

Avalon Receives Encouraging Ore-Sorting Test Results from East Kemptville Tin Project, Yarmouth Co., Nova Scotia

written by Raj Shah | September 17, 2018

☒ September 17, 2018 ([Source](#)) – [Avalon Advanced Materials Inc.](#) (TSX: AVL) (OTCQX: AVLNF) (“Avalon” or the “Company”) is pleased to announce that the Company has received positive results from an ore-sorting testwork program conducted on samples of tin mineralization from its East Kemptville Tin Project (“East Kemptville” or the “Project”). As discussed in the Company’s news release dated [July 24, 2018](#), these results provide further encouragement that ore-sorting technology can be successfully implemented at East Kemptville to reduce both capital and operating costs and to reduce the volume of tailings generated from the proposed operation.

Sensor-based ore-sorting (“SBS”) is an emerging technology seeing increasing application in the mining industry. It involves the scanning of individual rock particles on a conveyor using various types of available sensor technologies. Depending on the chemical, mineralogical or physical characteristics, the particles of value are individually identified and separated from the “rejects” by applying either a mechanical, hydraulic or, in the case of East Kemptville, a pneumatic process.

The successful application of an ore-sorting process offers a number of potential benefits through the rejection of low or non-mineralized waste rock before it is fed into the processing plant. This can lead to a significant reduction in the size of the plant, along with attendant reductions in both capital and

operating costs. It may also allow for the economic processing of low grade feed materials that would otherwise be un-economic to treat.

The recent work was conducted by Cronimet Mining Processing SA (Pty) Ltd ("CMPSA"), who are providing technical and metallurgical services to Avalon in relation to the East Kemptville Project. CMPSA has also expressed interest in partnering with Avalon on the development of the Project.

Drill core samples from the in-ground resources at East Kemptville were delivered in July 2018 to a test facility in Kentucky, USA in order to determine the amenability of East Kemptville tin mineralization for beneficiation utilizing sorting technology. Samples varying from relatively high-grade to low-grade tin concentrations were scanned using a multisensory sorter platform. Based on these scans an algorithm was developed to allow for the separation of the material during the test campaign.

The feed stock used during the test campaign contained 0.11% Sn, 0.06% Cu and 0.11% Zn. The first step of the testwork produced an upgraded product containing 0.47% Sn and a product mass yield of 12%. Recovery versus grade data also showed that SBS can be used to recover the zinc ore mineral sphalerite (which also contains indium) from this resource. The zinc-indium feed was successfully upgraded to 0.23% Zn in the first step, while copper content remained low.

Similar positive results were achieved in a preliminary ore sorting test program conducted in 2017 using material from the low grade stockpile, confirming that SBS can be successfully employed to upgrade both the in-ground tin resource as well as the stockpiled material.

Next Steps

Based on these results, CMPSA has recommend that a detailed sampling campaign be conducted on the low grade stockpile, followed by an extensive bulk testwork program using a pilot scale ore sorting plant to test the recovery of valuable minerals on a pilot scale. CMPSA will be visiting the East Kemptville site in September to meet with Avalon and site representatives in order to design and schedule the sampling program which is likely to involve the extraction of a bulk (~10 tonne) composite sample sometime in October 2018. The test program, including writing of the technical report, is expected to take five to six months to complete. This testwork, combined with a confirmation drilling program on the stockpile, will be utilized to finalize the small-scale site re-development model to the Feasibility level of confidence, following which it is contemplated Avalon and Cronimet would enter into a partnership for the joint development of the Project.

About CMPSA

CRONIMET Mining Processing SA (Pty) Ltd is a company that focuses on the processing of tailings and historically low-grade stockpiles around the world using niche technologies with an aim of reducing the carbon foot print of mines and mineral processing plants while still achieving high quality results for each project. CMPSA is a wholly owned subsidiary of the Switzerland based mineral processing company CRONIMET Mining Processing AG which forms part of the CRONIMET Mining Group, a multi-national corporation with projects around the world. For more information on CMPSA, please see the link to their website: <http://www.cronimet-mining.com/en/processing/who-we-are/>.

East Kemptville Technical Report

Further to the Company's news release of July 24, 2018, in which

the results of its Preliminary Economic Assessment (“PEA”) were disclosed, the report entitled “The East Kemptville Tin Production and Site Remediation Project Preliminary Economic Assessment, Nova Scotia, Canada” has now been filed on SEDAR and is [available on the Company’s website](#). In accordance with the regulations under NI 43-101, it is noted that the PEA must be considered preliminary in nature, as it includes Inferred mineral resources that are considered too speculative to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized.

The technical information included in this news release has been reviewed and approved by David Marsh, FAusIMM (CP), Senior Vice President, Metallurgy and Technology Development.

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.

For questions and feedback, please e-mail the Company at ir@AvalonAM.com, or phone Don Bubar, President & CEO, at 416-364-4938.

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 ore-sorting technology can be successfully implemented at East Kemptville to reduce both capital and operating costs and reduce the volume of tailings generated from the proposed operation, that the successful application of an ore-sorting process offers a number of potential benefits, that this can lead to a significant reduction in the size of the plant along with attendant reductions in both capital and operating costs, that it may also allow for the economic processing of low grade feed materials that would currently be un-economic to treat, that SBS can be successfully employed to upgrade both the in-ground tin resource as well as the stockpiled material, and statements related to next steps including, site visits, planned work and timing of that work, as well as the contemplation that Avalon and Cronimet would enter into a partnership for the joint development of the Project . 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.