

# SUSTAINABLE HIGH PURITY LITHIUM

Steve Promnitz - Managing Director  
Stu Crow - Chairman



**LAKE**  
RESOURCES

**AT THE HEART OF THE  
LITHIUM TRIANGLE**

22 April 2020



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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 has 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.

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## New Technology – High Purity Sustainable Lithium.

- **High Purity Lithium** - 99.9% purity battery grade lithium carbonate
- **Disruptive Lilac Direct Extraction Technology** – Extracts lithium from salty water (brine) faster; modular; smaller environmental footprint; pilot plant operating
- **Prime Location; Large Resource** - Development towards production
- **Management team** – Long term, in-country experience
- **Key Catalysts** – Samples to Offtake Partners; Research states 5x uplift this year



## Prime Location – Next to Large Producers.

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

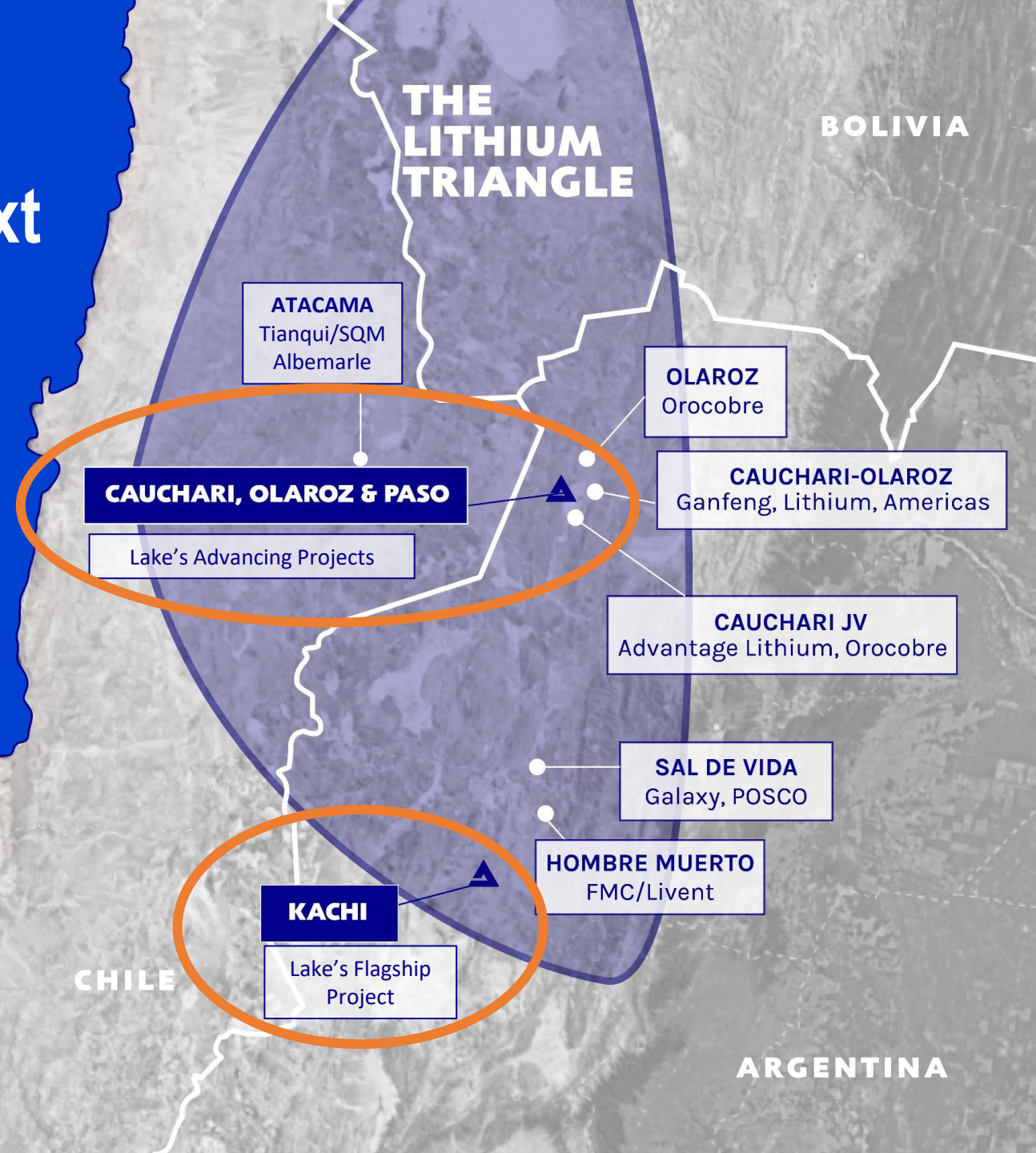
5 largest producers all have operations ALB, SQM, LTHM + Tianqui, Ganfeng

Cauchari - China's Ganfeng paid US\$413 million for 50%

Sal De Vida - South Korea's Posco paid US\$280 million.

