

# Energy Fuels Provides Update on Vanadium Production

written by Raj Shah | April 1, 2019



NYSE AMERICAN: UUUU  
TSX: EFR

April 1, 2019 ([Source](#)) – **Energy Fuels Inc. (NYSE American: UUUU; TSX: EFR) (“Energy Fuels” or the “Company”)**, a leading producer of uranium and vanadium in the United States, is pleased to provide the following update on the Company’s ongoing

vanadium production programs.

## The Highest Quality Vanadium Production in the History of the White Mesa Mill:

Energy Fuels is currently producing a high-purity vanadium product at commercial rates from the pond solutions at its 100%-owned White Mesa Mill (the “Mill”), the only conventional vanadium processing facility located in the United States. The Mill has produced about 45 million pounds of vanadium pentoxide (“V<sub>2</sub>O<sub>5</sub>”) during its nearly 40-year operating history. As a result of facility upgrades and improved procedures put in place in 2018, the Mill is currently producing the highest-purity V<sub>2</sub>O<sub>5</sub> in its history, averaging approximately 99.6% V<sub>2</sub>O<sub>5</sub>, using innovative approaches never utilized in the past to recover vanadium from its existing pond solutions. The Company is currently selling this vanadium (as ferrovanadium) into the steel industry, and it continues to pursue opportunities to sell portions of this high-purity material into specialty chemical and aerospace markets, potentially at a premium to reported spot prices. The Company has successfully implemented this efficient, low-cost method of producing vanadium at the Mill with little capital exposure.

As previously reported, the Company estimates that a total of up to four million pounds of recoverable  $V_2O_5$  could reside in the Mill's pond solutions. This vanadium is currently being recovered at commercial rates of approximately 150,000-160,000 pounds of  $V_2O_5$  per month, and as a result of expected seasonal influences, could increase to approximately 200,000-225,000 pounds per month in the warmer, dryer months of the year, settling back to current production rates in the winter months. Average production rates, taking into account these expected seasonal influences, are expected to be approximately 160,000-200,000 pounds per month on an annualized basis, which would exceed the average annualized production rates during the last five full conventional vanadium ore runs at the Mill since 2008, *without having to mine a single ton of ore*. Conservatively allowing for the uncertainties associated with a new project of this nature and the impacts of seasonal influences as they unfold over the first full year of production, this is expected to result in a total recovery over the life of the project of approximately 2.5 million – 4.0 million pounds of  $V_2O_5$ , subject to continued successful recovery and supportive market conditions.

The Company is also pleased that it is able to achieve these results at a production cost per pound of recovered  $V_2O_5$  at current production rates that is less than originally budgeted, which is resulting in margins that exceed original expectations, even at today's  $V_2O_5$  prices of approximately \$13.88 per pound. If production rates increase as expected, the production costs per pound would be expected to decrease, resulting in even more attractive margins. In addition, of course, if vanadium prices increase to recent levels, the margins would also improve.

This new source of vanadium recovery is also extremely flexible. The Company is able to turn production on and off within a

matter of days, at little to no cost, in response to any changes in vanadium market conditions. If the Company decides to defer or slow down production, either due to a significant decline in the price of  $V_2O_5$ , or if it decides to retain its vanadium pond inventory for recovery and sale in potentially improved market conditions, it has the flexibility to make those decisions. If vanadium prices increase, production can then be resumed very quickly in response. The Company considers this type of production readiness/flexibility to be a great attribute of this program, and to be very attractive in the typically volatile vanadium market, with limited capital exposure.

#### Further Impressive Results from Test Mining Campaign at the La Sal Complex:

Energy Fuels is also pleased to provide the following update on activities at the Company's 100%-owned La Sal Complex of uranium/vanadium mines (the "La Sal Complex"). Over the past several months, the Company has been engaged in a limited conventional vanadium test-mining program at the La Sal and Pandora mines, two connected mines within the La Sal Complex, located in southeast Utah. In October 2018, the Company announced the initial results of the test-mining program, including vanadium grades averaging 1.67%  $V_2O_5$  and uranium grades averaging 0.10%  $U_3O_8$  over about 420 tons of mineralized material.

