



Project News

Rio Tinto enters Scandium Market with Construction of new Plant in Canada

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Melbourne (VIC), Australia –

RTFT expects to begin commercial supply of scandium oxide in the second quarter of 2021. With its world-class aluminium business, Rio Tinto is also well positioned to produce aluminium-scandium alloys to meet customer's needs.

Rio Tinto is investing USUSD6 million for the construction of a first module in the plant, with an initial capacity to produce three tonnes of scandium oxide per year, or approximately 20% of the current global market. The Government of Quebec is contributing approximately USUSD650,000 to the project through the Quebec Plan for the Development of Critical and Strategic Minerals. The new plant will have the ability to add further modules in line with market demand.

RTFT developed an innovative process it has proven at pilot scale to extract high purity scandium oxide from the waste streams of titanium dioxide production, without the need for any additional mining at its ilmenite mine in Havre-Saint-Pierre, Quebec.

Scandium oxide is used to improve the performance of solid oxide fuel cells, which are used as a power source for data centres and hospitals, as well as in niche products such as lasers and lighting for stadiums or studios. It is also used to produce high-performance aluminium-scandium master alloys for the

aerospace, defence and 3D printing industries.

Rio Tinto Iron and Titanium managing director Stéphane Leblanc said “We are proud to offer North America’s first reliable supply of scandium oxide using an innovative and sustainable process, with the construction of this new plant. Rio Tinto has been engaged in the exploration and production of rare earths and critical minerals globally for a number of years, to meet the demand in new and emerging technologies. With the support of Rio Tinto’s aluminium business, we are uniquely positioned to deliver aluminium-scandium master alloys and develop synergies with North America’s manufacturing supply chain.”

Quebec Minister of Energy and Natural Resources Jonatan Julien said “RTFT's scandium oxide valorization project is a concrete example of how we can extract value from our mining wastes. It demonstrates our ability to innovate and seize business opportunities in a growing market as we strive to ensure secure supplies of critical minerals. This business has the potential to become a major scandium supplier outside China.”

Quebec Minister of Economy and Innovation Pierre Fitzgibbon said “The step just taken today by Rio Tinto Fer et Titane has the potential to position Quebec as a world leader in the extraction and commercialisation of scandium. With this project, Quebec will become the largest producer of this rare metal, which will have a major impact on our exports and Quebec’s supply chains, particularly in key sectors such as the electrification of transportation and aerospace. I commend the entire RTFT team for this project, which combines innovation and responsible use of our resources.”

Both the high quality scandium oxide and aluminium-scandium master alloy will be commercialized under the business brand name Element North 21.