Demand for scandium set to rise and Imperial Mining offers an early stage high grade project

written by InvestorNews | August 3, 2020

Scandium is the key to lightweight electric vehicle boom

With the electric vehicle boom set to take off this decade, expect a surge in demand for the 'lightweighting' of key materials. An essential part of reducing the weight of electric vehicles (EVs) is scandium, which mixed with aluminum creates lighter and stronger alloys for EVs. Lighter weight means extending battery range in EVs and improving fuel efficiency and reducing greenhouse gases in combustion engines.

The current scandium market size is estimated to be about 35 tonnes per year, however Bloomberg forecasts this could grow to reach 1,800 tonnes pa by 2035 – a 51 times increase in demand. However, if the sales of electric vehicles surge as some forecast and reach 30 million by 2030, the demand for scandium would jump to a staggering 5,250 tonnes pa – a 150-fold increase on today's demand based on just a 0.2% scandium oxide-aluminum alloy in each EV.

This exponential increase in demand for scandium does not include its additional consumption by key industries such as solid oxide fuel cells, aerospace & defense, aviation, electronics, sporting goods, and ceramics.

Building 30 million new electric cars a year by 2030 will require an additional 5,250 tonnes of scandium oxide every year to achieve 100% lightweighting

Source: Imperial Mining Group investor presentation

Imperial Mining Group Ltd. (TSXV: IPG) owns a diverse portfolio of high-grade assets including gold, base metals and scandium-rare earth projects. The company's focus is on development of its high-quality scandium-rare earth Crater Lake property in northeastern Quebec, Canada. The property has a large 6km diameter complex that is host to high-grade scandium and niobium deposits.

The Crater Lake scandium rare earth project

The 100% owned Crater Lake Project is located 200km northeast of Schefferville, Québec, 95 km from the end of the Trans-Labrador Highway. The property consists of 57 contiguous claims covering 27.8km^2.

Crater Lake location map

Source: Imperial Mining Group investor presentation

Imperial Mining Group is currently working to expand the resource. Previous drilling has defined a mineralised zone over 250 meters in strike and 170 meters in depth. Scandium oxide grades ranged from 0.0235% to 0.0319% (235-319g/t), which is pretty good. Scandium is not rare, however finding commercially viable grades (>200-300g/t) of scandium is very rare. More recent drill results have included 528g/t scandium oxide over 8.8 meters, showing the high grade potential of the Crater Lake

Project.

The company expects the Crater Lake Project to be a small open-pit operation with an on-site magnetic concentrator and/or sensor-based sorting. This should reject 50-60% of mined material, resulting in high scandium recoveries and lessening transportation risks and costs. It is anticipated that the project will be low CapEx, OpEx due to the higher grades and expected simple process recovery methods.

Future catalysts will include planned further metallurgical work, a PEA expected by Q1 2021, permitting, and an anticipated FS by Q3 2023, subject to financing.

Multiple market opportunities ahead as the demand for scandium increases dramatically

Source

Closing remarks

I have no doubt that the EV boom will take off, which means lightweighting will become essential for electric cars to boost performance, especially range. In the meantime there are plenty of other areas that demand scandium, so I expect the scandium sector to perform well this decade.

Imperial Mining Group has an exciting early stage high grade scandium-niobium project in northeastern Quebec. Also of interest is their 100%-owned Opawica Gold Project in the Abitibi region of northwestern Québec where recent drilling discovered 1.21 g/t gold (Au) over a 13.3 meter length.

Risks are always high with junior mining stocks at the early stages and in this case the scandium market is another risk as

it is yet to be fully developed. Of course with high risk comes the chance for high reward. Imperial Mining Group trades on a current market cap of just C$9 million. One to follow closely, especially since securing a source of North American scandium could soon be very much in demand.