

CLEAN HIGH PURITY LITHIUM

Efficient Clean Technology

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10 December 2020 Battery Week

LAKE
R E S O U R C E S

CLEANER LITHIUM
FOR AN **ELECTRIC WORLD**

ASX:LKE FRA:LK1 OTC:LLKKF



Disclaimer

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Forward Looking Statements

Certain statements contained in this presentation, including information as to the future financial performance of the projects, are forward-looking statements. Such forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Lake Resources N.L. are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; involve known and unknown risks and uncertainties and other factors that could cause actual events or results to differ materially from estimated or anticipated events or results, expressed or implied, reflected in such forward-looking statements; and may include, among other things, statements regarding targets, estimates and assumptions in respect of production and prices, operating costs and results, capital expenditures, reserves and resources and anticipated flow rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions and affected by the risk of further changes in government regulations, policies or legislation and that further funding may be required, but unavailable, for the ongoing development of Lake's projects. Lake Resources N.L. disclaims any intent or obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words "believe", "expect", "anticipate", "indicate", "contemplate", "target", "plan", "intends", "continue", "budget", "estimate", "may", "will", "schedule" and similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein. Lake does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

Competent Person Statement

The information contained in this presentation relating to Exploration Results, Mineral Resource estimates and the associated Indicated Resource, which underpins the production target in the pre-feasibility study, have been compiled by Mr Andrew Fulton. Mr Fulton is a Hydrogeologist and a Member of the Australian Institute of Geoscientists and the Association of Hydrogeologists. Mr Fulton 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. Andrew Fulton is an employee of Groundwater Exploration Services Pty Ltd and an independent consultant to Lake Resources NL. Mr Fulton consents to the inclusion in this presentation of this information in the form and context in which it appears. The information in this presentation is an accurate representation of the available data to date from initial exploration at the Kachi project and initial exploration at the Cauchari project.

Solution to EV & Cathode/Battery Maker Demand

Key Demand – Consistently high purity & more sustainable

- **#1 High Purity Battery Materials - to avoid performance issues –**
Low impurities are being sought in battery materials to ensure reliable battery performance
- **#2 Responsibly Sourced, Traceable, Sustainable Battery Materials -**
With transition to electric vehicles from fossil fuel vehicles, demand for more sustainable battery materials is critical. Smaller CO2, water, physical, energy footprint.
- **#3 Low Cost Structure -** To deliver affordable batteries for electric vehicles
- **Lake/Lilac Solution –** High purity/low impurity consistently; Cost Competitive; Scalable; Small environmental footprint; Returns 99% brine to source; Low water usage

Clean Technology – No Mining – High Purity

- **Clean Technology – Direct Extraction by Partner, Lilac Solutions** – Efficient lithium separation from brine; backed by Bill Gates-led Breakthrough Energy fund
- **High Purity Lithium** - 99.97% purity battery quality lithium carbonate: Kachi Project
- **Responsibly Sourced; Sustainable; ESG** – Returns 99% brine to source
- **Demonstrated Path to Production – Kachi Project**
Successful pilot plant module; Small scale-up to production; Cost-competitive; Large project

Direct extraction - Clean, Efficient

Re-engineered well-known technology in water treatment

- Efficient – just lithium removed from brine
- Faster – days not months or years
- Higher recoveries than evaporation
- High purity – because only lithium removed
- Cost competitive with traditional method
- Scalable, flexible to meet demand quickly
- Environmentally friendly - small footprint
- Returns brine to source; no change to chemistry; no heating of brine

