

## MAVIS LAKE LITHIUM PROJECT POSITIONED TO CAPTURE RISING GLOBAL BATTERY DEMAND

Strategic lithium asset with a district-scale landholding and rapid resource growth, advancing towards low-cost, scalable development in the North American lithium supply chain.

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- **Strategic Asset for North American Lithium Supply Chain:** strengthened by a 25% expansion in landholding to over 400 km<sup>2</sup>. Since its acquisition in 2022, Critical has delivered a maiden JORC Inferred Mineral Resource of 8Mt @ 1.07% Li<sub>2</sub>O and established an expanded Exploration Target, positioning the project for significant future growth.
  - **District-Scale Growth:** Recent land acquisitions have consolidated key geological trends, securing long-term access to the prospective ground in Ontario's premier lithium corridor.
  - **Recent Exploration Success:** Over ~58,000 metres drilled since 2022, with standout intercepts including **74.4m @ 1.18% Li<sub>2</sub>O (incl. 32.9m @ 1.81% Li<sub>2</sub>O), 50.2m @ 1.28% Li<sub>2</sub>O, and 14.6m @ 1.83% Li<sub>2</sub>O**. More than 31 new LCT pegmatite occurrences identified, and newly acquired claims host multiple untested targets to be incorporated.
  - **Infrastructure Advantage:** Immediate access to highways, rail, and clean hydro power supports efficient low-cost logistics and sustainable operations. Provincial and federal support, streamlined permitting, and established Indigenous partnerships underpin rapid project advancement.
  - **Metallurgical Success:** Feasibility-level test work at Mavis Lake has demonstrated near 100% spodumene recovery and a 30% increase in lithium grade, resulting in a high-grade spodumene concentrate with minimal impurities—ready for downstream conversion and battery manufacturing.
  - **Next-Generation Battery Technology:** Critical holds an exclusive low-cost option to evaluate solid-state lithium-ion patents, targeting safer, longer-life batteries with scalable, low-cost processing. This vertical integration strategy unlocks new potential value pathways from mine to market.
  - **Strategic Positioning for Market Rebound:** Mavis Lake is ideally positioned as a potential feedstock for advanced battery technologies, underpinning global licensing opportunities and strengthening the ability to capitalise on the forecast lithium market rebound from 2026.
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**Critical Resources Limited** ('Critical Resources' or the 'Company', **ASX:CRR**) is pleased to provide an update on the Mavis Lake Lithium Project, following the recent expansion of its landholding and ongoing exploration success in Ontario, Canada. This announcement is tailored for investors seeking exposure to the next wave of lithium growth, as market fundamentals continue to strengthen.

