 3,000 intercepts). A thickness of 10 feet was assumed. Trend lengths were determined for each area from drill hole data as subsequently discussed.

14.3.9 Mesteña Grande - Oakville Formation

The interpreted REDOX trends are defined by approximately 350 drill holes. The majority of the Mineral Resources are classified as inferred although there is one area in the Oakville Central North where closer spaced drilling has reasonably confirmed the presence of mineralization which has reasonable prospect for economic extraction. This mineralization is within the Oakville 10 sand.

The depth to mineralization in the Oakville Formation occurs at depths from 1,050 to 1,300 feet which is substantially deeper than mineralization in the Goliad Formation both at Mesteña Grande and at Alta Mesa. The increased depth will impact production costs. The authors are aware of several similar ISR projects with similar depths to mineralization and concludes there is a reasonable prospect for economic extraction of these resources; however, production costs will likely be higher than those for Alta Mesa or mineralization in the Goliad at Mesteña Grande.

Mineral resource estimation parameters for the Mesteña Grande, Oakville Formation, at a 0.30 GT cut-off shown in Table 14-12.

Table 14-12 Mesteña Grande and Oakville Formation Mineral Resource Estimation Parameters

Horizon	Classification	Trend	Width	Area (ft ²)	Thickness (ft)	Grade (%U ₃ O ₈)	GT
		Length (ft)	(ft)				
Oakville North 20 Sand	Inferred	51,700	35	1,809,500	10	0.12	1.2
Oakville North 10 Sand	Inferred	11,300	35	395,500	10	0.12	1.2
Oakville Central 10 Sand	Indicated	5,800	35	203,000	10	0.12	1.2
Oakville Central 10 Sand	Inferred	17,800	35	623,000	10	0.12	1.2
Oakville Central 20 Sand	Inferred	105,800	35	3,703,000	10	0.12	1.2
Oakville Alta Vista 20 Sand	Inferred	12,400	35	434,000	10	0.12	1.2

14.3.10 Mesteña Grande - Goliad Formation

REDOX trends were defined in the Goliad Formation in the northern portion of Mesteña Grande. The interpreted REDOX trends are defined by approximately 50 drill holes. Mineralization is at depth ranging from 400 to 500 feet. Mineral resources for the Goliad are classified as inferred Mineral Resources and were estimated for the Goliad 10 and Goliad 20 sands.

Mineral resource estimation parameters for the Mesteña Grande, Goliad Formation, at a 0.30 GT cut-off are shown in Table 14-13.

Table 14-13 Mesteña Grande and Goliad Formation Mineral Resource Estimation Parameters

Horizon	Classification	Trend Length (ft)	Width (ft)	Area (ft ²)	Thickness (ft)	Grade (%U ₃ O ₈)	GT
Goliad 10 Sand	Inferred	32,800	35	1,148,000	10	0.12	1.2
Goliad 20 Sand	Inferred	27,400	35	959,000	10	0.12	1.2

14.3.11 El Sordo - Catahoula Formation

Mineralization in the El Sordo area is in the Catahoula Formation at depths ranging from 450 to 600 feet. The Catahoula Formation is described as primarily composed of volcanic ash-fall tuffs. Regionally, the Catahoula Formation is an important source rock for uranium. BRS reviewed the geophysical logs for the El Sordo area, and the mineralization is within well-developed sand units and BRS's opinion is that a reasonable prospect for economic extraction via ISR mining is feasible. Mineral resources at El Sordo are classified as inferred Mineral Resources based on the following assumptions:

- An average width of 35 feet was determined from GT contour estimates of PAA-4 and PAA-6, as discussed previously, and for the PAA-7 Mineral Resource area.
- An average GT value of 1.0 was derived from the average of all Alta Mesa data for all horizons (approximately 3,300 intercepts).
- A thickness of 10 feet was assumed.
- Trend lengths are defined by drilling.

Mineral resource estimation parameters for the El Sordo area, at a 0.30 GT cut-off are shown in Table 14-14.

Table 14-14 El Sordo- Catahoula Formation Mineral Resource Parameters

Horizon	Classification	Trend Length (ft)	Width (ft)	Area (ft ²)	Thickness (ft)	Grade (%U ₃ O ₈)	GT
Catahoula C-1	Inferred	8,769	35	306,915	10	0.10	1.0
Catahoula C-2	Inferred	10,509	35	367,815	10	0.10	1.0

14.4 Opinion of Adequacy

It is the opinion of the authors that the Mineral Resource procedures and calculations are suitable for the purposes of resource estimation under NI 43-101 requirements and S-K 1300 for roll-front uranium deposits mined by in-situ recovery methods.

