

## Developing Alberta's Largest and Highest Grade (LCE) Lithium Brine Resources for North America's Energy Future



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Additionally, forward-looking statements involve a variety of known and unknown risks, uncertainties and other factors which may cause the actual plans, intentions, activities, results, performance or achievements of the Company to be materially different from any future plans, intentions, activities, results, performance or achievements expressed or implied by such forward-looking statements. Such risks include, without limitation: the Company's operations could be adversely affected by possible future government legislation, policies and controls or by changes in applicable laws and regulations; public health crises such as the COVID-19 pandemic may adversely impact the Company's business; the volatility of global capital markets; the failure of the Company to attract and retain skilled personnel; new environmental, health and safety regulations adversely affecting the mineral exploration industry; poor staffing of exploration activities and poor access to services and supplies at its properties; changes in labour costs and other costs and expenses or equipment or processes to operate as anticipated; unanticipated costs; risks of the earlier termination of the Company's material contracts or business arrangements; and the risk factors set out under the heading "Risk Factors" in the Company's final long form non-offering prospectus dated March 1, 2022, available for review on the Company's profile at [www.sedarplus.ca](http://www.sedarplus.ca), many of which are beyond the ability of the Company to control or predict.

Technical information in this report has been reviewed by Mr. Kevin Piepgrass (Chief Operations Officer, LithiumBank Resources Corp.), who is a Member of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) and the Association of Professional Engineers and Geoscientists of the province of BC (APEGBC) and is a Qualified Person (QP) for the purposes of NI 43 101. Mr. Piepgrass consents to the inclusion of the data in the form and context in which it appears.

Mineral resources that are not mineral reserves do not have demonstrated economic viability.

\* The mineral resource NI 43-101 Technical Report for the Boardwalk Project, with effective date Dec. 20, 2022, identified 393,000 t LCE Indicated and 5.8 Mt LCE inferred and the NI 43-101 Preliminary Economic Assessment, Technical report, with effective date February 22, 2024, are available on LithiumBank's website ([www.lithiumbank.ca/investors/documents](http://www.lithiumbank.ca/investors/documents)) and SEDAR+ ([sedarplus.ca](http://www.sedarplus.ca))

# THE FUTURE OF CANADIAN LITHIUM

## Development Agreement (DA) signed with Leading Energy Services and Technology Supplier

- ❖ DA to advance Boardwalk to commercial production
- ❖ Feasibility to be completed in 2026

## Boardwalk: The highest-grade lithium project in Alberta

- ❖ Pro-development permitting regime
- ❖ No carbon sequestration (pore space) overlap

## Abundant infrastructure

- ❖ Wells, pipelines, roads, power, water

## Modular approach with 5,000 tpa LCE units

- ❖ Reduces CAPEX
- ❖ Compelling capital intensity

## DLE technology proven at demonstration scale

- ❖ Boardwalk to use process established at commercial operations



# CORPORATE PROFILE

## Development History

- ❖ Invested > \$40M in exploration and development
- ❖ Consolidated ~ 1.24M ac of Mineral Licenses
- ❖ Defined two National Instrument (NI) 43-101 lithium Resource Estimates
  - Boardwalk** – 5.2 Mt LCE M&I @ 81.6 mg/L Li & 2.8 Mt LCE Inferred at 79.0 mg/L Li
  - Park Place** – 15.1 Mt LCE Inferred @ 80.0 mg/L Li
- ❖ Boardwalk PEA – February 2024
- ❖ Completed multiple successful DLE piloting campaigns
- ❖ Engaged with SLB, completed feasibility level subsurface modeling and DLE piloting at Boardwalk
- ❖ Acquiring 2nd well for future production
- ❖ DA Signed to develop Boardwalk to Production

LithiumBank Resources Corp.	
Share Price	\$0.64
Shares I/O	64.1 MM
Warrants & Options	16.3 MM
Insider Ownership	35%
Market Cap	\$40.4 MM
Debt	None



Boardwalk PEA Metrics	
Annual LHM Production	34,005 tonnes
Opex	USD \$4,588/t
Post-Tax NPV <sub>8</sub>	USD \$2.3 BB
Insider Ownership	35%
Payback	3.5 Years

# LITHIUMBANK BRINE HOSTED MINERAL LICENSES

LithiumBank holds 502,082 ha of exploration and development lithium brine licenses in Western Canada

