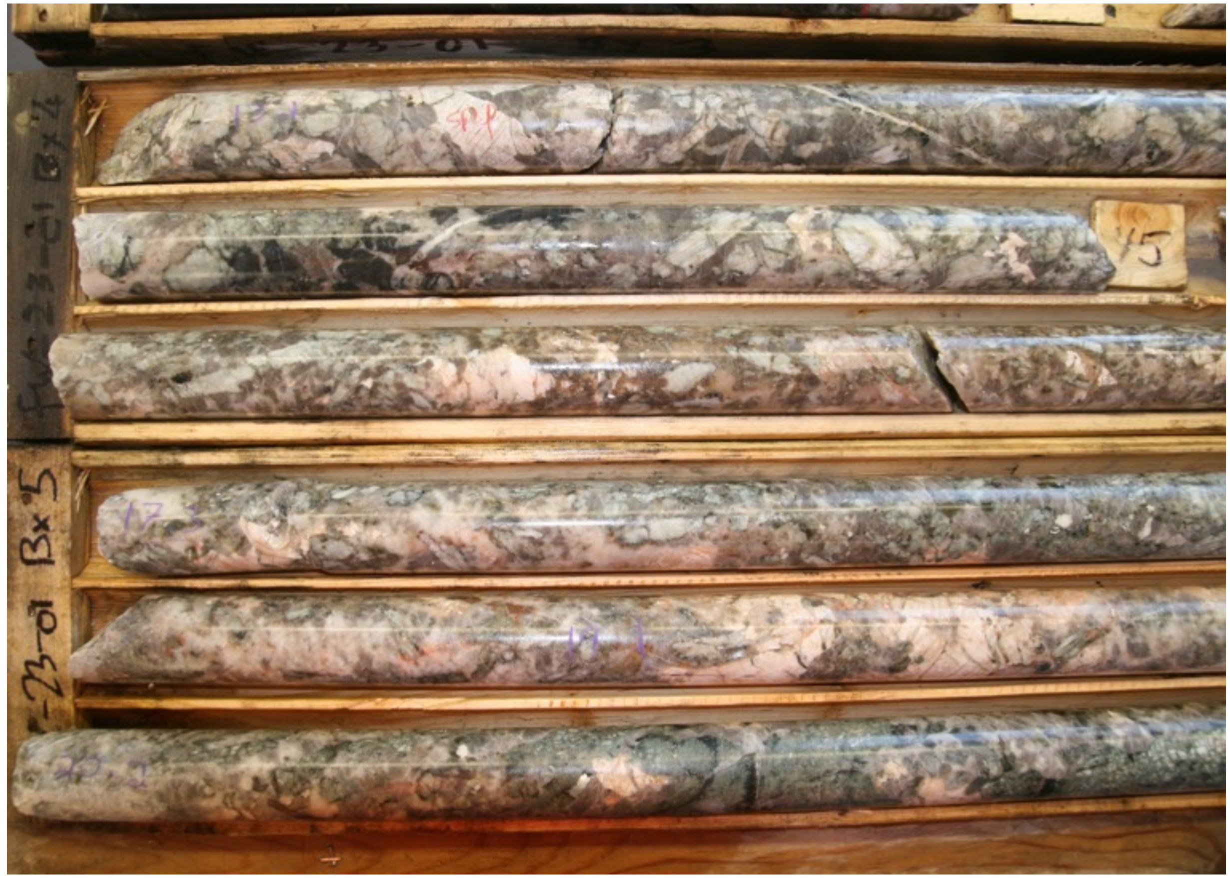
DISCOVERING NORTH AMERICAN CRITICAL MINERALS

Hard Rock Lithium, Cesium, Tantalum & Gallium in NW Ontario

CSE: VLTA **FRA: D0W**



***"The investor of today does not profit from yesterday's growth"* Warren Buffett**

voltametals.ca

January 2025

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Certain statements contained in this presentation constitute forward-looking statements within the meaning of Canadian securities legislation. All statements included herein, other than statements of historical fact, are forward-looking statements which may include, without limitation, statements about the Company's plans for its investments and properties; the Company's business strategy, plans and outlook; the merit of the Company's investments and properties; timelines; the future financial performance of the Company; expenditures; approvals and other matters. Often, but not always, these forward looking statements can be identified by the use of words such as "estimate", "estimates", "estimated", "potential", "open", "future", "assumed", "projected", "used", "detailed", "has been", "gain", "upgraded", "offset", "limited", "contained", "reflecting", "containing", "remaining", "to be", "periodically", or statements that events, "could" or "should" occur or be achieved and similar expressions, including negative variations.

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Forward-looking statements contained herein are based on the assumptions, beliefs, expectations and opinions of management, including but not limited to expectations that the Company's activities will be in accordance with its public statements and stated goals; that all required approvals will be obtained; that there will be no material adverse change affecting the Company, its investments or properties; and such other assumptions as set out herein. Forward-looking statements are made as of the date hereof and the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by law. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, investors should not place undue reliance on forward-looking statements.

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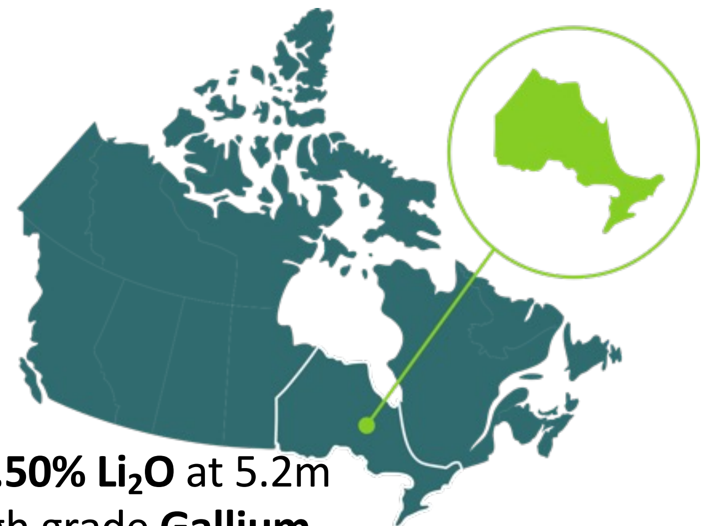
Under the terms of NI 43-101, Andrew Tims, P.Geo., is Volta's Qualified Person. Mr. Tims has 30 years experience working in all aspects of mine discoveries and, mine development, and he has reviewed and approved the technical information contained in this presentation.

VOLTA METALS - HIGHLIGHTS

High grade Lithium, Cesium and Tantalum (LCT) discovery, with Gallium in Northwestern Ontario, Canada.



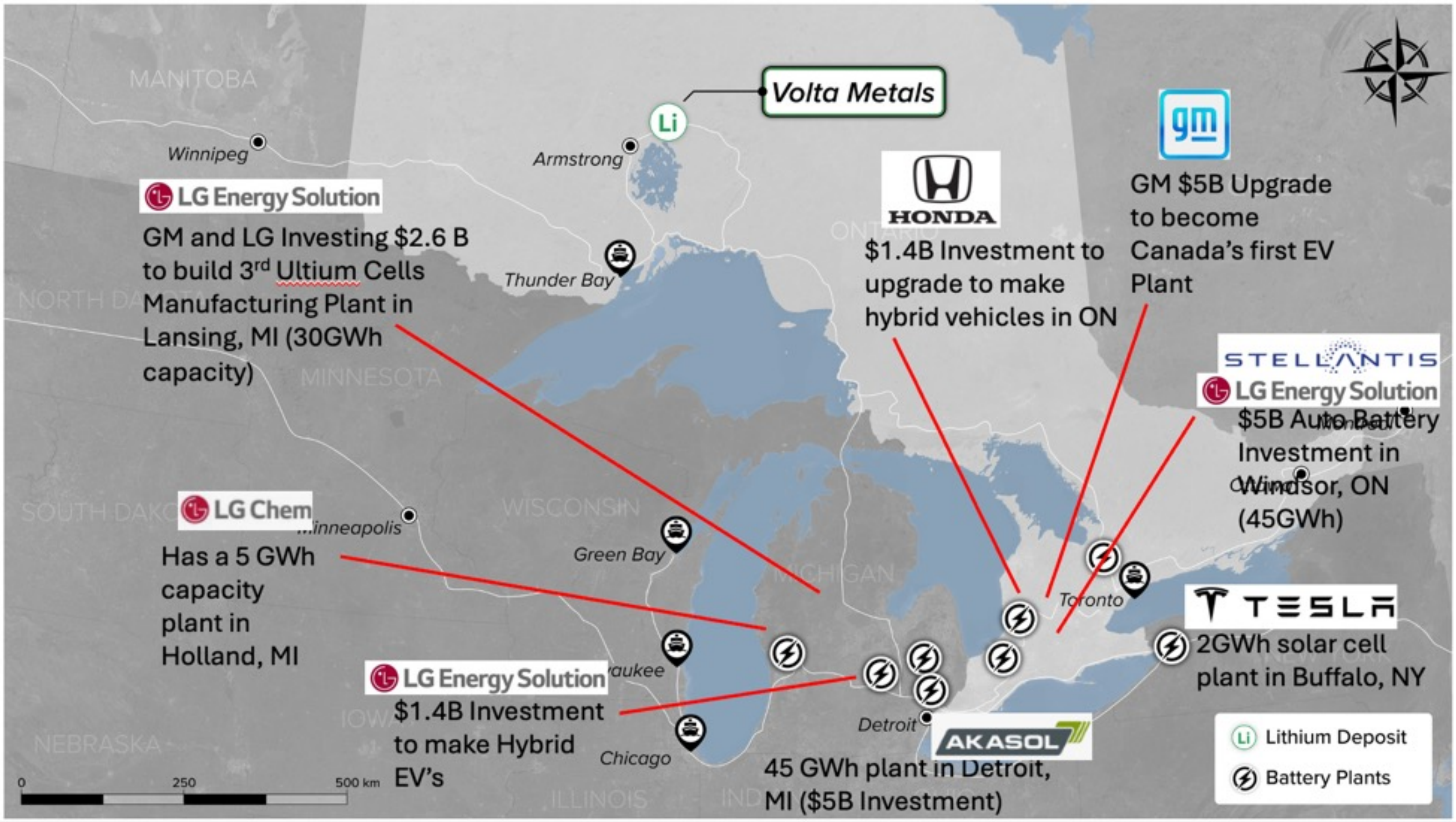
Experienced leadership team with track record of success.

Large, 130 km^2 permitted property position, strategically positioned in the emerging Seymour-Falcon Lithium district.

Discovery drilling confirms presence spodumene pegmatites – **1.50% Li_2O** at 5.2m and **1.24% Li_2O at 15.6m**. Recent channel sampling identified high grade **Gallium (78.1ppm), Tantalum (457ppm) and Cesium (1,970ppm)** presence. Multiple targets defined over 10km strike.

Road accessible, proximity to expanding North American electric vehicle supply chain.

Compelling Location with direct access to Battery and EV Manufacturers



- Excellent Infrastructure:
- Air Strip and Via Rail station in Armstrong. (60km from Li pegmatites)
- Road access fromThunder Bay, ON.
- Thunder Bay - gateway to Battery manufacturing and EV factories.

Strategic Position in Emerging Lithium District in NW ONTARIO

Located in the emerging Seymour-Falcon pegmatite field host to Green Technology Metals (ASX:GT1) Seymour deposit (**10.3Mt @1.03% Li_2O JORC Resource)**.

