AVALON
ADVANCED MATERIALS

Advancing a Resilient North American Critical Minerals Supply Chain

Corporate Presentation

February 2026

Cautionary Statement

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This presentation contains "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking information includes, but is not limited to, information with that are not based on historical fact contained in this presentation, including through documents incorporated by reference herein, are forward-looking statements that involve risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in the forward-looking statements . Such forward-looking statements reflect the Company's current views with respect to future events and include, among other things, statements regarding targets, estimates and/or assumptions in respect of reserves and/or resources , and are based on estimates and/or assumptions related to future economic, market and other conditions that, while considered reasonable by the Corporation, are inherently subject to risks and uncertainties, including significant business, economic, competitive, political and social uncertainties and contingencies. These estimates and/or assumptions include, but are not limited to: grade of ore; rare metal and by-product commodity prices; metallurgical recoveries; operating costs; achievement of current timetables for development; strength of the global economy; availability of additional capital; and availability of supplies, equipment and labour. 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 project development 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, the ability to source feedstock for the Company's proposed lithium processing facility at reasonable prices or at all, the price of lithium hydroxide, no operating history, no operating revenue and negative cash flow, land title risk, the market price of the Company's securities, 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, , 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, 2024 (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 project 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 operational and price assumptions on which these are based and the continuance of the regulatory framework regarding environmental manners. 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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The Company's financial projections are inherently speculative and may prove to be inaccurate. Any financial projections provided in this presentation have been prepared in good faith based upon the estimates and assumptions considered reasonable by management. However, projections are no more than estimates of possible events and should not be relied upon to predict the results that the Company may attain. Future oriented financial information in this presentation includes statements with respect to (i) capital expenditures; (ii) post-tax net present values; (iii) after-tax rate of returns; (iv) proposed revenues over the course of the project life; (v) operating and production costs; and (vi) projected EBITDA. The projections are based upon a number of estimates and assumptions and have not been examined, reviewed or compiled by independent accountants or other third-party experts, including assumptions with respect to the Company's anticipated future revenues; foreign exchange rates and price fluctuations; corporate income tax rates; working capital requirements; capital expenditures including construction costs and timing, and annual operating costs; type of facility feedstock including minimum requirements; sale price of lithium hydroxide; and purchase price of spodumene and petalite. These assumptions may vary from the actual results. Accordingly, there is no assurance that future events will correspond to management's assumptions or that actual results during the periods covered will approximate the financial projections. Any variations of actual results from projections may be material and adverse. Future-oriented financial information and financial outlooks, as with forward-looking information generally, are, without limitation, based on the reasonable assumptions of the Company and management as at the date hereof. The Company's actual financial position and results of operations may differ materially from management's current expectations and, as a result, revenue, profitability, and EBITDA may differ materially from any revenue, and profitability profiles provided in this presentation. Such information is presented for illustrative purposes only and may not be an indication of our actual financial position or results of operations.

Industry Data

This presentation also contains or references certain market, industry and peer group data which is based upon information from independent industry publications, market research, analyst reports and surveys and other publicly available sources. Although the Company believe these sources to be generally reliable, such information is subject to interpretation and cannot be verified with complete certainty due to limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other inherent limitations and uncertainties. The Company has not independently verified any of the data from third party sources referred to in this presentation and accordingly, the accuracy and completeness of such data is not guaranteed.

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.

Company Overview

Avalon Advanced Materials Inc. is a Canadian critical minerals company advancing the supply of materials essential for Canada's future.

The Company is focused on developing strategic assets that support secure, domestic supply chains and long-term economic growth.

By advancing its core rare earth resource in the Northwest Territories and lithium asset in Ontario, the Company is poised to play a role in strengthening the resilience of North America's critical minerals foundation.

Nechalacho REE & Zirconium 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 and energy storage 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.

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

Asset Overview

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Nechalacho Project

Location:
- Thor Lake, Northwest Territories

Stage:
- 2013 FS Completed
- DFS 2013 Completed
- After-Tax NPV (8%) C$1.3B
- After-Tax IRR ~20%
- CAPEX C$1.6B
- 2026 PEA underway, advancing cleaner processing with improved project economics

Mineralization:
- Light REEs excluding Promethium (Nd, Pr)
- Heavy rare earth elements
- Rare Earth Element Yttrium
- Zirconium, Tantalum, Niobium

Lake Superior Lithium Inc.

Location:
- Thunder Bay, Ontario

Stage:
- PEA September 2024
- After-Tax NPV (8%) C$4.1B
- After-Tax IRR 48%
- CAPEX C$1.3B
- 2026 FS underway, advancing toward construction readiness and partnership engagement

Commodity:
- Production of Lithium Hydroxide

Key Points:
- 100% owned land for proposed lithium processing facility
- Existing strategic infrastructure
- MOU with Metso Corp. and Qualcomm Technologies Inc.

