Energy Fuels Advancing Work to Prepare for Restart at Nichols Ranch Uranium Project in Wyoming

written by Raj Shah | September 11, 2024

Initial Pre-Production Drilling Intercepts Showing Stronger Mineralization than Anticipated

September 11, 2024 (Source) – Energy Fuels Inc. (NYSE American: UUUU) (TSX: EFR)**, ("Energy Fuels", "EFR" or the "Company")** an industry leader in uranium and rare earth elements production for the energy transition, today announced that its work to prepare for the restart of its Nichols Ranch in-situ recovery ("**ISR**") uranium mine 80 miles northeast of Casper, Wyoming in the Powder River Basin is advancing as planned, with initial pre-production drilling intercepts showing stronger mineralization than anticipated. The Company currently expects that the development of the remainder of its permitted Production Area 2 ("**PA2**") could be ready to commence production as early as July 1, 2025, with the start date based on market conditions.

Energy Fuels could quickly add uranium production from Nichols Ranch to its other operating conventional mines in Arizona and Utah. The Company also disclosed an additional uranium supply contract with a US nuclear energy utility in its Q2, 2024 quarterly report, continuing its commitment to the domestic uranium industry and demonstrating expanding offtake interest.

"We are very pleased with our progress to date in preparing

Nichols Ranch for a potential restart of production in 2025, and these significant drilling results are exceeding our expectations and further demonstrate the strength of this project," said Mark Chalmers, president and CEO of Energy Fuels Inc. "This puts us one step closer on the path to meeting our projections, increasing our market share of the nuclear fuel supply chain, and potentially expanding our uranium resources."

With a licensed annual capacity of two million pounds of uranium, the fully licensed, permitted and constructed Nichols Ranch ISR facility is a priority resource in the Company's development pipeline. To restart production, the Company is performing delineation drilling and, based on that delineation drilling, plans to advance new header houses and install new well-fields in its permitted PA2 area at the mine. In addition to this delineation drilling, the Company has been advancing the restart by overhauling the on-site deep disposal well earlier this year and making some capital improvements to the existing plant.

Dan Kapostasy, Vice President, Technical Services stated, "We recently drilled 39 out of the planned 125 delineation holes at Nichols Ranch, with five that significantly exceeded expectations and the rest consistent with anticipated results. As we continue our exploration, we will better identify the location of resources within the site to allow us to optimize wellfield design ahead of a final mining decision, anticipated by the end of the year."

Highlights

Pre-development drilling activities at PA2 at Nichols Ranch have completed 39 drill holes to date. All but four holes have uranium mineralization and five have encountered mineralization greater than 1.0 GT.

- **U36-17-595**
  - **14.0 ft at 0.322% eU_3O_8 = 4.50 GT**

- **U36-17-610**
  - **11.5 ft at 0.103% eU_3O_8 = 1.18 GT**
  - **6.0 ft at 1.523% eU_3O_8 = 9.14 GT**

- **U36-17-611**
  - **20.5 ft at 0.126% eU_3O_8 = 2.57 GT**
  - **7.5 ft at 0.351% eU_3O_8 = 2.64 GT**

- **U36-18-058**
  - **18.0 ft at 0.104% eU_3O_8 = 1.86 GT**

- **U36-18-061**
  - **8.0 ft at 0.198% eU_3O_8 = 1.59 GT**

The Company anticipates updating the Nichols Ranch Technical Report, which will include these significant drill intercepts, once the drilling campaign is completed later this year.

Following this drilling campaign, the Company intends to drill approximately 152 holes on its Collins Draw area, a southeastern extension of its Jane Dough mineralized trend located in Sections 35 and 36, T43N, R76W, and Sections 1, 2 & 12, T42N, R76W, Campbell County, Wyoming. Once complete, these holes, along with historical holes drilled by Cleveland Cliffs and American Nuclear will be used to estimate an NI 43-101/S-K 1300 compliant mineral resource, which would be added to the existing mineral resource at the Nichols Ranch Project.

Technical Details

The current mineral resource estimate for the Nichols Ranch area (including the Jane Dough, Hank and North Rolling Pin areas, but excluding Collins Draw) of the Nichols Ranch Complex is given below, and details can be found in the *Technical Report on the Nichols Ranch Project, Campbell and Johnson Counties, Wyoming USA* dated February 22, 2022 and effective December 31,2021, as amended February 8, 2023, and prepared by Grant A. Malensek, M. Eng., P. Eng., Mark Mathisen, C.P.G., Jeremy Scott Collyard, PMP, MMSA QP, each a Qualified Person employed by SLR, Jeffrey L. Woods, MMSA QP, a Qualified Person employed by Woods Process Services, and Phillip E. Brown, C.P.G., R.P.G., a Qualified Person employed by Consultants In Hydrogeology (the "**Nichols Ranch Technical Report Summary**").

