AVALON

ADVANCED MATERIALS

THE FUTURE OF CANADA'S CRITICAL MINERALS

CORPORATE PRESENTATION

JULY 2025

TSX:AVL **OTCQB:**AVLNF **FRA:**OU5A

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QUALIFIED PERSON

Andrew J. Ramcharan, P. Eng., a Qualified Person ("QP") as such term is defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects, has reviewed and approved the technical information included in this presentation.

AVALON

Investment Highlights

Proven Expertise

Leadership team with extensive and proven experience in the mining, refining and advanced materials sectors.

Unique Diverse Portfolio

- Nechalacho REE DFS (2013)
- Thunder Bay Facility PEA (2024) After-Tax $4.1B NPV & 48% IRR
- Separation Rapids - JV Sibelco

High Demand Markets

Strategically positioned in rapidly growing markets such as electric vehicles, renewable energy storage, and advanced technologies.

Strong Partnerships

Collaborations with leading industry players to enhance our capabilities and market reach, fostering innovation and growth:

- JV with Sibelco
- Partnership with Metso Corp.
- Collaboration with Qualcomm

Government Alignment

Our initiatives align with global regulations and incentives for green energy, technological advancement, and critical mineral supply chains.

Compelling Valuations

We leverage our projects to deliver maximum value for all stakeholders. Nechalacho plays an essential role in various critical applications.

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Company Overview

Avalon Advanced Materials Inc. is an asset management company dedicated to sourcing, processing and distributing materials that power a green and digital economy.

By aiming to support both domestic and global supply chains, we are laying the foundation for Canada's transformation towards a more competitive economy.

Nechalacho Project

Aims to provide a stable supply of zirconium and rare-earth minerals, supporting advanced technological industries while securing North American energy security.

Lake Superior Lithium Project

Aims to support the rapidly expanding electric vehicle market by establishing a state-of-the-art lithium hydroxide processing facility in Thunder Bay, Ontario.

Separation Rapids Project

A joint venture between Avalon and SCR-Sibelco NV which aims to commercialize its petalite deposit. Lilypad project focuses on lithium (spod.), cesium, rubidium, and tantalum.

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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.

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Projects Overview

Project 1: Nechalacho Project

- **Location:**
  - Thor Lake, Northwest Territories
- **Stage:**
  - DFS 2013 Completed
- **Mineralization:**
  - All Light Rare Earth Elements except Promethium (Neodymium, Praseodymium)
  - All Heavy Rare Earth Elements
  - Transitional Rare Earth Element Yttrium
  - Zirconium, Tantalum, Niobium
- **Key Points:**
  - 100% interest in resources below 150m above sea level
  - Supports industries including nuclear, defense, and communications sector

Project 2: Lake Superior Lithium Inc.

- **Location:**
  - Thunder Bay, Ontario
- **Stage:**
  - PEA 2024
    - After-Tax NPV (8%) C$4.1 B
    - After-Tax IRR 48%
    - CAPEX C$1.3 B
- **Commodity:**
  - Production of Lithium Hydroxide
- **Key Points:**
  - 100% owned land for proposed lithium processing facility
  - Existing strategic infrastructure
  - MOU with Metso Corp.
  - MOU with Qualcomm Technologies Inc.

Project 3: Separation Rapids Ltd.

- **Location:**
  - Kenora & Fort Hope - Ontario
- **Stage:**
  - MRE 2023 - Separation Rapids
    - Updated MRE Feb. 2025
  - Lilypad: Early-Stage exploration
- **Mineralization:**
  - Sep. Rapids Region: lithium as petalite/lepidolite/ spodumene
    - Snowbank: Target
  - Lilypad Target: Cesium, Tantalum, Rubidium, Spod.
- **Key Points:**
  - Resource Expansion
  - JV with SCR-Sibelco NV: 60%, Avalon 40%
  - Met. and Geotech Studies

Other Projects:

- East Kemptville Tin
- Warren Township Anorthosite

- **East Kemptville Tin**
  - **Location:**
    - Yarmouth, Nova Scotia
  - **Mineralization:**
    - Tin
      - Mineral Resource Estimate
  - **Stage:**
    - PEA 2018
- **Warren Township Anorthosite Project**
  - **Location:**
    - Timmins, Ontario
  - **Mineralization:**
    - Calcium Feldspar
  - **Stage:**
    - Early Exploration
- **Key Points:**
  - Divestment Opportunities

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Asset Locations

- Office Headquarters
  Toronto, ON
- Lake Superior Lithium Inc.
  Thunder Bay, ON
- Separation Rapids Ltd.
  Kenora, ON
- Nechalacho Project
  Thor Lake, NWT
- East Kemptville
  Yarmouth, NS
- Warren Township Project
  Timmins, ON

NECHALACHO PROJECT

Project Overview

- Located at Thor Lake, Northwest Territories
- Avalon retains 100% ownership of resources below 150 metres (Basal Zone)
- An unrelated third party owns resources above 150 metres (Upper Zone)
- Supports industries including nuclear, defense, and communications sector
- Early works permits in place

Objective

Update of FS based on new economic considerations.