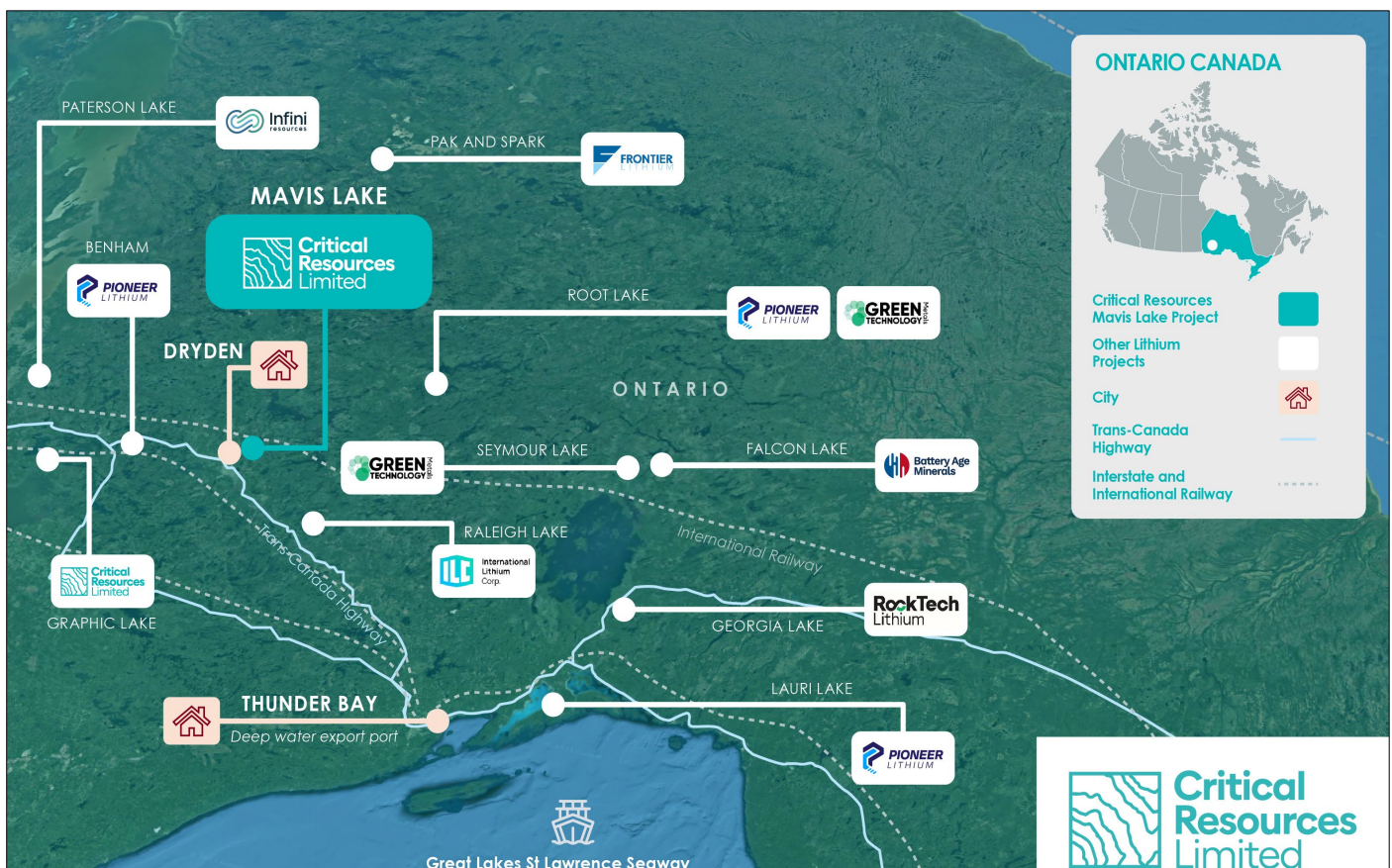
The Company continues to build momentum across its portfolio, leveraging early technical work and disciplined capital deployment to navigate challenging market conditions. The operational review in 2024 (ASX:CRR 22 May 2024) delivered streamlined expenditure and a sharper focus on resource growth.

Environmental stewardship and Indigenous engagement remain central to the Company's strategy, with project designs shaped by stakeholder feedback and best-practice standards. Ongoing investment in permitting and approvals positions Critical for rapid advancement as market conditions improve.

The lithium market has experienced volatility in recent months, with subdued pricing and cautious investor sentiment. Independent market analyst forecasts point to a promising lithium market rebound from 2026, driven by consistently growing demand from electric vehicles and energy storage systems. The Company's Mavis Lake Lithium Project strategic positioning and advanced project pipeline offer significant leverage to these improving market fundamentals.

**Critical Resources Managing Director, Tim Wither, commented:** *'The counter-cyclical opportunity to stake and acquire additional claims secures a dominant land position over highly prospective geology. This strategic decision underpins future growth potential across the Mavis Lake Lithium Project. A recent onsite meeting with our First Nations partners and the Dryden municipality highlighted the strong local support for Mavis Lake and the opportunity to collaborate on the advancement of the project.'*

*'For shareholders, Mavis Lake stands as one of Ontario's significant lithium assets, distinguished by its scale, grade, and access to world-class infrastructure, positioning the project to play a key role in North America's lithium supply chain. We remain committed to responsible development, strong Indigenous partnerships, and maximising value as the lithium market recovers.'*



