

Mark Chalmers from Energy Fuels Discusses Uranium Supply Contracts with the US Government and Rare Earth Operations

written by InvestorNews | March 14, 2023

In this InvestorIntel interview during PDAC 2023, Byron W King talks to [Energy Fuels Inc.](#)'s (NYSE American: UUUU | TSX: EFR) President, CEO and Director Mark Chalmers and receives an update on Energy Fuels' rare earths, uranium, and vanadium operations. At their White Mesa Mill in Utah, Energy Fuels currently processes monazite into a rare earths carbonate that is currently shipped to a third party for further processing but Energy Fuels is building its own separation plant to move that step in-house.

Mark goes on to discuss Energy Fuels' [recently acquired](#) rare earth and heavy mineral project in Brazil to supply the raw materials needed by their White Mesa Mill in Utah for processing into high-purity rare earth carbonate and other materials.

As a leading U.S. producer of uranium and vanadium, Mark provides an update on Energy Fuels' long-term uranium supply contracts with U.S. nuclear utilities and the U.S. government to supply the strategic U.S. Uranium Reserve. With Russia exerting a disproportionate influence over global uranium and nuclear fuel supply chains, Mark discusses how Energy Fuels is helping to secure a domestic uranium supply chain in the United States.

With a current net cash position of over \$100 million, an

existing processing plant, and a portfolio of mineral projects that are important for decarbonization and electrification, Mark explains how Energy Fuels is advancing “quicker than anybody else that [he thinks] of, in the entire world and outside of China.”

Special Note: Mark Chalmers is scheduled to be a keynote speaker at the upcoming [Critical Minerals Institute Summit II, Driving to the Future, Critical Minerals for the EV Market](#), a 2-Day Event on June 14-15th at The National Club in Toronto.

To access the full InvestorIntel interview, [click here](#).

Don't miss other InvestorIntel interviews. Subscribe to the InvestorIntel YouTube channel by [clicking here](#).

About Energy Fuels Inc.

Energy Fuels is a leading US-based critical minerals company. The Company 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, and plans to produce commercial quantities of separated REE oxides in the future. 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

U₃O₈ per year, 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 U₃O₈ per year. The Company recently acquired the Bahia Project in Brazil, 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.

To learn more about Energy Fuels Inc., [click here](#)

Disclaimer: Energy Fuels Inc. is an advertorial member of InvestorIntel Corp.

This interview, which was produced by InvestorIntel Corp., (IIC), does not contain, nor does it purport to contain, a summary of all the material information concerning the “Company” being interviewed. IIC offers no representations or warranties that any of the information contained in this interview is accurate or complete.

This presentation may contain “forward-looking statements” within the meaning of applicable Canadian securities legislation. Forward-looking statements are based on the opinions and assumptions of the management of the Company as of the date made. They are inherently susceptible to uncertainty and other factors that could cause actual events/results to differ materially from these forward-looking statements. Additional risks and uncertainties, including those that the Company does not know about now or that it currently deems immaterial, may also adversely affect the Company’s business or

any investment therein.

Any projections given are principally intended for use as objectives and are not intended, and should not be taken, as assurances that the projected results will be obtained by the Company. The assumptions used may not prove to be accurate and a potential decline in the Company's financial condition or results of operations may negatively impact the value of its securities. Prospective investors are urged to review the Company's profile on [Sedar.com](https://www.sedar.com) and to carry out independent investigations in order to determine their interest in investing in the Company.

If you have any questions surrounding the content of this interview, please contact us at +1 416 792 8228 and/or email us direct at info@investorintel.com.

Western Uranium Adds Processing Capabilities to Uranium and Vanadium Project

written by InvestorNews | March 14, 2023

The North American uranium market is heating up. In December 2022, the US Department of Energy National Nuclear Security Administration [awarded its first contracts](#) for the US strategic uranium reserve. The reserve is intended to be a backup source of supply for US nuclear power plants in the event of a significant market disruption. Remarkably, this was actually passed by Congress in 2020, well before one of the world's

dominant players in the uranium market alienated most of the world with its incursion into Ukraine.

Typically I don't like to give self-serving bureaucrats much credit, but at least they got this one right and on a timely basis. Ever since Russian President Vladimir Putin began his "special military operation", or war for those of us who aren't worried about 15 years in a Russian prison for calling it that, uranium supply has been thrown into turmoil, shining a giant spotlight on domestic supply.

One company working towards helping solve this dilemma is [Western Uranium & Vanadium Corp.](#) (CSE: WUC | OTCQX: WSTRF), a Colorado-based uranium and vanadium conventional mining company focused on low-cost, near-term production of uranium and vanadium in the western United States, and development and application of kinetic separation. Mining operations at the Company's [Sunday Mine Complex](#) are targeted to restart in early February 2023 and will initially involve additional development of the [GMG Ore](#) Body, stockpiling of high-grade ore, and underground drilling/exploration to define additional production zones.

