CLEANER LITHIUM FOR AN ELECTRIC WORLD

Steve Promnitz - Managing Director

Noosa Investor Conference
Red Cloud Green Energy Conference
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 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 N.L. 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.
World’s cleanest lithium.

Four lithium projects in heart of the Lithium Triangle. Produces 40% of the world’s lithium at lowest cost.

Large leaseholding 2,200km$^2$ (550,000 acres)

World’s five largest producers all have equity in operations in the Lithium Triangle.
World’s cleanest lithium.

99.97%

High Purity lithium carbonate. Confirmed in batteries.

+ Significant ESG benefits.

- **CLEANER LITHIUM** — Lake’s 99.97% purity product - far lower impurities vs 99.5% battery grade lithium carbonate. Higher purity lithium = higher battery performance.

- **CLEANER TECHNOLOGY**: Lilac direct lithium extraction — method common in water treatment, superior to traditional process. Supported by Bill Gates-led Breakthrough Energy Fund.

- **CLEANER ENVIRONMENT**: Lithium with ESG benefits. Smaller environmental footprint - low CO₂, less water and low land use.

- **CLEARER PATHWAY**: Kachi has a demonstrated path to production; Successful pilot plant module. Large, scalable project, high margin.
Cleaner technology
Direct extraction - Lilac Solutions Process

Lilac direct extraction displaces evaporation process

- High purity
- Faster process
- Higher recoveries
- Sustainable
- Cost competitive
- Scalable
- Proven in pilot plant
Cleaner environment
Smaller environment footprint – Lower land use

Atacama Projects – Brine evaporation (170km²)

Kachi Project – Lake/Lilac DLE (<1km²)

<1km² wide

Source: SQM / ALB presentations 2020; 170km² for c.80,000 tpa LCE. Lake/Lilac/Hatch estimates in PFS (excluding solar hybrid power)
Cleaner environment
Smaller environment footprint – Lower water use

Atacama Projects – Brine evaporation

All Brine Evaporated

Kachi Project – Lake/Lilac DLE

Brine Returned to Source

Source: SQM / ALB presentations 2020; 170km² for c.80,000 tpa LCE. Lake/Lilac/Hatch estimates in PFS (excluding solar hybrid power)
Cleaner environment
Smaller carbon footprint

Kg CO$_2$e/kg product

Li Hydroxide LCE from Hard Rock Spodumene

14 - 18.2

Li Carbonate LCE from Brine

4-5

Li Carbonate LCE from Lake/Lilac DLE
Also expected to be low

Note: Hard Rock = Spodumene converted to Lithium Hydroxide as LCE in China using coal for energy; Brine evaporation in Sth America
Source: SQM presentation June 2020; Roskill Nov 2020; Lake/Lilac estimates with solar hybrid power – prelim study being undertaken
Clearer pathway
Simple production scale-up - Modular

Lilac Pilot / Demo Plant
(1-2 Modules)

~10tpa LCE
1000 hours

Production Scale (PFS)
(50+ Modules)

25,500tpa LCE

Expansion Study*
(to Double Production to 51,000tpa)

51,000tpa LCE

* Note: Expansion Study requires drilling (underway) to upgrade more Inferred Resources to Measured and Indicated Resources.
Clearer pathway
Lake’s high purity lithium tested and proven in batteries

Lake’s lithium carbonate demonstrated in batteries

- Lake’s product - premium battery quality
- Performs like Tier 1 products in NMC622 batteries
- Only 50-60% of lithium production is battery quality
- Strengthens Lake’s quality benefits and assists offtake discussions

Battery technology leader (ASX:NVX; OTCQX:NVNXF)

- Clients include Panasonic, CATL, Samsung, SK, LG Chem, Bosch, Honda & Dyson
- Developing latest cathode and anode technology
Direct extraction

Premium price – very high margin

Lake’s direct extraction
US$4,100/t Opex

Margin

Brine - evaporation
US$3,750 - 4,200/t Opex

Margin

Hard rock
US$4,500 - 8,000/t Opex

Battery grade LCE price
US$8,000 - 13,000/t

Technical grade LCE price
US$5,300 - 6,500/t

Source: Street research and LAC presentations 2020 – including Cauchari DFS numbers, Olaroz results, Thacker Pass results; Lake/Lilac/Hatch estimates in PFS (excluding solar hybrid power), with indicative premium pricing
Kachi project.
Large, scalable resource

25 years production uses 20% of resource.

