SUSTAINABLE HIGH PURITY LITHIUM

High Margin, Long Life Production

Steve Promnitz - Managing Director

Update 19 May 2020

LAKE RESOURCES
AT THE HEART OF THE LITHIUM TRIANGLE
ASX:LKE OTC:LLKKF
Disclaimer

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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, whether as a result of new information, future events or results or otherwise. 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.
New Technology – High Purity Sustainable Lithium.

- **Ground-breaking New Technology** – Superior method to traditional process

- **Lilac Solutions: Disruptive Direct Extraction** – Innovative method extracts lithium from brine faster; cost competitive vs traditional process; pilot plant underway

- **High Purity Lithium** - 99.9% purity battery grade lithium carbonate; Receives premium pricing for high quality; In demand by Tier-1 battery makers

- **Sustainable ESG Benefit** – Smaller environmental footprint sought by vehicle makers; Returns brine to aquifer; Lilac supported by Bill Gates-led Breakthrough fund

- **Key Catalysts** – High purity samples to offtake partners; Development finance
PFS – Kachi Project - High Margin Production. Pre-Feasibility Study Results

- **Long Life, High Value Project** - 25 year production at 25,500 tpa LCE**
  US$1050 million project value* (NPV @ 8% discount rate, Pre-tax); 60x LKE market value

- **High Margin Lithium Production** - 62% Operating Margin (EBITDA)*
  US$465 million EBITDA in first 3 years of operation*

- **Premium Price, High Purity** - 99.9% purity battery grade Li$_2$CO$_3$

- **Cost Competitive among Brine Producers** – Operating cost US$4170/t Li$_2$CO$_3$

- **Prime Location in Lithium Triangle** – Flagship Kachi Project in Argentina; World-class region alongside all 5 major lithium producers; Scalable project; Modular expansion options

Note: Results based on PFS Study Assumptions   * Assuming conservative US$11,000/t lithium carbonate CIF future price.   ** Based on Indicated Resource 1.0Mt @290mg/L lithium
Prime Location – Next to 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

Cauchari - China’s Ganfeng paid US$413 million for 51%

Sal De Vida - South Korea’s Posco paid US$280 million for 100%.

Orocobre paid 14% of project NPV for Advantage Lithium - Cauchari
**Demand growth**

Demand increase 5x to 9x

Focus on high purity lithium

- Major electric vehicle (EV) investment (US$140Bn) driving lithium battery makers expansion.
- Legislation for EV’s in Europe; China subsidies extended
- Li-ion Battery Megafactories grown from 3 to 52 in 5 years; 123 Megafactories planned by 2028
- Lithium undersupply in 2023/25; Expansions have stalled; Pricing soft 2020 due COVID-19; forecast increase in 2021
- Supply chains being re-evaluated

**Lithium demand to increase**

300t to 1400t

'000s TONNES OF LITHIUM CARBONATE EQUIVALENT

+500% increase vs 2018

Planned Global Production 800kt now under threat

Source: Benchmark Mineral Intelligence Dec 2019; S&P; Company sources.
Kachi Project – Size Matters.

Large scale
70,000 Hectares (170,000 acres) Mining leases
(11x Size of Manhattan Island)
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
Open at depth and laterally
Plan to increase potential production life
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
- Cost Competitive
- Sustainable
- Returns brine to aquifer without changing chemistry
- New adaptation to technology used for decades in water treatment
Direct extraction.
Ion Exchange Process
Lilac Solutions

Disruptive Technology (3 hrs to 60,000 ppm vs 1-2 years)
Saves time and money - Faster production. Recoveries doubled
Lower impurities – Higher purity as only lithium is extracted.
Sustainable solution – Brine reinjected; no change to chemistry

3 HOURS
To produce Concentrate
vs 12-24 mths

30-60,000 PPM
LI CONCENTRATE

BRINE RETURNED
WITHOUT CHANGES
EXCEPT LITHIUM REMOVAL

LITHIUM CARBONATE PLANT
AND/OR LITHIUM HYDROXIDE PLANT

ION EXCHANGE TANK

BRINE RESOURCE
Direct extraction. – Plant Layout

Production Plant Design with Lilac Solutions Direct Extraction Technology

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Direct extraction (Lilac IX plant)</td>
</tr>
<tr>
<td>B</td>
<td>Eluate concentration</td>
</tr>
<tr>
<td>C</td>
<td>Impurity removal</td>
</tr>
<tr>
<td>D</td>
<td>Lithium production</td>
</tr>
<tr>
<td>E</td>
<td>Bagging plant and product storage</td>
</tr>
<tr>
<td>F</td>
<td>Chlor-Alkali plant</td>
</tr>
<tr>
<td>G</td>
<td>Warehouse, reagents and water treatment</td>
</tr>
<tr>
<td>I</td>
<td>Salt storage for Chlor-Alkali plant</td>
</tr>
</tbody>
</table>

