

Defense Metals Receives Final Wicheeda REE Pilot Plant Report From SGS

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VANCOUVER, Sept. 23, 2020 - [Defense Metals Corp.](#) ("Defense Metals") (TSX-V: DEFN) (OTCQB: DFMTF) (FSE: 35) pleased to announce it has received the final report from SGS Canada Inc. ("SGS") with respect to flotation pilot plant processing of its Wicheeda Rare Earth Element (REE) Property ("Wicheeda") bulk sample at the SGS Canada Inc. ("SGS") Lakefield metallurgical test facility.

The Wicheeda project has indicated mineral resources of 4,890,000 tonnes averaging 3.02% LREO (Light Rare Earth Oxide) and inferred mineral resources of 12,100,000 tonnes averaging 2.90% LREO¹.

With respect to the results of the Wicheeda pilot plant, SGS stated: "The recent Wicheeda flotation pilot plant at SGS Lakefield resoundingly achieved its primary goals to validate the laboratory flowsheet at pilot plant scale, to provide data for engineering design, and to generate high grade REO concentrate. Significant opportunities for improvement remain; including further investigation of the effects of reduced pulp temperature and reagent additions, which may provide opportunities for potential process-cost savings..."

The goals of the flotation pilot plant program were to validate the flowsheet developed during previous test-work on this project in 2019 at pilot plant scale, to provide data for engineering design, and to generate high grade REO (Rare Earth Oxide) concentrate. The major findings of the flotation laboratory test work are summarized as follows:

- Average REO recovery was 77.3%, in concentrate grading 51.6% TREO (Total Rare Earth Oxide) with a mass balance from pilot runs PP14 to PP16C (the confirmatory stages of the pilot plant; Table 1).
- The major changes made in the pilot plant flowsheet compared with the benchmarking test work flowsheet were: the 1st cleaner scavenger, removal of the 3rd cleaner, reduction of F220 dosage by ~46%, and reduction of sodium fluorosilicate dosage by ~40% with no significant impact on the flotation performance. The final flowsheet is presented in Figure 1.
- Metallurgical performance when conditioning at low temperature (70°C) was found to be comparable to that when conditioning at high temperature (80-85°C).
- Higher pulp density (high percent solids, ~30%) was beneficial for improving the flotation recovery and maintaining froth stability.

The completion of pilot plant test work led to several important areas for further study that have the potential to improve metallurgical performance and reduce energy and reagent inputs leading to potential future process-cost savings; including:

- Confirm the performance of the flotation circuit at lower pulp temperature (e.g. 60°C).
- Further evaluate the effect of high-density conditioning, which can potentially provide significant cost savings on process costs.

Craig Taylor, CEO of Defense Metals, stated: "The success of the flotation pilot and 1,200 kilograms of high grade REE concentrate produced places Defense Metals and the Wicheeda REE Deposit among rare company, and opens the door to hydrometallurgical pilot trials at SGS, with the ultimate goal of producing a Nd-Pr oxide product stream."

Table 1. Confirmatory Stage Flotation Pilot Plant Results

	Weight	Assay %					% Distribution (Recovery)				
Pilot Run		Ce ₂ O ₃	La ₂ O ₃	Nd ₂ O ₃	Pr ₂ O ₃	LREO Concentrate Grade	Ce ₂ O ₃	La ₂ O ₃	Nd ₂ O ₃	Pr ₂ O ₃	LREO
	%										Recovery %
PP-16C	7.1	25.7	20.0	5.7	2.0	53.5	77.0	78.3	77.0	78.1	77.6
PP-16A	7.4	24.2	18.6	5.4	1.9	50.1	77.4	78.2	76.4	83.8	79.0
PP-15D	7.3	23.9	18.4	5.3	1.8	49.4	79.9	81.3	82.0	82.7	81.5
PP-15C	6.8	26.4	20.2	5.8	2.0	54.4	78.7	80.4	81.4	76.0	79.1
PP-15B	6.3	24.8	18.9	5.4	1.9	51.0	69.3	70.9	69.9	68.5	69.6
PP-14	6.8	24.8	19.1	5.5	1.9	51.3	76.5	78.5	77.9	74.3	76.8
Average	7.0	25.0	19.2	5.5	1.9	51.6	76.5	77.9	77.4	77.2	77.3
Minimum	6.3	23.9	18.4	5.3	1.8	49.4	69.3	70.9	69.9	68.5	69.6
Maximum	7.4	26.4	20.2	5.8	2.0	54.4	79.9	81.3	82.0	83.8	81.5
Stdev	0.4	0.9	0.7	0.2	0.1	1.9	3.7	3.7	4.3	5.7	4.1