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

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

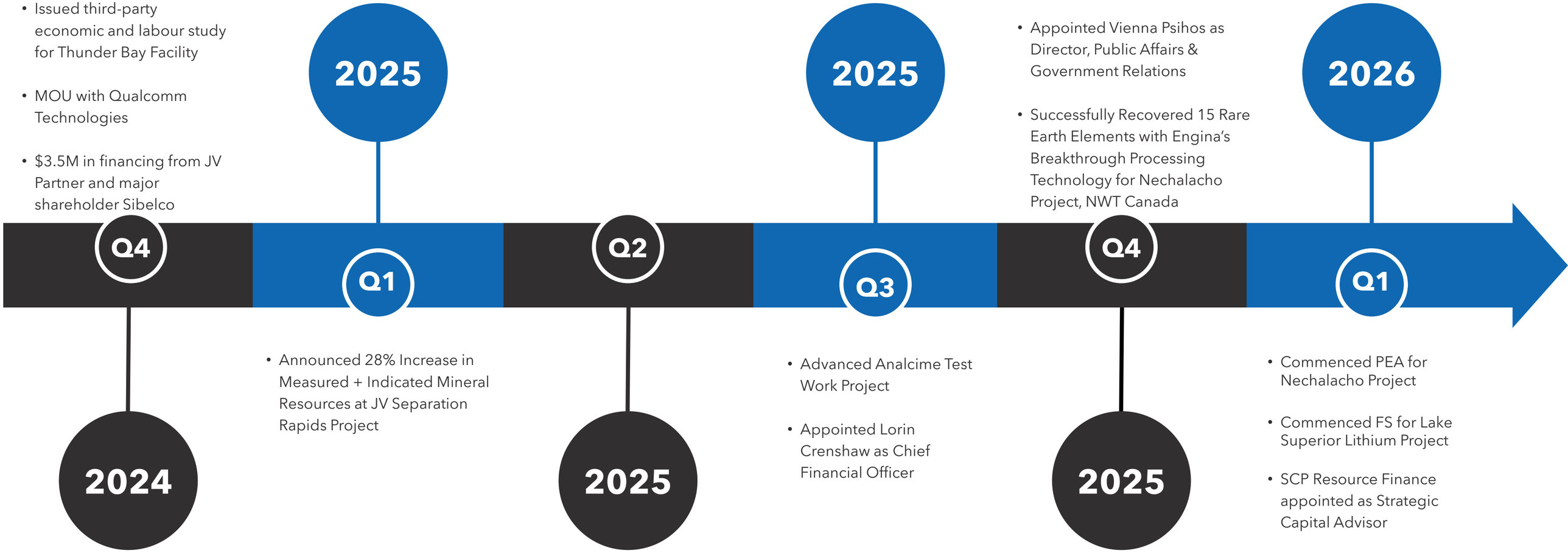
Location:
- Timmins, Ontario

Mineralization:
- Calcium Feldspar

Stage:
- Early Exploration

Key Points:
- Divestment Opportunities

Recent Milestones



*All values are in Canadian dollars unless otherwise indicated

Investment Thesis

Multiple Value Creation Levers

- Management reset
- Board refresh: ~60% new directors
- Strengthening capital structure
- Further resource validation
- Securing strategic funding
- Additional strategic partnerships
- Non-core asset monetization
- Broadening of shareholder base

Unique Diverse Portfolio

- Nechalacho REE DFS (2013) - After-Tax NPV @ 8%: $1.3B and 19.6% IRR
- 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

- Advancing rare earth and lithium assets central to national defense, technological advancement, energy and industrial policy (strengthening critical mineral supply chains).

Valuation Disconnect

- Market cap materially below intrinsic asset values (REE $1.2B NPV, Lithium $4.1B NPV)
- Management committed to closing this gap through disciplined execution against multiple value creation levers

Levers to Close Valuation Disconnect

Management Reset

Senior leaders
new since 2023

Governance Reset

4 of 7 directors joined since 2023, bringing operational and capital markets expertise.

Secure Tactical Funding

- Recent C$18.7M capital raise
- Refresh 2013 Nechalacho DFS
- Advance September 2024 Lithium PEA to FS
- Strengthen balance sheet and reduce selling pressure by prepaying convertible note

Advance Technical Studies

- Initiated Nechalacho PEA; to be followed by Feasibility Study.
- Commenced Feasibility Study at Lake Superior Lithium Project

Secure Strategic Funding

- Private: Pursue strategic equity at the asset level (Nechalacho and Thunder Bay)
- Public: Pursue Canadian & U.S. government support programs

Lithium: Commercial Enablement

- Secure feedstock source
- Secure offtake agreement

Diversify Shareholder Base Through Expanded Institutional Outreach

Non-Core Asset Sales

- Monetize tin, cesium, and other valuable but non-core assets, providing non-dilutive funding

Management Team

Scott Monteith, President & CEO

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

Lorin Crenshaw, CFO

Mr. Crenshaw brings nearly 30 years of financial leadership, including as CFO of Compass Minerals, Orion S.A., and Albemarle's global lithium business.

Vienna Psihos, Director, Public Affairs & Government Relations

Ms. Psihos is an experienced government relations professional with a strong track record in Ontario's policy and funding landscape, including her recent leadership role at the Treasury Board Secretariat.

Andrew J. Ramcharan, VP, Corporate Development

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

Bliss Baker, Director, Strategic Advisor

Mr. Baker brings over 30 years of public affairs experience, advising senior government leaders, including two Prime Ministers and Cabinet Ministers, with senior executive roles across renewables, and energy.

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.

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.

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

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.

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.

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.

