



**CORPORATE PRESENTATION**

**PATH TO PRODUCTION**

**FEBRUARY, 2025**



# COMPANY OVERVIEW

## DEVELOPING TWO LARGE NORTH AMERICAN LITHIUM PROJECTS

- ASX Code: **AZL**, AZLO OTCQB Code: **AZLAF**
- Combined resources of **Lithium Brine and Sedimentary**

### CAPITAL STRUCTURE

**4,561,814,528**

Shares On Issue

**678,990,735**

Options

**\$2.3m<sup>(3)</sup>**

Cash

**\$0.011**

Shares Price

**\$50.2m**

Market Cap

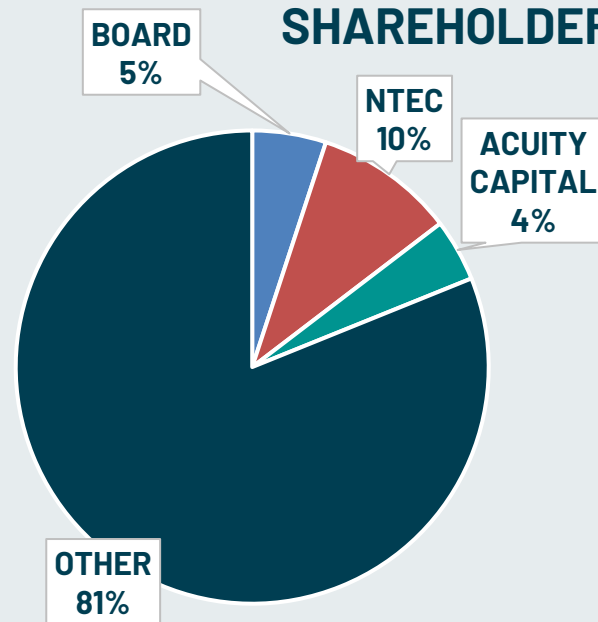
**\$47.9m**

Enterprise Value

**38.2%**

Top 20 Holding

### SHAREHOLDERS



■ BOARD ■ NTEC ■ ACUITY CAPITAL ■ OTHER

# COMPANY OVERVIEW

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### PRAIRIE LITHIUM PROJECT

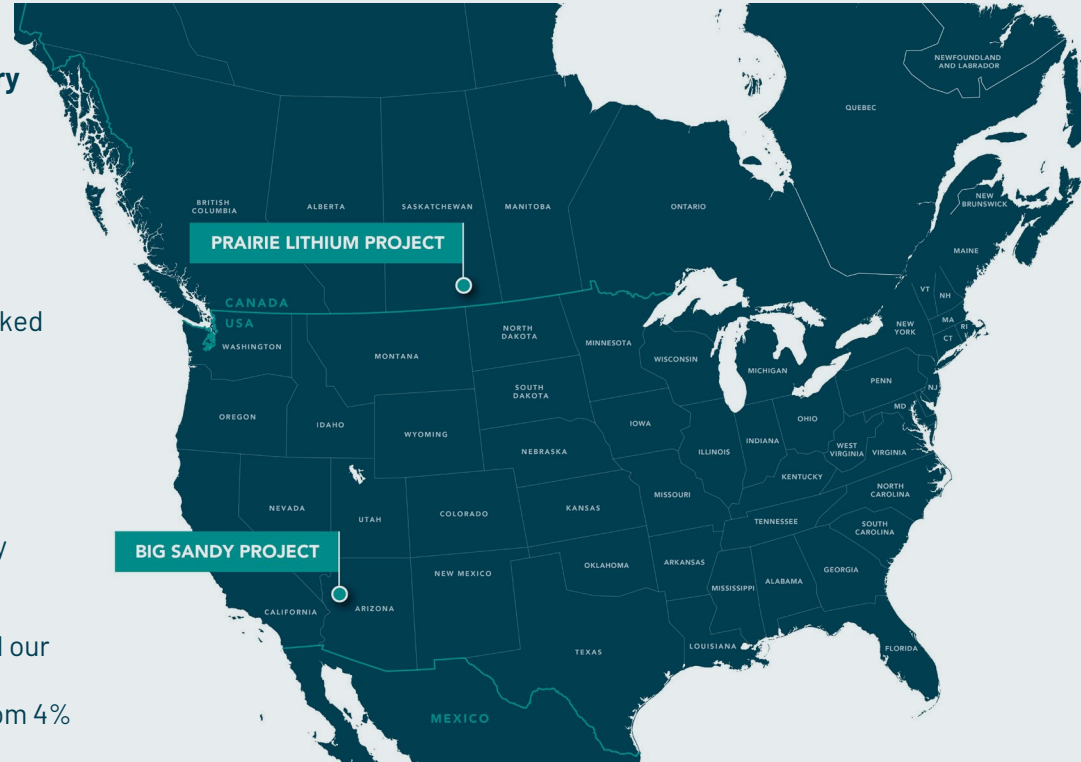
*Saskatchewan, Canada*

- Brine resource
- **345,000 acres** of subsurface mineral rights
- Located in Saskatchewan, Canada, one of the top ranked mining friendly jurisdictions in the world

### BIG SANDY PROJECT

*Arizona, USA*

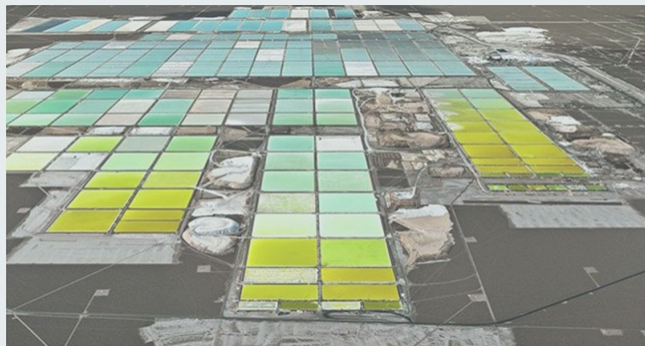
- Strategic Partnership with Navajo Transitional Energy Corporation (NTEC)
- Sedimentary resource
- Located just two hours north of Phoenix, Arizona, and our Lithium Research Centre (LRC)
- Expandable resource with **320,800 tons<sup>(1)</sup> of LCE<sup>(2)</sup>** from 4% of the landholding



(1) See AZL's maiden resource update in announcement "Big Sandy Lithium Project (Arizona, USA) Maiden Mineral Resource" – 26 September 2019  
 (2) Lithium Carbonate Equivalent (LCE).