ASX:LKE  
OTC:LLKKF

SLIDE / 4



## Demand growth

Demand increase 5x to 9x  
Focus on high purity lithium

- Major electric vehicles (EVs) commitments driving lithium battery makers expansion.
- Legislation for EV's in Europe; China subsidies
- Li-ion Battery Megafactories grown from 3 to 52 in 5 years
- Lithium undersupply in 2023/25

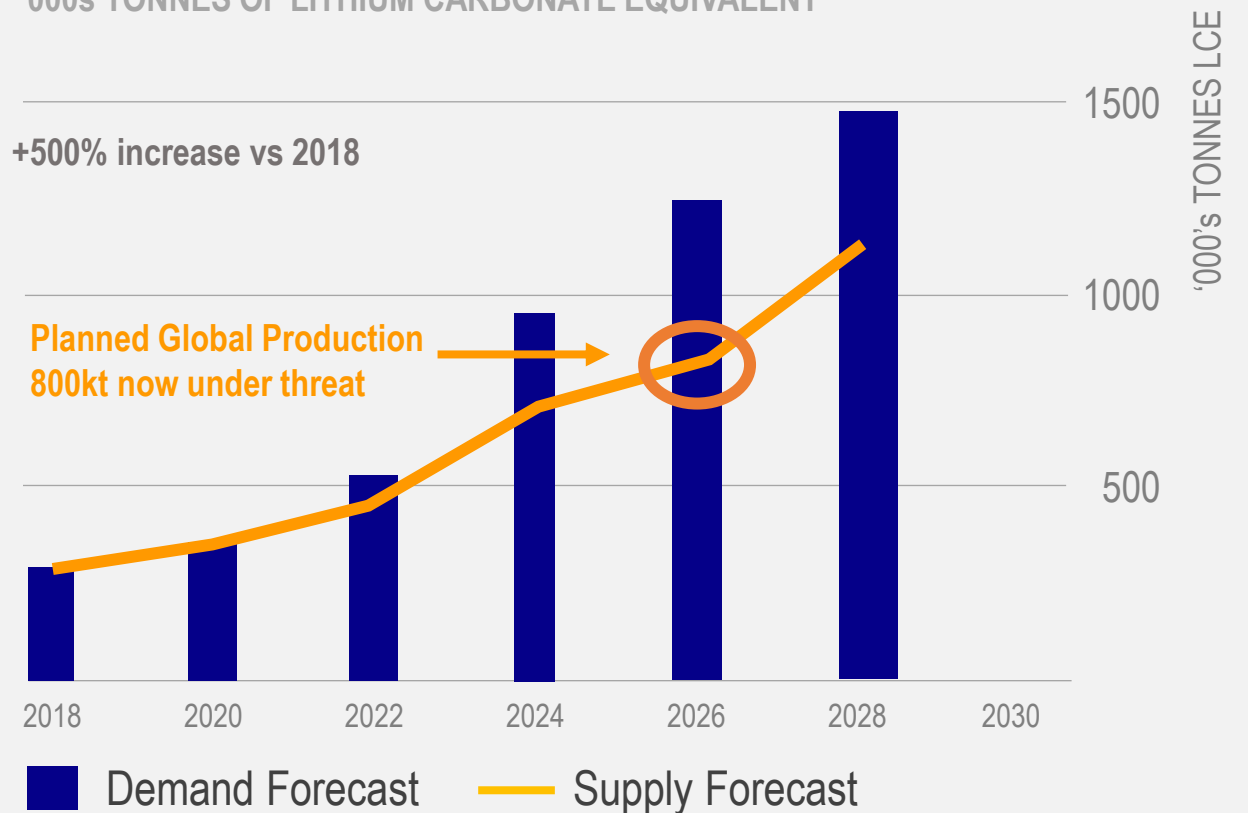
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Lithium demand to increase

**300t to 1400t**

'000s TONNES OF LITHIUM CARBONATE EQUIVALENT

+500% increase vs 2018



Source: Benchmark Mineral Intelligence Dec 2019; Company sources.



