

**A New Commitment.**  
**A New Process.**  
**A New Partner.**



**AVALON**  
ADVANCED MATERIALS



## Land Acknowledgement

Avalon Advanced Materials Inc. acknowledges that our work takes place within the ancestral and traditional territories of First Nations, and Métis people. We respect Indigenous rights and are committed to deepening our existing relationships while forging new lasting ties which will ensure that we and future generations benefit from the positive social and economic opportunities related to our operations.





# Forging Strategic Partnerships to Advance Clean Energy Solutions

Since assuming my role as Avalon's CEO, my focus has been to drive clean energy growth. With 30 years in the clean-technology space—focusing on water, air, and energy protection—I look forward to harnessing the soaring demand for Canadian critical minerals to create new economic development opportunities, including establishing an Innovation, Technology and R&D Hub at our flagship parkway in Thunder Bay.



**Scott Monteith**  
CEO, Director

Earlier this year, Avalon had the privilege of unveiling our plans for a 383-acre industrial site in Thunder Bay. Upon completion, the site will be home to Ontario's first lithium processing facility—providing a regional supply of a strategically vital resource in the North American electric vehicle (EV) battery value chain and reducing harmful carbon emissions.

To advance the development, we formed an integral partnership with Helsinki-based Metso and intend to deploy its world-leading sustainable technology. By eliminating potentially harmful chemicals, such as sulfuric acid, the proprietary lithium hydroxide (LiOH) process is vastly less pollutive than conventional acid roasting conversion methodologies. This is one of many efforts to strengthen our sustainability agenda.

We also established a joint venture with Sibelco, a Belgium-based global leader in materials solutions, focusing on clean energy growth and the technical glass ceramics market. Environmental and social responsibility are central to their mission. Our joint venture will leverage Sibelco's industry-best practices, knowledge and expertise to bring the Separation Rapids petalite-lithium deposit into

production, including the construction and operation of a best-in-class extraction mill.

As countries around the world compete for their economies to be best positioned in the race to Net Zero, Canada, with our vast resources, stable governance and industry acumen, has a historic opportunity to lead. In 2023, Avalon undertook major strides toward its vision to mine, refine and bring Ontario lithium to market, and ensure the long-term security of domestic lithium processing capacity.

This, our 12th annual Sustainability Report, recognizes our strategic achievements and outlines a 2024 roadmap commitment to sustainably build and develop an Ontario lithium supply chain, as well as the processes and partnerships we will rely on to achieve that vision.

# Driving Canada Toward a Sustainable Future

In November 2022, the federal government challenged businesses nationwide in the form of the newly created Canadian Critical Minerals Strategy. Hailing the ongoing energy transition as a “generational opportunity” for Canada to innovate and lead the way toward a sustainable future, the report left only one question in doubt: will Canadian companies rise to the challenge?



**Zeeshan Syed**  
President

Avalon is answering that call—with investment, infrastructure, and deep consideration for the land and communities most affected by the global energy transition. Our new leadership team shares a vision to elevate Canada’s role in this burgeoning sector through an integrated platform model that will help build a robust international critical minerals supply chain, beginning with the development of a world class, ESG-leading midstream lithium processing facility in Thunder Bay, Ontario. Strategically located on the shores of Lake Superior, the site will act as a regional bridge connecting mineral-rich deposits in northern Ontario with the battery manufacturing base in the province’s south.

Currently, the global carbon footprint of EV batteries is incongruous with our climate objectives. Lithium concentrates from North America and elsewhere are shipped to China for processing, a key step to ingredients and essential input into EV batteries. The processed lithium is then transported back to North America for the final manufacturing phase, a long and circuitous journey that carries serious negative environmental impacts while also creating an untenable dependency of key energy inputs. By localizing

the end-to-end production of EV batteries in Ontario, using a far less pollutive conversion method, and including the addition of an on-site battery recycling facility, Avalon will implement innovative process technology and position Canada as a global leader while significantly reducing the environmental impact of lithium processing.

Our strategic roadmap to building Ontario’s first integrated lithium value chain is in lockstep with the five core objectives articulated in the Canadian and Ontario critical minerals agendas and, more broadly, with the principles set forth in the United Nations Framework Convention on Climate Change (UNFCCC). The collaboration with Metso, for example, was established in part to more closely align Avalon with the aim of promoting climate action and environmental protections in all of the jurisdictions where we operate.

As we continue to build a cornerstone of Canada’s critical minerals infrastructure, our Annual Sustainability Report will serve as a valuable tool to demonstrate Avalon’s commitment to responsible mining practices and the protection of Canada’s natural resources.



# Navigating a New Sustainability Reporting Landscape

This year, Avalon has undergone a series of changes as it enters a new growth phase. After assembling a new, execution-focused team that has taken several steps toward extraction and production activities, including the purchase of an industrial site in Thunder Bay, Ontario, it is time to refocus our Sustainability Reporting efforts on the emerging framework resource firms are adopting around the globe.



**Amiel Blajchman**  
Manager, ESG & Sustainability

That means a shift away from the Global Reporting Initiative (GRI) and toward the adoption of the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards. In June 2023, the International Sustainability Standards Board (ISSB) launched these standards—starting with the IFRS S1 General Requirements and IFRS S2 Climate-related Disclosures. The ISSB is developing a set of standards that will enable multiple industries, such as mining, to provide sustainability disclosures that are a stakeholder-friendly approach to reporting. While the new standards come into effect in 2024, we believe reporting under the amalgamated framework will help us streamline our disclosures in the future and provide unhindered transparency.

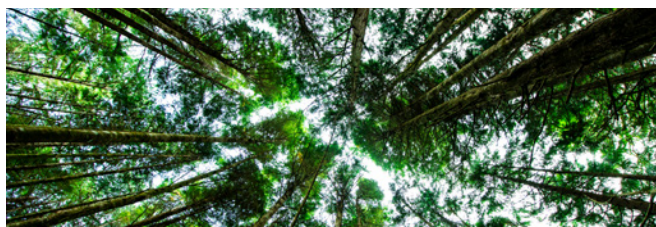
We at Avalon have an unparalleled opportunity to help decarbonize the economy and shift Canada to cleaner energy sources. Therefore, it is prudent that we continue to track and report on our sustainability performance. We must also identify and manage the environmental, social and governance (ESG) risks that endanger our responsible mining practices and cultural identity.

As we transition to Avalon 2.0, a revitalized version of a Company with 20-plus years of sustainable practices, we are committed to re-engaging Indigenous communities and continuously reviewing our social and biodiversity policies. Today, we work with several locally owned and Indigenous-partnered organizations and strive to establish and support authentic partnerships through our active projects.

Alongside our work toward these goals, I continue to take part in environmental or sustainability-oriented committees of the Mining Association of Canada (MAC), Prospectors & Developers Association of Canada (PDAC), and Canadian Institute of Mining, which enables me to discuss industry challenges and remain current from a regulatory, environmental and technological perspective. In doing so, Avalon can better navigate the voluntary and mandatory reporting landscape and its pledge to responsible mining and our planet. I am proud to share our progress in Avalon's latest Sustainability Report and look forward to an exciting year ahead.

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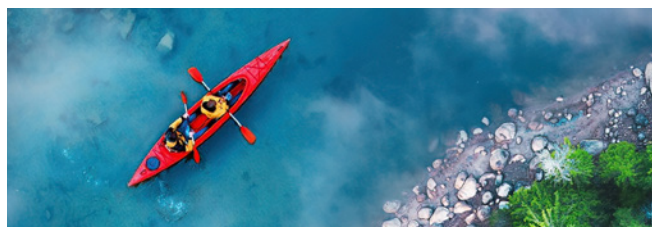
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# Major Milestones in 2023

Here are some of the ways we ushered in a new era we're calling Avalon 2.0.



