

# Energy Fuels Commencing Vanadium Production; Testing New Approaches to Mining in Tight Vanadium Market

written by Raj Shah | September 27, 2018

☒ September 27, 2018 ([Source](#)) – **Energy Fuels Inc. (NYSE American: UUUU; TSX: EFR) (“Energy Fuels” or the “Company”)** is pleased to announce that the Company expects to resume vanadium production at its 100% owned White Mesa Mill (the “Mill”) in mid-November 2018, producing significant quantities of salable  $V_2O_5$  product by the end of December 2018. When production begins, Energy Fuels will be the newest vanadium producer in the World and the only primary producer of  $V_2O_5$  in North America. In addition, the Company is currently preparing to conduct a test-mining program that selectively targets high-grade  $V_2O_5$  resources at its 100%-owned La Sal Complex of uranium/vanadium mines in Utah, with the goal of significantly increasing productivity and mined grades and reducing mining costs per pound of  $V_2O_5$  and  $U_3O_8$  recovered.

Energy Fuels’ White Mesa Mill, located near Blanding, Utah, is currently the only facility in the United States capable of processing conventional mined vanadium resources. As a result, no other company in the United States is likely to enter primary vanadium production in the near-term, because no other company has access to the Mill at this time.

Vanadium prices have risen by over 150% in the past year due to a number of factors, including production cuts and significant increases in demand due to the implementation on November 1,

2018 of new rebar standards in China that can only be achieved through increased use of vanadium (with limited substitution). In addition, vanadium demand could increase significantly in the coming years due to the commercialization of vanadium batteries used in connection with renewable energy generation. As of September 23, 2018, the mid-point price of  $V_2O_5$  as reported by Metal Bulletin was \$22.63 per pound, as compared to \$9.00 per pound on September 29, 2017.

As previously announced, and starting in November 2018, Energy Fuels expects to begin vanadium production from the pond solutions at the White Mesa Mill, which the Company estimates contain approximately four (4) million pounds of recoverable  $V_2O_5$ . Historically, the Mill has been a significant producer of vanadium, and the Company estimates that the Mill has produced about 45 million pounds of  $V_2O_5$  since it was constructed in the early-1980's, having last produced over 1.5 million pounds of  $V_2O_5$  mined from the La Sal Complex in 2013 (see further update below on the La Sal Complex). The Company has spent the past several months retrofitting and upgrading the Mill's vanadium recovery circuit in preparation of this upcoming production run. Once production reaches a steady state, the Company expects to produce approximately 200,000 to 225,000 pounds of  $V_2O_5$  per month from the pond solutions for a period of 16 to 20 months, subject to market conditions, costs, and recoveries. Further, the Mill has historically produced a relatively high-purity vanadium product, which if achieved again, offers the potential in today's market to command a premium above standard  $V_2O_5$  prices. The pond project also offers the Company excellent flexibility, including the ability to turn production on-and-off quickly and at limited cost, in response to evolving market conditions. While the Mill has never to date attempted to commercially recover vanadium dissolved in the ponds, extensive on-site test work indicates that the project has a high probability for

success.

In addition, Energy Fuels is commencing limited conventional vanadium production at its 100% owned and fully licensed, permitted, and constructed La Sal Complex of uranium/vanadium mines in Utah. In Q4 2008, the Company expects to begin a test-mining program to evaluate different approaches that selectively target high-grade vanadium zones, thereby potentially increasing productivity and mined grades for vanadium and decreasing mining costs per pound of  $V_2O_5$  and  $U_3O_8$  recovered. The Company also expects to conduct additional exploration and in-fill drilling at the La Sal Complex, with specific analysis for vanadium, which was not normally done in the past, with the goal of expanding and upgrading the vanadium resources at this project.

In preparation for this test-mining program, the Company has already completed significant surface and underground refurbishment at the La Sal Complex, and has re-established services in areas of the mine complex with the greatest potential to hold high-grade vanadium resources. The Company expects to commence the test-mining program during Q4-2018, which is expected to take approximately six (6) months to complete. If the program is successful and vanadium prices remain strong, the Company may continue mining beyond the planned campaign.