Armstrong, ON:
- Via Rail Station
- Functional Airstrip

Thunder Bay (Major Hub):
- Airport, Rail station, Port

- New discovery of Spodumene Pegmatite swarm Fall 2023.
- Inagural drilling returned up **to 1.24% Li_2O over 15.6m.**
- Recent channel sampling returned up to **1.59% Li_2O** over **8.6m with 78.1 ppm Gallium, 1,970ppm Cesium, and 457ppm Tantalum.**
- Permits and First Nations Agreements in place.
- Road accessible from Thunder Bay.

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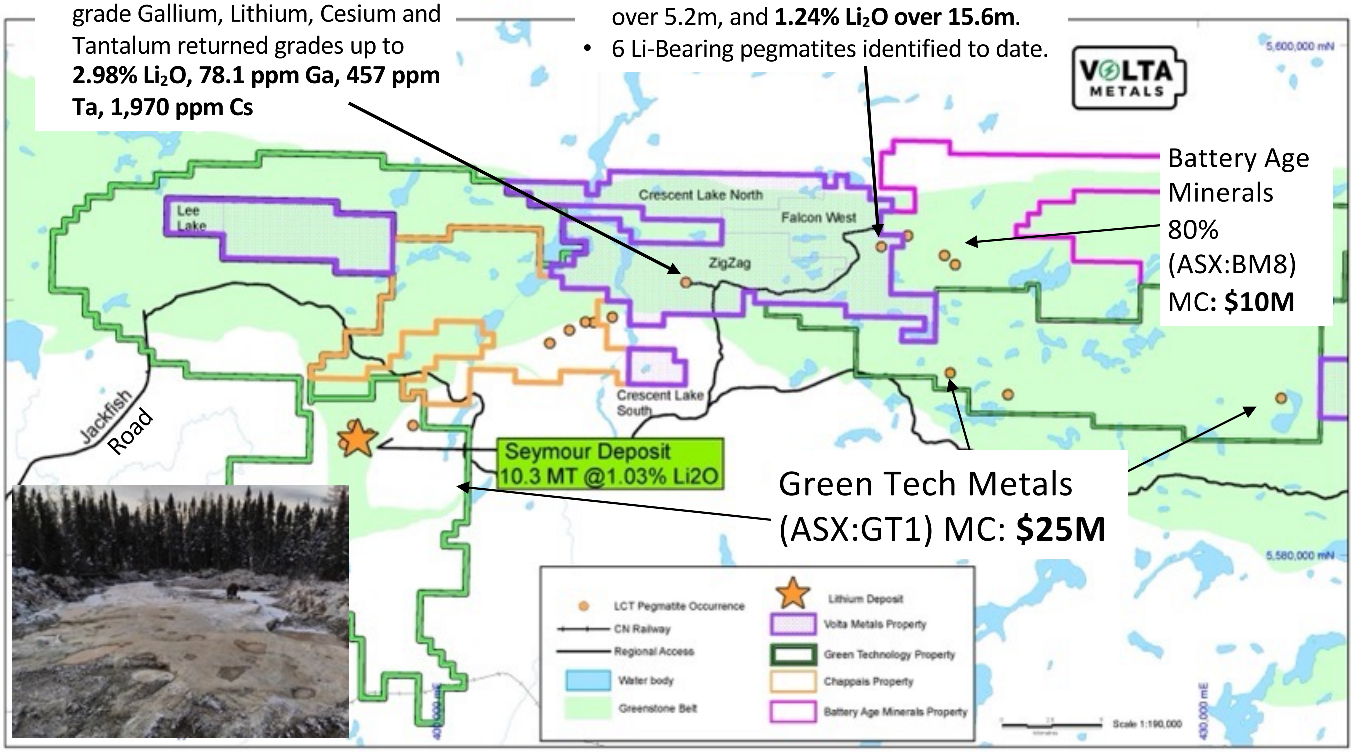
LOCATION – Confirmed 8km mineralization, with 30km potential

Dempster East Pegmatite
- Channel samples returned high grade Gallium, Lithium, Cesium and Tantalum returned grades up to **2.98% Li_2O, 78.1 ppm Ga, 457 ppm Ta, 1,970 ppm Cs**

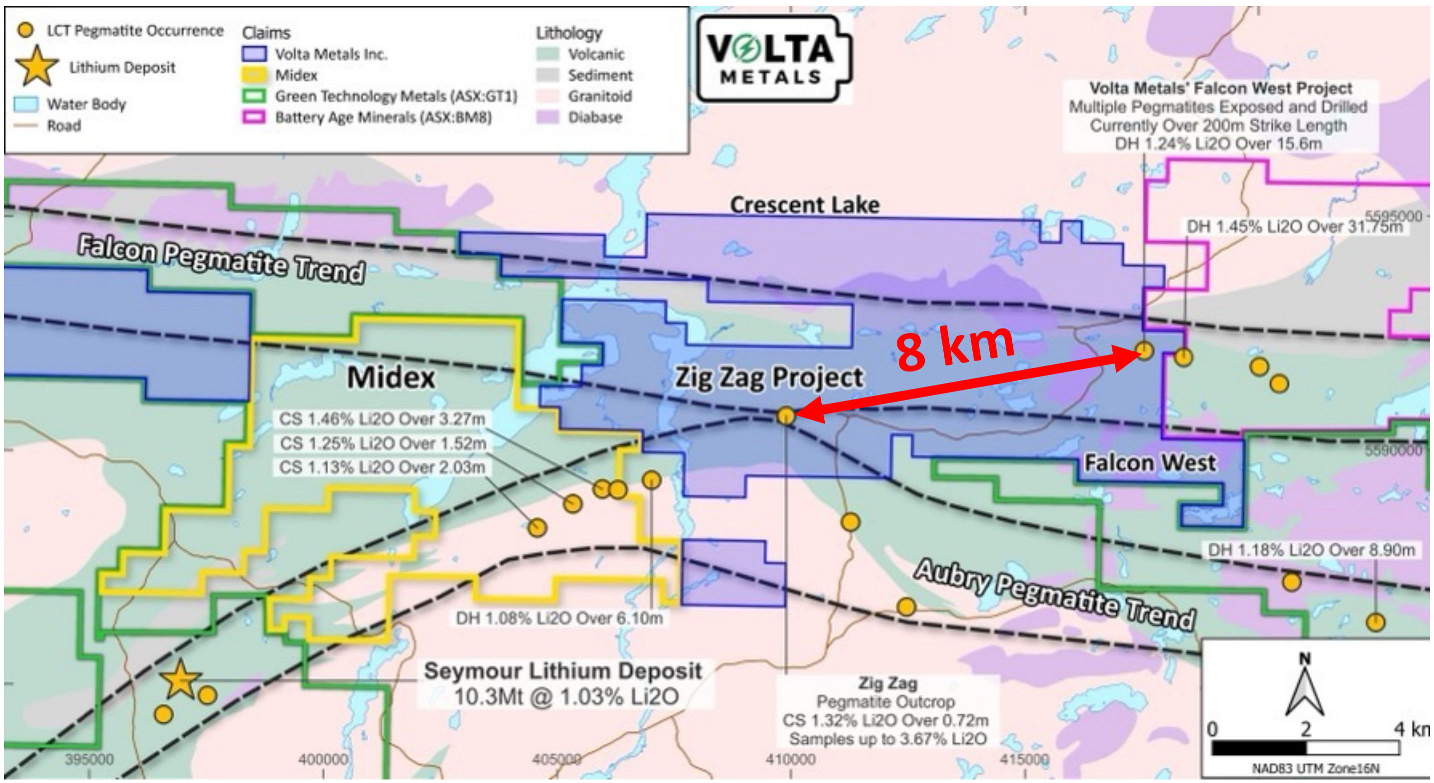
Falcon Far West Pegmatite Cluster
- Drilling returned grades up to **1.50% Li_2O** over 5.2m, and **1.24% Li_2O over 15.6m**.
- 6 Li-Bearing pegmatites identified to date.



- 130 km^2 land package within the emerging Seymour - Falcon Pegmatite fields.
- Newly discovered Li pegmatites define a 300m x 500m mineralized fairway – remains open for expansion.
- Pegmatites are the albite-spodumene-subtype (typically associated with large deposits e.g. Foote Mine, Kings Mountain, NC) and evolving to the west with the highest reported tantalum values in Ontario returning values up to 306 ppm Ta_2O_5.
- Multiple targets to follow up.

Readers are cautioned that VOLTA has no interest in or right to acquire any interest in the Green Tech Metals Seymour Project, and that mineral deposits, and the results of any mining thereof (including any revenues derived from such mining), on adjacent or similar properties are not indicative of mineral deposits on VOLTA's properties or any potential exploitation thereof.

DISTRICT SCALE UNDEREXPLORED SPODUMENE PEGMATITE TREND – Substantial Strike Length owned by Volta (12 x 12 km)



- ZigZag hosts Dempster Lithium showing.
- **Falcon Pegmatite Trend**: Influence of Pashkokan Fault opened up extensional voids to allow ingress of LCT pegmatites.
- **Aubry Pegmatite Trend**: Located along the southern greenstone contact zone.

Dr. Breaks (2003): *“Individual analyses of manganotantalite from Tebishogeshik lens 3 and **Dempster lens 40 exceed 80 weight% Ta_2O**, and are amongst the highest documented in lithium-rich pegmatites of Ontario. Thus, the pegmatites of this group have a high potential for economic tantalum deposits.”*

Dempster East Pegmatite – Aki Project

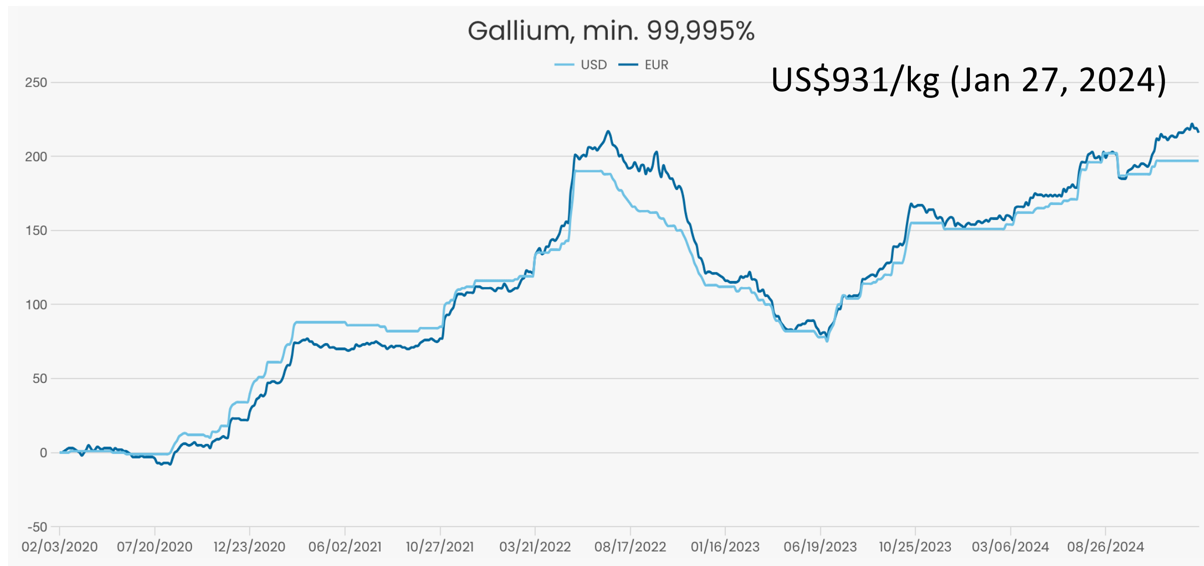
Recent Channel sampling results (NR Jan 14, 2025)

Channel Sample #	Li_2O (%)	Gallium (ppm)	Tantalum (ppm)	Cesium (ppm)
C476307	**2.33**	**66.1**	**186**	**573**
C476308	**2.08**	**54.1**	**345**	**468**
C476311	**1.21**	**54.7**	107	**404**
C476315	0.63	**78.1**	**457**	**802**
C476316	0.97	**64.0**	**395**	**844**
C476317	**1.19**	**57.6**	**421**	**1,240**
C476318	**2.98**	**73.8**	**196**	**1,130**
C476319	**1.99**	**59.5**	**159**	**746**
C476322	0.25	**32.5**	**153**	**1,970**

- Cordero Gallium deposit in Nevada has cut off grade at 30ppm.
- Greenbushes Mine, Western Australia average Tantalum grade is 127 ppm.