Current Nichols Ranch Project Mineral Resource Estimate – Effective December 31, 2021

Classification	Project Area	Sand	Tonnage (tons)	Grade (%eU_3O_8)	Contained Metal (lb U_3O_8)	EFR Attrib. Basis	EFR Attrib. lbs U_3O_8	Recovery (%)
Measured	Nichols Ranch	A	11,000	0.187	41,140	100 %	41,140	71.0
Total Measured			**11,000**	**0.187**	**41,140**	**100 %**	**41,140**	**71.0**
Indicated	Nichols Ranch	A	359,000	0.166	1,189,693	100 %	1,189,693	60.4
	Jane Dough	A	1,892,000	0.112	4,237,000	81 %	3,431,970	60.4
	Hank	F	450,000	0.095	855,000	100 %	855,000	60.4
	North Rolling Pin	F	582,000	0.057	665,000	100 %	665,000	60.4
Total Indicated			**3,283,000**	**0.106**	**6,946,643**	**88.4 %**	**6,141,663**	**60.4**
Total Measured + Indicated			**3,294,000**	**0.106**	**6,997,833**	**88.5 %**	**6,182,803**	**60.4**

Inferred	Jane Dough	A	188,000	0.112	420,000	81 %	340,200	60.4
	Hank	F	423,000	0.095	803,000	100 %	803,000	60.4
	North Rolling Pin	F	39,000	0.042	33,000	100 %	33,000	60.4
Total Inferred			**650,000**	**0.097**	**1,256,000**	**93.6 %**	**1,176,200**	**60.4**

Notes:

1.	SEC S-K 1300 definitions were followed for all Mineral Resource categories. These definitions are also consistent with CIM (2014) definitions in NI 43-101.
2.	Measured Mineral Resource includes reduction for production through December 31, 2021.
3.	Mineral Resources are 100% attributable to EFR for Nichols Ranch, Hank, and North Rolling Pin, and are in situ. Mineral Resource estimates are based on a GT cut-off of 0.20 %-ft.
4.	Mineral Resources are 81% attributable to EFR and 19% attributable to United Nuclear Corp in parts of Jane Dough, and are in situ.
5.	Mineral Resource estimates are based on a GT cut-off of 0.20 %-ft
6.	The cut-off grade is calculated using a metal price of \$65/lb U_3O_8, operating costs of \$19.28/lb U_3O_8, and 60.4% recovery (based on 71% process recovery and 85% under wellfield).
7.	Mineral Resources are based on a tonnage factor of 15.0 ft^3/ton (Bulk density 0.0667 ton/ft^3 or 2.13 t/m_3).
8.	Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9.	Numbers may not add due to rounding.

Hole ID	From (ft)	To (ft)	Thickness (ft)	%eU$_3$O$_8$	Grade x Thickness (GT)
U36-17-594	565.0	568.0	3.0	0.149	0.45
U36-17-595	567.5	575.5	7.0	0.071	0.50
	585.0	598.0	14.0	0.322	4.50
U36-17-596	Uranium Mineralization				
U36-17-597	Uranium Mineralization				
U36-17-598	Uranium Mineralization				
U36-17-599	Uranium Mineralization				
U36-17-600	Not Drilled				
U36-17-601	Uranium Mineralization				
U36-17-602	Uranium Mineralization				
U36-17-603	Uranium Mineralization				
U36-17-604	Uranium Mineralization				
U36-17-605	537.5	543.5	6.0	0.099	0.59
U36-17-606	Uranium Mineralization				
U36-17-607	Uranium Mineralization				
U36-17-608	Uranium Mineralization				
U36-17-609	574.0	576.0	2.0	0.179	0.38
U36-17-610	488.0	499.5	11.5	0.103	1.18
	557.0	563.0	6.0	1.523	9.14
U36-17-611	555.5	576.0	20.5	0.126	2.57
	586.0	593.5	7.5	0.351	2.64
U36-17-612	Uranium Mineralization				
U36-17-613	Uranium Mineralization				
U36-17-614	Uranium Mineralization				

U36-17-615	Uranium Mineralization				
U36-17-616	Uranium Mineralization				
U36-17-617	615.5	619.0	3.5	0.110	0.39
U36-17-618	Uranium Mineralization				
U36-17-619	423.0	427.0	4.0	0.136	0.54
U36-17-620	Uranium Mineralization				
U36-17-621	Uranium Mineralization				
U36-17-622	544.5	548.0	3.5	0.153	0.54
U36-17-623	Uranium Mineralization				
U36-17-624	478.0	483.0	5.0	0.117	0.59
U36-17-625	Barren				
U36-18-057	Uranium Mineralization				
U36-18-058	581.5	599.5	18.0	0.104	1.86
	603.0	613.5	10.5	0.069	0.73
U36-18-059	Barren				
U36-18-060	Barren				
U36-18-061	637.5	645.5	8.0	0.198	1.59
U36-18-062	Barren				
U36-18-063	Uranium Mineralization				
U36-18-064	627.0	635.5	8.5	0.097	0.82

All grades reported in this press release are “equivalent” eU_3O_8 grades as they were calculated from calibrated downhole gamma logging of the drill holes. The downhole probe was calibrated at the U.S. Department of Energy test pits located in Casper, Wyoming by Energy Fuels staff and verified on site by Century Geophysical Corporation. All drill holes reported are vertical and were verified as vertical using downhole deviation logging. All thicknesses reported are true thicknesses.