## June

### New Leadership Team

June 12 — Appointment of three veteran executives to the leadership team as the Company creates and executes an ambitious growth plan

### C\$63M Strategic Investment by Sibelco NV of Belgium

June 15 — Announcement of C\$63M foreign direct investment by Sibelco, a global leader in material solutions, to create a new joint venture to commercialize Separation Rapids and Lilypad

### Site Acquisition

June 19 — Purchase of industrial site in Thunder Bay, ON for its planned midstream lithium hydroxide (LiOH) processing facility



## July

### Partnership with Metso Corp. of Finland

July 10 — Signs a Memorandum of Understanding (MOU) with Metso, a world leader in critical minerals technology



## August

### 20% Increase in Deposit Size at Separation Rapids

August 10 — Announces an updated Mineral Resource Estimate (MRE) at flagship Separation Rapids joint-venture lithium project



## October

### \$3.6M Drilling Program

October 3 — Commence new drilling program at Separation Rapids, the Avalon-Sibelco joint venture lithium deposit

### Hosting Ministers & Other Dignitaries

October 12 — Federal ministers, the Hon. François-Philippe Champagne, and the Hon. Patty Hajdu and other dignitaries tour Avalon's planned lithium processing site in Thunder Bay

### An Industrial Park Concept

October 19 — Expanded partnership agreement with Metso to co-develop a Technology and Innovation Centre



## November

### Establish new JV with Sibelco via Purchase and Sale Agreement

Nov 9 — Transfers the Separation Rapids and Lilypad properties to joint venture with Sibelco



# A New Commitment.

Avalon Advanced Materials has a well-established history in the Canadian critical minerals industry, having amassed a portfolio of leading lithium and rare earth deposits in Ontario, the Northwest Territories and other regions. Now, a new management team is leading the charge on operationalizing our assets and maximizing Avalon's market potential, as the need for critical minerals grows exponentially.

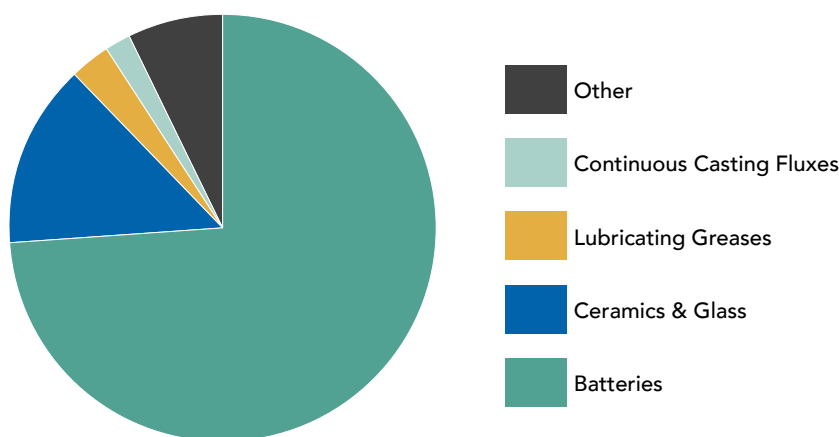




# Lithium: A Key Material for the Renewable Energy Transition

As the world races to Net Zero and the commitment to meet ambitious emissions targets by 2050, the commercial demand for lithium is skyrocketing—largely from the fast-growing EV market and emerging consumer battery storage industry.

## Global Uses for Lithium



Manufacturing rechargeable batteries is the number one global use for lithium, representing

**74%**  
of total demand<sup>1</sup>

## 31 Critical Minerals in Canada

With six shortlisted as distinct catalysts that can spur economic growth. Lithium is ranked **first** among the six.<sup>2</sup>

## World Production of Lithium

In 2021, the three largest producers of lithium were **Australia, China** and **Chile**. With Australia accounting for over half (52%) of global production.

## Growing Demand

Global demand for lithium carbonate is projected to reach **1.5 million tonnes** (Mt) annually by 2025 and over **3 Mt** by 2030.<sup>3</sup>

<sup>1</sup> Lithium facts. Government of Canada. <https://natural-resources.canada.ca/our-natural-resources/minerals-mining/minerals-metals-facts/lithium-facts/24009>

<sup>2</sup> The Canadian Critical Minerals Strategy. Government of Canada. <https://www.canada.ca/en/campaign/critical-minerals-in-canada/canadian-critical-minerals-strategy.html>

<sup>3</sup> (Jan. 2023). This chart shows which countries produce the most lithium. World Economic Forum. <https://www.weforum.org/agenda/2023/01/chart-countries-produce-lithium-world/>

## ABOUT AVALON ADVANCED MATERIALS

Avalon Advanced Materials Inc. is a Canadian critical mineral development company seeking to vertically integrate the Ontario lithium supply chain. Through our partnerships, our goal is to develop clean technology solutions to ensure a net-zero economy in the future.

## Our Projects



Through our joint venture with Sibelco, we are going to develop our Separation Rapids lithium deposit and Snowbank project near Kenora, ON, while continuing to advance the Lilypad Project located near Fort Hope, ON. We are also working to develop the Nechalacho site in the Northwest Territories, a deposit of rare earth minerals and zirconium.



### Thunder Bay Lithium Industrial Parkway

In addition to these upstream activities, Avalon is executing on its core strategic 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 downstream EV battery manufacturing customers and markets in the south.



### Technology and Innovation Center



### Lithium Battery Recycling



**500+ direct,  
full-time jobs**  
split between Kenora  
and Thunder Bay, with  
many more indirect  
jobs to be created.



# Long-Term Sustainability Goals

In November 2022, the federal government released the *Canadian Critical Minerals Strategy*, a detailed report outlining its approach to powering the green and digital economy and promoting ESG priorities across the critical mineral value chain.

Innovation and sustainable practices are vital to the initiative’s success with five core objectives behind the

framework. Critical mineral development must advance reconciliation with Indigenous peoples, invest in the workforce, generate economic opportunities, provide nature-forward outcomes and enhance global security and partnerships with allies.

Avalon is well-positioned to support these objectives as we develop and complete Ontario’s first vertically integrated supply chain for battery-grade lithium. Here are some ways we are poised to do our part.

## FIVE CORE OBJECTIVES



**SUPPORTING**  
economic growth,  
competitiveness and  
job creation



**PROMOTING**  
climate action and  
environmental protection



**ADVANCING**  
reconciliation with  
Indigenous peoples



**FOSTERING**  
diverse and inclusive  
workforces and  
communities



**ENHANCING**  
global security and  
partnerships with allies

## AVALON SUPPORT

Creating hundreds of direct and indirect jobs

Utilizing sustainable technologies and equipment across the entire production chain

Integrating diverse Indigenous perspectives through ongoing engagement, collaboration, and benefits-sharing

Putting ESG values front and centre

“Securing Canada’s critical minerals future” through a stable supply of battery-grade LiOH

Source: The Canadian Critical Minerals Strategy, Nov. 2022.

# A New Process.

As part of our forward-thinking sustainability agenda, we've become an early adopter of the IFRS sustainability disclosure standards to disclose material climate-related risks and opportunities. The global framework unifies and complements existing requirements to increase efficiency and comparability, improving the overall quality of reporting—an intention we can stand behind.