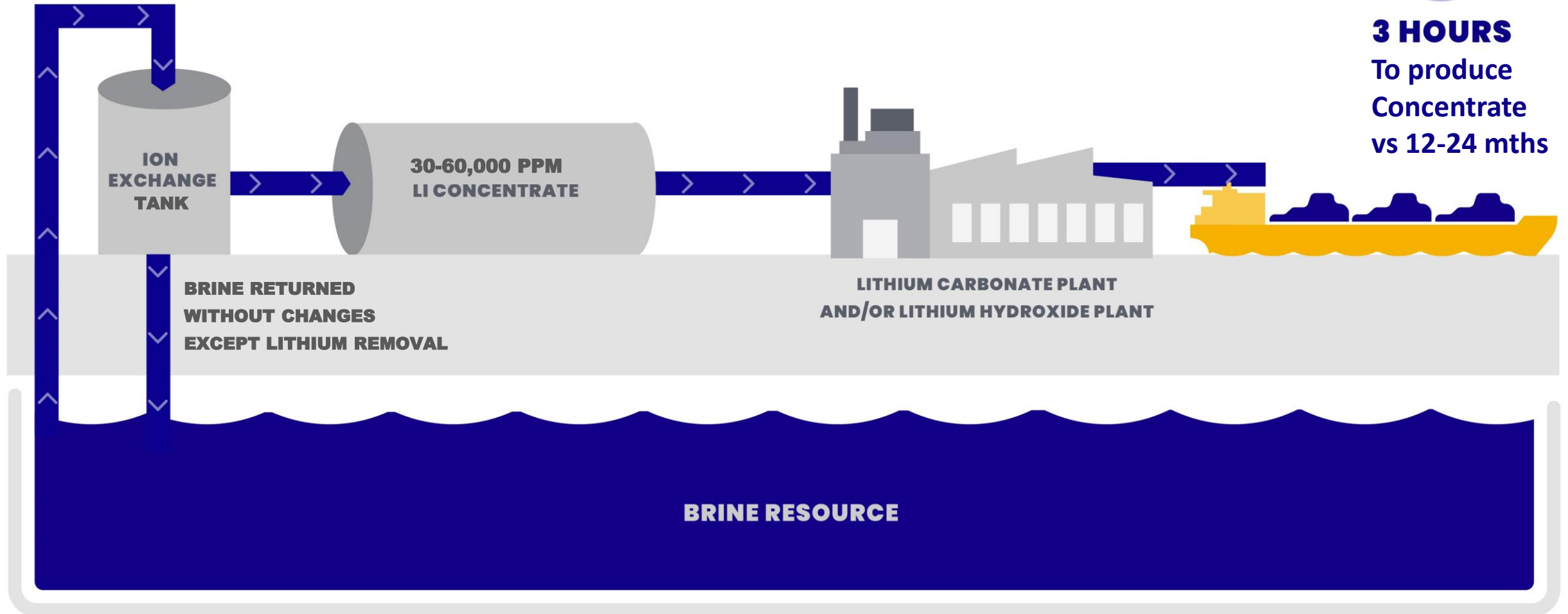


Direct extraction. Ion Exchange Process Lilac Solutions

Replaces Evaporation Ponds with Ion Exchange Modules
Simple Process – Repeated every 2.5 hours
Simple Flowsheet to produce lithium carbonate