## Alberta

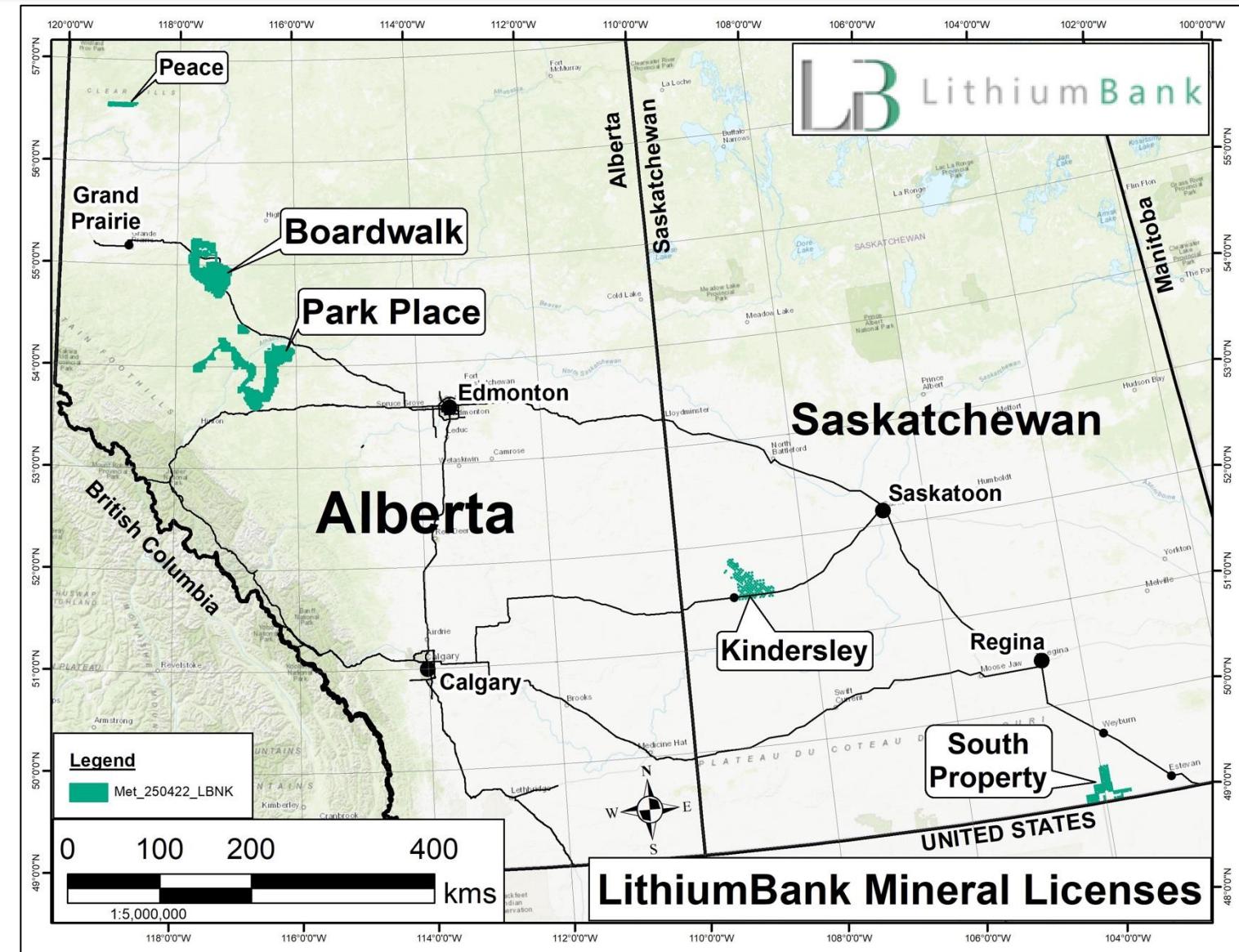
- ❖ Boardwalk: 159,979 ha
- ❖ Park Place: 226,683 ha
- ❖ Peace: 13,920 ha

## Saskatchewan

- ❖ Kindersley: 47,306 ha
- ❖ South: 54,193 ha

## Development Ready Holdings

- ❖ No carbon sequestration overlap
- ❖ Development ready assets without freehold



# BOARDWALK PROJECT AND LEDUC RESERVOIR

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## Project Metrics

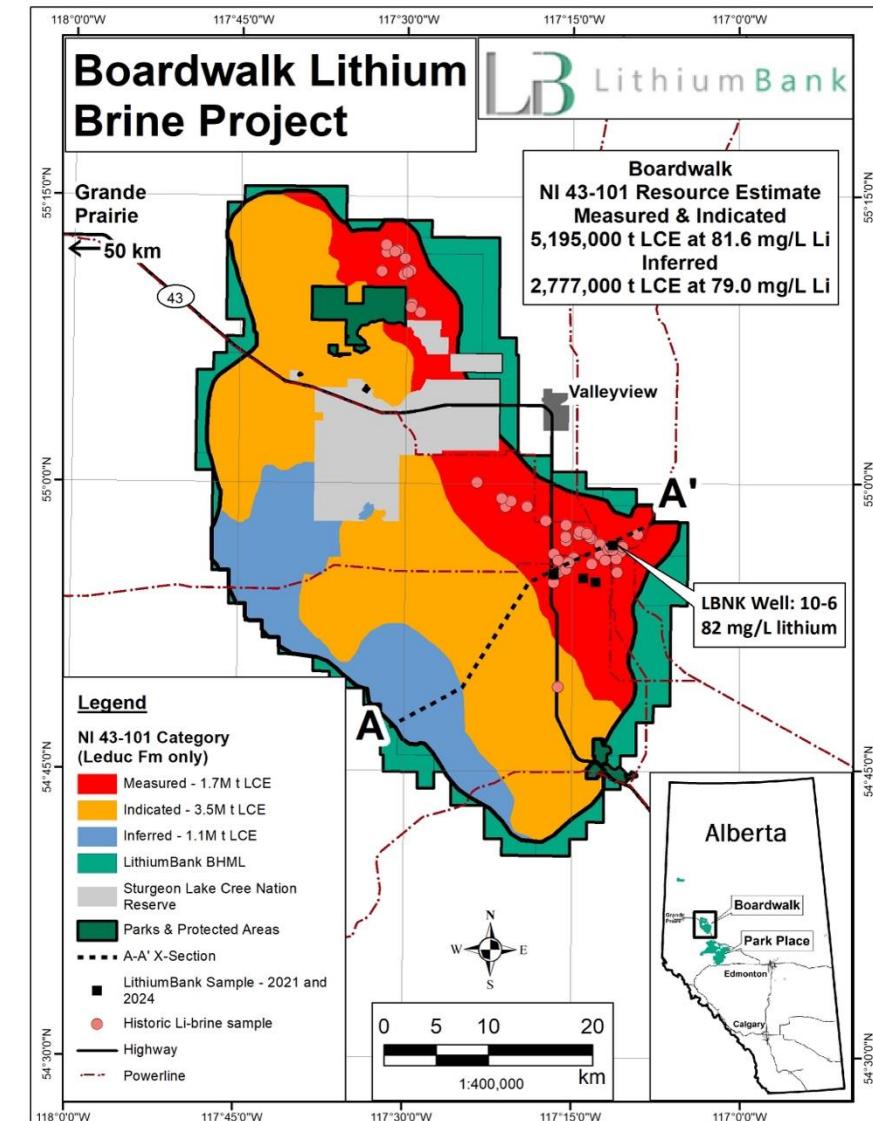
- ❖ Highest Grade M&I Lithium Resource in Alberta
- ❖ 5.2 Mt LCE M&I @ 81.6 mg/L Li & 2.8 Mt LCE Inferred @ 79.0 mg/L Li
- ❖ Planned Production rate of 34,005 tpa over 20 yrs
- ❖ Pre-Tax NPV<sub>8</sub> US\$3.7 Billion and EBITDA US\$715 Million