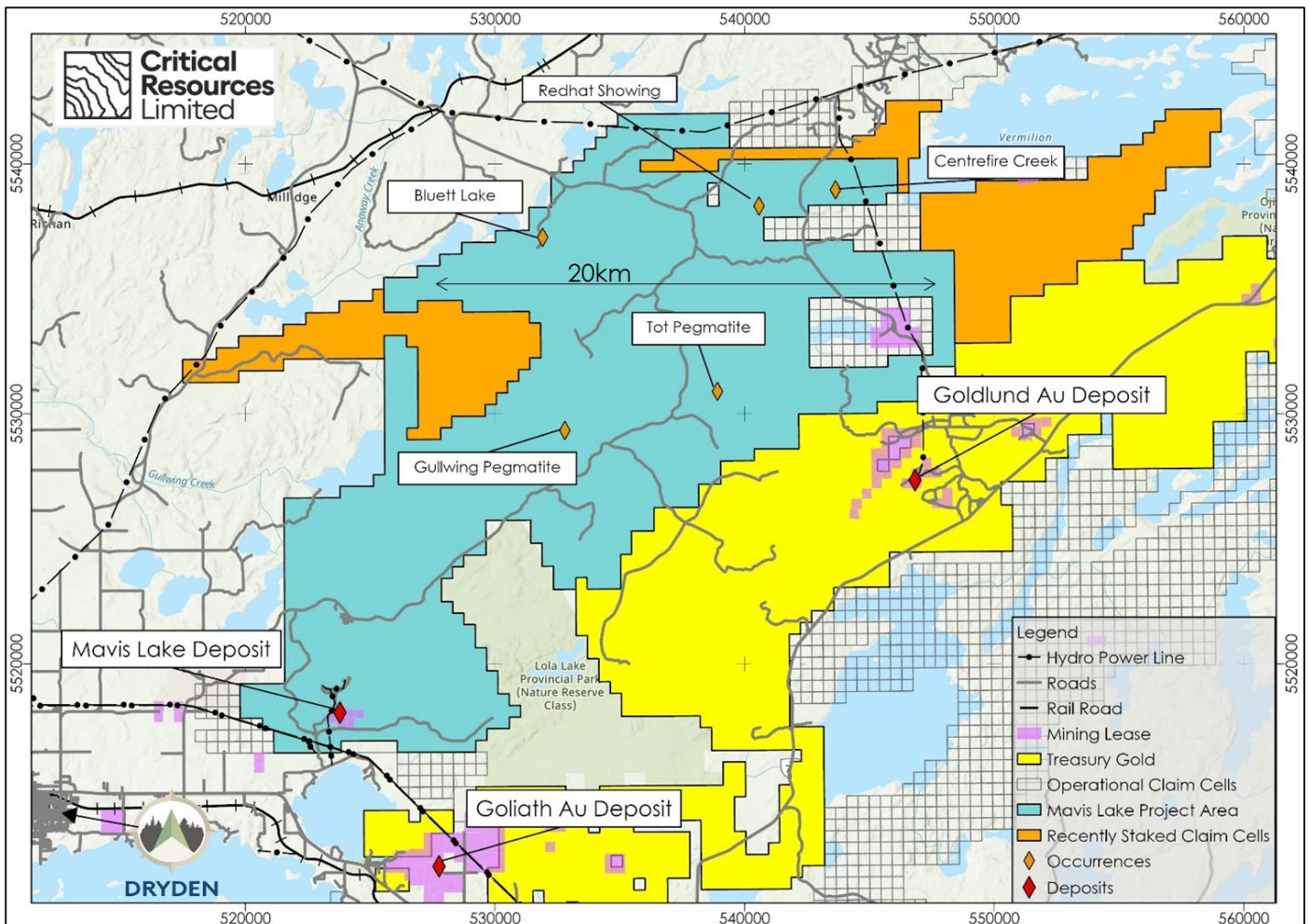
**Figure 1** – Location of Critical Resources Mavis Lake project with surrounding lithium prospects.

## MAVIS LAKE PROJECT DEVELOPMENT OPPORTUNITIES – LOCATION ADVANTAGE

Strategically located in northwestern Ontario, Mavis Lake benefits from a unique combination of geological prospectivity, robust infrastructure, supportive government policy, and proximity to key North American markets. As the lithium sector enters a period of renewed optimism, Mavis Lake is ideally placed to deliver scalable, lower-cost supply, supported by government funding, streamlined permitting, and surging demand for battery materials.

- **Tier-1 jurisdiction:** Ontario's stable regulatory environment, skilled workforce, and strong mining culture provide a strong foundation for long-term project development.
- **Highly prospective geology:** Situated within the Archean Greenstone Belt, Mavis Lake hosts high-grade, hard-rock spodumene pegmatites. The district-scale landholding now exceeds 400 km<sup>2</sup>, with over 31 new LCT pegmatite discoveries in 2024 underpinning ongoing resource growth.
- **Exceptional infrastructure:** Immediate access to the Trans-Canada Highway, all-season roads, and rail enables efficient logistics and export pathways to US and international customers. Clean hydroelectric power and natural gas pipelines support low-emission, sustainable operations.
- **Government and community support:** Both Canadian federal and Ontario provincial governments have prioritised critical minerals, offering funding, streamlined permitting, and infrastructure investment. The Company's existing relationships with local First Nations, including an Agreement-in-Principle (AIP) with the Wabigoon Lake Ojibway Nation, ensure project development aligns with community values and environmental stewardship.
- **Technical and environmental progress:** Technical and baseline environmental studies are underway, leveraging infrastructure advantages to fast-track permitting and development. The project's location allows for lower-emission operations and a commitment to minimising environmental impact.
- **Strategic positioning:** Mavis Lake sits at the heart of the emerging North American battery supply chain, with direct access to major electric vehicle and energy storage manufacturers in Canada and the US. The project's advanced status and infrastructure readiness position the Company to capitalise on the forecast lithium market rebound from 2026, delivering first-mover advantage in a high-growth region.

