# Defense Metals' Wicheeda compares favorably with the leading global rare earths projects

President Biden's defense plan is to shift investments away from "legacy systems that won't be relevant" to "smart investments in technologies and innovations — including in cyber, space, unmanned systems and artificial intelligence." Biden's \$2 trillion green infrastructure and jobs plan focuses on electrifying the US transport system (electric vehicles) and for the US grid to produce carbon-free electricity by 2035 (smart nuclear, solar, wind). To achieve all of these goals there will be a surge in North American supply for the socalled green energy metals — rare earths (particularly Nd-Pr (neodymium and praseodymium)), battery metals, and lightweighting alloys.

One company that looks well placed to capture some of this growing market in future years is Defense Metals Corp. (TSXV: DEFN | OTCQB: DFMTF | FSE: 35D) ('Defense Metals').

Defense Metals 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.

North American rare earths will be needed to help support the defense forces secure a safe supply chain



### Source

Defense Metals flagship project is the 1,708 hectare Wicheeda Rare Earth Element (REE) Project (option to acquire 100%) located 80 km northeast of Prince George, British Columbia, Canada. The Project has an Indicated Mineral Resource of 4,890,000 tonnes averaging 3.02% LREO (Light Rare Earth Oxide), and an Inferred Mineral Resource of 12,100,000 tonnes averaging 2.90% LREO. The ore is favorable with a mix between monazite and synchysite/parasite-bastnaesite contained in approximately equal proportions. Key rare earths contained include neodymium (Nd) and praseodymium (Pd), as well as cerium (Ce) and lanthanum (La). Another big advantage is that the resource is amenable to an open pit project, as shown below.

The Wicheeda REE Project resource block model showing conceptual open pit shell

## UPDATED WICHEEDA RESOURCE BLOCK MODEL AND LERCHS-GROSSMAN CONCEPTUAL PIT SHELL



### Source: Company presentation

Defense Metals has achieved positive flotation and hydrometallurgical test work results, including a high-grade 50% LREO concentrate at >85% recovery. Hydrometallurgical test work demonstrated 90% REE extraction with opportunities for further improvement. Flotation pilot-plant processing of a 26tonne bulk sample of Wicheeda REE material yielded a mineral concentrate averaging 7.4% NdPr oxide critical magnet metals. The success of the metallurgical flowsheet optimization process has demonstrated Wicheeda REE mineralization is amenable to relatively simple treatment via well-established methods of flotation, and hydrochloric acid leach/ caustic crack REE extraction.

Defense Metals is targeting a potential >15 year mine life at 2 million-tonne/year throughput.

Defense Metals' Wicheeda REE Project compares favorably with the leading global rare earth projects

WICHEEDA METALLURGY COMPARED TO WORLDWIDE REE MINES <sup>(2)(3)</sup>					
PROJECT	COUNTRY	DEVELOPMENT STAGE	GRADE (% LREO)	CONCENTRATE GRADE (% LREO)	UPGRADING RATIO
Wicheeda	Canada	30 Tonne Bulk Sample	4.81	48.7	10.1
Mountain Pass	USA	Care and Maintenance	8	65	8.1
Mt. Weld (Lynas Corp.)	Australia	Operating	15.4	40	2.6
Bayan Obo	China	Operating	6	50	8.3

#### Source: Company presentation

Local infrastructure is reasonable with the Project being positioned alongside a major forestry service road connected to Highway 97. There is a major hydroelectric power line, major gas pipeline and a Canadian National railway line at the nearby village of Bear Lake. There is a trained nearby workforce at Prince George which is a strategic mining center.

Next steps include a study of the potential of low-cost frontend upgrading of Wicheeda REE mineralization via X-Ray transmission (XRT) sorting using the Saskatchewan Research Council (SRC).

### Closing remarks

Defense Metals Corp. currently trades on a market cap of C\$35 million. The Company is still in the development stage with feasibility studies not yet completed. Based on the grades so far, the metallurgy, and the open pit potential we could potentially expect a solid Preliminary Economic Assessment (PEA) or Pre-Feasibility Study (PFS) to follow in the near term.

The future need for North American sourced rare earths looks to be very strong which should prove to be a strong tailwind for companies such as Defense Metals Corp. One to follow as they continue to progress.