# HOW LITHIUM IS MINED

ON THE CUSP OF DISRUPTION



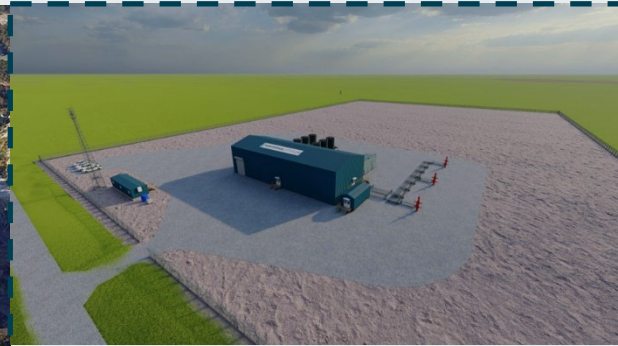
## BRINE: EVAPORATION POND

*South America*



## HARDROCK: SPODUMENE

*Australia*



## BRINE: DIRECT LITHIUM EXTRACTION (DLE)

*Saskatchewan, Canada*

# BENEFITS OF DLE

LESS IS MORE



## BRINE: DIRECT LITHIUM EXTRACTION (DLE)

*Saskatchewan, Canada*

### DIRECT LITHIUM EXTRACTION:

- **AIM TO REDUCE PROCESSING TIME & OPEX**
  - Resources can be pumped and processed in hours instead of months to years.
  - PFS highlights OPEX of USD \$2,819 per tonne
- **MODULARIZATION**
  - Producing and disposing into geologically isolated reservoirs allows for production wells and disposal wells to be placed at the surface side by side. Eliminating large long-distance pipelines to move brine reduces the economy of scale and allows for modularized scale-up.
- **AIM TO REDUCE SURFACE FOOTPRINT**
  - A Pad site is 15 acres
- **AIM TO REDUCE FRESHWATER INTENSITY**
  - Brackish water from 1km underground can be desalinated and used for process operations

# BOARD OF DIRECTORS



**Barnaby Egerton-Warburton**  
Non-Executive Chairman

Barnaby has over 25 years of trading, investment banking, international investment and market experience with positions at JP Morgan, BNP Equities (New York) and Prudential Securities (New York). He is an experienced Investment Banker and corporate advisor, having held managing director and non-executive director positions in the investment banking, oil & gas and resource sectors. He holds a degree in economics, is a graduate of the Australian Institute of Company Directors.



**Paul Lloyd**  
Managing Director

Paul Lloyd is a Chartered Accountant with over thirty-five years' commercial experience. Mr. Lloyd was one of the vendors of the Big Sandy Lithium project and has been the Managing Director since September 2018. Mr. Lloyd has been responsible for a significant number of IPOs, RTOs, project acquisitions and capital raisings for ASX listed public companies.



**Matthew Blumberg**  
Executive Director

Matthew is currently based in New York and is a Director at Private Equity firm ALJ, focusing on Strategy, Mergers & Acquisitions. Matthew has previously worked in investment roles in New York and Sydney. He holds a Master of Business Administration (MBA) from Yale University and a double degree in Engineering (First Class Honours) and Commerce from The University of Western Australia.



**Zach Maurer**  
Executive Director

Zach has over 10 years of experience in North America's energy sector. His experience spans production, environmental and hydrogeologic projects in Canada and the United States. In 2019, he founded and incorporated Prairie Lithium. In 2023, he led Prairie Lithium through the acquisition by Arizona Lithium. He holds a B.Sc. in Geology from the University of Regina and a Diploma in Exploration Information Technology from the South Alberta Institute of Technology (SAIT).



**Vern Lund**  
Non-Executive Director

Vern is an experienced mining executive with over 25 years of operational and project development experience. Vern is the CEO of the Navajo Transitional Energy Company (NTEC), a U.S. tribally owned mining and energy company. He holds a B.S. in Civil Engineering from North Dakota State University, a Masters of Business Administration from Auburn University, and is a graduate of Wharton's Advanced Management Program.

# MANAGEMENT

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**Chelsey Hillier**  
SVP Exploration

Chelsey has over 15 years of experience in Geoscience roles. She holds a Bachelor of Science Geology Honours from the University of Regina. Before joining the Prairie Project in 2021 Chelsey worked in technical and management roles with Nexen and CNOOC Intl. Chelsey manages the Technical Reporting, Subsurface Development and Reservoir Characterization Teams; and she plays an integral part in the researching, planning and execution of projects.



**Jonathan Nielson**  
Director of Lithium  
Operations

Jonathan has over thirty years of experience in hydrometallurgical process development and design. He spent nearly fifteen years working for Engitec Technologies (Italy), developing novel mining and recycling technologies for copper, zinc, and lead metal recovery. Mr. Nielsen has worked on direct lithium extraction brine projects in the United States, Canada, and Argentina. He holds a Bachelor of Science in Metallurgical Engineering from South Dakota School of Mines and Technology, a GCBA, and a pending MBA from Louisiana Tech University



**Shaun Menezes**  
Company Secretary  
& CFO - Australia

Shaun is an accounting and finance professional with over 20 years experience. He has worked in the capacity of Company Secretary and Chief Financial Officer of a number of ASX and SGX listed companies, held a senior management role within an ASX 200 listed company and was an executive director at a leading international accounting firm. He is a member of the Governance Institute of Australia and Chartered Accountants Australia and New Zealand.



