June 2022 start for Vital Metals to produce mixed rare earth carbonates with feed from its own mines

written by InvestorNews | May 13, 2022

The rare earths sector has been doing very well lately, especially the highly valued magnet rare earths for which prices have doubled over the past year. Neodymium (Nd) and praseodymium (Pr) are the key magnet rare earths used commonly in electric motors. They also fall into the category of the 'light rare earths'. Another group of rare earths, known as the 'heavy rare earths', also have value. They include europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium and yttrium. Dysprosium (Dy) in particular is very valuable and is critically necessary for and used in alloys for neodymium based magnets subject to high temperature swings in operation.

Today's company is working towards becoming a North American producer of both light and heavy rare earths.

Vital Metals Limited (ASX: VML | OTCQB: VTMXF) (Vital) is a rare earths ore producer from their Nechalacho Rare Earths Mine in the Northwest Territories (NWT), Canada. Nechalacho has a measured, indicated and inferred resource of 94.7Mt at 1.46% REO for 1.3Mt contained TREO. The focus to date has been on the high-grade, light rare earths, found in the bastnaesite mineralization there.

Vital has off-take agreements with REEtec in Norway and with Ucore Rare Metals Inc. (TSXV: UCU | OTCQX: UURAF) in the USA. In

both cases, Vital is working with them to develop a qualified feed stock for them end at commercial scale. In some good recent news, offtake buyer, REEtec, signed a supply agreement with Germany's large OEM automotive supplier,Schaeffler, thereby potentially securing Vital's revenue from the sale of its product to REEtec.

Vital is currently constructing a Saskatoon, Saskatchewan, based cracking and leaching facility, with first feed to the facility expected in June 2022. An additional C$5 million of funding/reimbursement was recently achieved to help support the commissioning and ramp-up stage. Vital aims to produce a minimum of 5,000 tons annually of contained REO by 2025 at the Nechalacho Mine.

Vital Metals' Managing Director Geoff Atkins stated: "With production forecast to commence in June 2022, this will make Vital North America's only producer of high purity rare earth carbonate with feed from its own mines providing security of supply for the global rare earths supply chain."

Expansion into heavy rare earths

As announced on April 29, 2022, Vital is now planning to expand their existing light rare earths mine operation to also include heavy rare earths. Vital plans to investigate developing a zone of xenotime mineralization, the principle heavy rare earth hard-rock mineral, at Nechalacho's North T pit, targeting a 10-year operation from the zone. Xenotime, is an yttrium phosphate mineral, and is the only known commercially feasible hard-rock source of dysprosium and terbium, which are the critical magnet rare earth additives for high temperature operations. As Vital stated: "Tardiff contains elevated heavy rare earths mineralization which may complement North T's xenotime deposit as part of Vital's strategy to produce heavy and light rare

earths.”

Next steps

In 2022, in addition to commencing production at the Saskatoon facility and working on expanding into heavy rare earths, Vital plans further drilling at the Tardiff zone to define a maiden Ore Reserve.

Vital Metals 3 stage strategy to become a North American producer of both light & heavy rare earths



Source: Vital Metals March 2022 quarterly report

Closing remarks

Vital Metals continues to march forward at a rapid pace. In late June 2021 the Nechalacho mine came into production, notably being Canada’s first-ever producing rare earths mine. Then only a year later in June 2022, the Saskatoon cracking and leaching facility’s first production of a mixed rare earth carbonate is set to commence.

If that wasn’t good enough the Company is now planning to also produce heavy rare earths, also from the Nechalacho Mine. Once achieved Vital announced that they would become the “the world’s first producer of both heavy and light rare earth oxides.”

Vital Metals trades on a market cap of A$204 million. Exciting times ahead.