The Company is pleased to announce that, to date, it has mined approximately 5,200 tons of mineralized material under this test-mining program, and the grades observed early in the campaign have held since that time, averaging approximately 1.60%  $V_2O_5$  and 0.19%  $U_3O_8$ . While these numbers are not intended to represent the basis of a new resource or reserve estimate of any kind, the Company believes that the new mining methods being tested are likely to result in reduced costs, higher grades, and higher value for mined material due to significantly improved

grade control at the mine site. Furthermore, vanadium recoveries at the Mill increase as feed grade increases. Therefore, the Company believes there is a good chance that the Mill can increase average vanadium recoveries from mined ores as compared to historic performance, as a result of this improved grade control. The Company expects to deploy these new mining techniques at full production rates once the Company makes the decision to go back into full production at the La Sal Complex, and other Company-owned, fully permitted and developed uranium/vanadium mines on the Colorado Plateau, as market conditions warrant.

Through the test-mining campaign, the Company refurbished the Pandora and La Sal mines, so they are now ready to enter full production shortly following a positive commercial production decision. Due to the inherent volatility of vanadium prices, the economics of these mines are expected to be supported primarily by uranium sales contracts at prices higher than today's spot price, which may result from generally improved global uranium market conditions, or the ongoing government investigation into uranium imports into the U.S. Once uranium prices improve sufficiently, the Company expects to be able to produce significant quantities of vanadium from these mines at costs competitive to some of the lowest-cost primary vanadium mines in the World, and in a more sustainable way than has been achievable for our mines in the past, due to the new grade control techniques developed during this campaign.

#### Vanadium Market Update:

Historically, over many decades, prices for vanadium have been highly volatile, and they continue to be so today. The mid-point spot price of  $V_2O_5$  in Europe began 2018 at \$9.75 per pound, reached a high of \$28.83 per pound in November 2018, and ended 2018 at \$15.50 per pound. In 2019, spot prices rose through

January, reaching a high of \$17.38 per pound in February and early-March. At the current time, the spot price of  $V_2O_5$  in Europe has dropped to \$13.88 per pound. The global market for vanadium is currently primarily guided by market fundamentals and government policies in China. China is continuing to enforce strict new environmental standards, which are having the effect of restricting supply of vanadium. In addition, China is continuing to enforce new rebar standards, which require the use of more vanadium and have the effect of increasing demand. There is also a chance that China will pursue new infrastructure spending to spur economic growth, which would likely have the effect of increasing demand for steel and rebar containing vanadium. For these reasons, the Company believes there is a good chance vanadium prices will strengthen in the coming months, reaching or surpassing the higher levels seen earlier this year.

The Company intends to continue to produce  $V_2O_5$  from its Mill pond solutions at today's prices, which support attractive margins for the Company. We will also closely monitor vanadium market conditions and sales opportunities, including sales opportunities at a premium, and adjust the Company's production and sales if necessary.

Mark S. Chalmers, President and CEO of Energy Fuels stated: "We are extremely pleased with the excellent results obtained thus far on our significant vanadium assets, creating substantial value for the Company. Our campaign to recover vanadium from pond solutions at the White Mesa Mill is going very well. Product purities are higher than expected, production costs are lower than expected, and vanadium prices remain at high levels. We also have the ability to adjust our vanadium production very easily in response to changing market conditions. This production readiness and flexibility is a key attribute when dealing with minor metals like vanadium. It allows us to be able

to produce or conserve our vanadium, as we see fit, in response to market volatility.

“We also believe we have shifted the paradigm for both mining and processing of uranium/vanadium deposits on the Colorado Plateau, including our fully permitted and developed mines at the La Sal Complex as well as two of our other fully permitted mines nearby. This will become even more important to Energy Fuels if the Trump Administration decides to help support domestic uranium mining through the ongoing Section 232 investigation into uranium imports. This could result in uranium sales contracts at prices that would support commencing full-scale production from these mines at current or lower vanadium prices. And, if vanadium prices rise further – which they could at any time – we will be in the enviable position of being able to fully capitalize on those higher prices almost immediately.