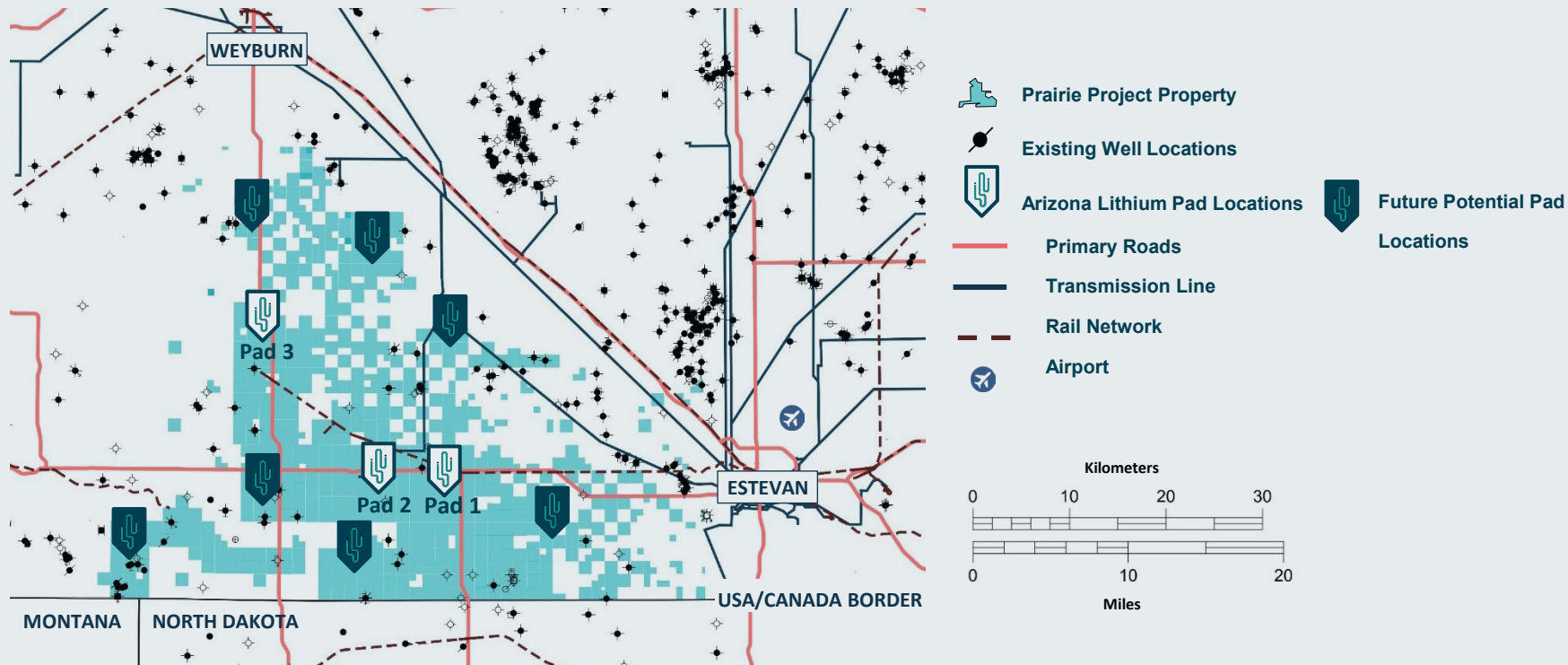
**Carrie Swanton**  
CFO – North America

Carrie has over 20 years of experience in financial roles in mining and agriculture. She has an extensive background in finance with a proven track record of driving growth, managing capital, monitoring costs, and delivering operational efficiencies. As Chief Financial Officer (North America) of Arizona Lithium, Carrie is responsible for overseeing all financial activities for the North American organizations. She is a strategic partner to the executive team and board of directors ensuring alignment between the company's direction and financial performance. Carrie holds an undergraduate in accounting and has completed all CPA prerequisite PREP courses.



# PRAIRIE LITHIUM PROJECT

345,000 ACRES OF SUBSURFACE MINERAL PERMITS ENCOMPASSED BY INFRASTRUCTURE





# PRAIRIE LITHIUM PROJECT

## 2024 DRILLING & COMPLETIONS PROGRAM



### PAD #1

- 3 WELLS DRILLED
  - Duperow Production
  - Disposal
  - Brackish Water Source
- Explored Souris River and Dawson Bay
- Pump tested Duperow & Souris River
- Tested disposal formations
- Facility Construction of Commercial Scale DLE in 2025



### PAD #2

- 2 WELLS DRILLED
  - Future production & disposal wells
- Explored Souris River and Dawson Bay



### PAD #3

- 1 WELL DRILLED
  - Future Production or Disposal well
- Explored Souris River, Dawson Bay and Duperow

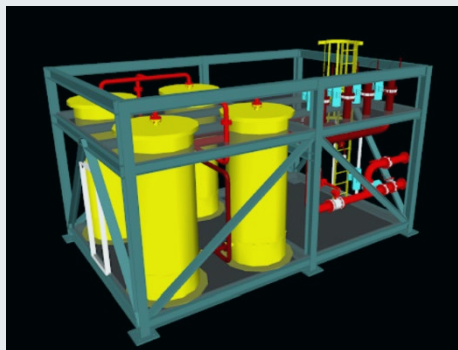
# STRATEGIC PARTNER

KOCH TECHNOLOGY SOLUTIONS

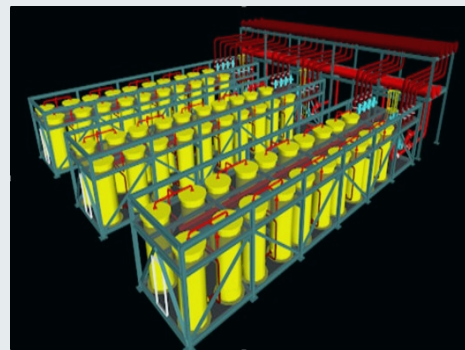
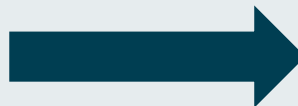


## HIGHLIGHTS

- This represents the largest Direct Lithium Extraction (DLE) process ever deployed by KTS.<sup>(1)</sup>
- Koch Technology Solutions is a subsidiary of Koch, Inc., the second-largest privately held company in the United States, based in Wichita, KS.<sup>(1)</sup>
- Duperow brine from Pad #1 was tested with KTS's Li-Pro technology and highlighted exceptional results with approximately 98% lithium retention and an average 99% rejection of impurities such as Calcium (Ca), Magnesium (Mg), Sodium (Na), and Potassium (K).<sup>(1)</sup>



