



NEWS RELEASE
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Nuclear Fuels Announces the Discovery of New Mineralized Zones at the Kaycee Uranium Project

VANCOUVER, British Columbia – January 29, 2025 – Nuclear Fuels Inc. (CSE:NF | OTCQX:NFUNF) (“Nuclear Fuels” or the “Company”) announced today the discovery of two new zones of roll front-hosted uranium mineralization at the Kaycee In-Situ Recovery (“ISR”) Uranium Project (the “Project”) in Wyoming’s Powder River Basin (“PRB”). Drill testing of regional targets on the Project encountered mineralization at the newly discovered Outpost and Trail Dust Zones, including 0.082% eU₃O₈ (uranium) over 6.5 feet for a total hole Grade Thickness (“GT”) of 0.532. In the PRB, potentially ISR-recoverable uranium mineralization with a GT of greater than 0.20 is considered suitable for inclusion in a potential wellfield. Follow up delineation drilling of these two new zones is planned for May 2025. In addition, Nuclear Fuels announces the Company has been added to the Sprott Junior Uranium Miners ETF.

Specific Highlights Include:

- At the Outpost Zone, drill hole LT24_050 returned 0.082% eU₃O₈ over 6.5 feet for a total GT of 0.532, beginning at a downhole depth of 767.0 feet; the best result to date in the Kaycee Project’s regional exploration program. The roll front trend remains open and will be a primary focus when drilling resumes;
- At the Trail Dust Zone, located approximately 1.5 miles to the north of the Outpost Zone, drill hole LT24_037 returned 0.0553% eU₃O₈ over 5.5 feet for a total hole GT of 0.304, beginning at a downhole depth of 886.0 feet;
- Drill hole LT24_004 was drilled approximately two miles to the southeast of holes LT24_037 and returned 0.029% eU₃O₈ over 3.0 feet for a total hole GT of 0.086. While lower grade than the other Trail Dust Zone holes located to the northwest, initial geological interpretation suggests the mineralization intersected in hole LT24_004 may represent the same roll front trend and testing of the approximately two-mile distance between these intercepts for additional zones of high grade mineralization will be a priority for the 2025 drill program.

To view project maps, please visit: <https://bit.ly/4hojhq2>.

Greg Huffman, Chief Executive Officer, stated: “Nuclear Fuels’ drill program was designed to test for new zones of uranium mineralization on the Kaycee Project and we are pleased that the program has discovered two new mineralized roll fronts. These discoveries, aided by the team’s deepening understanding of the geology and mineralization, also highlight the strong potential of this area for further

exploration and will serve as a launching point for the 2025 drill program. We are also honored to have recently been added to the Sprott Junior Uranium Miners ETF.”

**Table of Significant Results from the Outpost Zone and Trail Dust Zone
Kaycee Uranium Project, Wyoming**

Drill Hole ID	Total Depth (ft)	From (ft)	To (ft)	Grade (%eU ₃ O ₈)	Thickness (ft)	Grade Thickness (GT)	Total Hole GT
OUTPOST ZONE							
LT24_041	870	761.5	762.5	0.020	1.0	0.020	0.190
		791.5	793.5	0.085	2.0	0.170	
LT24_048	840	763.0	765.0	0.052	2.0	0.104	0.104
LT24_050	860	767.0	770.5	0.122	3.5	0.427	0.532
		787.0	790.0	0.035	3.0	0.105	
TRAIL DUST ZONE							
LT24_004	940	879.0	880.5	0.027	1.5	0.041	0.086
		855.5	887.0	0.030	1.5	0.045	
LT24_014	940	844.0	886.0	0.056	2.0	0.112	0.194
		897.5	899.5	0.041	2.0	0.082	
LT24_037	980	886.0	889.5	0.057	3.5	0.200	0.304
		900.0	902.0	0.052	2.0	0.104	

Drill holes are reported that returned significant zones of uranium mineralization with >2 ft thickness at or above a grade cut-off of 0.02 per cent eU₃O₈ or that are relevant to exploration targeting. (1) % eU₃O₈ by Gamma logging is a measure of gamma intensity from a decay product of uranium. Gamma log assays may be in disequilibrium with ICP-MS assays. Comparisons of eU₃O₈ Gamma log and ICP-MS assays of Powder River Basin core samples indicate that eU₃O₈ Gamma is comparable to ICP-MS uranium assay in the Powder River Basin. (2) Grade Thickness, or GT, is defined as the product of the mineral grade multiplied by the thickness of the mineralization.

The Kaycee Uranium Project Drill Program

In October 2024, the exploration drill program on the Kaycee Project shifted to testing regional targets that have not been previously extensively explored for uranium mineralization. These targets were generated by the evaluation of over 500 oil and gas logs, with an initial focus on an area located approximately 8 miles to the east of the Saddle Zone, and approximately 6 miles to the west of Energy Fuels Inc.’s Nichols Ranch ISR uranium mine, which is currently being prepared for restart in mid-2025. The regional drilling was successful in identifying two new zones of roll front-hosted uranium mineralization. Both of these zones represent new discoveries associated with previously unidentified roll front trends that are incremental to the 430 miles of roll fronts historically delineated on the Project.

