



Ucore Receives 2 tonnes of HREE Feedstock for Demo Plant Commissioning Trials

- Ucore has received ≈2 tonnes of high-purity heavy rare earth element ("HREE") feedstock at its Kingston, Ontario, RapidSX™ Commercial Demonstration Plant ("Demo Plant")
- HREE feedstock is the most coveted and difficult to separate of the rare earth feedstocks
- The Company will utilize this feedstock and a light rare earth element ("LREE") feedstock for the two planned initial commissioning trials of the Demo Plant's 51-stage RapidSX™ processing train to produce individual rare earth elements and compounds

Halifax, Nova Scotia (December 8, 2022) – [Ucore Rare Metals Inc.](#) (TSXV: [UCU](#)) (OTCQX: [UURAF](#)) ("Ucore" or the "Company") is pleased to provide an update on its RapidSX™ rare earth element ("REE") separation technology platform and the Company's Louisiana Strategic Metals Complex ([see Ucore's November 22, 2022 news release](#)) technology deployment process (the "**Program**"). The work is taking place at the Company's RapidSX™ Commercialization and Demonstration Facility ("CDF") in Kingston, Ontario, which is operated by its laboratory partner [Kingston Process Metallurgy Inc.](#) ("KPM").



Figure 1 – Approximately 2 tonnes of high-purity HREE feedstock has arrived at Ucore's Kingston, Ontario, Demo Plant

Ucore is pleased to announce that it has received all feedstock required for the initial commissioning trials, including approximately 2 tonnes of a high-purity heavy REE ("HREE") feedstock, the most coveted and difficult to separate of the rare earth feedstocks. The two initial commissioning trials will consist of processing a light REE ("LREE") feedstock followed by the HREE feedstock. **Both will be processed on the same 51-stage RapidSX™ Demo Plant – a first-of-a-kind achievement in North America.**

"Over the next several months, Ucore will conduct its initial commissioning trials program. A program designed to demonstrate the significant advantages of utilizing its RapidSX™ technology platform for separating light and heavy rare earth elements into high-purity individual elements/compounds and, secondly, to begin the transfer of techno-economic data to the developing full-scale Louisiana Strategic Metals Complex," stated Mike Schrider, P.E., Ucore's VP and COO. "The Demo Plant is designed to process tens of tonnes of HREE and LREE feedstock annually. Once the commissioning trials are completed, the Company is planning two additional 10-ton processing campaigns for the commercial demonstration and products qualification program."

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About Ucore Rare Metals Inc.

Ucore is focused on rare- and critical-metal resources, extraction, beneficiation, and separation technologies with the potential for production, growth, and scalability. Ucore has an effective 100% ownership stake in the Bokan-Dotson Ridge Rare Earth Element Project in Southeast Alaska, USA. Ucore's vision and plan is to become a leading advanced technology company, providing best-in-class metal separation products and services to the mining and mineral extraction industry.

Through strategic partnerships, this plan includes disrupting the People's Republic of China's control of the North American REE supply chain through the near-term development of a heavy and light rare-earth processing facility in the US State of Louisiana, subsequent SMCs in Alaska and Canada and the longer-term development of Ucore's heavy-rare-earth-element mineral-resource property at Bokan Mountain on Prince of Wales Island, Alaska. Ucore is listed on the TSXV under the trading symbol "[UCU](#)" and in the United States on the OTC Markets' OTCQX® Best Market under the ticker symbol "[UURAF](#)."

For further information, please visit www.ucore.com/corporateupdate.

About RapidSX™ Technology

IMC developed the RapidSX™ separation technology platform with early-stage assistance from the United States Department of Defense ("US DoD"), later resulting in the production of commercial-grade, separated rare-earth elements at the pilot scale. RapidSX™ combines the time-proven chemistry of conventional solvent extraction ("SX") with a new column-based platform, which significantly reduces time to completion and plant footprint, as well as potentially lowering capital and operating costs. SX is the international rare-earth element ("REE") industry's standard commercial separation technology and is currently used by 100% of all REE producers worldwide for bulk commercial separation of both heavy and light REEs. Utilizing similar chemistry to conventional SX, RapidSX™ is not a "new" technology but represents a significant improvement on the well-established, well-understood, proven conventional SX separation technology preferred by REE producers.

Forward-Looking Statements

This press release includes certain statements that may be deemed "forward-looking statements." All statements in this release (other than statements of historical facts) that address future business development, technological development and/or acquisition activities (including any related required financings), timelines, events, or developments that the Company is pursuing, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance or results, and actual results or developments may differ materially from those in forward-looking statements.

Regarding the disclosure in the press release above, including in the "About Ucore Rare Metals Inc." section, the Company has assumed that it will be able to procure or retain additional partners and/or suppliers, in addition to Innovation Metals Corp. ("IMC"), as suppliers for Ucore's expected future Strategic Metals Complexes ("SMCs"). Ucore has also assumed that sufficient external funding will be found to complete the Demo Plant commissioning and demonstration schedule and also later prepare a new National Instrument 43-101 ("NI 43-101") technical report that demonstrates that the Bokan Mountain Rare Earth Element project ("Bokan") is feasible and economically viable for the production of both REE and co-product metals and the then prevailing market prices based upon assumed customer offtake agreements. Ucore has also assumed that sufficient external funding will be secured to continue the development of the specific engineering plans for the SMCs and their construction. Factors that could cause actual results to differ materially from those in forward-looking statements include, without limitation: IMC failing to protect its intellectual property rights in RapidSX™; RapidSX™ failing to demonstrate commercial viability in large commercial-scale applications; Ucore not being able to procure additional key partners or suppliers for the SMCs; Ucore not being able to raise sufficient funds to fund the specific design and construction of the SMCs and/or the continued development of RapidSX™; adverse capital-market conditions; unexpected due-diligence findings; the emergence of alternative superior metallurgy and metal-separation technologies; the inability of Ucore and/or IMC to retain its key staff members; a change in the legislation in Alaska and/or in the support expressed by the Alaska Industrial Development and Export Authority ("AIDEA") regarding the development of Bokan and/or the Alaska SMC; the availability and procurement of any required interim and/or long-term financing that may be required; and general economic, market or business conditions.

Neither the TSXV nor its Regulation Services Provider (as that term is defined by the TSXV) accept responsibility for the adequacy or accuracy of this release.

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