With a proven track record of discovery and a systematic exploration approach, Critical is well positioned to unlock further value at Mavis Lake, supporting the Company's vision to become a leading supplier of lithium to the North American battery market.



**Figure 2 – Mavis Lake Project Area Map showcasing newly staked claim cells and locations of key Deposits and Occurrences.**

## EXPLORATION AND RESOURCE GROWTH SUCCESS

Since acquiring the Mavis Lake Lithium Project in 2022, Critical Resources has undertaken numerous high-impact work programs that has **transformed the Project into one of Ontario's most advanced and well-positioned lithium development opportunities**. In just three years, the Company has delivered a series of significant technical and operational milestones that have laid a strong foundation for long-term growth.

In May 2023, the Company announced a maiden **JORC Inferred Mineral Resource Estimate (MRE) of 8Mt @ 1.07% Li<sub>2</sub>O** (ASX:CRR announcement 5 May 2023) establishing the initial scale and grade of the Mavis Lake Main Zone.

In May 2024, the Company announced a JORC-compliant **Exploration Target of 18–29Mt @ 0.8–1.2% Li<sub>2</sub>O, in addition to the current MRE**, underscoring the significant potential across the Mavis Lake Project Area (ASX:CRR announcement 22 May 2024). Following the maiden MRE, the Company has continued to test expansion of the Mavis Lake resource and surrounding prospects, completing over 58,000 metres of drilling.

*Cautionary statement - 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. Please refer to Exploration Target Cautionary Statement for further information.*

Results from these recently completed drill programs confirm the Mavis Lake spodumene-bearing pegmatites extend well beyond the current resource model, with consistent widths and strong grades observed both along strike and at depth.

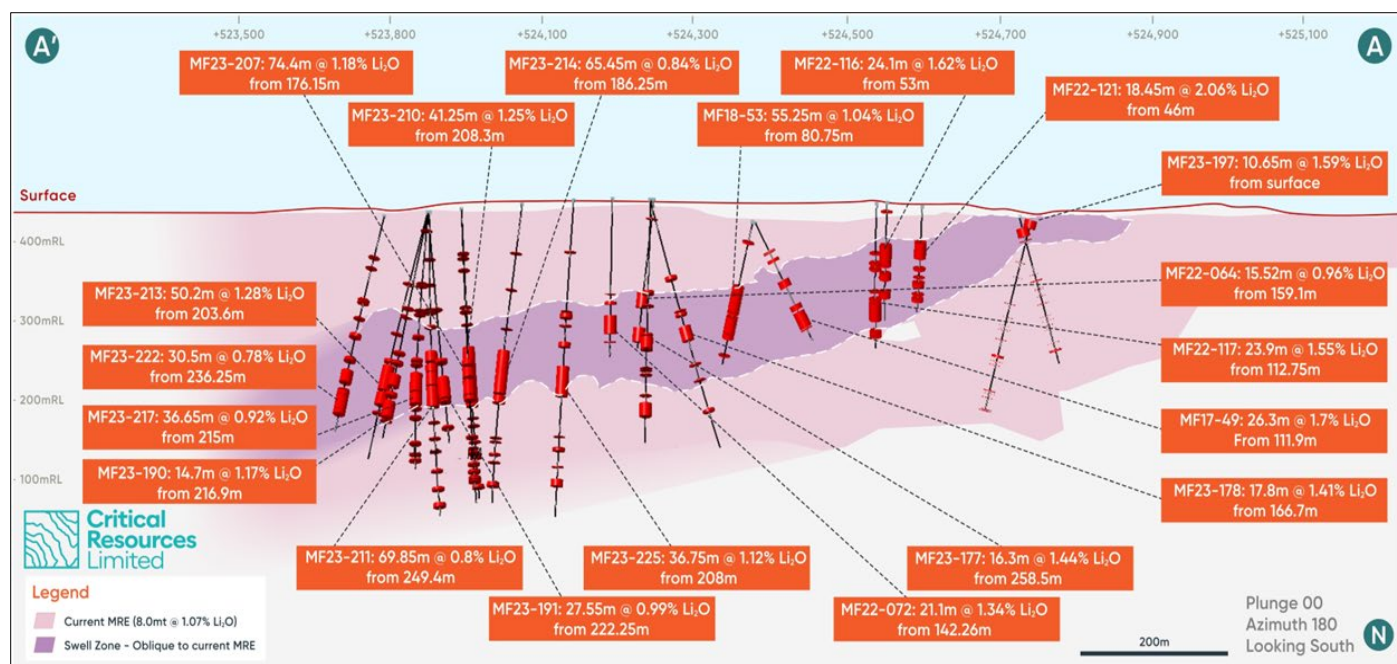
**Notable results outside the resource envelope at Mavis Lake include\*:**