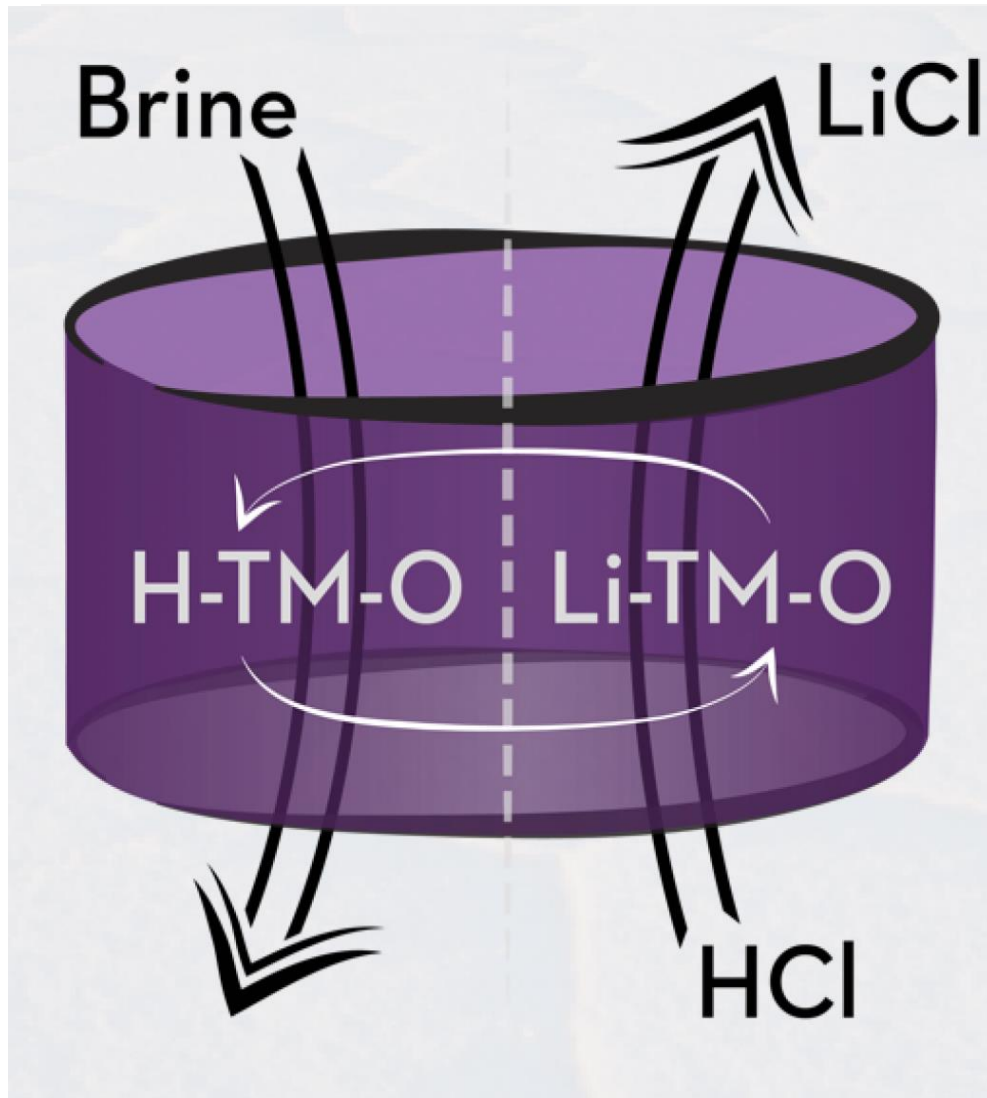


3 HOURS
To produce
Concentrate
vs 12-24 mths



Direct extraction.

Ion Exchange Process - Lilac Solutions



Durable Performance

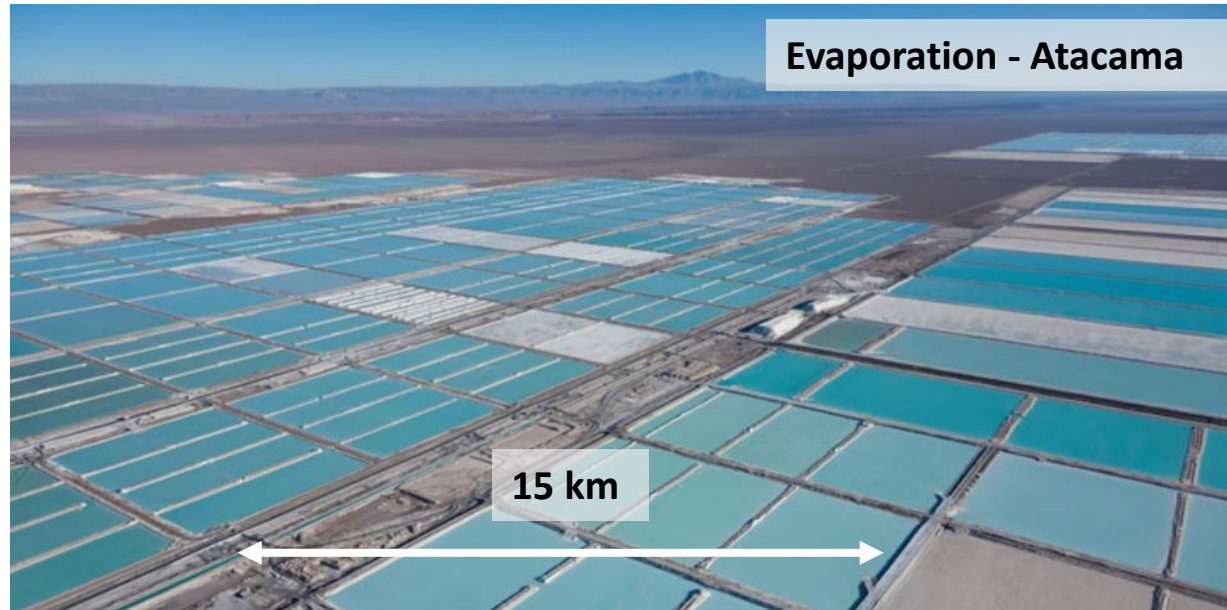
- High lithium recovery (80%-98%)
- Tolerates impurities
- Bead durability

