

## **Namibia Critical Metals Successfully Completes Flotation Pilot Plant Test Work on Lofdal Heavy Rare Earth Deposit**

**Halifax, Nova Scotia January 3, 2024** – Namibia Critical Metals Inc. (“Namibia Critical Metals” or the “Company” or “NCMI”) (TSXV: NMI OTCQB: NMREF) is pleased to announce the successful completion of the pilot plant flotation test work for its “Lofdal 2B-4” heavy rare earth project.

From October to December 2023, rigorous tests were conducted on a 5-ton representative bulk sample from the Lofdal Area 4 starter pit at SGS Lakefield. Based on preliminary data, the pilot plant program confirms the reproducibility of the grinding and flotation regime for the Lofdal flowsheet and the ability to scale-up the design with confirmation of engineering design criteria.

Through an extensive flotation optimization program conducted at SGS in 2023, several adjustments were undertaken to the flotation parameters developed in 2022 (see PEA report “Lofdal 2B-4” on SEDAR). The applied optimization steps aimed at decreasing operating expenditures (OPEX) compared to the PEA “Lofdal 2B-4” and increasing recovery of the heavy rare earth mineral xenotime into the concentrate.

Darrin Campbell, President of Namibia Critical Metals, stated:

*“We are extremely pleased with the completion of the flotation pilot plant test work, which has yielded highly positive results. This groundbreaking achievement of scaling up from bench-scale to pilot-scale marks a significant milestone in the journey toward unlocking the immense potential of the Lofdal deposit. The uniqueness of our Lofdal heavy rare earth deposit, with its complex xenotime mineralization, required us to pioneer novel beneficiation methods. Based on the preliminary data, it appears that the hard work invested by our metallurgy teams over the past months will result in a substantial cumulative reduction in OPEX compared to previous financial estimations.*”

*The outstanding work accomplished by our dedicated team in drilling and metallurgical test work has been recognized and validated by our esteemed partner, JOGMEC, whose continued funding commitments demonstrate their confidence in the Lofdal project.*

*This remarkable progress underscores Namibia Critical Metals' commitment to developing the globally significant Lofdal Project, which hosts the highly sought-after heavy rare earth metals dysprosium and terbium. As the demand for these critical metals skyrockets due to their pivotal role in electric vehicles, wind turbines, and various other technological applications, the Lofdal Project stands as a vital solution to meet these growing needs.”*

## **Pilot-scale Flotation Tests in Q4 2023**

Flotation pilot plant test work was conducted at SGS Lakefield from October to November 2023. The flotation flowsheet developed in 2022 by SGS (see PEA report "Lofdal 2B-4" on SEDAR and press release of 22 November 2022) formed the basis of the pilot plant tests. Several adjustments to the flotation parameters were undertaken based on the flotation optimisation program conducted at SGS in 2023. Among the optimization parameters are lower temperature flotation, lower collector dosages and usage of newly developed reagents with high concentrations of active ingredients. The applied optimization parameters aimed to significantly decrease operating expenditures (OPEX) compared to the PEA "Lofdal 2B-4" and increase recovery of the heavy rare earth mineral xenotime into the concentrate.

Continuous piloting tests were conducted on a 5-ton representative bulk sample from the Lofdal Area 4 starter pit. The tested material had slightly lower rare earth element grades than the samples used for the bench-scale test work in 2022 and 2023. This is to reflect the potential to process the large amounts of slightly lower grade material referred to as "stockpile" in the PEA "Lofdal 2B-4" which would allow further increased throughput and life of mine. Based on preliminary data, the pilot plant program confirms the reproducibility of the grinding and flotation regime for the Lofdal flowsheet and the ability to scale-up the design with confirmation of engineering design criteria.

The flotation tailings produced in the pilot runs provided material for solid/liquid separation testing including filtration to investigate opportunities for dry tailing deposition as well as slurry rheology testing for pumping a thickened tailing. Final reporting from SGS Lakefield is expected in February 2024.

The flotation pilot runs produced circa 100 kg of flotation concentrate, which is ready to facilitate effective scale up of the hydrometallurgical testing including acid bake and water leach followed by a thorough investigation into optimising downstream REE recovery steps to produce a mixed rare earth oxide product. This hydrometallurgical scale-up test is planned at SGS Lakefield in Q1 2024.