Qualified Person Statement

The scientific and technical information disclosed in this news release was reviewed and approved by Daniel D. Kapostasy, PG, Registered Member SME and Vice President, Technical Services for the Company, who is a "Qualified Person" as defined in S-K 1300 and National Instrument 43-101.

About Energy Fuels

*Energy Fuels is a leading US-based critical minerals company. The Company, as a leading producer of uranium in the United States, mines uranium and produces natural uranium concentrates that are sold to major nuclear utilities for the production of carbon-free nuclear energy. Energy Fuels recently began production of advanced rare earth element ("**REE**") materials, including mixed REE carbonate in 2021, and commenced production of commercial quantities of separated REEs in 2024. Energy Fuels also produces vanadium from certain of its projects, as market conditions warrant, and is evaluating the recovery of radionuclides needed for emerging cancer treatments. Its corporate offices are in Lakewood, Colorado, near Denver, and substantially all its assets and employees are in the United States. Energy Fuels holds two of America's key uranium production centers: the White Mesa Mill in Utah and the Nichols Ranch in-situ recovery ("**ISR**") Project in Wyoming. The White Mesa Mill is the only conventional uranium mill operating in the US today, has a licensed capacity of over 8 million pounds of U_3O_8 per year, and has the ability to produce vanadium when market conditions warrant, as well as REE products, from various uranium-bearing ores. The Nichols Ranch ISR Project is on standby and has a licensed capacity of 2 million pounds of U_3O_8 per year. The Company recently acquired the Bahia Project in Brazil and entered into a joint venture agreement to develop the Donald Project in Australia, each of which is believed to have significant quantities of titanium (ilmenite and rutile),*

zirconium (zircon) and REE (monazite) minerals. In addition to the above production facilities, Energy Fuels also has one of the largest NI 43-101 compliant uranium resource portfolios in the US and several uranium and uranium/vanadium mining projects on standby and in various stages of permitting and development. The primary trading market for Energy Fuels' common shares is the NYSE American under the trading symbol "UUUU," and the Company's common shares are also listed on the Toronto Stock Exchange under the trading symbol "EFR." Energy Fuels' website is www.energyfuels.com.

Cautionary Note Regarding Forward-Looking Statements

This news release contains certain "Forward Looking Information" and "Forward Looking Statements" within the meaning of applicable United States and Canadian securities legislation, which may include, but are not limited to, statements with respect to: any expectation that the Company will maintain its position as a leading U.S.-based critical minerals company or as a leading producer of uranium in the U.S.; any expectation with respect to timelines to production; any expectation as to rates or quantities of production; any expectation that the development of the remainder of PA2 could be ready to commence production as early as July 1, 2025, based on market conditions; any expectation that the Company's progress to date and/or delineation drilling results to date puts the Company one step closer on the path to meeting its projections, increasing its market share of the nuclear fuel supply chain, and/or potentially expanding its uranium resources; any expectation that the Company anticipates updating the Nichols Ranch Technical Report; any expectation that, following the current delineation drilling campaign, the Company will drill approximately 152 holes to convert the historic resource at the Collins Draw area to a current NI 43-101/S-K 1300 mineral resource, or that any such mineral resource would be added to

the mineral resource at the Nichols Ranch Project; any expectation that the Company's evaluation of radioisotope recovery at the Mill will be successful; and any expectation as to the accuracy of mineral resource estimates or that any mineral resources will actually be mined. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans," "expects," "does not expect," "is expected," "is likely," "budgets," "scheduled," "estimates," "forecasts," "intends," "anticipates," "does not anticipate," or "believes," or variations of such words and phrases, or state that certain actions, events or results "may," "could," "would," "might" or "will be taken," "occur," "be achieved" or "have the potential to." All statements, other than statements of historical fact, herein are considered to be forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements express or implied by the forward-looking statements. Factors that could cause actual results to differ materially from those anticipated in these forward-looking statements include risks associated with: commodity prices and price fluctuations; engineering, construction, processing and mining difficulties, upsets and delays; permitting and licensing requirements and delays; changes to regulatory requirements; legal challenges; the availability of feed sources for the Mill; competition from other producers; public opinion; government and political actions; market factors; market prices and demand for uranium; and the other factors described under the caption "Risk Factors" in the Company's most recently filed Annual Report on Form 10-K, which is available for review on EDGAR at www.sec.gov/edgar, on SEDAR+ at www.sedarplus.ca, and on the Company's website at www.energyfuels.com. Forward-looking statements contained

herein are made as of the date of this news release, and the Company disclaims, other than as required by law, any obligation to update any forward-looking statements whether as a result of new information, results, future events, circumstances, or if management's estimates or opinions should change, or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements. The Company assumes no obligation to update the information in this communication, except as otherwise required by law.