

Suite 228-1122 Mainland St. Vancouver, BC V6B 5L1 (DEFN:TSXV) www.defensemetals.com

# Defense Metals Announces Commencement of Phase II Hydrometallurgical Pilot Plant Testing

News Release - Vancouver, British Columbia - April 25, 2023: Defense Metals Corp. ("Defense Metals" or the "Company"; TSX-V:DEFN / OTCQB:DFMTF / FSE:35D) is pleased to announce that further to the news release dated April 12, 2023, all assays for the hydrometallurgical pilot plant have been received and interpretation of the data is largely complete. Data from Phase I have been used to optimize the design conditions for Phase II of the pilot plant.

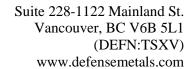
John Goode, P.Eng., Defense Metals' Consulting Metallurgist, commented as follows:

"Phase I of the hydrometallurgical pilot plant operation went very well and gave us the opportunity to explore areas of the flowsheet where we could further improve the efficiency of the Wicheeda hydrometallurgical process. Changes have been incorporated in the Phase II pilot plant campaign which started yesterday and will run for about ten days. The importance of pilot plants like the one we are operating cannot be overemphasized. It provides the opportunity to see if processes are stable and can be effectively controlled; to determine the effects of in-plant recirculation of solutions and solids; measure recoveries and reagent demands; and generates significant quantities of material that can be used for engineering design and environment-related tests. The data from the pilot plant will be used in the pre-feasibility study."

Minor changes were made during Phase I of the pilot plant testing to investigate the impact on circuit operability, extraction, impurity removal and product quality. The specific changes that were made during Phase I of the pilot plant, and their impacts, are summarized below:

- o The acid bake kiln was operated at 350°C for much of the run but 250°C was tested in the latter part with no obvious impact on REE extraction which averaged 93% throughout.
- Fresh water was used in the water leach circuit for the initial part of the pilot plant run but regenerated water was used for the last portion with no discernable adverse effect.
- o Industrial grade magnesia was initially used for neutralization and impurity removal in the water leach circuit and proved to be more effective than the regenerated magnesia.
- Phase I of the pilot plant run used magnesia as the rare earth precipitant based on bench testwork, but at the pilot plant it was difficult to attain low magnesium content in the rare earth product. Oxalic acid will be used as the precipitant in the next phase of pilot testing.

Defense Metals has selected the engineering company Hatch to undertake parts of the PFS; Hatch will attend the pilot plant.





### **Qualified Person**

The scientific and technical information contained in this news release, as it relates to the metallurgical aspects of the Wicheeda Rare-Earth Project, has been reviewed and approved by John Goode, P. Eng., metallurgical consultant to the Company and who is a Qualified Person as defined by National Instrument 43-101 and who has provided the technical information relating to metallurgy in this news release.

# **About the Wicheeda REE Property**

Defense Metals 100% owned, 4,262-hectare (~10,532-acre) Wicheeda Light REE property is located approximately 80 km northeast of the city of Prince George, British Columbia; population 77,000. The Wicheeda Project is readily accessible by all-weather gravel roads and is near infrastructure, including hydro power transmission lines and gas pipelines. The nearby Canadian National Railway and major highways allow easy access to the port facilities at Prince Rupert, the closest major North American port to Asia.

The 2021 Wicheeda Project Preliminary Economic Assessment technical report ("PEA") outlined a robust after-tax net present value (NPV@8%) of \$517 million and an 18% IRR¹. This PEA contemplated an open pit mining operation with a 1.75:1 (waste: mill feed) strip ratio providing a 1.8 Mtpa ("million tonnes per year") mill throughput producing an average of 25,423 tonnes REO annually over a 16 year mine life. A Phase 1 initial pit strip ratio of 0.63:1 (waste: mill feed) would yield rapid access to higher grade surface mineralization in year 1 and payback of \$440 million initial capital within 5 years.

# **About Defense Metals Corp.**

Defense Metals Corp. is focused on the development of its 100% owned Wicheeda Project that contains Rare Earth Elements that are commonly used in the defense industry, national security sector and in the production of green energy technologies, such as, rare earths magnets used in wind turbines and in permanent magnet motors for electric vehicles.

Defense Metals Corp. trades in Canada under the symbol "DEFN" on the TSX Venture Exchange, in the United States, under "DFMTF" on the OTCQB, and in Germany on the Frankfurt Exchange under "35D".

Defense Metals is a proud member of Discovery Group. For more information please visit: <a href="http://www.discoverygroup.ca/">http://www.discoverygroup.ca/</a>

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<sup>&</sup>lt;sup>1</sup> Independent Preliminary Economic Assessment for the Wicheeda Rare Earth Element Project, British Columbia, Canada, dated January 6, 2022, with an effective date of November 7, 2021, and prepared by SRK Consulting (Canada) Inc. is filed under Defense Metals Corp.'s Issuer Profile on SEDAR (www.sedar.com).



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## For further information, please visit www.defensemetals.com or contact:

Todd Hanas, Bluesky Corporate Communications Ltd.

Vice President, Investor Relations

Tel: (778) 994 8072

Email: todd@blueskycorp.ca

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#### Cautionary Statement Regarding "Forward-Looking" Information

This news release contains "forward-looking information or statements" within the meaning of applicable securities laws, which may include, without limitation, statements relating to advancing the Wicheeda REE Project, the expected benefits and outcomes of the hydrometallurgical pilot plant, the expected completion of the hydrometallurgical pilot plant and the expected timelines, the technical, financial and business prospects of the Company, its project and other matters. All statements in this news release, other than statements of historical facts, that address events or developments that the Company expects to occur, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in the forward-looking statements. Such statements and information are based on numerous assumptions regarding present and future business strategies and the environment in which the Company will operate in the future, including the price of rare earth elements, the anticipated costs and expenditures, the ability to achieve its goals, that general business and economic conditions will not change in a material adverse manner, that financing will be available if and when needed and on reasonable terms. Such forward-looking information reflects the Company's views with respect to future events and is subject to risks, uncertainties and assumptions, including the risks and uncertainties relating to the interpretation of exploration and metallurgical results, risks related to the inherent uncertainty of exploration and development and cost estimates, the potential for unexpected costs and expenses and those other risks filed under the Company's profile on SEDAR at www.sedar.com. While such estimates and assumptions are considered reasonable by the management of the Company, they are inherently subject to significant business, economic, competitive and regulatory uncertainties and risks. Factors that could cause actual results to differ materially from those in forward looking statements include, but are not limited to, continued availability of capital and financing and general economic, market or business conditions, adverse weather and climate conditions, failure to maintain or obtain all necessary government permits, approvals and authorizations, failure to maintain community acceptance (including First Nations), risks relating to unanticipated operational difficulties (including failure of equipment or processes to operate in accordance with specifications or expectations, cost escalation, unavailability of personnel, materials and equipment, government action or delays in the receipt of government approvals, industrial disturbances or other job action, and unanticipated events related to health, safety and environmental matters), risks relating to inaccurate geological, metallurgical and engineering assumptions, decrease in the price of rare earth elements, the impact of Covid-19 or other viruses and diseases on the Company's ability to operate, an inability to predict and counteract the effects of COVID-19 on the business of the Company, including but not limited to, the effects of COVID-19 on the price of commodities, capital market conditions, restriction on labour and international travel and supply chains, loss of key employees, consultants, or directors, increase in costs, delayed results, litigation, and failure of counterparties to perform their contractual obligations. The Company does not undertake to update forward-looking statements or forward-looking information, except as required by law.