# Kachi Project – Size Matters.





# Kachi Project.

100% Lake owned

Large scale 170,000 Acres  
(11x Size of Manhattan Island)

Major brine resource - Top10  
Pre-Feasibility Study (April '20)



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# Direct extraction – New Technology.

## Disruptive game changer in industry

More efficient process that removes lithium from salty water (brine) without using the industry wide evaporation process

- Faster
- Higher Recoveries
- High Purity products
- Sustainable
- Returns brine to aquifer without changing chemistry



# Direct extraction.

## Ion exchange

Lilac Solutions (Silicon Valley backed)

Disruptive Technology (3 hrs to 60,000ppm vs 1-2 years)

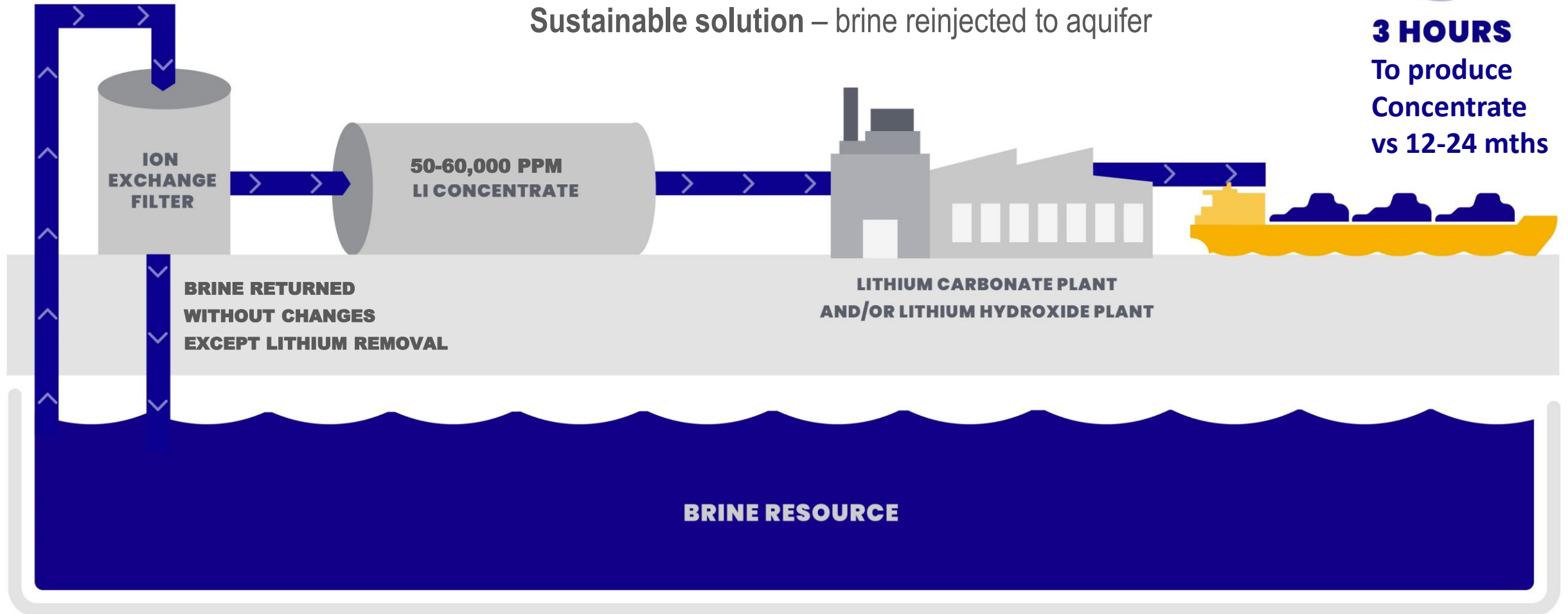
Saves time and money -Faster to production. Higher recoveries