- **74.4 m @ 1.18% Li<sub>2</sub>O** from 176.1 m incl. **32.9m @ 1.81% Li<sub>2</sub>O** from 215.6m (MF23-207)
- **20.7m @ 1.21%Li<sub>2</sub>O** from 212m (MF23-209)
- **41.3 m @ 1.25% Li<sub>2</sub>O** from 208.3 m (MF23-210)
- **41.0 m @ 1.18% Li<sub>2</sub>O** from 206.6 m (MF23-211)
- **50.2 m @ 1.28% Li<sub>2</sub>O** from 203.6 m (MF23-213)
- **55.0 m @ 0.95% Li<sub>2</sub>O** from 194 m incl. **25.85m @ 1.39% Li<sub>2</sub>O** from 214m (MF23-214)
- **36.7 m @ 0.92% Li<sub>2</sub>O** from 215 m incl **28.0m @ 1.01 % Li<sub>2</sub>O** from 223m (MF23-217)
- **36.8 m @ 1.12% Li<sub>2</sub>O** from 208 m incl. **33.5m @ 1.21% Li<sub>2</sub>O** from 209.8m and **7.7m @ 1.3% Li<sub>2</sub>O** from 347.2m (MF23-225)

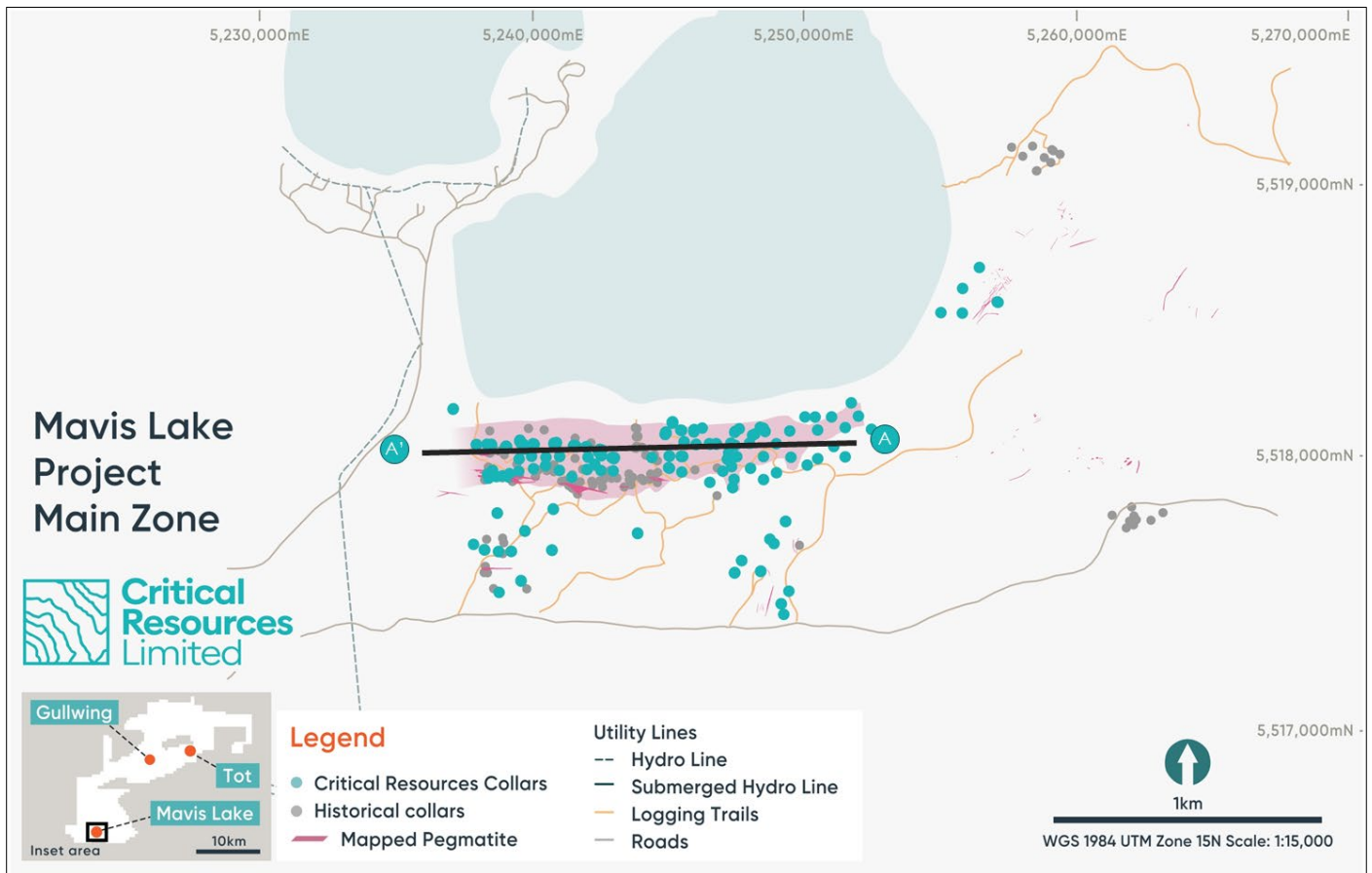
Exploration success has not been limited to the Main Zone. At the nearby Tot Pegmatite, the Company has completed over 7,000 metres of drilling, identifying an expansive spodumene system that remains entirely outside the existing resource base.