## CASE STUDY

# Water Monitoring and Reporting

## OVERVIEW

Avalon purchased a 383-acre vacant industrial site in Thunder Bay that comes with obligations for water quality monitoring and reporting. The work we are doing today will define our recommendations for the legacy water management systems at the Strathcona Avenue property and former location of the Abitibi pulp and paper mill.

At CSL, we specialize in geotechnical engineering and environmental services for mining companies. Using our extensive knowledge of environmental regulations and deep expertise in interpreting scientific data, we offer boots-on-the-ground support for developing operations.

For Avalon's Thunder Bay property, we carefully monitor 14 sampling locations and a leachate collection system. In 2023, we took well samples twice—once in the summer and fall—collecting field measurements of groundwater, purging the monitoring wells, and testing for site-specific criteria, which is dictated by the Environmental Compliance Approvals (EACs) for

the site. Some of the groundwater analytical parameters we look for include colour, pH, temperature, and conductivity, among others.

**Water is vital to the environment, supporting the diverse plant and animal species that contribute to healthy ecosystems. According to the Government of Ontario, there are more than 30,000 plant, animal and insect species in Ontario<sup>4</sup>—one of the highest numbers of any province in Canada.**

We are working diligently to submit a comprehensive compliance report to the Ministry of the Environment, Conservation and Parks (MECP) in March 2024. Once



**Simon Shankie, M.Sc., P.Geo.**  
Vice President, Environmental Services CSL Ltd.

we have these results, we will provide informed recommendations for the site to ensure the long-term health and safety of the surrounding forests and lakes.



**14**  
Sampling  
locations



**45**  
Analytical  
parameters  
tested



**Record of  
seasonal  
variations**

<sup>4</sup> Ministry of Northern Development, Mines, Natural Resources and Forestry (2021). State of Ontario's Natural Resources (SONR) Report. Government of Ontario. <https://www.ontario.ca/>

# Water and Energy Use

Our corporate strategy focuses on continuously refining our environmental performance by reducing harmful emissions to air, water, and land and improving the efficiency by which we utilize natural resources, energy and materials. Our policies aim to prevent the loss of biodiversity and ecosystem function due to our operations.



## Water Management

Avalon conducts, or will conduct, robust assessments of potential impacts for its advanced projects, collecting and utilizing extensive baseline ecological data, timelines, and quality assurance protocols. In keeping with best practices, site-specific and detailed management plans will be developed for each project location to monitor aquatic effects, site runoff, spill contingency, waste management and other potential risks to water.

In 2023, Avalon removed approximately 276.37 cubic metres (M<sup>3</sup>) from the municipal water system at the Company head office in Toronto and another 3,960 M<sup>3</sup> from site water in Kenora, ON, in Fiscal 2023.

### Water Consumption (M<sup>3</sup>)

User	Mode	Amount
Office	City Water	276.37
Separation Rapids Drill Program	Site Water	3,960.00



## Energy Management

We look to identify energy efficiency and optimization opportunities at our project sites. As we work to support a clean energy economy, this will be an important piece of the decarbonization puzzle.

Overall, Avalon consumed 1,338.17 gigajoules (GJ) over FY2023.

### Energy Consumption (GJ)

User	Mode	GJ
Office	Electricity	148.01
Office	Steam	193.20
Separation Rapids Drill Program	Diesel	996.96

# Waste and Emissions



## Waste Management

Our objective is to minimize all forms of wastes and ensure the appropriate management of all materials. Where possible, we implement strategies to divert waste from landfills and identify opportunities to participate in the circular economy—economically reducing waste and environmental risk. With the help of our stakeholders, we can mitigate the impacts of our products and encourage recycling through the supply chain and product life cycle initiatives.

Additionally, with the help of our Metso partnership, we can use a more sustainable lithium conversion process, which does not produce the byproduct sodium sulphate. Rather, it generates Analcime—an inert solid aluminium silicate, as well as calcium carbonate. This process is expected to be safer for operating personnel and the environment.

### Waste generated (t) FY 2023

General Waste	2.35
Paper/Cardboard	0.66
Shredding	0
Cans/Bottles/Plastics	0.02
Organics	0.40
Grease	0
Wood	0
Toner	0
Batteries	0
Electronic Waste	0
Fluorescent Lights	0.03
Scrap Metal	0
Other	0
<b>Total</b>	<b>3.45</b>

Due to rounding, combined numbers may not equal total.



## Green House Gas and Air Emissions

As a leader in sustainability in the exploration and development industry, Avalon recognizes that energy management is a key component of responsible mining and contributes to our social license to operate. It also significantly contributes to improving project

economics. Therefore, Avalon will ensure adequate resources and skills to optimize energy use and associated greenhouse gas (GHG) reduction.

We strive to continuously reduce carbon dioxide equivalents ( $\text{CO}_{2e}$ ), or GHG emissions, at our operations to meet our goal of becoming net carbon neutral by 2040 or sooner.

### Green House Gas and Air Emissions\*

	$\text{CO}_{2e}$ kg	$\text{CO}_{2e}$ t	Megajoule (MJ)	GJ	Carbon Monoxide	$\text{NO}_x$ t**	Particulate Matter (PM)**
Scope 1	88,821.96	88.79	1,281,696.00	1,281.70	10.97	0.96	0.03
Scope 2	9,038.16	9.04	215,600.00	215.60			
Scope 3	15,656.47	15.60	184,287.60	184.29			
<b>Total</b>	<b>113,516.59</b>	<b>113.43</b>	<b>1,681,583.60</b>	<b>1,681.59</b>	<b>10.97</b>	<b>0.96</b>	<b>0.03</b>

\* Nitrogen oxides ( $\text{NO}_x$ ) and Sulfur oxides ( $\text{SO}_x$ ) are not material components of the Company's emissions at this time.

\*\*Separation Rapids drill and generator only.



# Community Engagement

Avalon seeks to be a proactive partner with the Indigenous communities within its operating footprint. We transparently engage with local communities and stakeholders at the earliest possible project stages and throughout the life cycle of the operations in a culturally appropriate manner—respecting the customs, priorities, values and rights of local communities, especially those of Indigenous peoples.



Avalon has a long track record of engagement with Indigenous communities within whose traditional territories it works. Our efforts have been recognized by the Prospectors and Developers Association of Canada with a Distinguished Service Award. Avalon's ongoing work has culminated in several Memoranda of Understanding (MOU's) or other formal agreements with various communities including the Wabeseemoong Independent Nations, the Northwest Territory Métis nation, the North Slave Métis Alliance, the Deninu Ku'e First Nation and the Chapleau First Nation.

Avalon was honoured to have the Yellowknives Dene First Nation name the Nechalacho Project in an official naming ceremony in September, 2009.

# ISSB Sustainability Disclosure Topics and Metrics

Avalon has transitioned to the new IFRS sustainability disclosure standards<sup>5</sup>, a global framework which unifies and complements existing requirements to increase efficiency and comparability and improve the overall quality of reporting. We see this as the new gold standard.

Avalon, as an associate member of the Mining Association of Canada, reports against the MAC's Towards Sustainable Mining (TSM) standard, a globally

recognized sustainability program that supports the management of key environmental and social risks ([see Appendix A](#)).

Outlined below are the industry-based standards for metals and mining by the ISSB of the IFRS Foundation. We have included all relevant metrics and analysis applicable to our projects in 2023.