About the Wicheeda REE Property

The 1,708 hectare Wicheeda REE Property, located approximately 80 km northeast of the city of Prince George, British Columbia, is readily accessible by all-weather gravel roads and is nearby to infrastructure, including power transmission lines, the CN railway and major highways.

Geologically, the property is situated in the Foreland Belt and within the Rocky Mountain Trench, a major continental geologic feature. The Foreland Belt contains part of a large alkaline igneous province, stretching from the Canadian Cordillera to the southwestern United States, which includes several carbonatite and alkaline intrusive complexes hosting the Aley (niobium), Rock Canyon (REE), and Wicheeda (REE) deposits.

Qualified Person

The scientific and technical information contained in this news release as it relates to the Wicheeda REE Property has been reviewed and approved by Kristopher J. Raffle, P.Geo. (BC) Principal and Consultant of APEX Geoscience Ltd. of Edmonton, AB, a director of Defense Metals and a "Qualified Person" as defined in National Instrument 43-101 – Standards of Disclosure for Mineral Projects. Mr. Raffle verified the data disclosed which includes a review of the analytical and test data underlying the information and opinions contained therein.

Methodology and QA/QC

The Wicheeda flotation test charges were prepared by SGS from the 30 tonne Wicheeda sample which was crushed to nominal 12.7 mm (1/2") using a combination of jaw and cone crushers. The crushed material was homogenized using a front-end loader over a period of several hours.

Head grade, and concentrate products for cerium, lanthanum, neodymium and praseodymium oxides were determined via lithium-borate fusion of a 0.5 gram sample analyzed via wavelength dispersion X-ray fluorescence (WD-XRF).

The SGS analysis included a quality assurance / quality control (QA/QC) program including the insertion of rare earth element standard and blank samples. Defense Metals detected no significant QA/QC issues during review of the data. Defense Metals is not aware of any sampling, recovery or other factors that could materially affect the accuracy or reliability of the data referred to herein. SGS Minerals Lakefield is an ISO/IEC 17025 and ISO9001:2015 accredited laboratory. SGS is independent of [Defense Metals Corp.](#)

About Defense Metals Corp.

[Defense Metals Corp.](#) is a mineral exploration company focused on the acquisition of mineral deposits containing metals and elements commonly used in the electric power market, military, national security and the production of "GREEN" energy technologies, such as, high strength alloys and rare earth magnets. Defense Metals has an option to acquire 100% of the 1,708 hectare Wicheeda Rare Earth Element Property located near Prince George, British Columbia, Canada. [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".

About SGS

SGS is the world's leading inspection, verification, testing and certification company. We are recognized as the global benchmark for quality and integrity. With more than 94,000 employees, we operate a network of more than 2,600 offices and laboratories around the world.

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 news release.

Forward Looking Information

This news release includes certain statements that constitute "forward-looking information or statements" within the meaning of applicable securities law, including without limitation, Defense Metals plans for its properties/projects, future metallurgical testing and results, future hydrometallurgical trials at SGS with the ultimate goal of producing a NdPr oxide product stream, including, but not limited to objectives, processes and results thereof, other statements relating to the technical, financial and business prospects of Defense Metals and its properties, and other matters.