HOW TO SCALE UP



(1) ASX Announcement – “Koch Commercial Scale DLE To BE Deployed At Prairie” – 11 February 2025

# PRAIRIE LITHIUM PROJECT

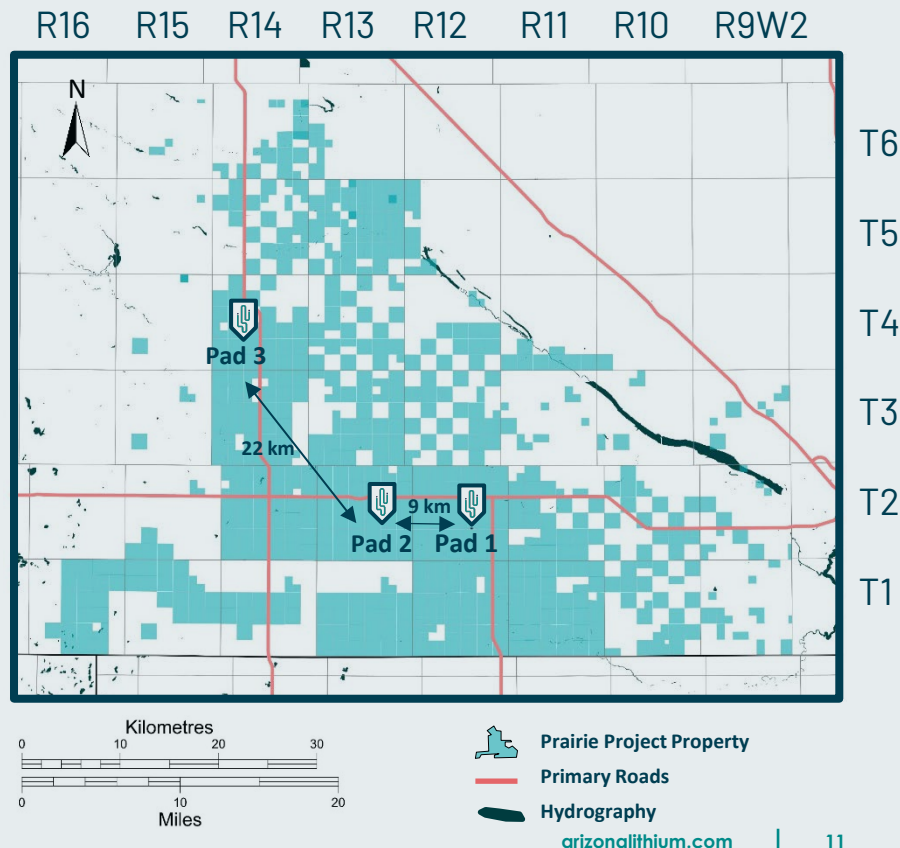
SIMPLE INFRASTRUCTURE, LOW ENVIRONMENTAL FOOTPRINT



Pad #1

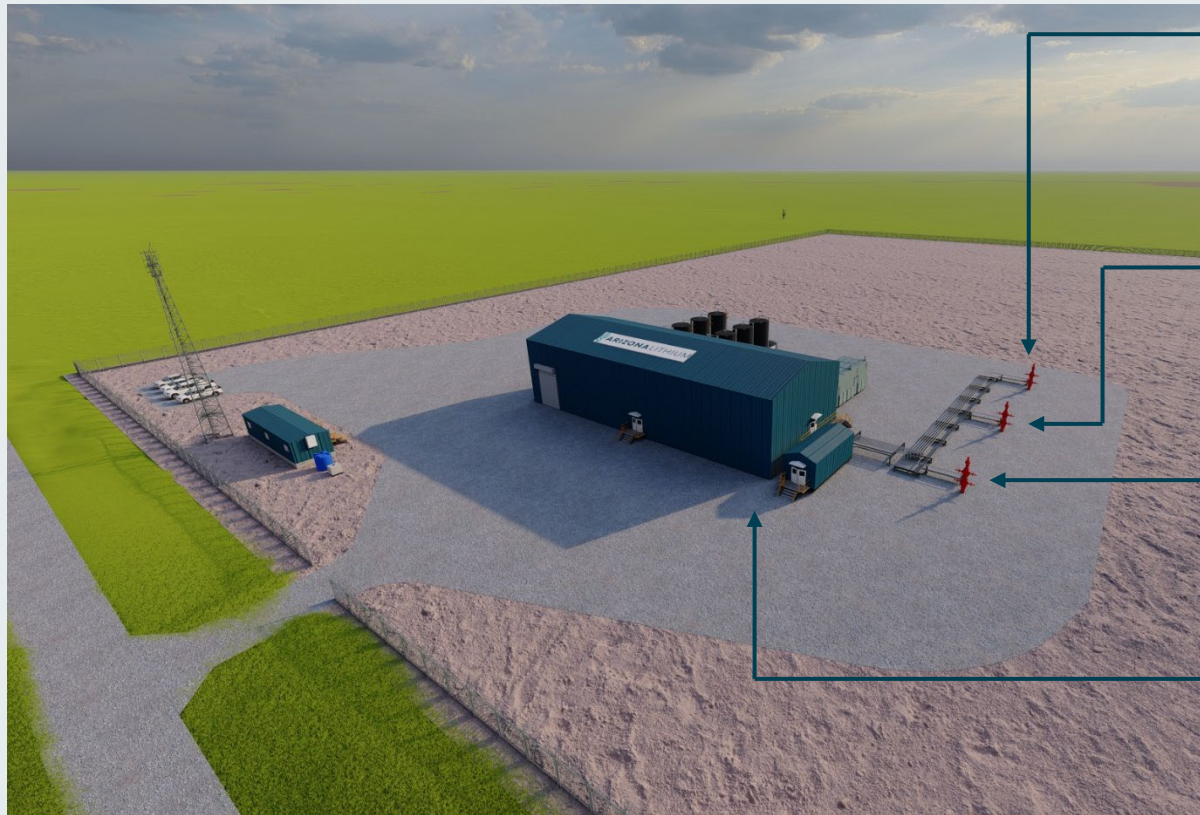


- 3 Pad locations have been drilled
- Additional Pads are being planned
- Commercial scale DLE planned for Pad #1 in 2025



