CLEANER LITHIUM FOR AN ELECTRIC WORLD

Lilac Solutions Partnership To Develop Kachi Lithium Project

Steve Promnitz - Managing Director, Lake Resources
Dave Snydacker – CEO, Lilac Solutions
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. 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 Fultons 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.
Lake Resources Partners with Lilac Solutions - World’s Cleanest Lithium by developing Kachi Project.

• **Lilac to Earn in to Kachi Project**
  Lilac Solutions will contribute technology, engineering teams, and on-site demonstration plant, Earning in to a max 25% stake in Lake’s Kachi Project - based on performance based milestones & timeline
  - Initial 10% - Lilac to fund at its cost the completion of testing of its technology for the Kachi Project
  - Further 10% - satisfying all agreed testing criteria using the demonstration plant at the Kachi Project
  - Final 5% - Kachi lithium product achieving the highest agreed qualification standards with certain offtakers

• **Lilac to Contribute c.US$50 million to Kachi Project, once earn in complete**
  Lilac to contribute pro rata to funding development of the Kachi Project, approx. US$50m

• **Lilac has major tech sector supporters – aligns breakthrough climate tech with upstream ESG lithium**
  Supported by Bill Gates-led Breakthrough Energy Ventures & other successful tech investors
  Aligns breakthrough Climate Tech investment with upstream environmentally friendly battery materials supply.

• **Lake with Lilac – New independent clean lithium producer with scale**
Lake Resources - 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.
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 2,200km² (550,000 acres)

World’s five largest producers all have equity in operations in the Lithium Triangle.
Lilac Solutions - Cleaner technology

Lilac direct extraction displaces evaporation process

Brine in – Lithium chloride out

- High purity
- Faster process
- High recovery
- Sustainable – No brine heating
- Cost competitive – Durable beads
- Scalable
- Proven in pilot plant – Extensive test work
Delivers a Cleaner Environment
Smaller environment footprint – Lower land use

Atacama Projects – Brine evaporation (170km²)

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

Source: SQM / ALB presentations 2020; 170km² for c.80,000 tpa LCE. Lake/Lilac/Hatch estimates in PFS (excluding solar hybrid power)
Delivers a Cleaner Environment
Smaller environment footprint – Lower water use – No brine depletion

Atacama Projects – Brine evaporation

Kachi Project – Lake/Lilac DLE
Brine Returned to Source

All Brine Evaporated

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

Smaller carbon footprint – Lower greenhouse gases

Kg CO₂e/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
Lilac Solutions – Executive Team

DAVE SNYDACKER
Chief Executive Officer
- Founded Lilac in 2016
- Materials engineer, PhD from Northwestern
- 10 years in battery materials

TOM WILSON
Chief Development Officer
- 15 years experience in upstream oil and gas, financing & executing large-scale projects across 5 continents
- MS from Stanford GSB

NICK GOLDBERG
Chief Operating Officer
- 5 years at top law firm Debevoise & Plimpton (NYC), complex corporate transactions in private equity
- JD from NYU Law

FELIPE DE MUSSY
President, S. America
- 14 years leading private and public sector projects involving many local and indigenous communities.
- MEng from PUC, MS and MPP from Stanford GSB
Lilac Solutions – Lead Investors
Successful Tech Investor Backing
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 – 2024
- Export Credit Agencies – indicative 10 year 70% debt funding of Kachi development
Clearer pathway
Simple production scale-up - Modular

Lilac Pilot / Demo Plant
(1-2 Modules)

~10tpa LCE
1000 hours

25,500tpa LCE

Production Scale (PFS)
(50+ Modules)

51,000tpa LCE

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

* Note: Expansion Study requires drilling (underway) to upgrade more Inferred Resources to Measured and Indicated Resources.
Kachi project
Proposed plant design

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

~500m
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
  - Battery grade LCE price
    - US$8,000 - 13,000/t

- **Hard rock**
  - US$4,500 - 8,000/t Opex
  - Margin
  - Technical grade LCE price
    - US$5,300 - 6,500/t
  - Lake premium grade LCE price
    - US$13,000 - 16,000/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 PFS metrics

**Compelling economics**

**Pre-Feasibility Study results**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Resource* (Indicated)</td>
<td>1.01Mt</td>
</tr>
<tr>
<td>Annual production Li₂CO₃</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>CAPEX</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
UK Export Finance provided Expression of Interest to support ~70% of the total finance required.