## Leduc Geology

- ❖ Devonian aged dolomitic reef complex
- ❖ Extensive historic hydrocarbon production
- ❖ >400 wells in Leduc
- ❖ Over 230 m thick in project area
- ❖ Consistent deliverability, brine chemistry and lithium grades

## Large Land Package And Simple Tenure

- ❖ 395,308 contiguous acres of mineral licenses
- ❖ 100% crown – no freehold royalties
- ❖ No carbon sequestration (pore space) overlap



# BOARDWALK DEVELOPMENT AGREEMENT

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## Advancing Boardwalk to Commercial Production with Construction Targeted for 2027

Strategic Partnership	Development Plan
<ul style="list-style-type: none"><li>❖ Signed DA Dec 2025 with Leading Energy Services and Technology Supplier (LESTS)</li><li>❖ Will develop Boardwalk to Commercial Production</li><li>❖ Includes attractive DLE royalty-based licensing terms</li></ul>	<ul style="list-style-type: none"><li>❖ Initial phase: 2 DLE modules targeting 10,000 tpa LCE</li><li>❖ Modular: Scalable with 5,000 tpa LCE Units</li><li>❖ Improves capex efficiency</li></ul>
Why LESTS	Technical Progress
<ul style="list-style-type: none"><li>❖ 100+ years global engineering expertise</li><li>❖ Leader in industrial + AI-enabled process tech.</li><li>❖ End-to-end DLE solution: low water/energy use and fewer reagents</li></ul>	

### Pathway to Production

FS → Detailed Engineering → Procurement → Phased Construction → Commissioning

# BOARDWALK INFRASTRUCTURE

## **Tier One Jurisdiction**

## Location

- ❖ Edmonton (Alberta's Capital City) <3 hour drive
- ❖ Grande Prairie <1 hour drive

## Access

- ❖ 4-lane divided highway through production zone

## Power

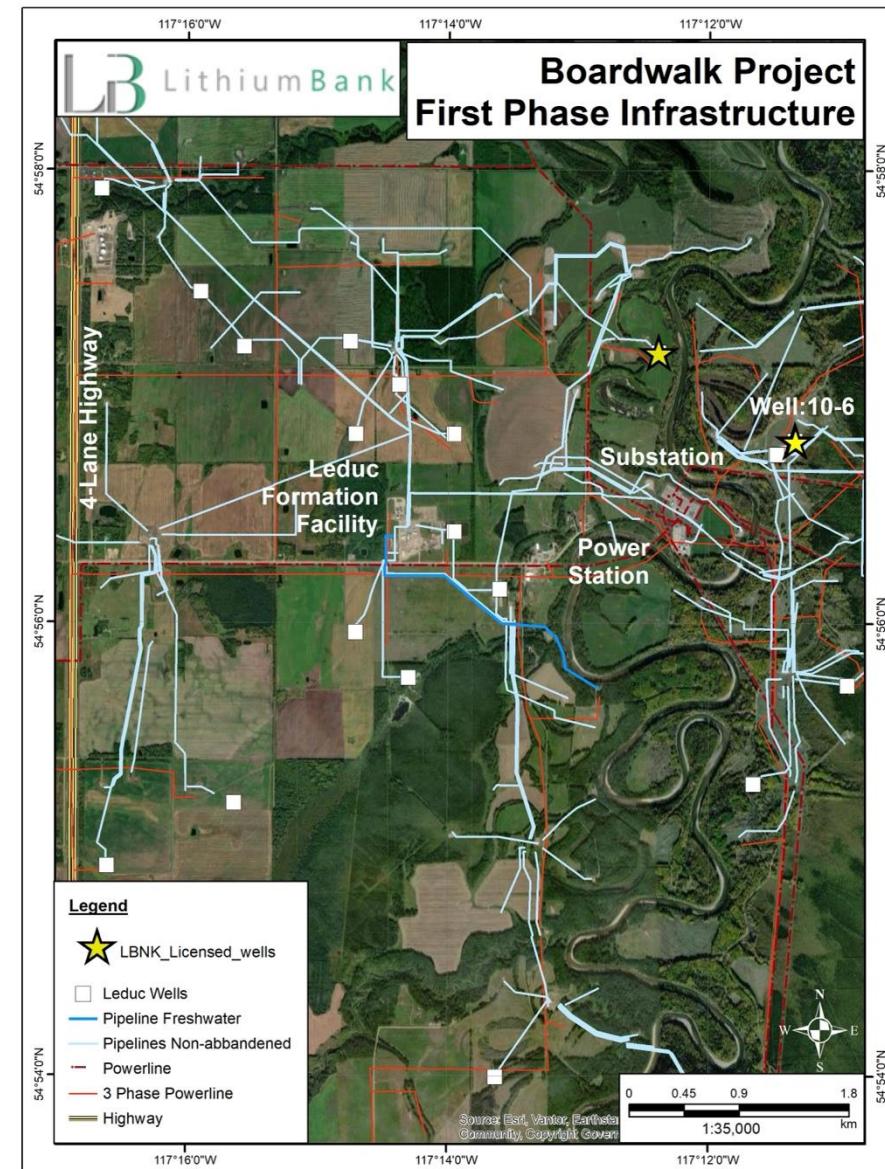
- ❖ 240 kV power lines through production zone

## Water

- ❖ Little Smoky River through production zone

## Current Infrastructure

- ❖ Leduc facility <3 km from 4-lane divided highway and Smoky substation and power station
- ❖ 3-phase power to most of the well network