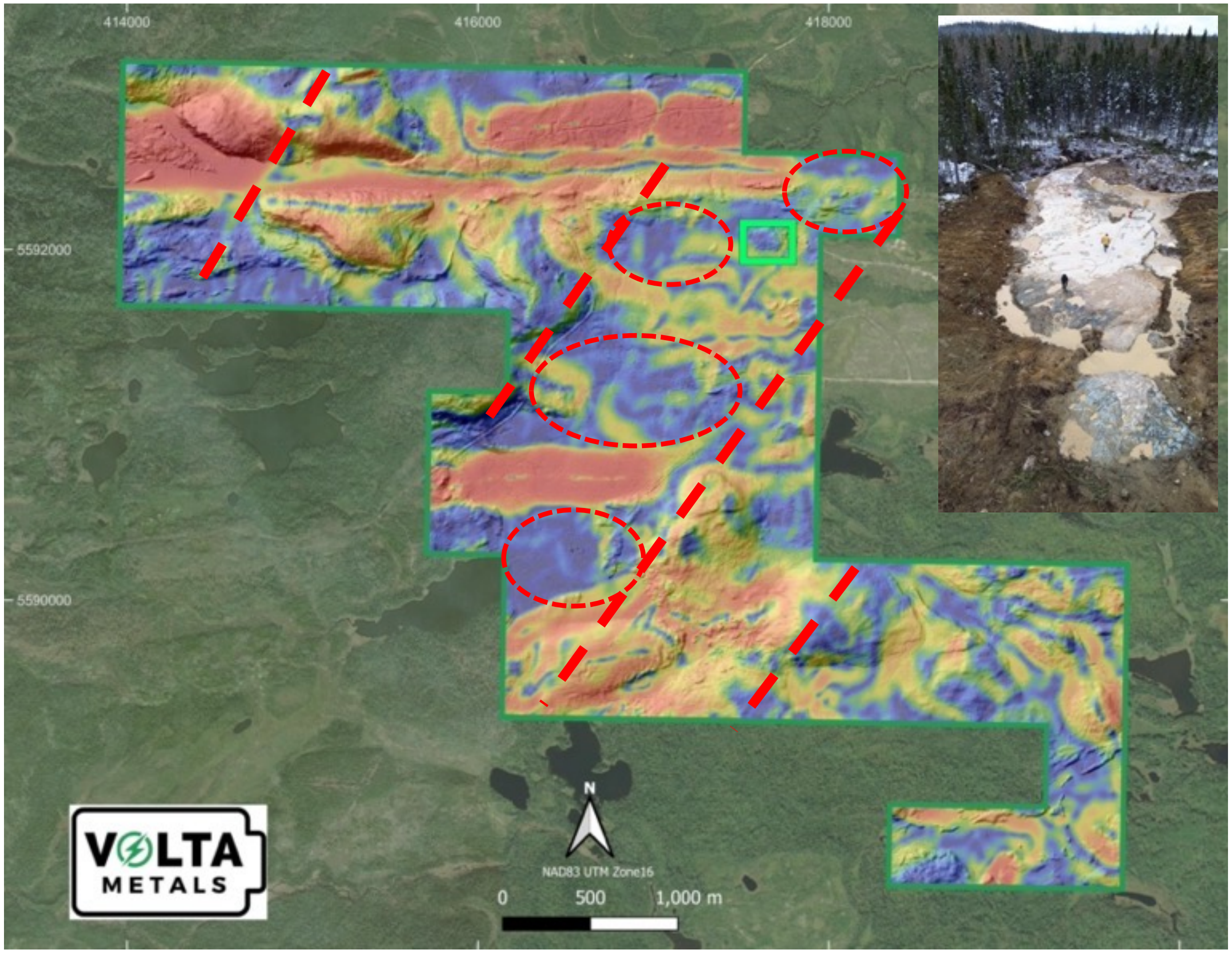
Gallium Facts

- The Cordero Deposit, Nevada is the only gallium project with 15Mt at 47.7 ppm gallium, with a cut-off grade at 30ppm.
- Round Top, Texas REE project hosts Gallium with grades at 44ppm.
- The price of gallium has experienced several sharp increases in recent years due to supply disruptions.
- China currently accounts for 98% of worldwide gallium production.
- On Dec 3, 2024, China announced an immediate ban on the export of multiple critical metals, including Gallium, exacerbating supply chain challenges.



https://strategicmetalsinvest.com/gallium-prices/

FALCON WEST PEGMATITE HIGH POTENTIAL TARGETS – MAG SURVEY



- Spodumene pegmatite swarm discovered in a very small area of the total project area (300x500m - marked green).
- Drone magnetics suggest pegmatites related to a broad magnetic low.
- Multiple targets identified in relation to magnetic response, combined with soil geochemical anomalies.

FALCON WEST PEGMATITE SWARM – SOIL SAMPLING

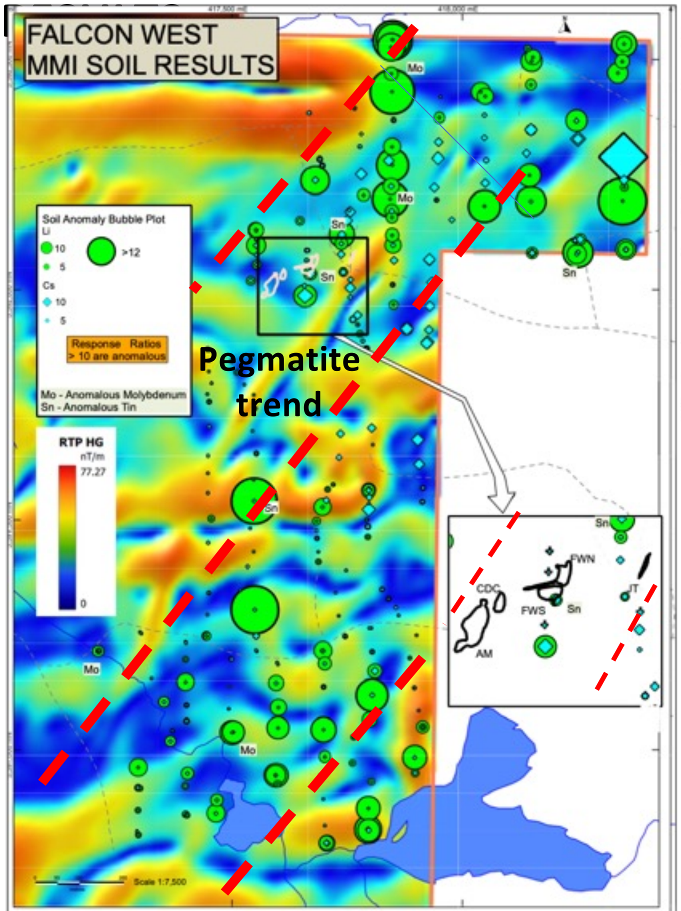


Table 1. Outcrop dimensions after mechanized stripping

Pegmatite Outcrop	Length (m)	Width (m)	Channel sample mean* Li_2O%
AM	40m	10m (Up to 20m)	1.28%
CDC	14m	8m (Up to 10m)	1.20%
Falcon West North	15m	5m (Tabular)	1.47%
Falcon West South	18m	10m (Up to 16m)	1.59%
JT	24m	5m (Tabular)	1.21%

*: See news releases dated October 3, 2023 and October 23, 2023

- Coincident pathfinder soil geochemical anomalies define multiple targets for follow-up.

Homogeneous large and medium spodumene crystals – potential for two different sources.

FALCON WEST PEGMATITE SWARM – INAUGURAL DRILL RESULTS

Hole ID	From (m)	To (m)	Length (m)	Li_2O %	Cs (ppm)	Ta (ppm)	Pegmatite
FW23-01	12.4	19	**6.6**	**1.03**	**297.2**	77.2	AM
FW23-02	24.9	29.8	4.9	0.04	**169.8**	**91.6**	AM
FW23-03	8.0	11.9	**3.9**	**1.41**	52.2	43.2	CDC
FW23-04	11.6	21.7	**10.1**	**1.11**	64.0	46.1	CDC
FW23-05	13.7	29.3	**15.6**	**1.24**	**155.5**	55.4	Far West South
FW23-06	30.65	32.45	1.8	0.74	85.6	32.8	Far West South
FW23-07	15.65	20.8	**5.15**	**1.50**	79.8	39.1	Far West North
FW23-08	28.4	37.2	**8.8**	**1.2**	72.3	33.1	Far West North
FW23-09	7.5	11.65	**4.15**	**1.20**	98.6	43.3	JT
FW23-10	14.6	21.4	**6.8**	**1.18**	64.1	30.3	JT
FW23-11	12.3	13	0.7	0.77	29.7	62.0	AM

- Inaugural drilling confirmed extension of high-grade channel sample results at depth.
- Borehole FW23-07 intersected blind pegmatite confirming potential to discover additional mineralization.

MANAGEMENT & BOARD

Kerem Usenmez, M.Sc., P.Eng., Director, President and CEO

Kerem is a Geological Engineer with over 25 years of global experience with Inco (MB), and Amec Engineering. Most recently President and CEO of Metallum Resources, founded Atom Bits diamond drilling bit manufacturer. He is a member of the Board of Directors of the PDAC, where he Chairs the Securities and Public Affairs Committees, and also a director of Silver Bullet Mines (TSXV: SBMI). Kerem is a licensed Geological Engineer in Manitoba and Ontario.

Brad Boland, CPA, CMA, Chief Financial Officer

Mr. Boland is an experienced mining finance executive with over 25 years of experience, holding positions such as VP Finance for Goldcorp, VP Controller for Kinross, CFO for Consolidated Thompson Iron Mines. He has contributed to securing more than $1 billion of combined equity, debt, and project financing for mining ventures.

Dr. Fred Breaks, Ph.D., Technical Advisor

Dr. Breaks, a lithium expert, discovered the two largest Lithium-rich rare element deposits (Li-Ta-Rb-Cs) in Ontario: Separation Rapids Pegmatite of Avalon Advanced Materials, and Pakeagama Lake Pegmatite of Frontier Lithium. He spent 29 years at the Ontario Geological Survey where he ran Operation Treasure Hunt and headed a regional mapping project predominantly targeting LCT pegmatites. He has 118 publications at the Ontario Geological Survey and numerous external publications.

