



PRESS RELEASE

Critical Elements Lithium increases its confidence in Rose Project Growth as New Discoveries Expand Known Pegmatite Swarm

September 12th, 2023 – MONTRÉAL, QUÉBEC – Critical Elements Lithium Corporation (TSX-V: CRE) (US OTCQX: CRECF) (FSE: F12) ("**Critical Elements**" or the "**Corporation**") is pleased to announce that, since the restart of exploration work on the Rose Lithium-Tantalum Project ("Rose" or "Project"), located in the Eeyou Istchee-James Bay region of Quebec, field crews have successfully discovered several new spodumene-bearing pegmatite outcrops.

As outlined in the [news release](#) dated September 5, 2023, Critical Elements has recommenced ground exploration focused on defining drill targets for a significant fall and winter drill program. Multiple rigs will be deployed to drill-test new targets. The Rose project is situated within the Rose and Rose South claim blocks (Figure 1), which constitute 395 km², or only 38 % of the 1,050 km² in the Corporation's highly prospective exploration portfolio in Québec. It is important to note that the Rose project mineral resource estimate is based largely on drilling that concluded in 2016 as management focused on delivering technical studies and advancing permitting at that time.

Several new discovery areas have been identified in the Rose pegmatite swarm. To date, four spodumene-bearing pegmatite outcrops have been identified in the New Discovery Area. At this early stage, the strike length, width and orientations of these dykes is unknown but the apparent strike length along the outcrops exceeds 330 metres. The exploration team is planning to follow up with more work on the area over the next few days.

Jean-Sébastien Lavallée, CEO of Critical Elements Lithium commented, "Today's announcement is an important milestone for Critical Elements as we reaccelerate exploration in the vicinity of the Rose deposit. Furthermore, with more than 395 km² of property at Rose and Rose South, multiple highly prospective areas potentially within trucking distance of the proposed Rose concentrator remain to be explored in the next few weeks."

Figure 1: Rose Lithium-Tantalum and Rose South Projects New Discovery Location Map