Low Cost and Scalable

- Modules for rapid installation
- No brine heating
- Low capital and operating costs

Direct extraction - Small Environmental Footprint - 90% less

Lilac Direct Extraction Footprint vs Brine Evaporation Ponds (Atacama) and Hard Rock Mining (Greenbushes)



Direct Extraction:
Returns
brine to source

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High Purity

99.97% Purity Lithium Carbonate

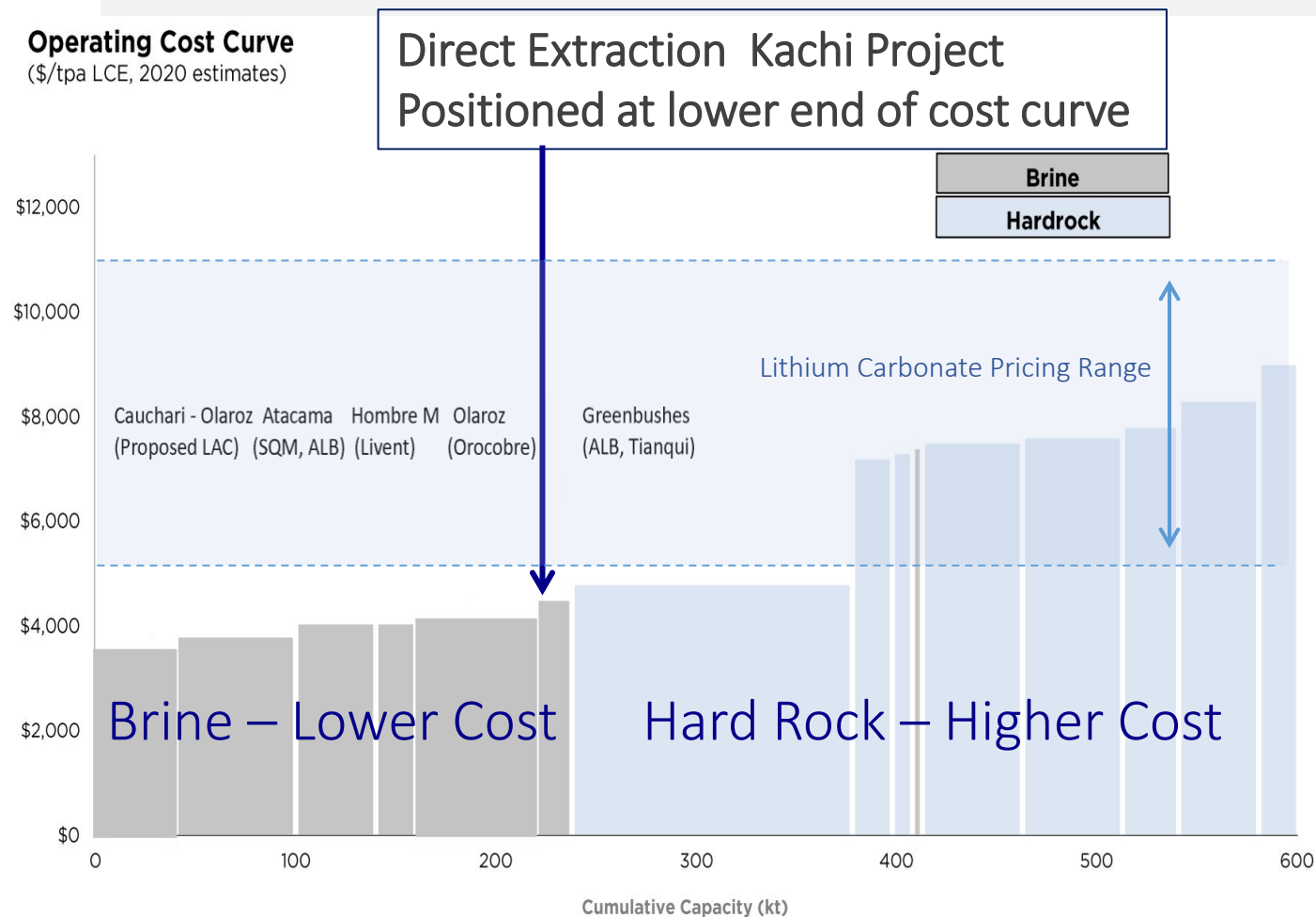
Produced from Kachi project brines

After processing in Lilac direct extraction pilot module

- Battery Grade considered to be 99.5%
- Kachi samples have very low impurities (60x less than 99.5% battery grade)
- Simple flowsheet; cost – competitive

Low Impurities - Premium Pricing - Cost Competitive

Operating Cost Curve
(\$/tpa LCE, 2020 estimates)



Chemical Component	Actual (wt%)	Target
Lithium (Li)	99.97	99.5 Min
Sodium (Na)	0.0011	0.025 Max
Magnesium (Mg)	<0.001	0.008 Max
Calcium (Ca)	<0.001	0.005 Max
Potassium (K)	0.0049	0.005 Max
Sulphur (S)	<0.01	0.01 SO4 Max
Aluminum (Al)	<0.001	0.001 Max
Iron (Fe)	<0.001	0.001 Max
Silicon (Si)	<0.001 *	0.005 Max
Boron (B)	<0.001	0.005 Max

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Source: Street research including Cauchari-Olaroz DFS and Thacker Pass (before by-product credits). Includes CORFO royalty assuming price of \$9,000/t of lithium carbonate

Lithium Americas (LAC:TSX-V)
Information Nov 2019

Source: LKE announcements 20/10/2020, 14/01/2020

Sustainable Lithium - In demand

Electric Vehicle Makers want more sustainable battery materials in EV's

- **Electric Vehicle Makers, EU Seek More Sustainable Lithium –**
Volkswagen, Daimler, BMW, EU want more responsible sourcing of battery materials (Reuters)
- **Direct extraction is not mining and avoids water politics**
- **Lilac backed by high profile successful investors –**
Lilac supported by Bill Gates-led Breakthrough fund, MIT's The Engine Fund
- **Entire Life Cycle Important – Process reduces environmental cost**

High Purity Lithium Process – Few Steps; De-Risked

Pumping Brines - Kachi



Direct Extraction Lithium Chloride – Lilac Pilot Plant Module



Lithium Carbonate - Hazen



Cathode/ Battery - Novonix



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De-Risked Processing; Simple Production Scale-up

