UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of September 2025

Commission File Number: 001-41973

Critical Metals Corp. (Exact name of registrant as specified in its charter)

c/o Maples Corporate Services (BVI) Limited Kingston Chambers, PO Box 173, Road Town Tortola, British Virgin Islands (Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F \boxtimes Form 40-F \square

EXPLANATORY NOTE

HoA Amendment

On September 29, 2025, Critical Metals Corp. (the "Company") entered into Amendment No. 1 to the Amended and Restated Heads of Agreement (the "HoA Amendment") with Rimbal Pty. Ltd. ("Rimbal"). The HoA Amendment amends the Amended and Restated Heads of Agreement, dated as of July 19, 2024 between the Company and Rimbal, which is the agreement that sets forth the terms by which the Company can acquire an up to 92.5% ownership interest in the Tanbreez Green Rare Earth Mine ("Tanbreez"). The HoA Amendment, among other things, (i) removes the Company's obligation to invest \$10 million in Tanbreez to increase its ownership stake in Tanbreez to 92.5% and (ii) upon approval from the Greenlandic Mineral Resources Authority of Rimbal's transfer of Tanbreez to the Company, obligates the Company to increase its ownership in Tanbreez from 42% to 92.5% in exchange for the issuance of 14,500,000 ordinary shares, par value \$0.001 per share, of the Company ("Ordinary Shares") to Rimbal. The remaining 7.5% ownership interest in Tanbreez is currently held by the Company's largest shareholder, European Lithium Limited.

The transaction remains subject to Greenland governmental approval. When issued at the closing, the Ordinary Shares will be issued in a private placement upon an exemption from the registration requirements of the Securities Act, pursuant to Section 4(a)(2) thereof.

On September 29, 2025, the Company published a press release, a copy of which is furnished as Exhibit 99.1 to this Form 6-K, relating to the HoA Amendment.

Incorporation by Reference

The information contained in this Form 6-K is hereby incorporated by reference into the Company's registration statements on Form S-8 (File No. 333-280017), Form F-3 (File No. 333-286326) and Post-Effective Amendment No. 2 to Form F-1 on Form F-3 (File No. 333-278400) (including any prospectuses forming a part of such registration statements) and to be a part thereof from the date on which this Form 6-K is furnished, to the extent not superseded by documents or reports subsequently filed or furnished.

EXHIBIT INDEX

Description
Press Release of Critical Metals Corp., dated as of September 29, 2025 Exhibit No. 99.1

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Critical Metals Corp.

By: /s/ Tony Sage

Name: Tony Sage

Title: Chief Executive Officer and Executive Chairman

Date: September 29, 2025



Critical Metals Corp Amends Agreement to Acquire a Controlling Interest in Tanbreez

New York, NY – September 29, 2025 – Critical Metals Corp. (Nasdaq: CRML) ("Critical Metals Corp" or the "Company"), a leading critical minerals mining company, today announced that it has amended its agreement to acquire the Tanbreez Greenland Rare Earth Mine (the "Tanbreez Project") from Rimbal Pty Ltd. ("Rimbal"), a company controlled by geologist and project founder Gregory Barnes.

Under the terms of the amended agreement, Critical Metals Corp now has the right to increase its ownership stake in the Tanbreez Project from 42% to 92.5% upon the issuance of approximately 14.5 million ordinary shares of the Company to Rimbal. Under the original agreement, the consideration for this increase in ownership was an unspecified number of shares of Critical Metals Corp with a value of \$116 million determined at the time of the increase. The amended agreement revises the original agreement to provide a firm number of shares (14.5 million ordinary shares) to be issued to Rimbal at the closing, which implies a value of \$8.00 per Critical Metals Corp ordinary share.

The transaction remains subject to Greenland governmental approval.

In addition to the change described above, Rimbal agreed to waive the previous condition that required Critical Metals Corp to invest an additional \$10 million before qualifying for the increased ownership stake. Under the amended agreement, Critical Metals Corp is required to consummate the increase in ownership, including issuing the 14.5 million shares described above, promptly upon receipt of Greenland governmental approval of the transaction.

European Lithium will continue to maintain its 7.5% minority interest in the Tanbreez Project.

"This significant milestone agreement with Mr. Greg Barnes and Rimbal positions us to be laser focused on bringing this world-class asset into production," said Tony Sage, CEO and Executive Chairman of Critical Metals Corp. "With Greg remaining as a significant shareholder aligned with our long-term success, we look forward to continuing to leverage his deep technical expertise and decades of project knowledge as we advance our development strategy."

"Tanbreez is a game-changer for the rare earths supply chain in the West, with a significant concentration of high-grade heavy rare-earth elements and gallium contained within the 4.7 billion metric ton resource," said Mr. Barnes. "After working closely with Tony and the top-notch technical team at Critical Metals Corp over the past several months, I am confident in their ability to execute the commercialization roadmap and capitalize on the opportunities ahead. I remain committed to the project's success as both a shareholder and technical advisor."



About Critical Metals Corp.

Critical Metals Corp (Nasdaq: CRML) is a leading mining development company focused on critical metals and minerals, and producing strategic products essential to electrification and next generation technologies for the United States, Europe and their western world partners. Its flagship Project, Tanbreez, is one of the world's largest rare earth deposits and is located in Southern Greenland. The deposit is expected to have access to key transportation outlets as the area features year-round direct shipping access via deep water fjords that lead directly to the North Atlantic Ocean.

Another key asset is the Wolfsberg Lithium Project located in Carinthia, 270 km south of Vienna, Austria. The Wolfsberg Lithium Project is the first fully permitted mine in Europe and is strategically located with access to established road and rail infrastructure and is expected to be the next major producer of key lithium products to support the European market. Wolfsberg is well positioned with offtake and downstream partners to become a unique and valuable asset in an expanding geostrategic critical metals portfolio.

With this strategic asset portfolio, Critical Metals Corp is positioned to become a reliable and sustainable supplier of critical minerals essential for defense applications, the clean energy transition, and next-generation technologies in the western world.

For more information, please visit https://www.criticalmetalscorp.com/.

Cautionary Note Regarding Forward Looking Statements

This news release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements include statements regarding expectations of our business and the plans and objectives of management for future operations. These statements constitute projections, forecasts and forward-looking statements, and are not guarantees of performance. Such statements can be identified by the fact that they do not relate strictly to historical or current facts. When used in this news release, forward-looking statements may be identified by the use of words such as "estimate," "plan," "project," "forecast," "intend," "will," "expect," "anticipate," "believe," "seek," "target," "designed to" or other similar expressions that predict or indicate future events or trends or that are not statements of historical facts. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements.

Forward-looking statements are subject to known and unknown risks and uncertainties and are based on potentially inaccurate assumptions that could cause actual results to differ materially from those expected or implied by the forward-looking statements. Actual results could differ materially from those anticipated in forward-looking statements for many reasons, including the factors discussed under the "Risk Factors" section in the Company's Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission. These forward-looking statements are based on information available as of the date of this news release, and expectations, forecasts and assumptions as of that date, involve a number of judgments, risks and uncertainties. Accordingly, forward-looking statements should not be relied upon as representing our views as of any subsequent date, and we do not undertake any obligation to update forward-looking statements to reflect events or circumstances after the date they were made, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

Critical Metals Corp.

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