**Table 1**

Topic	Metric	Category	Unit of Measure	Code	2023 Data
<b>Greenhouse Gas Emissions</b>	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tonnes (t) CO <sub>2e</sub> Percentage (%)	EM-MM-110a.1	<a href="#">See page 15</a>
	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	Not applicable	EM-MM-110a.2	<a href="#">See page 15</a>
<b>Air Quality</b>	Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N <sub>2</sub> O), (3) SOx, (4) particulate matter (PM <sub>10</sub> ), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	Quantitative	Metric tonnes (t)	EM-MM-120a.1	<a href="#">See page 15</a>
<b>Energy Management</b>	(1) Total energy consumed, (2) percentage grid electricity and (3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	EM-MM-130a.1	<a href="#">See page 14</a>
<b>Water Management</b>	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic metres (m <sup>3</sup> ), Percentage (%)	EM-MM-140a.1	<a href="#">See page 14</a>
	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Quantitative	Number	EM-MM-140a.2	Not applicable

<sup>5</sup> These standards include the former Sustainability Accounting Standards Board.

Table 1

Topic	Metric	Category	Unit of Measure	Code	2023 Data
<b>Waste &amp; Hazardous Materials Management</b>	Total weight of non-mineral waste generated	Quantitative	Metric tonnes (t)	EM-MM-150a.4	<a href="#">See page 15</a>
	Total weight of tailings produced	Quantitative	Metric tonnes (t)	EM-MM-150a.5	0
	Total weight of waste rock generated	Quantitative	Metric tonnes (t)	EM-MM-150a.6	Not applicable
	Total weight of hazardous waste generated	Quantitative	Metric tonnes (t)	EM-MM-150a.7	Not applicable
	Total weight of hazardous waste recycled	Quantitative	Metric tonnes (t)	EM-MM-150a.8	Not applicable
	Number of significant incidents associated with hazardous materials and waste management	Quantitative	Number	EM-MM-150a.9	0
	Description of waste and hazardous materials management policies and procedures for active and inactive operations	Discussion and Analysis	Not applicable	EM-MM-150a.10	Not applicable
<b>Biodiversity Impacts</b>	Description of environmental management policies and practices for active sites	Discussion and Analysis	Not applicable	EM-MM-160a.1	We actively work to minimize our environmental impact by remediating drill sites as soon as possible. See <a href="#">Avalon Sustainability Policy</a> .
	Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation	Quantitative	Percentage (%)	EM-MM-160a.2	Should the East Kemptville Project move ahead, Avalon will inherit a 5.9 Mt low grade ore stockpile, a tailings management area with 18.8 Mt of acid generating tailings and additional waste dumps totalling another 4 Mt. The project design includes the full remediation of these historical liabilities.
	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	Quantitative	Percentage (%)	EM-MM-160a.3	0%



Table 1

Topic	Metric	Category	Unit of Measure	Code	2023 Data
<b>Security, Human Rights &amp; Rights of Indigenous Peoples</b>	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	Quantitative	Percentage (%)	EM-MM-210a.1	0%
	Percentage of (1) proved and (2) probable reserves in or near Indigenous land	Quantitative	Percentage (%)	EM-MM-210a.2	100%
	Discussion of engagement processes and due diligence practices with respect to human rights, Indigenous rights, and operation in areas of conflict	Discussion and Analysis	Not applicable	EM-MM-210a.3	We have and continue to develop engagement processes with community leadership to build positive relationships.
<b>Community Relations</b>	Discussion of process to manage risks and opportunities associated with community rights and interests	Discussion and Analysis	Not applicable	EM-MM-210b.1	We regularly meet with community leadership to keep them informed.
	Number and duration of non-technical delays	Quantitative	Number, Days	EM-MM-210b.2	0,0
<b>Labour Relations</b>	Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees	Quantitative	Percentage (%)	EM-MM-310a.1	0%
	Number and duration of strikes and lockouts*	Quantitative	Number, Days	EM-MM-310a.2	0 strikes and lockouts, 0 days
<b>Workforce Health &amp; Safety</b>	(1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) full-time employees and (b) contract employees	Quantitative	Rate	EM-MM-320a.1	(1) 0% (2) 0% (3) 0% (4) 0 (a) 0 (b) 0
<b>Business Ethics &amp; Transparency</b>	Description of the management system for prevention of corruption and bribery throughout the value chain	Discussion and Analysis	Not applicable	EM-MM-510a.1	See <a href="#"><i>Avalon Advanced Materials Inc. Whistleblower Protection Policy</i></a> .
	Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Quantitative	Metric tonnes (t) (saleable	EM-MM-510a.2	0%

**Table 1**

Topic	Metric	Category	Unit of Measure	Code	2023 Data
<b>Tailings Storage Facilities Management</b>	Tailings storage facility inventory table: (1) facility name, (2) location, (3) ownership status, (4) operational status, (5) construction method, (6) maximum permitted storage capacity, (7) current amount of tailings stored, (8) consequence classification, (9) date of most recent independent technical review, (10) material findings, (11) mitigation measures, (12) site-specific EPRP	Quantitative	Various	EM-MM-540a.1	Not applicable
	Summary of tailings management systems and governance structure used to monitor and maintain the stability of tailings storage facilities	Discussion and Analysis	Not applicable	EM-MM-540a.2	Not applicable

\*Note to EM-MM-310a.2 – Disclosure shall include a description of the root cause for each work stoppage.

**Table 2**

Activity Metric	Category	Unit of Measurement	Code	2023 Data
Production of (1) metal ores and (2) finished metal products	Quantitative	Metric tonnes (t) saleable	EM-MM-000.A	Not applicable
Total number of employees, percentage contractors	Quantitative	Number, Percentage (%)	EM-MM-000.B	15 employees, 10% contractors



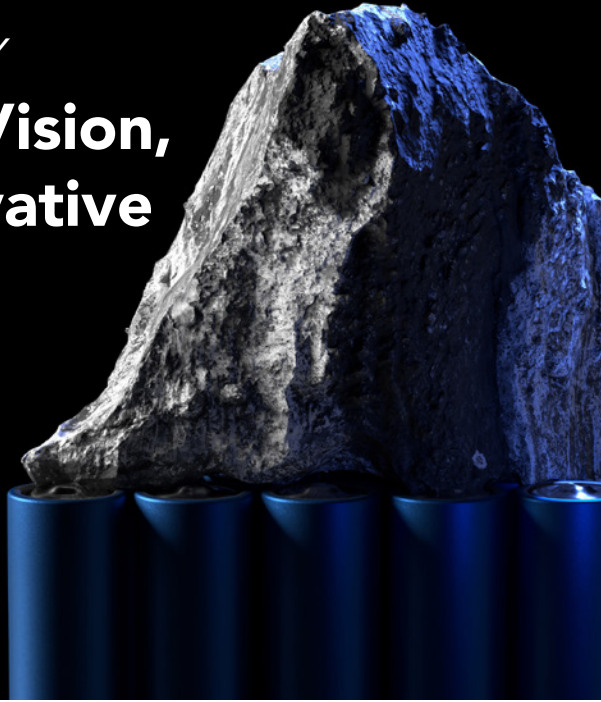
# A new partner.

American physicist William Pollard once said, "Without change there is no innovation, creativity, or incentive for improvement. Those who initiate change will have a better opportunity to manage the change that is inevitable." In our efforts to create resilient critical minerals supply chains in Canada, we will leverage the industrial expertise of world-leading partners in sustainable development.



## CASE STUDY

# A Bold Vision, an Innovative Partner



## OVERVIEW

Through research and development (R&D) efforts undertaken by Avalon and Metso, the proprietary lithium hydroxide process represents a far more sustainable conversion method, eliminating acid and sulphate usage and reducing overall air emissions compared to conventional acid roasting.