Dr. Mark Cruise, PGeo, ICD.D, Chair and Director

Mark is a professional geologist with over 29 years of international experience from exploration to production. He has co-founded and/or led several billion dollar TSX-V, TSX and NYSE American listed exploration and mining companies. Mark is an independent director for Velocity Minerals, NiCAN Ltd, Interra Copper and Bunker Hill Mining.

Saga Williams, B.A., LLB, Director

Ms. Williams is Anishinaabe, a member of Curve Lake First Nation. Ms. Williams has been on negotiation teams that have successfully settled over $1 billion in agreements and has worked on Indigenous community engagement and negotiations to support national energy and mining projects. Ms. Williams teaches at Osgoode Hall Law School as an Adjunct Professor.

Mike Hoffman, P.Eng., ICD.D, Director

Mike is a mining executive with over 35 years of experience including engineering, mine operations, corporate development, projects and construction. He is the former CEO of Crowflight Minerals, Kria Resources and Crocodile Gold. Mr. Hoffman is currently Chair and Director at 1911 Gold and NiCAN Ltd. as well as a director of Silver X Mining and Fury Gold.

Fady Mansour, CA Director

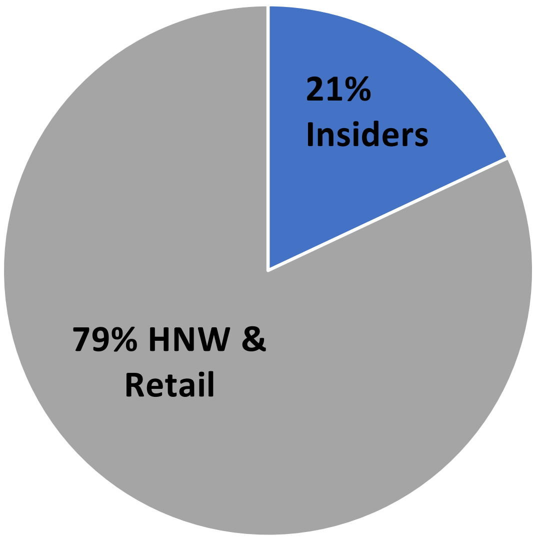
Mr. Mansour, J.D., is a Managing Partner of Ethical Capital Partners, a private equity firm managed by a multi-disciplinary advisory team seeking investment and advisory opportunities in industries requiring principled ethical leaderships and is a Partner of the Ottawa based criminal law firm Friedman Mansour, LLP. He has also been an Adjunct Professor in the Faculty of Common Law at the University of Ottawa since 2019. Mr. Mansour is a member of the Law Societies of Ontario, Alberta, and the Northwest Territories.

Brad Humphrey, Director

Mr. Humphrey has over 25 years of international mining experience. He has worked for Morgan Stanley, Raymond James, CIBC World Markets and Merrill Lynch as the North American Precious Metals Analyst and Managing Director for Research. Mr. Humphrey has held a variety of mining industry roles from underground contract miner to CEO. Mr. Humphrey is currently President and CEO of NiCAN Ltd., sits on the board of Black Swan Graphene, and was the CEO of QMX Gold, which was acquired by Eldorado Gold.

OWNERSHIP & CAP STRUCTURE

Warren Buffett: "*All there is to investing is picking good stocks at good times and staying with them as long as they remain good companies*."



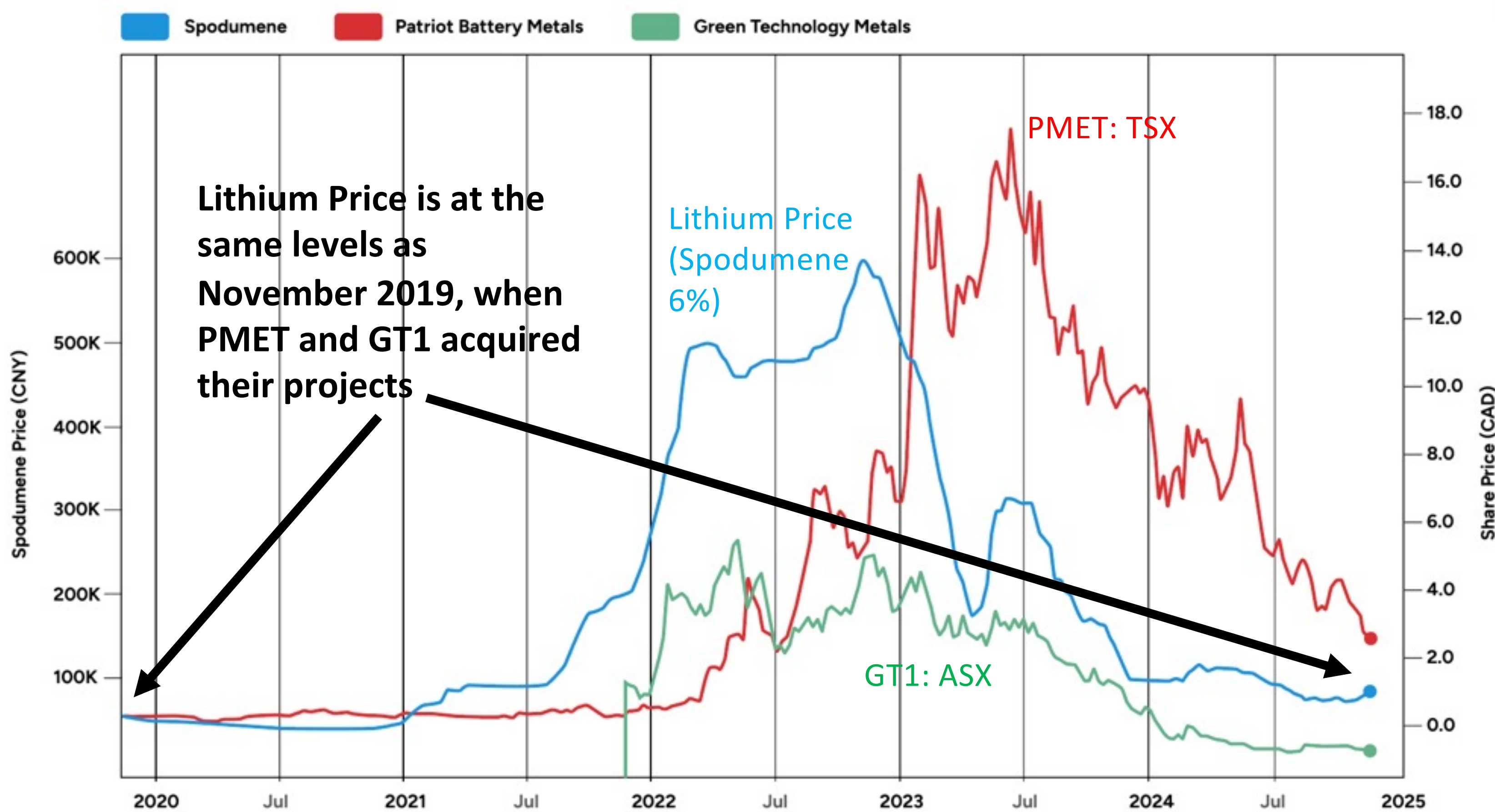
Charts by TradingView

VOLTA Shares outstanding: 59,383,112
Total warrants: 7,090,000 (@$0.10)
Total Options: 2,882,328 (@$0.36 avg)

Market Cap: $2.5 - $3.5M Range

Local Management team resulting significantly **lower overhead & burn rate** compared to peers.

Last Bull Run



PEER COMPARATIVES

	Volta Metals	Frontier Lithium	RockTech Lithium	Green Technology Metals	Battery Age Minerals
Exchange	**CSE**	**TSXV**	**TSXV**	ASX	ASX
Market Cap	**$3.0M**	**$104M**	**$122M**	**$26M**	**$10M**
52 week Share Price[4]	**$0.02 - $0.10**	$0.39 - $1.21	$0.78 – $2.00	$0.05 - $0.22	$0.08 - $0.20
Lithium Grade[3]	**1.5%[1]**	2%	1.01%	1.03%	1.48%
Tonnage	**N/A**	41.9 Mt	6.6 Mt	24.9Mt	N/A
Contained[2] Li_2O		0.65 Mt	0.07 Mt	0.25Mt	N/A
Gallium (Ga)	**Yes**	No	No	No	No
Claim Area	**13,013 Ha**	27,000 Ha	1,042 Ha	40,000 Ha	5,600 Ha
Location	**NW ON**	NW ON Dr. Breaks' Discovery	NW ON	NW ON Neighbouring claims	NW ON Neighbouring claims

[1]: 2024 Drill core high grade over 15.6m
[2]: Estimated
[3]:Peer grades were taken from their press releases with respect to drill results from their main assets
[4]: January 20, 2025

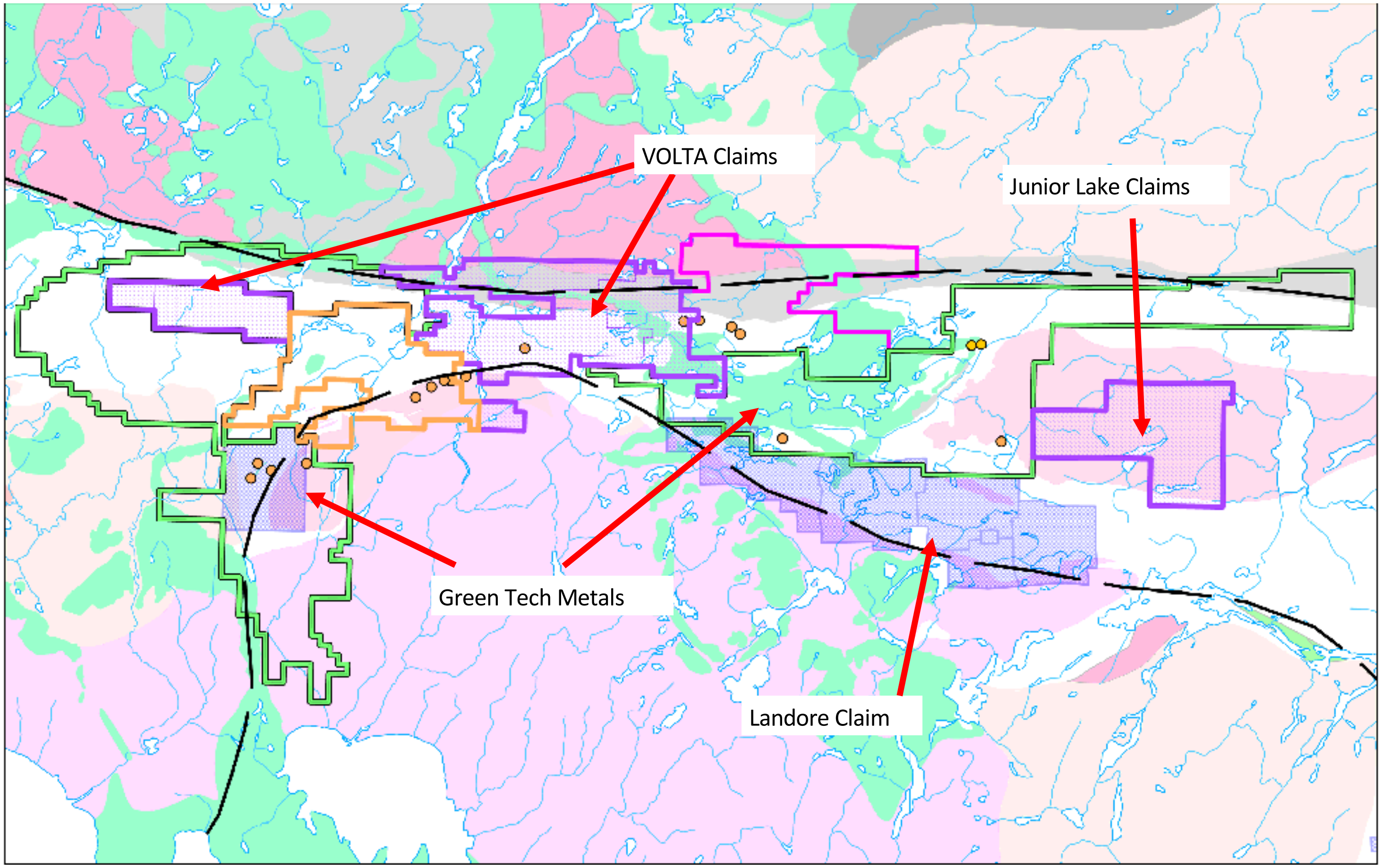
CSE: VLTA

For further information contact:

Kerem Usenmez, M.Sc., P.Eng.
President & CEO
kusenmez@voltametals.ca
(416) 919-9060

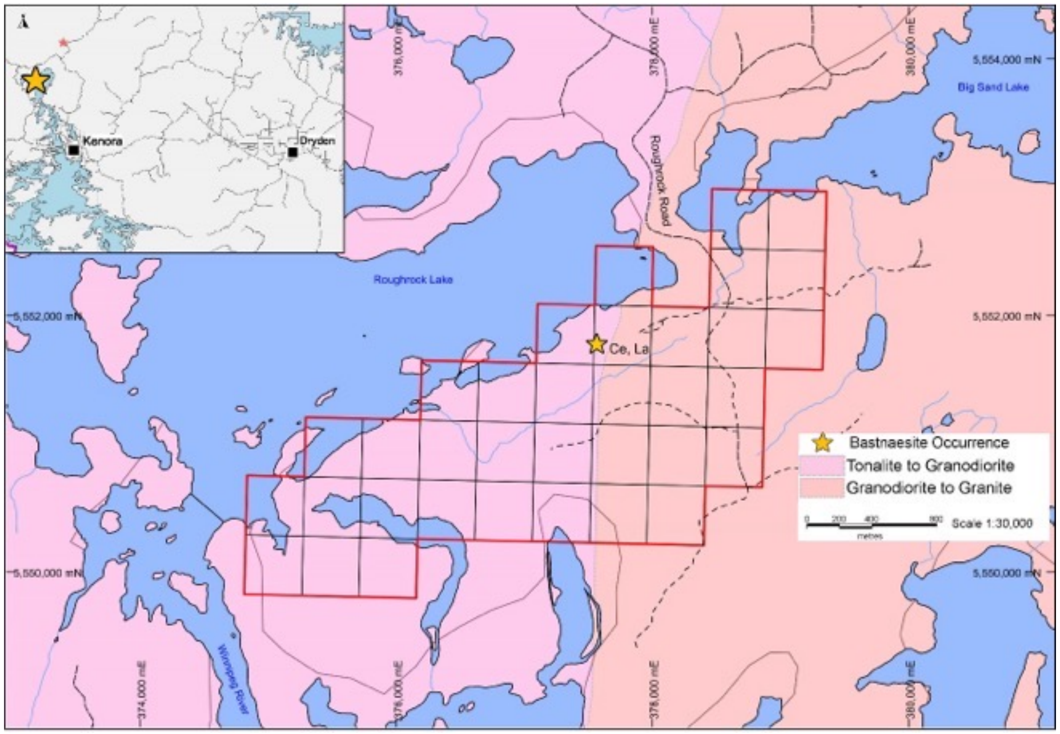
VOLTA Metals Ltd.
130 King Street W, Suite 3680
Toronto, Ontario
Canada M5X 1B1

JUNIOR LAKE PROJECT



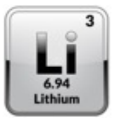
- 100% owned 3,820 Ha property in The Summit Lake Batholith.
- 1km east of Swole Lake Lithium occurrence – limited minor exploration.
- Molybdenum showing within the property with anomalous REE including Lithium – open for exploration.

ROUGHROCK RARE EARTH ELEMENTS (REE) PROJECT



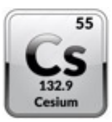
- 100% owned, 720 hectares, Greenfield Rare Earth Project
- Bastnaesite occurrence within the claim blocks, with Allanite Group minerals (Cerny and Cerna, 1972)
- Bastnaesite, a cerium fluoride carbonate (CeCO3(F)), found in contact or alteration zones.
- Located on the Winnipeg River 9 miles NNW of Minaki, in westem Ontario. Geology of this Precambrian area was described by Derry (1930). The bedrock is mostly granitic with a few disseminated bands of amphibolite biotite gneiss and derived migmatites Allanite is fairly common in the pegmatitic bands, attaining up to 10x30 mm in size (Cerny and Cerna, 1972).
- Rare-earth elements found in bastnaesite can be used to produce magnets in speakers, microphones, and vibration monitors in mobile phones and other high-technology communication devices.

Main Uses of High-grade Elements found in Volta's Projects

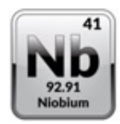


Main Uses: Batteries (EV's, portable electronics), Medicine, lubricant, energy storage (AI)

Main Uses: Semiconductors (Essential element for Chipmaking), LED's (Mars Rover, electronics etc)



Main Uses: Aerospace, Cancer treatment, atomic clocks, Electric power and electronics,



Main Uses: Superconductors (MRI), Alloy strengthening (Vehicles, pipelines)

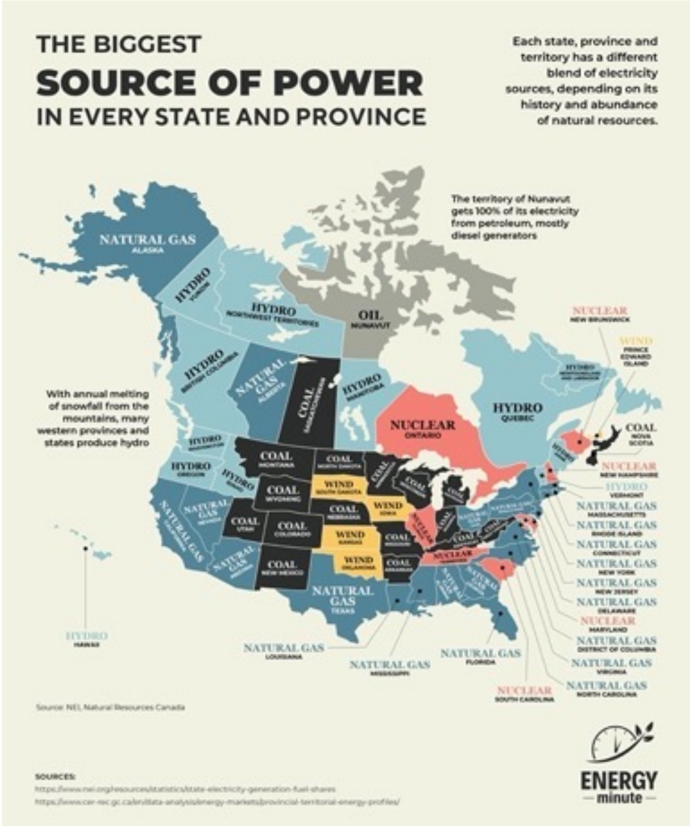
Main Uses: Electronic components, computer processors, digital cameras, thermal protection and transportation

Main Uses: Defense and Military(night vision, etc), Aerospace, fiber optic comm, electronic devices

Main Uses: Aerospace, automotive (anti-lock brake systems), Ceramic manufacturing (semiconductor chips, rocket covers)

ONTARIO – EV CAPITAL OF NORTH AMERICA

- Clean Energy – 94% Emission-Free Electricity
- Volkswagen announced **$6B** investment for Ontario battery cell plant, along with Ontario's **$13B** investment.
- Umicore announced a **$1.5B** investment to build an industrial scale cathode and precursor materials plant in Ontario.
- GM announced to launch Canada's first commercial EV hub.
- LG Energy Solutions Ltd. and Stellantis N.V. are constructing Ontario's first large scale EV battery plant in Windsor.



ONTARIO, CANADA – TIER 1 JURISDICTION

Canada's Critical Mineral Strategy

- $1.5B in funding to support critical mineral projects
- 30% Critical Mineral Exploration Credit
- $40M to support northern regulatory processes in reviewing and permitting critical mineral projects
- $6M government investment 2023-2025 in the Ontario Junior Exploration Program (OJEP) to companies exploring for critical minerals in Ontario

LITHIUM FACTS

- Lithium is the lightest and least dense solid element in the periodic table.
- In its metallic form, lithium is a soft silvery-grey metal with good heat and electric conductivity enabling it to store and transmit energy.
- Lithium has high electrode potential. Due to its low atomic mass, it has a high charge and power-to-weight ratio, making it well suited for rechargeable batteries.
- The soft drink 7-Up started life as Bib-Label Lithiated Lemon - Lime Soda when it was launched in 1929. The drink's creator Charles Leiper Grigg claimed the soda, which contained lithium citrate, had the power to improve the mood of the imbiber. The United States Food and Drug Administration banned the use of lithium citrate in beverages in 1948

Image: Shutterstock

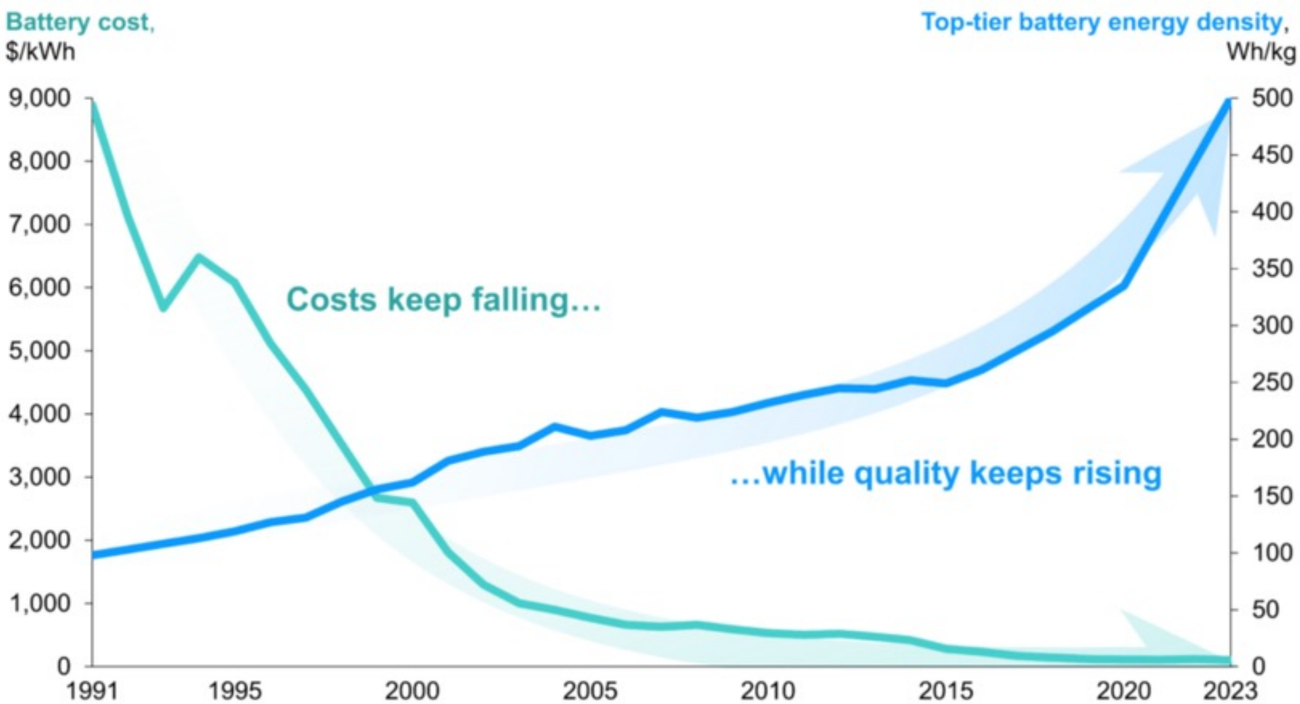
An early advertisement for the soft drink 7-Up