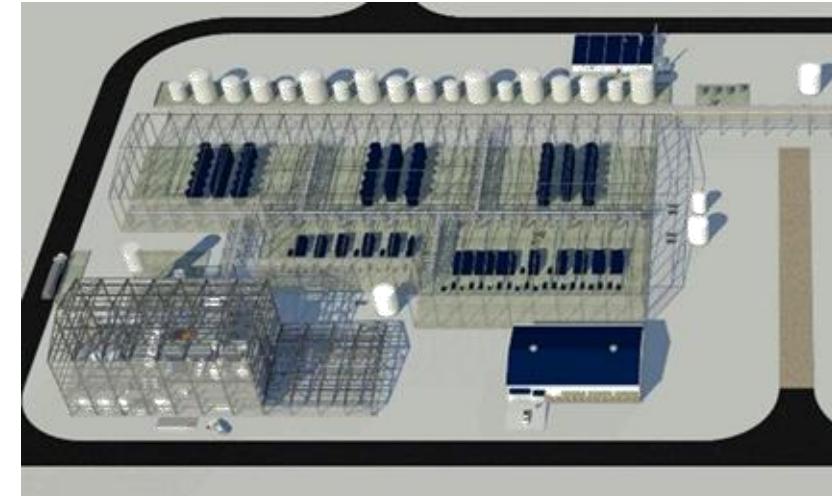
# LITHIUMBANK'S DLE ADVANTAGE

**SLB** DLE-Based Process and Technology  
Proven at Demonstration Scale at Clayton Valley



Nevada demonstration plant produced LCE on-site  
from sub-surface brine

Modular design **ensures cost-effective scalability**  
aligned with LBNK's growth objectives.



3 modules ~13,500 t LCE/yr

**SLB's**  
proven  
process

Subsurface  
engineering

Well-field optimization  
and asset management



Impurity  
removal

H2S, hydrocarbon  
and solids removal



Extraction

Lithium recovery of 85%  
- 95% =, with higher  
rates achieved  
depending on the  
brine's characteristics



Polishing and  
concentration

15-20 times lithium  
concentration using  
innovative energy-  
efficient technology

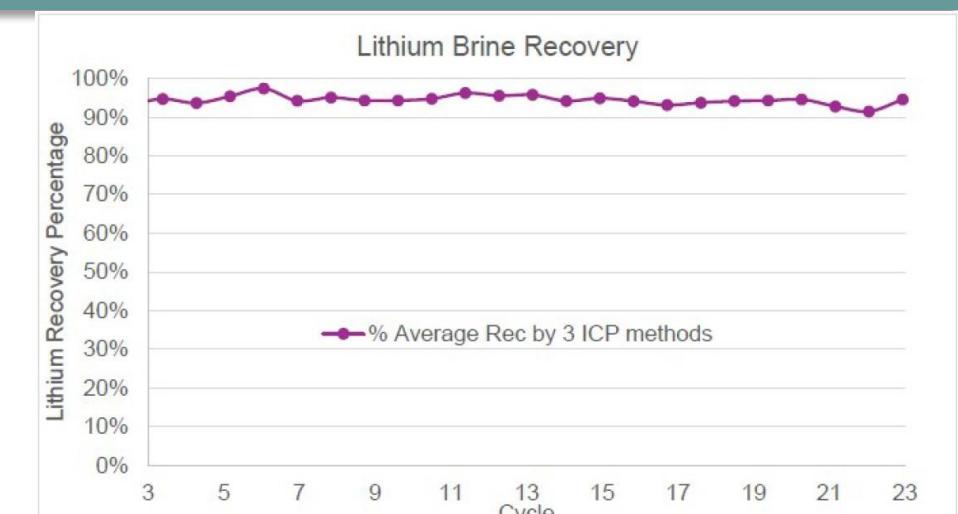


Conversion

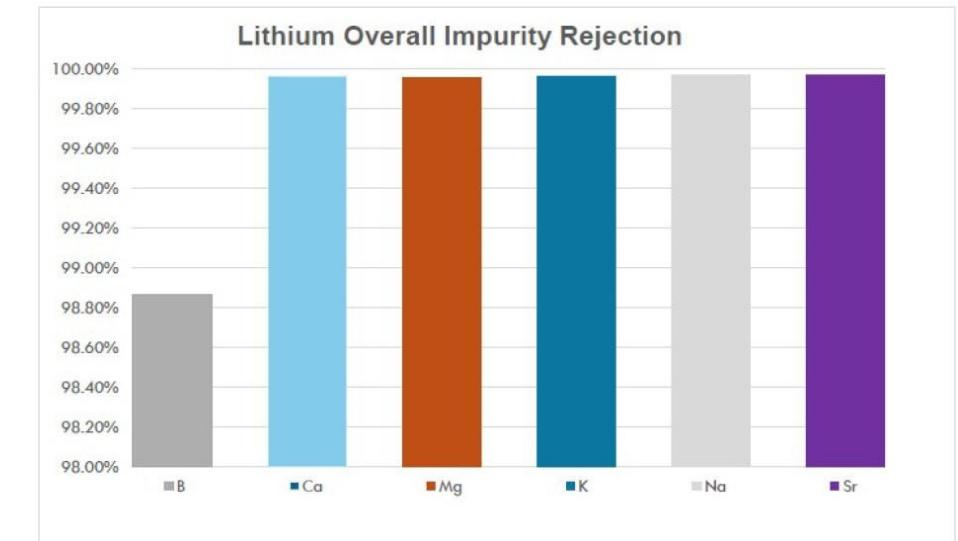
Battery-grade  
lithium carbonate or  
lithium hydroxide

# MATURE DLE PROCESSING TECHNOLOGY

- ❖ SLB has long history of working in the Alberta Energy sector
- ❖ LithiumBank has been working with SLB for almost 3-years on the subsurface and DLE
- ❖ Boardwalk brine achieved an exceptionally pure LiCl (eluate) product and 95% lithium recovery from recent pilot testing using SLB/ILiAD DLE technology
- ❖ DLE concentrates brine ~12x
- ❖ Second pilot campaign to commence December 2025 for optimization and downstream piloting to a battery grade Li<sub>2</sub>CO<sub>3</sub>
- ❖ SLB has built a demonstration scale pilot that is at 1/10th scale of a commercial scale module (Clayton Valley Nevada)
- ❖ Largest lithium brine demonstration pilot in the world which ran for ~1-year and produced ~10 tonnes lithium carbonate).