Direct Extraction Lithium – Lilac Pilot Plant Module



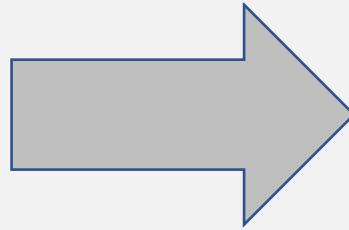
**Pilot
1-2 modules**

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**Pilot to
Production**



Direct Extraction Lithium – Lilac Production Scale



**Production Scale
50+ modules**

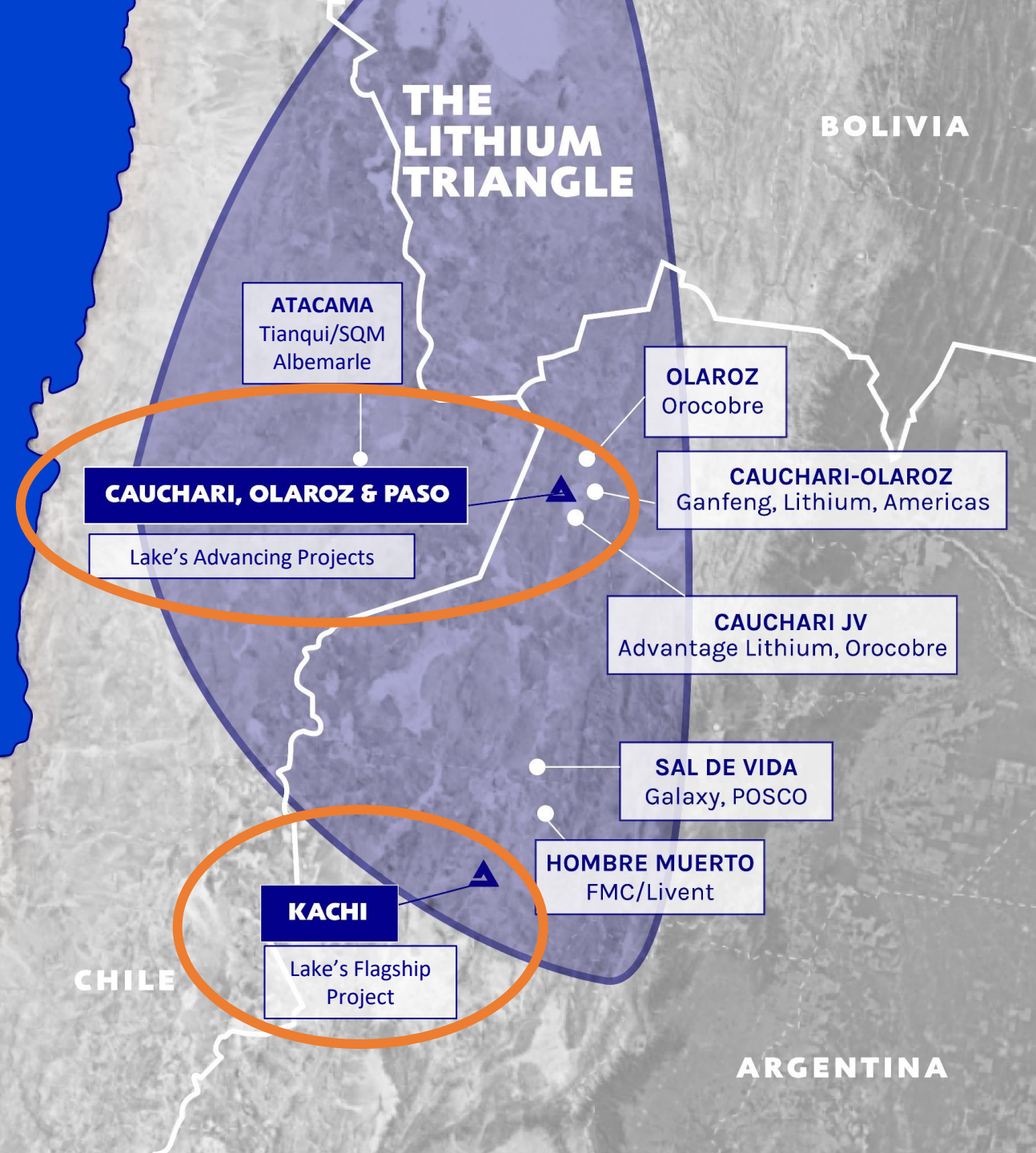
Modules here are not an example of the actual modules

Prime Location – Large Producers.

Lithium Triangle: 40% of
world's lithium production
at the lowest cost.

5 largest producers all have operations
ALB, SQM, LTHM + Tianqui, Ganfeng

Lake has a large project at Kachi
3 other brine projects



Kachi Project.

100% Lake owned

Major brine resource - Top10

4.4 Mt LCE Total Resource

(1Mt LCE Indicated Resource; 3.4 Mt Inferred)