Funding Secured: Catalyzing Next Phase of Value Creation

- **Recent (October 2025) Successful C$18.65M Equity Offering Expected to Fund:**
  - Advancement of Nechalacho rare earth asset through a comprehensive refresh of 2013 DFS
  - Advancement of Lake Superior lithium refinery project through advancing PEA (2024) to a Feasibility Study
  - Strengthening balance sheet, reducing selling pressure on AVL shares, and eliminating dilution overhang via paying off Lind convertible note payable
  - Bolstering working capital – positioning Avalon with greater financial flexibility to execute its strategic agenda and pursue strategic partnerships

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

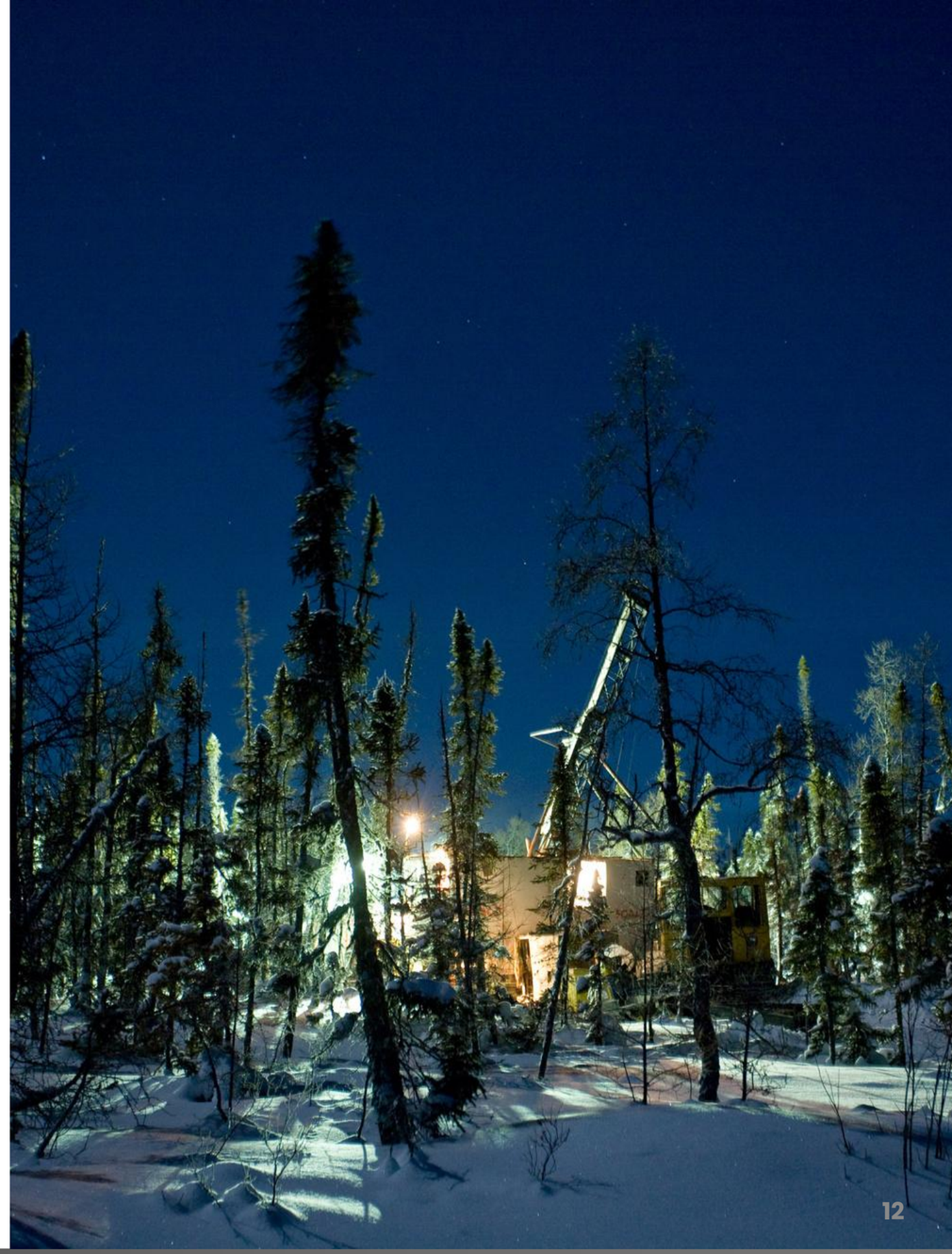
- Update DFS based on new economic considerations.
- Secure funding and strategic partner(s) to advance project