95% average Li recovery from SLB pilot testing



99.9% average overall impurity rejection

# PARK PLACE PROJECT

## Project Metrics

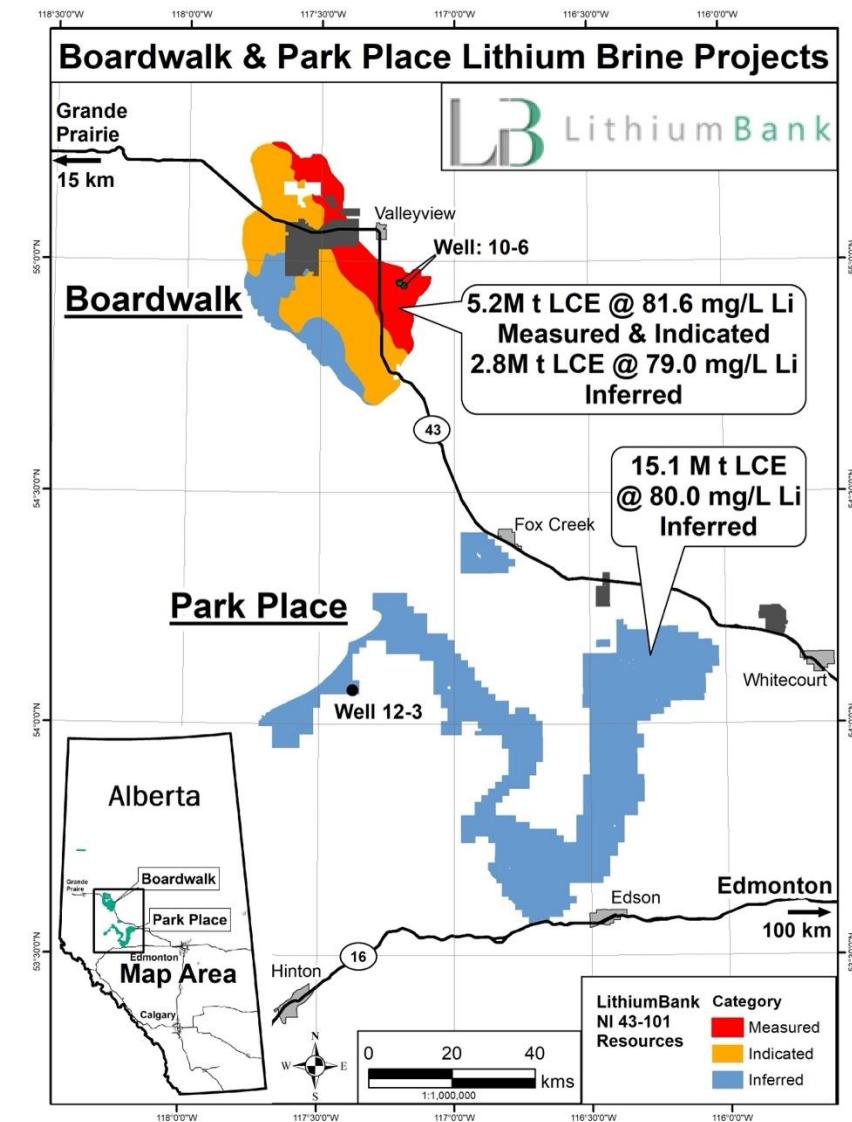
- ❖ High Grade Alberta resource
- ❖ 80.0 mg/L in the Leduc Fm and 79.4 mg/L in the Swan Hills Fm
- ❖ 15.1 Mt LCE Inferred @ 80.0 mg/L Li
- ❖ 3D & 2D seismic over 450 wells with 40 Li brine samples
- ❖ Reservoir >350 m thick in potential production

## Large Land Package And Simple Tenure

- ❖ 538,359 contiguous acres of mineral licenses
- ❖ 100% crown – no freehold royalties
- ❖ No carbon sequestration (pore space) overlap

