# Avalon Reports Assay Results from 2018 Winter Drilling Program at Separation Rapids Lithium Project, Kenora, ON

# April 3, 2018

Toronto, Ontario--(Newsfile Corp. - April 3, 2018) - <u>Avalon Advanced Materials Inc.</u> (TSX: AVL) (OTCQX: AVLNF) ("Avalon" or the "Company") is pleased to report assay results from its successful 2018 winter drilling program at its Separation Rapids Lithium Project near Kenora, Ontario. The results were highlighted by a 37.75 metre intersection of lepidolite-rich mineralization in hole SR18-80 that averaged 1.58% Li<sub>2</sub>O. Six holes totalling 1,548 metres were completed. All holes intersected significant lithium mineralization, both petalite and lepidolite-petalite bearing, as detailed in the tables below. An updated resource estimate is being prepared which is expected to be completed by the end of April. Metallurgical process optimization and environmental work is also continuing and the results of this work, along with the revised resource estimate, will be used to complete an updated technical report this spring.

The drilling program consisted of four holes (SR18-77 to 80) on the main deposit. Two additional holes (SR18-75 and 76) were drilled on the Western Pegmatite, about 700 metres to the west of the main deposit. Both intersected significant petalite mineralization over true widths of up to three metres, confirming lateral continuity of the deposit to the west over relatively narrow widths. All four holes in the main deposit yielded significant intersections of both Petalite Zone ("PZ") and Lepidolite-Petalite Zone ("LPZ") mineralization outside of the existing mineral resource that will result in additions to the total resource tonnage.

Holes 77 and 78 tested depth extensions on the west side of the main deposit to approximately 250 metres below surface and intersected mainly PZ mineralization outside the existing deposit resource volume. The intercepts of 1.1% Li<sub>2</sub>O over 50.9 metres cumulative thickness in hole 77 and 1.33% Li<sub>2</sub>O over a 18.7 metre thickness in hole 78 will add to the total lithium resources.

Holes 79 and 80 tested the east side of the main deposit to similar depths and intersected a wider zone of lepidolite-rich LPZ lithium mineralization than expected. Hole 79 intersected 62.27 metres of LPZ mineralization within an interval of 77.05 metres averaging 1.27% Li<sub>2</sub>O, which also includes other zones of PZ mineralization. This represents an estimated true thickness of 33.46 metres of LPZ mineralization. Hole 80 intersected 1.51% Li<sub>2</sub>O over a cumulative thickness of 62.85 metres of which 37.75 metres was LPZ mineralization and the remainder was PZ petalite mineralization. The LPZ mineralization in these two holes is largely outside the existing resource model, thus increasing the overall resource and confidence levels in this part of the deposit.

# Metallurgical and Environmental Update

Metallurgical process optimization work is focused on further improving process efficiencies to reduce costs and maximizing the number of valuable products recoverable from the resource.

Flotation testwork has just been completed with regards to the recovery of both lepidolite and petalite concentrates from the LPZ mineralization. Initial results are demonstrating high (>85%) overall lithium recoveries and concentrate compositions in line with market requirements. Investigations on incorporating lithium selective membrane(s) into the lithium hydroxide production process are also nearing completion and results to date suggest the anticipated reductions in

CAPEX, OPEX and environmental footprint are likely. Lastly, optimization of the petalite concentrate decrepitation and acid leaching processes is also proving to be very successful, with results either matching or exceeding expectations for this critical and complex part of the lithium hydroxide hydrometallurgical process. Final results from all three of these programs are expected during April.

These process advances will also have positive environmental benefits, including significant reductions in waste materials, reagent and energy use and associated greenhouse gas emissions. This will result in decreases in associated environmental management costs. Drill holes were also utilized to collect water samples that indicated very clean water from the area of the lithium resource. Most of the field work to complete the validation of the extensive historical environmental baseline database has been completed and will be finalized in the second quarter. This work will be utilized to continue the positive engagement activities with the local Indigenous communities and will also be utilized in ongoing permitting activities.

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), and Dave Marsh, FAusIMM (CP), Senior Vice President, Metallurgy and Technology Development, both Qualified Persons 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. For questions and feedback, please e-mail the Company at <u>ir@AvalonAM.com</u>, 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 an updated resource estimate is being prepared which is expected to be completed by the end of April, that results of metallurgical work, along with the revised resource estimate, will be used to complete an updated technical report this spring, that intercepts will add to the total lithium resources, that results to date suggest the anticipated reductions in CAPEX, OPEX and environmental footprint are likely, that final results from all three of the programs are expected during April, that these process advances will also have positive environmental benefits, that this will result in decreases in associated environmental management costs, that field work to complete the validation of the extensive historical environmental baseline database will be finalized in the second quarter, and that this work will be utilized to continue the positive engagement activities with the local Indigenous communities and will also be utilized in ongoing permitting activities. Generally, these forwardlooking 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 <u>www.SEDAR.com</u>. 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.

Hole ID	Easting [m]	Northing [m]	Collar dip [°]	Collar a
SR18-75	387528	5569171	-50	180
SR18-76	387528	5569171	-65	180
SR18-77	388201	5569175	-65	180
SR18-78	388326	5569136	-65	178
SR18-79	388500	5569090	-67	175
SR18-80	388552	5569068	-67	175
TOTAL 1,548				I

#### Notes

- 1. All locations in UTM NAD83, Zone 15N
- 2. Collar locations surveyed by licenced Ontario Land Surveyor/Canada Land Surveyor
- 3. Downhole surveys completed using Devico DeviShot Survey Tool

Drill Hole	From	То	Drilled Width (m)	Estimated True Width (m)
SR18-75	72.36	78.84	6.48	2.94
	81.46	83.90	2.44	1.15
SR18-76	116.50	117.35	0.85	0.40
SR18-77	188.10	196.60	8.50	3.86
	244.30	286.70	42.40	19.91
SR18-78	256.40	275.10	18.70	7.61
<b>SR18-79</b> Including and	162.50	239.55	77.05	41.40
	167.93	201.50	33.57	18.04
	210.85	239.55	28.70	15.42
SR18-80	72.00	74.90	2.90	1.32
	117.65	128.70	11.05	5.02
	172.85	184.00	11.15	5.58
	222.15	259.90	37.75	20.00

Table 2: Significant Drill Hole intersections with lithium grades expressed as % lithium oxide

# Notes:

- 1. PZ indicates petalite mineralization, LPZ indicates lepidolite-petalite mixture and PZ,LPZ indicates interbanded petalite and lepidolite- petalite mineralization.
- 2. Not presented: any intervals below 1% Li<sub>2</sub>O and any isolated intercepts less than 2m drilled length (except DH SR18-76).
- 3. Estimated true widths assume the mineralized zones are vertical. The near vertical nature is clearly apparent in drill sections.
- All drill core was split by Avalon staff on site near Kenora and shipped to ALS Global in Thunder Bay for preparation and on to Vancouver for analysis by methods ME-4ACD81 and ME-MS81 for multielement analysis including Li, Ta, Cs and Rb. Samples over 0.5% Li<sub>2</sub>O

were reanalyzed by Li-OG63, the lithium specific analytical method conducted by ALS Global.

- 5. Avalon inserted company certified lithium standards and blanks into the sample stream for QAQC purposes. The results of the Avalon and laboratory standards and blanks were reviewed by Avalon's QP prior to accepting the laboratory results.
- 6. Lithium (Li) analyses in ppm were converted to  $Li_2O$  values by multiplying by 2.1527