# PRAIRIE LITHIUM PROJECT

SIMPLE INFRASTRUCTURE, LOW ENVIRONMENTAL FOOTPRINT



## PRODUCTION WELL

**Drilled in 2024**

**Purpose:** Supply ~1,000m<sup>3</sup> per day of lithium enriched brine

## DISPOSAL WELL

**Drilled in 2024**

**Purpose:** Dispose of ~1,000m<sup>3</sup> per day of lithium depleted brine

## SOURCE WELL

**Drilled in 2024**

**Purpose:** Provide source water for operations

## FACILITY

**Construction 2025**

**Purpose:** De-risk DLE at a Commercial Scale, where additional DLE units can be replicated to scale up production



# PRAIRIE LITHIUM PROJECT

PAD #1 – FALL 2024



## PRODUCTION WELL

**Drilled in 2024**

**Purpose:** Supply ~1,000m<sup>3</sup> per day of lithium enriched brine

## DISPOSAL WELL

**Drilled in 2024**

**Purpose:** Dispose of ~1,000m<sup>3</sup> per day of lithium depleted brine

## SOURCE WELL

**Drilled in 2024**

**Purpose:** Provide source water for operations

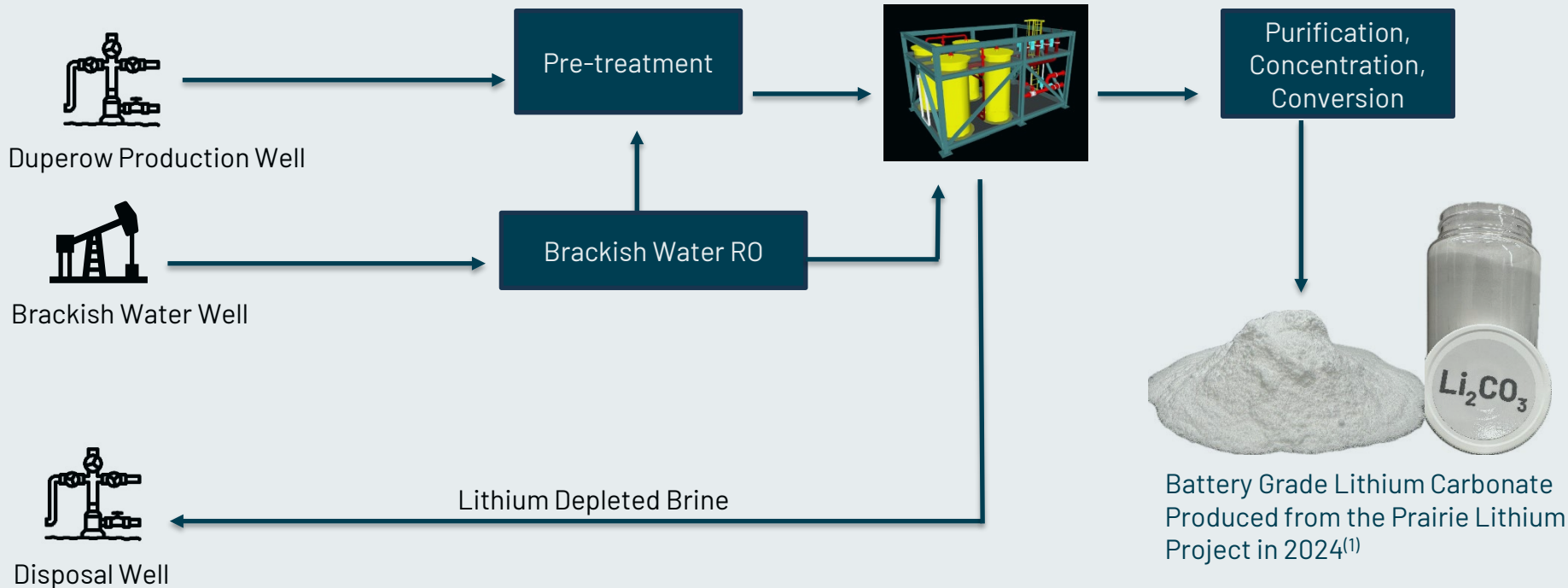
## FACILITY

**Construction 2025**

**Purpose:** De-risk DLE at a Commercial Scale, where additional DLE units can be replicated to scale up production

# PRAIRIE LITHIUM PROJECT

INNOVATIVE & LOW-COST FLOWSHEET



(1) ASX Announcement – “Battery Grade Lithium Carbonate Produced From Prairie” – 6 August 2024

# PRAIRIE PROJECT PFS

KEY PROJECT PARAMETERS <sup>(1)</sup>			ECONOMIC EVALUATION <sup>(1)</sup>		
TIMELINE	UNITS	PFS RESULT	PARAMETERS	UNITS	PFS RESULT
Lithium Price	USD \$/tonne	<b>\$21,000</b>	NPV <sub>8</sub> Pre-Tax	USD \$ millions	<b>\$448</b>
Opex	USD \$/tonne	<b>\$2,819</b>	NPV <sub>8</sub> Post-Tax	USD \$ millions	<b>\$312</b>
Total Capex (excluding contingency)	USD \$ millions	<b>\$290</b>	IRR Pre-Tax	%	<b>23.9</b>
Average LCE Production	tonnes/year	<b>6,000</b>	IRR Post-Tax	%	<b>20.4</b>
			Payback Period	Years	<b>2.2</b>

## PFS Highlights:

- Global Lithium LLC estimates that large contract pricing will trade in a range from the high USD \$20's/kg to \$40/kg<sup>(1)</sup> (USD \$20,000 – \$40,000 / tonne LCE)
- 6,000tpa (total modelled production from wells for 20 years <3% of Indicated Resource)<sup>(1)</sup>
- Capex US\$290 million (plus contingency) → ~US\$70 million per pad <sup>(1)</sup>
- Opex US\$2,819 / tonne <sup>(1)</sup> → one of the lowest cost projects globally

Source: (1) ASX Announcement of Prairie Lithium PFS (28/12/23). Information in this announcement that relates to Net Present Value, IRR and Payback Period calculation and Key Project Parameters has been extracted from the Company's announcement released to ASX on 29 December 2023. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of the estimate of the Net Present Value, IRR and Payback Period that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.



