

Defense Metals' Wicheeda Project: A Future Powerhouse in Rare Earth Production

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[Defense Metals Corp.](#) (TSXV: DEFN | OTCQB: DFMTF), known as 'Defense Metals', fully owns the Wicheeda Rare Earth Element Project, situated 80 km northeast of Prince George in British Columbia, Canada. This project is not only strategic but could emerge as a globally recognized hub for the production of critical magnet rare earths, specifically neodymium (Nd), praseodymium (Pd), cerium (Ce), and lanthanum (La). To put this into perspective, Defense Metals envisions that the Wicheeda Project might churn out [25,000tpa of REO](#), potentially accounting for roughly 10% of the world's current output.

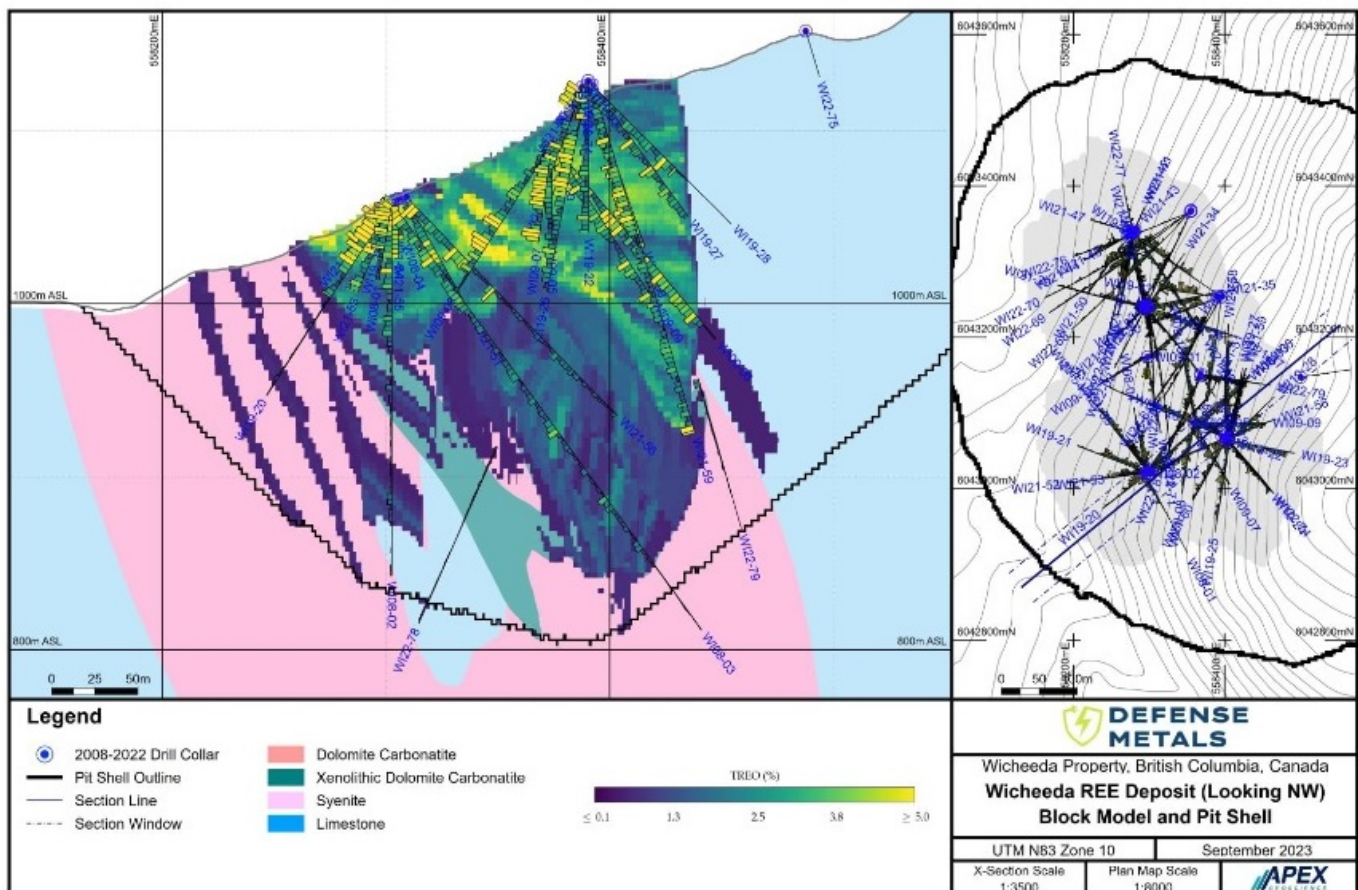
Recent Enhancements in the Wicheeda Resource Estimate

Come September 12, 2023, Defense Metals [announced](#) a significant expansion of the Wicheeda resource: a growth of 31% in tonnage and 17% in contained metal since the 2021 estimate. Moreover, the Total Measured and Indicated (M+I) Mineral Resources now touch a whopping 34.2 million tonnes with an average of 2.02% TREO.