Kachi Lithium Brine Project – chloride stream to lithium carbonate

Lilac DX Procession Exchange with HCl

Reagent Regeneration (Chlor-Alkali)

Lithium Carbonate Process

Na₂CO₃

99.9% Li₂CO₃

Lithium carbonate to market or lithium hydroxide

250 mg/L Li
8 km

~40 mg/L Li
4 km

HCl & NaOH

NaCl

Extraction Wells

Reinjection Wells
Direct extraction. Positioned at Low End of Cost Curve

Direct Extraction  Kachi Project
Positioned at lower end of cost curve

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

Chemical Component	Actual (wt%)  
Lithium (Li)	99.9  
Sodium (Na)	0.024  
Magnesium (Mg)	<0.001  
Calcium (Ca)	0.0046  
Iron (Fe)	<0.001  
Silicon (Si)	<0.001  
Boron (B)	<0.001  

Target
99.5 Min  
0.025 Max  
0.008 Max  
0.005 Max  
0.001 Max  
0.003 Max  
0.005 Max

Source: LKE announcements 9/1/2020, 14/01/2020; 10/12/2018
PFS - Kachi. Compelling Economics; High EBITDA Margin Cost Competitive; High Value Product

<table>
<thead>
<tr>
<th>Key Financial Parameters</th>
<th>Values</th>
</tr>
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<tbody>
<tr>
<td>NPV₈ (NPV @ 8% discount rate) Pre-tax</td>
<td>US$1,052 million (A$1,660 million)*</td>
</tr>
<tr>
<td>NPV₈ (NPV @ 8% discount rate) Post-tax</td>
<td>US$748 million (A$1,180 million)*</td>
</tr>
<tr>
<td>IRR pre-tax</td>
<td>25%</td>
</tr>
<tr>
<td>IRR post-tax</td>
<td>22%</td>
</tr>
<tr>
<td>EBITDA, annual</td>
<td>US$155 million (A$245 million)*</td>
</tr>
<tr>
<td>EBITDA margin</td>
<td>62%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Life</td>
<td>25 years</td>
</tr>
<tr>
<td>Production Rate – Lithium Carbonate</td>
<td>25,500 tonnes LCE per year**</td>
</tr>
<tr>
<td>Mineral Resource (Indicated)</td>
<td>1.01 Million tonne LCE</td>
</tr>
<tr>
<td>Recovery</td>
<td>83 %</td>
</tr>
<tr>
<td>Capital Investment (at start-up)</td>
<td>US$544 million</td>
</tr>
<tr>
<td>Operating Cost (annual)</td>
<td>US$107 million</td>
</tr>
<tr>
<td>Cash Cost (Opex, C1)</td>
<td>US$4178/tonne LCE</td>
</tr>
</tbody>
</table>

Note: Results based on PFS Study Assumptions  * Assuming conservative US$11,000/t lithium carbonate CIF future price.  ** Based on Indicated Resource 1.0Mt @290mg/L lithium
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

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 Ashraf Rifi
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.
Next Steps – Opportunities - Kachi Project.

- Deliver high purity samples to off-takers – from Lilac pilot plant module
- Target lowering up-front costs – Solar power should lower energy costs
- Staged development – Option to commence at 10,000tpa LCE indicatively
- Capital cost reductions – Construction, Contingency (US$91m)
- Resource development – to extend project life beyond 25 years
- Definitive feasibility study DFS – Project economics drive DFS study
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

2019
Cauchari – extended high grades; discovery
Kachi – PFS commenced; Pilot plant initiated
Kachi offtake and partner discussions

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

2021-2023
Kachi – Production
Kachi – 25,500tpa LCE; Capex US$540m
Phased expansion from 10,000tpa LCE
Capex Reduced
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