LITHIUM FACTS

- Lithium grease was invented around 1940 and was found to be superior to existing sodium and calcium-based greases. It found widespread industrial use in aircraft engines during the 1940s and is still widely used today.
- Industrial applications include the use of lithium as an additive in aluminum smelting and in the manufacture of high-strength glass-ceramic products including the induction cook tops in many kitchens, tough glass, fiberglass, ceramic frits, and even ceramic dentures. Other uses include air conditioning and polymer catalysts.
- Lithium first entered the modern era when, during the 1970s oil crisis, the English chemist Stanley Whittingham developed a rechargeable battery using lithium and titanium.
- Key breakthrough in lithium battery technology came in 1985 when Akira Yoshino, a Japanese chemist, developed carbon-based anodes and a non-aqueous electrolyte, leading to a stable, reliable and high-powered lithium-ion battery (LIB), which Sony then commercialized.
- A LIB is a rechargeable battery in which lithium ions move from the negative electrode (anode) to the positive electrode (cathode) during discharge, and back when charging. LIBs have good energy-to-weight ratios, high open circuit voltage, low self-discharge rate, no memory effect and a slow loss of charge when not in use. In addition to consumer electronics, LIBs are used in military and electric vehicles and aerospace applications due to their high energy density.
- As the world moves toward net zero around 85% of lithium extracted today is used in LIBs, including to power electric vehicles and for renewable energy grid storage solutions.

Lithium greases are widely used today

CHEAPER TO REPLACE AND EV BATTERY THAN A COMBUSTION ENGINE



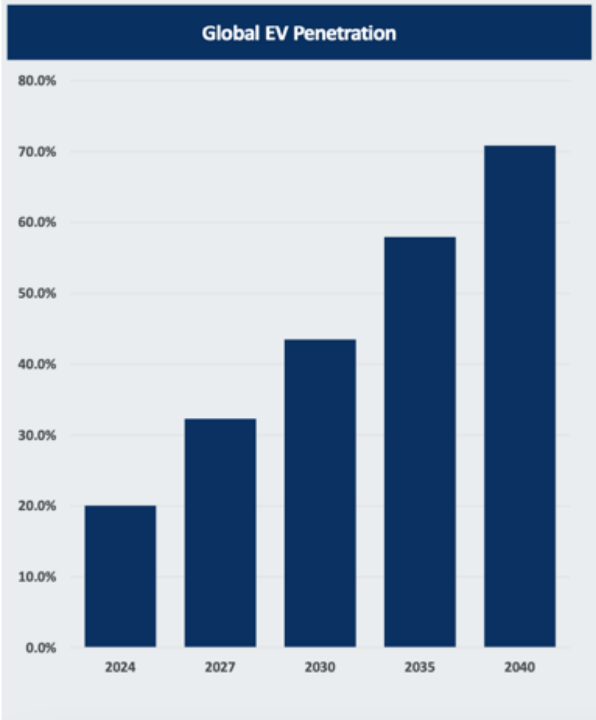
- Battery replacements are rare, and they are about to get rarer. [The EV battery of today] is expected to last for 200,000 miles, possibly more. [Most electric cars won't need their batteries replaced at all].
- The cost of EVs will continue to drop, led by a decline in battery costs.

GLOBAL LITHIUM TREND – EV DEMAND REMAINS STRONG

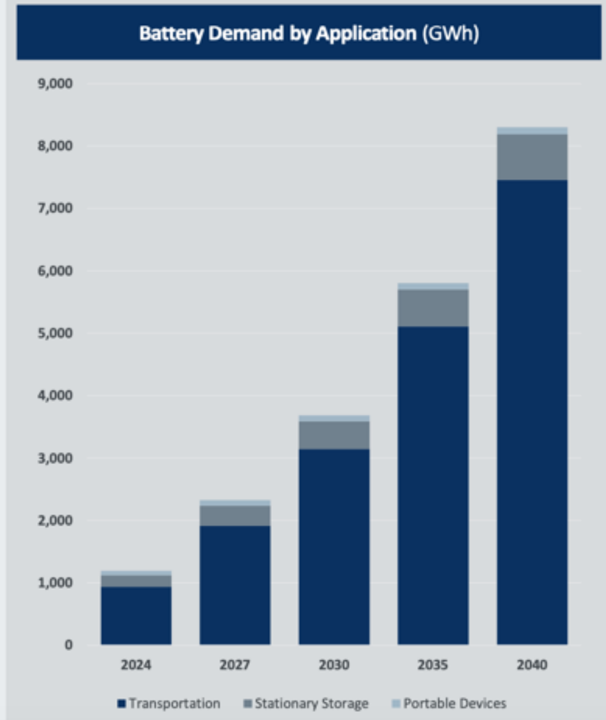
"Sales of internal combustion engine vehicles have slumped from 78% to 63%, with the market showing no sign of this trend slowing," (AutoMotive), referring to a 2½ year period from 2022 to 2024.

That's a 20% shrink in a fairly short timespan.

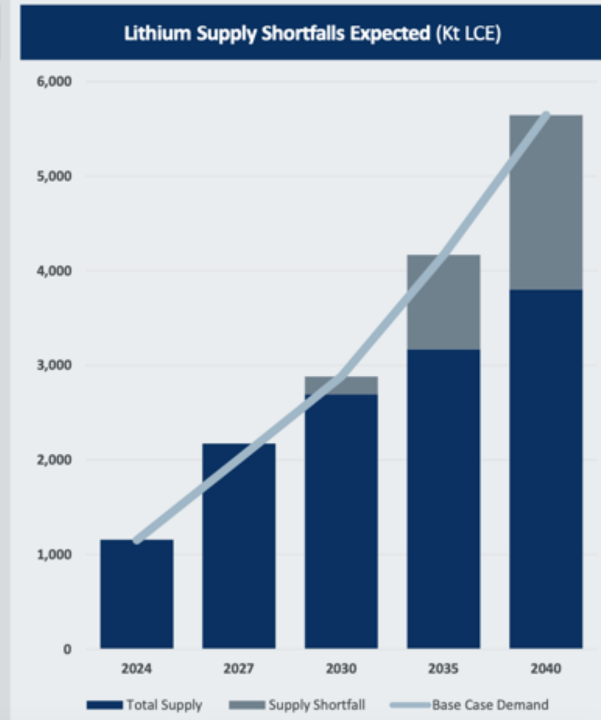
"Meanwhile, in the same period, electric vehicles (EVs) have almost doubled their market share from 10% to 17.4%," AutoMotive adds.



Source: Benchmark Minerals Intelligence – Lithium Forecast, Q1 2024



Source: Benchmark Minerals Intelligence – Lithium Forecast, Q1 2024



Source: Benchmark Minerals Intelligence – Lithium Forecast, Q1 2024

ELECTRIC VEHICLE SALES – MAIN DRIVER FOR LITHIUM DEMAND

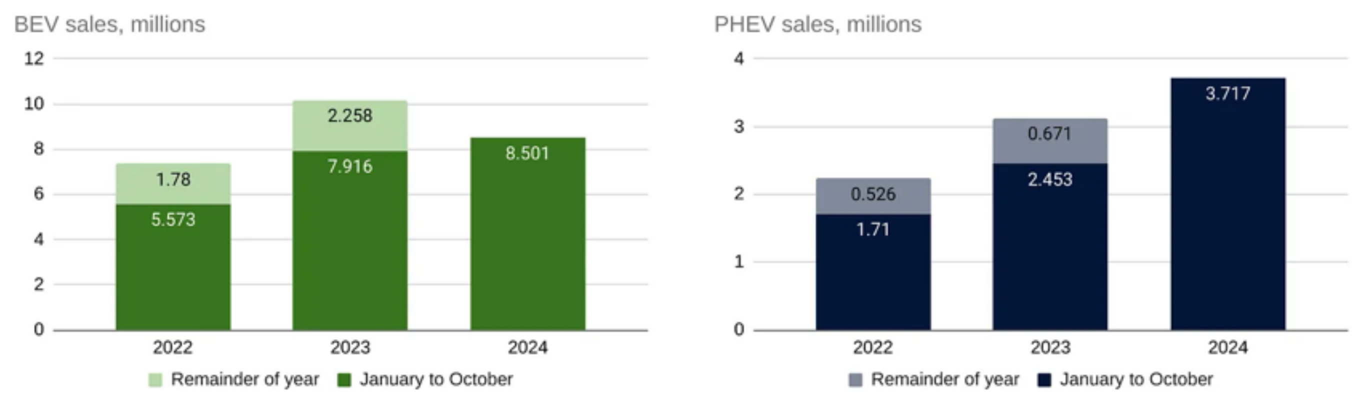
Recent report from Benchmark Minerals Intelligence:
"Lithium has to scale 20X by 2050 as Automakers face generational Challenge"

- Estimated Global EV Sales:
  - 2.5 million in 2020
  - 11.2 million in 2025
  - 31.1 million by 2030

ACTUAL SALES

- In Oct 2024 1.04 million battery-electric cars were sold, an increase of 108,000, or 12% on October 2023.

Sales of BEVs and PHEVs in Jan-Oct, and for Nov-Dec, for 2022 to 2024

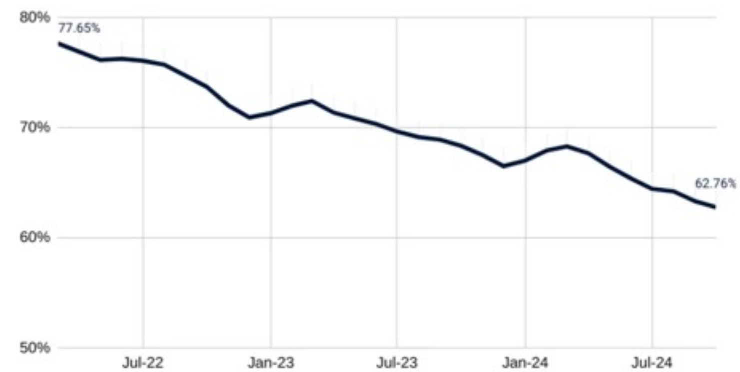


12 months to Oct 2024, 10.8m battery-electric cars were sold, an increase of 1.1m or more than 11% on the 12 months to October 2023. The increases were primarily driven by China, which saw new battery electric sales rise 870,000, and the US, which achieved 150,000 additional sales.