Utah Processing Plant

[The latest news](#) from Western Uranium sees the Company seeking to control more of its destiny with plans to build a state-of-the-art mineral processing plant in the State of Utah. The Facility will be designed and constructed to recover uranium, vanadium, and cobalt from ore mined both from mines owned by Western Uranium and ore produced by other miners. The Facility will utilize the latest processing technology, including Western's patented Kinetic Separation process. These technological advancements will result in lower capital and processing costs. The Facility is expected to be licensed and constructed for

annual production of two million pounds of U_3O_8 and six to eight million pounds of V_2O_5 . Initial production from the Facility is expected in 2026.

Other updates from the Company include Western Uranium's transition from employing a mining contractor at its Sunday Mine Complex to building an in-house mining operation. Since this transition began in spring 2022, ten employees have been added to support mining operations and mining equipment and vehicles have been acquired to support the deployment of two fully equipped mining teams. The next project will be similar in scope but on the St. Jude Mine target, also located within the Sunday Mine Complex, at areas defined during the 2019/2020 work project.

Royalty Revenue Help Funds Development

Another interesting aspect of this Company is the passive, but becoming material, revenue they are receiving from oil and gas production royalties at its Bullen Property in Weld County, Colorado. Back in 2017, Western Uranium signed a three-year oil and gas lease, which in 2020 was extended for an additional three-year term or until the end of continuous operations, in consideration for a production royalty payment. The lease agreement allows the Company to retain property rights to vanadium, uranium, and other mineral resources. During 2021, the operator advanced through the oil well production stages with flowback completed in August. By August 2021, each of the eight wells drilled had commenced oil and gas production. Due to the success of the first 8 wells, the operator decided to develop a second set of 8 wells within Western Uranium's royalty area. The eight new wells came online in September 2022 and the first royalty payment will be made in the first quarter of 2023. For

the nine months that ended September 30, 2022, the Company recognized aggregate revenue of US\$387,810 under these oil and gas lease arrangements. Not bad passive income for a non-core asset.

Strong Cash Balance

As of September 30, 2022, Western Uranium was sitting on a cash and restricted cash balance of US\$11.2 million. With the addition of the oil & gas royalty revenue, the Company should be able to fund operations for at least the near term and not have to dilute its relatively tight share structure (approximately 44 million shares outstanding). That has Western Uranium trading at roughly a US\$33 million (C\$44 million) market cap but more interestingly with uranium fundamentals at a multi-decade high, the Company is trading at a 2-year low. This buying opportunity was created through the 2022 stock market pullback and technical selling from a recent ETF rebalancing.

Critical mineral Vanadium finds new interest in grid energy storage battery applications

written by | March 14, 2023

Vanadium (V) is a critical mineral element named after the Scandinavian goddess of beauty and fertility Vanadis. It is the 20th most abundant element in the earth's crust. Global

production in 2020, according to Statista, was about 105,000 tonnes. China accounted for 70,000 tonnes or two-thirds of global production. Russia was next at just over 19,500 tonnes, followed by South Africa at 8,584, and Brazil at 7,582. India produced 100 tonnes and the USA 17 tonnes. Vanadium occurs in magnetite and in China and Russia it is produced from steel smelter slag. Other sources are bauxite, crude oil, coal and tar sands, or as a byproduct of uranium mining.

About 85% of all vanadium is used as an alloy for steel to improve its strength and wear resistance, particularly in tool steel where the amount of vanadium used ranges from 1% to 5%. A few years ago China passed requirements for rebar to use vanadium but the advent of COVID and the current malaise of the Chinese construction/real estate business has not seen the potential increase in demand that the industry widely expected. Vanadium is also used in titanium/aluminum alloys in jet engines and dental implants. Recently there has been renewed interest in the large potential capacity of the vanadium redox battery, also known as the vanadium flow battery (VFB), for grid energy storage. An advantage of vanadium flow batteries is they have no limit on energy capacity and long charge/discharge cycle lives of between 15,000-20,000 cycles making them useful for power plants and electrical grids. Also, Lithium vanadium oxide has been explored for [a high-density anode](#).

Earlier this year the Ferrovanadium price in Europe was \$62.8/kg but recently has fallen to about half at \$31/kg. In late 2018 and early 2005 Ferrovanadium prices spiked over \$120/kg but these were short lived peaks. It has short periods where producers can make significant profits.

There are two producers of vanadium outside China and Russia that are of particular interest. The first is [Largo Inc.](#) (TSX: LGO | NASDAQ: LGO), which [listed on the Nasdaq](#) last year. Largo

is a Toronto based company with operations in Brazil from one of the world's highest grade vanadium deposits. Largo reported revenues in Q2 of this year at \$84.8 million, which was due to the spike in vanadium prices. Volume sold was 3,291 of V2O5 equivalents while production of V2O5 was 3,084 tonnes. Expected production for the full year is estimated at 11-12,000 tonnes of V2O5. Their cash operating cost is reported at \$4.10-4.50/lb. V2O5 (\$9.03-9.92/kg). Recent pricing inside China is shown to be \$16.80/kg, so Largo is in a good position relative to the market. In addition, Largo is investigating diversification in 2022-23 in an ilmenite concentration plant with a nameplate of 150,000 TPY. This will feed a titanium oxide (TiO₂) pigment at a rate of 30,000 TPY beginning in 2024. This is a very small operation compared to the size of the TiO₂ industry, but this will diversify their product line and possibly soften the impact of the swings in vanadium pricing.