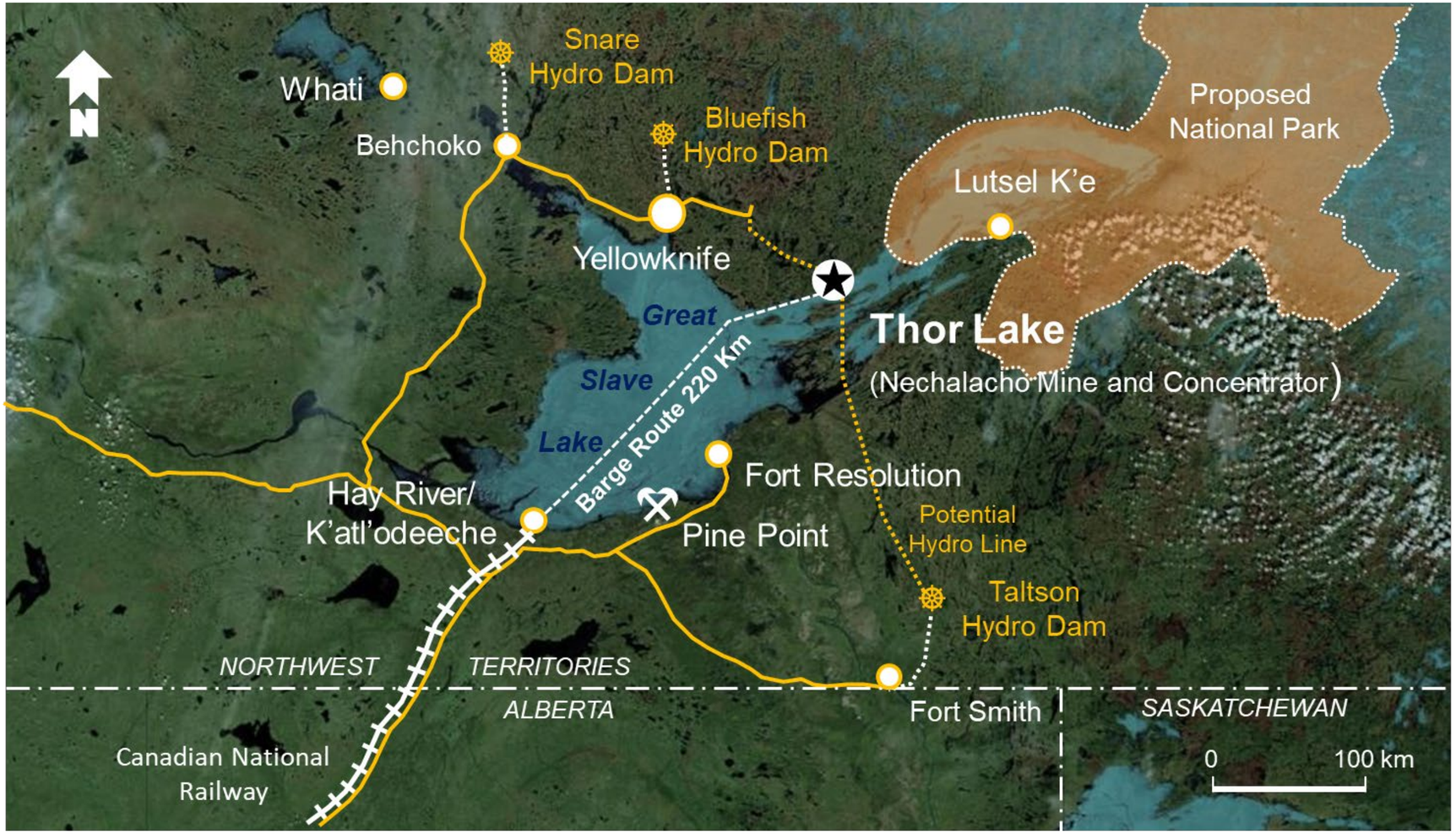
Funding

Exploring funding options. Submitted application for U.S. Government Funding: D.O.D.

Phase

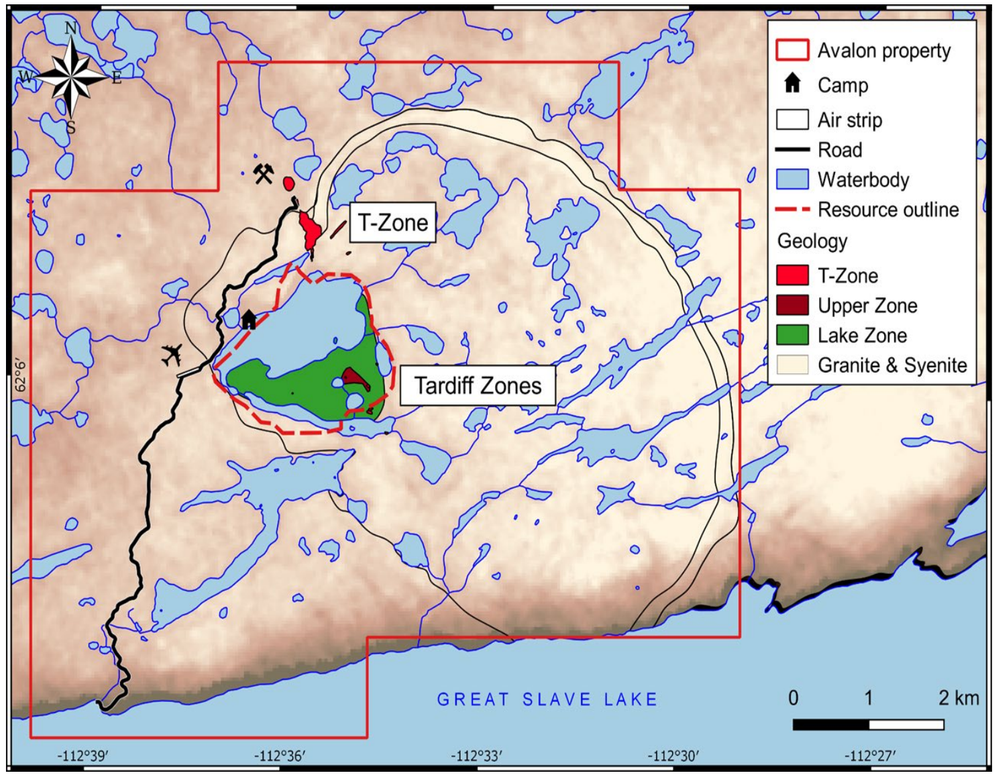
Strategic Partnership.

Thor Lake and Regional Infrastructure



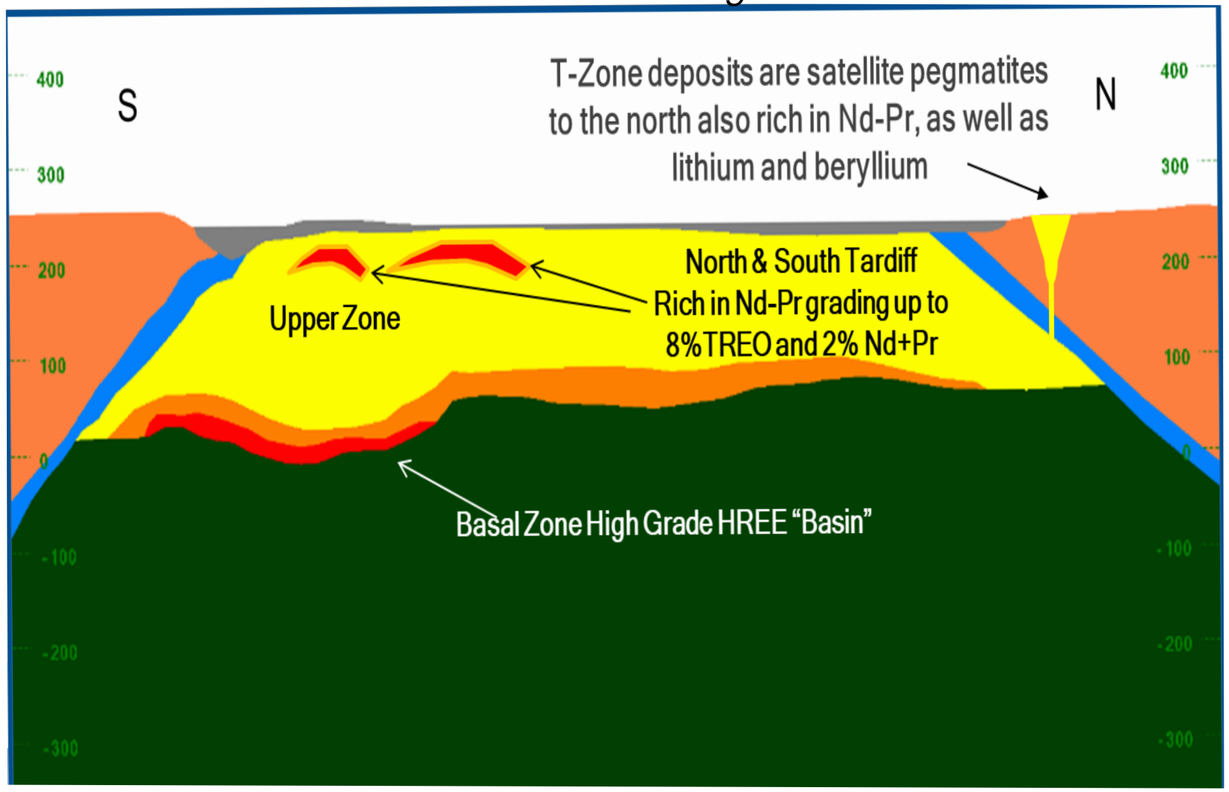
NECHALACHO PROJECT

Property Overview



Nechalacho Lake Zone General Geology Crosscut

Vertical Cross Section Looking West at 416200E



NECHALACHO PROJECT

Mineral Resource Estimate as of August 15, 2013

Category	Zone	Tonnes (million)	TREO (%)	HREO (%)	HREO/ TREO	ZrO2 (%)	Nb2O5 (%)	Ta2O5 (%)
Measured	Basal	12.56	1.71	0.38	22.50	3.20	0.405	0.0404
Indicated	Basal	49.33	1.62	0.35	21.27	3.07	0.405	0.0398
Measured & Indicated	Basal	61.90	1.64	0.35	21.53	3.10	0.405	0.0399
Inferred	Basal	58.16	1.38	0.26	18.89	2.80	0.380	0.0351