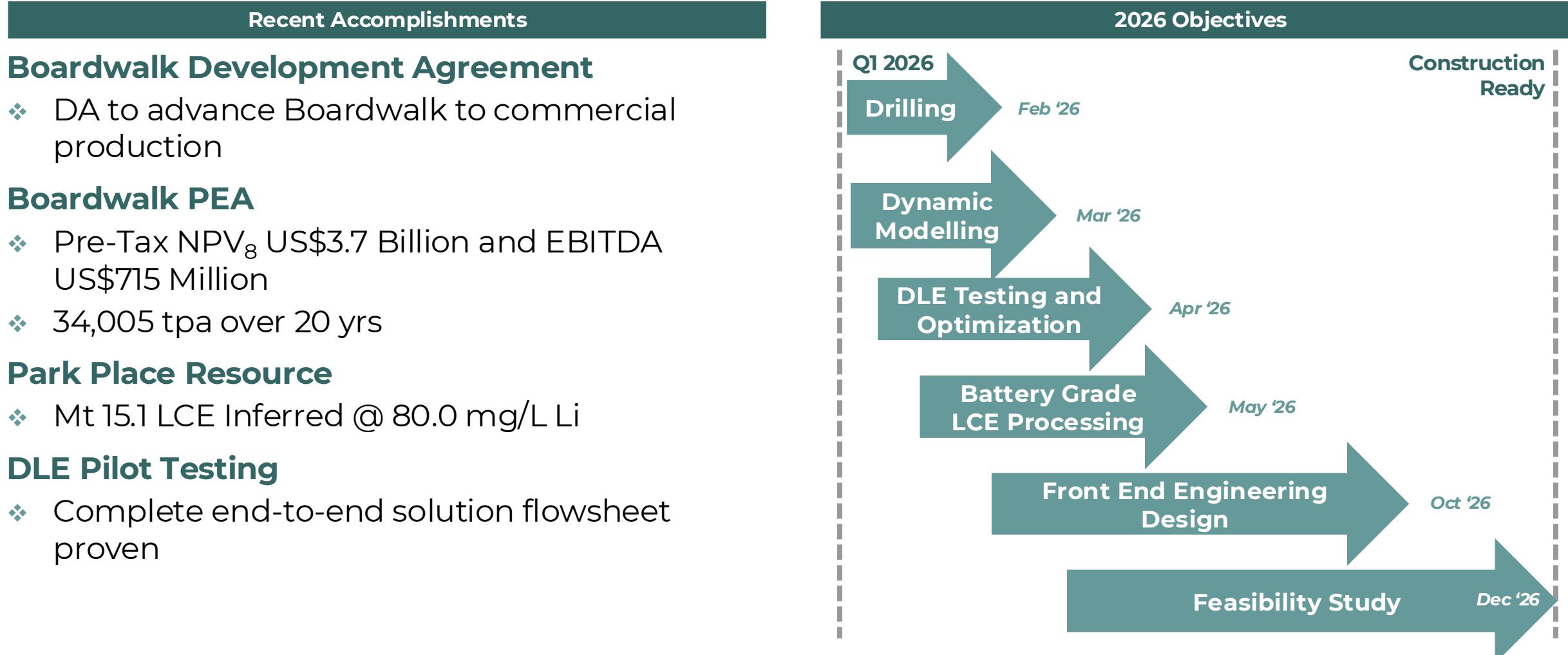
## Recent Highlights

- ❖ SLB - DLE pilot test confirms ~95% lithium recovery and > 99% impurity rejection



# MILESTONES ACHIEVED AND 2026 OBJECTIVES

## Pathway to Commercial Production with Construction Targeted for 2027



# NORTH AMERICAN LITHIUM RESOURCES

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**LithiumBank holds the largest brine (LCE) resources by any company in North America**

## Boardwalk

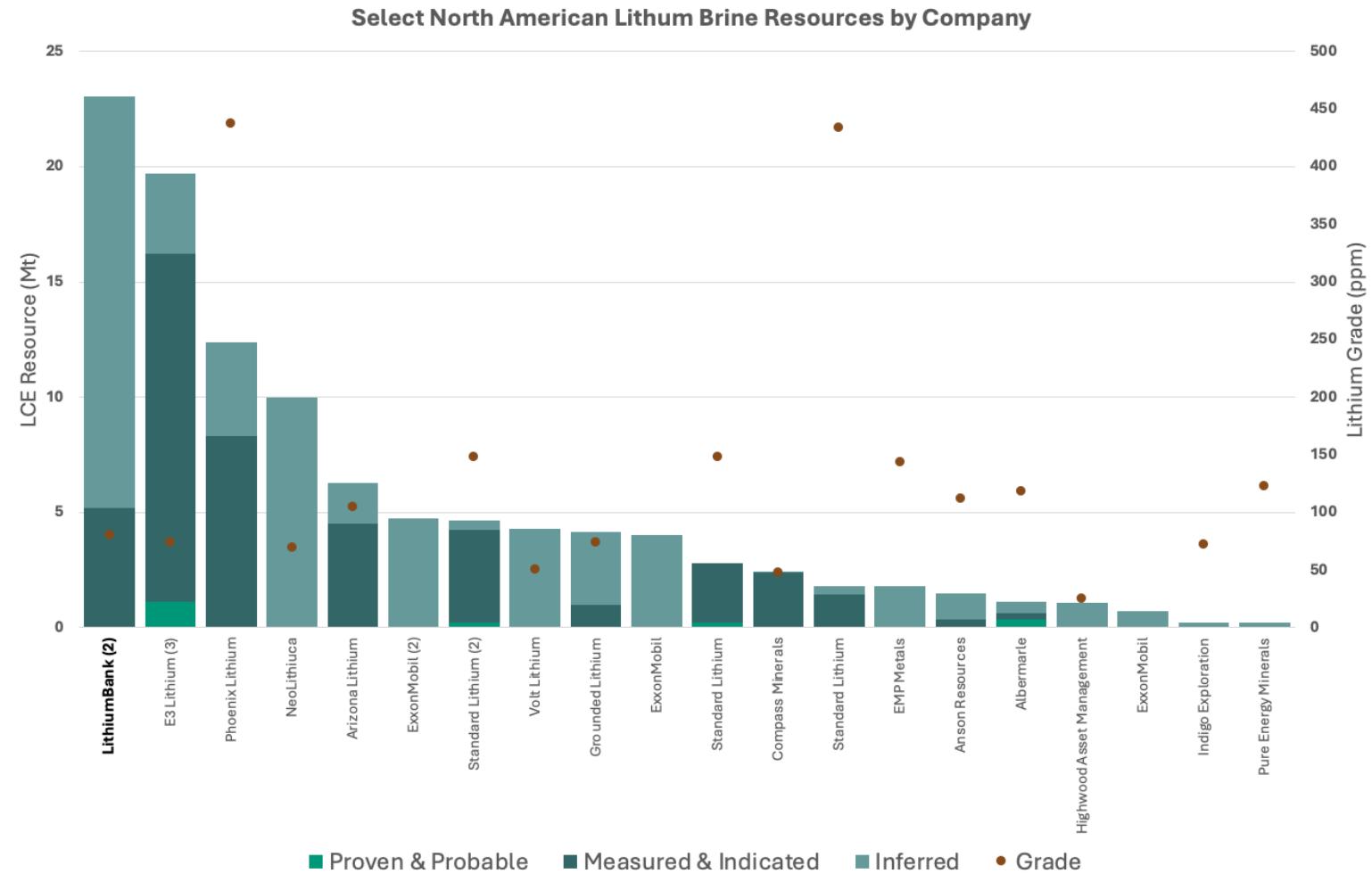
- ❖ 5.2 Mt LCE Measured & Indicated @ 81.6 mg/L Li
- ❖ 2.8 Mt LCE Inferred @ 79.0 mg/L Li

## Park Place

- ❖ 15.1 Mt LCE Inferred @ 80.0 mg/L Li

## Total

- ❖ 5.2 Mt LCE M&I
- ❖ 17.9 Mt LCE Inferred



# ALBERTA – TIER ONE JURISDICTION

## Provincial Funding Committed and Received for Development

### Financing of Additional Brine Well

- ❖ ~\$2,500,000
- ❖ 50% refund from Emissions Reduction Alberta (ERA)

### Feasibility Study, FEED, and FID

- ❖ ERA to refund 50% of expenditures up to \$2,100,000
- ❖ Additional funding opportunities in progress