Metso's footprint is the environmental impact generated when producing goods and services. They pride themselves on finding ways to minimize these impacts on the environment, people, and the supply chain through their Planet Positive approach. This is an initiative that supports more reliable, ecologically friendly products. R&D plays a major role in this offering, as they continuously innovate.

In October 2023, Mikko Rantaharju, Vice President, Hydrometallurgy at Metso noted in a release that, "Metso is proud to partner with Avalon on their bold vision for Thunder Bay, and

help co-create novel processing, training, recycling and research capacity."

Metso has worked with Avalon to develop a sustainable process to produce electric vehicle (EV) battery-grade lithium using its proprietary method for lithium conversion. The process operates in an alkaline state and uses pressure leaching, eliminating the use of sulfuric acid. Unlike conventional lithium processing, this option does not produce the byproduct sodium sulphate. Rather, it generates Analcime and calcium carbonate—two commercially used substances which can increase the plant's profitability. Most

importantly, however, this process is expected to be safer for operating personnel, the environment, and surrounding communities.



Zeeshan Syed, Avalon President and Mikko Rantaharju, Metso Vice President, Hydrometallurgy.

## METSO AT A GLANCE



**16,000+**  
Employees



Based in  
close to  
**50**  
countries



**€ 5.3**  
billion  
in sales in 2022



# Governance.

Our governance structures hold us accountable to the high standards we set for our organization and leadership team. These principles and guidelines explore various policies—such as compensation, general communication, business ethics, and other risk management areas—and aid decision-making for general operations.





# Business Ethics and Transparency



Avalon has an over 20-year track record of sustainable practices built into the Company's corporate DNA.

Our management team upholds these values and looks for improvement by regularly reviewing and revising the Company's strategy to operate within or exceed today's responsible mining and sustainability standards.

We believe that a strong commitment and strategic approach are essential for managing the risks and opportunities in the rapidly changing global environment. That is why our new execution-focused management team meets regularly to ensure the Company's actions align with Avalon's corporate social responsibility policy and its vision of securing Canada's critical minerals future.

## Our Management Team

**Scott Monteith** CEO, Director

**Zeeshan Syed** M.Sc., President

**Jim Jaques** B.Comm (Hons), CAO

**Jim Andersen** CPA, CA, CGMA, CFO and Vice President – Finance, and Corporate Secretary

**Rickardo Welyhorsky**  
P. Eng., COO and Vice President – Operations

**Cindy Hu** CPA, CA, CPA (Illinois), Controller

**Amiel Blajchman** MES, P.Ag., Manager,  
ESG & Sustainability

## Our Board of Directors

Our management team frequently reports to Avalon's Board of Directors (the Board), whose members include Jan Holland, Alan Ferry, Alec Kodatsky, Naomi Johnson, Scott Monteith, Harvey L.A. Yesno, Benny Loix, and Timothy Haig.

The Board oversees the corporate governance and sustainability function of the business through its committees, which review and approve all policies and practices.

**Jan Holland** CA, CPA, ICD.D,  
Executive Board Chair

Jan Holland joined the Avalon Board in June 2023, bringing with him over 35 years of professional experience. Jan was a founding partner and a shareholder of many enterprises across Canada. His senior leadership experience comprises the areas of capital markets, stewardship and governance, finance, risk management, business strategy, sales, marketing, brand creation, supply chain development and operations. Jan's passion for operational transformation and enhanced performance has allowed him to identify niche opportunities to gain a competitive advantage. Thinking creatively and applying the expertise necessary to develop and implement advanced systems, Jan has led businesses and progressive, pro-active teams to maximum growth, reputation and value for all stakeholders. In 2021, Jan spearheaded the formal sale of DP Casting to Omni-Lite Industries Canada, Inc. He was then appointed to the Board of Directors for Omni-Lite. [View Jan Holland's Complete CV.](#)

## Audit Committee

The Audit Committee assists the Board in fulfilling its oversight responsibilities to the Company. In so doing, the Committee provides an avenue of communication among the independent auditors of the Company, management, and the Board. The Committee's primary duties and responsibilities are to gain reasonable assurance that the Company complies with the applicable laws, regulations, rules, policies and other requirements of governments, regulatory agencies and stock exchanges relating to financial reporting and disclosure principles. [Read the Charter on our website.](#)

## Compensation, Governance, and Nominating Committee

The Compensation, Governance, and Nominating Committee acts on behalf of and subject to the direction of the Board in all matters pertaining to the compensation, benefits and performance of all executives of the Company and any other business entity controlled by the Company, including the President and CEO, Vice-Presidents and Senior Management Group. In addition, the Committee oversees and supervises any equity-based or like plans. [Read the Charter on our website.](#)

## Our Hiring Process

All senior officers and directors are subjected to rigorous vetting while being considered for their positions, including background checks. The Board and legal counsel conduct thorough employment screening at each stage of the hiring process to demonstrate due diligence and ensure high standards of ethics, reviewing any findings.

Avalon is an equal-opportunity employer and encourages applications from all qualified individuals. We do not discriminate against applicants based on any prohibited grounds of discrimination. Avalon welcomes and encourages applications from people with disabilities, and accommodations are available on request for candidates taking part in all aspects of the selection process.

# Risk Management Policy and Plan

Risk is an inherent part of the mining industry. The management of risk and opportunity is a key component of delivering on our corporate vision and mission to maximize shareholder value in the sustainable supply of critical metals and minerals.

At Avalon, we believe that a comprehensive integrated risk analysis and management program provides a competitive advantage and greater certainty to our shareholders, employees, Indigenous partners, communities and other stakeholders that the Company will be successful in its pursuit.

All aspects of risk are thus assessed and include the components of environment, health and safety, community, financial (cost and schedule), regulatory and reputation.

Each exploration site, project and operation must implement a structured risk management system aligned with the *Avalon Risk Management Policy and Plan*, which uses common terminology, understanding and methodology for comprehensive risk identification and assessment. Risk mitigation plans are required to be developed by those assigned as the “responsible people” for all significant risks. Management is required to provide the necessary personnel and financial resources to manage these risks in the annual budgets/business plans presented and approved by the Board. Controls are designed and implemented, reviews of their effectiveness are regularly completed by management, and where necessary, improved.

As required, upon significant change within the Company or annually as appropriate, a comprehensive risk management review of significant risks and an assessment of the mitigation plans’ effectiveness are



completed to assure the senior management team, Board and shareholders that risks are being identified and managed. A risk assessment is required before moving into each project phase (exploration, scoping, prefeasibility, feasibility and construction, and operation). This is a component of the decision-making process to proceed and, where necessary, to allocate resources among projects. Risk management is linked to hazard and operability studies completed during the feasibility and construction phases.



# Our Sustainability Policy

Avalon has appointed a manager, ESG & Sustainability, who reports directly to the chief executive officer (CEO) on all aspects within the four pillars of sustainability: health and safety, environment, community, and people.

## Four pillars of sustainability



### Health and Safety

It is our objective is to create an injury free workplace and enhance the well-being of employees, contractors and the communities in which we operate.



### Environment

The preservation and protection of the long-term health, function and viability of the natural environment is a core consideration at all of our projects.



### Community

We are committed to being a responsible corporate citizen and contributing to the social and economic well-being of the communities that surround us.



### People

We strive to create a respectful and safe workplace, where employees are treated fairly and encouraged to innovate and grow within the organization.

## Management and Oversight

We will conduct internal and external audits of all projects and operations to ensure we comply with industry-leading sustainability standards and regularly engage with local communities.