# BIG SANDY PROJECT OVERVIEW

## Key Points:



### Strategic Partnership with Navajo Transitional Energy Corporation (NTEC)<sup>(1)</sup>

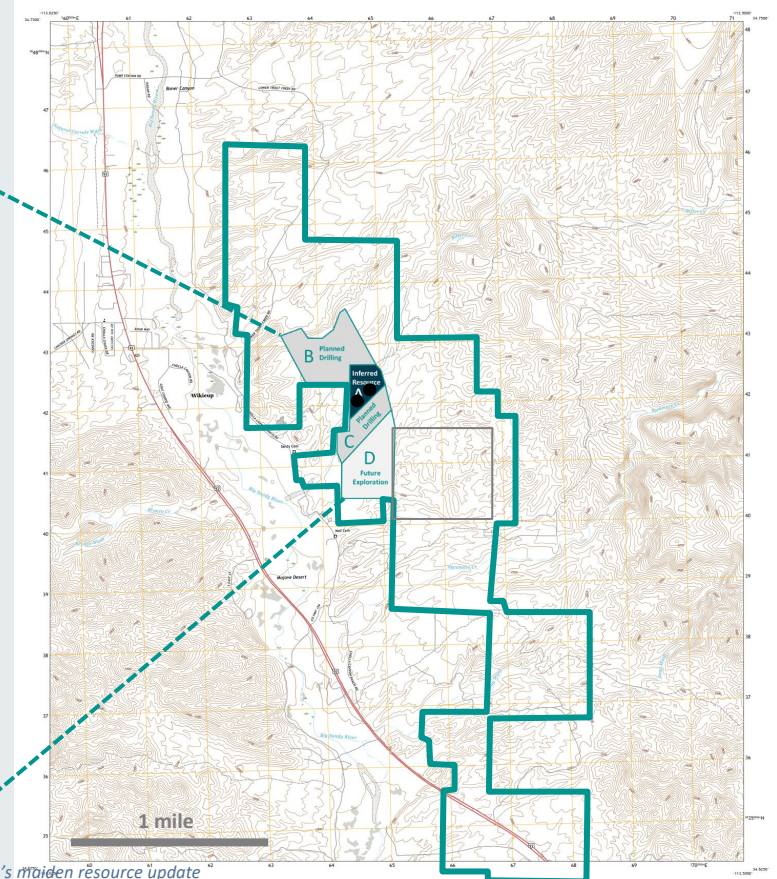
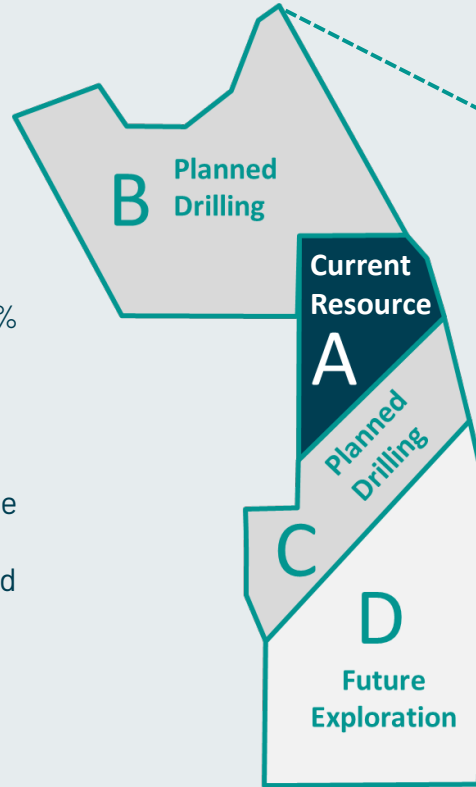
- First drilling program completed in 2019
- Bulk Samples collected in July 2024
- Total Inferred and Indicated Resource **320,800 tons<sup>(2)</sup>** of LCE from 4% of the landholding
- Production of high-quality battery grade Lithium Carbonate of **99.8%<sup>(3)</sup> purity (Battery Grade >99.5% purity)** from Big Sandy Ore
- The Big Sandy Lithium Project is located in northwest Arizona, approximately 225 kilometres north of Phoenix, and approximately 90 kilometres southeast of the regional center of Kingman



# BIG SANDY PROJECT RESOURCE

## EXPLORATION UPSIDE

- **Strategic Mining Service Agreement with Navajo Transitional Energy Company (NTEC)<sup>(1)</sup>**
- Inferred and Indicated Resource of **320,800 tons<sup>(2)</sup>** of LCE from 4% of the landholding at Big Sandy
- Two hours north of Phoenix with direct access from Highway 93
- Future development plans include drilling to the north and south of the current Indicated and Inferred Resource



Notes: (1) ASX Announcement of Mining Services Agreement With NTEC For Development & Production At Big Sandy (11/03/24); (2) See AZL's maiden resource update in announcement "Big Sandy Lithium Project (Arizona, USA) Maiden Mineral Resource" – 26 September 2019.