Funding

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

Phase

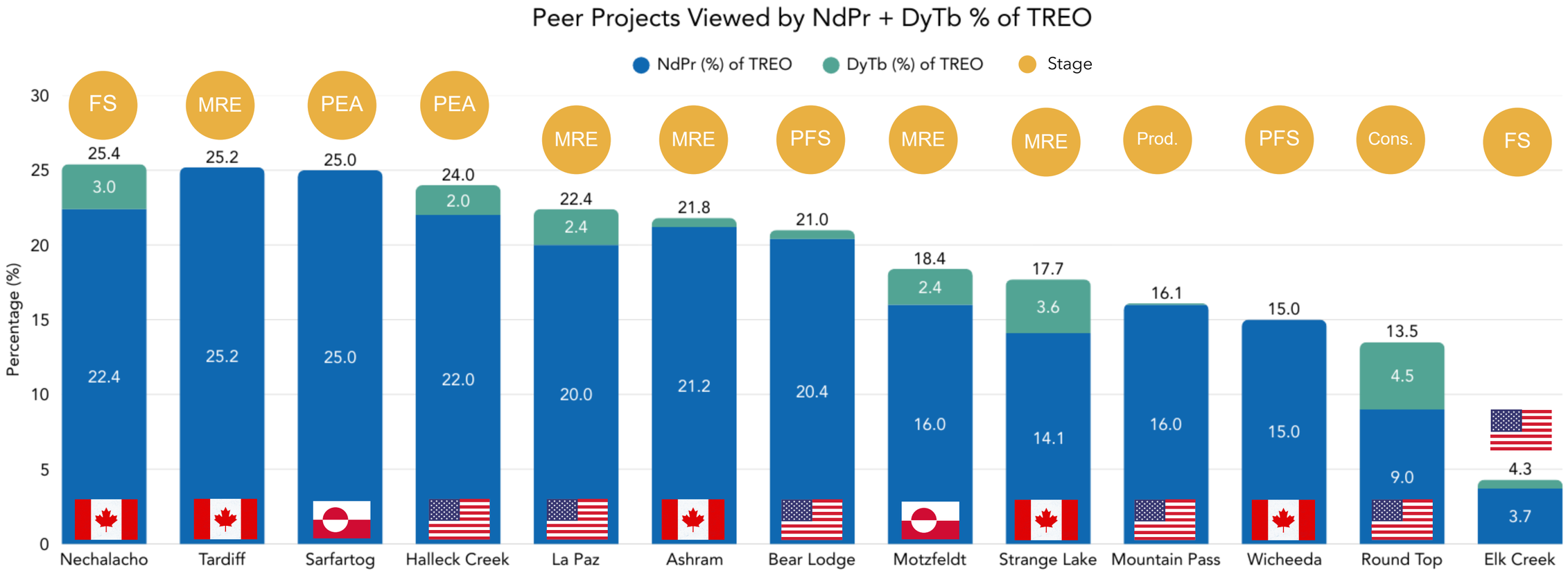
- Targeting refresh of 2013 DFS to update and revalidate key economic and process assumptions
- Actively seeking funding sources and strategic partner(s)



NECHALACHO PROJECT

Highest Grade & Among Most Advanced Development Paths in Peer Group

One of few projects to have achieved DFS-level – with unmatched quality (NdPr /DyTb intensity)



Source: Company public filings, equity research

As of December 2025

Lessons from China's Rare-Earth Playbook: 2005-2015

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

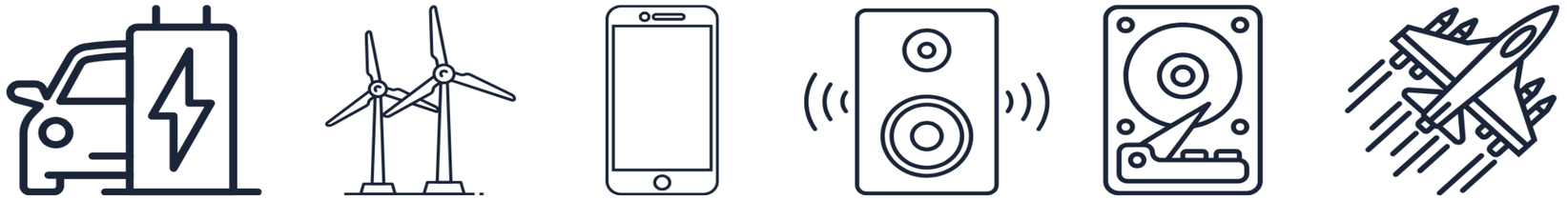
Source: The Oregon Group.
https://theoregongroup.com/investment-insights/the-wests-pursuit-of-rare-earths-hits-resistance-from-china/

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	Wind Turbine	Smart Phones	Speakers	Computer Drives	Defense
59 Pr Praseodymium	59 Pr Praseodymium	59 Pr Praseodymium	59 Pr Praseodymium	59 Pr Praseodymium	59 Pr Praseodymium
60 Nd Neodymium	60 Nd Neodymium	60 Nd Neodymium	60 Nd Neodymium	60 Nd Neodymium	60 Nd Neodymium
65 Tb Terbium	65 Tb Terbium	65 Tb Terbium		66 Dy Dysprosium	65 Tb Terbium
66 Dy Dysprosium	66 Dy Dysprosium				66 Dy Dysprosium

