Avalon Re-Activates Nechalacho Rare Earth Elements Project, NWT, Canada on Growing Demand for Neodymium

written by Raj Shah | May 16, 2018

May 15, 2018 (Source) – Avalon Advanced Materials Inc. (TSX: AVL) (OTCQX: AVLNF) ("Avalon" or the "Company") is pleased to announce that it will re-activate its 100% owned Nechalacho Rare Earth Elements Project, Thor Lake, NWT ("Nechalacho" or "the Project") in 2018 due to strong demand for the 'magnet rare earths' neodymium and praseodymium.

Rare earth magnets remain vital to many clean technology applications requiring high efficiency, lightweight electric motors and generators. This includes motors for electric vehicles, which can require 5-10kg of rare earth magnets per vehicle. The growing market for electric vehicles, especially in China, has created new demand for these high strength magnets, resulting in rising prices for neodymium and praseodymium, both now selling for over $100/kg in oxide form. The world still largely relies on China for rare earth supply, yet China has reportedly become an importer of neodymium concentrates.

While Avalon's 2013 Feasibility Study focused on the underground accessible, heavy rare earth-rich Basal Zone of the Nechalacho Deposit, the property hosts several other easily accessible, near-surface, rare earth mineralized zones including high grade, neodymium-praseodymium ("Nd-Pr") rich resources. These are

located in the T-Zone and Tardiff Lake Zones. (See the location map within the Nechalacho presentation on Avalon's website). These zones have potential for near-term, small-scale, low-impact development to produce Nd-Pr rich concentrates for export and will be the focus of renewed development work planned for the Project in 2018.

Neodymium Potential

Previous work on the Project has identified high-grade, near-surface neodymium mineralization associated with the light rare earth ore mineral bastnaesite in both the North T Deposit and Tardiff Lake Zones of the Nechalacho Deposit. The former was drilled by previous owners of the property in 1982-85 and the Nechalacho Deposit was extensively drilled by Avalon in 2007-12. However, there was little systematic analytical work for rare earths during the early exploration in the 1980's.

In 2007, Avalon reported on historical resources in the North T Deposit which included a small, but high grade, neodymium resource in the F-Subzone, averaging 6.5% Total Rare Earth Oxides ("TREO") including 1.5% Nd2O3. A decline was driven by previous operators into the North T Deposit to conduct underground exploration and recover a bulk sample. The decline also intersected the near-surface neodymium-rich F-Subzone closer to surface, making it readily accessible for additional bulk sample work, once it is partially de-watered.

The T-Zone also contains significant lithium resources (mainly in lepidolite), that historically were not considered an economic opportunity, but now deserve a more thorough evaluation.

In the near-surface North Tardiff Lake Zone, partially drilled by Avalon in the course of the Basal Zone work, bastnaesite-rich mineralization was intersected indicating resource potential for

more than one million tonnes at 2.5-3.5% TREO with 8 kg/tonne Nd2O3+Pr2O3. Highlights from the drilling include 3.03% TREO over 27.9m starting from 14.1m and 4.97% TREO over 29.75m from 15.25m. Such mineralization, which starts at surface, is readily accessible for small-scale open pit mining.

The South Tardiff Lake Zone contains two trenches which gave surface chip samples ranging from 2.7-8% TREO, including 0.7-1.9% Nd2O3+Pr2O3. One nearby drill hole intersected 3.48% TREO over 9.8m including 0.86% Nd2O3+Pr2O3, starting from just 23m below surface, indicating similar small-scale open pit potential.

Development and Permitting Plans

Avalon plans to investigate the possibility of developing Nechalacho as a near-term, small-scale producer of Nd-Pr rich concentrates for export involving potentially a simple mining, crushing and optical sorting operation. This has significant advantages over the already-approved Project plan from an environmental standpoint.

The Company is currently participating in an independent scoping study, supported in part by the Territorial Government, on the East Arm-Yellowknife Road and hydro infrastructure corridor in order to provide clean power, year-round access to site and greatly simplified Project logistics. It would also provide significant cost savings to Nechalacho and northern communities such as Lutsel K’e through improved access. This is driven in part by Federal government initiatives to reduce greenhouse gas emissions that would result from replacing diesel power with clean hydro power.