Importantly, large areas of the property remain underexplored that have never been systematically drill tested. The Company believes that substantial discovery potential exists beyond the currently defined zones and continues to plan for future exploration programs. These targeted programs are aimed at unlocking the potential at the Mavis Lake Project, through targeted drilling, geophysics, and geochemical surveys designed to identify and prioritise new spodumene-bearing pegmatites.

The fully permitted Tot and Gullwing Prospects are priority targets, mapped with spodumene mineralisation at surface, and represent just two of the high-priority drill-ready targets.



**Figure 3 – Mavis Lake main zone cross section A-A'**



**Figure 4** – Mavis Lake Project – Main Zone with long-section A-A'



**Figure 5** – Image of rehabilitated exploration drill pad with Jack Pine seedlings - Mavis Lake main zone.

## BATTERY TECHNOLOGY BREAKTHROUGH & STRATEGIC INTEGRATION

CRR has secured an exclusive option to undertake a research evaluation program with the South Dakota School of Mines & Technology (SDM) on solid-state lithium-ion battery technologies, covering five granted US patents and one pending application (ASX:CRR Announcement 18 November 2025).

The innovations seek to address key solid-state lithium-ion battery challenges, with engineered advancements in material applications to maintain sulphide-free, lithium-ion, solid-state electrolyte conductivity at elevated temperatures, widening the safe operating temperatures and performance of solid-state batteries in real-world applications:

- Thermal stability at elevated temperatures
- Scalable, lower-cost processing
- Improved safety and high-rate charge/discharge capability
- Non-sulphide solid-state electrolyte for environmentally cleaner, more efficient production

This partnership with SDM enables Critical to pursue vertical integration, leveraging its Mavis Lake resource as potential feedstock for advanced battery technologies. The option agreement marks an extension of the Company's critical minerals strategy, unlocking potential new value pathways from mineral assets to advanced battery technologies and global licensing opportunities.

## NEAR-TERM MILESTONES

Critical Resources is advancing the Mavis Lake Lithium Project with a clear strategy to unlock long-term value for shareholders, leveraging provincial and federal support, recent milestones, and operational reviews.

