

# In the Rare Earths Race-to-Production Race, Vital Metals is #2 in North America

It's not often you get to be the first at something when it comes to mining in Canada. We are a country blessed with an abundance of natural resources and a lot of smart, diligent people have found a lot of those resources and put them into production. Although it hurts my pride a little bit, I have to give credit to an Australian miner, Vital Metals Limited (ASX: VML) for becoming the first Canadian rare earths producer and only the second rare earths producer in North America (or third if Energy Fuels (NYSE: UUUU | TSX: EFR) beats them to the punch).

Now I'm jumping the gun a little as they have only begun mining operations at their Nechalacho rare earths project in Northwest Territories but barring any unforeseen circumstances, commencement of rare earth oxide (REO) production should occur sometime in Q2. The North T Zone of the Nechalacho project will be mined as a small open pit, with material transported to Vital Metal's ore sorter on-site at Nechalacho for sorting. This will create a product suitable for further processing off-site at Vital Metal's rare earth extraction plant, to be constructed in Saskatoon, which will produce a mixed rare earth carbonate product for sale to separation facilities.

To that end, in February the company announced an offtake agreement with REEtec AS of Norway for an annual volume of 1,000 tonnes REO (ex-Cerium) over 5 years. Both parties have an option to increase this offtake volume by up to 5,000 tonnes REO per annum over 10 years. This is all part of the global strategy to diversify critical mineral supply chain which has been identified as a matter of significant

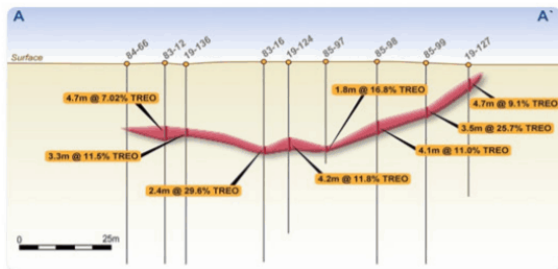
importance to private companies and governments over the last 12 months and was highlighted by Jack Lifton of InvestorIntel in this article.

However, this is only the start for the Nechalacho project as Vital Metal's strategy is to develop it in two stages. Stage 1 of the operations focuses on the North T Zone resource (105,000 tonnes grading 8.9% TREO), and Stage 2 envisages the development of several high grade zones identified within the much larger Tardiff (Upper Zone) deposit. The Company previously announced this deposit's total resource of 95 million @ 1.46% total rare earth oxides (TREO). The Tardiff deposits are targeted to provide the resource for the long-term operation and expansion of the project, hence the option to increase the REEtec agreement.

But the real beauty of the Nechalacho project is that North T Zone is one of the highest grade rare earth deposits in the world. This gives Vital Metals the luxury of being able to put this zone into production with a minimal amount of capital, further allowing the company to build out Stage 2 from existing cash flow.

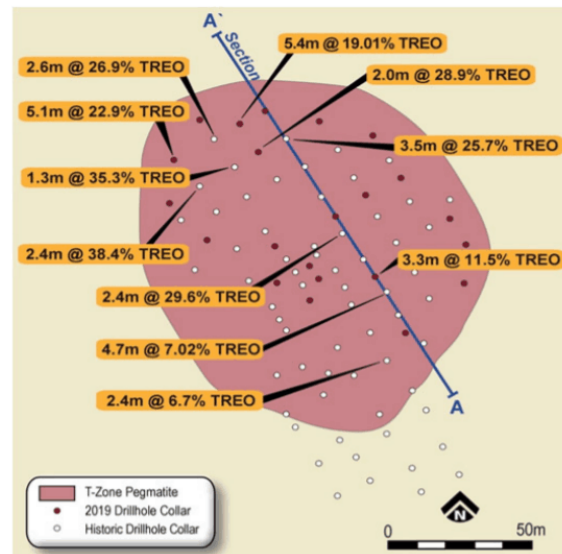
The North T Zone is one of the highest grade rare earth deposits in the world

### North T Resource



Resource Type	Kt	LREO (%)	Pr <sub>6</sub> O <sub>11</sub> (%)	Nd <sub>2</sub> O <sub>3</sub> (%)
Measured	68	9.6%	0.5%	1.8%
Indicated	33	7.8%	0.4%	1.5%
Inferred	4	5.8%	0.3%	1.1%
<b>Total</b>	<b>105</b>	<b>8.9%</b>	<b>0.5%</b>	<b>1.6%</b>

Light Rare Earth Mineral Resources of the North-T Zone Bastnaesite Sub-zone Nechalacho. Mineral Resource Estimation prepared in accordance with JORC 2012 under the supervision of Brendan Shand Member of the AusIMM as the Competent Person. The cut-off grade for this resource estimate is preliminary, at pre-scoping study level, as no detailed market, metallurgical or engineering studies have been performed.