14.5 Mineral Resource Figures and Drill Hole Locations

Figure 14-3 Alta Mesa Key Map

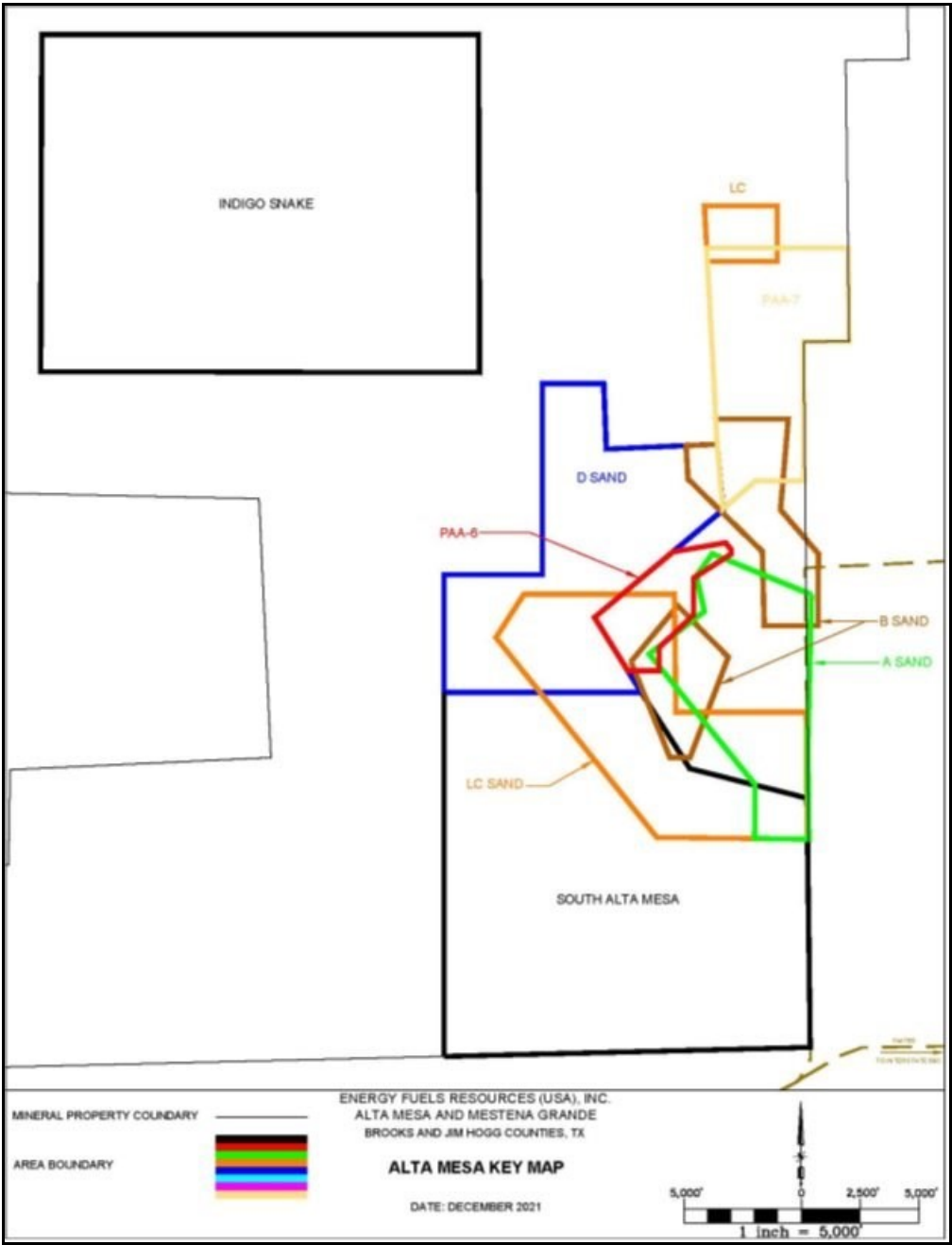


Figure 14-4 PAA7 LCU

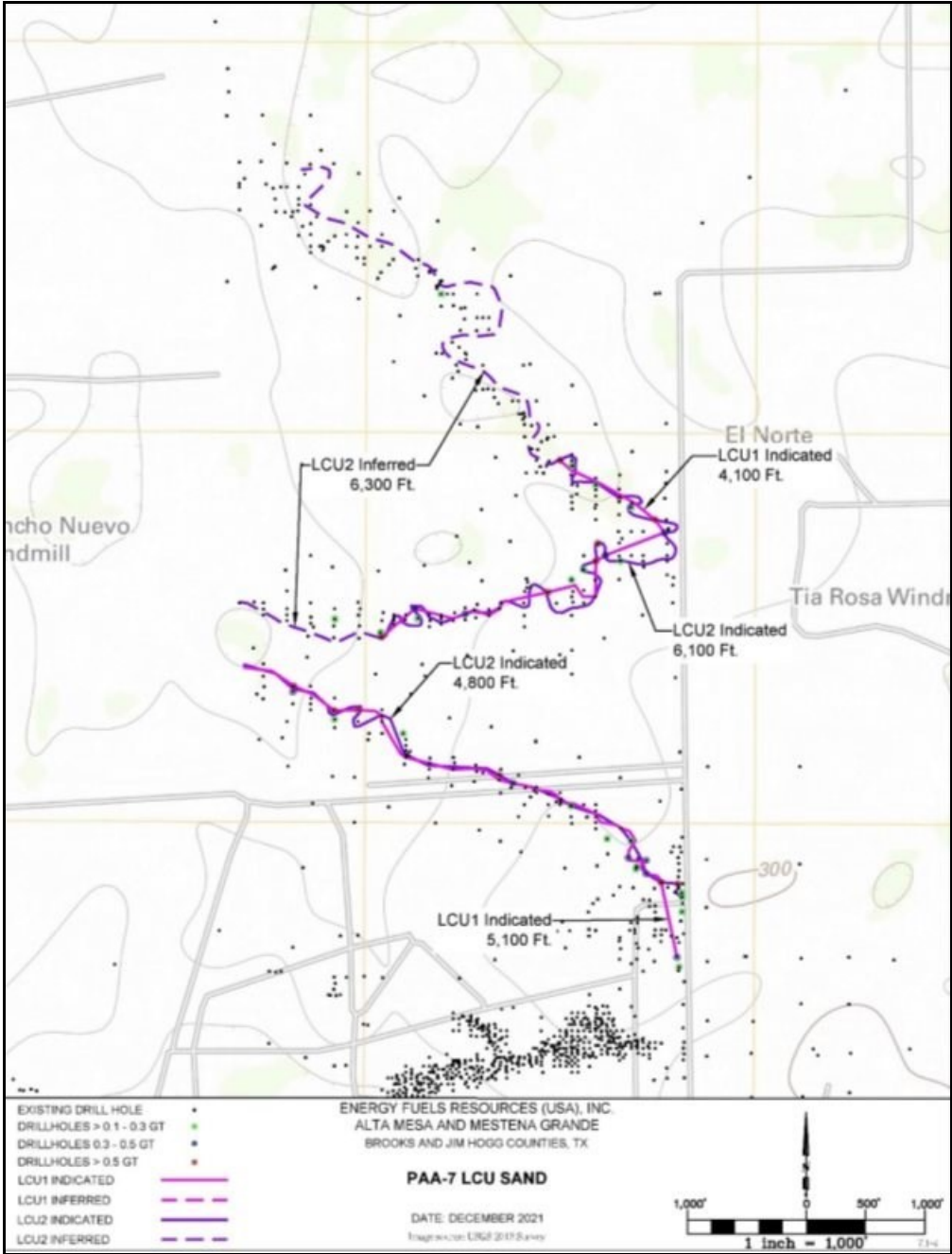


