

# Ucore Mobilizes Geological Crew to Bokan Mountain as Prices for Heavy Rare Earth Oxides Continue to Rise

- Ucore's subcontracted geological team, Aurora Geosciences Ltd., is mobilizing for deployment to the Bokan Mountain Complex during the week of May 9, 2022, for Ucore's Summer 2022 Resource Upgrade Program, a program intended to:
  - upgrade the Bokan-Dotson Ridge Zone Mineral Resource estimate from the current  $\approx 18\%$  Indicated and  $\approx 82\%$  Inferred classifications to include a  $\approx 17\%$  to  $20\%$  Measured classification later in 2022 by:
    - obtaining  $\approx 50$  additional channel samples along the  $\approx 2$  km exposed vein outcroppings
    - extracting  $\approx 50$  tonnes of supplementary mineralized material from two new bulk sample locations for planned mill flowsheet pilot-scale testing
  - The Bokan-Dotson Ridge Zone is enriched with heavy rare earth elements, including terbium and dysprosium, the two heavy rare earth elements associated with electric vehicle permanent magnet synchronous motors.

May 10, 2022 (Source) – **Ucore Rare Metals Inc. (TSXV: UCU) (OTCQX: UURAF) (“Ucore” or the “Company”)** is pleased to announce the planned mobilization of a geological crew to conduct Ucore's Summer 2022 fieldwork program (the “**Program**”) at the Company's Bokan-Dotson Ridge Zone mineral deposit (“**Bokan**” or “**Bokan Project**”) on Prince of Wales Island, Alaska, USA. The Program is a continuation of Ucore's 2007,

2008, 2009, 2010, 2011 & 2014 Bokan Mountain Complex exploration drill programs and is being undertaken by **Aurora Geosciences (Alaska) Ltd.** (“AGL” or “Aurora”) of Juneau, Alaska. The Program is designed to improve the geological confidence of the mineral deposit in preparation for a forthcoming planned pre-feasibility study (“PFS”), as the rare earth oxide (“REO”) market continues its favourable response to the increased electrification demands related to the electric vehicle (“EV”) and renewable energy sectors.

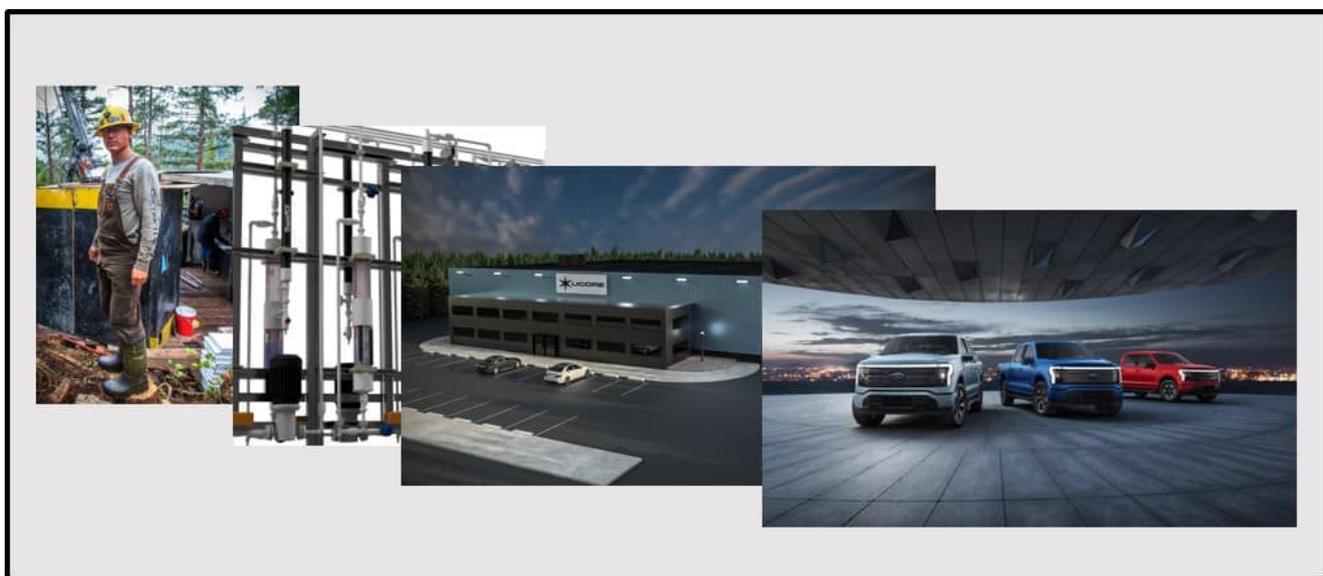


Figure 1 – Ucore’s Vision of a North American REE Supply Chain:

Bokan Mountain, RapidSX™ Technology, Alaska SMC & North American Manufactured EVs

The approximately 5-week Program consists of two primary planned objectives:

1. Conduct a channel sampling program along the ≈2 km exposed vein outcroppings of the Dotson Ridge Zone and incorporate these results into the current deposit model<sup>[1]</sup>. Upgrade **the Bokan-Dotson Ridge Zone Mineral Resource estimate from the current ≈18% Indicated and ≈82% Inferred classifications to include a ≈17% to 20% Measured classification later in 2022.** The Measured resource will be drawn predominantly from the current

Indicated resource, with over 90% of the new Measured material being drawn from the Indicated resource and 10% from the Inferred resource.