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

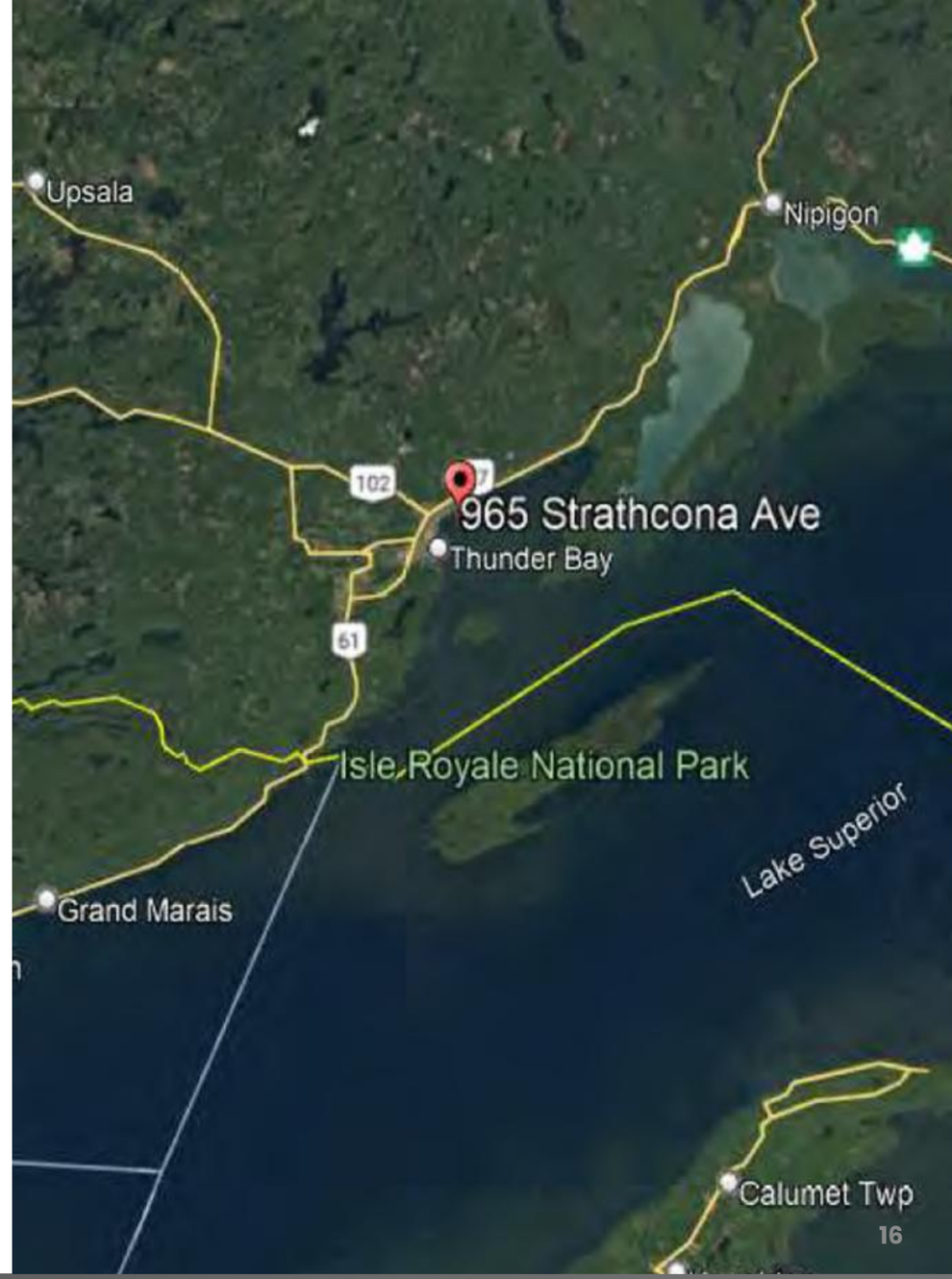
Aims to support the rapidly expanding electric vehicle market by establishing a state-of-the-art lithium hydroxide facility in Thunder Bay, Ontario.

Funding

Exploring funding options, including non-core asset divestments, government loans, grants, and strategic partnerships related to offtake and supply agreements.