Figure 14-5 Paa7 LCL

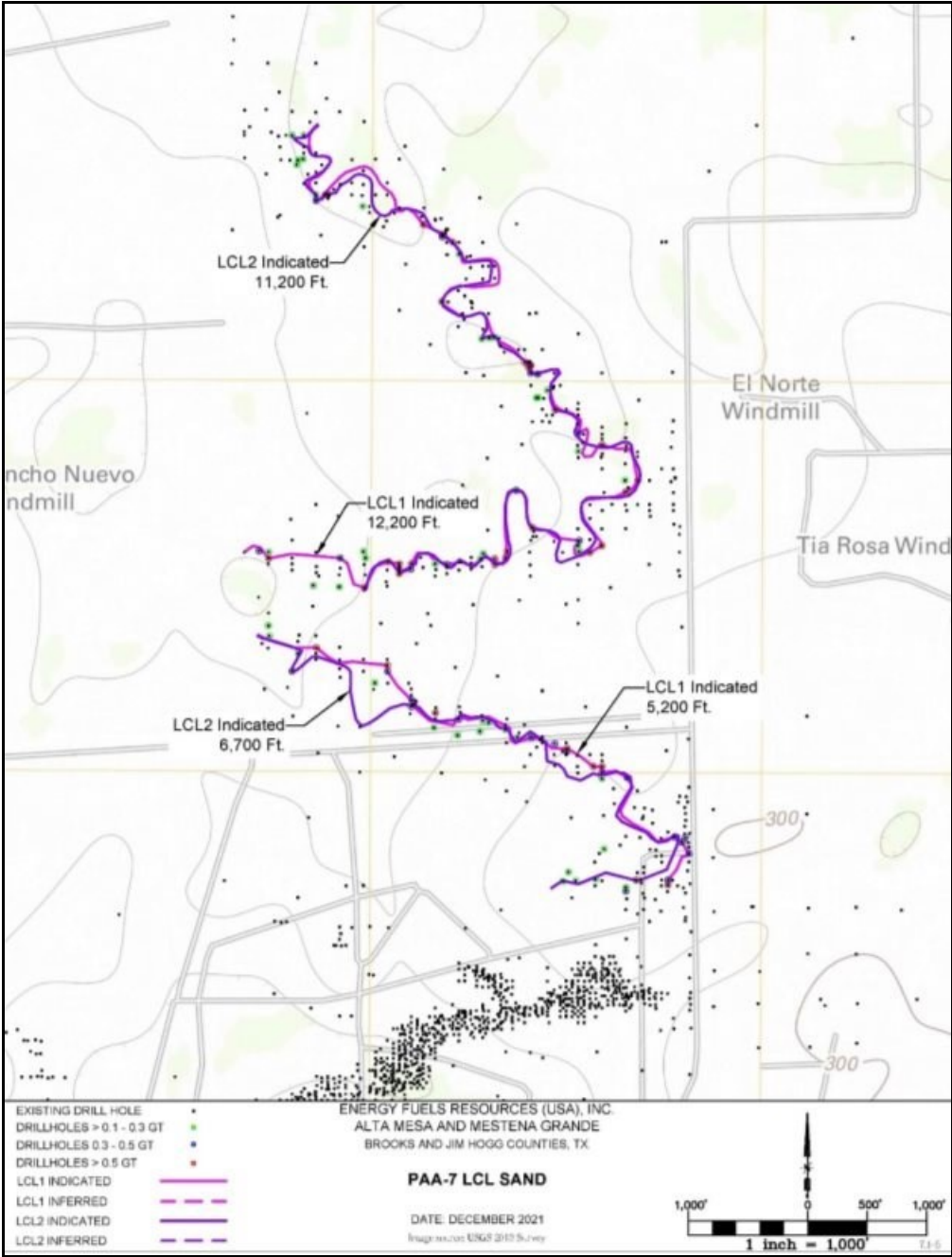


Figure 14-6 D Sand

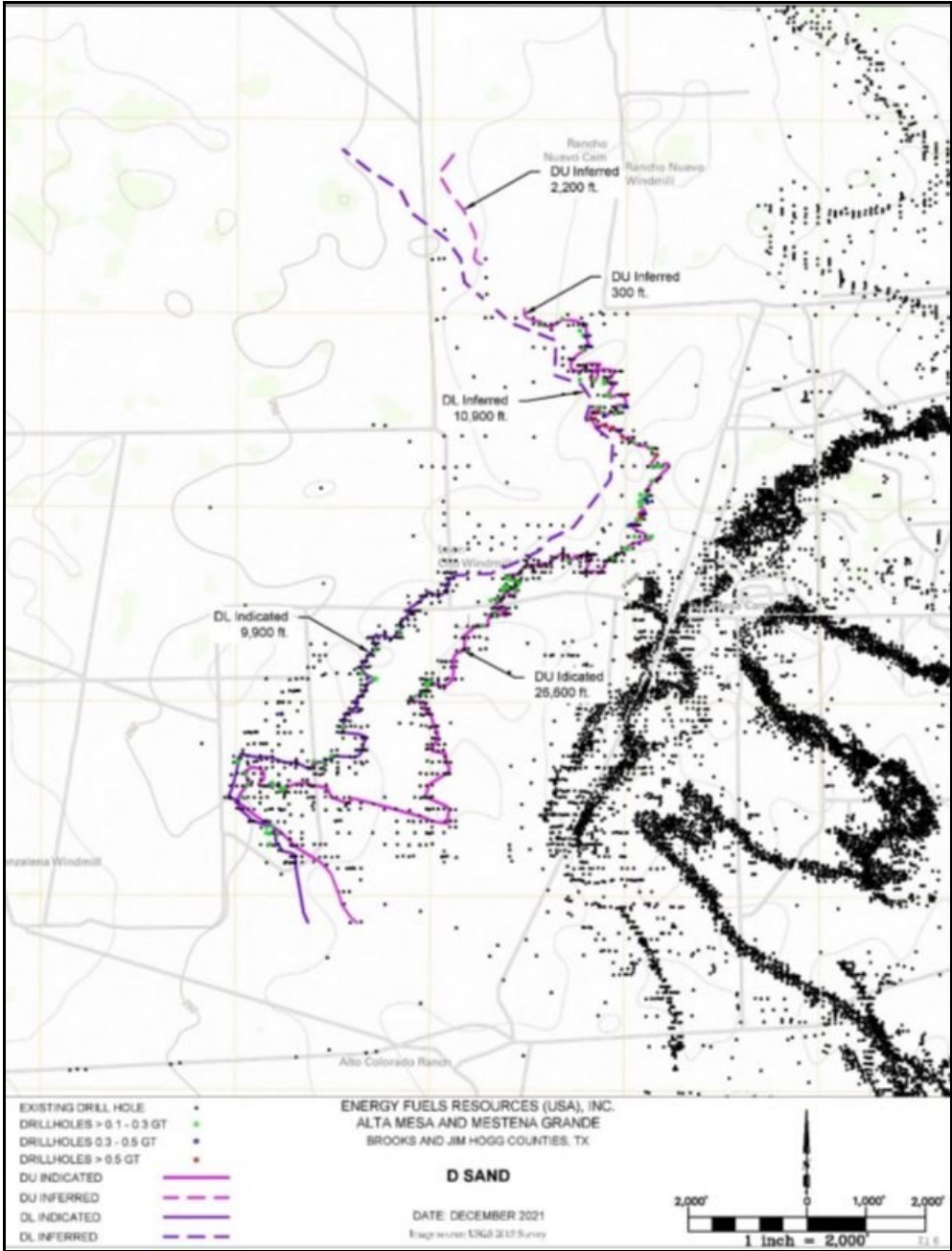


Figure 14-7 Western LC LCU and LCL

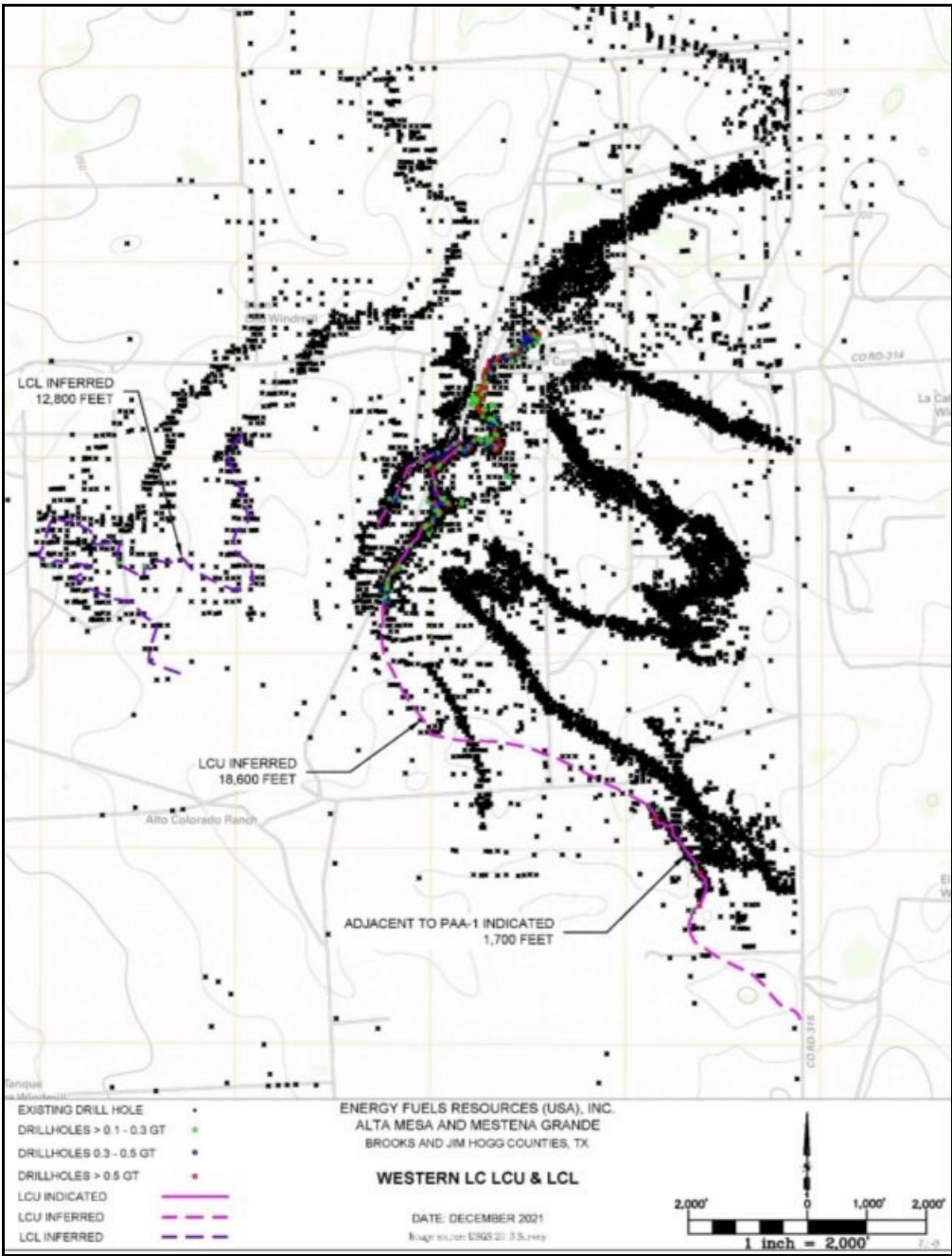