Notes:

1. CIM definitions were followed for Mineral Resources.
2. The Qualified Person for this Mineral Resource estimate is William Mercer, PhD, P.Geo. (Ontario), P. Geo.(NWT), VP, Exploration, Avalon Rare Metals Inc.
3. HREO (Heavy Rare Earth Oxides) is the total concentration of: Y2O3, Eu2O3, Gd2O3, Tb4O7, Dy2O3, Ho2O3, Er2O3, Tm2O3, Yb2O3 and Lu2O3.
4. TREO (Total Rare Earth Oxides) is HREO plus: La2O3, CeO2, Pr6O11, Nd2O3 and Sm2O3.
5. Rare earths were valued at an average net price of US$62.91/kg, ZrO2 at US$3.77/kg, Nb2O5 at US$56/kg, and Ta2O5 at US$256/kg. Average REO price is net of metallurgical recovery and payable assumptions for contained rare earths, and will vary according to the proportions of individual rare earth elements present. In this case, the proportions of REO as final products were used to calculate the average price.
6. The changes in methodology from the November 26, 2012 Resource were the cut-off grade and the interpolation method. The cut-off grade, expressed as Net Metallurgical Return ("NMR"), increased from US$320 to US$345 per tonne. NMR is defined as "Net Metal Return" or the in situ value of all payable metals, net of estimated metallurgical recoveries, and in the case of Nb, Ta and Zr, off-site processing costs. The revised interpolation method utilized the elevation above the lower contact of the Basal Zone to provide better geologic continuity of the ore zone. The effect on overall tonnage and grade is not material.
7. ZrO2 refers to Zirconium Oxide, Nb2O5 refers to Niobium Oxide, Ta2O5 refers to Tantalum Oxide.
8. Values for HREO/TREO may differ due to rounding.

Source: Avalon Reports on Summer Work Program at the Nechalacho Rare Earth Elements Project and Provides Mineral Resource Update

NECHALACHO PROJECT

2013 Feasibility Study: Basal Zone

Project Overview: 20 Year Mine Life

Mining Operations:

- Method: Underground drift and fill/long-hole stoping
- Capacity: 2,000 tons per day (tpd), equivalent to 730,000 tons per year (tpy)

Processing Details:

- Flotation: Produces 130,000 tpy of mineral concentrate
- Hydrometallurgy: Treatment with sulfuric acid bake at Pine Point, yielding:
  - 55,000 tpy of REE concentrate & 112,000 tpy of Enriched Zirconium Concentrate (EZC)

Transportation:

- Rail Shipment: REE concentrate shipped to refinery in Geismar, Louisiana - Southern U.S

Production Targets:

- Initial Production: 7,000 tpy of separated REE oxides and EZC (including Nb, Ta, HREE)

Financial Overview:

- Total Capital Expenditure: CAD$1.58 billion
- Operating Costs: CAD$265 million/year or $362/mined tonne of ore (all in)
- Revenue: CAD$646 million/year or $885/mined tonne of ore
- After-tax Internal Rate of Return: 19.6%
- After-tax Net Present Value @ 8%: CAD$1.26 billion

Optimization test work from 2013 to 2015:

- SGS Canada conducted continuous piloting and supportive bench testing of Nechalacho rare earth material on the Alkali Cracking Flow Sheet
- Hatch supporting work

Optimization test work from 2013 to 2015 confirms a technically viable hydrometallurgical process:

- Rare earth flotation concentrate to produce a purified mixed rare earth carbonate concentrate and a zirconium basic sulphate (ZBS) based on mixed alkali cracking, dual-stage hydrochloric acid leaching, use of a multi-stage precipitation/dissolution and solvent extraction for purification
- Purified mixed rare earth carbonate concentrate would be further processed into individual rare earth oxides by a third-party refinery
- Niobium and Tantalum are not recoverable in the current Alkali Cracking Flowsheet
- Cerium removed as impurity

NECHALACHO PROJECT

Critical Rare Earths in Technology

- A single US F-35 Lightning II fighter jet contains approximately 920lbs of rare earth elements
- Electric vehicles (EVs) contain as much as 1kg of rare earth elements
- A single 3MW wind turbine can contain up to 2 tons of rare earth permanent magnets
- Each SSN-774 Virginia-class submarine requires approximately 9,200 pounds of rare earth materials

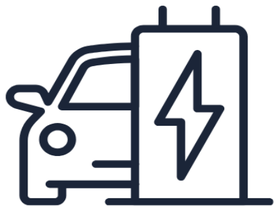
Source: The Oregon Group. https://theoregongroup.com/investment-insights/the-wests-pursuit-of-rare-earths-hits-resistance-from-china/

Classifications

57 La Lanthanum	58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium	39 Y Yttrium
Light Rare Earths								Heavy Rare Earths							

Applications

Nd, Pr, Tb, Dy are critical elements of the global energy transition



Electric Cars

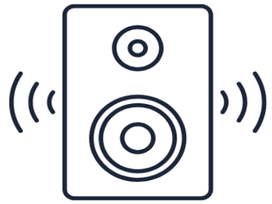
59 Pr Praseodymium | 60 Nd Neodymium
65 Tb Terbium | 66 Dy Dysprosium

Wind Turbine

59 Pr Praseodymium | 60 Nd Neodymium
65 Tb Terbium | 66 Dy Dysprosium

Smart Phones

59 Pr Praseodymium | 60 Nd Neodymium
65 Tb Terbium



Speakers

59 Pr Praseodymium | 60 Nd Neodymium

Computer Drives

59 Pr Praseodymium | 60 Nd Neodymium
66 Dy Dysprosium

Defense

59 Pr Praseodymium | 60 Nd Neodymium
65 Tb Terbium | 66 Dy Dysprosium

NECHALACHO PROJECT

Zirconium, Niobium, Tantalum Market Overview

Zirconium (Zr)

- **Current Market Size:**
  - The global zirconium market size was US $1.9 Billion in 2023
- **Future Projections:**
  - Expected to reach US $3.5 Billion by 2032
- **Growth Rate:**
  - CAGR of 6.8% during the period 2024-2032
- **Applications:**
  - Nuclear Reactors
  - Chemical Industry
  - Aerospace and defense

https://www.imarcgroup.com/zirconium-market

Niobium (Nb)

- **Current Market Size:**
  - The global niobium market was valued at US $1.9 Billion in 2022
- **Future Projections:**
  - Expected to reach US $3.1 Billion by 2030
- **Growth Rate:**
  - CAGR of 6.00% from 2023 to 2030
- **Applications:**
  - Alloys
  - Superconductors

https://www.databridgemarketresearch.com/reports/global-niobium-market

Tantalum (Ta)

