



AVALON

ADVANCED MATERIALS

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Avalon Undertakes a Mineral Resource Estimate Update following Positive Drill Results for Separation Rapids JV, ON

TORONTO, ON - [Avalon Advanced Materials Inc.](#) (“Avalon” or the “Company”) (TSX: [AVL](#) and OTCQB: [AVLNF](#)), in conjunction with its Joint-Venture (“JV”) partner SCR-Sibelco NV (“Sibelco”), is delighted to announce the commencement of an upcoming mineral resource update for the Separation Rapids Project in Kenora, Ontario. Managed by the Joint Venture Company Separation Rapids Ltd. (“SRL”), the 2024 winter drill campaign focused on a critical part of SRL’s strategy to upgrade the 2023 Mineral Resource Estimation (“MRE”) classification and to expand the mineral resource base.

Key Highlights of the 2023/2024 Drilling Results to Date: (NR Dated July 22, 2024)

- The first batch of the 2024 winter drill campaign demonstrated significant lithium intersections, with key results including:
 - SR24-114 intersected **1.67% Li₂O over 105.6 meters** from 313.5 meters depth and 1.78% Li₂O over 21.5 meters from 143.5 meters depth
 - SR24-113 intersected **1.68% Li₂O over 66.2 meters** from 292.2 meters depth and 1.95% Li₂O over 32.6 meters from 121.0 meters depth
 - SR24-115 intersected 1.81% Li₂O over 13.8 meters from 93.5 meters depth
 - SR24-116 intersected 1.69% Li₂O over 8.9 meters from 313 meters depth and 1.67% Li₂O over 12.7 meters from 325.3 meters depth
- The results confirm the high-grade lithium and the potential to increase the mineral resource base
- The results for the five remaining drillholes are currently pending and will be released shortly

Scott Monteith, CEO and Director of Avalon Advanced Materials Inc. commented, “We are excited with the recent drill results, which clearly demonstrate mineralization beyond the current mineral resource base. Sibelco our JV partner has been exceptional in selecting drill targets and our technical team is very confident that we will increase the resource base. This update will indicate a true reflection of the potential of this project and indicate additional exploration targets.

As we eagerly await the results from the second batch of drilling, we are beginning to update the 2023 MRE, which is on track for release in Q3 2024. Avalon is positioned exceptionally well with a lithium resource that will be instrumental in Canada’s Critical Mineral Strategy and will help accelerate our corporate strategy with respect to our Thunder Bay Processing facility.”

