Eyes on Korea: The Emerging Epicenter of the Rare Earth Supply Chain

written by Jack Lifton | August 11, 2023

To sum up, while the global discourse frequently orbits around China and the US, the Korean rare earth landscape is bustling. Their relentless quest to develop a comprehensive domestic supply chain for rare earth permanent magnets will invariably lead to a demand spike, which may catch many by surprise.

Iluka Resources quietly becomes a western rare earths producer

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Australian company now producing rare earths concentrates to meet increased demand

The boom in electric vehicles should increase the demand for rare earths dramatically in the decade ahead. Electric Vehicles (EVs) are forecast to grow about 11 times from the 2.2m cars and trucks produced in 2019 to 22.4 million vehicles a year by 2030. Other strong demand sources for rare earths include catalysts,

metal alloys, high tech products (smartphones etc), aerospace & manufacturing. Against this backdrop any company that can bring on production of rare earths (especially the valuable valuable Nd, Pr) is set to do very well based on the increased forecast demand.

Rare earths demand drivers

Source

Additional NdPr oxide needed per EV (additional to an Internal Combustion Engine vehicle)

Source

One Australian miner has recently become a rare earths producer.

Iluka Resources (ASX: ILU | OTC: ILKAY) ("Iluka") is better known as an Australian mineral sands (zircon) and titanium producer, but in April 2020 they quietly commenced production of rare earths at their Eneabba Project in Western Australia.

Iluka has recently completed Phase 1 (construction and commissioning) of the Eneabba Project and intends to sell 50,000 tpa of a 20% monazite-zircon ore concentrate for further processing offshore beginning in Q3, 2020. Iluka has an offtake agreement for 50ktpa for 2 years. Project life is estimated at 13 years with a projected 6 month payback.

Iluka is now working on a Phase 2 of the Eneabba Project which

involves a FS investigating techniques to purify the monazite to an 80% concentrate for sale further down the value chain. The early CapEx estimate for Phase 2 is $20–40m, but this is subject to change as the FS advances.

Iluka is certainly advancing fast and has essentially become a largely unrecognized, western-located, rare earths concentrate producer.

Iluka Resources monazite ore Eneabba Project in Western Australia



Source

Closing remarks

New rare earths supply is very hard to come by because of large CapEx and environmental hurdles. Combine this with what is expected to be a 2 times surge in demand for rare earths this decade (boosted by demand for magnets used in electric vehicles and high tech devices) and you have a very compelling reason to be looking closely at the rare earth miners. In particular, any near term pure play rare earths producers located in safe western locations will be very highly attractive.

It appears for now that many investors are not fully aware of the potential NdPr demand surge ahead. This is understandable as we are yet to see EV demand really surge, and NdPr prices have not yet responded. A rise in NdPr prices as the dependent industries gain more attention will follow as analysts up their forecasts. For investors willing to come in early and take a forward looking decade approach, right now is an excellent time to get familiar with and invest into the rare earths sector. The usual risks apply, and yes China will no doubt continue to be a

fierce competitor.

Iluka Resources, while not a pure play, is an exciting new western entrant in the field of rare earths producers. Assuming Iluka can execute well, the coming decade should provide an excellent tailwind for Iluka to build a valuable rare earths business to compliment their existing business.