- **Including recent drilling results in an updated Mineral Resource Estimate:** Incorporate the latest significant intercepts and newly reported discoveries into its data, which could materially increase the Mavis Lake resource base.
- **Continuing environmental and baseline studies to support permitting:** The Company has completed its first full year of baseline monitoring and continues to progress environmental studies and stakeholder engagement, ensuring streamlined approvals and responsible development.
- **Ongoing engagement with utilities, service providers, and potential offtake partners:** The Company is leveraging Ontario's infrastructure and proximity to North American battery manufacturers, with active discussions underway to secure potential future market pathways for Mavis Lake product.
- **Preparations for the 2026 exploration program:** The next phase will focus on resource growth and definition of secondary resource targets, including further drilling at Tot and the recently acquired claims. The addition of 8,000 hectares along key structural corridors significantly enhances the Company's exploration pipeline, providing excellent discovery potential at minimal cost. This expansion ensures the tenement package remains both low-cost and easily manageable, supporting disciplined growth and operational efficiency.
- **Progressing resource upgrade and technical studies for future development:** The Company is advancing towards completion of the Scoping Study and progression to the Definitive Feasibility Study (DFS), supported by dedicated metallurgical drilling, bulk test work, and ongoing mineralogical assessments.

- **Offtake and Strategic Partnerships:** The Company remains actively engaging with utilities, service providers, and potential offtake partners, leveraging Ontario's infrastructure and proximity to North American battery manufacturers to secure future market pathways.

The Company continues to maintain disciplined capital allocation, technical excellence, and a commitment to responsible development, ensuring the Company remains at the forefront of Ontario's lithium corridor, well positioned to benefit from the anticipated market rebound and to unlock the full potential of both established and newly acquired ground.

## PROJECT DEVELOPMENT PATHWAY



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

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

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

## ABOUT CRITICAL RESOURCES LIMITED

Critical Resources Limited (ASX:CRR) is a gold-antimony-lithium explorer with assets in Canada, Australia and New Zealand. The flagship Mavis Lake Lithium Project in Ontario, Canada anchors the battery metals focus, complemented by the Halls Peak gold-antimony and base metals projects in New South Wales-Australia and gold-antimony projects centered in the Otago region – New Zealand. This diversified portfolio positions the Company to create value through critical minerals supply chain, with exposure to the rising gold market.

The Company's Mavis Lake Lithium Project, located in Ontario, Canada has defined a maiden inferred resource of 8 million tonnes at 1.07% Li<sub>2</sub>O, with significant potential to expand this resource.

The Halls Peak Base Metals Project is located ~87km south-east of Armidale, New South Wales, Australia. The Company has defined a maiden Inferred Mineral Resource of 884,000t @ 3.7% Zn, 1.5% Pb, 0.4% Cu, 30g/t Ag and 0.1g/t Au. The Halls Peak Project area includes two advanced antimony-gold prospects – Mayview and Amoco.

### Mavis Lake Lithium Project - Mineral Resource Estimate

| Mavis Lake -Lithium Project<br>JORC Classification | Li <sub>2</sub> O Cut-Off grade (%) | Tonnage (Mt) | Li <sub>2</sub> O (%) |
|----------------------------------------------------|-------------------------------------|--------------|-----------------------|
| Inferred                                           | 0.3                                 | 8.0          | 1.07                  |
| <b>Total*</b>                                      |                                     | <b>8.0</b>   | <b>1.07</b>           |

\*Reported at a cut-off grade of 0.30% Li<sub>2</sub>O for an open pit mining scenario. Estimation for the model is by inverse distance weighting. Classification is according to the JORC Code Mineral Resource categories. Refer to ASX:CRR announcement 5 May 2023.

### Halls Peak – Gibson Base Metals Project - Mineral Resource Estimate

| Halls Peak Project<br>JORC Classification | Zn Cut-Off<br>grade (%) | Tonnage<br>(Mt) | Zn (%)     | Pb (%)     | Cu (%)      | Ag ppm<br>(g/t) | Au ppm<br>(g/t) |
|-------------------------------------------|-------------------------|-----------------|------------|------------|-------------|-----------------|-----------------|
| Indicated                                 | -                       | -               | -          | -          | -           | -               | -               |
| Inferred                                  | 2.0                     | 0.84            | 3.7        | 1.5        | 0.44        | 30              | 0.1             |
| <b>Total*</b>                             | -                       | <b>0.84</b>     | <b>3.7</b> | <b>1.5</b> | <b>0.44</b> | <b>30</b>       | <b>0.1</b>      |

\*Reported at a cut-off grade of 2% Zn for an open pit mining scenario. Estimation for the model is from the generation of a rotated block model, with blocks dipping 55° >330°. Classification is according to the JORC Code Mineral Resource categories. Refer to the ASX:CRR announcement 30 June 2023.