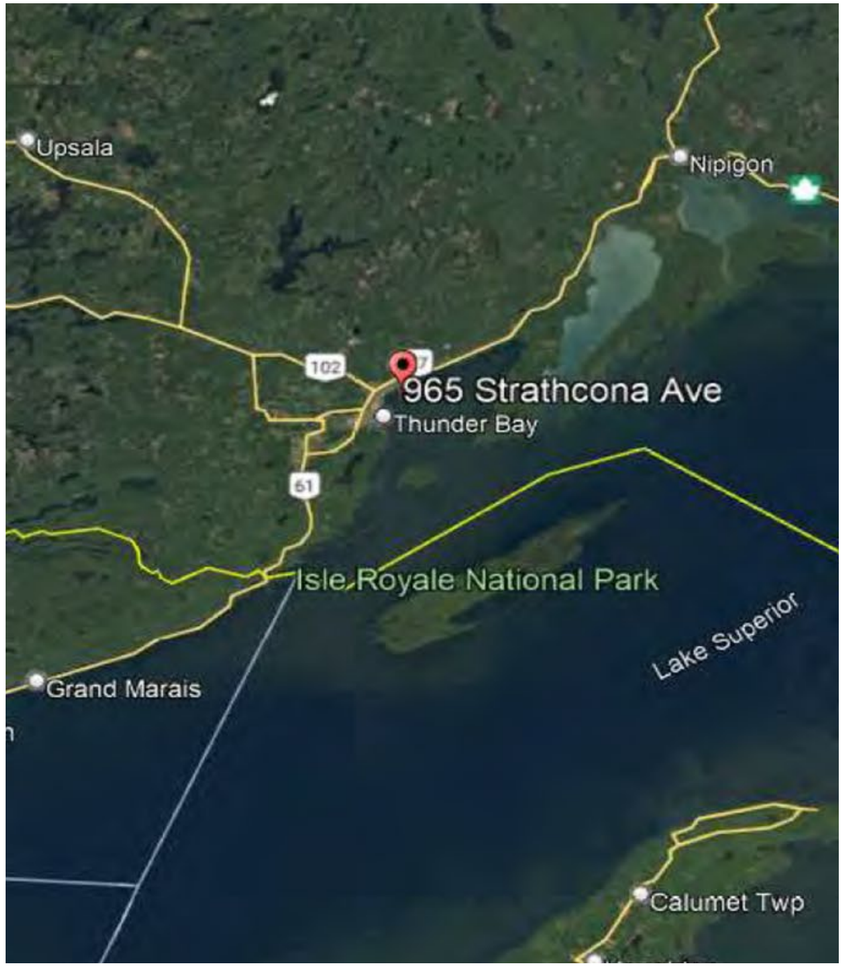
- **Current Market Size:**
  - The global tantalum market was valued at approximately US $521.47 million in 2022
- **Future Projections:**
  - Predicted to grow to around US $799 million by 2030
- **Growth Rate:**
  - CAGR of 5.88% from 2023 to 2030
- **Applications:**
  - Capacitors
  - Aerospace
  - Chemical Industry
  - Military defense

https://www.zionmarketresearch.com/report/tantalum-market

LAKE SUPERIOR LITHIUM PROJECT

Project Overview

- 100% wholly owned subsidiary
- Strategically located in proximity of feed sources
- Site is perfectly positioned to optimize supply chain efficiency
- Close to all main infrastructure
- Partnership with Metso Corp. to leverage sustainable processing technologies
- Collaboration with Qualcomm Technologies Inc.



Objective

Aims to support the rapidly expanding electric vehicle market by establishing a state-of-the-art lithium hydroxide facility in Thunder Bay, Ontario.

Funding

Exploring funding options: equity, loans, grants, and strategic partnerships. Submitted applications for government funding: U.S. D.O.D. and Federal and Ontario programs.

Phase

The first phase of the Project is a 30,000 tpy lithium hydroxide processing facility for which Avalon has recently completed a positive PEA.

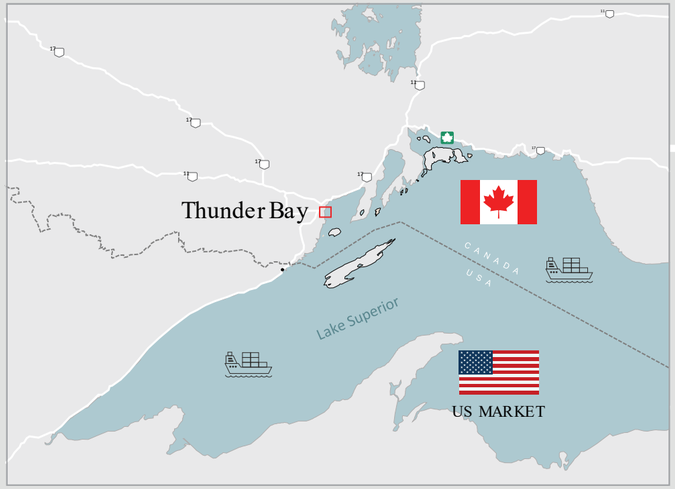
LAKE SUPERIOR LITHIUM PROJECT

PEA Financials (CAD $)

$35,360 Base Case LiOH $/t LiOH (USD $26,000/t LiOH)	**$4.1B** After-Tax NPV @ 8% Discount	**30 Year** Operating Life
$1,360 Spodumene conc. $/t (USD $1,000/t Spodumene @ 6%)	**48%** After-Tax IRR	**2.5 Year** Payback Period
30,000 tpa Annual LiOH production		**$1.3B** CAPEX

LAKE SUPERIOR LITHIUM PROJECT

The Phased Approach



LEGEND

PHASE 1
- 30k LioH 2028
- Technology & Innovation Centre

PHASE 2
- 60k LioH 2030

PHASE 3
- 60k LioH 2033

Trans-Canada Highway
Strathcona Ave
Shipyard Rd.
CN Railroad
CN Railroad
From Mine Site
Dock
Property Boundary
Office Building
POTENTIAL EXPANSION
Cell/Cathode Production
Battery Recycling Facility
PHASE 1
30k LiOH
2028
PHASE 2
60k LiOH
2030
PHASE 3
60k LiOH
2033
PHASE 1
Technology &
Innovation Centre
FROM INTERNATIONAL MARKETS
TO EUROPEAN MARKET
TO SOUTHERN ONTARIO MARKET
TO US MARKET
Lake Superior

LAKE SUPERIOR LITHIUM PROJECT

Phase 1 Production

Production Capacity:

- The facility is designed to produce 30,000 tons per annum (tpa) of battery-grade lithium hydroxide monohydrate (LHM)

Compact and Energy-Efficient Design:

- Metso's advanced technologies will facilitate the development of a lithium hydroxide production plant that is both space-efficient and energy-saving

Expansion Scenario:

- The facility will be designed with expansion capacity to increase its production

Infrastructure

Road Access:

- The site is within 4 km of the Trans-Canada Highway, allowing easy transportation access

Rail Infrastructure:

- A CN Rail line runs north of the property, with a spur entering from the northeast corner
- Rail will be the primary transportation method for spodumene concentrate, reagents, and byproducts

Port Facilities:

- The existing deep-water port on Lake Superior will be refurbished to handle spodumene concentrate shipments
- An adjacent warehouse will be retrofitted with material handling equipment to facilitate offloading from Great Lakes freighters

Spodumene Concentrate Storage:

- Buffer Storage: Facility designed to maintain a steady supply of spodumene concentrate before processing
- Quality Control: Space allocated for sampling and grading different lots prior to feeding

Fresh Water:

- Fresh water will be required for the process; a freshwater intake is envisioned from Lake Superior

Analcime Storage:

- The by-product from the process is dried and transported via conveyor to a storage facility
- Storage facility allows for buffering capacity before on-loading into rail cars for transport off site
- Analcime will be used to manufacture building products and supplies

Office Building and Lab:

- Located north of the railroad tracks
- Facilities: Offices, kitchen, conference rooms, and restrooms.
- Lab. Use: Tests incoming spodumene and product streams to ensure quality throughout the process