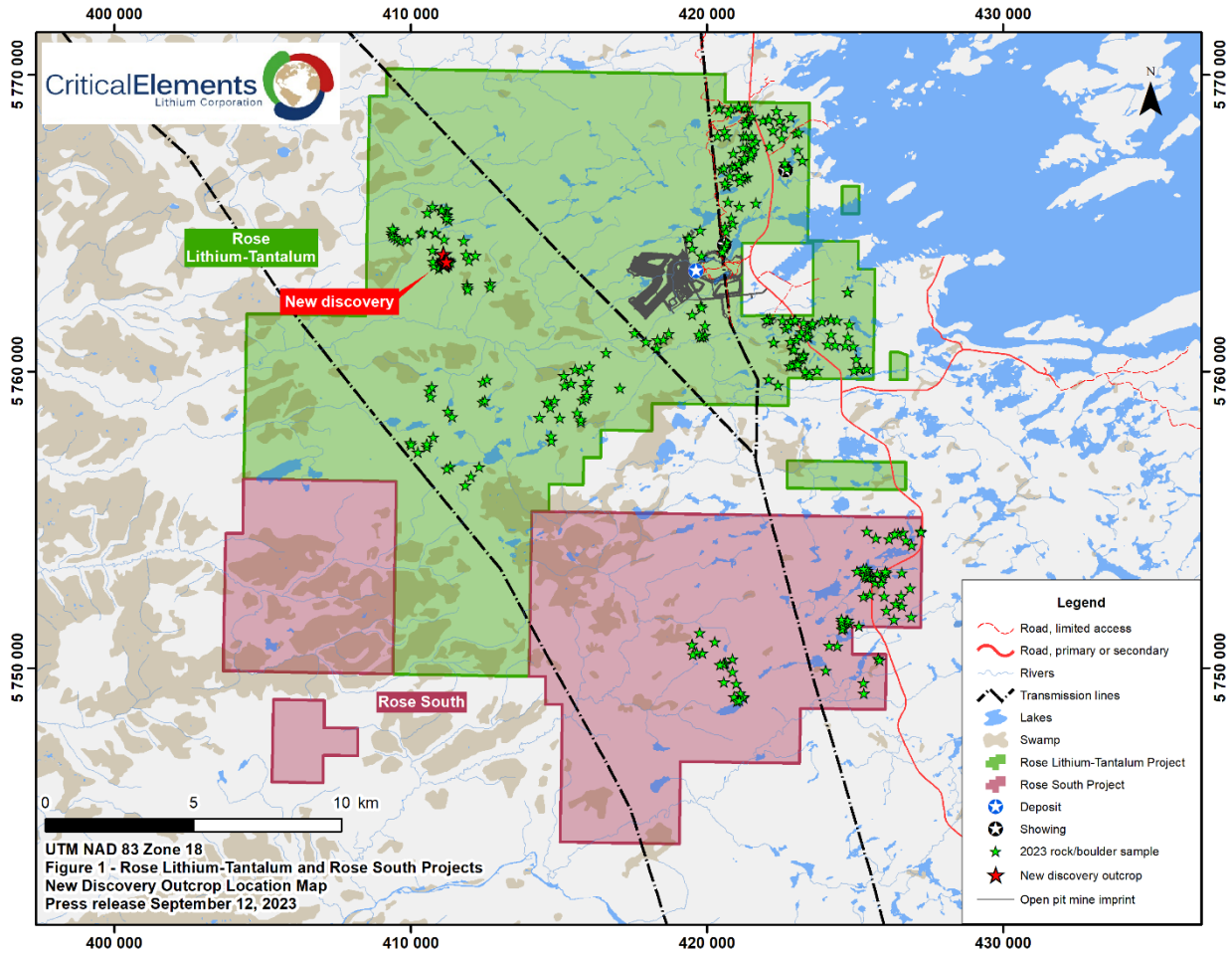


Photo 1: Rose Lithium-Tantalum Project New Discovery

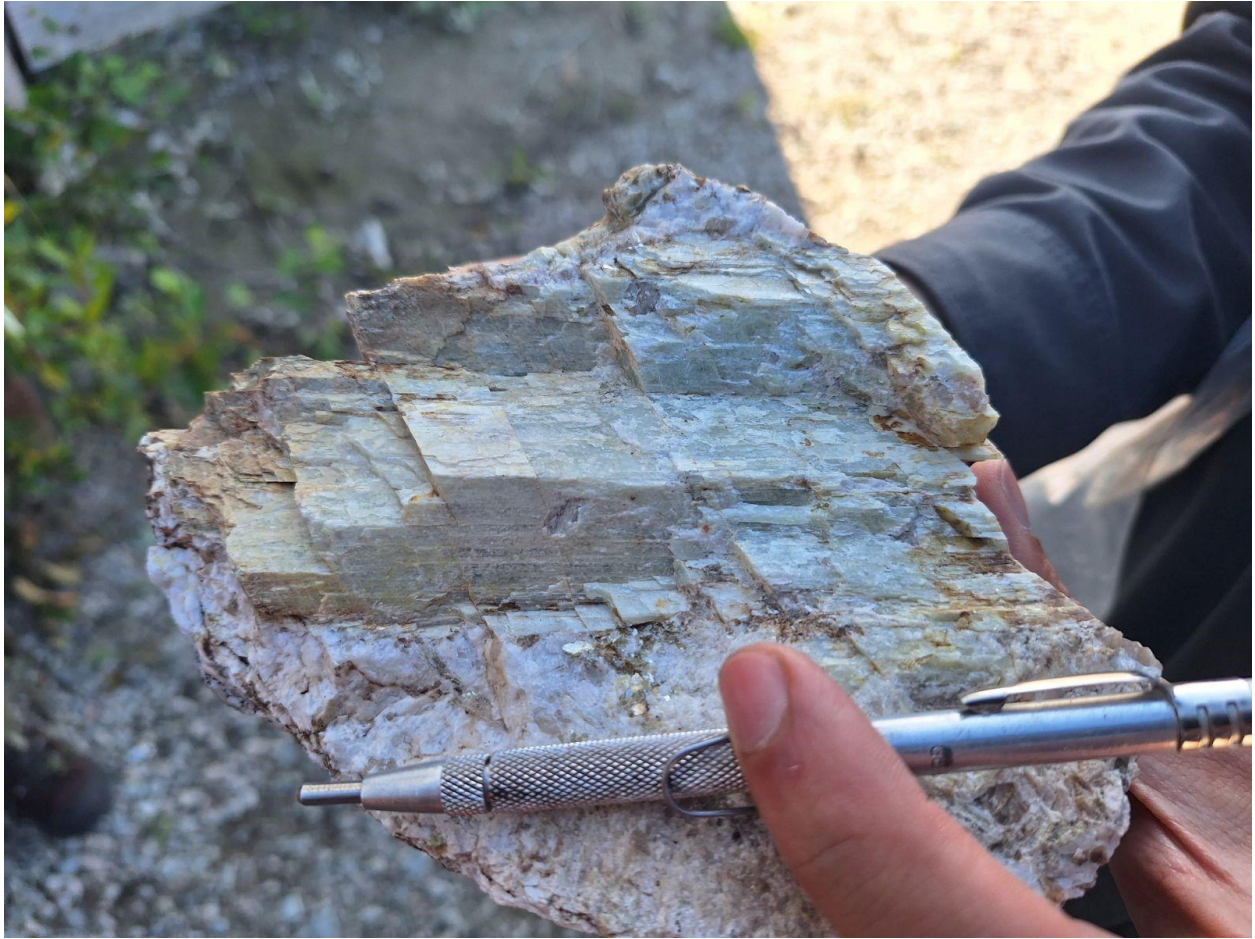


Photo 2: Rose Lithium-Tantalum Project New Discovery



Photo 3: Rose Lithium-Tantalum Project New Discovery



Photo 4: Rose Lithium-Tantalum Project New Discovery



Photo 5: Rose Lithium-Tantalum Project New Discovery



Photo 6: Rose Lithium-Tantalum Project New Discovery



Photo 7: Rose Lithium-Tantalum Project New Discovery



The reader is cautioned that pictures and grab samples are selective by nature and may not represent average grades of the mineralization in the pegmatites.

The surface exploration program with five crews continues to ground-truth several LCT-pegmatite targets. Results will be released in context as the program progresses. Management is currently engaged in designing a significant fall and winter drill program with multiple rigs to drill-test new targets including the Duval discovery, advance the Lemare deposit, and expand the Rose project resource inventory including potential proximal satellite mineralization. Details of this extensive program will be forthcoming near-term.

Qualified persons

Paul Bonneville, Eng, is the qualified persons that have reviewed and approved the technical contents of this news release on behalf of the Corporation.

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, the Corporation's first lithium project to be advanced within a land portfolio of over 1,050 km². On August 29, 2023, the Corporation announced results of a new Feasibility Study on Rose for the production of spodumene concentrate. The after-tax internal rate of return for the Project is estimated at 65.7%, with an estimated after-tax net present value of US\$2.2B 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 94% 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 and also received the Certificate of

Authorization pursuant to section 164 of Québec's *Environment Quality Act* from the Québec Minister of the Environment, the Fight against Climate Change, Wildlife and Parks.

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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 results and completion of the 2023 exploration program (including the potential of the Corporation’s Nemaska trend properties) and its related objectives. 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: final and complete results of the Corporation’s 2023 exploration program and effects on the Corporation’s stated objectives, as well as those risk factors set out in the Corporation’s Management Discussion and Analysis for its most recent quarter ended May 31, 2023 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.