- Drilling to upgrade resource for expansion; resource open laterally and at depth
- Kachi lease – 740 sq km (185,000 acres)
- One of 10 largest brine resources globally – total JORC resource 4.4Mt LCE
- Production 25,500tpa – H1, 2024
- Export Credit Agencies – indicative 10 year 70% debt funding of Kachi development
### Kachi PFS metrics

**Compelling economics**

**Pre-Feasibility Study results**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mineral Resource</strong></td>
<td>1.01Mt</td>
</tr>
<tr>
<td>Annual production Li$_2$CO$_3$</td>
<td>25,500tpa</td>
</tr>
<tr>
<td>Annual EBITDA</td>
<td>US$260m</td>
</tr>
<tr>
<td>Project life</td>
<td>25+ years</td>
</tr>
<tr>
<td>Expansion Study Underway</td>
<td>51,000tpa#</td>
</tr>
<tr>
<td><strong>CAPEX</strong></td>
<td>US$544m</td>
</tr>
<tr>
<td>Cash cost</td>
<td>US$4,178/t</td>
</tr>
<tr>
<td>Annual operating costs</td>
<td>US$107m</td>
</tr>
<tr>
<td>Project Finance</td>
<td>70% debt##</td>
</tr>
<tr>
<td>Post-tax NPV</td>
<td>US$1,580m**</td>
</tr>
<tr>
<td>IRR post-tax</td>
<td>35%</td>
</tr>
</tbody>
</table>

**Note:** Results based on PFS Study Assumptions (refer ASX releases 30 Apr 2020, 17 March 2021)

*Based on Indicated Resource 1.0Mt @290mg/L lithium

**Assuming US$15,500/t lithium carbonate price (CIF Asia) (refer ASX release 17 March 2021)

# Expansion study to double production, but not confirmed

## Discussions with Export Credit Agencies Underway; Indications of c. 70% debt over 8-10 years
Kachi project
Proposed plant design

~500m

- Warehouse, reagents and water treatment
- Chlor Alkali Plant
- Bagging Plant and storage
- Impurity Removal
- Direct Extraction (Lilac IX Plant)
- Lithium Production
- Eluate Concentration
Project Production Timeline

2021 – Q1 2022

**DFS ESIA**
Definitive Feasibility Study
2022 Expansion Study

Q3, Q4 2021

**Demonstration Plant**
Q4, 2021 Demo Plant Onsite
2021 Samples in Batteries
2021 Samples to Offtakers

2021 – Q2, 2022

**Financing**
Project Finance
Export Credit Agencies
Indicative 70% debt 10 years

Q3, Q4 2022

**Construction / Production**
Mid-Late 2022 Approvals/
Construction starts
2024 Production
25,500tpa LCE
Cauchari project

Identical lithium brines as adjoining Ganfeng/Lithium Americas development

Lake’s brines being tested for direct lithium extraction

Scoping study and resource drilling planned for 2021/22

Other Lake projects adjoin Olaroz production area

Ganfeng/LAC Resource – 23Mt LCE @ 581mg/L lithium

Orocobre Resource – 6.3Mt @ 476mg/L Li

Lake – 506m Brine zone
421-540mg/L lithium (102-608m)

Source: LKE; Orocobre (AAL) announcements 5/3/2018, 10/01/2019, 7/03/19, 24/04/19.
Corporate snapshot
Funded to FID

Share price
A$0.37  US$0.27
15 July 2021 (10 day VWAP)
52 week high $0.475c, low $0.03c

Cash
30 June 2021 (estimate)
A$25m
US$18.6m

Debt
Zero

Shares on issue
1.058bn

Market capitalisation
A$390m
US$290m

Unlisted Options
15.0m
9c options, 31 July 2021 expiry
73.7m
30c options, March 2023 expiry

Institutional Investors
Ausbil, Acorn
+ Institutional investors USA, EU
Leadership

Board has extensive background in resources sector, backed by experienced on-site team in Argentina.

Steve Promnitz  
CEO & 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.

Dr Nicholas Lindsay  
EXEC TECHNICAL 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.

Dr Robert Trzebski  
NON-EXEC DIRECTOR
International mining executive with 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. Director Austral Gold.
CLEANER LITHIUM FOR AN ELECTRIC WORLD

- World’s highest purity lithium
- Technology led direct extraction
- Major ESG benefits

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Market needs 10x to 18x more lithium production by 2030.

• Lithium added to critical raw materials list for the first time in 2020

• Lithium-ion batteries represent one of the 21st Century’s largest growth areas

• Lake’s world’s purest lithium is exactly what an electric world wants
Underinvestment in new supply. Price moving up.