## ***About Namibia Critical Metals Inc.***

NCMI is developing the Tier-1 Heavy Rare Earth Project, Lofdal, a globally significant deposit of the heavy rare earth metals dysprosium and terbium. Demand for these critical metals used in permanent magnets for electric vehicles, wind turbines and other electronics is driven by innovations linked to energy and technology transformations. The geopolitical risks associated with sourcing many of these metals has become a repeated concern for manufacturers and end users. Namibia is a proven and stable mining jurisdiction.

The Lofdal Project is fully permitted with a 25-year Mining License and is under a Joint Venture Agreement with Japan Organization for Metals and Energy Security (**JOGMEC**).

The Company filed a robust updated PEA for "Lofdal 2B-4" on November 14, 2022, with a post-tax NPV of USD\$391 million and an annual IRR of 28% with a capital expenditure of USD\$207 million. The project is projected to generate a life of mine nominal cash flow of USD\$698 million post-tax over a 16-year mine life.

## ***About Japan Organization for Metals and Energy Security (JOGMEC) and the JV***

JOGMEC is a Japanese government independent administrative agency which seeks to secure stable resource supplies for Japan. JOGMEC has a strong reputation as a long term, strategic partner in mineral projects globally. JOGMEC facilitates opportunities with Japanese private companies to secure supplies of natural resources for the benefit of the country's economic development.

Rare earth elements are of critical importance to Japanese industrial interests and JOGMEC has extensive experience with all aspects of the sector. JOGMEC provided Lynas with USD\$250,000,000 in loans and equity in 2011 to ensure supplies of the Light Rare Earths metals suite to the Japanese industry.

Namibia Critical Metals owns a 95% interest in the Lofdal project with the remaining 5% held for the benefit of historically disadvantaged Namibians. The terms of the JOGMEC joint venture agreement with the Company stipulate that JOGMEC provides C\$3,000,000 in Term 1 and C\$7,000,000 in Term 2 to earn a 40% interest in the Lofdal project. Term 3 calls for a further C\$10,000,000 of expenditures to earn an additional 10% interest. JOGMEC can also purchase another 1% for C\$5,000,000 and has first right of refusal to fully fund the project through to commercial production and to purchase all production at market prices. The collective interests of NCMi and historically disadvantaged Namibians cannot be diluted below a 26% carried working interest upon payment of C\$5,000,000 to JOGMEC for the dilution protection. NMI may elect to participate up to a maximum of 44% by funding pro rata after the earn in period is completed.

To date, JOGMEC has completed Term 2 and earned a 40% interest by reaching the C\$10 million expenditure requirement. JOGMEC has approved an additional C\$1,800,000 budget for Term 3 through to March 31, 2024. Total approved project funding to date is C\$11,800,000 of the \$20,000,000 Earn-In requirement to reach 50% interest.

**Other exploration projects:** The Company's Exclusive Prospecting Licenses ("EPLs") prospective for gold are located in the Central Namibian Gold Belt which hosts a number of significant orogenic gold deposits including the Navachab Gold Mine, the Otjikoto Gold Mine and the Twin Hills deposit. At the **Erongo Gold** Project, stratigraphic equivalents to the meta-sediments hosting the Osino gold discovery at Twin Hills have been identified and exploration is progressing over this highly prospective area. The **Grootfontein Base Metal and Gold** Project has potential for magmatic copper-nickel mineralization, Mississippi Valley-type zinc-lead-vanadium mineralization and Otjikoto-style gold mineralization.

Rainer Ellmies, PhD, MScGeol, EurGeol, AusIMM and Vice President of Namibia Critical Metals Inc., is the Company's Qualified Person and has reviewed and approved this press release.

The common shares of Namibia Critical Metals Inc. trade on the TSX Venture Exchange under the symbol "NMI" and the OTCQB Market under the symbol "NMREF".

**Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.**

For more information please contact -

**Namibia Critical Metals Inc.**

Darrin Campbell, President

Tel: +01 (902) 835-8760

Email: [Info@NamibiaCMI.com](mailto:Info@NamibiaCMI.com) Web site: [www.NamibiaCriticalMetals.com](http://www.NamibiaCriticalMetals.com)

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