Another part of Largo's business is [Clean Energy Storage](#). They boast a "unique, vertically integrated business model" to "supply some of the world's most advanced vanadium redox flow battery solutions for the integration of renewable energy." By supplying their own vanadium Largo can lower the upfront cost to its customers. To that end Largo signed a non-binding MOU with Ansaldo Green Tech to negotiate the formation of a Joint Venture for making and deployment of Vanadium Redox Flow Batteries in the European, African and Middle East markets. In their latest [press release](#) Largo announced it had completed its qualifying transaction for Largo Physical Vanadium Corp. (TSXV: LPV). According to Largo's President and CEO Paulo Misk, "this listing will allow investors direct exposure to vanadium."

Another vanadium company is [Bushveld Minerals Limited](#) (LSE: BMN), a South African company, which owns 2 of the 4 world's operating primary vanadium processing facilities. Last year they produced just under 3,600 metric tonnes of vanadium. Bushveld

has announced they plan to grow production by 40-50% this year, and subject to funding and market conditions they would increase their output to 8,000 TPY.

It is also worth mentioning that [Glencore International AG](#), one of the world's largest global diversified natural resource companies, is also in the V205 market with production around 6,900 tonnes in 2021.

Vanadium is an interesting element, though the pricing swings make it challenging to plan budgets and investments, but the use in vanadium redox flow batteries has given a new growth market for the industry.

***Disclaimer:** The editor of this post may or may not be a securities holder of any of the companies mentioned in this column. None of the companies discussed in the above feature have paid for this content. The writer of this article/post/column/opinion is not an investment advisor, and is neither licensed to nor is making any buy or sell recommendations. For more information about this or any other company, please review all public documents to conduct your own due diligence. To access the InvestorIntel.com Disclaimer, [click here](#)*

United Battery Metals' CEO on the vanadium market

opportunity

written by InvestorNews | March 14, 2023

"A couple of years ago it was trading at \$2.50. Last Friday vanadium pentoxide flake closed at \$33.10 a pound. That is a very significant run-up. There is a lot of pent-up demand for vanadium because there are so many different applications that are out there. The dominant use for it is in strengthening rebar. 90% of vanadium goes into rebar. Other applications for it are high-performance cutting tools and perhaps most importantly, storage batteries, that is putting a real heavy demand on vanadium as it is produced because there are no large international or national stockpiles of vanadium anywhere." States Matthew Rhoades, President, CEO and Director of [United Battery Metals Corp.](#) (CSE: UBM), in an interview with InvestorIntel Corp. CEO Tracy Weslosky.

Tracy Weslosky: Matt it is so nice to have you. I was looking through your background. You have a substantial history in geology and in the American resource sector in general. They have lured you over to become the CEO of United Battery Metals. Can you tell me how they did this? I am assuming it is because of the vanadium find you have?

Matthew Rhoades: That is the case. I do have a background in consulting on a project in central Nevada that involved vanadium. That and a combination that I am a CPG, a certified professional geologist, which makes me a qualified person for NI 43-101 reports, really kind of teed it up perfectly for this upcoming project on Wray Mesa where they already knew that they had a vanadium resource there, but they needed more to characterize it. They were looking for a person that really had my kind of background.

Tracy Weslosky: You are kind of putting your name on this.

Vanadium has got to be the hottest critical material in the world in the market right now. Would you mind just stepping to the side for a second and telling us a little bit more about what is happening in vanadium since you are an expert?

Matthew Rhoades: It has had a bit of run-up in price just over the last 2 or 3 years; 2 years realistically. A couple of years ago it was trading at \$2.50. Last Friday vanadium pentoxide flake closed at \$33.10 a pound. That is a very significant run-up. There is a lot of pent-up demand for vanadium because there are so many different applications that are out there. The dominant use for it is in strengthening rebar. 90% of vanadium goes into rebar. Other applications for it are high-performance cutting tools and perhaps most importantly, storage batteries, that is putting a real heavy demand on vanadium as it is produced because there are no large international or national stockpiles of vanadium anywhere.

Tracy Weslosky: For those of you out in InvestorIntel who may not be aware of this, we always are drawing attention to issues of sustainability. It is my understanding that United Battery Metals is striving to be the first to production for vanadium in North America. Can you tell us what that timeline is like because that sounds exciting?

Matthew Rhoades: And it is because we are in an established mining district, the La Sal Creek Mining District, in western Colorado, that is already a mining favorable part of the world. We are already in an area populated by closed mines. It is going to be very easy for us to get back in and get back underground. There is one former mine on our Wray Mesa property called the Geo 1 Mine and we should be able to get underground there. But, we would like to be a producing operation and sending vanadium to market within the next 2 years. We are looking at 2-year timeline...to access the complete interview, [click here](#)

Disclaimer: United Battery Metals Corp. is an advertorial member of InvestorIntel Corp.