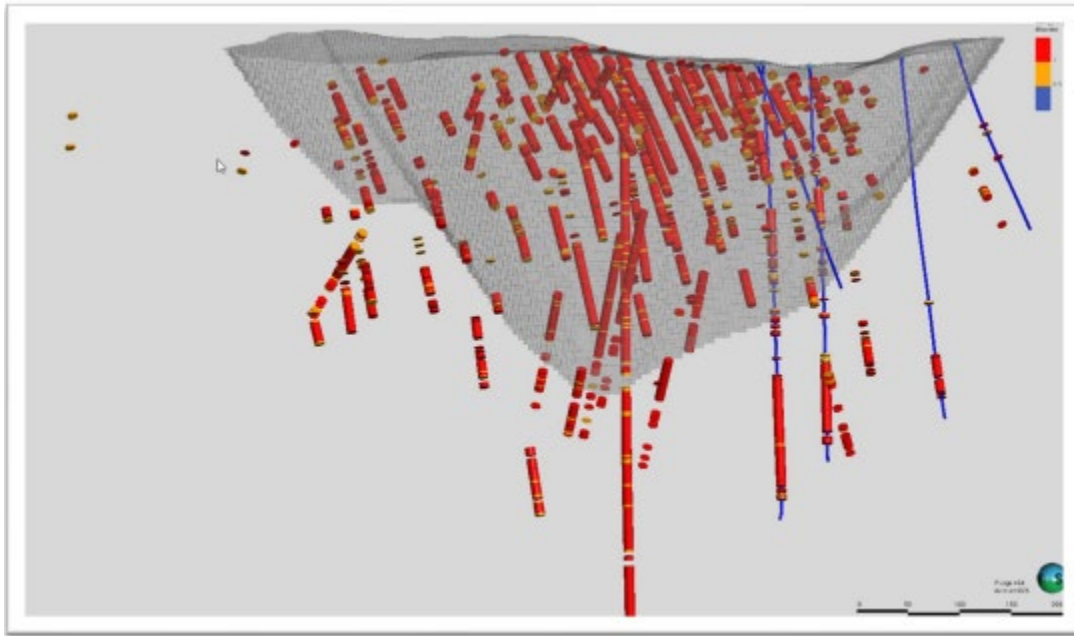


Figure 1: Five drill holes returned significant drill intercepts greater $\geq 0.5\%$ Li₂O from news release 22nd July 2024

The ongoing developments at Separation Rapids highlight Avalon's pivotal role in bolstering the supply chain for the burgeoning electric vehicle market in North America, as well as the glass ceramics industry.

Table 1: Drill Intersections from News Release July 22, 2024

ID	Az.	Dip	From (m)	To (m)	Interval (m)	True Thickness (m)	Li2O%	Intercept
SR24-113	195	-76	93.25	96.15	2.90	2.81	1.40	1.4 Li2O% over 2.9m
			101.85	103.90	2.05	1.99	1.25	1.25 Li2O% over 2.05m
			121.00	153.60	32.60	31.63	1.95	1.95 Li2O% over 32.6m
			178.10	180.60	2.50	2.43	1.38	1.38 Li2O% over 2.5m
			190.40	191.10	0.70	0.68	1.39	1.39 Li2O% over 0.7m
			193.60	194.00	0.40	0.39	1.40	1.4 Li2O% over 0.4m
			203.70	204.60	0.90	0.87	1.47	1.47 Li2O% over 0.9m
			228.65	229.35	0.70	0.68	2.51	2.51 Li2O% over 0.7m
			244.00	247.00	3.00	2.91	1.75	1.75 Li2O% over 3m
			292.25	358.45	66.20	64.23	1.68	1.68 Li2O% over 66.2m
			358.70	360.00	1.30	1.26	1.39	1.39 Li2O% over 1.3m
			364.00	365.30	1.30	1.26	1.42	1.42 Li2O% over 1.3m
			365.60	371.35	5.75	5.58	1.61	1.61 Li2O% over 5.75m
SR24-114	197	-75	143.50	165.00	21.50	20.77	1.78	1.78 Li2O% over 21.5m
			170.90	176.60	5.70	5.51	1.93	1.93 Li2O% over 5.7m
			177.20	188.50	11.30	10.91	1.86	1.86 Li2O% over 11.3m
			192.75	194.85	2.10	2.03	2.08	2.08 Li2O% over 2.1m
			195.60	196.70	1.10	1.06	0.88	0.88 Li2O% over 1.1m
			197.00	198.75	1.75	1.69	1.39	1.39 Li2O% over 1.75m
			199.50	201.00	1.50	1.45	1.14	1.14 Li2O% over 1.5m
			203.70	204.35	0.65	0.63	1.45	1.45 Li2O% over 0.65m
			213.00	214.00	1.00	0.97	2.87	2.87 Li2O% over 1m
			244.00	245.30	1.30	1.26	1.53	1.53 Li2O% over 1.3m
			246.15	247.20	1.05	1.01	1.12	1.12 Li2O% over 1.05m
			250.65	252.70	2.05	1.98	1.33	1.33 Li2O% over 2.05m
			253.25	255.00	1.75	1.69	1.12	1.12 Li2O% over 1.75m
			258.25	260.05	1.80	1.74	1.79	1.79 Li2O% over 1.8m
			264.90	267.90	3.00	2.90	2.01	2.01 Li2O% over 3m
			290.40	291.30	0.90	0.87	1.79	1.79 Li2O% over 0.9m
			307.75	309.10	1.35	1.30	1.39	1.39 Li2O% over 1.35m
			310.75	312.90	2.15	2.08	1.70	1.7 Li2O% over 2.15m
			313.15	418.80	105.65	102.05	1.67	1.67 Li2O% over 105.65m
			416.25	418.80	2.55	2.46	1.50	1.5 Li2O% over 2.55m
			421.40	423.15	1.75	1.69	1.07	1.07 Li2O% over 1.75m
			424.00	425.00	1.00	0.97	1.52	1.52 Li2O% over 1m
			427.00	431.00	4.00	3.86	1.48	1.48 Li2O% over 4m
SR24-115	178	-53	75.00	77.00	2.00	1.60	1.76	1.76 Li2O% over 2m
			93.50	107.30	13.80	11.02	1.81	1.81 Li2O% over 13.8m
			105.50	107.30	1.80	1.44	2.79	2.79 Li2O% over 1.8m
			108.55	112.50	3.95	3.15	1.38	1.38 Li2O% over 3.95m
			126.25	126.90	0.65	0.52	2.03	2.03 Li2O% over 0.65m

