

Critical Elements Lithium moves one step closer to production with Federal environmental approval

Last week Critical Elements Lithium Corporation (TSXV: CRE | OTCQX: CRECF) (“Critical Elements”) announced that they had received a “favorable decision statement” from the Minister of Environment and Climate Change Canada regarding their 100% owned Rose Lithium-Tantalum Mining Project in Canada.

Federal Environmental approval granted for the Rose Lithium-Tantalum Mining Project – August 10, 2021

The Minister of Environment and Climate Change approves the Rose Lithium-Tantalum Mining Project

From: [Impact Assessment Agency of Canada](#)

News release

August 10, 2021 — Ottawa — Impact Assessment Agency of Canada

Source: Government of Canada

The final remaining step in the Project’s approval is the completion of the provincial permitting process, which runs parallel to the federal process. This process is already well advanced and is conducted jointly by the Cree Nation Government and the Government of Quebec under the Environmental and Social Impact Review Committee (“COMEX”). Critical Elements stated:

“The Cree Nation of Eastmain, the Grand Council of the Crees (Eeyou Istchee), the Cree Nation Government and Critical Elements signed an impact and benefit agreement, referred to

as the Pikhuutaau Agreement (the “Pikhuutaau Agreement”), in July 2019. The announcement of the favorable Decision Statement will allow the Company to begin in a more concrete manner the implementation of the Pikhuutaau Agreement, which provides for training, employment and business opportunities for the Crees and particularly the Crees of Eastmain at the Project, as well as for the cooperation and involvement of the Cree parties with Critical Elements in the environmental monitoring during all phases of the Project. The Pikhuutaau Agreement also ensures financial benefits for the Cree parties on a long term basis, consistent with the Cree Nation Mining Policy and with Critical Elements’ approach to develop the Project while ensuring the promotion of Cree economic and social development in a mutually beneficial manner.”

In further news, Critical Elements has engaged Goldspot Discoveries to apply AI Exploration Technologies on their extensive 700sq km property package located in James Bay, Quebec, Canada. GoldSpot’s AI technology has the ability to take large land packages and distill all available geological information to identify the most efficient and cost-effective way to explore prospective terrane and to produce high priority targets for field prospecting.

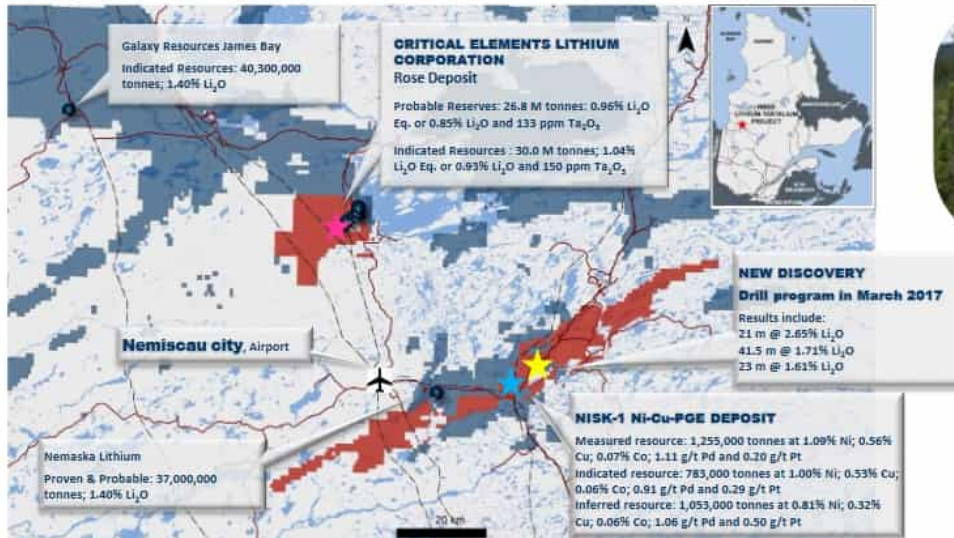
Critical Elements portfolio of projects in Quebec Canada

EXTENSIVE PORTFOLIO OF TARGETS

A dominant land package with exploration upside



- Located in a premier mining jurisdiction in Québec, Canada
- Excellent access to infrastructure including roads, low-cost power and skilled labor
 - Camp
 - Power line on site tapping into Quebec's low carbon (93% hydroelectricity), low-cost grid
 - Airport
- Strong relations with First Nations communities and local and provincial governments