Source: https://newautomotive.substack.com/p/408235bd-2c4d-45bb-8e9e-87802c21cc5a?postPreview=paid&updated=2024-11-21T17%3A22%3A57.871Z&audience=everyone&free_preview=false&freemail=true

ELECTRIC VEHICLE SALES – MAIN DRIVER FOR LITHIUM DEMAND

Market share of petrol and diesel March 2022 to October 2024, 3 month rolling average

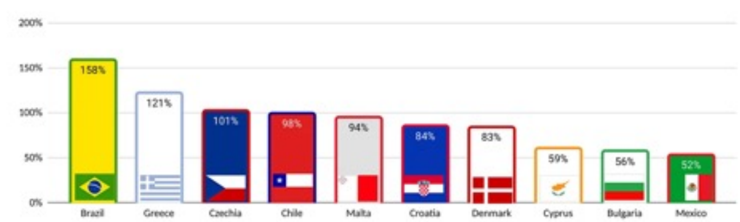


The market share of vehicles without a battery is in steep decline, falling from 78% to 63% - a decline of a fifth - in two-and-a-half years, and showing no sign of abating. In the same period battery electric has almost doubled its market share from 10% to 17.4%, with the remainder made up of plugins and other hybrids.

Country	October 2024	October 2024 Ranking	12 months to October 2024	12 month Ranking
China	732,687	(1)	7,129,245	(1)
US	112,419	(2)	1,237,334	(2)
Germany	35,482	(3)	411,296	(3)
UK	27,957	(4)	333,947	(4)
France	21,216	(5)	311,794	(5)
Belgium	12,738	(6)	124,978	(6)
Netherlands	10,937	(7)	122,163	(7)
Norway	10,862	(8)	108,803	(8)
Denmark	8,826	(9)	86,732	(11)
Sweden	8,780	(10)	96,174	(9)

The emerging markets of Brazil and Chile continued their rapid growth, whilst Mexico has faded.

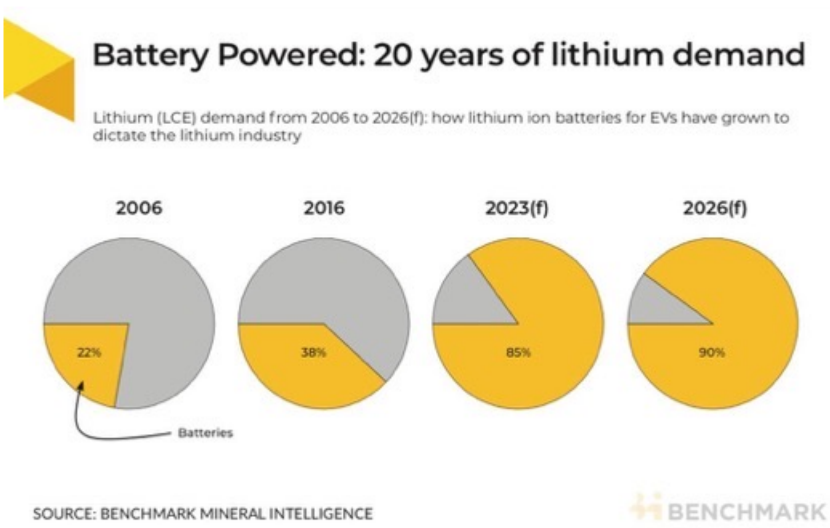
Best performers by % rise in battery electric sales between Oct 23 and Oct 24

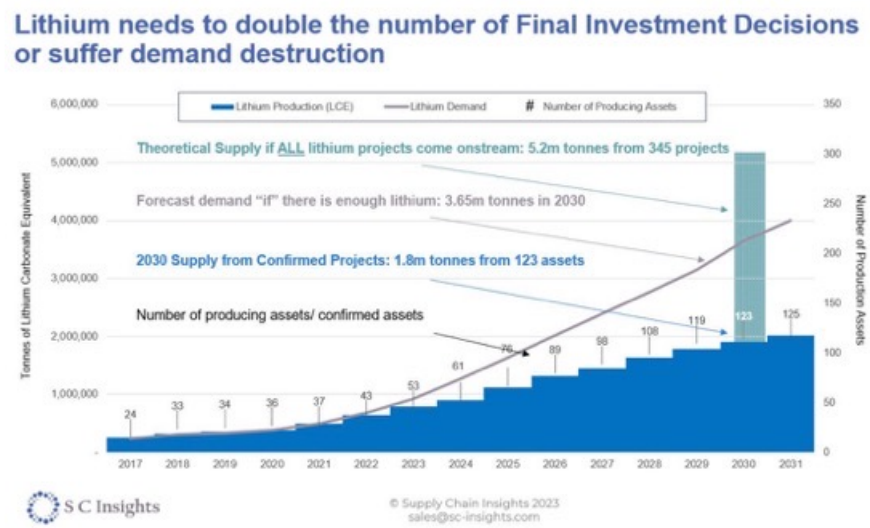


Source: https://newautomotive.substack.com/p/408235bd-2c4d-45bb-8e9e-87802c21cc5a?postPreview=paid&updated=2024-11-21T17%3A22%3A57.871Z&audience=everyone&free_preview=false&freemail=true

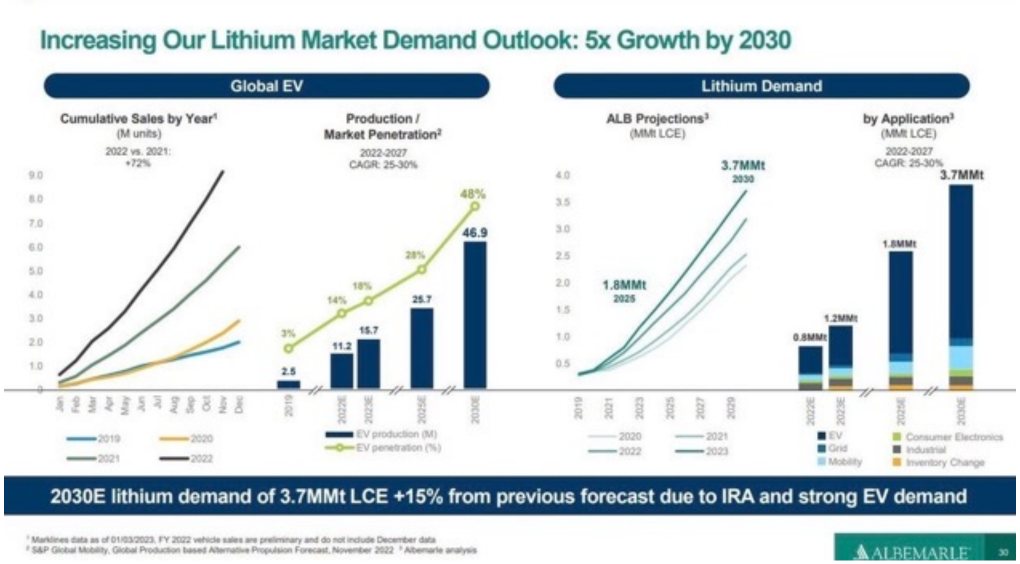
STRONG LITHIUM DEMAND

- Inflation Reduction Act has turbo charged battery supply chain initiatives and EV plans in North America.
- Climate change represents one of the greatest challenges and investment opportunities of our time. IEA World Energy outlook highlights Lithium, Copper and Nickel as key energy metals facing high demand growth under Net Zero ambitions.



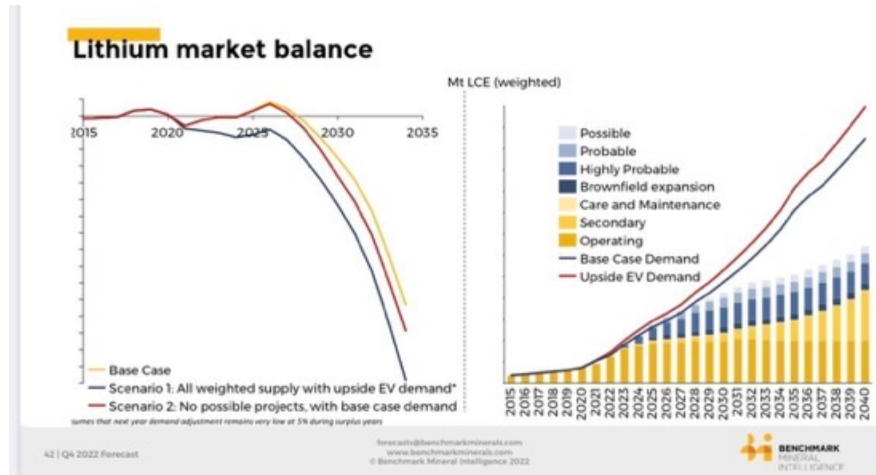


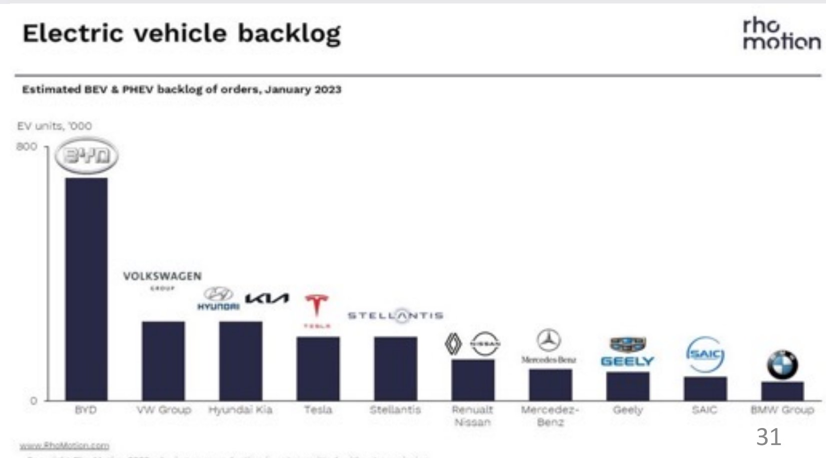
STRONG LITHIUM DEMAND



Benchmark has a base lithium supply forecast of 2.1 tonnes, 12% lower than their base demand.

- Unconstrained Demand (Dream) 3-4m tonnes lithium by 2030.
- Base Demand (Reality) 2-3m tonnes lithium by 2030.
- Supply or where supply and demand intersect – 1.8-2.8m tonnes lithium by 2030.





LITHIUM DEPOSITS

There are two primary sources for Lithium - brine and hard rock:

- Brine deposits are accumulations of saline groundwater that are enriched in dissolved lithium. Although abundant in nature, only select regions in the world contain economic brines, mainly in arid regions where lithium salts can be extracted and processed into lithium carbonate.