			127.40	128.30	0.90	0.72	1.49	1.49 Li2O% over 0.9m
			131.90	132.65	0.75	0.60	1.44	1.44 Li2O% over 0.75m
			134.55	134.80	0.25	0.20	1.28	1.28 Li2O% over 0.25m
			174.20	175.00	0.80	0.64	1.65	1.65 Li2O% over 0.8m
			175.45	175.65	0.20	0.16	1.46	1.46 Li2O% over 0.2m
SR24-116	192	-71	300.30	301.40	1.10	1.04	1.49	1.49 Li2O% over 1.1m
			302.00	302.50	0.50	0.47	1.66	1.66 Li2O% over 0.5m
			303.80	305.85	2.05	1.94	1.83	1.83 Li2O% over 2.05m
			306.05	312.55	6.50	6.15	1.66	1.66 Li2O% over 6.5m
			313.00	321.95	8.95	8.46	1.69	1.69 Li2O% over 8.95m
			325.30	338.05	12.75	12.06	1.67	1.67 Li2O% over 12.75m
			340.15	340.45	0.30	0.28	1.64	1.64 Li2O% over 0.3m
			343.30	343.55	0.25	0.24	1.92	1.92 Li2O% over 0.25m
SR24-117	175	-54	93.25	93.75	0.50	0.40	1.08	1.08 Li2O% over 0.5m
			132.40	133.55	1.15	0.93	1.58	1.58 Li2O% over 1.15m

Rules for Intercept Calculation

- 1 - values of $\geq 0.5\%$ pegmatite are reported with maximum waste interval of 1 meter included
- 2 - published intercepts still stand if intercepts are $\geq 0.5\%$ when higher grade inclusions are removed
- 3 - each reported intercept supported by mineralized pegmatite as logged in drill core
- 4 - Zones of $<0.5\%$ Li2O are not published as standalone, but included in intercept calculations if a continued zone is $<1.0m$
- 5 - intercepts $<0.5m$ are removed from table - comment in release will be noted

Quality Assurance-Quality Control (“QA/QC”)

QA/QC protocols followed at the insertion of blanks and standards at regular intervals in each sample batch. Drill core is cut in half with one half retained at site, the other half tagged and sent to ALS in Thunder Bay.

Prep and Analytical Methods Used:

PREP-33D – Log, Crush - Fine Crushing 90% $<2mm$, Split, Pulverize 1 kg split to 95% $<106\mu m$.

1. ME-4ACD81 – this is a multielement analysis using four acid digestion, that includes lithium to 10,000 ppm (1%) Li (2.15% Li2O)
2. ME-ICP06 – is a “whole rock” analysis that covers components such as silicon, sodium, potassium and iron so is useful as a check on rock type, feldspar content and type, and amphibolite content.
3. ME-MS81 – is a fusion multielement analysis that includes important pegmatite elements such as Rb, Ta, Nb and Sn

4. F- IC881 – a fluorine specific analysis that clearly indicates whether lepidolite is present in the rock. Any value over 10,000 ppm (1%) F is likely to be Unit 6d – the lepidolite bearing unit.

Any sample that exceeds the lithium limits for ME-4ACD81 (1% Li, or 2.15% Li₂O) is reanalyzed using method ME-ICP82b – a lithium specific method with limit of 10% Li (21% Li₂O). Pulps are to be returned to the project site.

Qualified Person (QP) and NI43-101 Disclosure

Andrew J. Ramcharan, P.Eng, VP Corporate Development for the Company, is the designated Qualified Person for this news release within the meaning of National Instrument 43-101 (“NI 43-101”) and has reviewed and verified that the technical information contained herein is accurate and approves of the written disclosure of same.