Thanks to its geological structure, the Wicheeda Project is primed for a straightforward open-pit operation, accompanied by parasite/bastnaesite/monazite metallurgy, simplifying the processing phase.

Schematic showing the Wicheeda deposit and open pit block

model (noting higher grades near surface)



Source: [Defense Metals September 12, 2023 announcement](#)

Untapped Potential at Wicheeda

Just a week earlier, on September 5, Defense Metals unveiled [new exploration targets](#) within the Wicheeda REE Deposit. They identified two previously undetected linear radiometric anomalies, each approximately 40 meters wide and extending around 250 meters northwest from the core Wicheeda REE deposit. Defense Metals' Director, Kristopher Raffle, P.Geo., remarked, "After a thorough review of the geophysical data juxtaposed with our revamped Wicheeda 3D geological model, the potential for undiscovered carbonatite bodies came to light. We're keen on drill testing these anomalies."

Further enhancing its value proposition, the Wicheeda Project

boasts easy road accessibility and is close to a major deep-sea port, power transmission lines, a gas conduit, and a critical rail line.

When stacked against leading rare earth producers, while the Wicheeda Project may have a lower grade, it’s planning to roll out large-scale production – all in the secure environment of Canada.

Wicheeda Project in comparison to leading rare earths producers

| Project | Stage | Grade (%TREO) | Flotation Concentration Grade and Recovery | Mineralogy | Annual Production |
|---|--------------|---------------|--|--|-------------------|
| Wicheeda ¹ Canada | PFS underway | 2.02% | 43%TREO, 60-80% recovery | Parasite/ Bastnaesite + Monazite | TBD |
| Mt. Pass (MP Materials, MP-NYSE) ^{2,3} USA | Producer | 8% | 60% TREO, 67% recovery | Bastnaesite | ~40,000 tpy TREO |
| Mt. Weld (Lynas Corp., LYC-ASX) ^{2,3} Australia | Producer | 7% | 40% TREO, 70% recovery | Monazite | ~20,000 tpy TREO |
| Bayan Obo ^{2,3} China | Producer | 6% | 50% TREO, 60% recovery | Bastnaesite, Monazite | ~50,000 tpy TREO |
| Sichuan ⁴ China | Producer | 3.7% | 50% - 60% TREO | Bastnaesite | ~ 30,000 TREO |

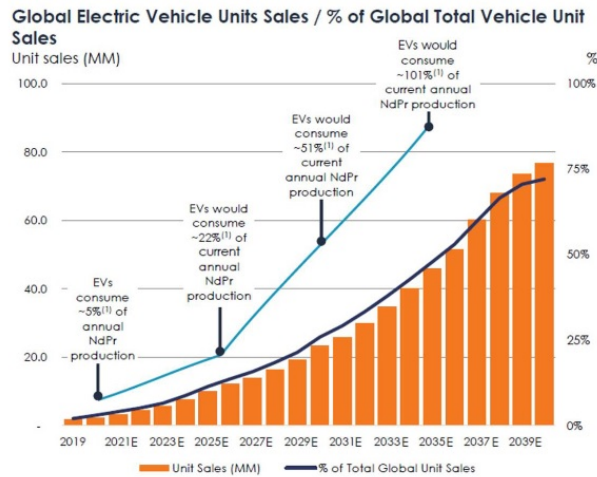
Source: [Defense Metals company presentation](#)

Upcoming on Defense Metals’ agenda is the Preliminary Feasibility Study (PFS) set for H1 2024, followed by a comprehensive Feasibility Study (FS) in the latter half of the year. By 2025, their focus will shift towards optimizing and ramping up flotation and hydromet pilot plants.

Electric car sales are forecast to surge in the years ahead requiring ever increasing amounts of magnet rare earths

ELECTRIC VEHICLES

A Driver for Rare Earth Demand



- An electric vehicle (EV) uses 1kg to 3kg of neodymium-iron-boron (NdFeB) magnets in standard drivetrain motors
- NdFeB magnets are in 93% of all electric vehicles. Tesla, GM, Ford, VW, Hyundai, Toyota and others build vehicles using these magnets
- Every ten million new EVs require ~10,000 tonnes of additional neodymium or ~20% of current annual global supply. Over 70 million electric vehicles are expected to be sold when internal-combustion-engine vehicles are phased out

Source: [Defense Metals company presentation](#)

In Conclusion

The appetite for NdPr, key magnet metals, has been on a steady incline, further fueled by the escalating demand for top-tier permanent magnet motors employed in electric vehicles and wind turbines.

Transitioning smoothly from exploration to development, Defense Metals' Wicheeda Project stands out with its rich NdPr resource. Stakeholders and potential investors are keenly looking forward to the H1 2024 PFS for an in-depth look at the project's financial prospects.

Currently, Defense Metals Corp. has a market capitalization of [C\\$50 million](#). This is definitely a venture to closely monitor in 2024.