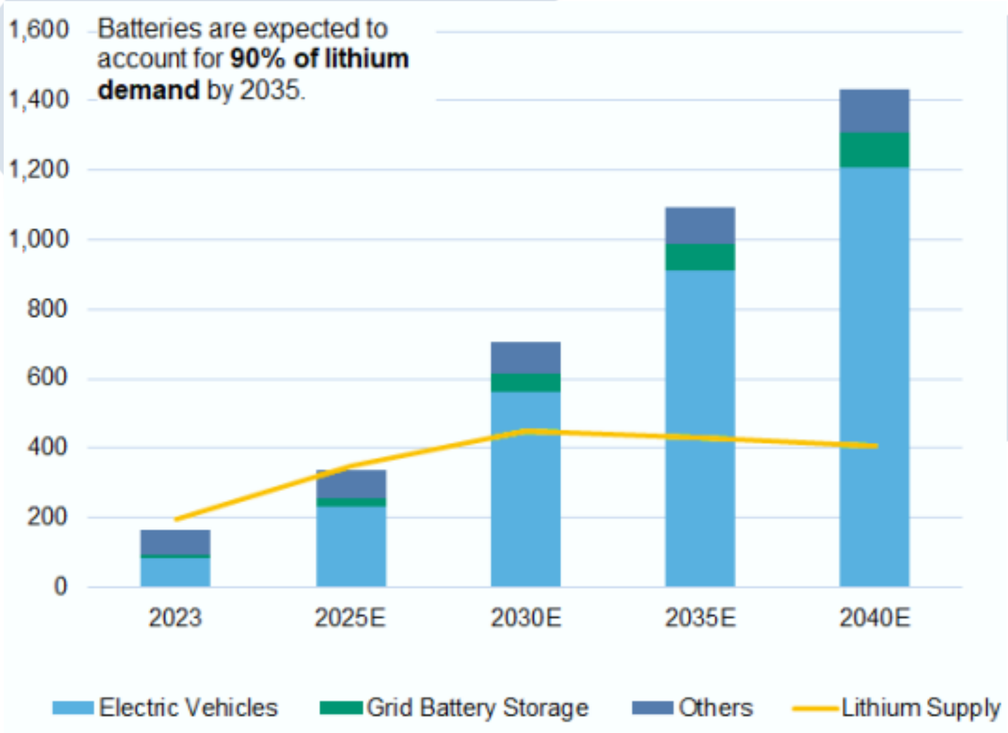
Phase

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



Lithium Demand

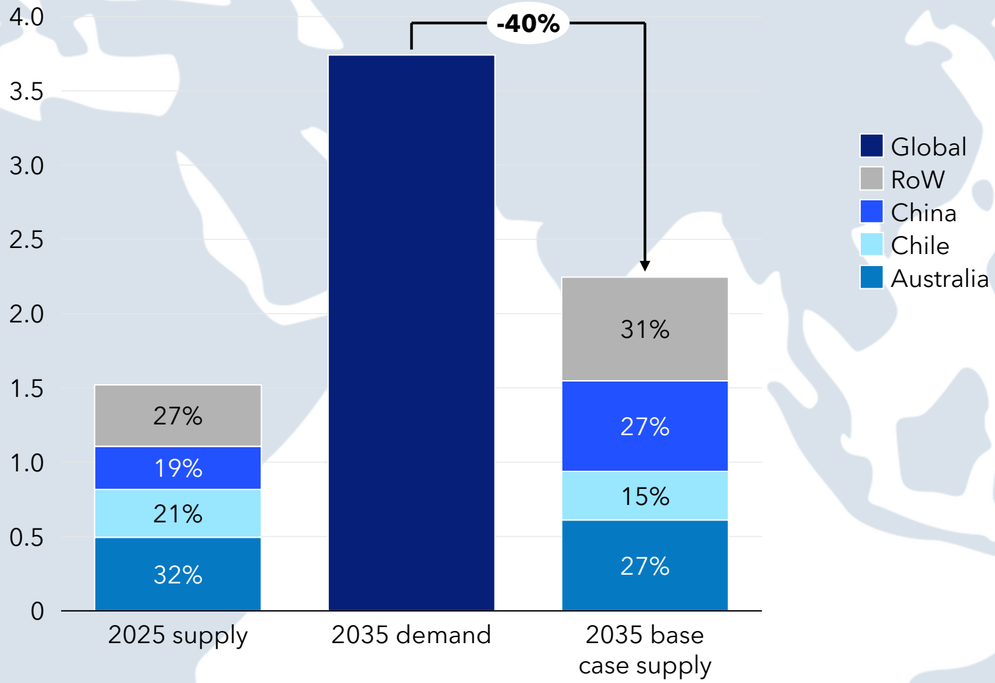
Forecast Lithium Demand (MT, million)



Source: Global Critical Minerals Outlook 2024, IEA, May 2024 - weight by lithium (Li) content.

Global lithium supply and demand

Global lithium demand 2035, mining supply 2025 and 2035, by country, Mt Lithium carbonate equivalent (LCE)

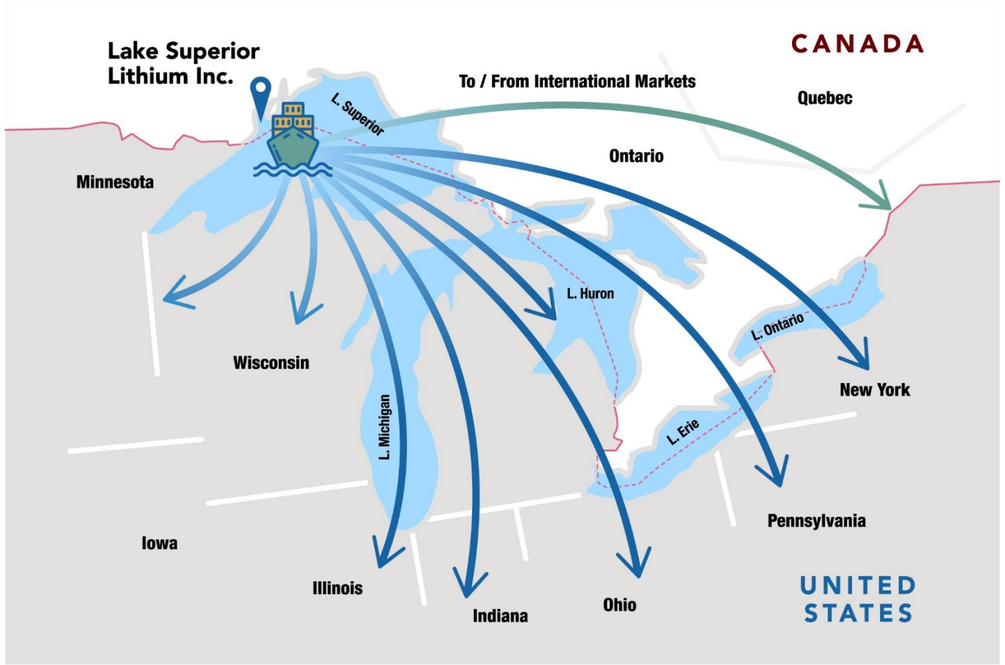


Source: MineSpans; Note: Versions of this chart are periodically available at www.mckinsey.com

LAKE SUPERIOR LITHIUM PROJECT

Strategic Investment Overview

- **Strategic Location:** Proximity to key markets and resources, supporting efficient supply chains
- **Infrastructure Advantage:** Robust infrastructure, including existing buildings, extensive rail connectivity, and a deep-water port
- **Supporting Government Incentives:** Leverage Canadian, and U.S. government incentives for green energy and technology projects
- **Meeting High Demand:** The facility will help meet the escalating demand for lithium in EVs and renewable energy storage
- **Scalable Growth Potential:** Capable of processing Spodumene and Petalite concentrate, Facility designed with scalability in mind, capable of expanding to meet future market demands
- **Sustainability Commitment:** Implement environmentally friendly processes to minimize ecological impact and support sustainability goals
- **Integrated Lithium Platform:** Host processing, recycling, chemical, and cell manufacturing capabilities at the Thunder Bay site
- **Community Partnerships:** We prioritize partnerships with First Nations communities, ensuring that benefits are extended to all regional communities



From By-product To Breakthrough: Reimagining Analcime

What is Analcime?