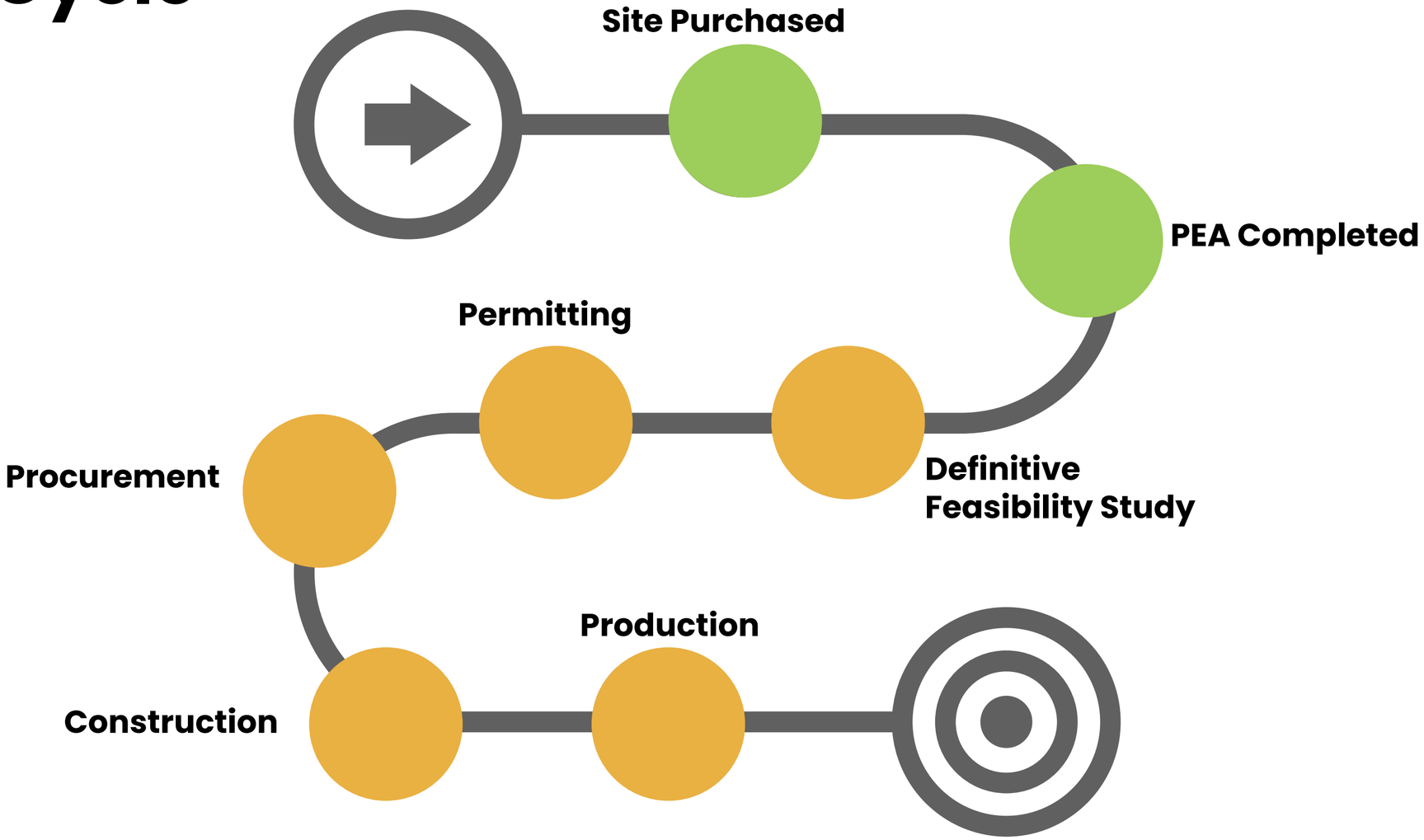
Electrical:

- Electrical power for the project will be provided by the main substation north of the processing site and CN rail line
- The main substation is supplied by 115 kV from the Hydro One power transmission system

3D Rendering Video

Avalon's Thunder Bay Lithium Processing Facility (youtube.com)

Project Cycle



Solar Farm

- Avalon plans to explore the feasibility of a solar farm on its industrial site
- Non-productive and unusable industrial land within the landfill site and roof tops of processing facilities could be repurposed for use as a solar farm
- The solar farm would help reduce Avalon's carbon footprint and support the production of ultra-clean battery-grade lithium hydroxide powered by renewable energy

Analcime

- Analcime is a zeolite mineral composed of hydrated sodium aluminum silicate and is a by-product in lithium hydroxide conversion process
- Potential Business Opportunities:
  1. Concrete Additive
     - Enhances strength and durability of concrete
     - Reduces water demand, contributing to more efficient and sustainable construction
  2. Water Purification
     - Serves as a zeolite for ion exchange and filtration processes
     - Can be utilized in industrial and municipal water treatment systems

LAKE SUPERIOR LITHIUM PROJECT

Avalon & Metso Corp. Partnership

Avalon has entered a partnership with Metso Corp. to leverage their groundbreaking sustainable technologies.

Overview:

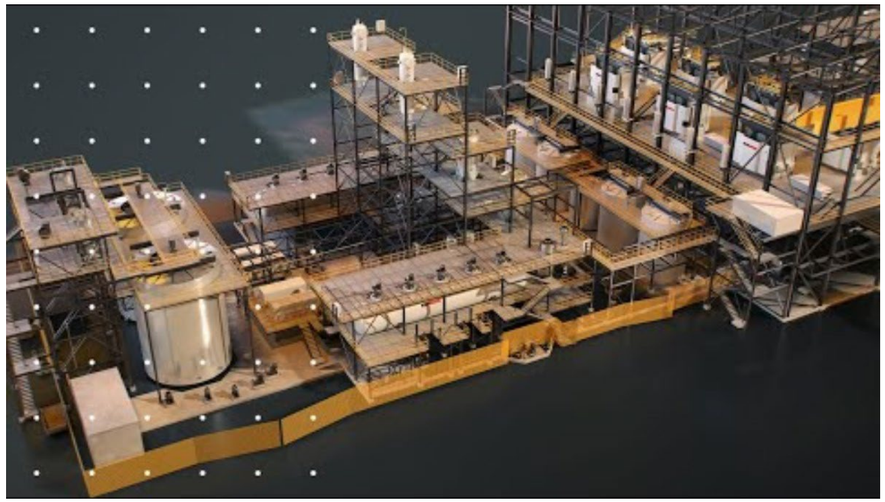
- Metso is a comprehensive solution provider for major lithium operations and backed by the latest technologies and decades of experience of spodumene extraction

The Process:

- Metso has a proprietary technology with a more direct route to convert spodumene to battery-grade lithium hydroxide all within an environmentally sustainable alkaline leaching process completely acid & sulphate free

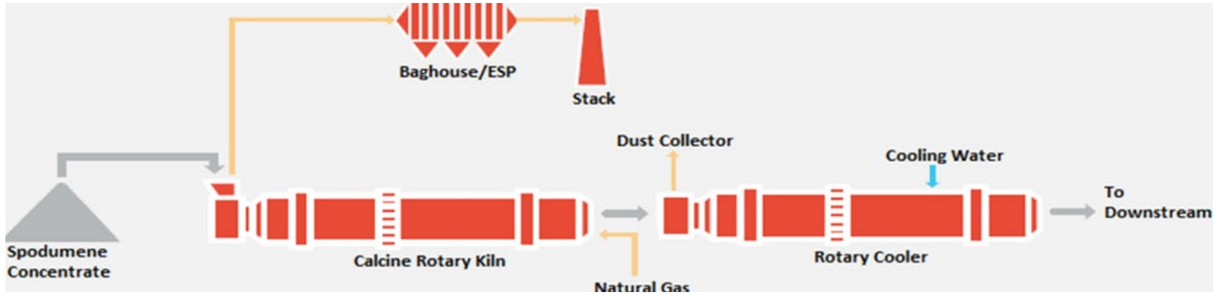
Key Partnership Highlights:

- Create a testing laboratory for research and development on lithium and clean technology solutions
- Metso to provide testing and engineering equipment procurement and related services to develop and commercialize Avalon's Thunder Bay lithium processing facility
- Avalon and Metso to cooperate on the recycling of used batteries and the refining of battery chemicals for recycle use