### DLE & Mineral Processing to Battery-grade LCE

- ❖ \$850,000
- ❖ 50% refund from ERA



“LithiumBank’s pilot plant is an important advancement for Alberta’s diverse energy and mineral landscape. We are a global leader in ethically produced energy and are working to be at the forefront of the development of energy transition minerals. This is another example of Alberta innovation and helping produce global solutions to reduce emissions”

Alberta Energy Minister Brian Jean  
LithiumBank Facility July 10, 2024



LithiumBank continues to advocate for a competitive development environment

Meeting with Alberta Premier Danielle Smith  
July 15, 2025

# SASKATCHEWAN ASSETS

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## Keystone holdings in an emerging lithium brine district

### Kindersley

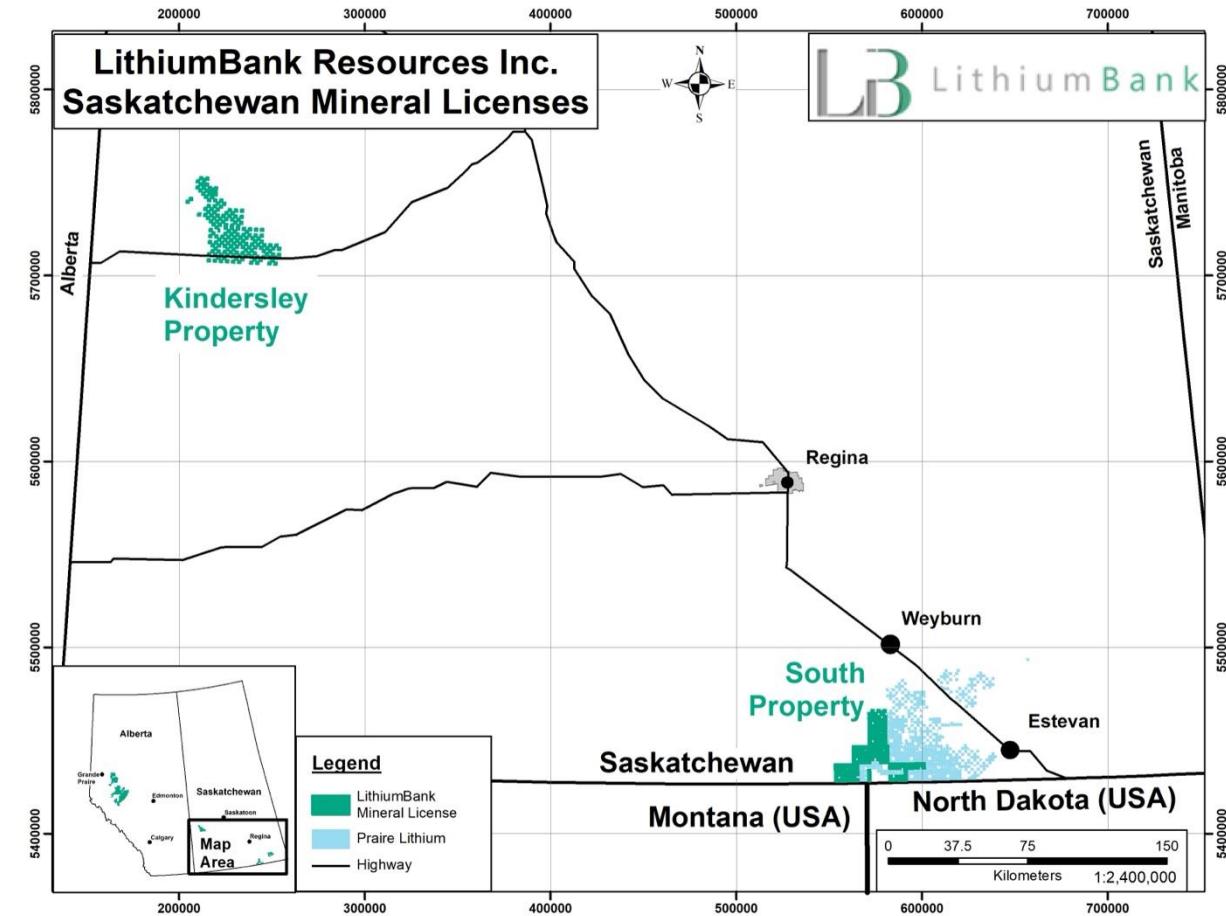
- ❖ 116,845 acres of Crown Land
- ❖ Adjacent to Grounded Lithium/Denison Mines PEA-level project

### South

- ❖ 133,858 acres of Crown Land
- ❖ Adjacent to Prairie Lithium (ASX:PL9) core production area

### Regional Transactions

- ❖ LithiumBank sold its Estevan project for \$15M in April 2024



# PARTNERSHIPS



## SLB

LithiumBank engaged SLB to complete a NI 43-101 Resource Estimate which includes detailed subsurface reservoir modeling, 3D seismic interpretation, and DLE test work.



## Hatch

Hatch was engaged by LithiumBank to assess DLE processes and authored Boardwalk's updated PEA published in January 2024



## Invest Alberta

LithiumBank signed a non-binding MOU with Invest Alberta to support the development of commercial lithium production.



## ZS2 Technologies

Signed a nonbinding MOU with ZS2 to combine technologies to capture CO<sub>2</sub> from LBNK, extract Mg from brine and sequester CO<sub>2</sub> in Mg cement

# LIHTIUMBANK TEAM



## **Paul Matysek, M.Sc. (Geochem)** Executive Chairman

Mr. Matysek is a geoscientist by training, a successful alpha entrepreneur and consistent creator of shareholder value with over 40 years of experience in the mining industry. Since 2007, as either CEO or Executive Chairman, Mr. Matysek has sold six publicly listed mineral exploration and development companies, in aggregate worth over \$2.5 billion.



## **Rob Shewchuk** Co-Founder, CEO & Director

Mr. Shewchuk began his career as a licensed Equities Trader and Stockbroker with Yorkton Securities in Calgary, Alberta in 1996. He joined Standard Securities Capital Corporation in 2004 and became Chairman in 2007. He merged Standard with Wolverton Securities Ltd. in 2009 where he was a Managing Director until it was sold to PI Financial Corp with \$6 Billion in AUM in 2016.



