Growing markets for scandium and the Crater Lake scandium project, Quebec

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Scandium is a silvery-white, non-toxic transition metal, often associated with rare earth elements (REE), together with yttrium, tantalum and niobium. Scandium acts as a grain-refiner and hardener of aluminum alloys. With the drive towards lightweighting in the aerospace, defense [defence?] and automotive sectors, particularly for EVs, scandium demand is expected to grow rapidly because of its ability to greatly strengthen aluminium alloys, rendering them corrosion resistant and significantly improving the alloy's mechanical properties.

Scandium is often found in trace amounts in other REE deposits and occurrences and has been mined as a by-product in a few mines in the world, for example in the Zhovti Vody uranium deposit in the Ukraine and at Bayan Obo REE deposit in China. Primary, hardrock scandium deposits of sufficient size and grade to be economically important are scarce and Crater Lake in northeastern Quebec represents one of the few such opportunities in the world and the only deposit of its type in North America.

An overview of the scandium markets and its applications will be reviewed followed by a description of the geology and resource potential of the property and its potential impacts on world supply chain for this critical, yet scarce, commodity. The challenges of seeking development funding for these rare, non-LME traded commodities will also be addressed.

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