

# Scandium International Mining Corp. Signs Letter of Intent with Granges AB to Test Scandium Alloys in Heat Exchanger Applications

written by Raj Shah | January 31, 2018



January 31, 2018 ([Source](#)) – Scandium International Mining Corp. (**TSX: SCY**) (“**Scandium International**” or the “**Company**”) is pleased to announce that it has signed a Letter of Intent (“**LOI**”) with Gränges AB (“**Gränges**”), based in Stockholm,

Sweden. Gränges is a public company, traded on the NASDAQ Stockholm Stock Exchange, and is a large global player in the rolled aluminum products business, with production assets in Europe, USA, and China, and a worldwide customer base.

The LOI calls for the Scandium International to contribute various aluminium alloy samples containing scandium to a testing project, to be undertaken by Gränges research staff, specifically for heat-exchanger applications, and potentially for other applications. The Company will also contribute aluminium-scandium master alloy 2% (“**MA**”), for alloying and trial-testing with Gränges proprietary aluminium alloys. This alloy mixing and testing will also be conducted by Gränges, at their R&D facilities and by their research staff. The parties have agreed to report the parameters and general results of the testing program utilizing these scandium-containing alloys, upon

completion of testing.

### **LOI AGREEMENT HIGHLIGHTS:**

- **LOI defines alloy and MA contributions to Gränges' testing programs,**
- **Gränges agrees to test alloy and utilize MA in their research facilities to document observed scandium impacts on alloys used in their products,**
- **Research results are to be reported and understood, possibly publicly disclosed, depending on intellectual property discovery,**
- **Gränges is a recognized leader in rolled aluminum products, specifically heat exchanger products, servicing a large global customer base, and**
- **Successful research results may form a basis for future use of scandium by Gränges.**

This demonstration program with Gränges represents the third formal LOI announced this month by SCY with distinct industry segment leaders. The programs these LOIs represent are key to demonstrating precisely how scandium will perform in specific products, and in production-specific environments. Potential scandium customers insist on these sample-testing opportunities, directly in their research facilities or on their shop floor, to ensure their full understanding of the impacts, benefits, and costing implications of introducing scandium into their traditional aluminum feedstocks.

### **DISCUSSION:**

Gränges is one of the few global players in the rolled aluminum products category, with production, sales and customer-driven product development on three continents. The company is focused on advanced aluminum materials, and holds a leading global position in rolled products for brazed heat exchangers, which it

estimates at 20%. The brazed heat exchanger market has traditionally been centered in automotive applications, but is now increasingly being applied to stationary heat exchanger (HVAC) solutions as well. Gränges' focus on technology, manufacturing processes, and material properties has produced smaller, lighter and better designed heat exchangers, successfully creating products that deliver both better energy efficiency and improved environmental impacts to the marketplace.

In 2016, Gränges acquired the downstream rolling mill assets of Noranda Aluminum Holding Corp., centered in Franklin, Tennessee, renamed Gränges Americas. This acquisition resulted in considerable changes to Gränges' customer structure and markets, and expanded their product offering into automotive heat shields, transformer windings and semirigid containers. The company uses approximately 340,000 tonnes of aluminum alloy in its global product offerings annually, has 1,600 employees and global sales (2016) of over 10 billion SEK (US\$1.3 billion). More than half of Gränges sales are now in the USA.

For more on Gränges AB, you can go to their website at: [www.Granges.com](http://www.Granges.com).

The Gränges organization and specifically the R&D Center in Finspång, Sweden is ideally qualified to test the effects of scandium on advanced 3 Series brazing alloys, typically employed in the manufacture of heat exchangers of all types and applications. We believe, based on test work already conducted by SCY, that this program holds the potential to demonstrate the significant value of scandium additions in heat exchanger applications, and potentially other applications for aluminum alloys.

These LOI announcements are part of a product and market

development strategy by the Company to pick innovative, research-capable partners, willing to test scandium in their applications. We are selecting and approaching these specific partners because we have an understanding, from our commissioned alloy mixing programs, that scandium additions can make valuable contributions to their specific products, and we have the alloy samples to make a fast start on that validation. The scandium market for aluminum alloys needs to be built, and that construction should be seen as underway in the most direct sense. The Company plans to do more of these programs, application-specific, in pursuit of sales contracts with quality customers across numerous industry segments, predominantly existing aluminum alloy consumers.

**George Putnam, CEO of Scandium International Mining Corp. commented:**

“We are pleased to be taking our recent work with scandium in brazing alloy development and introducing it to a significant aluminium alloy consumer group, known for their innovation and quality products. Gränges is a recognized industry leader in the heat exchanger markets, and the perfect partner to refine our alloy work to meet their specific needs, and potentially see real benefit to be applied to their products.”

**Kent Schölin, SVP, Research and Innovation, commented:**

“Scandium is known to have positive effects on properties for heat exchanger materials. It has previously been too expensive to exploit those positive effects, but with the SCY initiative scandium additions may become economically viable.”

#### **QUALIFIED PERSONS AND NI 43-101 TECHNICAL REPORT**

Nigel J. Ricketts, BAppSc (Metallurgy), PhD (Chemical Engineering), MAusIMM CP (Metallurgy), holds the position of VP

Projects and Market Development, Australia in the Company, is a qualified person for the purposes of NI 43-101, and has reviewed and approved the technical content of this press release on behalf of the Company.

### **ABOUT SCANDIUM INTERNATIONAL MINING CORP.**

The Company is focused on developing its Nyngan Scandium Project, located in NSW, Australia, into the world's first scandium-only producing mine. The project has received all key approvals, including a mining lease, necessary to proceed with project construction.

The Company filed a NI 43-101 technical report in May 2016, titled **"Feasibility Study – Nyngan Scandium Project"**. That feasibility study delivered an expanded scandium resource, a first reserve figure, and an estimated 33.1% IRR on the project, supported by extensive metallurgical test work and an independent, 10-year global marketing outlook for scandium demand.

*This press release contains forward-looking statements about the Company and its business. Forward looking statements are statements that are not historical facts and include, but are not limited to statements regarding any future development of the project. The forward-looking statements in this press release are subject to various risks, uncertainties and other factors that could cause the Company's actual results or achievements to differ materially from those expressed in or implied by forward looking statements. These risks, uncertainties and other factors include, without limitation risks related to uncertainty in the demand for Scandium in 3D printing applications; the possibility that results of test work by AML will not fulfill expectations and realize the perceived market utilization and potential of scandium*

*alloys that may be developed for sale by the Company.*

*Forward-looking statements are based on the beliefs, opinions and expectations of the Company's management at the time they are made, and other than as required by applicable securities laws, the Company does not assume any obligation to update its forward-looking statements if those beliefs, opinions or expectations, or other circumstances, should change.*