<table>
<thead>
<tr>
<th>Options</th>
<th>Expiry</th>
<th>Shares</th>
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<tr>
<td>Listed (10c)</td>
<td>Jun 2021</td>
<td>52,512,693</td>
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<tr>
<td>Unlisted (4.6c)</td>
<td>Oct 2022</td>
<td>18,300,000</td>
</tr>
<tr>
<td>Unlisted (8c)</td>
<td>Feb 2022</td>
<td>5,555,000</td>
</tr>
<tr>
<td>Unlisted (9c)</td>
<td>Jul 2021</td>
<td>15,000,000</td>
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Market Data

<table>
<thead>
<tr>
<th>Data</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Cap ($A)</td>
<td>@ $0.036/sh (15 day VWAP, 18 May)</td>
</tr>
<tr>
<td></td>
<td>US$15.4 million</td>
</tr>
<tr>
<td>Cash ($A)</td>
<td>31 Mar 2020</td>
</tr>
<tr>
<td></td>
<td>$2 million</td>
</tr>
<tr>
<td>Unsecured debt</td>
<td>(Convertible Notes $2m Terminated Feb 2020)</td>
</tr>
<tr>
<td></td>
<td>($0.8 million)</td>
</tr>
<tr>
<td>Share Price</td>
<td>52 week range</td>
</tr>
<tr>
<td></td>
<td>$0.023 – 0.115/sh</td>
</tr>
<tr>
<td>Share Register</td>
<td>45% Top 30, High Net Worth Investors</td>
</tr>
</tbody>
</table>
Significant Upside

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

Trading at <2%NPV vs Peers 10-15% NPV at same stage

Research: LKE website

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

Source: ASX / TSX company disclosures; SEDAR; Bloomberg; Company sources: 20 Apr 2020
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 for 24 mths Technology partner financed - Bill Gates-led Breakthrough fund

• Pilot plant with New Technology: 1st operational; 1st full study with renowned firm

• Post PFS to initiate full study; production target 2022/23

• Meeting desire from EV makers for Sustainable Lithium Supply

Contact.

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lakeresources.com.au

Kachi Lithium brine Project.

<table>
<thead>
<tr>
<th>KACHI LITHIUM BRINE PROJECT</th>
<th>MINERAL RESOURCE ESTIMATE</th>
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<tbody>
<tr>
<td>JORC Code 2012 Edition</td>
<td>Indicated</td>
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<tr>
<td>Area, km²</td>
<td>17.1</td>
</tr>
<tr>
<td>Aquifer volume, km³</td>
<td>6</td>
</tr>
<tr>
<td>Brine volume, km³</td>
<td>0.65</td>
</tr>
<tr>
<td>Mean drainable porosity %</td>
<td>10.9</td>
</tr>
<tr>
<td>Element</td>
<td>Li</td>
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<tr>
<td>Weighted mean concentration, mg/L</td>
<td>289</td>
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<tr>
<td>Resource, tonnes</td>
<td>188,000</td>
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<tr>
<td>Lithium Carbonate Equivalent (LCE), tonnes</td>
<td><strong>1,005,000</strong></td>
</tr>
<tr>
<td>Potassium Chloride, tonnes</td>
<td>6,705,000</td>
</tr>
</tbody>
</table>

Lithium is converted to lithium carbonate (Li₂CO₃) with a conversion factor of 5.32
Potassium is converted to potassium chloride (KCl) with a conversion factor of 1.91
Appendix – Table 1 Report – JORC Code 2012.

<table>
<thead>
<tr>
<th>Section 1 : Sampling Techniques and Methodology</th>
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<tbody>
<tr>
<td><strong>Drilling Techniques</strong></td>
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<tr>
<td>Drilled using an internal split tube was used for drilling. The diamond bored cores were recovered and handled in accordance with internal procedure. The diamond bored cores were recovered and handled in accordance with internal procedure. The diamond bored cores were recovered and handled in accordance with internal procedure.</td>
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<tr>
<td><strong>Sintering Techniques</strong></td>
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<tr>
<td>Three samples were subjected to be used as control samples for further studies. The samples were subjected to be used as control samples for further studies. The samples were subjected to be used as control samples for further studies. The samples were subjected to be used as control samples for further studies. The samples were subjected to be used as control samples for further studies.</td>
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<td><strong>Laboratory Techniques</strong></td>
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<td><strong>Analysis of Data</strong></td>
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<td><strong>Figures</strong></td>
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<td><strong>Appendix</strong></td>
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