

2 September 2024

## Critical Resources Commences Summer Drilling at Mavis Lake Project Area

### Highlights

- Drilling re-commences at the Company's Mavis Lake Lithium Project.
- Drilling program will focus on **high-priority targets** within the Northern Prospects, specifically the Tot pegmatite along the 8km of highlight prospective anomalies and follow up targets.
- The program also aims to build upon the current Mineral Resource Estimate of **8 million tonnes at 1.07% Li<sub>2</sub>O** and drive progress toward the Company's Exploration Target of an additional 18 to 29 million tonnes at 0.8 to 1.2% Li<sub>2</sub>O across the Mavis Lake Project area.
- The Mineral Resource Estimate of **8 million tonnes at 1.07% Li<sub>2</sub>O** is based on drilling until March 2023, since then 16,753 of drilling has been conducted at Mavis Lake, along with this new drilling campaign this will put the Company on target for a significant MRE upgrade in FY25.

Lithium exploration and project development company Critical Resources Limited **ASX:CRR** ("Critical Resources" or "the Company") is pleased to announce the commencement of a targeted drilling campaign at its flagship 100%-owned Mavis Lake Lithium Project in Ontario, Canada. This phase of drilling is strategically focused on two key areas: drill testing the high-priority Northern Prospects, specifically the Tot pegmatite, and continuing resource expansion drilling at the Main Zone of Mavis Lake.

### Strategic Objectives and Exploration Targets

The drilling campaign has been designed to build upon the Company's existing Mineral Resource Estimate (MRE) of 8 million tonnes at an average grade of 1.07% Li<sub>2</sub>O, as well as to significantly advance toward Critical Resources' exploration target of 18 to 29 million tonnes at 0.8 to 1.2% Li<sub>2</sub>O\* across the broader Mavis Lake Project area.

- **Northern Prospects (Gullwing and Tot):** These prospects have been identified as high-priority targets due to their favourable geological characteristics and potential to add substantial tonnage to the overall resource base. Drill testing will focus on identifying and delineating additional lithium-bearing pegmatites that could enhance the project's scale and economic viability.

*\* Cautionary statement - The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code. The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.*



Northern Prospects highlights include:

- Approximately 8km of strike with high-grade assays from rock chips and channel sampling including:
  - Sample 159082 Gullwing rock chip @ 6.78% Li<sub>2</sub>O
  - Sample 157856 Tot 1.3m channel sample @ 2.88% Li<sub>2</sub>O
  - Sample 347562 Tot rock chip @ 3.21% Li<sub>2</sub>O
- High-grading channel samples including 6m at 1.57% Li<sub>2</sub>O sampled at Tot pegmatite
- Soil sampling identified 1 x 1.25km trend extending from the Tot pegmatite.
- Low altitude, high-resolution aeromag and LIDAR survey identified multiple magnetic signatures consistent with previously mapped spodumene bearing pegmatites.
- **Main Zone:** Continuation of resource expansion drilling is planned to increase the confidence level of the existing resource and potentially expand it further. Previous drilling at the Main Zone has confirmed substantial lithium mineralisation. The upcoming drilling campaign will focus on extensions and lateral continuities of the known pegmatite zones, while also testing highly prospective pegmatites that have not yet been drilled, potentially uncovering new significant mineralisation

Highlights include:

- Maiden Resource Estimate: In May 2023, the Maiden Resource Estimate (MRE) was released, reporting 8 million tonnes at 1.07% Li<sub>2</sub>O. This estimate was based on drilling results up to 30 March 2023.
- Further drilling results: An additional 16,753 meters were drilled throughout calendar year 2023. Notable intercepts from June to November 2023 include:
  - Drill Hole MF23-207: 74.4 meters at 1.18% Li<sub>2</sub>O
  - Drill Hole MF23-213: 50.2 meters at 1.28% Li<sub>2</sub>O
  - Drill Hole MF23-225: 37.75 meters at 1.12% Li<sub>2</sub>O
  - The results from March 2023 onwards are not yet part of the current MRE of 8 million tonnes at 1.07% Li<sub>2</sub>O
- High-Grade Mineralisation: The drilling has identified thick, high-grade lithium mineralisation from surface, extending over a 1.1-kilometer strike.
- New Discovery: Late 2023 drilling confirmed a new lower thick mineralised stack that include a high-grade intercept of 20.7m @ 1.44% Li<sub>2</sub>O from drill hole MF23-226, which remains open.