PFS only uses 20% of resource

70,000 hectares of leases

PFS in 2020

DFS/ESIA in 2021

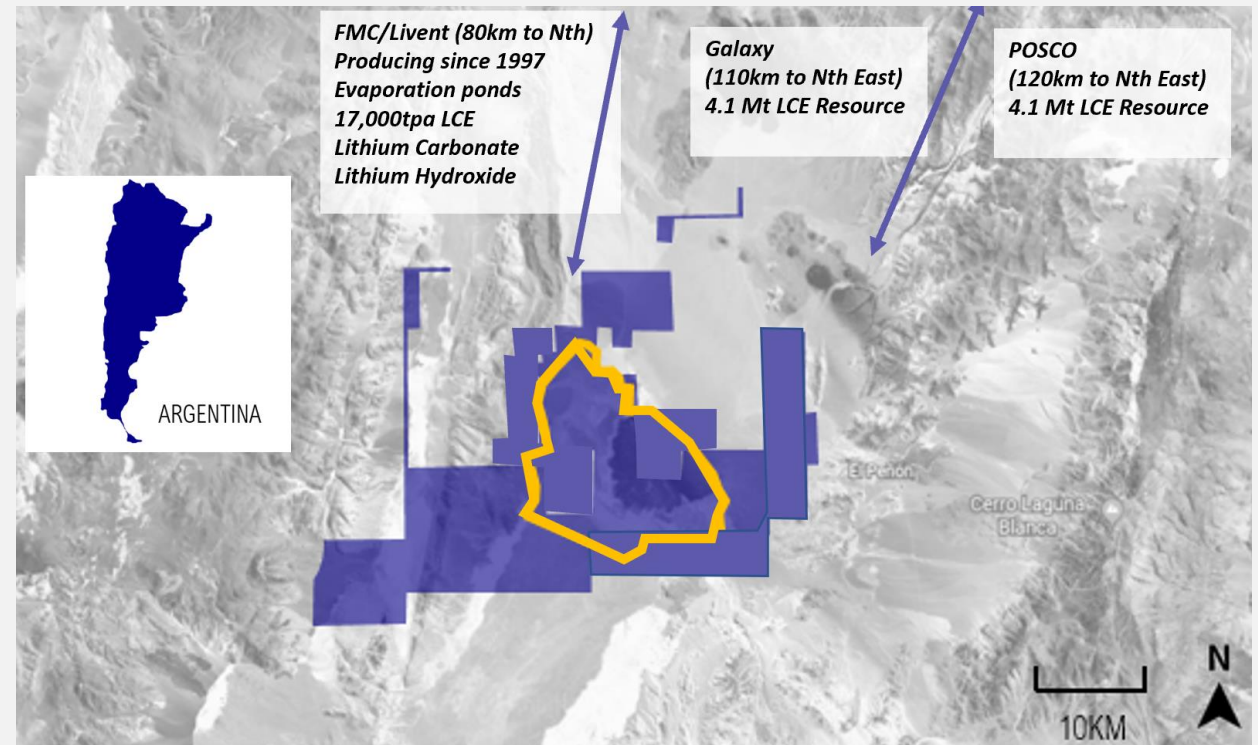
Production 25,500tpa in 2023





Why Kachi? Advantages: Large, Clean, Expandable

- **Large:** 4.4 million tonne LCE.
- **Expandable:** Open laterally;
Open at depth
- **Clean:** Brine low in impurities
- **Long Life, High Value:**
25 year production 25,500 tpa LCE;
US\$1050 million project value
- **Cost Competitive:**
Operating costs similar to
evaporation ~US\$4100/t
- **Scalable:** Modular processing
allows easy scaling to +50,000tpa



LAKE RESOURCES (ASX:LKE , OTC:LLKKF)

Total Current Shares on Issue

817,128,624

Listed Options (10c)	Jun 2021 Expiry	52,512,693
Unlisted Options (4.6c)	Oct 2022 Expiry	18,300,000
Unlisted Options (8c)	Feb 2022 Expiry	5,555,000
Unlisted Options (9c)	Jul 2021 Expiry	15,000,000

Market Data

Market Cap (\$A)

@ \$0.077/ sh (10 day VWAP, 7 Dec)

**A \$62 million
US\$46 million**

Cash (\$A)

30 Sept 2020

A\$3 million

Secured debt

\$ 0

Share Price

52 week range

\$0.023 – 0.095/sh

Share Register

40% Top 30, High Net Worth Investors

Lake Resources N.L. Chart



Clean High Purity Lithium - Unique Proposition.

- **New Clean Technology for High Purity Lithium** – Growing need
- **Responsibly Sourced & Sustainable** - Lake uniquely positioned to satisfy demand for high quality battery material more responsibly sourced without mining. Enables a clean future
- **21st Century Solution to Batteries for EV's** – Lake's clean lithium being tested in latest batteries

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