About Avalon Advanced Materials Inc.

Avalon Advanced Materials Inc. is a Canadian advanced manufacturing company focused on vertically integrating the Ontario lithium supply chain. The Company, through its joint venture with SCR-Sibelco NV, is currently developing its Separation Rapids lithium deposit near Kenora, ON, while also continuing to advance the Snowbank lithium and Lilypad lithium-caesium projects. Avalon is also working to develop its Nechalacho rare earths and zirconium project located in the Northwest Territories. This deposit contains critical minerals for use in advanced technologies in the communications and defense industries among other sectors.

In addition to these upstream activities, Avalon is executing on a key initiative to develop Ontario’s first midstream lithium hydroxide processing facility in Thunder Bay, ON, a vital link bridging the lithium resources of the north with the downstream EV battery manufacturing base in the south.

For questions or feedback, please email the Company at ir@AvalonAM.com or contact Ms. Rachel Naji, Investor Relations Manager at 416-364-4938.

Cautionary Statement Regarding Forward-Looking Information

This news release contains “forward-looking information” within the meaning of applicable Canadian securities legislation. Forward-looking information includes, but is not limited to statements related to planned work at the Project, and that we expect more news in the coming weeks. Generally, forward-looking information can be identified by the use of forward-looking terminology such as “add” or “additional”, “advancing”, “anticipates” or “does not anticipate”, “appears”, “believes”, “can be”, “conceptual”, “confidence”, “continue”, “convert” or “conversion”, “deliver”, “demonstrating”, “estimates”, “encouraging”, “expand” or “expanding” or “expansion”, “expect” or “expectations”, “forecasts”, “forward”, “goal”, “improves”, “increase”, “intends”, “justification”, “plans”, “potential” or “potentially”, “promise”, “prospective”, “prioritize”, “reflects”, “robust”, “scheduled”, “suggesting”, “support”, “top-tier”, “updating”, “upside”, “will be” or “will consider”, “work towards”, or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might”, or “will be taken”, “occur”, or “be achieved”.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including risks associated with mineral exploration and development operations such as: environmental hazards and economic factors as they affect the cost and success of

the Company's capital expenditures, the ability of the Company to obtain required permits and approvals, the ability of the Company to obtain financing, uncertainty in the estimation of mineral resources, uncertainty with respect to the ability to successfully construct and develop the Company's lithium processing facility, the price of lithium, no operating history, no operating revenue and negative cash flow, land title risk, the market price of the Company's securities, the economic feasibility of the Company's mineral resources and the Company's commercial viability, inflation and uncertain global economic conditions, uncertain geo-political shifts and risks, successful collaboration with indigenous communities, changes in technology and advancements in innovation may impact the development of the Company's technology innovation centre and its lithium hydroxide processing facility, future pandemics and other health crises, dependence on management and other highly skilled personnel, title to the Company's mineral properties, the ongoing war in Ukraine and Israel, extensive government and environmental regulation, reliance on artificial intelligence technology to influence mining operations, volatility in the financial markets, uninsured risks, climate change, threat of legal proceedings, as well as those risk factors discussed or referred to in the annual information form of the Company dated November 28, 2023 (the "AIF") under the heading "Description of the Business – Risk Factors". Forward-looking information is based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect. Although the Company believes that the assumptions and expectations reflected in such forward-looking information are reasonable, undue reliance should not be placed on forward-looking information because the Company can give no assurance that such expectations will prove to be correct. In addition to other factors and assumptions identified in the AIF, assumptions have been made regarding, among other things: management of certain of the Company's assets by other companies or joint venture partners, the Company's ability to carry on its exploration and development activities without undue delays or unbudgeted costs, the ability of the Company to obtain sufficient qualified personnel, equipment and services in a timely and cost effective manner, the ability of the Company to operate in a safe, efficient and effective manner, the ability of the Company to obtain all necessary financing on acceptable terms and when needed, the accuracy of the Company's resource estimates and geological, operational and price assumptions on which these are based and the continuance of the regulatory framework regarding environmental matters. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions that may have been used. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.