As part of our policy, we oversee environmental and social baseline studies undertaken by consulting firms and sub-contractors to ensure that technical work performed is integrated, right-sized, capital-efficient, timely and aligned with our sustainability and permitting strategy. We also manage all regulatory interactions and permitting requirements to facilitate project development.

## Accountability

We recognized that the responsibilities and organizational structure can vary with the size, type of project or operation, stage of development, risk profile, available workforce, regulation, location and others factors as applicable. Therefore, the ultimate accountability for our policy is held by our CEO.

## Reporting

To be as transparent as possible, we take pride in measuring and reporting our sustainability efforts. In our 12th annual report, we highlight progress in our operations, detail our partnerships, and share important information and data with investors and stakeholders. [Find our archives online.](#)

# Appendix A: Towards Sustainable Mining

Avalon annually reports on the MAC's TSM protocols. The guidance that is provided assists all mining companies in measuring and improving in eight areas of operational performance. Information on the protocols, frameworks and grade can be found on [MAC's TSM](#).

In 2022, Avalon transitioned to MAC's TSM exploration protocol, which recognizes the need for a simplified version of the performance protocols used by operating companies. The following is a summary of Avalon's FY 2023 performance in reaching its TSM performance indicators.

## General Questions

Question	Answer	Evidence
Has the company communicated the commitment to personnel?	Yes	Internal meetings, as well as directly in our Annual Report.
Does the company have activities in World Heritage Sites?	No	
Does the company have activities in natural parks?	No	
Does the company have activities in national parks?	No	
Does the company have activities in nature conservation areas?	No	
Does the company have activities in wilderness areas?	No	
Does the company have activities in Natura 2000 areas?	No	Just applies to Europe, of which Avalon presently has no activities.
Does the company have activities in other valuable areas from the viewpoint of nature preservation, established by the authorities?	No	
Does the company have activities in nationally or provincially valuable landscape areas?	No	
Does the company have activities in recreational areas of the state?	No	
Does the company have activities on Indigenous land such as the Sámi Homeland in Scandinavia or traditional or treaty land in Canada?	Yes	Our work takes place within the ancestral and traditional territories of the Wabaseemoong Independent Nations (WIN), the Eabametoong First Nation (EFN), the Yellowknives Dene First Nation, the Lutsel K'e Dene First Nation, the Deninu Ku'e First Nation, the Fort William First Nation and Métis peoples.
Does the company carry out exploration at some sites with the consent of the landowner if on privately owned land?	No	Exploration occurs only on mining lease and/or mining tenured land.
Does the company have a written agreement with the landowner if on privately owned land?	No	

## Indigenous and Community Relationships

Question	Answer	Evidence
<b>Assessment of Performance Level: AA</b>		
<b>Level B</b>		
Does the company have a website?	Yes	<a href="http://avalonadvancedmaterials.com">avalonadvancedmaterials.com</a>
Is it possible to provide feedback for the company (for example via website)?	Yes	Phone numbers and email addresses for Corporate Headquarters and Investor Relations can be found on the Company's website.
Are employees familiarized with the company values and operating principles relating to Community of Interest activities?	Yes	All directors, employees, contractors, consultants, officers and representatives must be aware of the Company's policy and have a responsibility to adhere to it. <i>Avalon's Code of Business Conduct and Ethics</i> , p.5).
Does the company utilize local services for its operations?	Yes	Avalon utilizes local housing and food and fuel supplies. As part of our sustainability efforts, Avalon ensures that it always defaults to working with local communities and suppliers whenever possible.
Have Community of Interests in the area been identified?	Yes	Operations with significant actual and potential negative impacts on local communities. Prior to each work phase proceeding each project undergoes a rigorous environmental assessment process to evaluate the potential environmental and social impacts and to identify mitigation measures where necessary. Engagement on this is sought from potentially impacted local communities, including Indigenous communities and governments. Avalon seeks out opportunities for both short- and long-term benefits to the local communities commensurate to project activity.
Does the company provide information of its activities and targeting on its website or other channels?	Yes	Under <u>PROJECTS</u> , all projects information is provided.
Does the company communicate in the local language of the Community of Interests?	Yes	English.
<b>Level A</b>		
Is the company's website available in relevant languages of the host jurisdiction?	Yes	English is main language of all project areas.
Has the company prepared a communication and interaction plan?	Yes	Avalon has an approved communication plan and an effective Indigenous engagement dialogue, keeping all Indigenous groups aware of project activities.
Has the company utilized local expertise in its recruitment (employees and contractors)?	Yes	Drilling and blasting were contracted out to a local certified Indigenous business.
Are employees familiarized in the company interaction activities with the Community of Interest groups?	Yes	Employees that engage with Communities of Interest (COI) are familiarized with interaction activities.
Does the company inform key Community of Interests about starting field work?	Yes	Engagement occurs with potentially affected Indigenous communities and Government agencies.



## Indigenous and Community Relationships (continued)

Question	Answer	Evidence
Does the company document and respond to Community of Interest feedback?	Yes	Avalon's engagement with COI is documented and with follow up. COI are able to contact the appropriate manager for consultation, most frequently through the Manager, ESG & Sustainability, and the COO. The Chair of the Board of Directors is accessible to Communities of Interest for outreach on unanswered concerns.
Has the time period of fieldwork been taken into account from the viewpoint of the Community of Interests (e.g., agriculture, cottage season, reindeer herding, time of day)?	Yes	
Is the company identifiable when working in the field?	Yes	
Does the company strive to enable dialogue with all Community of Interests by utilizing different communication channels?	Yes	Avalon has a Community Response Procedure for local COI to utilize in case of concerns, including website and dedicated telephone number for advancing projects, if office opens.
Is local management involved in Community of Interest activities?	Yes	All executives are involved and one Board member, former EFN Chief Harvey Yesno, is actively involved in First Nations community engagement.
Does the company transfer geological data obtained from exploration performed with the landowner's permission to the national register where one exists (e.g., Finland)?	n/a	
Is the activity carried out on Indigenous land (e.g., the Sámi homeland in Scandinavia or traditional or treaty land in Canada)?	Yes	Our work takes place within the ancestral and traditional territories of the Wabaseemoong Independent Nations (WIN), the Eabametoong First Nation (EFN), the Yellowknives Dene First Nation, the Lutsel K'e Dene First Nation, the Deninu Ku'e First Nation, the Fort William First Nation and Métis peoples.
Has the company consulted with that Community of Interest prior to submitting an exploration permit application?	Yes	All permits are circulated to identified Communities of Interest.
<b>Level AA</b>		
Does the company take part in developing community relationships activities with other exploration companies?	Yes	Avalon participates in multiple committees with the MAC and PDAC.
Has the company arranged a meeting with key Community of Interests to clarify future exploration plans and Community of Interest empowerment?	Yes	Informed WIN, Métis Nations of Ontario (MNO) of activities, as well with other Indigenous communities who potentially will be impacted by Avalon's projects.
Are efforts being made to identify potential conflicts of interest with Community of Interests in advance?	Yes	This is key component of engagement.
Has a person responsible for Community of Interest cooperation been appointed?	Yes	Avalon's Board of Directors is updated by the CEO on relevant developments. Avalon management regularly engages with its COI to provide project updates and obtain feedback. As well, COI may contact the appropriate manager for consultation, most frequently through the Manager, ESG & Sustainability or the COO. The Chair of the Board of Directors is accessible to Communities of Interest for outreach on unanswered concerns.

