



PRESS RELEASE

CRITICAL ELEMENTS FILES NI-43-101 TECHNICAL REPORT FOR THE ROSE LITHIUM-TANTALUM FEASIBILITY STUDY

July 27, 2022 - MONTRÉAL, QUÉBEC – Critical Elements Lithium Corporation (TSX-V: CRE) (US OTCQX: CRECF) (FSE: F12) ("**Critical Elements**" or the "**Corporation**") is pleased to announce the filing on SEDAR of a National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("**NI 43-101**") compliant technical report representing the qualifying report for the recently-announced Feasibility Study at the Rose Lithium-Tantalum Project located in James Bay, Québec. For more information, please refer to Critical Elements' press release dated June 13, 2022. Highlights of the Feasibility Study are as follows:

Highlights

- Average production, Year 2 to Year 16 of 173,317 tonnes of chemical grade 5.5% spodumene concentrate;
- Average production, Year 2 to Year 16 of 51,369 tonnes of technical grade 6.0% spodumene concentrate;
- Average production, Year 2 to Year 16 of 441 tonnes of tantalum concentrate
- Expected life of mine of 17 years;
- Average operating costs of US\$74.48 per tonne milled, US\$540 per tonne of concentrate (all concentrate production combined);
- Estimated initial capital cost US\$357 million before working capital;
- 100% equity basis for project;
- Average gross margin of 68.3%;
- After-tax NPV of US\$1,915 million (at 8% discount rate), after-tax IRR of 82.4% and average price assumptions of US\$4,039 per tonne technical grade lithium concentrate, US\$1,852 per tonne chemical grade lithium concentrate, US\$130 per kg tantalum pentoxide (Ta₂O₅); and
- Anticipated construction time to start of production of 21 months.

A copy of the technical report, which was filed on SEDAR on July 27, 2022, will be available on the Critical Elements' website at <https://www.cecorp.ca/en/rose-43-101/>.

Qualified Persons for NI 43-101 compliant report

The Feasibility Study was prepared in accordance to NI 43-101 standards by WSP Canada Inc ("WSP"), Bumigeme Inc., and InnovExplo Inc. InnovExplo Inc. was responsible for the resource estimate and the mine plan, Bumigeme Inc. was responsible for the mineral processing, and WSP was responsible for the environmental study, project infrastructure, financial modelling, and report integration. Information regarding the outlook for lithium comes from a market study prepared by Mr. Gerrit Fuelling on behalf of the Corporation. Mr. Fuelling is an independent consultant specializing in the lithium market.

The qualified persons for the study are:

InnoExplo Inc.;

- Carl Pelletier, P.Geo, Geologist
- Simon Boudreau, P.Eng, Mining Engineer

Bumigeme Inc.;

- Florent Baril, Eng, Metallurgical Engineer

WSP;

- Eric Poirier, Eng, PMP, Project Manager
- Rick McBride, P.Eng., Mining Engineer
- Olivier Joyal, Geologist

About Critical Elements Lithium Corporation

Critical Elements aspires to become a large, responsible supplier of lithium to the flourishing electric vehicle and energy storage system industries. To this end, Critical Elements is advancing the wholly owned, high purity Rose lithium project in Québec. Rose is the Corporation's first lithium project to be advanced within a land portfolio of over 700 square kilometers. On June 13th, 2022, the Corporation announced results of a feasibility study on Rose for the production of spodumene concentrate. The after-tax internal rate of return for the Project is estimated at 82.4%, with an estimated after-tax net present value of US\$1.9 B at an 8% discount rate. In the Corporation's view, Québec is strategically well-positioned for US and EU markets and boasts good infrastructure including a low-cost, low-carbon power grid featuring 93% hydroelectricity. The project has received approval from the Federal Minister of Environment and Climate Change on the recommendation of the Joint Assessment Committee, comprised of representatives from the Impact Assessment Agency of Canada and the Cree Nation Government; The Corporation is working to obtain similar approval under the Québec environmental assessment process. The Corporation also has a good, formalized relationship with the Cree Nation.

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Cautionary statement concerning forward-looking statements

This news release contains "forward-looking information" within the meaning of Canadian Securities legislation. Generally, forward-looking information can be identified by the use of forward-looking terminology such as "scheduled", "anticipates", "expects" or "does not expect", "is expected", "scheduled", "targeted", or "believes", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". Forward-looking information contained herein include, without limitation, statements relating to the completion of the 2022 exploration program and its related objectives, the completion of the provincial permitting process and its potential positive effects on the Corporation and the Project, the completion of engineering study for a chemical plant to produce high quality lithium hydroxide monohydrate, the preparation of the front-end engineering design work for the process plant and related infrastructure, the announce, on June 13th, 2022, of results of a feasibility study on Rose for the production of spodumene concentrate, off-take agreements and purchasers for the Corporation's products, securing sufficient financing on acceptable terms and continued positive discussions and relationships with local communities and stakeholders. Forward-looking information is based on assumptions management believes to be reasonable at the time such statements are made. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.

Although Critical Elements has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking information include, but are not limited to: results of the Corporation's 2022 exploration program and effects on the Corporation's stated objectives, results of the engineering study for a chemical plant to produce high quality lithium hydroxide monohydrate, issues encountered in connection with the front-end engineering work, impact of the Updated Feasibility Study on the Project, Critical Elements' ability to secure sufficient financing to advance and complete the Project, uncertainties associated with the Corporation's resource and reserve estimates, uncertainties regarding global supply and demand for lithium and tantalum and market and sales prices, uncertainties associated with securing off-take agreements and customer contracts, uncertainties with respect to social, community and environmental impacts, uncertainties with respect to optimization opportunities for the Project, as well as those risk factors set out in the Corporation's year-end Management Discussion and Analysis dated August 31, 2021 and other disclosure documents available under the Corporation's SEDAR profile. Forward-looking information contained herein is made as of the date of this news release and Critical Elements disclaims any obligation to update any forward-looking information, whether as a result of new information, future events or results or otherwise, except as required by applicable securities laws.