Figure 14-8 B Sand

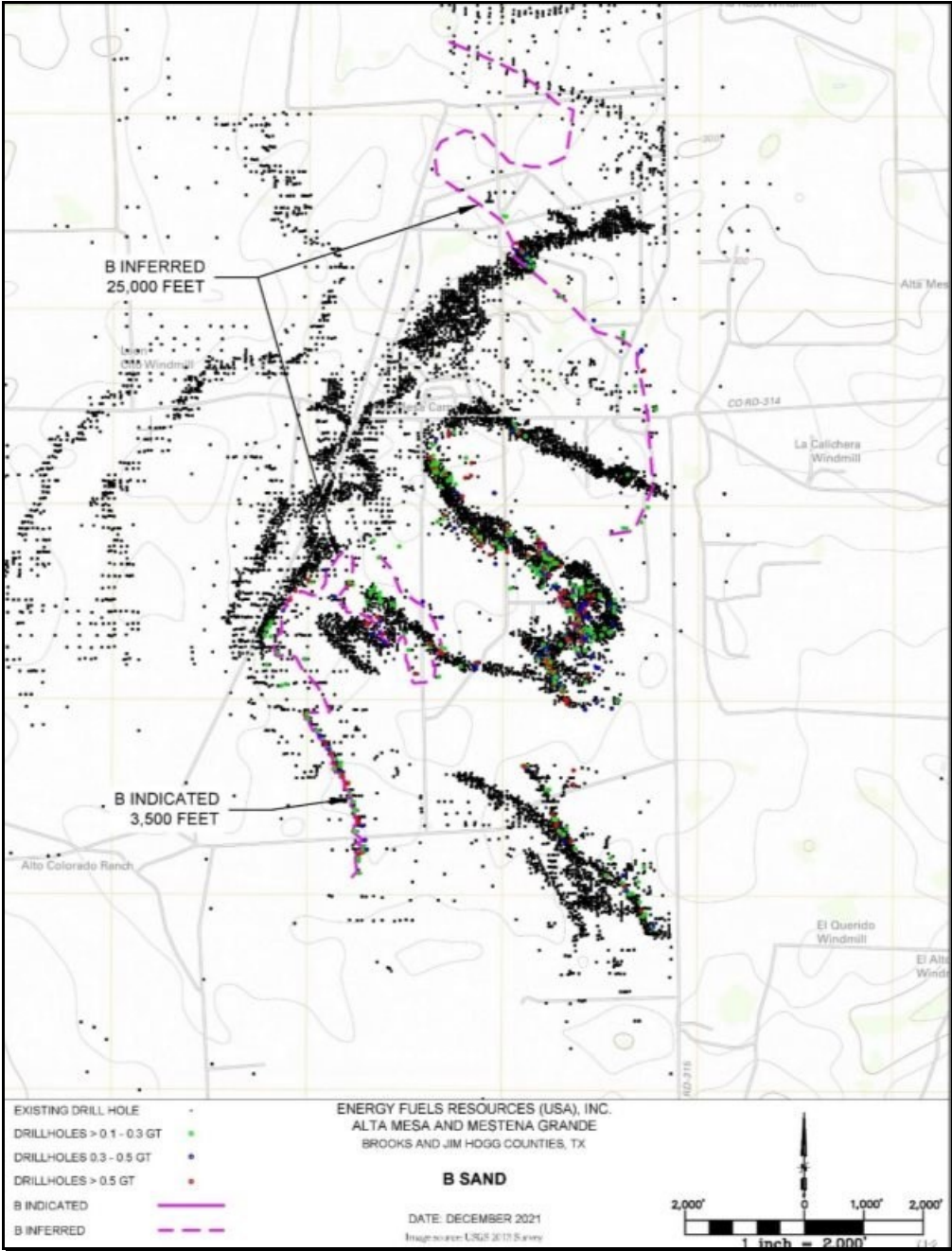


Figure 14-9 A Sand

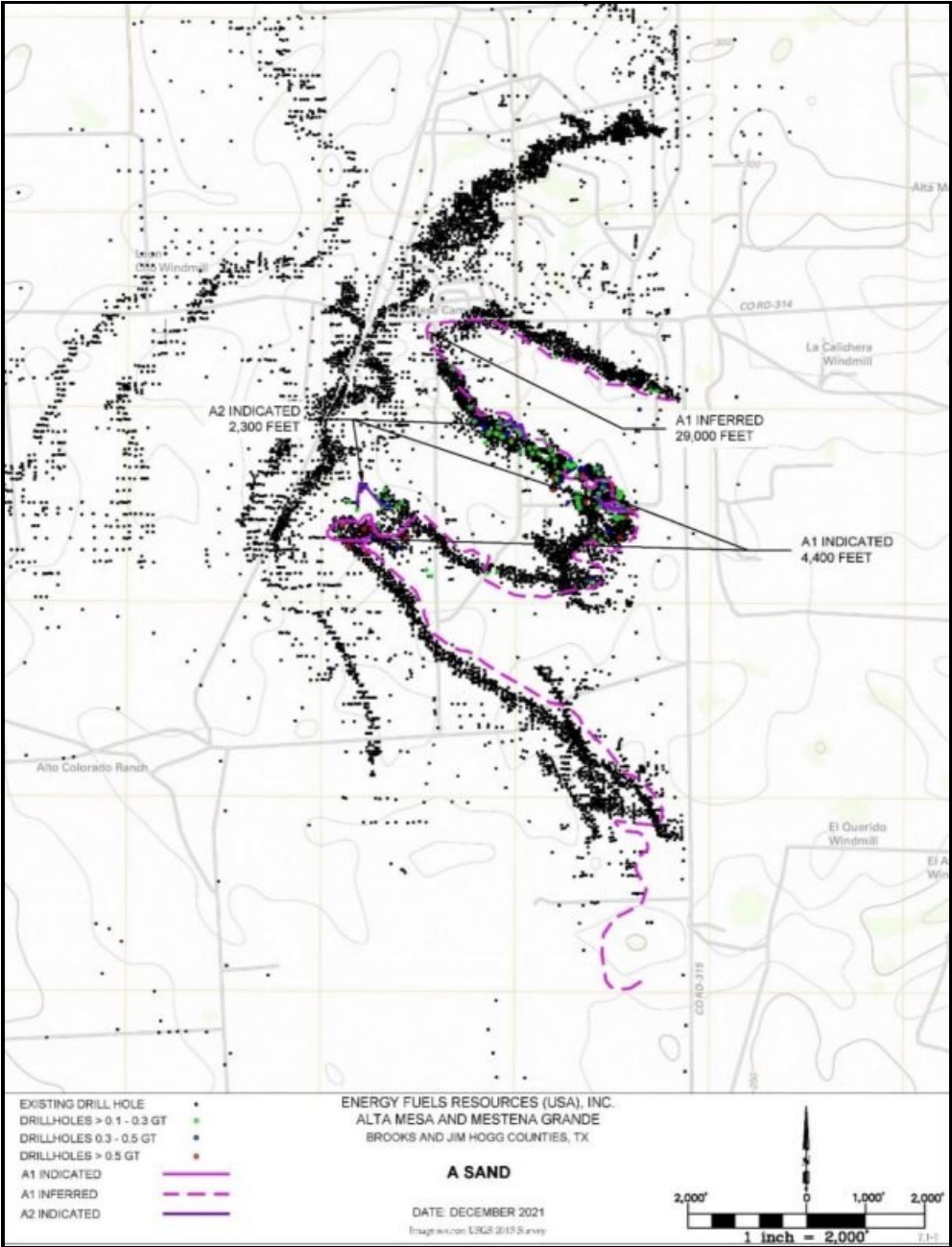


Figure 14-10 Sam and E Sand

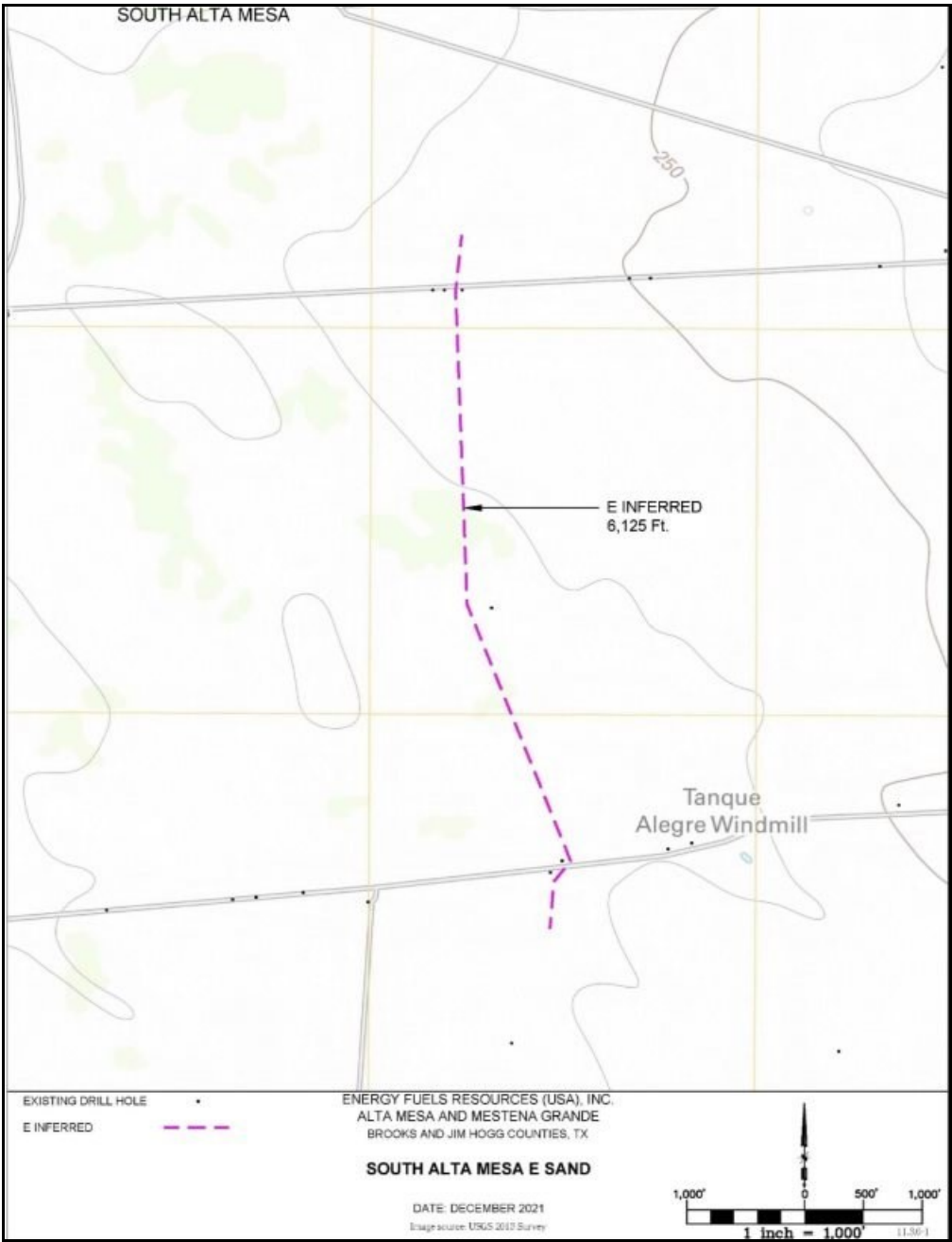