2. Extract ≈50 tonnes of additional mineralized material from two 2021 selected bulk sample locations to support a follow-on mill flowsheet pilot-scale testing program as part of a PFS. This work will be derived from the current mill flowsheet development work that is ongoing at **SGS Canada Inc. (Lakefield)** (“**SGS**”). The produced mineral concentrate from this pilot-scale testing will then be processed at the RapidSX™ Commercialization and Development Facility’s (“**CDF**”) Demonstration Plant as part of Ucore’s commercial technology deployment process. The Program is a prerequisite step in preparation for obtaining potential feedstock mineral concentrate from Bokan to supply the Company’s planned Alaska Strategic Metals Complex (“**SMC**”) targeted for Ketchikan, Alaska.

*“Aurora Geosciences has been involved in exploration work at Bokan Mountain for over a decade,”* stated Ucore Vice President and COO **Mike Schrider**, P.E. *“Jim Robinson and his team have put together a Mineral Resource upgrade program for 2022 that will enable us to finalize our exploration efforts towards developing the Bokan Project as we respond to Western electrification demands and the associated need for rare earth critical metals.*

*“Continued execution of the Company’s long-term Bokan Mountain development plans, coupled with our near-term plan to construct the Alaska SMC 35-miles to the northeast of Bokan in Ketchikan, represents a unique opportunity for Ucore, the communities of Southeast Alaska and the State of Alaska. Working together as a team and with our stakeholders, we can help lead the United States’ concerted effort to establish an independent REE supply chain to support the transformation to EVs and renewable energy sources and ensure that high-paying*

family-wage jobs are generated and maintained in Southeast Alaska for decades to come.”

**The Bokan-Dotson Ridge Zone is amongst the highest grade heavy rare earth element (“HREE”) Mineral Resources in the United States<sup>[2]</sup>.** The Bokan Project includes terbium (Tb) and dysprosium (Dy) oxides, the two HREEs oxides associated with EV permanent magnet synchronous motors. As shown in Table 1, the spot market price<sup>[3]</sup> of Tb and Dy oxides – HREEs used in most permanent magnet synchronous motors (“**PMSM**”) – have dramatically increased since 2020. And most importantly, the forecasted demand for PMSM’s REOs is expected to remain strong well into the next decade<sup>[4]</sup>.

	<b>2020 Average Price \$USD</b>	<b>2022 YTD Average Price \$USD</b>
<b>Terbium Oxide</b>	\$646	\$2,117
		<b>A 227.7% Δ</b>
<b>Dysprosium Oxide</b>	\$260	\$447
		<b>A 71.9% Δ</b>

Table 1 – Tb & Dy Prices & % Change from 2020 to 2022

“As automakers shift to electrification, a totally new metallic supply chain must be created,” commented Ucore Chairman and CEO **Pat Ryan**, P.Eng. “The historical automotive business was vertically integrated with rubber plants in South America to an array of steel manufacturing plants as a key part of their production strategy. Today automakers from Ford to GM to VW realize that controlling source raw materials right back to the mine could determine how many electric vehicles they will be able to make and at what cost. The further development of the Bokan Mountain Complex for long term security of rare earth oxides used in powerful electric motors presents an opportunity for deep integration of Western supply chains.”

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## **About Ucore Rare Metals Inc.**

Ucore is focused on rare- and critical-metals 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, Ucore's vision includes disrupting the People's Republic of China's control of the US REE supply chain through the near-term development of a heavy and light rare-earth processing facility – the Alaska Strategic Metals Complex in Southeast Alaska and the long-term development of Ucore's heavy-rare-earth-element mineral-resource property located 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](http://www.ucore.com).

## **Qualified Person**

Ronald James (Jim) Robinson, B.Sc., P.Geo., an independent geologist and General Manager of Aurora Geosciences (Alaska) Ltd. of Juneau, Alaska, has prepared, reviewed and approved the technical data regarding the Bokan-Dotson Ridge Mineral Resource provided in this news release and is the qualified person responsible for its accuracy.

## **Forward-Looking Statements**

*This press release includes certain statements that may be deemed "forward-looking statements" regarding, among other things, the Company's ALASKA2023 Business Plan as well as the upcoming prospective financing activities involving the Company and AIDEA. 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 expects, 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. In regard to the disclosure in the "About Ucore Rare Metals Inc." section above, the Company has assumed that it will be able to procure or retain additional partners and/or suppliers, in addition to IMC, as suppliers for Ucore's expected future Alaska Strategic Metals Complex ("Alaska SMC"). Ucore has also assumed that sufficient external funding will be found to prepare a new National Instrument 43-101 ("NI 43-101") technical report that demonstrates that the Bokan Mountain Rare Earth Elements 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 to develop the specific engineering plans for the Alaska SMC and its construction. Factors that could cause actual results to differ materially from those in forward-looking statements include, without limitation: Innovation Metals Corp. ("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 Alaska SMC; Ucore not being able to raise sufficient funds to fund the specific design and*

*construction of the Alaska SMC 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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<sup>[1]</sup> The deposit model was established and has been maintained by AGL since 2008.

<sup>[2]</sup> Disclosed pursuant to a technical report prepared in accordance with National Instrument 43-101.

<sup>[3]</sup> Source: daily spot market pricing provided by the Association of China Rare Earth Industry and compiled and calculated by Ucore.

<sup>[4]</sup> Source: ADAMAS Intelligence's *Rare Earth Magnet Market*

*Outlook to 2035.*