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## IPERIONX & ENERGY FUELS PROGRESS LEADING U.S. RARE EARTH COLLABORATION

- Energy Fuels has completed laboratory evaluation of IperionX's rare earth minerals, including monazite and xenotime, from the Titan Project in west Tennessee.
- Energy Fuels' evaluation indicates that IperionX's rare earth minerals are suitable as a high quality feedstock to supply Energy Fuels' ongoing commercial production of mixed rare earth carbonate, an advanced material ready for rare earth separation.
- IperionX's Titan Project contains a large amount of the light rare earths neodymium and praseodymium, as well as a significant distribution of the highly valuable heavy rare earths, terbium and dysprosium.
- The combination of IperionX's heavy rare earth rich minerals in Tennessee, and Energy Fuels' operating processing facilities in Utah, provides the potential to rapidly progress a fully integrated rare earth magnet supply chain in the U.S.

**IperionX Limited ("IperionX" or "Company") (ASX: IPX)** is pleased to announce that Energy Fuels, Inc. ("Energy Fuels") (NYSE: UUUU) (TSX: EFR) has undertaken laboratory evaluation of rare earth mineral concentrates from IperionX's Titan Project in west Tennessee.

IperionX and Energy Fuels previously signed a memorandum of understanding for the supply of natural monazite sands from IperionX's Titan Project in Tennessee to Energy Fuels' White Mesa Mill in Utah (refer ASX announcement dated April 22, 2021). Energy Fuels and IperionX are continuing to evaluate expanding their collaboration to establish a fully integrated permanent rare earth magnet supply chain in the U.S.

Energy Fuels' evaluation indicates that IperionX's rare earth minerals are suitable as a high quality feedstock to produce a high purity mixed rare earth carbonate at Energy Fuels' White Mesa Mill in Utah. Energy Fuels is currently producing a mixed rare earth carbonate at commercial scale at its mill. This commercial product is the most advanced rare earth material being produced in the U.S. today at scale. Energy Fuels also intends to construct solvent extraction (SX) rare earth separation infrastructure at its mill in the coming years, allowing the facility to produce separated rare earth oxides from high quality feedstocks like the rare earth concentrate expected to be produced from IperionX's Titan Project. Energy Fuels has also made moves into the rare earth metal and alloy business.

Rare earth elements are used in many applications including battery alloys, catalysts, ceramics and metal alloys. However, it is the increasing demand for rare earths used in high strength permanent magnets found in power dense electric motors used in electric vehicles and wind turbines that makes up the majority of global consumption.

In particular, the heavy rare earths dysprosium and terbium are essential for the production of NdFeB magnets used in clean energy, military and high technology solutions. Establishing a U.S. heavy rare earth to magnet supply will be highly strategic and valuable to the country's leading defense, EV and clean energy sectors.

Test work to date<sup>1</sup> indicates that IperionX's rare earth minerals contain a large amount of the light rare earths neodymium and praseodymium, as well as a significant distribution of the highly valuable heavy rare earths terbium and dysprosium. There is only minor production of dysprosium and terbium outside of China, and almost no production within the USA. Currently, almost all U.S. rare earth mineral production is processed overseas, primarily in China, which makes Energy Fuels' current rare earth carbonate production, and future separated rare earth oxide production, and potential metal and alloy production, highly strategic.

<sup>1</sup> Refer to IperionX ASX announcement dated August 9, 2021



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The combination of IperionX's heavy rare earth rich minerals in Tennessee and Energy Fuels' operating processing facilities in Utah provides the potential to rapidly progress a fully integrated rare earth magnet supply chain in the U.S.

**Mark Chalmers, Energy Fuels' President and CEO said:** *"We are very pleased with the test results observed so far from IperionX's Titan Project. We are seeking sources of natural monazite ore to feed our rare earth initiative, with a particular interest in U.S. sources, like Titan. We have already 'cracked the code' of phosphate rare earth minerals at U.S. standards, and today we are in commercial production of an advanced rare earth material. In the next few years, we expect to be producing separated light rare earth oxides at our mill in Utah, USA. In addition, we are currently performing successful, high-purity separations through NdPr in our mill laboratory, and we just began performing lanthanum separation at commercial scale using existing equipment at the mill. With supply partners like IperionX, we are quickly moving toward creating a new, low-cost, fully-integrated rare earth magnet supply chain here in the U.S. We look forward to growing our collaboration with IperionX in the coming months."*

**Anastasios (Taso) Arima, IperionX's Managing Director and CEO said:** *"We are happy to be rapidly advancing our collaboration with Energy Fuels to establish a rare earths supply chain right here in the USA. As is currently being highlighted by the Russian invasion of Ukraine, the import dependence of the U.S. for key critical minerals, including rare earths and titanium, presents a huge threat to the security of key domestic industries. The collaboration with Energy Fuels highlights the importance of IperionX's Titan Project in enabling the U.S. to deliver a clean energy future, particularly given the critical importance of meaningful sources of North American monazite."*

This announcement has been authorized for release by the CEO and Managing Director.

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## About IperionX

IperionX's mission is to be the leading developer of low carbon, sustainable, critical material supply chains focused on advanced industries including space, aerospace, electric vehicles and 3D printing. IperionX's breakthrough titanium technologies have demonstrated the potential to produce titanium products which are sustainable, 100% recyclable, low carbon intensity and at product qualities which exceed current industry standards. The Company also holds a 100% interest in the Titan Project, covering approximately 11,100 acres of titanium, rare earth minerals, high grade silica sand and zircon rich mineral sands properties in Tennessee, United States.

## About Energy Fuels

Energy Fuels is a leading U.S.-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, and is in the process of ramping-up to commercial production of REE carbonate in 2021. Its corporate offices are in Lakewood, Colorado near Denver, 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, as well as REE carbonate and uranium from Monazite. The Nichols Ranch ISR Project is currently on standby and has a licensed capacity of 2 million pounds of  $U_3O_8$  per year. The Alta Mesa ISR Project is also 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).

## Forward Looking Statements

*Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.*

*Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.*

*Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.*

*Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.*

## Competent Persons Statement

*The information in this announcement that relates to Exploration Results is extracted from IperionX's ASX Announcements dated August 9, 2021 and November 18, 2021 ("Original ASX Announcement") which are available to view at IperionX's website at [www.iperionx.com](http://www.iperionx.com). IperionX confirms that a) it is not aware of any new information or data that materially affects the information included in the Original ASX Announcements; b) all material assumptions included in the Original ASX Announcements continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the Original ASX Announcements.*