**Critical Resources' Exploration Manager, Troy Gallik, commented on the commencement of drilling:**

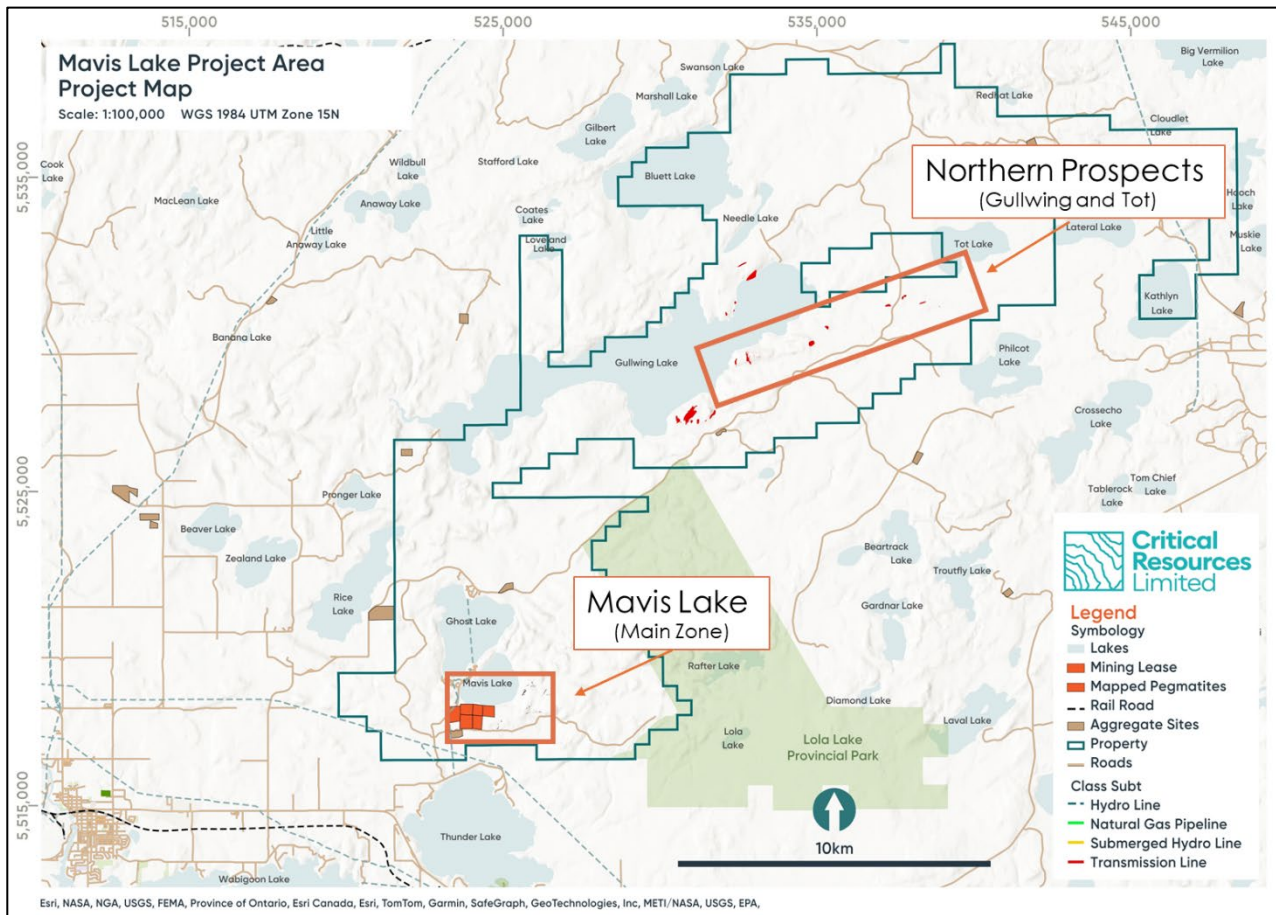
*"This drill campaign at Mavis Lake is a crucial step in unlocking the geological potential of the area. Our exploration strategy is meticulously designed to enhance our understanding of the spodumene-bearing pegmatites, particularly within the Northern Prospects, including Gullwing and Tot, which have shown significant promise in preliminary exploratory works.*



The targeted drilling at these zones, along with continued work at the Main Zone, is expected to provide critical data that will refine our resource models and support the potential for a substantial expansion of the current resource base. The insights gained from this program will be instrumental in advancing the geological understanding of the Mavis Lake Project as we work towards our exploration target."