Specific Company plans for 2018/2019 include:

- confirming Nd-Pr resources in the F-Subzone and Tardiff

Lake Zones and preparing a scoping study on a small-scale development model focused on Nd-Pr concentrate production;
- re-sampling existing drill core from 1980's drilling to analyze for lithium and establishing an initial T-Zone lithium resource estimate;
- investigating dysprosium (the other 'magnet rare earth') potential in the North T Deposit; and
- continuing the permitting process and community engagement toward identifying local Indigenous business partners.

The known mineral deposits on the property are all located within Avalon's existing mineral leases. The Company has mineral claims adjacent to these leases covering the airstrip, part of the possible plant site and access roads. As part of the current program, these are in the process of being taken to lease. Legal surveying of these claims (an essential stage in this process) commenced this month.

The Company is also in the process of renewing its Land Use Permit ("LUP") for exploration work on the Project. This renewal is planned to include work on the extension of the existing airstrip. Other than visiting the site to carry out sample collection work, no other land disturbances are planned in 2018. Total budget requirements for the 2018 work program are estimated at $100,000.

Sustainability

As with Avalon's other advanced-stage projects, the Company's focus is on materials that enable clean technology, including solar and wind power. In order to do this sustainably, Avalon designs its operations to minimize environmental impacts, green house gas emissions and plans for rehabilitation and productive use of the land post closure. The Company also now applies a staged development approach to its cleantech materials projects, which involves starting production at a modest scale, to

minimize project footprint and potential risks to environment, while also reducing investment risk and creating opportunities for our Indigenous business partners.

The technical information included in this news release has been reviewed and approved by the Company's Vice President, Exploration, Dr. William Mercer, P. Geo (Ont), a Qualified Person under NI 43-101.

About Avalon Advanced Materials Inc.

Avalon Advanced Materials Inc. is a Canadian mineral development company specializing in niche market metals and minerals with growing demand in new technology. The Company has three advanced stage projects, all 100%-owned, providing investors with exposure to lithium, tin and indium, as well as rare earth elements, tantalum, niobium, and zirconium. Avalon is currently focusing on its Separation Rapids Lithium Project, Kenora, ON and its East Kemptville Tin-Indium Project, Yarmouth, NS. Social responsibility and environmental stewardship are corporate cornerstones.

This news release contains "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities legislation. Forward-looking statements include, but are not limited to statements that Avalon will re-activate the Project, that zones have potential for near-term, small-scale, low-impact development to produce Nd-Pr rich concentrates for export, and will be the focus of the renewed development work planned for the Project in 2018, that Avalon plans to investigate the possibility of developing Nechalacho as a near-term, small-scale producer of Nd-Pr rich concentrates for export involving potentially just a simple mining, crushing and optical sorting operation, that this has significant advantages over the already

approved project from an environmental standpoint. Its specific plans for 2018/2019, that its leases are in process of being taken to lease, that LUP renewal is planned to include work on the planned extension of the existing airstrip, that it designs its operations to minimize environmental impacts, green house gas production and plans for rehabilitation and productive use of the land post closure and that the Company now applies a staged development approach to its cleantech materials projects. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "potential", "scheduled", "anticipates", "continues", "expects" or "does not expect", "is expected", "scheduled", "targeted", "planned", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be" or "will not be" taken, reached or result, "will occur" or "be achieved". Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Avalon to be materially different from those expressed or implied by such forward-looking statements. Forward-looking statements are based on assumptions management believes to be reasonable at the time such statements are made. Although Avalon has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking statements include, but are not limited to market conditions, and the possibility of cost overruns or unanticipated costs and expenses as well as those risk factors set out in the Company's current Annual Information Form, Management's Discussion and Analysis and other disclosure documents available under the Company's profile

at www.SEDAR.com. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Such forward-looking statements have been provided for the purpose of assisting investors in understanding the Company's plans and objectives and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking statements. Avalon does not undertake to update any forward-looking statements that are contained herein, except in accordance with applicable securities laws.