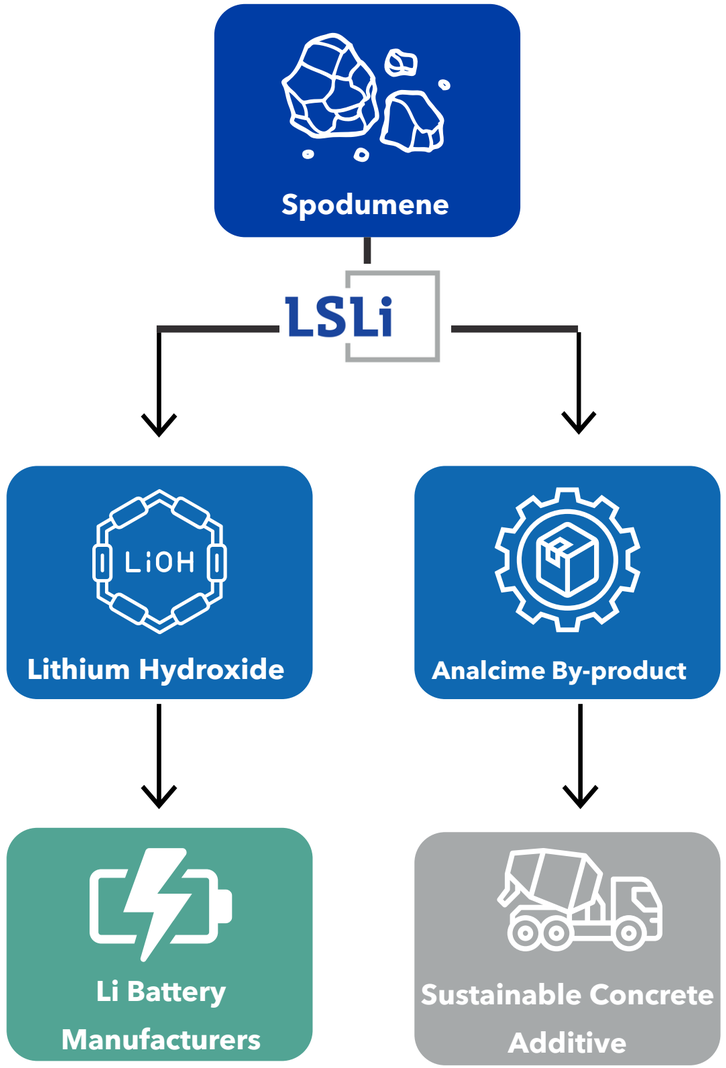
Analcime is a zeolite mineral composed of hydrated sodium aluminum silicate and is a by-product in lithium hydroxide conversion process.

Potential Benefits:

Enhanced Durability – Analcime improves the compressive strength of concrete and reduces shrinkage, resulting in longer-lasting, more resilient infrastructure, such as roads and pavements.

Environmental Advantages – By replacing traditional cement additives, analcime helps reduce CO_2 emissions associated with cement production. It also diverts by-products from landfills, supporting a more sustainable and circular approach to resource management.

Economic Efficiency – Using analcime can lower disposal costs and create new revenue streams in the construction sector. Its performance benefits can also reduce long-term maintenance costs over the infrastructure's lifecycle.



Inflection Point: Funded, Focused, and Poised to Deliver

- **Strong, Secular Growth Tailwinds: Rare Earths and Lithium**
  - Advancing assets in two of the fastest-growing critical minerals—lithium and rare earths—projected to see sustained demand growth over the next decade.

- **Transformational Financing (October 2025) Closed**
  - Poised to advance rare-earth and lithium assets, strengthen balance sheet, and position Avalon at the heart of the global shift toward establishing more secure critical minerals supply chains

- **Multiple Potential Catalysts to Reduce Gap Between Current Market Cap and Intrinsic Value**

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THANK YOU

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APPENDIX

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

Element Portfolio (18 Elements)

Heavy Rare Earth Elements:

64	65	66	67	68	69	70	71	39
Gd	**Tb**	**Dy**	**Ho**	**Er**	**Tm**	**Yb**	**Lu**	**Y**
Gadolinium	Terbium	Dysprosium	Holmium	Erbium	Thulium	Ytterbium	Lutetium	Yttrium

Light Rare Earth Elements:

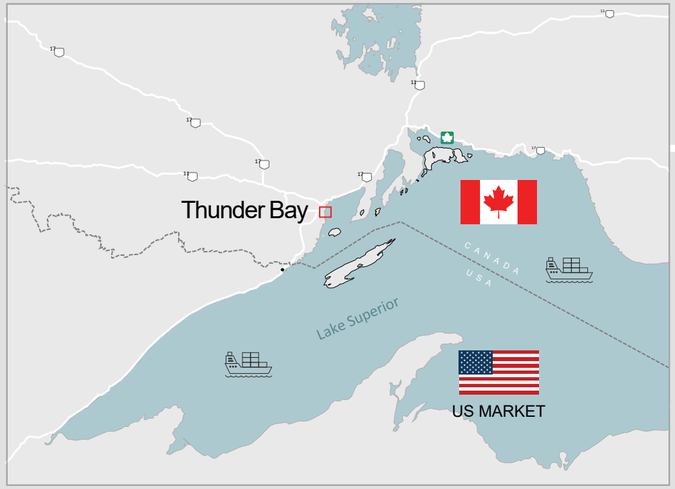
57	58	59	60	62	63
La	**Ce**	**Pr**	**Nd**	**Sm**	**Eu**
Lanthanum	Cerium	Praseodymium	Neodymium	Samarium	Europium

Transition Metals:

40	41	73
Zr	**Nb**	**Ta**
Zirconium	Niobium	Tantalum

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
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
Property Boundary
PHASE 1
Technology &
Innovation Centre
FROM
INTERNATIONAL
MARKETS
TO EUROPEAN
MARKET
TO SOUTHERN
ONTARIO
MARKET
TO US MARKET
Lake Superior

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

Avalon & Metso Corp. Partnership

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

Overview:

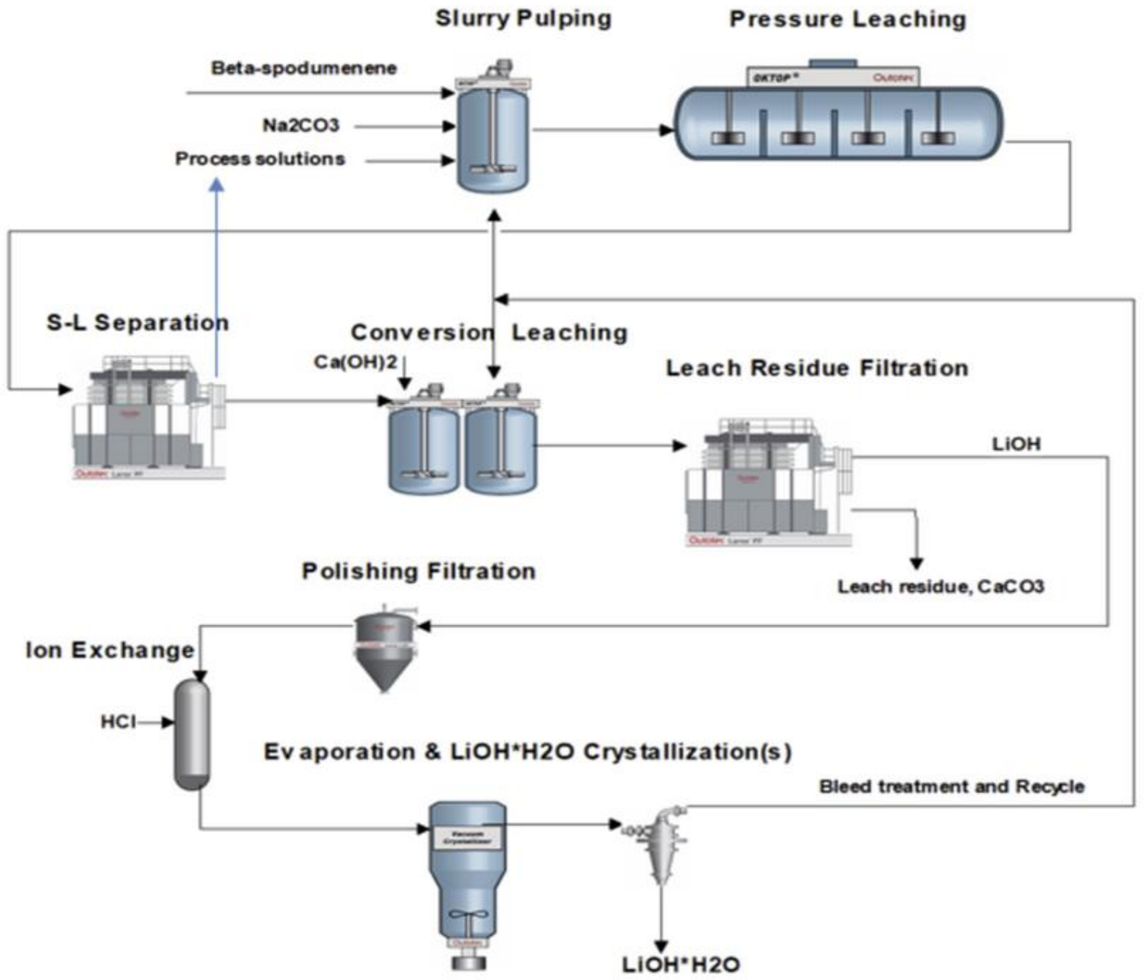
- Metso is a comprehensive solution provider for major lithium operations and backed by the latest technologies and decades of experience of spodumene extraction

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



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

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

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) showed 28% increase in Measured and Indicated Mineral Resources.

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 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

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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.

Capital Structure

Description	Value (CAD)
Ticker Symbol	TSX: AVL
52 Week High/Low	$0.135/0.02
Common Shares Outstanding	834.9M
RSU & DSU	5.2M
Stock options (additional shares if converted)	25.1M
Warrants (additional shares if converted)	221.3M
Fully Diluted Shares	1,086.4M
Market Capitalization	62.6M

As of January 14, 2026