- Lithium carbonate prices have doubled over past year
- 8 to 18 times more lithium production needed by 2030 to satisfy demand
- Need 7 companies the size of SQM each year for the next 10 years

**Lithium battery demand**

215 Megafactories operating at 100% capacity (3.7 TWh)

- Lithium Battery Demand: 2030
- Current Lithium Production: 2020

Source: Benchmark Mineral Intelligence Apr 2021
Sustainable lithium

Lake / Lilac DLE method

- Low CO2 footprint
- Low water usage
- Low land use

Note: Hard Rock = Spodumene converted to Lithium Hydroxide as LCE in China using coal for energy; Brine evaporation in Sth America

Source: SQM presentation June 2020; Roskill presentation November 2020;
Lake/Lilac estimates based on PFS with solar hybrid power power – prelim study being undertaken

ESG Sustainable Development Goals

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

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

Source: Bloomberg Green - Bill Gates-Led Fund Invests in Making Lithium Mining More Sustainable
Significant Upside

- Lake Trading 15% NPV vs Peers 30-80% NPV
- Lake Market Value $380m vs DLE Peers at $1050m (SLI.NYSE)
- Research with price targets $0.79-$1.89 per share (Roth Capital, Lodge, Orior Capital)

**Lithium Developer Peers**

Market Value vs Brine Resource

- **Lake Resources**
- **Developers**
- **Brine Resource Mt LCE**

Source: ASX / TSX / NYSE company disclosures; SEDAR; Bloomberg; Company sources: 15 June 2021
### Mineral Resource (JORC Code 2012)

#### Kachi Project

Lithium carbonate equivalent (LCE)

<table>
<thead>
<tr>
<th></th>
<th>Indicated</th>
<th>Inferred</th>
<th>Total Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0Mt</td>
<td>3.4Mt</td>
<td>4.4Mt</td>
<td></td>
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</tbody>
</table>

#### KACHI LITHIUM BRINE PROJECT

<table>
<thead>
<tr>
<th>JORC Code 2012 Edition</th>
<th>Indicated</th>
<th>Inferred</th>
<th>Total Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area, km²</td>
<td>17.1</td>
<td>158.3</td>
<td>175.4</td>
</tr>
<tr>
<td>Aquifer volume, km³</td>
<td>6</td>
<td>41</td>
<td>47</td>
</tr>
<tr>
<td>Brine volume, km³</td>
<td>0.65</td>
<td>3.2</td>
<td>3.8</td>
</tr>
<tr>
<td>Mean drainable porosity %</td>
<td>10.9</td>
<td>7.5</td>
<td>7.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
<th>Li</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted mean concentration, mg/L</td>
<td>289</td>
<td>5,880</td>
</tr>
<tr>
<td>Resource, tonnes</td>
<td>188,000</td>
<td>3,500,000</td>
</tr>
<tr>
<td>Lithium Carbonate Equivalent (LCE), tonnes</td>
<td>1,005,000</td>
<td>3,394,000</td>
</tr>
<tr>
<td>Potassium Chloride, tonnes</td>
<td>6,705,000</td>
<td>24,000,000</td>
</tr>
</tbody>
</table>

- Lithium is converted to lithium carbonate (Li$_2$CO$_3$) with a conversion factor of 5.32
- Potassium is converted to potassium chloride (KCl) with a conversion factor of 1.91

#### Lake Lithium Carbonate High Purity

<table>
<thead>
<tr>
<th>Chemical Component</th>
<th>Actual (wt%)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium (Li)</td>
<td>99.9</td>
<td>99.5 Min</td>
</tr>
<tr>
<td>Sodium (Na)</td>
<td>0.024</td>
<td>0.025 Max</td>
</tr>
<tr>
<td>Magnesium (Mg)</td>
<td>&lt;0.001</td>
<td>0.008 Max</td>
</tr>
<tr>
<td>Calcium (Ca)</td>
<td>0.0046</td>
<td>0.005 Max</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>&lt;0.001</td>
<td>0.001 Max</td>
</tr>
<tr>
<td>Silicon (Si)</td>
<td>&lt;0.001</td>
<td>0.003 Max</td>
</tr>
<tr>
<td>Boron (B)</td>
<td>&lt;0.001</td>
<td>0.005 Max</td>
</tr>
</tbody>
</table>

Source: LKE announcement 20/10/2020
Appendix 1 - Kachi Project

The Kachi Project is a lithium project located in the Atacama desert of Chile. The project is owned by Kachi Kachi Minerals, LLC, a joint venture between Jindal International Limited and Hotham Capital Partners. The project is focused on the production of lithium carbonate and lithium hydroxide.

The project is expected to produce approximately 150,000 tonnes of lithium carbonate per annum. The plant will have a nameplate capacity of 300,000 tonnes of lithium carbonate per annum.

The project is scheduled to produce first lithium carbonate in 2023 and reach full production in 2024.

The project is expected to have a positive impact on the global lithium market, adding a significant new source of lithium to the market.

The project is currently under construction and is expected to be completed in 2022.