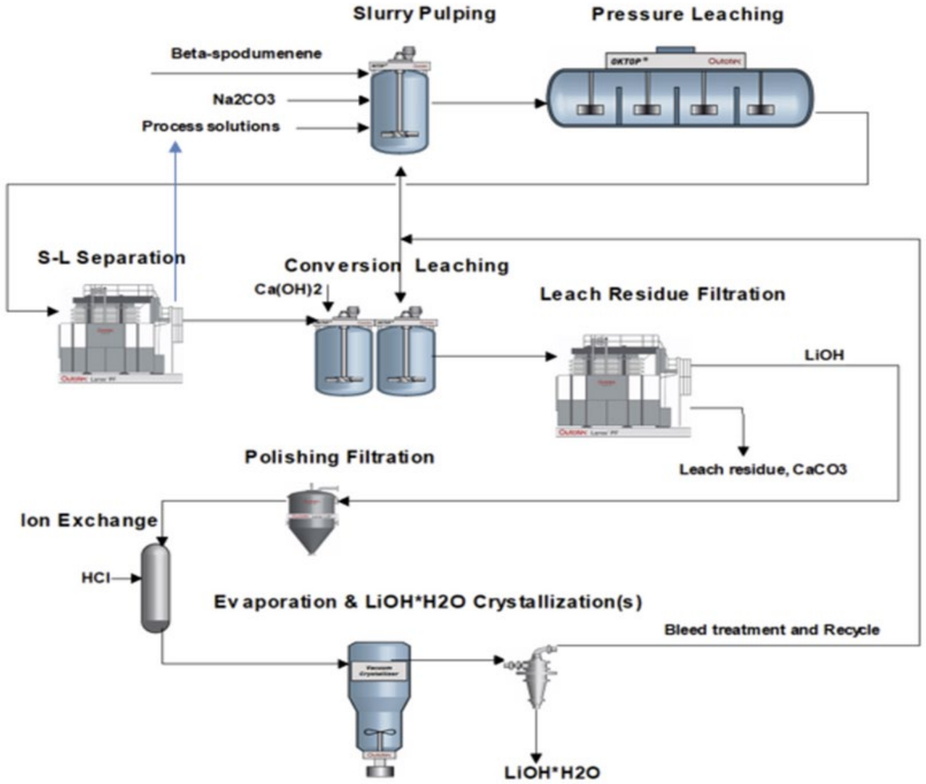


Metso Lithium Hydroxide Processing

- **Spodumene Feed:** Alpha-Spodumene converted to Beta-Spodumene via calcination within a Kiln heating process



- **Lithium Carbonate Production:** from Beta-Spodumene reaction with soda ash in Pressure Leaching
- **Lithium Hydroxide Production:** via Atmospheric Conversion reaction of Lithium carbonate with lime
- **Leach Residue Filtration Washing:** Separate out lithium hydroxide from inert by-products sand (analcime) and limestone
- **Purification of lithium hydroxide via:**
  - Polishing filtration
  - Ion exchange
  - Crystallization
- **Final Product:** Battery Grade Lithium Hydroxide



LAKE SUPERIOR LITHIUM PROJECT

Avalon & Qualcomm Collaboration

Avalon Advanced Materials Inc. has signed a memorandum of understanding with Qualcomm Technologies Inc., focusing on enhancing Avalon's Thunder Bay lithium processing facility through advanced digital solutions.

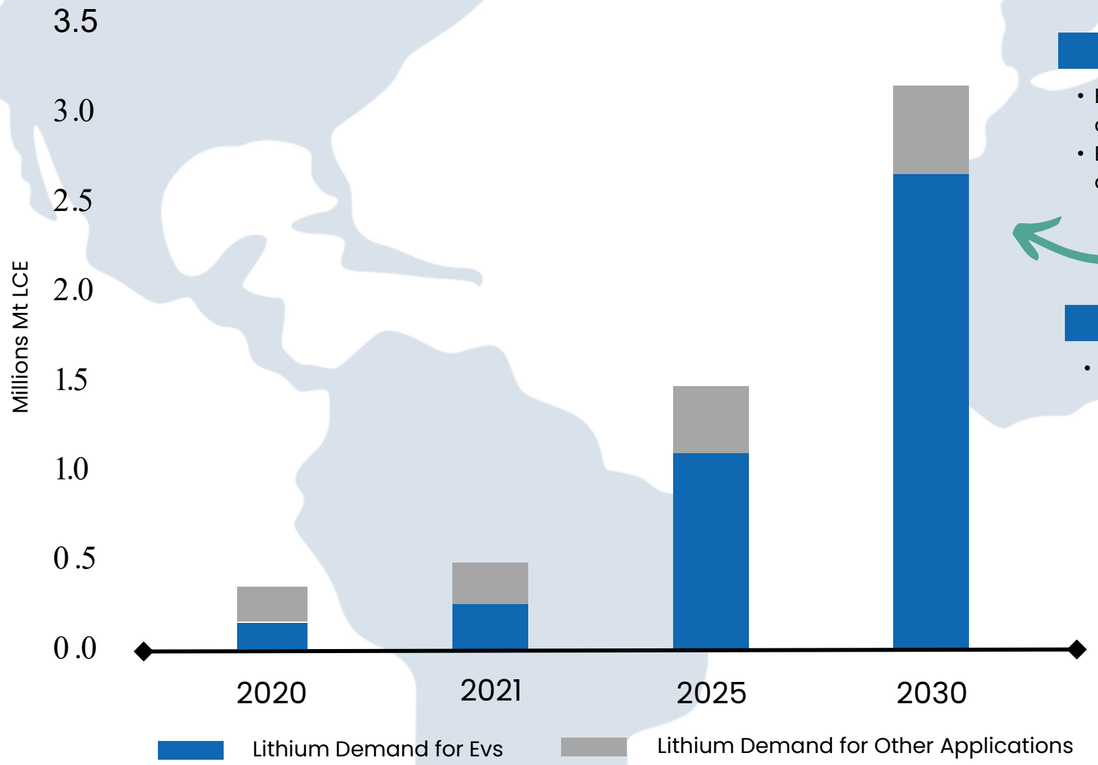
Key Collaboration Highlights:

- Utilizing Qualcomm's Industrial & Edge technologies
- Developing a roadmap for AI-enabled Internet-of-Things solutions to enhance connectivity and predictive maintenance
- Strengthening Ontario's role as a tech hub in mining by integrating local SMEs into the digital transformation efforts
- Supporting the modernization of the mining industry to enhance competitiveness, environmental performance, and operational efficiency
- Leveraging Canada's skilled workforce to drive technological advancements and create a sustainable, resilient mining sector

LAKE SUPERIOR LITHIUM PROJECT

Lithium Demand

Lithium Demand By Application
(Millions of Metrics Tons Per Annum of Lithium Carbonate Equivalent)

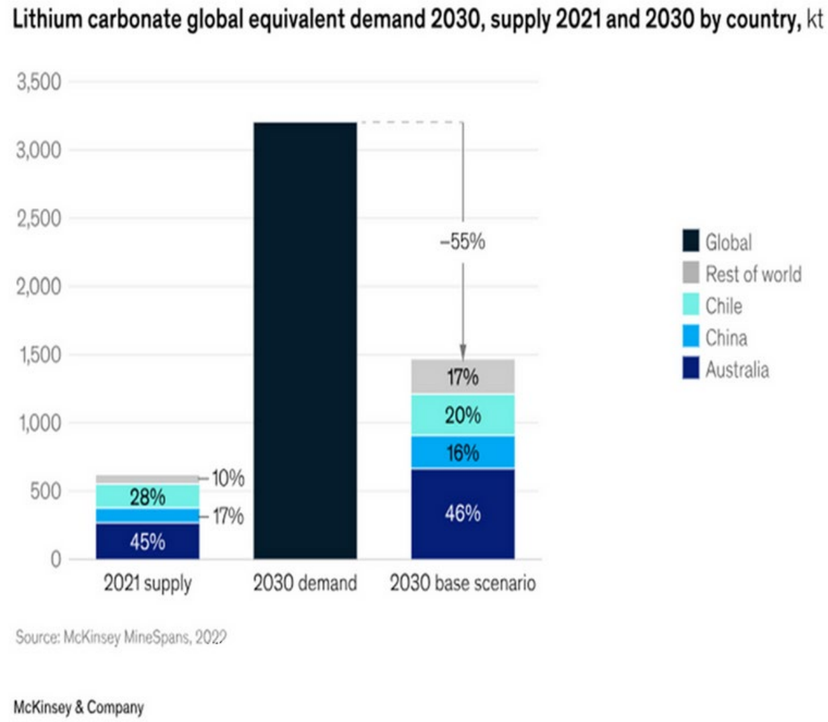


FUTURE DEMAND

- EVs could drive 84% of lithium demand by 2030
- EV sales to rise from 9% in 2021 to over 20% in 2025

SUPPLY CONSTRAINTS

- Annual demand growth of 250,000–300,000 tLCE



Sources: Global X ETFs with information derived from Norris, E. (2022, June 27). Building a domestic EV ecosystem: Fastmarkets lithium and battery raw materials 2022. Albermarle.