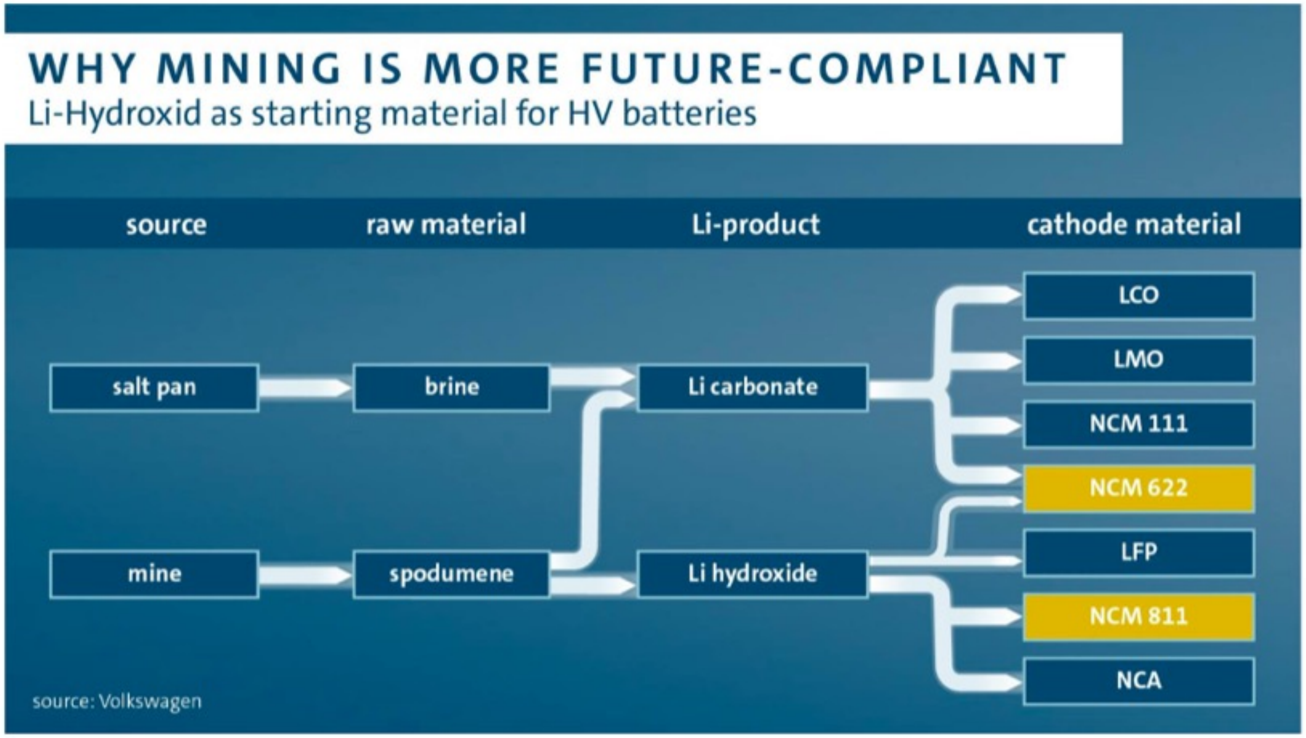
- Lithium ‘hard rock’ deposits are hosted in pegmatites as the mineral spodumene. Spodumene can be processed into lithium carbonate or lithium hydroxide, the latter of which is becoming more desirable by battery producers.

<u>Advantages of Hard Rock vs Brine:</u>

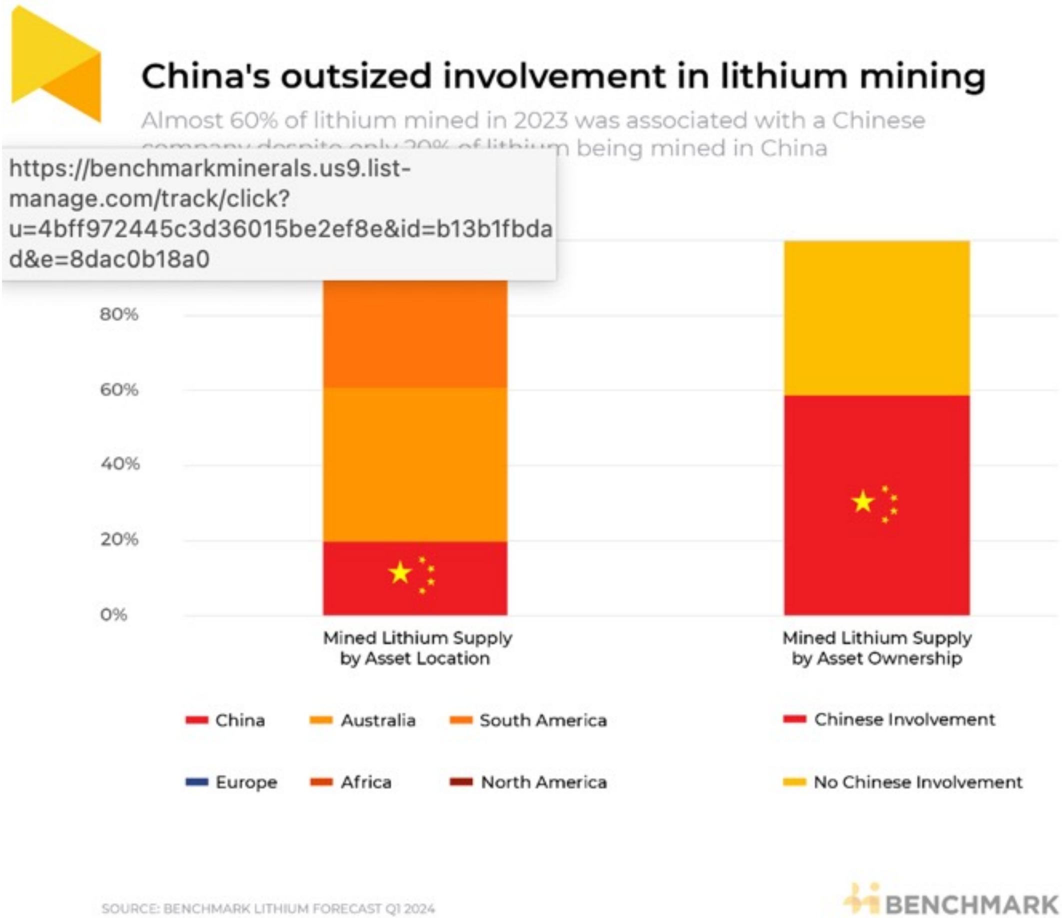
- Environmental impact: Hard-rock lithium has less environmental impact , using significantly less water and energy in production.
- More flexibility: The lithium hosted in spodumene can be processed into either lithium hydroxide or lithium carbonate. Brines initially can only be processed into carbonate, and then can be further processed into hydroxide however at an additional cost.
- Faster processing: Brines can take a lot longer to process due to the evaporation required making for an inconsistent process compared to spodumene.
- Higher quality: Spodumene contains a higher lithium content in comparison to brines.

LITHIUM PRODUCTION TYPES

- Lithium hosted in spodumene (Pegmatite) can be sustainably processed into either Lithium Hydroxide or Lithium Carbonate.
- Lithium Hydroxide is better for the production of EV batteries with NCM 811 cathodes compared to Lithium Carbonate produced from brines. However Lithium Carbonate is the feed for new generation LFP batteris
- Spodumene also contains a higher lithium content in comparison to brines and is produced in a more sustainable manner.

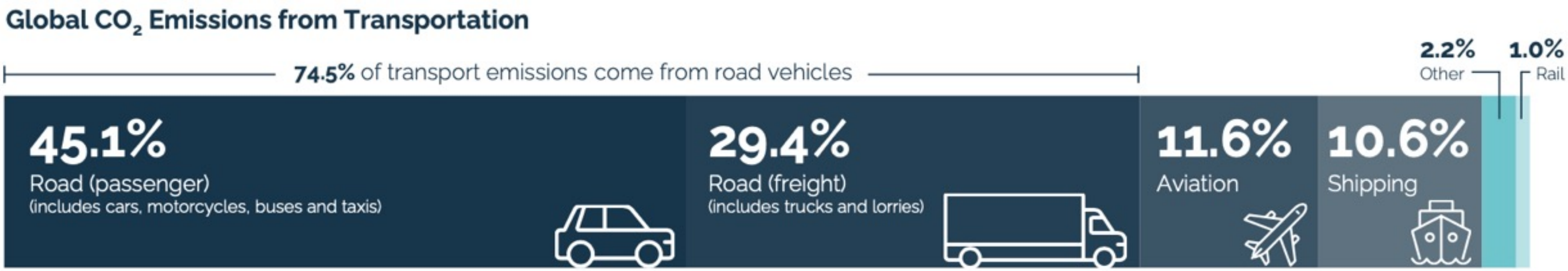


LITHIUM PRODUCTION TYPES



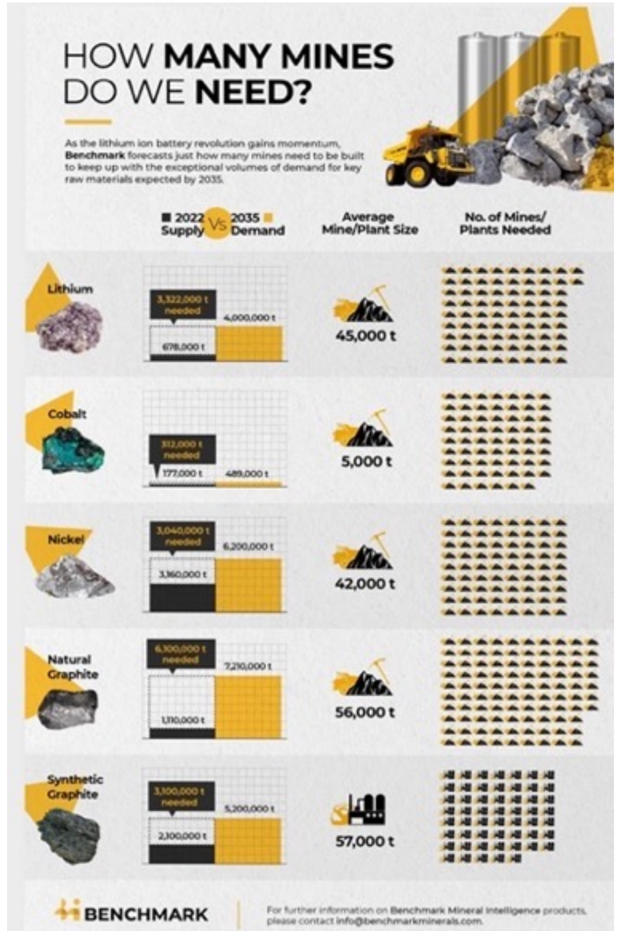
- Lithium production will exceed 1 million tonnes LCE for the first time in 2024 and will more than double to 2.7 million by 2030.
- Today the majority of extraction occurs in South America and Australia, though China dominates the processing scene.
- China also dominates lithium chemical supply but accounted for only 20% of mined lithium in 2023.
- Despite this, Chinese companies control 59% of global lithium mining, across Australia, Argentina, and Africa.
- Canada is to become one of the major Lithium miners, with all discoveries being made

TRANSPORTATION - A MAJOR CONTRIBUTOR TO CLIMATE CHANGE



- Transportation accounts for around 20% of global CO_2 emissions.
- Unlike sectors such as marine transportation and aviation, light passenger vehicles have a clear technological path to net-zero emissions by 2050: electrification.
- Many countries have announced 100% zero-emission vehicle targets, or the phase-out of internal combustion engine vehicles by 2050 or earlier.
- It is expected that the other transportation sectors (freight, aviation, etc.) will follow vehicle electrification.

LITHIUM MARKET CONDITIONS



1.5B cars in the World

290M cars in the US
35M cars in Canada.

8kg Li in each EV

5% of these cars to be EV each year, means ~1.5M tons of Lithium.

In 2022 100k tons of Li was produced (as of Nov).