## Indigenous and Community Relationships (continued)

Question	Answer	Evidence
Are communications and dialogue with the Communities of Interest reported internally in the company?	Yes	During Board meetings, the Board of Directors receives regular input from Avalon's management team regarding economic, environmental, community and risk management concerns, both internal and external. Avalon's Board of Directors is updated by the CEO on relevant developments.
Does the site management regularly evaluate the functionality of the interaction and the need for further action?	Yes	The Community Response Procedure, a formal community concern procedure, was developed and approved in 2021 and will be promoted and implemented as engagement moves ahead on active projects. Avalon's Board of Directors is updated by the CEO on relevant developments. Avalon management regularly engages with its COI to provide project updates and obtain feedback.
Is feedback from Communities of Interest sought to be taken into account in the planning and execution of the work?	Yes	Avalon continues Indigenous engagement on potential project sites. Local leadership can directly engage in dialog with any member of Avalon management; with periodic updates and engagement as projects develop.
Has local traditional knowledge been taken into account in the planning of fieldwork?	Yes	Field work includes involving COI engagement.
Has the company organized open events to Communities of Interest about exploration and its different stages?	Yes	Historically, Avalon has participated in community events when invited.

## Environment

Question	Answer	Evidence
<b>Assessment of Performance Level: AA</b>		
<b>Level B</b>		
Has the company compiled basic information on the environmental, natural and cultural values and other land use (such as nature reserves, Natura 2000, hiking, landscape and groundwater areas, cultural heritage sites and zoning reserves) of the claim area and taken these into account in the planning?	Yes	Action taken in FY2023: Baseline study field work updates at the Separation Rapids pit site and field work for Avalon Separation Rapids.
Does the company report internally on environmental management annually?	Yes	The Company reports on environmental management through annual sustainability reports.
Does exploration make use of the infrastructure created by the area's previous activities (e.g., forestry, tourism, agriculture)?	Yes	Forestry roads are used.
Has the selection of contractors emphasized environmental safety? Have employees and contractors been familiarized with the permit conditions with regard to the environment?	Yes	Avalon includes its sustainability questionnaire on Requests for Proposals. The contractors' health and safety (H&S) record, including sustainability questionnaire responses, are factored into Avalon's ultimate choice of contractor.

## Environment (continued)

Question	Answer	Evidence
Have employees and contractors been familiarized with the permit conditions with regard to the environment?	Yes	
Does the company require the contractor to have spill response equipment on hand?	Yes	
Has the timing of operations been considered in fieldwork from the environmental viewpoint (e.g., nesting times)?	Yes	
<b>Level A</b>		
Has the company defined resources, responsibilities and obligations related to environmental management?	Yes	During Board meetings, the Board of Directors receives regular input from Avalon's management team regarding economic, environmental, community and risk management concerns, both internal and external. Each year, senior management and the Board review the Company's sustainability goals in the annual Sustainability Report.
Are potential impacts on nature values identified and taken into account in planning activities?	Yes	Avalon operations are all located in Canadian jurisdictions with well-developed water quality and biological performance criteria. However, occasionally there are data poor minerals with lesser-known impacts on the environment for which effluent criteria or guidelines have not yet been established. In such cases, Avalon attempts to develop its own guidelines.
Does the exploration plan describe the procedures and methods used to take environmental and nature values into account?	Yes	Prior to development proceeding, each project undergoes a rigorous environmental assessment process to evaluate the potential environmental and social impacts and to identify mitigation measures where necessary.
Are employees familiar with recognizing and taking into account the special nature values existing in the claim area?	Yes	
Does the company have guidelines, or has it provided training to employees on how to consider environmental issues in claim areas?	Yes	Training remains the responsibility of the ESG department.
Does the company take into account the special natural and environmental values of the site when selecting the exploration methods and equipment to be used at the site?	Yes	The Company continues to advance biodiversity management plans for financed projects in consultation with regulators, Indigenous peoples, and other Communities of Interest.
<b>Level AA</b>		
Does the company have an environmental database and/or sufficient documentation on environmental issues to support exploration planning?	Yes	Avalon conducts environmental impact assessments for its advanced projects, collecting and utilizing extensive baseline environmental data utilizing standard accepted methodologies, timelines, and Quality Assurance/Quality Control protocols.
If necessary, does the company participate in the maintenance of the roads in its claim areas?	Yes	



## Environment (continued)

Question	Answer	Evidence
Is the company involved in developing best practice-based methods of operation together with contractors and other actors in the industry?	Yes	Avalon supported the Prospectors and Developers Association of Canada (PDAC) efforts to improve exploration industry safety performance through active membership on the PDAC Health and Safety Committee.
Does the company monitor the impact of its operations on the environment?	Yes	Results of monitoring are regularly reported to government regulators and local communities. Avalon intends to develop specific and detailed management plans for any project development to monitor aquatic effects, site run off, spill contingency, waste management and other potential risks to water. No sites had active (continuous) water discharges. No site discharges had potential for environmental impacts in 2023.

## Safety

Question	Answer	Evidence
<b>Assessment of Performance Level: AAA</b>		
<b>Level B</b>		
Does the company use processes for risk assessment and management?	Yes	<p>During Board meetings, the Board of Directors receives regular input from Avalon's management team regarding economic, environmental, community and risk management concerns, both internal and external. These are held at least four times a year or as necessary to address other matters that may arise between quarterly meetings.</p> <p>When required, the Directors act on this input by providing direction to senior management or through amendments, to the Company's policies. Current policies are found on Avalon's website. Avalon's risk management practices include a formal process to identify, evaluate, rank, mitigate, monitor, and assign responsibility for all types of risks facing the Company. High level and moderate risks must be regularly monitored and mitigated to within acceptable levels. Emergency preparedness is a component of risk management.</p>
Does the company have work instructions concerning safe working methods?	Yes	In support of Avalon's Sustainability Policy, a health, safety and environment management plan and emergency response plans have been developed that detail health and safety requirements for all of Avalon's active project sites as part of the Occupational Health and Safety Management System. Regular occupational health, safety and environment meetings, inspections and risk assessments are completed at all active sites and reported through the organization. While accident prevention is the priority, accident and incident management and emergency response are all components of the health and safety programs at all sites. All site workers are required to participate in daily risk assessment prior to the start of work and prior to any significant change in work activity during the shift.

## Safety (continued)

Question	Answer	Evidence
Has the company taken occupational health into account in work planning?	Yes	Health and safety is a core Company value. While safety is the responsibility of all employees and contractors, Avalon's COO has overall responsibility for health and safety management systems. Avalon's corporate values state that "We will never cause harm to people in the pursuit of production and profits or in the conduct of our business." Avalon ensures the workforce has the proper resources to work safely in full compliance with all health and safety regulations. Avalon works in jurisdictions with well-developed health and safety regulations, and all have worker safety and compensation systems for the management of injured workers. In support of Avalon's Sustainability Policy, a health, safety and environment management plan and emergency response plans have been developed that detail health and safety requirements for all of Avalon's active project sites as part of the Occupational Health and Safety Management System. Contractor health and safety systems and performance are assessed against Avalon's standards prior to engaging them. Avalon has a Risk Management Policy and Procedure that is utilized to identify and manage risk at all stages of its operations. Risk assessments are completed before all new site activities and management plans and procedures developed as required based on these assessments.
Has safety been emphasized in the contractors' selection criteria?	Yes	Avalon includes its sustainability questionnaire on Requests for Proposals. The contractors' health and safety record, including sustainability questionnaire responses, are factored into Avalon's ultimate choice of contractor. Only qualified contractors with solid H&S performance and appropriate H&S management systems are utilized.
Does the company provide safety induction for its employees?	Yes	All employees receive site-specific induction training prior to any work activities. This includes the identification and management of site specific risks. All drillers also receive specific training on drilling hazard management and safety requirements prior to arrival on site from their employer. Regular occupational health, safety and environment meetings, inspections and risk assessments are completed at all active sites and reported through the organization. While accident prevention is the priority, accident and incident management and emergency response are all components of the health and safety programs at all sites. All site workers are required to participate in daily risk assessment prior to the start of work and prior to any significant change in work activity during the shift. This is supported by near miss and accident reporting and associated actions to reduce future risks related to them. All accidents and incidents are investigated and actions to reduce or eliminate the associated risks and potential for a repeat incident are taken.
Does the company take care of the first aid preparedness of the employees?	Yes	Avalon has a joint health and safety committee located in the Toronto office, and periodic walk throughs are conducted to assess first aid supplies and protective equipment.
Do the company's employees carry a first aid kit when in the field?	Yes	