Source: Vital Metals Corporate Presentation

It is estimated maximum total construction cost for a beneficiation and rare earth extraction plant for Stage 1 is A\$20 million. The company recently raised A\$43 million via a share issue which should finance the company through commencement of mining operations at the Nechalacho Project; construction of the offsite extraction plant in Saskatoon; processing of mined material; and a drilling program at the Nechalacho Project to define a preliminary mine plan for its stage 2 production. All the pieces appear to be in place for Vital Metals to not only become the first Canadian rare earths producer but to build upon that success and achieve positive cash flow to continue building the company into a serious competitor in the global rare earth space.

# Vital Metals' Geoff Atkins on the countdown to rare earths production May 2021

In a recent InvestorIntel interview, Tracy Weslosky spoke with Geoff Atkins, Managing Director of Vital Metals Limited (ASX: VML) about beginning production at its Nechalacho rare earths project in 2021.

In this InvestorIntel interview, which may also be viewed on YouTube (click here to subscribe to the InvestorIntel Channel), Mr. Atkins said the company's philosophy is to enter production in the shortest amount of time using the least amount of capital. Vital Metals initially wants to focus on gaining customer acceptance and proving its ability to ramp up production. "Then we move to a larger operation, which is more typical of what you see people looking at developing in rare earths," said Mr. Atkins.

He also commented on the competitive advantages of Nechalacho, most notably its long-life potential, its mineralogy, and most importantly, the minimal expenditure required for infrastructure. Further discussion on an offtake agreement with REEtec also provides Vital Metals with a cornerstone customer with expertise in separation technology of rare earths. Mr. Atkins believes REEtec's experience will contribute to the company's success.

To watch the full interview, click here

## **About Vital Metals Limited**

Vital Metals Limited is an explorer and developer focussing on rare earths, technology metals, and gold projects. Their projects are located across a range of jurisdictions in Canada, Africa and Germany.

## **Nechalacho Rare Earth Project – Canada**

The Nechalacho project is a high-grade, light rare earth (bastnaesite) project located at Nechalacho in the Northwest Territories of Canada and has potential for a start-up operation exploiting high-grade, easily accessible near-surface mineralization. The Nechalacho Rare Earth Project hosts within the Upper Zone, a measured, indicated, and inferred JORC Resource of 94MT at 1.46% TREO.

To learn more about Vital Metals Limited, [click here](#)

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# **Beating the path down to become a “Vital” rare earths producer in 2021**

Vital Metals Ltd. (ASX: VML) targeting to be the largest independent supplier of clean mixed rare earth feedstock outside of China. That’s a lofty goal, but absolutely necessary because China still counts for about 80% of the world’s rare earths production while only sourcing about 30% of their rare earths domestically. While the initial impact from Vital’s rare earths production may be small in the future supply-chain for rare earths, they are an important part of the global movement for the diversification of rare earths production and are an early entrant into a new supply chain. This has already been recognized with the contract that the company announced in late December 2020 for a binding term sheet signed with REEtec AS, (a Norwegian rare earths

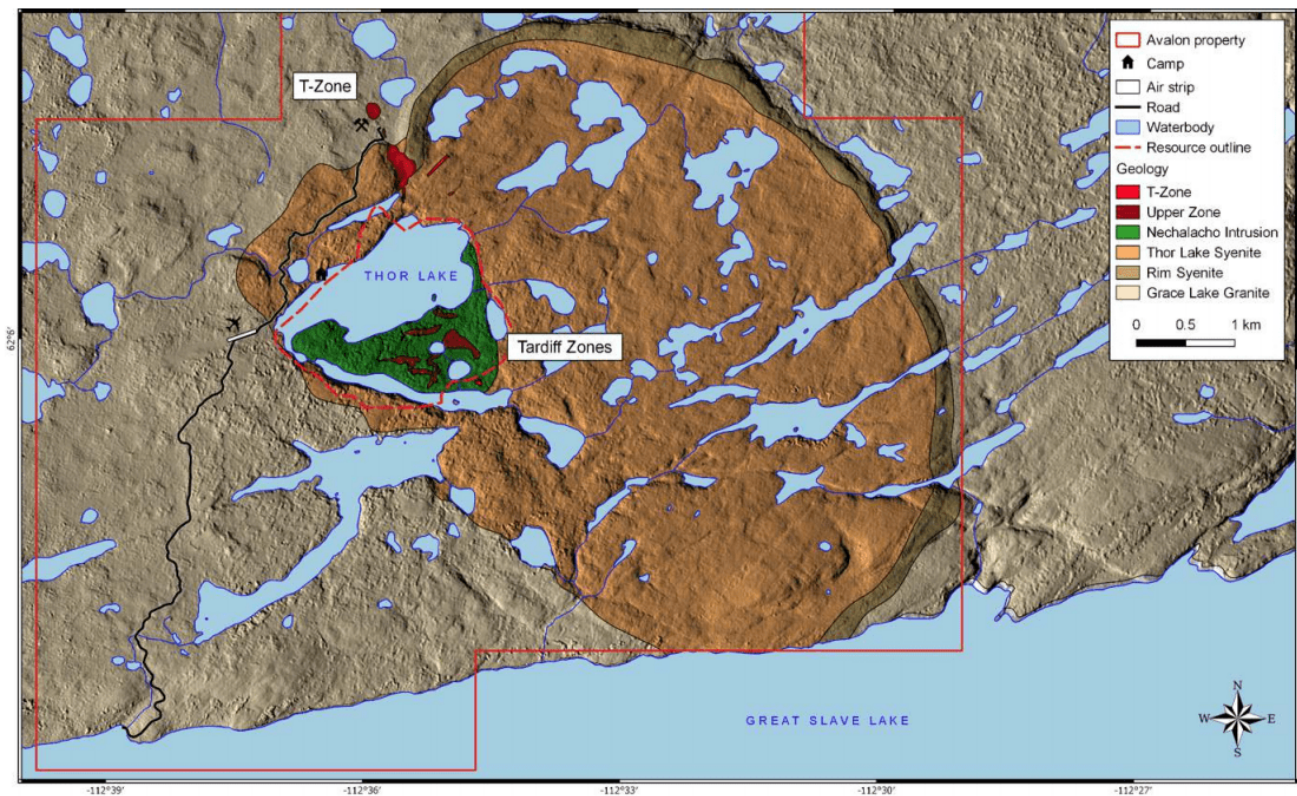
separation company) for supply of 1,000 tonnes rare earths oxide (ex-Cerium) per year for a period of 5 years. The supply can be increased up to 5,000 tonnes per year for a period of 10 years.