Lower impurities

Sustainable solution – brine reinjected to aquifer



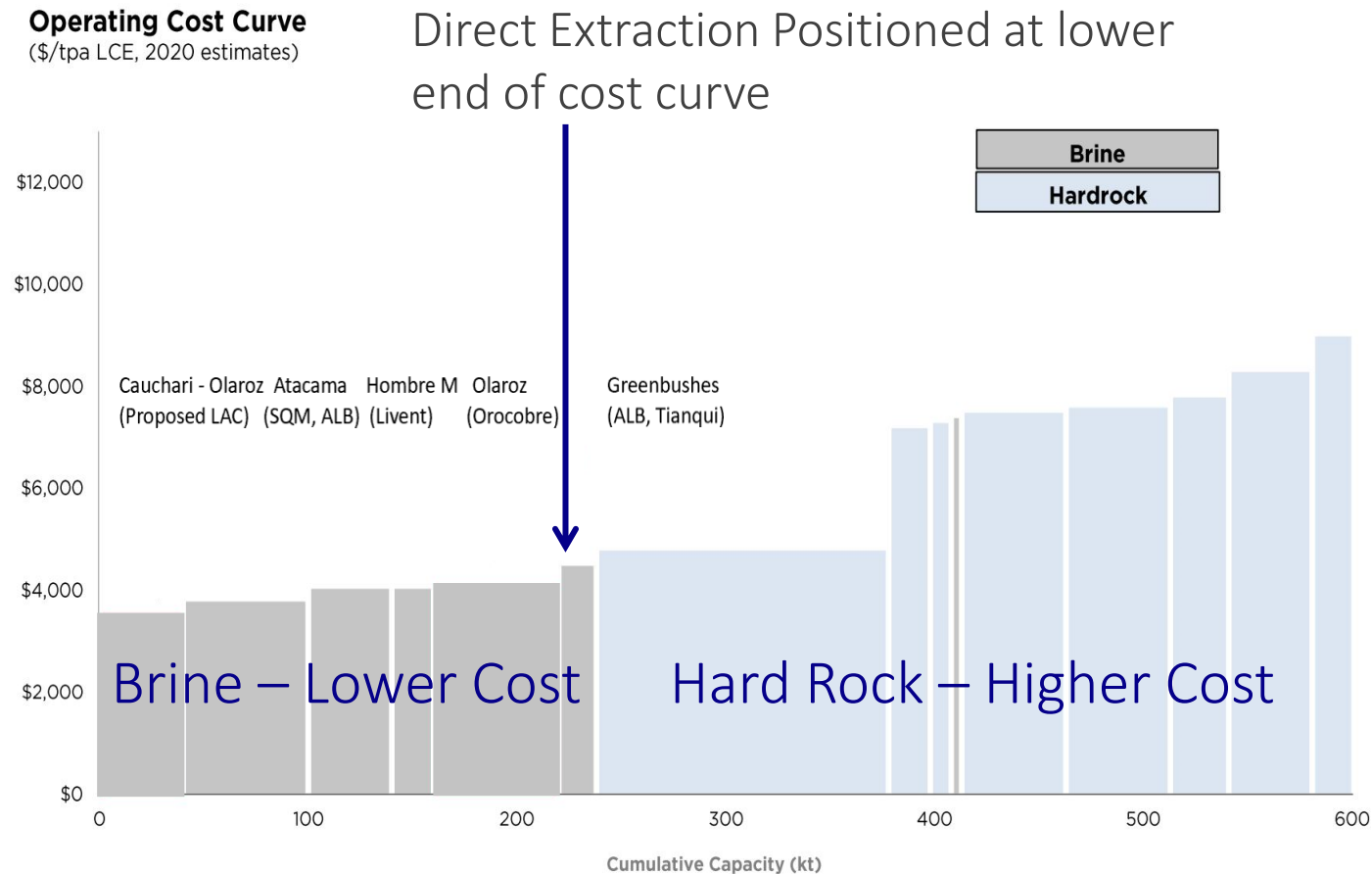
**3 HOURS**  
To produce  
Concentrate  
vs 12-24 mths



# Direct extraction. Positioned at Low End of Cost Curve

High Value  
Low Impurity Product

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



Chemical Component	Actual (wt%)	Target
Lithium (Li)	99.9	99.5 Min
Sodium (Na)	0.024	0.025 Max
Magnesium (Mg)	<0.001	0.008 Max
Calcium (Ca)	0.0046	0.005 Max
Iron (Fe)	<0.001	0.001 Max
Silicon (Si)	<0.001	0.003 Max
Boron (B)	<0.001	0.005 Max

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# Pilot Plant with New Lilac Technology High Purity Sustainable Lithium.