SEPARATION RAPIDS LTD.

Project Overview

- Separation Rapids Ltd. (SRL) is a joint-venture between SCR-Sibelco NV 60% and Avalon 40%
- The JV encompasses three sites in Ontario:
  - Kenora (comprising the Separation Rapids Project and the Snowbank target)
  - Fort Hope (Lilypad Project)

Objective

To advance exploration activities at Separation Rapids, Lilypad and Snowbank.

Funding

Sibelco has sole funding responsibility for financing exploration on the JV. Application for: U.S. D.O.D. Funding for Feasibility Study has been submitted in 2023.

Phase

Updated Mineral Resource Estimate (Feb. 2025).

SIBELCO

About Sibelco

Founded in 1872, Sibelco operates in 31 countries with a diverse mineral portfolio. They serve various industries with innovative solutions and high-specification materials.

Their purpose—material solutions advancing life—supports construction, renewable energy, clean water, and advanced technologies. Committed to sustainability, Sibelco balances economic performance with environmental and social responsibility.

SEPARATION RAPIDS LTD.

Separation Rapids Overview

Overview:
- Separation Rapids Region 4,414 Hectares

Location:
- 70 kilometers north of Kenora, Ontario

Mineral Resource:
- 2025 Mineral Resource Estimate
  - Measured & Indicated: 12.98 Mt @ 1.34% Li2O
  - Inferred: 2.29 Mt @ 1.46% Li2O

Stage:
- PEA
- Commence 2025 exploration program

Goals:
- Increase Mineral Resource base
- Make new discoveries
- Studies (Met./Geotech.)

Description	Classification	Tonnage (Mt)	Li2O (%)	Contained Li2O (t)
Open Pit	Measured	4.33	1.28	55,282
	Indicated	6.41	1.27	81,147
	Measured & Indicated	**10.73**	**1.27**	**136,429**
	Inferred	0.46	0.84	3,817
Underground	Measured	-	-	-
	Indicated	2.24	1.64	36,877
	Measured & Indicated	**2.24**	**1.64**	**36,877**
	Inferred	1.83	1.62	29,680
Total	Measured	4.33	1.28	55,282
	Indicated	8.65	1.36	118,024
	Measured & Indicated	**12.98**	**1.34**	**173,306**
	Inferred	2.29	1.46	33,497

Notes:
1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are reported using a 4.25% Li2O petalite concentrate price assumption of US$1,000/t with an exchange rate of US$1 = C$1.30.
3. Open pit Mineral Resources are reported from a block model regularized to 5 m x 3 m x 5 m parent block size at a 0.48% Li_2O cut-off grade (COG) in a Whittle resource shell. The Whittle resource shell and open pit COG are based on a mining cost of C$5.50/t, a general and administration (G&A) cost of C$3.50/t, a processing cost of C$55.00/t, and a recovery of 40%.
4. Underground Mineral Resources are reported from a block model with a minimum sub-block size of 1 m within Deswik Stope Optimizer (DSO) resource panels which were generated using a break-even 1.46% Li_2O COG. The underground break-even COG grade is based on a mining cost of C$120/t, a G&A cost of C$3.50/t, a processing cost of C$55.00/t, a recovery of 40%, and an exchange rate of US$1 = C$1.30. The DSO resource panels are minimum 20 m by 10 m by 3 m wide.
5. Mineral Resources are reported based on a minimum thickness of approximately 3 m.
6. Average bulk densities were assigned to the blocks and range between 2.62 t/m³ and 2.66 t/m³ for the lithium pegmatite.
7. Numbers may not add due to rounding.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Volker Moeller, Ph.D., P.Geo. (ON), Senior Resource Geologist at SLR Consulting (Canada) Ltd., is the designated Qualified Person for this MRE 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. The Qualified Person is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the MRE.

SEPARATION RAPIDS LTD.

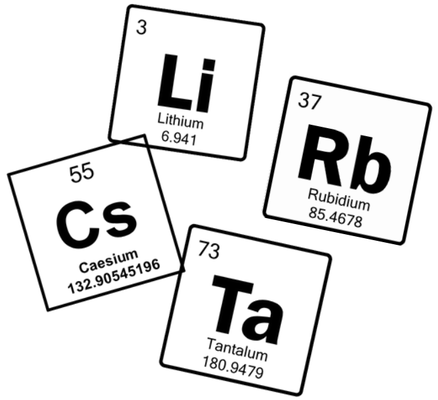
Lilypad Project

Overview:

- The Lilypad Project consists of 14 claims, comprising 166 new claim units or cells, totaling slightly over 3,299 hectares (8,152 acres)

Location:

- Fort Hope, Ontario



Advanced Materials:

- ***Lithium (Spodumene)***
- Tantalum
- ***Cesium***
- Rubidium

Development Potential:

- Significant mineral discoveries to the north (ring of fire) have prompted the developing of road access into the area

Stage:

- Exploration
  - Scheduled exploration in H1 2025

Snowbank Target

Overview:

- A lithium pegmatite occurring primarily in the ore mineral petalite

Location:

- Kenora, Ontario
- 4 kilometers northwest of Separation Rapids lithium deposit

Advanced Materials:

- Lithium

Development Potential:

- Significantly contributes to the development of Separation Rapids property

Stage:

- Exploration

OTHER PROJECTS

East Kemptville Tin Project

Overview:

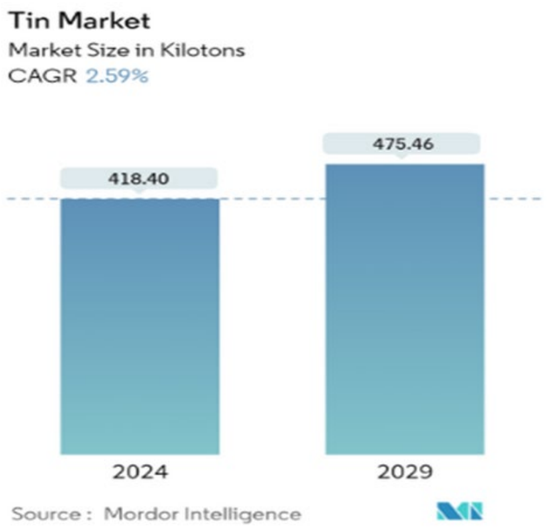
- Ownership: 100% owned
- Property Size: One contiguous exploration license: over 2,880 acres (1,166 hectares)

Location:

- Approximately 45 km northeast of Yarmouth, Nova Scotia
- Vicinity of the former East Kemptville Tin Mine

Stage:

- Exploring divestment potentials



Warren Township Anorthosite Project

Overview:

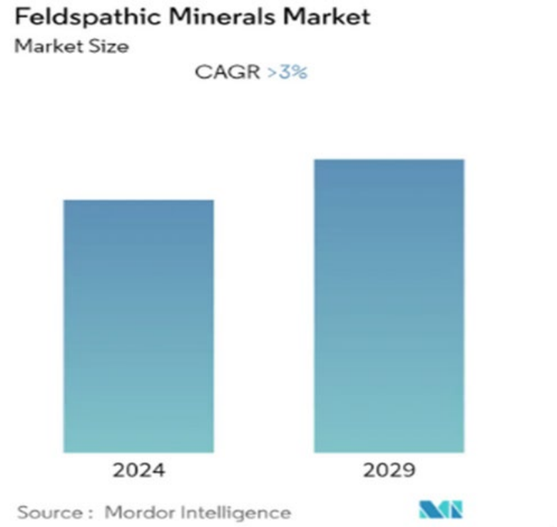
- Ownership: 100% owned
- Lease: 21-year, 673.7 ha renewable surface and mining rights lease
  - Renewable for further terms

Location:

- 100 km west of Timmins, Ontario in the Porcupine Mining Division

Stage:

- Exploring divestment potentials



AVALON OVERVIEW

Key Milestones

Q3 2024

- Intersected 1.54% Li2O over 136.95m at Separation Rapids
- Intersected 1.67% and 1.68% Li2O at Separation Rapids
- Completed PEA: $4.1 Billion NPV and 48% IRR at Thunder Bay Facility
- Begin studies for development of zero-emission solar farm
- Video rendering for Thunder Bay Facility released

Q4 2024

- Avalon unveils third-party economic and labour study for its Thunder Bay Facility
- MOU with Qualcomm Technologies
- $3.5M Financing from JV Partner and Major Shareholder Sibelco

Q1 2025

- Avalon appoints Mark N.J. Ashcroft as Strategic Consultant for its Proposed Lake Superior Lithium Facility in Thunder Bay
- Avalon Announces 28% Increase in Measured + Indicated Mineral Resources at JV Separation Rapids Project

Q2 2025

- Avalon Adopts Shareholder Rights Plan

Q3 2025

- Avalon Announces Second Draw from Convertible Securities Agreement with The Lind Partners
- Continue to explore and potentially secure new strategic partnerships

*All values are in Canadian dollars unless otherwise indicated

Management & Consultant Team

Scott Monteith, President & CEO

Scott Monteith, CEO of Avalon since May 2023, is an experienced entrepreneur and founder of Monteco Ltd.

Jim Andersen, CFO

Mr. Andersen, a CPA with 30 years in mining, joined Avalon as CFO in 2001 after auditing the company from 1996-2000.

Zeeshan Syed, VP, External Affairs & Partnerships

Mr. Syed, with a Masters from LSE, has 20 years of executive experience. Before Avalon, he worked with the Canadian government, Alberta, and the UN. He is a graduate of the London School of Economics.

Mark N.J. Ashcroft, Strategic Consultant

Mr. Ashcroft, P.Eng, a sixth-generation miner, has extensive experience in mining operations and finance, having served as President and CEO of Stonegate Agricom and managed a $51.75 million IPO on the Toronto Stock Exchange.

Andrew J. Ramcharan, VP, Corporate Development

Dr. Ramcharan has excelled in Corporate Development, with senior roles at IAMGOLD, SRK Consulting, Sprott Lending, and RCF.

Board of Directors

Alan Ferry, Chair
Mr. Ferry, with 28 years in mining finance, is Avalon's director since 2000, and chairs the Audit Committee.

Scott Monteith, CEO, Director
Scott Monteith, CEO of Avalon since May 2023, is an experienced entrepreneur and founder of Monteco Ltd.

Timothy Haig, Director
A successful entrepreneur in renewable fuels and cleantech, known for transforming lab ideas into public companies, leading motivated teams, and upholding integrity and ethics.

Flavio Hees, Director
VP of Geology and Mining at Sibelco, oversees over 130 mines, focuses on optimizing assets and compliance. He holds a master's in Geotechnical Engineering.

Alec Kodatsky, Director
Alec Kodatsky, with over 20 years in finance, is Co-President of Forthlane Partners and a former top mining sector analyst. He holds a B.Sc. in Mining Engineering and an MBA.

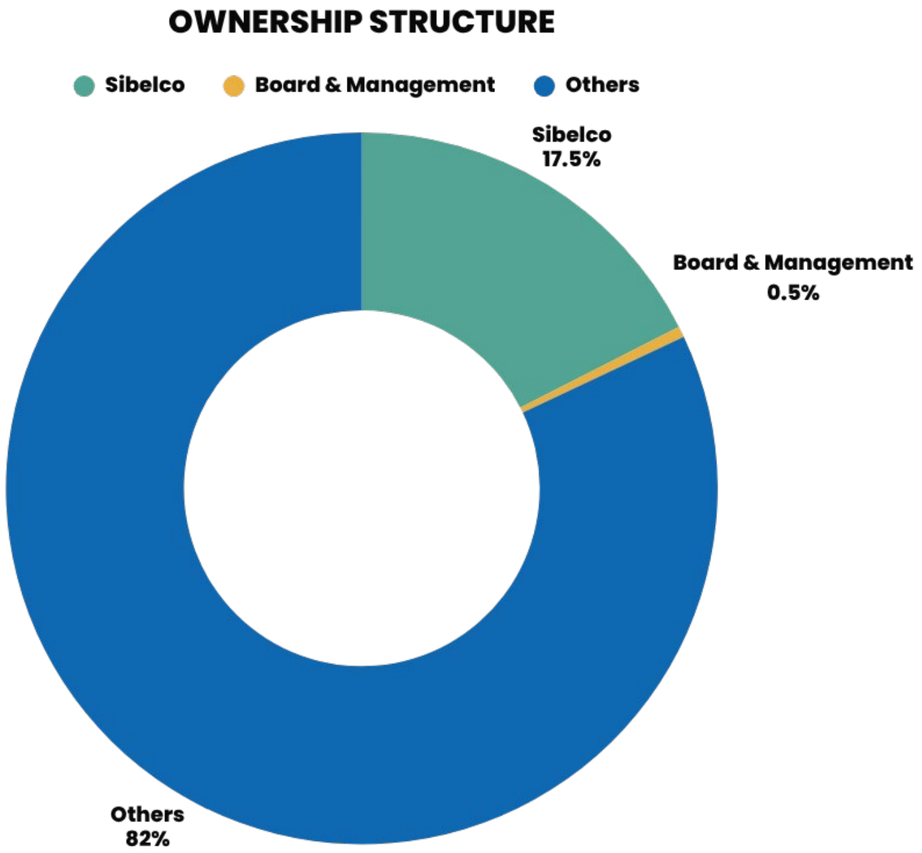
Naomi Johnson, Director
Ms. Johnson, Titan Mining VP since 2018, joined Avalon's Board in 2019 and chairs the Compensation Committee.

Harvey Yesno, Director
Harvey Yesno, former Chief of Eabametoong First Nation and Grand Chief of Nishnawbe Aski Nation, led NADF and worked with Ontario's Ring of Fire Secretariat.

Capital Structure

Description	Value (CAD)
Ticker Symbol	TSX: AVL
52 Week High/Low	$0.085/0.02
Common Shares Outstanding	637.6M
RSU & DSU	4.7M
Stock options	22.7M
Warrants	36.9M
Convertible Note Payable (Lind)	62.0M
Fully Diluted Shares	763.9M
Market Cap.	35.1M

As at July 14, 2025



Thank You

Contact Information

Avalon Advanced Materials Inc.
130 Adelaide St. W, Suite 2060
Toronto, ON M5H 3P5

Tel: (416) 364-4938
ir@avalonam.com

www.avalonadvancedmaterials.com