## **Kevin Piepgrass, P.Geo** Chief Operating Officer

University of Alberta Graduate and Professional Geologist, registered at APEGBC & APEGBC. Over 20 years of experience managing the exploration and development of commodities including gold, silver, copper, lithium and rare earth elements. Mr. Piepgrass is a Qualified Person pursuant to National Instrument 43-101 standards for disclosure for mineral projects.



**Christopher Murray**  
Director



**Steven Piepgrass,**  
**P.Eng, MBA**  
Director



**Katya Zotova**  
Director



**Ann Fehr**  
CFO & Corp. Sec.



**Jon LaMothe, M.Sc**  
VP Exploration



**Leo Karabelas**  
Investor Relations



**Nikolas Matysek**  
Director of  
Communications

# LITHIUM MARKET FUNDAMENTALS

## Market Drivers

- ❖ Transportation, electrification and EV mandates will drive increasing demand for Lithium
- ❖ Continued global trade decoupling will increase the importance of domestic supply
- ❖ Demand is anticipated to outstrip supply from all sources by 2027
- ❖ Past lithium cycles have generated significant returns from trough to peak

## North American Market Support

**May 2025**

Canada Commits \$550M to Critical Minerals Funding

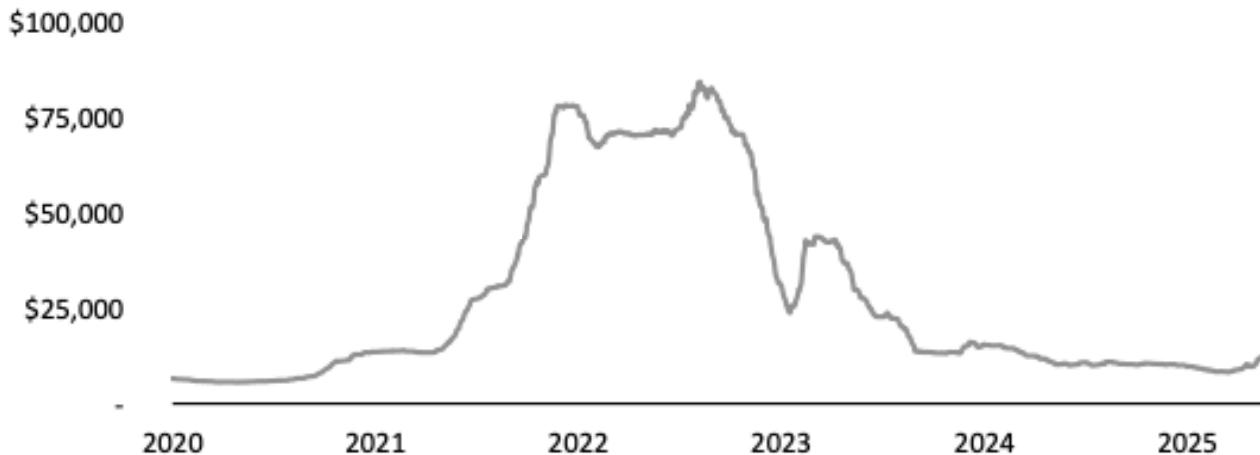
**June 2025**

G7 Critical Minerals Action Plan

**August 2025**

U.S. DOE \$1B Funding for Critical Minerals

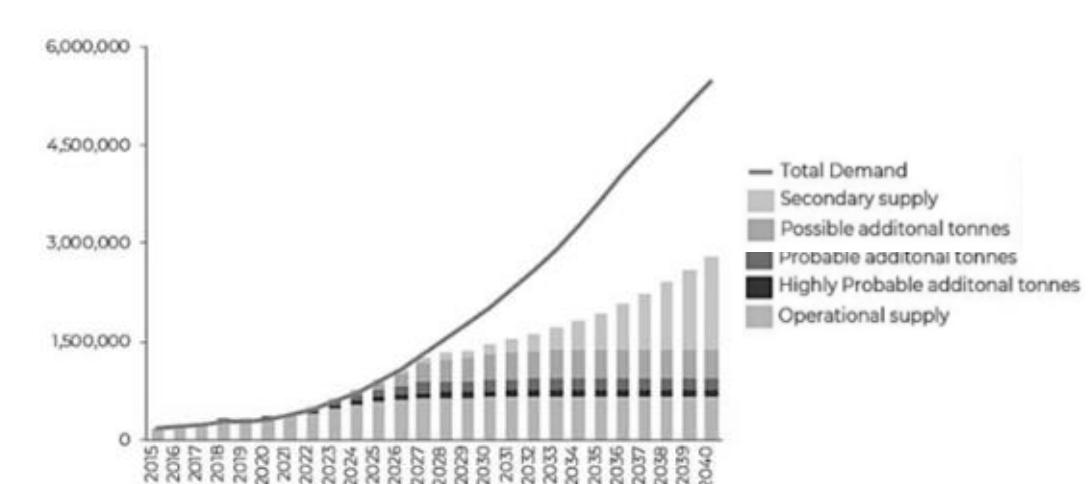
## Historical LCE Price Performance (USD/t)<sup>1</sup>



1. Bloomberg Market data as of September, 2025

2. Source: Benchmark Mineral Intelligence

## Supply Deficit<sup>2</sup>



# INVESTMENT HIGHLIGHTS

## Development Agreement signed with Leading Energy Services and Technology Supplier

**Development Agreement** to advance Boardwalk to **commercial production**  
**Feasibility** to be completed in **2026**

## Largest brine LCE Resources in North America and highest-grade lithium project in Alberta

**Pro-development permitting** regime  
**No CCUS/pore space** overlap, freehold or **oil production**

## Tier 1 jurisdiction with abundant infrastructure

**Wells, pipelines, roads, power, water**

## Modular deployment

**Reduces** CAPEX  
Compelling **capital intensity**

## Proven Management Team

Created **>\$2B** in shareholder value over **8 transactions**

# Contact Us

✉ [rob@lithiumbank.ca](mailto:rob@lithiumbank.ca)