The 2024 drill program at the Kaycee Project concluded in late December 2024, with the Company having completed 206 holes for a total of approximately 124,720 feet since drilling re-started in mid-July. Recall, prior to September 30th, the objective of the drill program was to confirm and expand uranium mineralization associated with known historic resource areas. Previously released highlights from this drilling includes 0.205% eU₃O₈ over 8.0 feet for GT of 1.640 at the Stirrup West Zone, 0.233% eU₃O₈ over 7.0 feet for a GT of 1.631 at the Saddle Zone, and 0.117% eU₃O₈ over 5.0 feet for a GT of 0.585 at the Spur Zone.

Planning is currently underway for the 2025 drill program at the Kaycee Project, which is anticipated to commence in May 2025. The initial focus will be to follow up on the new discoveries at the Outpost and Trail Dust Zones to better define their orientation and geometry. 2025 drilling will also test other high

priority regional targets given the early success in identifying new zones of roll front-hosted uranium mineralization in this underexplored area of the Project.

Kaycee Uranium Project, Wyoming

The Kaycee Project in Wyoming's PRB, Nuclear Fuels' priority project, consists of 55 square miles of mineral rights over a 35-mile mineralized trend hosting 430 miles of identified roll fronts. The Kaycee Project is believed to be the only project in the PRB where all three known historically productive sandstone formations (Wasatch, Fort Union, and Lance) are mineralized and potentially accessible for ISR extraction. The Kaycee Project, under Nuclear Fuels, represents the first time since the early 1980's that the entire district is controlled by one company.

In 2023, Nuclear Fuels acquired the Kaycee Project from enCore Energy Corp., which retains a back-in right for 51% of the project by paying 2.5X the exploration costs and financing the Kaycee project to production (costs recoverable from production) upon Nuclear Fuels establishing a minimum 15 million pound eU_3O_8 43-101 compliant resource.

Wyoming is a proven and prolific uranium producer with a pro-energy government and established regulatory regime for the permitting and extraction of uranium through ISR technology. Wyoming is one of the few "Agreement States" hosting ISR uranium deposits, where the federal government and the Nuclear Regulatory Commission have ceded regulatory authority to the state government, permitting and advancing uranium projects is more efficient and streamlined as compared to most other states. Wyoming, with over 250 million pounds of historic uranium production, ranks as the state with the second most uranium production to date; most of which has been through the ISR technology since 1990, predominantly from the PRB.

Drill holes were completed by Single Water Services using a rotary drill rig. Chip samples are collected for lithological logging every five feet. Century Geophysics of Tulsa Oklahoma is contracted to conduct downhole gamma ray, resistivity, spontaneous potential, and deviation. Century Geophysics calibrates the downhole tools in the US Department of Energy uranium logging Test pits in Casper Wyoming, to ensure the accuracy of the down hole gamma ray log measurements. % eU_3O_8 is a measure of gamma intensity from a decay product of uranium and is not a direct measurement of uranium. Numerous comparisons of eU_3O_8 and chemical assays of PRB core samples indicate that eU_3O_8 is a reasonable indicator of the actual uranium assay.

The technical content of this news release has been reviewed and approved by Mark Travis, CPG., a contractor to the Company, and a Qualified Person as defined in National Instrument 43-101.

About Nuclear Fuels Inc.

Nuclear Fuels Inc. is a uranium exploration company advancing early-stage, district-scale In-Situ Recovery ("ISR") amenable uranium projects towards production in the United States of America. Leveraging extensive proprietary historical databases and deep industry expertise, Nuclear Fuels is well-positioned in a sector poised for significant and sustained growth on the back of strong government support. Nuclear Fuels has consolidated the Kaycee Wyoming district under single-company control for the first time since the early 1980s. Currently executing its second drill program at the Kaycee Project, the Company aims to expand on historic resources across a 35-mile trend with over 430 miles of mapped roll-fronts. The Company's strategic relationship with enCore Energy Corp., America's Clean Energy Company™, offers a

mutually beneficial “pathway to production,” with enCore owning an equity interest and retaining the right to back-in to 51% ownership in the flagship Kaycee Project in Wyoming’s prolific Powder River Basin.

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Forward-Looking Information

The Canadian Securities Exchange has not reviewed this press release and does not accept responsibility for the adequacy or accuracy of this news release.

Certain information in this news release constitutes forward-looking statements under applicable securities laws. Any statements that are contained in this news release that are not statements of historical fact may be deemed to be forward-looking statements. Forward-looking statements are often identified by terms such as “may”, “should”, “anticipate”, “expect”, “potential”, “believe”, “intend” or the negative of these terms and similar expressions. Forward-looking statements in this news release include, but are not limited to, statements relating to planned exploration programs and the results of additional exploration work in seeking to establish mineral resources as defined in NI43-101 on any of our properties. Forward-looking statements necessarily involve known and unknown risks, including, without limitation, risks associated with the completing planned exploration programs and the results of those programs; the ability to access additional capital to fund planned and future operations; regulatory risks including exploration permitting; risks associated with title to our mineral projects; the ability of the company to implement its business strategies; and other risks including risks contained in documents available for review at www.sedar.com under the Company’s profile. Readers are cautioned not to place undue reliance on forward-looking statements as there can be no assurance that the plans, intentions or expectations upon which they are placed will occur. Such information, although considered reasonable by management at the time of preparation, may prove to be incorrect and actual results may differ materially from those anticipated. Forward-looking statements contained in this news release are expressly qualified by this cautionary statement.