## Safety (continued)

Question	Answer	Evidence
Does the management assess accidents and take the necessary measures to prevent recurrences of similar accidents?	Yes	All accidents and incidents are investigated and actions to reduce or eliminate the associated risks and potential for a repeat incident are taken.
Are safety inspections carried out at the exploration site?	Yes	Regular occupational health, safety and environment meetings, inspections and risk assessments are completed at all active sites and reported through the organization.
Are staff involved in planning safety objectives?	Yes	All site workers are required to participate in daily risk assessment prior to the start of work and prior to any significant change in work activity during the shift. Workers have participated in site-specific training and have contributed to these training programs and the development of emergency response plans.
Does the company report safety metrics, including near-miss cases?	Yes	Avalon continued to track all health and safety metrics as currently instituted and completed an internal review of Avalon metrics vs. their peers. No new metrics were identified this fiscal year. Near miss and accident reporting and associated actions to reduce future risks related to them. All accidents and incidents are investigated and actions to reduce or eliminate the associated risks and potential for a repeat incident are taken.
Do the vehicles used by the company have initial extinguishing equipment and first aid kit?	Yes	
<b>Level A</b>		
Have the contractors been involved in carrying out risk assessments and a risk management plan?	Yes	All site workers are required to participate in daily risk assessment prior to the start of work and prior to any significant change in work activity during the shift.
Have the results and management methods of risk assessments been made available to the company's management, employees and contractors?	Yes	Health and safety responsibility is assigned at all levels within the Company as part of the health, safety, and environment management plan. Material, high-level risks are periodically reported to the Board of Directors at its request, or on the recommendation of management to ensure that risk management systems are in place and operating to manage these risks to acceptable levels. Increased scrutiny occurs when there is a significant change in a project's status or phase.
Are the roles and responsibilities defined in the risk management plan?	Yes	Health and safety responsibility is assigned at all levels within the Company as part of the health, safety, and environment management plan.
Has a written version of the contact details of the key persons responsible for safety been made and is it available to staff?	Yes	All employees receive site-specific induction training prior to any work activities. This includes the identification and management of site-specific risks. All drillers also receive specific training on drilling hazard management and safety.
Have the safety related communication responsibilities been defined?	Yes	Company-wide responsibilities are given.
Are adequate resources assigned to safety management, with the scope of operations in mind?	Yes	



## Safety (continued)

Question	Answer	Evidence
Have the company's permanent field workers completed an Occupational First Aid course level 1?	n/a	Not applicable, as Avalon has no permanent field workers.
Are safety indicators reported regularly to the management of the site/exploration area?	Yes	Regular occupational health, safety and environment meetings, inspections and risk assessments are completed at all active sites and reported through the organization. While accident prevention is the priority, accident and incident management and emergency response are all components of the health and safety programs at all sites. All site workers are required to participate in daily risk assessment prior to the start of work and prior to any significant change in work activity during the shift.
Is there a checklist or other tools available for safety checks?	Yes	The only official responsibility is at executive level.
Are any additional measures being negotiated with contractors regarding the safety of exploration?	Yes	All contractors with safety risks are required to fill out Avalon's Sustainability Questionnaire. Only qualified contractors with solid H&S performance and appropriate H&S management systems are utilized. Contractors are required to utilize only trained employees that are qualified and fit for work.
Have safety tasks and responsibilities been communicated internally?	Yes	The only official responsibility is at executive level.
Has the company's employees been provided with training related to initial extinguishing and fire safety?	Yes	An Avalon employee attends the office building's management group's health and safety committee meetings, as well as fire warden training. All Toronto based employees participate in an emergency fire drill and evacuation a minimum of once a year.
<b>Level AA</b>		
Are safety instructions updated annually?	Yes	All site workers are required to participate in daily risk assessment prior to the start of work and prior to any significant change in work activity during the shift.
Does the company keep records of the safety introductions given to the personnel?	Yes	
Does the company assess the results of safety inspections internally?	Yes	Regular occupational health, safety and environment meetings, inspections and risk assessments are completed at all active sites and reported through the organization.
Have the company's personnel and contractors been informed about the company's safety objectives and their implementation?	Yes	Workers and contractors are given a questionnaire and daily field risk assessments.
Has the company offered employees the opportunity to participate in Occupational First Aid course level 2?	Yes	Employees have the opportunity to participate in Occupational First Aid course level 2.
Does the company know the location of the defibrillator closest to the headquarters?	Yes	The location of the defibrillator is clearly posted.

## Safety (continued)

Question	Answer	Evidence
<b>Level AAA</b>		
Does the company's management promote the continuous improvement of occupational health and the prevention of accidents?	Yes	As part of Avalon's long-term goals, the team strives to consistently improve health and safety performance and awareness of employees and contractors working in the field. During Board meetings, the Board of Directors receives regular input from Avalon's management team regarding risk management concerns, both internal and external.
Does the company encourage its employees to live a healthy lifestyle during and outside working hours?	Yes	Living a healthy lifestyle is discussed in ongoing meetings.
Have new practices been introduced to promote health and safety at work?	Yes	Health and safety is discussed.
Has the company achieved the safety targets it has set?	Yes	
Are the annual health and safety targets measurable and based on the principle of continuous improvement?	Yes	
Does the company also communicate its best practices to other operators in the industry in common forums of the sector?	Yes	Avalon supports the Prospectors and Developers Association of Canada (PDAC) efforts to improve exploration industry safety performance.
Is there a defibrillator at the company's local headquarters?	Yes	
Does the company have an emergency system based on satellite positioning?	n/a	Not applicable due to exploration activities.
Has the company offered employees the opportunity to participate in an Occupational First Aid level 3 course?	Yes	Eligible employees are able to participate in an Occupation First Aid level 3 course.

# Forward-Looking Information

This report contains “forward-looking information” within the meaning of applicable Canadian securities legislation. Forward-looking information includes, but is not limited to, information with respect to Avalon Advanced Materials Inc.’s (“Avalon or the “Company”) future plans and objectives, sustainability initiatives, mineral resource estimates, the development of the Company’s material lithium projects, the advancement of projects towards a development decision, the Company’s plans with respect to the exploration and development of its properties, the continued exploration and drilling initiatives and having the necessary funding required to complete these initiatives, the prospectivity of exploration targets, expected benefits from the joint venture with Sibelco and partnership with Metso; the expected receipt of permits; permitting timelines, the future price of commodities, foreign exchange rates and currency fluctuations, requirements for additional capital; obligations to consult with Indigenous communities, and government regulation of mining operations. 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, 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, 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, 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.





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