Figure 14-11 Mestena Grande Key Map

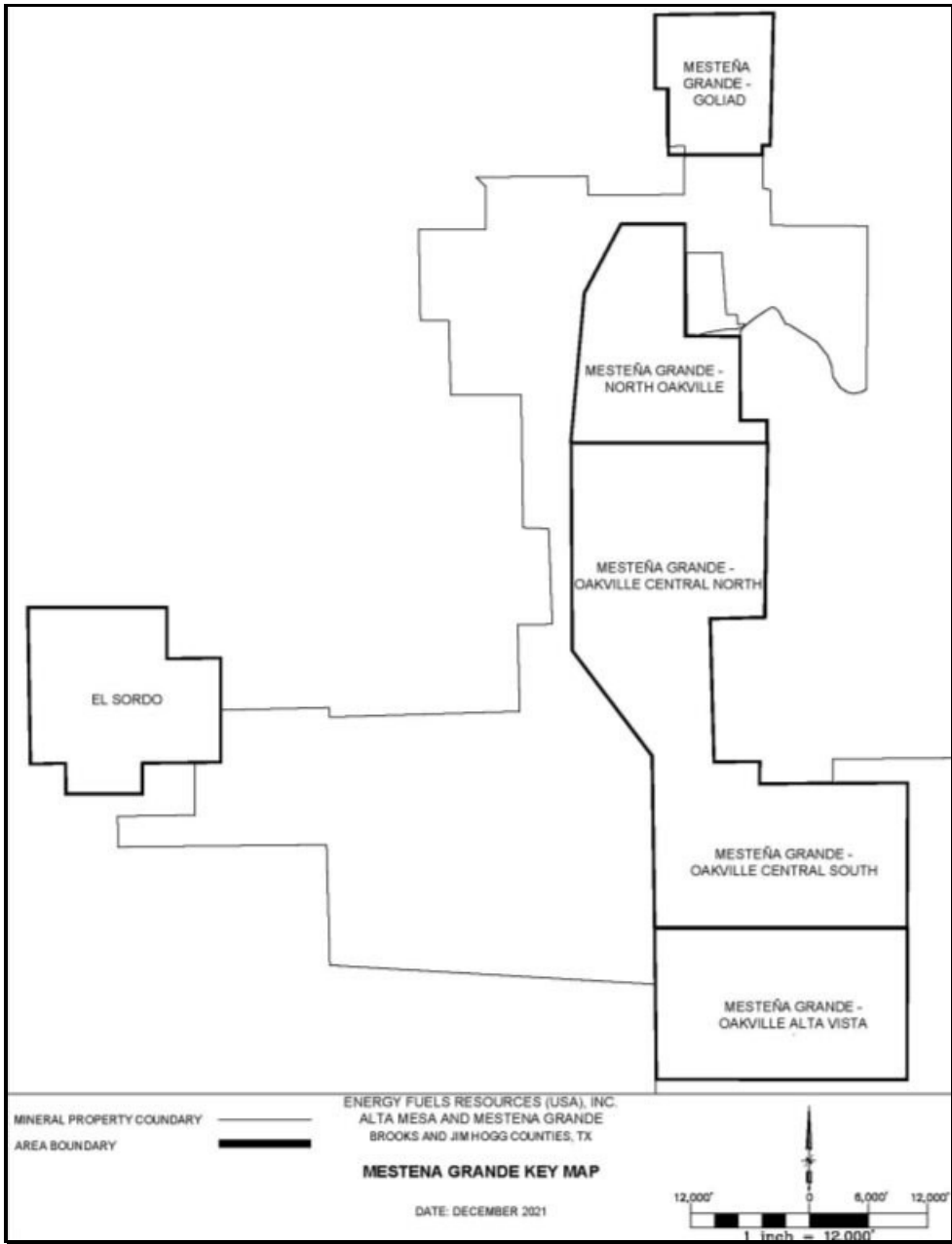


Figure 14-12 Oakville North

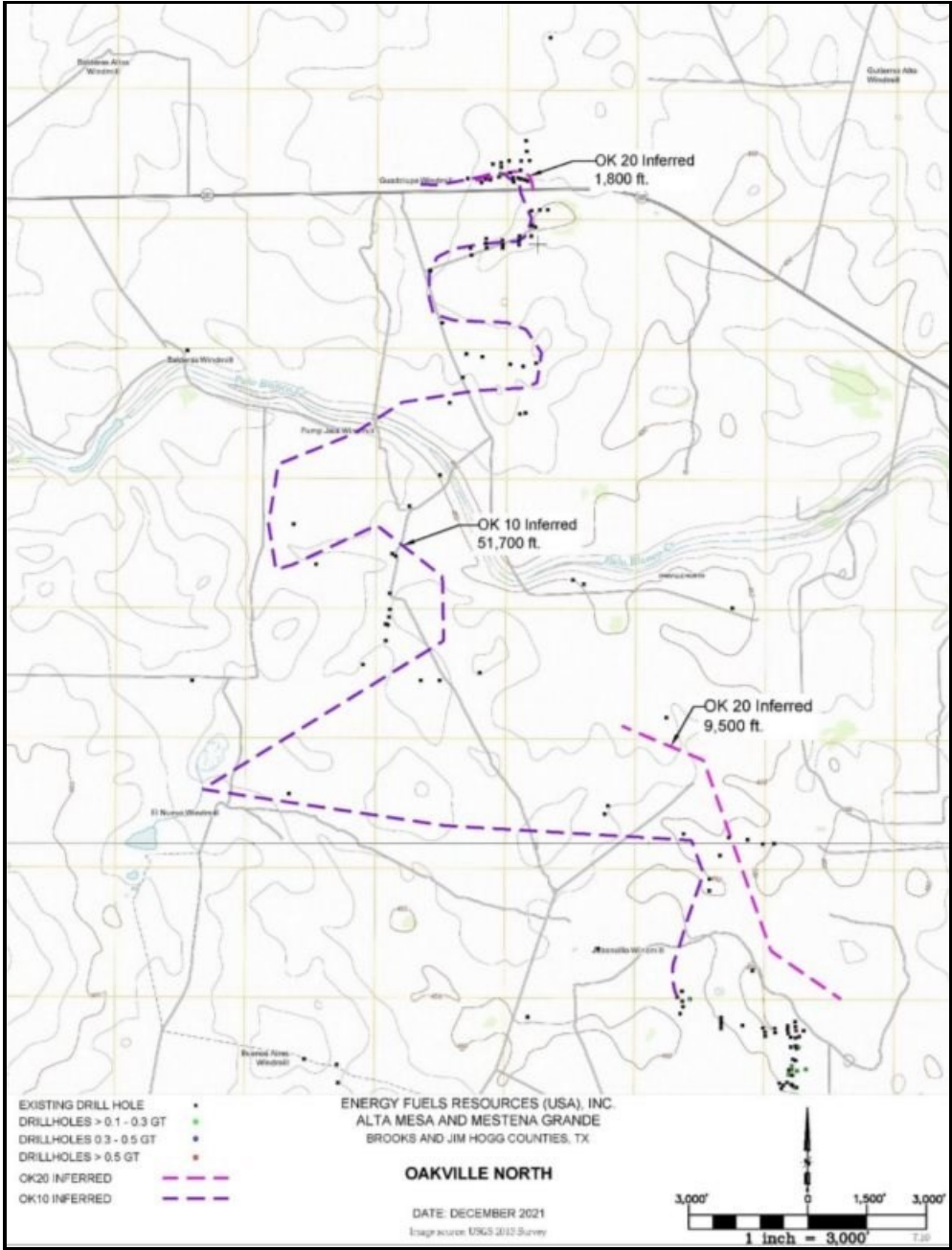


Figure 14-13 Oakville Central North

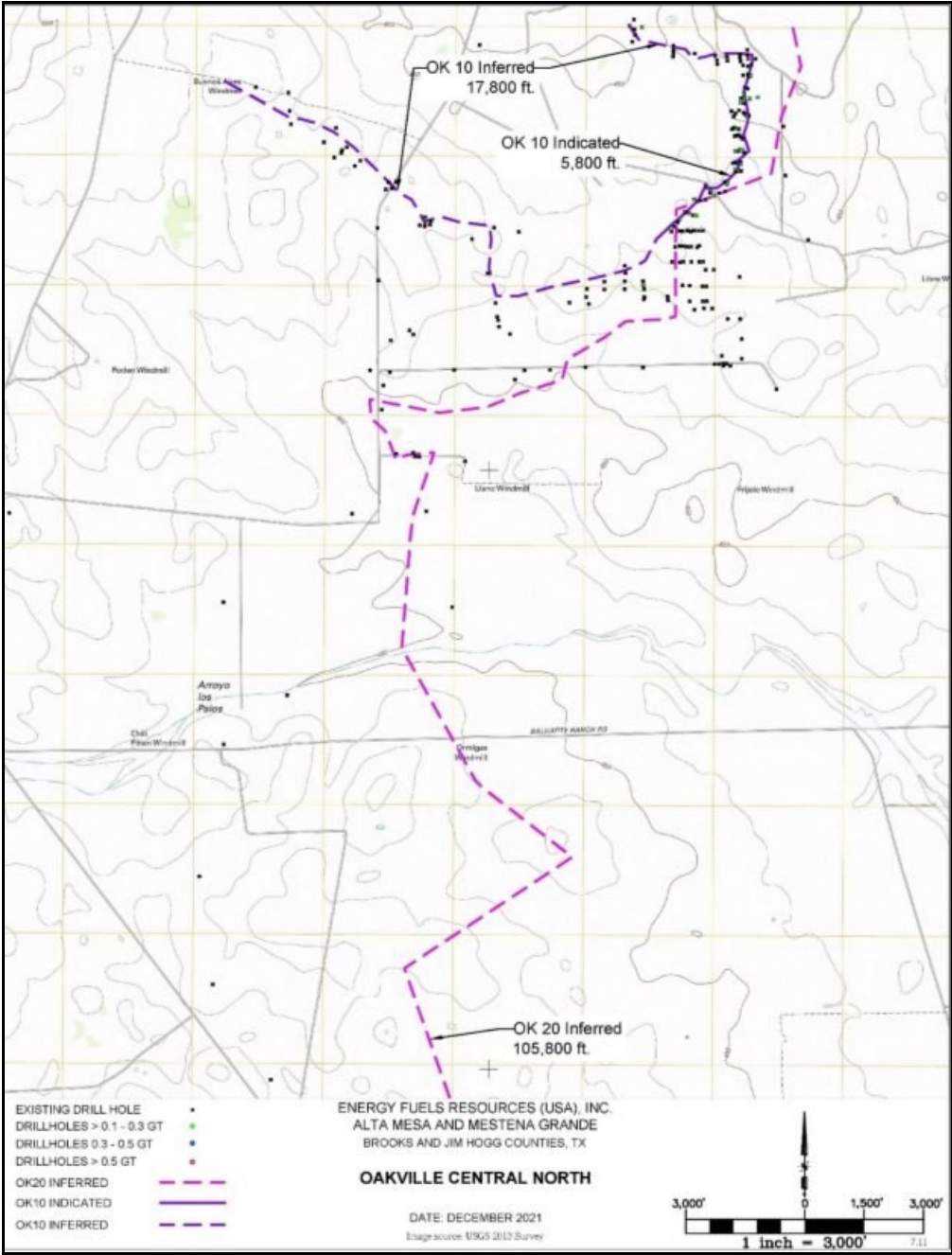