Historically, the uranium/vanadium mines in the La Sal and Uravan Mineral Districts were mined using then-available technologies and production methods that focused mainly on recovering the uranium resources. The ore at the La Sal Complex contained vanadium at a historic ratio of roughly 1:5 (the vanadium concentration five times higher than the uranium concentration). However, the actual vanadium content was only ultimately known following milling. The Company is actively investigating above-average grade vanadium areas of

mineralization that were not mined in the past due to lower uranium content. The Company plans to introduce real-time portable XRF technology to better define areas containing high-grade vanadium resources. The test-mining program announced today is expected to produce approximately 5,000 tons of mineralized material, which would be further tested and analyzed at the White Mesa Mill. The Company believes this new approach has the potential to significantly lower mining costs at the La Sal Complex by selectively targeting the high-grade vanadium and potentially past un-mined resources. Any new mining approaches developed in this program may also be applicable to the Company's other permitted and standby uranium/vanadium mines in the region, including the Whirlwind and Rim mines.

Finally, the Company expects to use data gathered from the test-mining program, along with additional vanadium/uranium focused drilling at the La Sal Complex, to potentially expand and upgrade the vanadium resources at this project. According to the current March 25, 2014 technical report prepared in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101"), the La Sal Complex contains approximately 1.14 million tons of Measured and Indicated Mineral Resources with an average grade of 0.94%  $V_2O_5$ , containing approximately 21.5 million pounds of  $V_2O_5$ , along with 0.19 million tons of Inferred Mineral Resources with an average grade of 0.51%  $V_2O_5$ , containing approximately 1.9 million pounds of  $V_2O_5$ .

Mark S. Chalmers, President and CEO of Energy Fuels stated: "When Energy Fuels commences vanadium production in November, we will be the only primary producer of  $V_2O_5$  in North America. This position brings the potential for Energy Fuels to generate significant cash flow in today's strong vanadium price environment, especially with the steel industry recovering in

the U.S. Further, because we own and control 100% of the only operating conventional vanadium mill in North America, no other company in the region can currently produce vanadium, unless Energy Fuels provides access to the facility, and currently there are no outstanding commitments. This places Energy Fuels in a truly unique position to potentially realize significant cash flows from our vanadium assets in today's tight resource market.

"We believe the commencement of vanadium production from the ponds at the White Mesa Mill is well timed in today's strong vanadium market. And, over the longer-term, we are hopeful that today's real-time mining technologies will provide for a possible paradigm shift that has the potential to improve the economics of future vanadium and uranium mining in this well-known and prolific high-grade district."

***John H. White, P.E., Vice President, Technical Services of Energy Fuels Resources (USA) Inc., is a Qualified Person as defined by Canadian National Instrument 43-101 and has reviewed and approved the technical disclosure contained in this news release.***

***About Energy Fuels:*** Energy Fuels is a leading integrated US-based uranium mining company, supplying  $U_3O_8$  to major nuclear utilities. Its corporate offices are in Denver, Colorado, and all of its assets and employees are in the western United States. Energy Fuels holds three of America's key uranium production centers, the White Mesa Mill in Utah, the Nichols Ranch Processing Facility in Wyoming, and the Alta Mesa Project in Texas. The White Mesa Mill is the only conventional uranium mill operating in the U.S. today and has a licensed capacity of over 8 million pounds of  $U_3O_8$  per year. The Nichols Ranch Processing Facility is an ISR production center with a licensed capacity of 2 million pounds of  $U_3O_8$  per year. Alta Mesa is an

ISR production center currently on care and maintenance. Energy Fuels also has the largest NI 43-101 compliant uranium resource portfolio in the U.S. among producers, and uranium mining projects located in a number of Western U.S. states, including one producing ISR project, mines on standby, and mineral properties in various stages of permitting and development. The Company also produces vanadium as a by-product of its uranium production from certain of its mines on the Colorado Plateau, as market conditions warrant. 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](http://www.energyfuels.com).