“We are first and foremost a uranium producer. But in addition, our successful re-establishing of the Company as the only primary producer of vanadium in North America through our innovative Mill pond-return program, and our ability to capitalize on high vanadium prices through our uranium/vanadium mines when producing, highlights the unique optionality of Energy Fuels, in addition to our unsurpassed uranium mining readiness and capacity and our uranium recycling and clean-up businesses. These key attributes significantly differentiate our Company from a typical 100% uranium-only play. We are extremely proud of these other aspects of our business model, which provide value to our shareholders in unique and creative ways during periods of low uranium prices and which also complement our uranium production activities during periods of higher uranium prices.”

**About Energy Fuels:** *Energy Fuels is a leading US-based uranium mining company, supplying  $U_3O_8$  to major nuclear utilities. The*

Company also produces vanadium from certain of its projects, as market conditions warrant. Its corporate offices are in Denver, Colorado, and all of its assets and employees are in the United States. Energy Fuels holds three of America's key uranium production centers, the White Mesa Mill in Utah, the Nichols Ranch in-situ recovery ("ISR") Project in Wyoming, and the Alta Mesa ISR Project in Texas. The White Mesa Mill is the only conventional uranium mill operating in the U.S. 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. The Nichols Ranch ISR Project is in operation and has a licensed capacity of 2 million pounds of  $U_3O_8$  per year. The Alta Mesa ISR Project is currently on standby. In addition to the above production facilities, Energy Fuels also has one of the largest NI 43-101 compliant uranium resource portfolios in the U.S., 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](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 about pounds of vanadium that may be recovered at the White Mesa Mill, including current and expected rates of production and the total amount of vanadium expected to be recovered from the Mill's pond solutions; any expectations relating to the product quality or purity of the recovered vanadium; any expectations regarding the Company's expected costs of production, margins, sales strategy, and/or ability to maximize profits on vanadium, including

conversion to ferrovanadium for sale into the metallurgical market and/or sales into the aerospace, chemical or energy storage industries, at a premium to spot prices or otherwise; the Company's ability to turn production on and off within a matter of days, at little to not cost, in response to any changes in vanadium market conditions; any expectation that the new mining methods being tested are likely to result in reduced costs, higher grades, and higher value for mined material due to significantly improved grade control at the mine site; any expectation that the Mill may be able to increase average vanadium recoveries from mined ores as compared to historic performance, as a result of improved grade control resulting from the test-mining program; any expectation that the Company may be able to deploy these new mining techniques at full production rates; any expectation that the Company may be able to produce significant quantities of vanadium from any of its mines at costs competitive to some of the lowest cost primary vanadium mines in the World; any expectations regarding current and/or future vanadium markets, including whether current vanadium prices may continue to support production and increase in the future; any expectations about the ongoing Section 232 Investigation, including any remedies that may be granted thereunder, and any expectation that any such remedies may result in uranium sales contracts at sufficient prices to justify production at any of the Company's mines; 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 about pounds of vanadium that may be recovered at the White Mesa Mill, including current and expected rates of production and the total amount of vanadium expected to be recovered from the Mill's pond solutions; any expectations relating to the product quality or purity of the recovered vanadium; any expectations regarding the Company's expected costs of production, margins, sales strategy, and/or ability to maximize profits on vanadium, including conversion to ferrovanadium for sale into the metallurgical market and/or sales into the aerospace, chemical or energy storage industries, at a premium to spot prices or otherwise; the Company's ability to turn production on and off within a matter of days, at little to not cost, in response to any changes in vanadium market conditions; any expectation that the new mining methods being tested are likely to result in reduced costs, higher grades, and higher value for mined material due to significantly improved grade control at the mine site; any expectation that the Mill may be able to increase average vanadium recoveries from mined ores as compared to historic performance, as a result of improved grade control resulting from the test-mining program; any expectation that the Company may be able to deploy these new mining techniques at full production rates; any expectation that the Company may be able to produce significant quantities of vanadium from any of its mines at costs competitive to some of the lowest cost primary vanadium mines in the World; any expectations regarding current and/or future vanadium markets,

including whether current vanadium prices may continue to support production and increase in the future; any expectations about the ongoing Section 232 Investigation, including any remedies that may be granted thereunder, and any expectation that any such remedies may result in uranium sales contracts at sufficient prices to justify production at any of the Company's mines; 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.