Figure 14-14 Oakville Central South

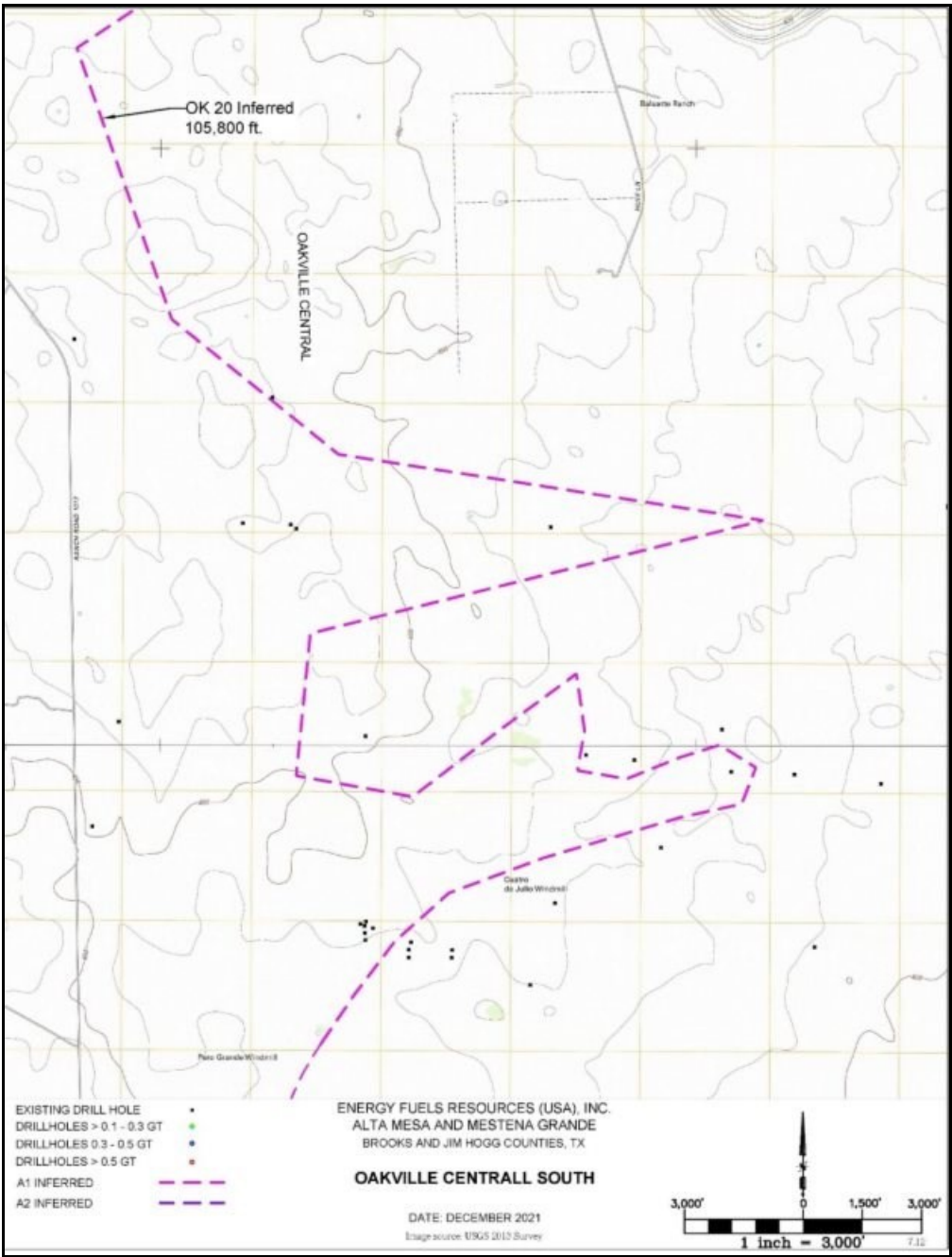


Figure 14-15 Alta Vista

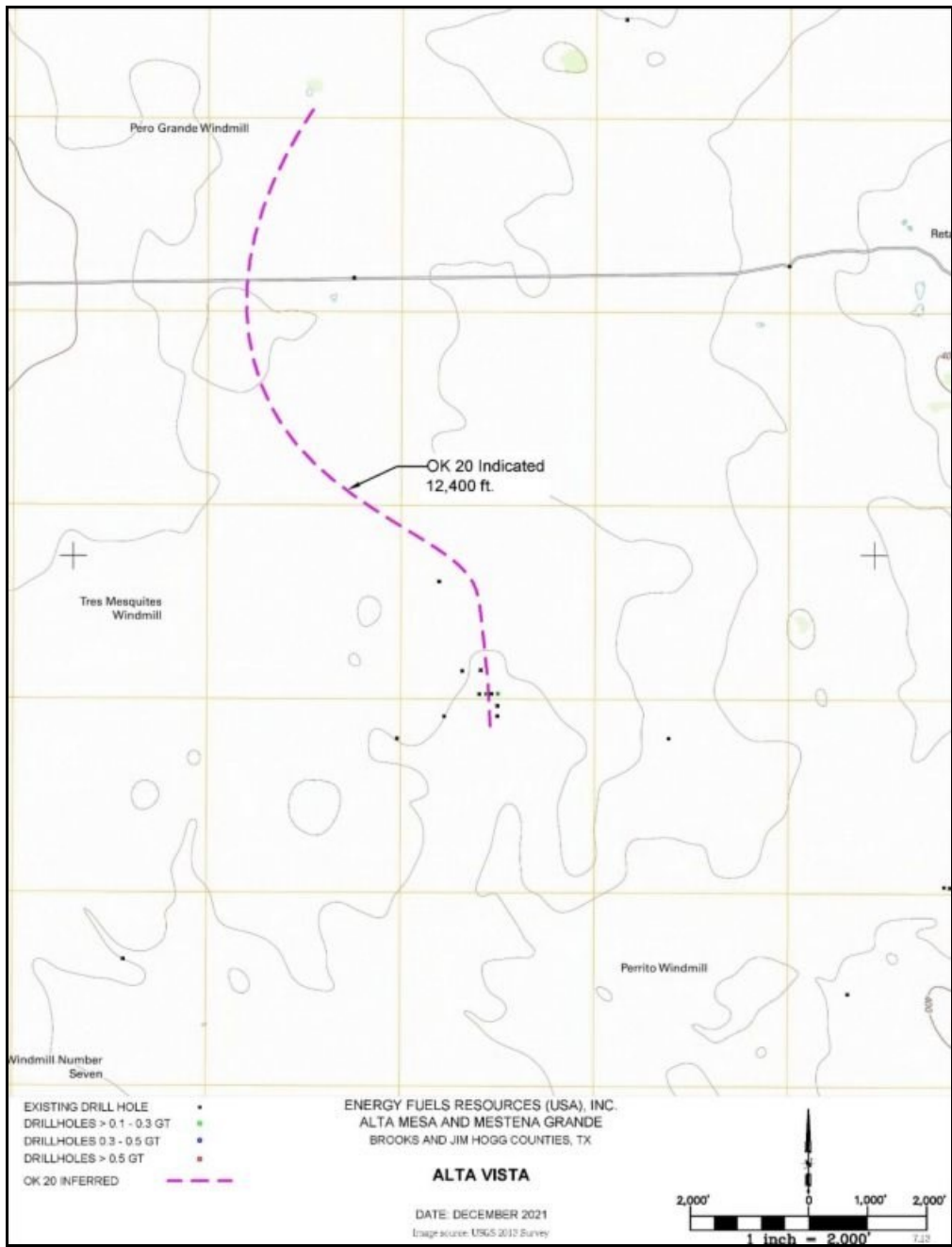
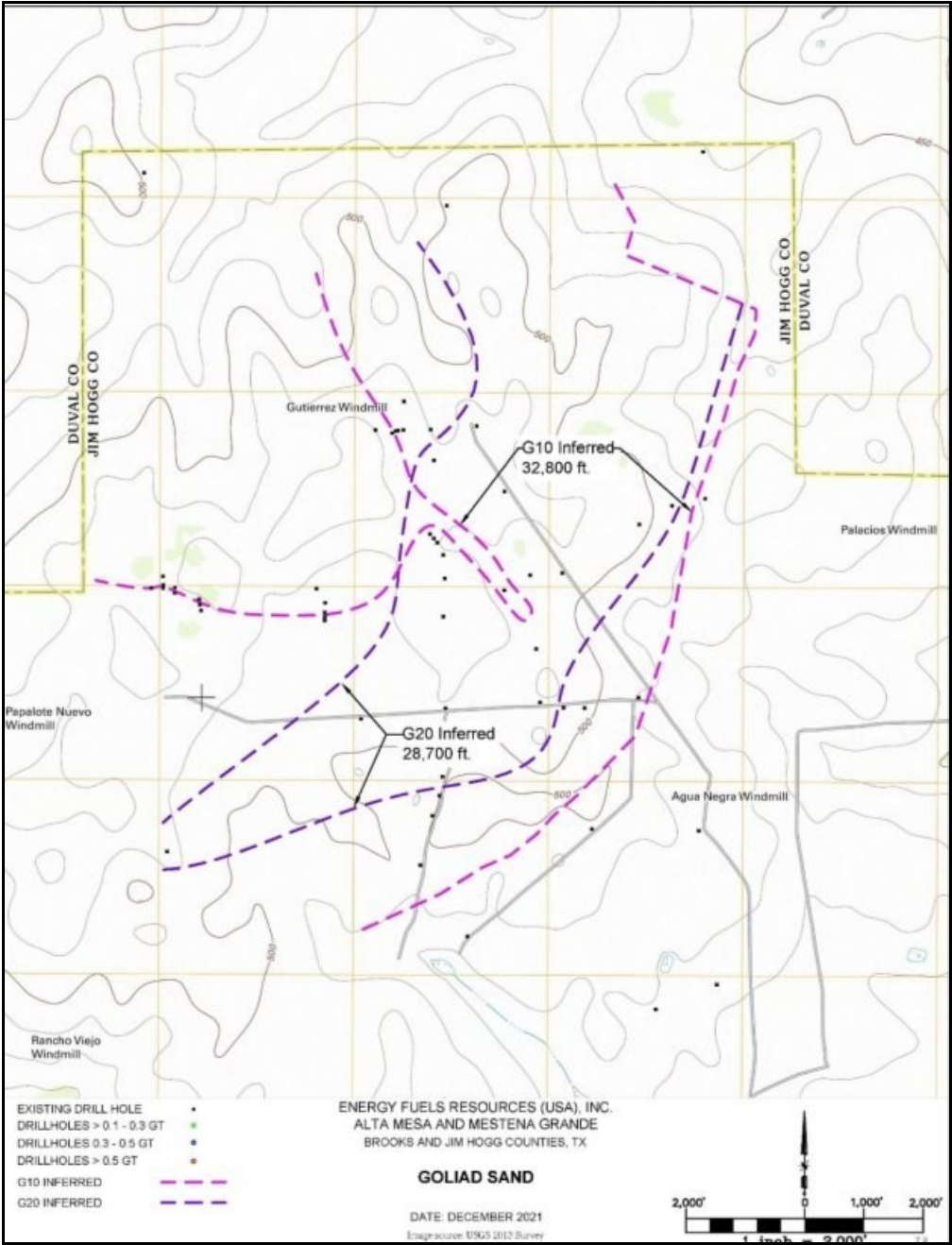