**Vital Metals is on track to produce rare earth oxide in 2021.**

That is the first thing you will read when you go to the company website and it is real and it is happening. The production will come from the company's Canadian Nechalacho project in the Northwest Territories on Thor Lake, close to Yellowknife and near the edge of Great Slave Lake.

In fact, preparations are currently underway at the Nechalachco rare earths project to commence the production of rare earth oxide sometime around May 2021. Everything is on track to meet this production schedule as a result of years of previous work on the project (and previous owner's expenditures of more than \$100 million) and the design of the project parameters ensure early cash flow (and low capital costs) of a production stream that is highly desirable to end users.

The company has two shallow zones on the Nechalacho asset – the T Zone and the Tardiff Zone(s) as shown in the map below:



Vital is employing a very smart strategy – instead of developing the whole project all at once, they are going to first develop the smaller T Zone which will generate cash flow for further exploration and future development of the Tardiff Zones. Their strategy to develop the first mine in northern Canada requires less than A\$20 million total capital cost for this first project (North-T, 100% interest), some of which can also be funded by future generated cash flow.

The company has been working towards 2021 production on the T Zone. Last year and into this year, the mining area saw site clearing above the planned pit, dewatering and geotechnical work to confirm the pit design and infrastructure construction for mining and production. Construction of the ice road to bring in the drilling rig and mining equipment has also commenced. We anticipate news in the near-term to confirm the timing of the arrival of mining fleet and delivery of the ore sorter at site. As reported today, at December 31, 2020 the company had approximately \$6.1 million of cash and cash equivalents, so they should be well-funded through first production from Nechalacho.

Looking ahead, recall that on September 22, 2020, Vital announced a binding term sheet for the construction and operation of a rare earth extraction plant to produce a mixed rare earth carbonate product. The plant will be located adjacent to the Saskatchewan Research Council's (SRC) planned separation plant which will be able to convert rare earth carbonate mixes to commercial grade rare earth oxides. Vital's plant is expected to be operational in Q3-2021 and will use feedstock from Nechalachco— a second "customer" for the mining output. Most people do not know that the SRC has almost a decade of expertise in rare earths (associated with uranium mining in Saskatchewan) and recently announced the construction of a rare earth processing facility in Saskatchewan, the first of its kind in Canada. The SRC facility is expected to be operational in late 2022.

The team at Vital are world experts in the global rare earth element arena including all necessary elements of mining, processing, geology and marketing and are recognized for this expertise. The devil really is in the details and Vital's team has a cost and time effective strategy to deliver early production and cash flow. Remote locations require extensive planning and timing is everything as mining and processing equipment can only be delivered and setup during certain weather windows. Things can go wrong, but it appears that most contingencies have been accounted for. This is a key success factor

The global movement to diversification away from China as the global source of rare earth elements has been underway for a number of years. The world always knew that as technology developed, the rare earths would become more and more important, but it has become abundantly apparent that the development of electric vehicles in particular demands more rare earths and from more secure and friendly sources. Vital Minerals' aim is to become a global player in the production of rare earths. Their expertise, projects and potential have



put them squarely on this path and they will become a producer in 2021.