# LITHIUM RESEARCH CENTER

## WORLD CLASS FACILITIES

- The Lithium Research Center (LRC) is located in **Tempe, Arizona**
- Supports the Prairie Lithium & Big Sandy Project's via **Pilot Plant and Laboratory operations**



# WHY ARIZONA LITHIUM

## WELL POSITIONED IN NORTH AMERICA



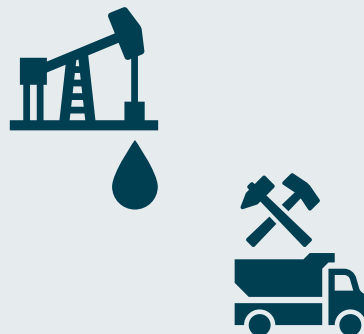
### MODULAR SCALE UP:

The Prairie Lithium project can be put into production on a modular basis, reducing the economy of scale and total capex required to see initial production



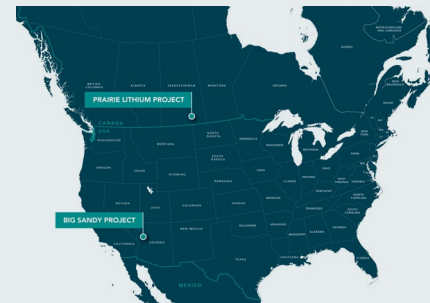
### STRATEGIC PARTNERS:

Prairie Lithium project – Koch  
Big Sandy project – NTEC



### RESOURCE DIVERSITY:

Brine – Prairie Lithium project  
Sedimentary – Big Sandy project



### STABLE JURISDICTIONS:

Prairie Lithium project –  
Saskatchewan, Canada

Big Sandy project – Arizona,  
USA

# NEWS FLOW

PROJECT	DESCRIPTION	TIME
Prairie Project	Resource upgrade	Q1 2025
Big Sandy Project	Ore test work at LRC	Q1 2025
Prairie Project	Commence facility construction at Pad #1	Q2 2025
Prairie Project	Secure additional Pad locations	Q3 2025
Prairie Project	Commission wells at Pad #1	Q3 2025
Prairie Project	Commission facility at Pad #1	Q4 2025
Prairie Project	Arrival of commercial scale Li-Pro DLE unit	October 2025
Prairie Project	First production from commercial scale Li-Pro DLE	December 2025



## Disclaimer

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### COMPETENT PERSON STATEMENT

The information in this report regarding exploration results, exploration targets and the mineral resources is based on and fairly represents information compiled by Mr Gregory Smith, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Smith has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Smith is a consultant of the Company. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements and that the material assumptions and technical parameters underpinning the Resource estimate continue to apply.

### COMPETENT PERSONS STATEMENT FOR PRAIRIE AND REGISTERED OVERSEAS PROFESSIONAL ORGANISATION (ROPO) AND JORC TABLES

Gordon MacMillan P.Geo., Principal Hydrogeologist of Fluid Domains, who is an independent consulting geologist of a number of brine mineral exploration companies and oil and gas development companies, reviewed and approves the technical information pertaining to the resource within the release. Mr. MacMillan is a member of the Association of Professional Engineers and Geoscientists of Alberta (APEGA), which is ROPO accepted for the purpose of reporting in accordance with the ASX listing rules. Mr. MacMillan has been practising as a professional in hydrogeology since 2000 and has 24 years of experience in mining, water supply, water injection, and the construction and calibration of numerical models of subsurface flow and solute migration. Mr. MacMillan is also a Qualified Person as defined by NI 43-101 rules for mineral deposit disclosure. He has sufficient experience relevant to qualify as a Competent Person as defined by the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)'.

Dean Quirk, P.Eng, President of Grey Owl Engineering Ltd., reviewed and approves the technical information within the release. He is a registered Professional Engineer in Saskatchewan, Canada, and has worked in the engineering field for 28 years. Mr. Quirk is a Qualified Person as defined by 17 CFR § 229.1302 - (Item 1302) and has been involved in several pilot test programs, engineering design studies, and full scale projects which include the commodity discussed in this release. He has sufficient experience relevant to qualify as a Competent Person as defined by the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)'.

The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements and that the material assumptions and technical parameters underpinning the Resource estimate continue to apply.

## For further information:

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## Appendix

# Mineral Resource Summary

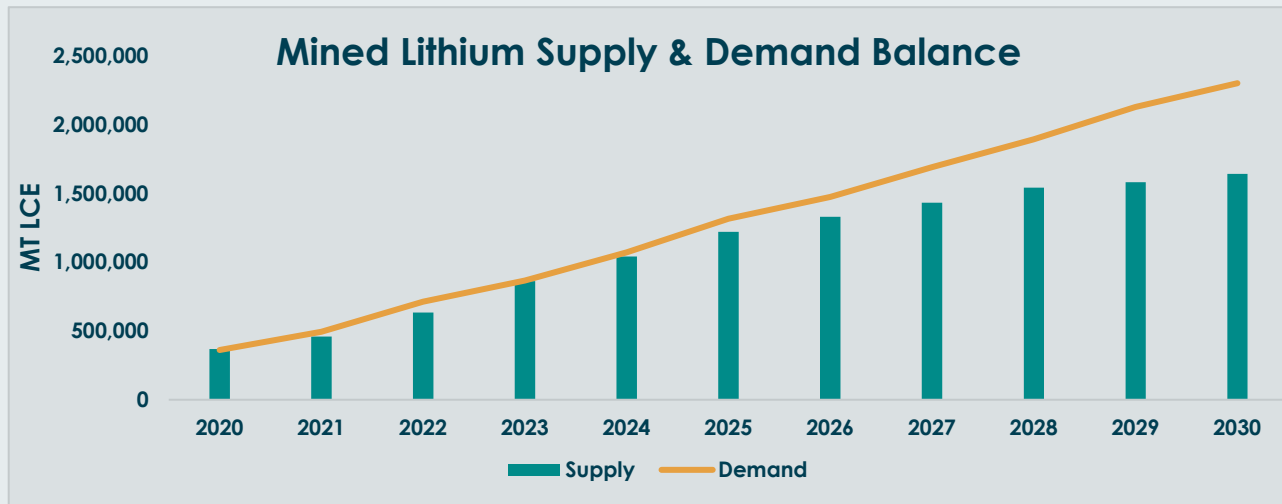
## BIG SANDY PROJECT

Resource Classification	Tonnes (Mt)	Li Grade (ppm)	Contained Li Metal (t)	Contained LCE (kt)
Indicated Resource	14.6	1,940	28,400	151
Inferred Resource	17.9	1,780	31,900	170
<b>Total Resource</b>	<b>32.5</b>	<b>1,850</b>	<b>60,300</b>	<b>320.8</b>

BIG SANDY LITHIUM PROJECT (ARIZONA, USA) MAIDEN MINERAL RESOURCE – ASX Announcement (September 26, 2019)