Figure 14-16 Goliad



15.0 MINERAL RESERVE ESTIMATES

There are no Mineral Reserves at the Alta Mesa or Mesteña Grande properties.

16.0 MINING METHODS

This section is not applicable to this Initial Assessment.

17.0 PROCESSING AND RECOVERY METHODS

This Section is not applicable to this Initial Assessment.

December 31, 2021

18.0 INFRASTRUCTURE

This Section is not applicable to this Initial Assessment.

19.0 MARKET STUDIES

This Section is not applicable to this Initial Assessment.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND PLANS, NEGOTIATIONS, OR AGREEMENTS WITH LOCAL INDIVIDUALS OR GROUPS

This Section is not applicable to this Initial Assessment.

21.0 CAPITAL AND OPERATING COSTS

This Section is not applicable to this Initial Assessment.

22.0 ECONOMIC ANALYSIS

This Section is not applicable to this Initial Assessment.

23.0 ADJACENT PROPERTIES

Several ISR mines lie within the South Texas Uranium Province.

23.1 Garcia Property

The mineralized trends in the Goliad Formation continue to the east onto properties not controlled by Alta Mesa LLC. Chevron conducted exploration drilling in the 1970's on the Garcia property, which is located immediately east of the Alta Mesa project. These exploration efforts identified the presence of several mineralized sands on the Garcia tract. Historical Mineral Resource estimates for this area range from 6.7 million to 9 million pounds.

Such estimates were prepared before the implementation of the SEC's S-K or Canada's NI 43-101 standards and do not necessarily use the categories for mineral reserve and Mineral Resource reporting as defined by those standards. The author considers this to be a historic Mineral Resource estimate and should not be relied upon. The authors of this report have not been unable to verify this information and this information is not necessarily indicative of the mineralization on the Project.

24.0 OTHER RELEVANT DATA AND INFORMATION

24.1 Hydrogeology

There has been no hydrologic study on the project site, however pump tests are completed on each well-field as part of the permit application.

24.2 Geotechnical

There has been no geotechnical study on the mineralized zones at Alta Mesa.

25.0 INTERPRETATION AND CONCLUSIONS

The Project is located within the South Texas Uranium Province and includes both the Alta mesa and Mesteña Grande project areas. Uranium mineralization occurs within known host formations common to the province which have been mined by conventional and ISR methods. Significant Mineral Resources remain within the Project area which may be tributary to the Alta Mesa central processing facility which is fully licensed and operated from 2005 producing approximately 4.6 million pounds of uranium oxide until production standby in February 2013.

Mineral resources have been estimated for both the Alta Mesa and Mesteña Grande areas in accordance with NI 43-101 and S-K 1300 standards and definitions as summarized in Table 1-1 and Table 14-1 and classified as measured, indicated, and inferred. Only the Alta Mesa property has had previous ISR mining. No pre-feasibility study or feasibility study has been completed in accordance with NI 43-101 or S-K 1300 requirements, thus no mineral reserves are stated in this report.

Table 25-1 Alta Mesa and Mesteña Grande Resource Summary

Classification	COG (G.T.)	Area	Tonnage	Grade (% U ₃ O ₈)	Contained Metal (lbs. U ₃ O ₈)
Measured	0.3	Alta Mesa	54,000	0.152	164,000
Total Measured	0.3		54,000	0.152	164,000
Indicated	0.3	Alta Mesa	1,397,000	0.106	2,959,000
	0.3	Mesteña Grande	119,000	0.120	287,000
Total Indicated	0.3		1,516,000	0.107	3,246,000
Total Measured & Indicated	0.3		1,570,000	0.109	3,410,000
Inferred	0.3	Alta Mesa	1,263,000	0.126	3,192,000
	0.3	Mesteña Grande	5,733,000	0.119	13,601,000
Total Inferred	0.3		6,996,000	0.120	16,793,000

Notes:

1. NI 43-101 and S-K 1300 definitions were followed for all Mineral Resource categories.
2. Mineral Resources are estimated at a 0.3 GT (0.02% U₃O₈ minimum)
3. Mineral Resources are estimated using a long-term Uranium price of US\$65 per pound
4. Total measured Mineral Resource is that portion of the in-place or in situ Mineral Resources that is estimated to be recoverable within existing well fields. Wellfield recovery factors have not been applied to indicated and inferred Mineral Resources
5. Bulk density is 0.0588 tons/ft³ (17.0 ft³/ton)
6. Mineral Resources are exclusive of Mineral Reserves and do not have demonstrated economic viability.
7. Numbers may not add due to rounding

Measured Mineral Resources are limited to fully delineated well fields in the Alta Mesa portion of the Project. While additional Mineral Resources may remain in additional well fields, only the remaining Mineral Resources in well field PAA-6 are considered to meet reasonable prospects for future economic extraction and are thus the only measured Mineral Resources included in the Mineral Resource summary.

Indicated and inferred Mineral Resources have been estimated for both the Alta Mesa and Mestena Grande portions of the project using minimum grade and GT cut-offs based on reasonable prospects for future economic extraction.

Mineral resources at Alta Mesa are near the existing Central Processing Facility. Future development and extraction of Mineral Resources at Mesteña Grande would require the design, permitting and construction of a satellite facility.

In addition to the estimated Mineral Resources, Exploration Targets have been defined in the South Alta Mesa area of the Alta Mesa Project. The Exploration Target for the Project estimated is summarized in Table 25-2.

Table 25-2 Project Total Exploration Target

Exploration Target	Low Range Estimate			High Range Estimate		
	Tons (000s)	Grade (%U₃O₈)	Pounds (000s)	Tons (000s)	Grade (%U₃O₈)	Pounds (000s)
Total	2,670	0.077	4,125	2,670	0.123	6,573

Note: The tonnages, grades, and contained pounds of uranium for exploration targets are estimates and could change as proposed exploration activities are completed. They should not be construed to reflect a calculated Mineral Resource (measured, indicated or inferred). The potential quantities and grades for exploration targets are conceptual in nature, as there has been insufficient work to date to define a NI 43-101 or S-K 1300 compliant resource. Furthermore, it is uncertain if additional exploration will result in any of the exploration targets being delineated as a Mineral Resource.

The authors consider the data and information available for this report to be accurate and reliable for the purposes of estimating Mineral Resources for the Project.

The authors feel the risks to put the Alta Mesa portion of the Project into production are low since all permits for operating including licenses to resume plant operations at the existing Alta Mesa ISR production facility. For each new wellfield a production area authorization (PAA) permit will need to be obtained through the permitting process with the TCEQ.

However, the Mesteña Grande portion of the Project, which will operate as a satellite facility to the Alta Mesa ISR facility, will require full permitting prior to production and operation of its well fields.

The Project does have some risks similar in nature to other mining projects in general and uranium mining projects specifically, including:

- Future commodity demand and pricing;
- Environmental and political acceptance of the project;
- Variance in capital and operating costs; and
- Mine and mineral processing recovery and dilution.

There is a risk that additional drilling may not locate additional Mineral Resources and that mineralization may not be found or may not be continuous along the REDOX boundary and that the actual grade times thickness (GT) along the trends will fall outside the estimated range, either higher or lower. A substantial portion of the Mineral Resource is based on wide-spaced drilling and has been classified as inferred. Inferred Mineral Resources are too speculative to have economic considerations applied to them which would enable them to be categorized as mineral reserves. Inferred Mineral Resources can be assessed in the context of a Initial Assessment study which is allowed under a Preliminary Economic Assessment in accordance NI 43-101 and S-K 1300 requirements. The tonnages, grades, and contained pounds of uranium, as stated in this report, for exploration targets should not be construed to reflect a calculated Mineral Resource (inferred, indicated, or measured). The potential quantities and grades for exploration targets, as stated in this report, are conceptual in nature, and there has been insufficient work to date to define an NI 43-101 or S-K 1300 compliant resource. Furthermore, it is uncertain if additional exploration will result in any of the exploration targets being delineated as a Mineral Resource.

