# Imperial Mining and Eck Industries Move to Prototyping a Scandium-Aluminum Battery Box for a Global Automotive Manufacturer

written by Raj Shah | September 28, 2021

September 28, 2021 (Source) – **Imperial Mining Group Ltd. ("Imperial")** (**TSX VENTURE: IPG; OTCQB: IMPNF**) and partner **Eck Industries ("Eck")** are pleased to announce that they have completed a successful series of tests based on scandium-modified aluminum-magnesium (535-series) alloy components and have collected characterization data (*see* Imperial Mining press release: May 18, 2021) for the material.

The test data shows that the material properties for EV battery box requirements, as specified by a major North American automotive manufacturer, have been met or exceeded. Imperial and Eck will now begin prototyping components while concurrently vetting business cases and looking to maximize weight savings for the transportation sector. In addition, investment attraction initiatives in search of partners in the aerospace and defence sectors, are ongoing.

"Imperial is very pleased with the initial results of the testing and will continue to work closely with Eck Industries as we move into the prototyping phase of the program," said Imperial's President & CEO, Peter Cashin. "With Imperial being the only potential primary hardrock source of scandium in North America, we have been aligning our strategic marketing activities with projects that require important weight and

carbon footprint reductions. Major manufacturers have set this as a high priority."

"There has been a broad concern about the application of scandium in cast alloys." said David Weiss, Eck's VP Research and Development. "While this is true in some cast alloys, it is not universally true. This work, entailing innovative casting methods and heat treatment, lays the groundwork for additional improvement in cast alloys. We thank Imperial Mining for their support of this work.".

Overall, the project continues to work towards the objectives of the Canada/US Joint Action Plan on Critical Minerals Collaboration (January 2020) as well as the existing US National Technology and Industrial Base directive (*see* the **"About Section"** for details on these two critical initiatives).

**ABOUT IMPERIAL MINING GROUP LTD.**

*Imperial is a Canadian mineral exploration and development company focused on the advancement of its technology metals projects in Québec. Imperial is publicly listed on the TSX Venture Exchange as "IPG" and on the OTCQB Exchange as "IMPNF" and is led by an experienced team of mineral exploration and development professionals with a strong track record of mineral deposit discovery in numerous metal commodities.*

**ABOUT ECK INDUSTRIES**

*Eck was founded in 1948 and has since been a mainstay of the American supply chain, servicing several clients and industries. Eck has specialized in high performance aluminum since the mid-1980s, with a particular focus on Defense and Aerospace. Eck's production facility in Manitowoc, WI consists of 210,000 square feet with over 250 staff that supply components to over 110 customers. Eck has a long history of aluminum alloy design,*

*leadership, and innovation, exemplified by the custom heat resistant aluminum- cerium alloy that was co-developed with Oak Ridge National Laboratory and the Critical Materials Institute.*

**ABOUT CANADA/US JOINT ACTION PLAN ON CRITICAL MINERALS**

*The Action Plan will guide cooperation in areas such as industry engagement; efforts to secure critical minerals supply chains for strategic industries and defense; improving information sharing on mineral resources and potential; and cooperation in multilateral fora and with other countries. This Action Plan will promote joint initiatives, including research and development cooperation, supply-chain modelling and increased support for industry.*

**ABOUT US NATIONAL TECHNOLOGY AND INDUSTRIAL BASE DIRECTIVE**

*The National Technology and Industrial Base (NTIB) consists of the people and organizations engaged in national security and dual-use research and development (R&D), production, maintenance, and related activities within the United States, Canada, the United Kingdom, and Australia. The NTIB, as established by 10 U.S.C. §2500, is intended to support national security objectives of the United States, including supplying military operations; conducting advanced R&D and systems development to ensure technological superiority of the U.S. Armed Forces; securing reliable sources of critical materials; and developing industrial preparedness to support operations in wartime or during a national emergency.*

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