Forward-looking statements address future events and conditions and are necessarily based upon a number of estimates and assumptions. These statements relate to analyses and other information that are based on forecasts of future results, estimates of amounts not yet determinable and assumptions of management. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as "expects" or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "estimates" or "intends", or stating that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved), and variations of such words, and similar expressions are not statements of historical fact and may be forward-looking statements. Forward-looking statements are necessarily based upon a number of factors that, if untrue, could cause the actual results, performances or achievements of Defense Metals to be materially different from future results, performances or achievements express or implied by such statements. Such statements and information are based on numerous assumptions regarding present and future business strategies and the environment in which Defense Metals will operate in the future, including the price of metals and elements, anticipated costs and the ability to achieve 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, and that third party contractors, equipment and supplies and governmental and other approvals required to conduct Defense Metals planned exploration activities will be available on reasonable terms and in a timely manner. While such estimates and assumptions are considered reasonable by the management of Defense Metals, they are inherently subject to significant business, economic, competitive and regulatory uncertainties and risks.

Forward-looking statements are subject to a variety of risks and uncertainties, which could cause actual events, level of activity, performance or results to differ materially from those reflected in the forward-looking statements, including, without limitation: (i) risks related to rare earth elements, and other commodity price

fluctuations; (ii) risks and uncertainties relating to the interpretation of exploration results; (iii) risks related to the inherent uncertainty of exploration and cost estimates and the potential for unexpected costs and expenses; (iv) that resource exploration and development is a speculative business; (v) that Defense Metals may lose or abandon its property interests or may fail to receive necessary licences and permits; (vi) that environmental laws and regulations may become more onerous; (vii) that Defense Metals may not be able to raise additional funds when necessary; (viii) the possibility that future exploration, development or mining results will not be consistent with Defense Metals expectations; (ix) exploration and development risks, including risks related to accidents, equipment breakdowns, labour disputes or other unanticipated difficulties with or interruptions in exploration and development; * competition; (xi) the potential for delays in exploration or development activities or the completion of geologic reports or studies; (xii) the uncertainty of profitability based upon Defense Metals history of losses; (xiii) risks related to environmental regulation and liability; (xiv) risks associated with failure to maintain community acceptance, agreements and permissions (generally referred to as "social licence"), including local First Nations; (xv) risks relating to obtaining and maintaining all necessary government permits, approvals and authorizations relating to the continued exploration and development of Defense Metals projects; (xvi) risks related to the outcome of legal actions; (xvii) political and regulatory risks associated with mining and exploration; (xix) risks related to current global financial conditions; and (xx) other risks and uncertainties related to Defense Metals prospects, properties and business strategy. These risks, as well as others, could cause actual results and events to vary significantly.

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, the loss of key directors, employees, advisors or consultants, adverse weather conditions, increase in costs, equipment failures, the impact of Covid-19 or other viruses and diseases on the Company's ability to operate, failure to maintain community acceptance (including First Nations), decrease in the price of rare earth elements, litigation, failure of counterparties to perform their contractual obligations and fees charged by service providers. Investors are cautioned that forward-looking statements are not guarantees of future performance or events and, accordingly are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty of such statements. The forward-looking statements included in this news release are made as of the date hereof and Defense Metals disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by applicable securities legislation.

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¹ Technical Report on the Wicheeda Property, British Columbia, effective June 27, 2020 and prepared by APEX Geoscience Ltd. (Steven J. Nicholls, B.A. Sc., MAIG and Kristopher J. Raffle, B.Sc., P. Geo) is available under [Defense Metals Corp.'s profile on SEDAR \(www.sedar.com\)](https://www.rohstoff-welt.de/news/362478-Defense-Metals-Receives-Final-Wicheeda-BEE-Pilot-Plant-Report-From-SGS.html)

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