The authors are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors which would materially affect the Mineral Resource estimates presented in this report. To the author's knowledge there are no other significant factors that may affect access, title, or the right or ability to perform work on the property provided the conditions of all mineral leases and options, and relevant operating permits and licenses, are met. The reader is cautioned that additional drilling may or may not result in discovery of an economic Mineral Resource on the property.

26.0 RECOMMENDATIONS

Recommendations which follow separately are for the restart of operations at the Alta Mesa Facility and continued exploration and delineation drilling. These recommendations are independent of one another.

26.1 Restart of operations at the Alta Mesa Facility:

The following recommendations presume the Alta Mesa Central Processing facility is to resume production under favorable market conditions. Under this scenario the following phased work program is recommended.

Phase 1 - Restart Alta Mesa Operations

- Updating of existing operating permits and licenses as necessary to authorize well field and plant operations.
- Rehabilitation and modernization of the Alta Mesa processing facility and rehabilitation of the PAA-6 wellfield to allow for resumption of production from PAA-6.
- Estimated cost: \$980,000

Phase 2 - Delineate PAA-7 to allow for start of production in PAA-7

- Advance well field delineation and initiate installation of initial wellfields to allow for production start-up at PAA-7 including.
 - PAA-7 Upper LCU1 indicated resource area
 - PAA-7 Upper LCU2 indicated resource area
 - PAA-7 Lower LCU1 indicated resource area
 - PAA-7 Lower LCU2 indicated resource area
- Estimated cost: \$12,000,000

Phase 3 - Complete exploration of Alta Mesa inferred Mineral Resource areas

Assumptions for the purposes of estimating the costs of drilling program assume that drilling will be completed across the trend on close spacing and along the trend at a greater spacing (referred to as fence drilling) and include:

- Drilling Inferred Mineral Resources to drill hole density of Indicated Mineral Resources
- Requires 5 holes per 200 feet of trend length
- Approximate 500-600 foot depth, \$5,000 per drill hole, approximately \$10 per foot
- Approximate 1,000-1,200 foot depth per drill hole, \$15,000 per drill hole, approximately \$15 per foot

Table 26-1 provides cost estimates each of the areas recommended for delineation drilling within the overall Alta Mesa project area.

Table 26-1 Cost Estimates to Elevate Inferred Mineral Resources to Measured and Indicated Mineral Resources

Inferred Zone	Number of Holes	Total Footage	Cost US\$ (\$000s)
Alta Mesa: LC Sand Inferred	580	23,256	\$2,900
D Sand Inferred	370	14,800	\$1,850
South Alta Mesa, A Sand Inferred	720	28,616	\$3,600
South Alta Mesa, B Sand Inferred	625	25,011	\$3,125
South Alta Mesa Inferred	150	6,125	\$2,250
Total \$US (rounded)			\$14,000

26.2 Exploration and delineation drilling:

Concurrent with or after Phase 3, continued exploration of the Mesteña Grande is recommended. This would include delineation drilling of the Oakville Central indicated resource area sufficiently to define the mineralization and complete sufficient geological, metallurgical, and hydrological studies to preliminarily assess the economics of future extraction. Presuming positive results, it is recommended that exploration of a sufficient portion of the Mesteña Grande inferred resources areas be conducted to define sufficient Mineral Resources to support a preliminary feasibility study for a satellite facility at Mesteña Grande. The estimated costs to complete the foregoing recommendations are summarized in Table 26-2.

Table 26-2 Cost Estimates to Elevate Inferred Mineral Resources to Measured and Indicated Mineral Resources

Inferred Zone	Cost (\$000s)
Mesteña Grande: Goliad and El Sordo Sands	\$9,900
Mesteña Grande: Oakville Sands	\$75,000
Total \$US (rounded)	\$85,000

It is also recommended that EFR conducts further exploration drilling to gain additional information about exploration targets to possibly upgrade these areas to Mineral Resources. Exploration targets have been defined primarily in the South Alta Mesa area of the Alta Mesa Project. The estimated costs to complete the foregoing recommendations are summarized in Table 26-3.

Table 26-3 summarizes the costs associated with additional drilling of the inferred Mineral Resources and Exploration Targets.

Table 26-3 Cost for Exploration Target Drilling to Elevate to Inferred Mineral Resources

Exploration Target	Cost (\$000s)
Alta Mesa: LC Sand	\$1,000
South Alta Mesa: E Sand	\$10,950
Indigo Snake	\$4,050
Total	\$16,000

The cost estimates for exploratory and delineation drilling assume that the entirety of each trend would need to be drilled including all holes along a fence. Drilling would likely begin in the most prospective locations and, assuming successful results, work away along trend. If drilling were unsuccessful, drilling would likely be curtailed. Also, if a drill hole penetrated the planned drill target along a fence, then the additional drill holes planned along that fence would not be needed. Conversely, if the planned drill target was not penetrated with the planned fence additional drilling may be required.

27.0 REFERENCES

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28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

DOUGLAS L. BEAHM

I, Douglas L. Beahm, P.E., P.G., do hereby certify that:

1. I am the Principal Engineer and President of BRS Engineering, Inc., 1130 Major Avenue, Riverton, Wyoming 82501.
2. I am a co-author of the report titled "Technical Report Summary for the Alta Mesa Uranium Project, Brooks and Jim Hogg counties, Texas, " and with an effective date of December 31, 2021.
3. I graduated with a Bachelor of Science degree in Geological Engineering from the Colorado School of Mines in 1974. I am a licensed Professional Engineer in Wyoming, Colorado, Utah, and Oregon; a licensed Professional Geologist in Wyoming; and Registered Member of the SME.
4. I have worked as an engineer and a geologist for 48 years. My work experience includes uranium exploration, mine production, and mine/mill decommissioning and reclamation. Specifically, I have worked with uranium projects hosted in similar sandstone environments throughout the Western US.
5. I was last present at the site from April 15 through April 17, 2014, after reviewing data at the Corpus Christi office of Mestefia Uranium on April 14, 2014.
6. I am responsible for Sections 11 and 12 and contributions to relevant portions of Sections 1, 2, 14 and Sections 23-27.
7. I am independent of the issuer applying all of the tests in NI 43-101. I have no financial interest in the property and am fully independent of Energy Fuels Inc. ("EFR"). I hold no stock, options or have any other form of financial connection to EFR. EFR is but one of many clients for whom I consult.
8. I do not have prior working experience on the project.
9. I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of my education, professional registration, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
10. I have read NI 43-101 and Form 43-101F1, and the Initial Assessment has been prepared in compliance with same.
11. As of the date of this report, to the best of my knowledge, information and belief, the parts of the Initial Assessment for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Initial Assessment not misleading.
12. I consent to the filing of this Initial Assessment with any stock exchange and other regulatory authority.

10 February 2022

Signed and Sealed Douglas L. Beahm,

Dated at Riverton, WY
February 10, 2022
Douglas L. Beahm, PE, PG
Registered Member SME

I, Travis P. Boam, P.G., do hereby certify that:

1. I am currently employed as a Senior Geologist at Energy Fuels Inc., 120 S Durbin St., Casper, Wyoming 82601.
2. I am a co-author of the report titled "Technical Report Summary for the Alta Mesa Uranium Project, Brooks and Jim Hogg counties, Texas," and with an effective date of December 31, 2021
3. I graduated with a Bachelor of Science degree in Geology from the University of Wyoming in 2008.
4. I am a Registered Professional Geologist in the State of Wyoming (PG-4011), and a Registered Professional Geologist in the State of Utah (12451970-2250). I have worked as a geologist for 14 years. My work experience for the purpose of this technical report includes:
 - a. Senior Geologist with Energy Fuels (USA) Inc. Since 2019 working on all aspects of ISR mine development: resource evaluation and estimation, data evaluation of Texas and Wyoming properties, planning and evaluating uranium sand hosted deposits for ISR amenability.
 - b. Project Geologist with Uranium One USA inc., Uranerz Energy Corporation, and Energy Fuels (USA) Inc. from 2011-2019 working on drilling programs, ISR wellfield planning and development, production and efficiency evaluations across the Powder River and Great Divide basins of Wyoming.
 - c. Geologist with Uranium One USA inc. from 2008 - 2011 working as a field geologist controlling field drilling activities, sample/core collection and evaluation.
5. I was last present at the site on the 4th of November 2019.
6. I am responsible for Sections 3 - 10 and 13, in addition to relevant portions of Section 1, 2, 14, and Sections 23-27 of this report.
7. I am an employee of the issuer, Energy Fuels (USA) Inc., and therefore am not independent of the issuer as described in section 1.5 of the Companion Policy 43-101 CP to the National Instrument 43-101.
8. I have read the definition of "qualified person" set out in National Instrument 43-101 and S-K 1300 regulations and certify that by reason of my education, professional registration, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101 and S-K 1300.
9. I have read NI 43-101 and Form 43-101F1, and the Initial Assessment has been prepared in compliance with same.
10. As of the date of this report, to the best of my knowledge, information and belief, the parts of the Initial Assessment for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Initial Assessment not misleading.

Dated this 10th day of February 2022

(Signed & Sealed) Travis P. Boam

Travis P. Boam, P.G.

*Dated at Casper, WY
February 10, 2022*