**Cautionary Note Regarding Forward-Looking Statements:** Certain information contained in this news release, including any information relating to: the Company being a leading producer of uranium and vanadium in the U.S.; any expectations to resume vanadium production at the Mill; any expectations relating to expected vanadium recoveries from the Mill pond and cash flows; any expectations relating to the purity of any recovered vanadium from the Mill ponds and any potential for premiums; any expectations relating to the flexibility to turn vanadium production from the Mill ponds on or off quickly in the future; any expectations to begin a test-mining program at the Company's La Sal Complex; any expectations relating to potential increases in productivity and mined grades for vanadium and decreases in mining costs at the La Sal Complex; any expectations to conduct additional exploration and in-fill drilling at the La Sal Complex and to expand and upgrade the resources at the project; any expectations to potentially continue mining at the La Sal Complex beyond the planned campaign; any expectations regarding the market for vanadium and future vanadium prices; and any other statements regarding Energy Fuels' future expectations,

beliefs, goals or prospects; constitute forward-looking information within the meaning of applicable securities legislation (collectively, "forward-looking statements"). All statements in this news release that are not statements of historical fact (including statements containing the words "expects", "does not expect", "plans", "anticipates", "does not anticipate", "believes", "intends", "estimates", "projects", "potential", "scheduled", "forecast", "budget" and similar expressions) should be considered forward-looking statements. All such forward-looking statements are subject to important risk factors and uncertainties, many of which are beyond Energy Fuels' ability to control or predict. A number of important factors could cause actual results or events to differ materially from those indicated or implied by such forward-looking statements, including without limitation factors relating to: the Company being a leading producer of uranium and vanadium in the U.S.; any expectations to resume vanadium production at the Mill; any expectations relating to expected vanadium recoveries from the Mill pond and cash flows; any expectations relating to the purity of any recovered vanadium from the Mill ponds and any potential for premiums; any expectations relating to the flexibility to turn vanadium production from the Mill ponds on or off quickly in the future; any expectations to begin a test-mining program at the Company's La Sal Complex; any expectations relating to potential increases in productivity and mined grades for vanadium and decreases in mining costs at the La Sal Complex; any expectations to conduct additional exploration and in-fill drilling at the La Sal Complex and to expand and upgrade the resources at the project; any expectations to potentially continue mining at the La Sal Complex beyond the planned campaign; any expectations regarding the market for vanadium and future vanadium prices; and other risk factors as described in Energy Fuels' most recent annual report on Form 10-K and quarterly financial reports. Energy

Fuels assumes no obligation to update the information in this communication, except as otherwise required by law. Additional information identifying risks and uncertainties is contained in Energy Fuels' filings with the various securities commissions which are available online at [www.sec.gov](http://www.sec.gov) and [www.sedar.com](http://www.sedar.com). Forward-looking statements are provided for the purpose of providing information about the current expectations, beliefs and plans of the management of Energy Fuels relating to the future. Readers are cautioned that such statements may not be appropriate for other purposes. Readers are also cautioned not to place undue reliance on these forward-looking statements, that speak only as of the date hereof.

**Cautionary note to United States investors concerning estimates of measured, indicated and inferred resources.** This news release contains certain disclosure that has been prepared in accordance with the requirements of Canadian securities laws, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all reserve and resource estimates included in this news release have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") classification system. Canadian standards, including NI 43-101, differ significantly from the requirements of U.S. securities laws, and reserve and resource information contained in this news release may not be comparable to similar information disclosed by companies reporting only under U.S. standards. In particular, the term "resource" does not equate to the term "reserve" under SEC Industry Guide 7. **United States investors are cautioned not to assume that all or any of Measured or Indicated Mineral Resources will ever be converted into mineral reserves. Investors are cautioned not to assume that all or any part of an "Inferred Mineral Resource" exists or is economically or legally minable. Energy Fuels does not hold any Reserves as that term is defined by SEC Industry Guide**



***7. Please refer to the section entitled “Cautionary Note to United States Investors Concerning Disclosure of Mineral Resources” in the Company’s most recently filed Annual Report on Form 10-K for further details.***