## Drilling Program Details

The drilling program will comprise of diamond core drilling, with a significant portion dedicated to step-out drilling in previously under-explored areas within the Northern Prospects and to expand on the Mavis Lake resource. Previous drilling, advanced geophysical and geochemical techniques have guided the targeting process, ensuring precision in identifying the most promising drill locations. The data collected will not only contribute to expanding the resource but also provide critical insights into the broader geological framework of the Mavis Lake Project Area.



## Mavis Lake Project – A Premier Lithium Asset

The Mavis Lake Lithium Project is located in a region known for its robust infrastructure, including proximity to the Dryden township (~15km away), transportation networks, skilled labor, schools, airports, hospitals and engineering services all with access to green power, which are advantageous for future project development. The region's rich geological endowment, coupled with Critical Resources' strategic exploration approach, positions Mavis Lake as one of the most promising lithium projects in North America.



Critical Resources remains committed to responsible exploration and development practices, ensuring all operations are conducted with the highest standards of environmental stewardship and community engagement.

**\*References:**

Northern Prospects sample 159082, 157856, 347562 refer to ASX announcement dated 20 December 2022

Drill Hole MF23-207 refer to ASX announcement dated 24 July 2023

Drill Hole MF23-213, MF23-225 refer to ASX announcement dated 19 October 2023

Drill Hole MF23-226 refer to ASX announcement dated 15 November 2023

Tot Pegmatite channel samples refer to ASX announcement dated 22 August 2024

**This announcement has been approved for release by the Board of Directors.**

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**For further information please contact**

**E:** [info@criticalresources.com.au](mailto:info@criticalresources.com.au)

**P:** +61 (8) 9465 1024

**ABOUT CRITICAL RESOURCES LIMITED** Critical Resources is focused on the exploration, development and delivery of the critical metals required for a decarbonized future, underpinned by a portfolio of lithium projects in Ontario, Canada which are ideally positioned to participate in the rapidly growing North American battery materials supply chain.

The Company's principal focus is on its flagship Mavis Lake Lithium Project in Ontario, Canada, where it has completed over 45,000m of drilling and defined a maiden Inferred Mineral Resource of 8Mt grading 1.07% Li<sub>2</sub>O. Recent exploration success has demonstrated substantial potential to expand this resource and make new discoveries in the surrounding area. Critical is progressing a dual-track strategy at Mavis Lake of targeting resource growth in parallel with multiple permitting and project development workstreams.

**COMPETENT PERSONS STATEMENT** The information in this ASX Announcement that relates to Exploration Results is based on information compiled by Mr. Troy Gallik (P. Geo), a Competent Person who is a Member of the Association of Professional Geoscientists of Ontario. Troy Gallik is a full-time employee of Critical Resources. Mr. Gallik has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Gallik consents to the inclusion in this Announcement of the matters based on his information in the form and context in which it appears.

This document contains information on the Mavis Lake Lithium Project, Canada extracted from ASX market announcements dated 20 December 2022, 29 December 2022, 18 May 2023, 17 July 2023, 24 July 2023, 19 September 2023, 19 October 2023, 2 November 2023, 15 November 2023, 18 March 2024, 17 April 2024, 22 May 2024, 29 May 2024, 2 July 2024, 24 July 2024 and 22 August 2024 reported in accordance with the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" ("2012 JORC Code") and available for viewing at <https://www.criticalresources.com.au/> or <https://www.asx.com.au>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX market announcements.

This document contains information relating to the Mineral Resource estimate for the Mavis Lake Lithium Project is extracted from the Company's ASX announcement dated 5 May 2023 and reported in accordance with the 2012 JORC Code and available for viewing at [criticalresources.com.au](https://www.criticalresources.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not materially changed.

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