California – Pilot Plant modules – Processing brine from Kachi Project  
Samples Produced for Off-Takers - 99.9% purity battery grade lithium carbonate



# Sustainable Lithium.

Lilac's Technology +  
Lake's Large Brine Basin = Solution

Bloomberg Green

Energy & Science

## Bill Gates-Led Fund Invests in Making Lithium Mining More Sustainable

Lilac Solutions has developed a process for extracting lithium that drastically cuts water use.

By [Akshat Rathi](#)

February 20, 2020, 4:00 PM GMT+11

### Lithium: The Irreplaceable Element of the Electric Era

Why is lithium so important for the production of electric car batteries? And how will Volkswagen secure a sustainable supply chain? We answer the key questions.

SUSTAINABLE BUSINESS

FEBRUARY 12, 2020 / 3:41 AM / 13 DAYS AGO

## Exclusive: Germany's Volkswagen and Daimler push for more 'sustainable' Chile lithium

Dave Sherwood

4 MIN READ



SANTIAGO (Reuters) - German automakers Volkswagen ([VOWG\\_p.DE](#)) and Daimler ([DAIGn.DE](#)) have launched a study to push for more “sustainable” lithium mining in Chile, according to lobbyist filings reviewed by Reuters, a sign of growing supply chain concerns ahead of an expected electric vehicle boom.



Source: Reuters 12 Feb 2020; Bloomberg 20 Feb 2020; Volkswagen April 2019



## Leadership.

Lake has extensive development experience in the resources sector and in Argentina.



**Steve Promnitz**  
MANAGING DIRECTOR

Extensive project management experience in South America – geologist and finance experience – with major companies (Rio, Citi) and mid-tiers.



**Stu Crow**  
CHAIRMAN NON-EXEC

More than 25 years of experience (numerous public companies) and in financial services



**Nick Lindsay**  
NON-EXEC DIRECTOR

30 years of experience in Argentina/Chile/Peru (PhD in Metallurgy & Materials Engineering); Major companies (Anglo) and taken companies from inception to development to acquisition in South America



**Robert Trzebski**  
NON-EXEC DIRECTOR

International mining executive; 30 years experience; operational, commercial and technical experience in global mining incl. Argentina. Extensive global contacts to assist Lake with project development. Chief Operating Officer of Austmine Ltd. Director Austral Gold.

# Production Timeline.

2016 - 2018

Large Lease Area Pegged in 2016  
Kachi – Large new discovery; major resource  
Direct Extraction method – Phase 1 engineering study  
Pegmatite area secured

2020

Kachi direct extraction pilot plant – operating; later moved to site  
Kachi samples to battery makers for qualification purposes  
Kachi PFS (Apr 2020)  
Finalise finance for initial US\$10-20m for DFS, approvals  
Kachi – finalise offtake and strategic partner discussions

2019

Cauchari – extended high grades; discovery  
Kachi – PFS commenced; Pilot plant initiated  
Kachi offtake and partner discussions

2021-2023

## **Kachi – Production**

Kachi – 25,000tpa LCE; Capex ~US\$400-550m  
Phased expansion from 10,000tpa LCE  
Capex ~US\$100-140m  
Potential to expand to 100,000 tpa LCE  
Olaroz – Drill, Resource, Pre-production



## LAKE RESOURCES (ASX:LKE , OTC:LLKKF)

Total Current Shares on Issue

**671,461,957**

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)**

@ \$0.036/ sh (10 day VWAP, 20 Apr)

**A \$24 million  
US\$15 million**

Cash (\$A)

31 Dec 2019

Feb 2020 Capital Raising

**\$0.3 million  
+\$3.7 million**

Unsecured debt

(Convertible Notes \$2m Terminated Feb 2020)