# Lithium Supply & Demand Dynamics Support Price Appreciation

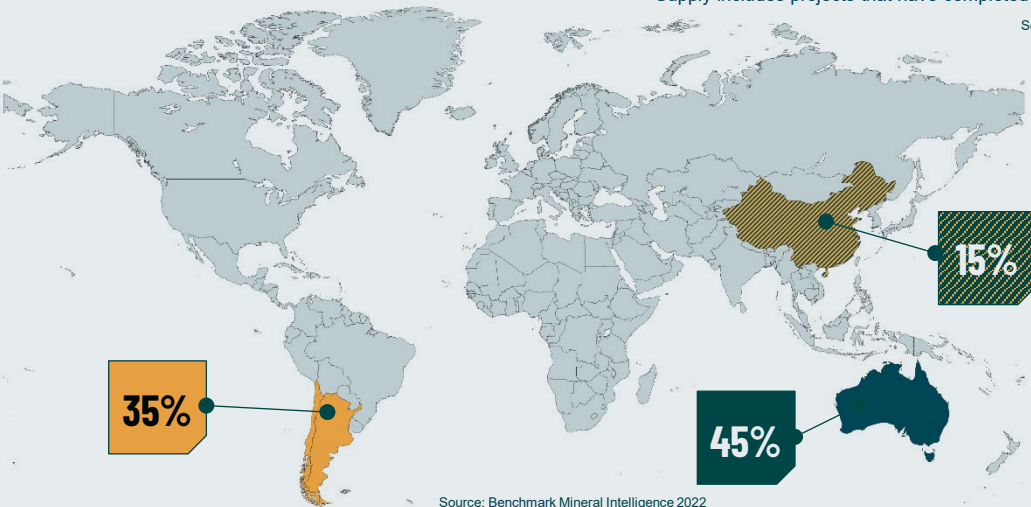
Lithium supply has struggled to keep pace with demand.



## Current Lithium Supply

\*Supply includes projects that have completed necessary public market requirements, government approvals and are fully funded

Source: Benchmark Mineral Intelligence 2022



### MAIN DEPOSIT TYPE

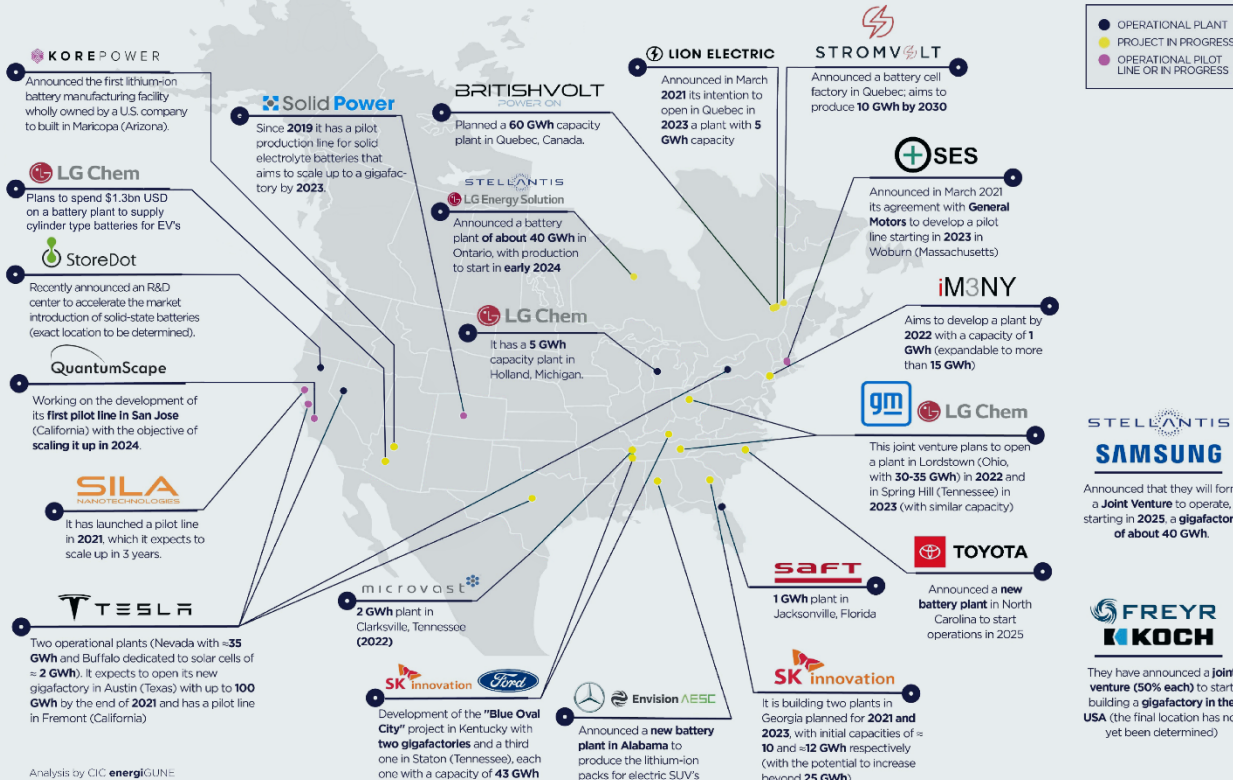
- Brine
- Hardrock
- Brine/Hardrock

COUNTRY	PRODUCTION tLCE/Year	SHARE
Australia	307,000	45%
Chile	205,000	30%
China	103,100	15%
Argentina	34,100	5%
Brazil	14,000	2%
Zimbabwe	5,000	<1%
USA	3,000	<1%
Canada	2,500	<1%
Bolivia	2,000	<1%
Portugal	2,000	<1%

Source: Benchmark Mineral Intelligence 2022

# North America Lithium Industry

## A growing future customer base



- GM, Ford and Stellantis have committed >\$50 billion to electrify their fleets
- A significant battery materials supply chain needs to be built in North America to support these commitments

### References

1. Stellantis announcement (May 24, 2022)
2. Ford announcement (May 19, 2021)
3. GM electrification commitment (November 17, 2022)



Announced that they will form a Joint Venture to operate, starting in 2025 a gigafactory of about 40 GWh.



They have announced a joint venture (50% each) to start building a gigafactory in the USA (the final location has not yet been determined)