## PREVIOUSLY REPORTED INFORMATION

The information in this ASX Announcement that relates to Mavis Lake Exploration Results and Exploration Target 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 relating to the Mineral Resource estimate for the Mavis Lake Lithium Project, which 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](http://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.

This information in this ASX Announcement that relates to the Halls Peak Mineral Resource Estimate is extracted from the ASX market announcement dated 30 June 2023 and reported in accordance with the 2012 JORC Code and available for viewing at [criticalresources.com.au](http://criticalresources.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in any original announcement and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed.

This announcement contains information on the Mavis Lake Project extracted from ASX market announcements dated 25 October 2021, 16 June 2022, 21 July 2022, 13 September 2022, 25 October 2022, 31 October 2022, 20 December 2022, 23 January 2023, 9 February 2023, 27 March 2023, 3 April 2023, 16 June 2023, 27 June 2023, 17 July 2023, 24 July 2023, 21 August 2023, 13 September 2023, 19 September 2023, 19 October 2023, 24 October 2023, 2 November 2023, 15 November 2023, 13 February 2024, 18 March 2024, 17 April 2024, 2 May 2024, 22 May 2024, 29 May 2024, 2 July 2024, 8 July 2024, 24 July 2024, 22 August 2024, 28 October 2024, 30 October 2024, 2 December 2024, 27 June 2025 and 25 August 2025 reported in accordance with the 2012 JORC Code and available for viewing at [www.criticalresources.com.au](http://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 any original ASX market announcement.

## FORWARD LOOKING STATEMENTS

This announcement may contain certain forward-looking statements and projections. Such forward-looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward-looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. Critical Resources Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projections based on new information, future events or otherwise, except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Critical Resources Limited or any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.

### \*Exploration Target Cautionary Statement

Exploration Target Cautionary Statement, refer to ASX announcement dated 22 May 2024. Table 1 (below) provides a summary of the Exploration Target including tonnage and grade ranges of each key Prospect ready to be drill tested.

#### Summary of Project Exploration Target

| Prospect                               | Tonnes Range (Mt) |         | Li <sub>2</sub> O Range (%) |         |
|----------------------------------------|-------------------|---------|-----------------------------|---------|
|                                        | Minimum           | Maximum | Minimum                     | Maximum |
| Main Zone Extension Exploration Target | 8                 | 14      | 1                           | 1.2     |
| Gullwing Exploration Target            | 7                 | 10      | 0.3                         | 1.2     |
| Tot Exploration Target                 | 3                 | 5       | 0.8                         | 1.2     |
| Project Exploration Target             | 18                | 29      | 0.8                         | 1.2     |

**Table 1** – Summary of Project Exploration Target

The Exploration Target is derived from exploration potential at the Mavis Lake Main Zone (where the current MRE is located) while also introducing the exploration potential of the Northern Prospects, centered on the Gullwing and Tot pegmatites. The Exploration Target is based on interpretation of exploration completed to date (see summary of ASX releases below) and includes:

- 287 diamond drill holes throughout the entirety of the Mavis Lake Project Area, including:
  - 44,179m of drill data generated by Critical Resources;
  - 6,829m of drilling data generated by other parties; and
  - 9,454m of drill core samples.
- 2,032 samples taken at surface, from bedrock throughout the Mavis Lake Project Area;
- 1,346 Mobile Metal Ion (MMI) Soil samples;
- Regional and detailed geological mapping;
- Airborne magnetics, radiometrics, very-low frequency (VLF) surveys;
- Wireframing of inferred resource shapes at the Main Zone; and
- Internal 3D geological modeling and wireframing for projection purposes.

The Exploration Target includes the entirety of the Mavis Lake Project Area, but its primary focus is on known pegmatites that have proven significant lithium mineralisation from spodumene. Geological modelling and wireframing of the pegmatites included in the exploration model derived from inferred resource shapes, outcropping pegmatites including structural measurements and detailed geological interpretations. Tonnage was estimated by calculating the volume of the wireframes and multiplying by a density of 2.7 tonnes/m<sup>3</sup>. The weighted average grade was calculated from lithium assays from previous drilling and geochemical samples from the outcropping pegmatites at surface. Northern Prospects sample 159082, 157856, 347562 refer to ASX announcement dated 20 December 2022. Tot Pegmatite channel samples refer to ASX announcement dated 22 August 2024