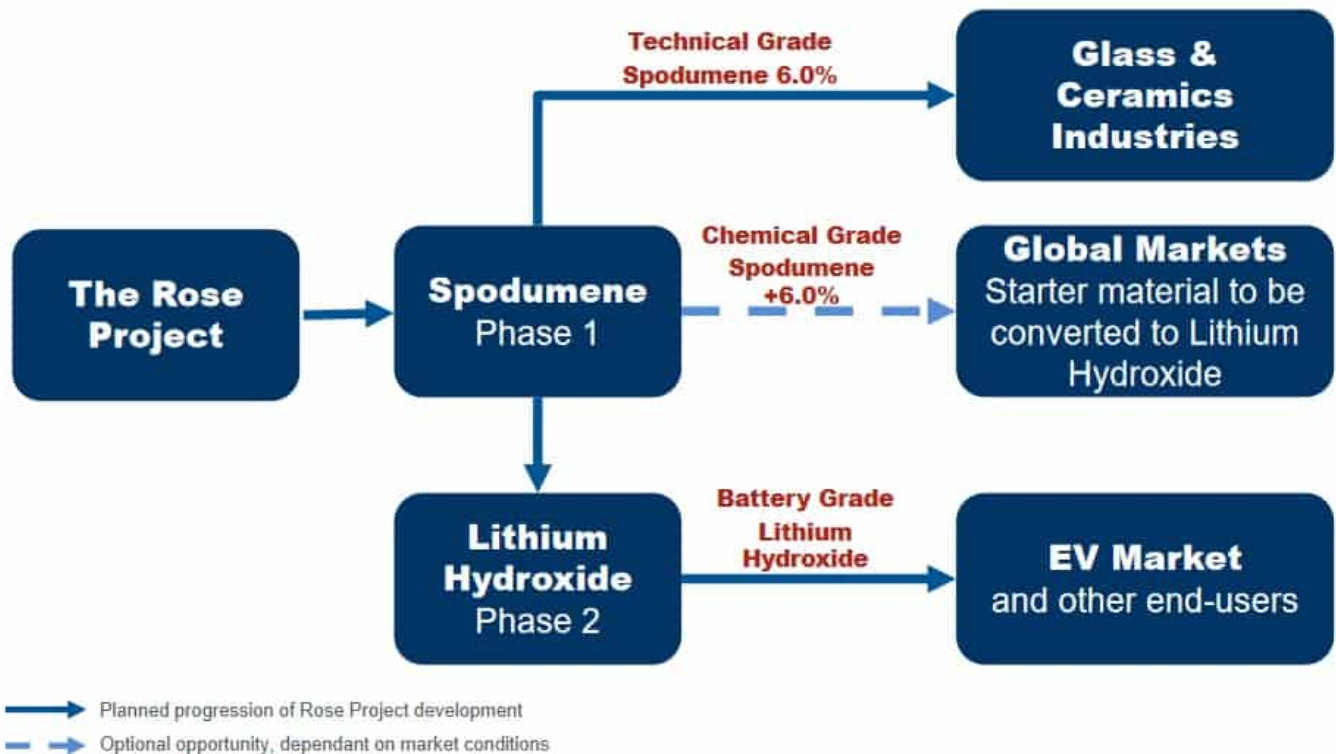
Source: Critical Elements Lithium company presentation

In other key news Critical Elements announced that they have retained Metso Outotec and WSP to prepare a Phase 2 engineering study for a chemical plant to produce high-quality lithium hydroxide. As most lithium investors would be aware if you are able to process your spodumene and sell lithium hydroxide you can capture much more of the product margin. For example, spodumene prices are currently around US\$830/t compared to lithium hydroxide at US\$15,750/t. About 7.5 tonnes of spodumene are required to produce 1 tonne of hydroxide. This means the spodumene required for 1 tonne of hydroxide would be 7.5 x US\$830/t, or US\$6,225/t. Lithium miners can therefore make a lot more by selling hydroxide, albeit with a greater upfront CapEx.

The Rose Project plan – Phase 1 and 2

THE ROSE PROJECT: PHASE 1 & 2

A phased approach to supplying the EV market



Source: Critical Elements Lithium company presentation

Closing remarks

Critical Element 2017 Feasibility Study on their Rose Lithium-Tantalum Project Phase 1, for the production of high quality spodumene concentrate, resulted in a post-tax NPV8% of C\$726 million and an IRR of 34.9%, CapEx of C\$341 million. These are strong numbers but could even be potentially better for a Phase 2 project that produces lithium hydroxide.

Investors can therefore look forward to several potential catalysts over the next year or two including GoldSpot's AI results, provincial Rose Project approval, Phase 2 Engineering Study results (CapEx etc), a probable Phase 2 Feasibility Study to produce hydroxide, any off-take announcements, Stage 1 funding and construction, and ultimately production (ideally by 2023).

Critical Elements still have a few more steps to achieve, however on a market cap of C\$269 million there still looks to

be plenty of potential upsides ahead should they succeed. The Board and management have great experience and include former Rockwood Lithium CEO Steffen Haber and CFO Marcus Brune, and industry veteran CEO Jean-Sébastien Lavallée. And as a final bonus, Critical Elements Lithium also has 8 other critical elements projects.