**(\$0.8 million)**

Share Price

52 week range

**\$0.023 – 0.115/sh**

Share Register

45% Top 30, High Net Worth Investors

Lake Resources N.L. Chart

## LAKE RESOURCES (ASX:LKE) 1 YEAR Share price chart



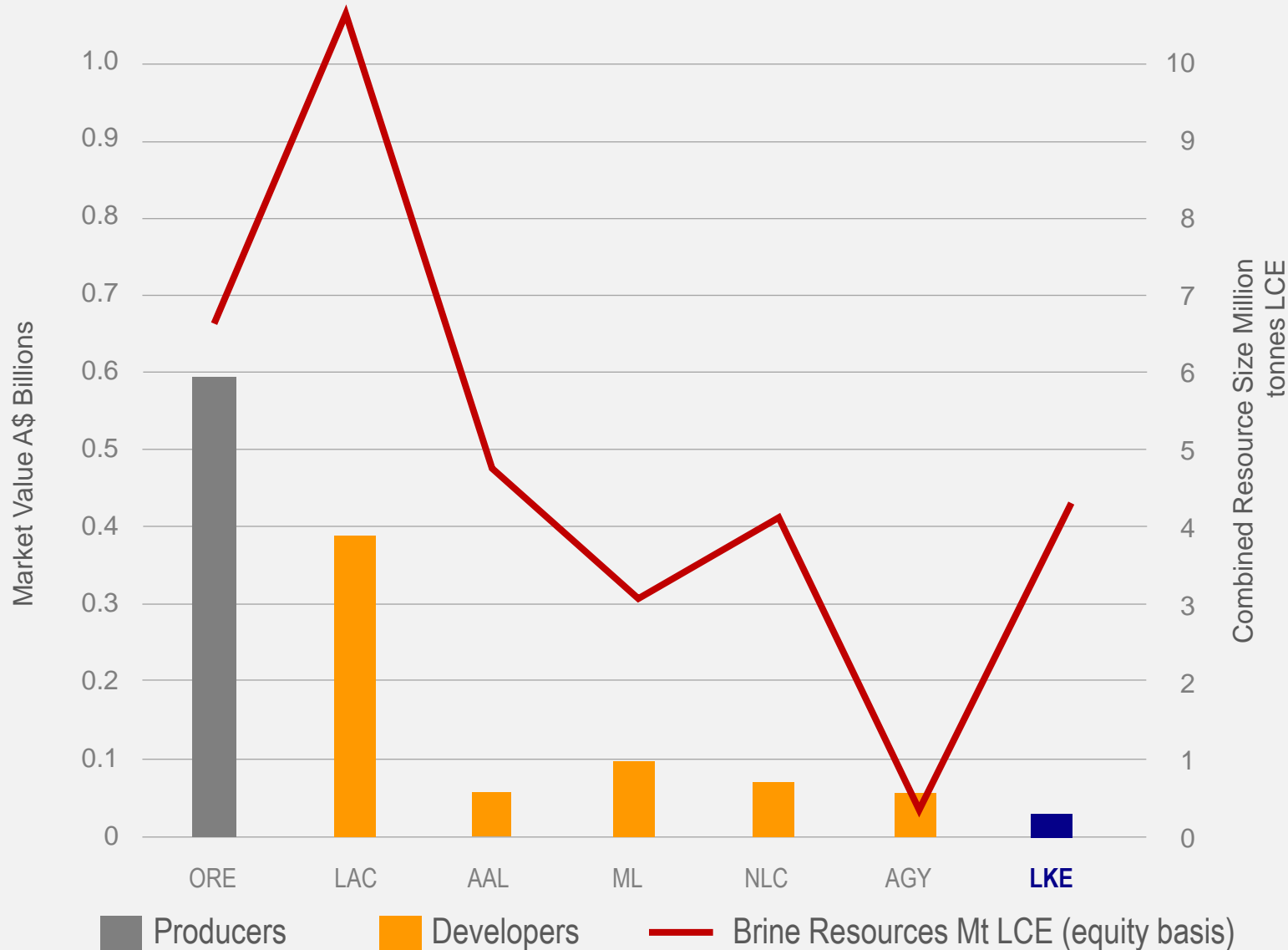
## Significant Upside

Lake \$25m vs Peers  
\$50-120m market cap

Research Mar 2020:  
Price Target 5x (25c)

Note: Any perceived relationship between market value of explorers/developers versus producers (ORE) should not be made.

Size of Lithium Brine Resources vs Market Value –  
Argentina brine companies





## Lake – Where are we now.

- High purity lithium carbonate from Lilac pilot plant;  
Larger samples soon to potential off-takers
- Financier short list: US\$10-20m to fund studies and approvals  
Technology partner financed - Bill Gates-led Breakthrough fund
- Pilot plant with New Technology: 1st operational
- PFS in late April 2020; initiate full study; production target 2022/23
- Meeting desire for Sustainable Lithium Supply

## Contact.

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