- Subject to standard project finance terms, including DFS, ESIA and offtake
- Support for expansion to 51,000 tpa
- 8.5 year debt funding post construction
- Significantly lower cost of capital than traditional debt financing
- Reflects ESG benefits of project

**Kachi Project Finance Support**

UK Export Finance – Export Credit Agency Support – Expression of Interest

Funding to ~70% of Total Required – including the Expansion

- Project Finance: ~70% debt##
- CAPEX: US$544m
- Debt Duration: 8.5 years*

**Annual production Li₂CO₃**
25,500 tpa

**Project life**
25+ years

**Expansion Study Support**
51,000 tpa#

*Note: Expression of interest subject to standard project finance terms (refer ASX release 11 Aug 2021)
*Post Construction
## Expansion study to double production, but not completed
## Indicative level of support c. 70% debt over 8.5 years post construction
Kachi Project Status
Finance Indicatively in Place – Targeting FID mid next year

**Major Resource (2018)**
- 20% utilised in 25 yrs production

**Robust PFS (2020)**
- High cashflow
- c.US$200m/yr free cashflow

**DFS and ESIA Underway**
- End Q1, 2022 targeted completion

**Pilot and Demo Plant in train**
- Successful testing targeted on site end 2021

**Production Target**
- 25,500 tpa LCE targeted H1 2023

**High Purity Li₂CO₃ (2020)**
- Tested NMC622 by Novonix - Respected

**Major ESG Benefits**
- Low CO₂ & H₂O in demand by EV's

**Project Finance Support**
- ~70% debt## Lower cost, long duration

**Equity Finance in train**
- Target A$60m late Oct’21 by option convert

**Support for Expansion**
- ~70% debt## indicative only

**Expansion Target**
- 51,000 tpa LCE# targeted post initial production

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**Note:**
# Expansion study to double production, but not completed
## Indicative level of support from Export Credit Agencies c. 70% debt over 8.5 years post construction
Project Production Timeline

2021 – Q2, 2022

**DFS**
Definitive Feasibility Study
2022 Expansion Study

2021 – Q2, 2022

**Demonstration Plant**
Q1, 2022 Demo Plant Onsite
2021-22 Samples in Batteries
2021-22 Samples to Offtakers

2021 – Q2, 2022

**Financing**
Project Finance
Export Credit Agencies
Indicative 70% debt 10 years
Triggered by DFS, ESIA

Q3, Q4 2022

**Construction / Production**
Mid-Late 2022 Approvals/Construction starts
2024 Production
25,500tpa LCE
Corporate snapshot
Funded to FID

Share price
A$0.53  US$0.39
16 Sept 2021 (10 day VWAP)
52 week high $0.68c, low $0.05c

Cash  30 June 2021
A$26m  US$19.2m
Target A$60m Oct’21 option conversion

Debt
Zero

Unlisted Options
53.0m
30c options, March 2023 expiry
109.6m
35c options, 15 Oct 2021 expiry
35.0m
55c options, Dec 2024 expiry

Half year share price chart

Market capitalisation
A$585m  US$425m

Institutional Investors
Ausbil, Acorn
+ Institutional investors USA, EU

Funded to FID
US$425m
Target A$60m Oct’21 option conversion
US$19.2m
Significant Upside

- Lake Trading 25% NPV8 (w/o expansion) vs Peers 50-100+% NPV8
- Lake Market Value A$580m vs DLE Peers at A$1300m (SLI.NYSE)
- Research with price targets $0.98-$1.89 per share (Roth Capital, Lodge, Orior Capital)

Source: ASX / TSX / NYSE company disclosures; SEDAR; Bloomberg; Company sources (adjusted to AUD): 16 September 2021
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.
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 through development in South America.

Dr Robert Trzebski  
NON-EXEC DIRECTOR

International mining executive; 30 years experience in operational, commercial and technical roles in global mining incl. Argentina. Extensive global contacts. Chief Operating Officer of Austmine. Director Austral Gold.

Sra Amalia Saenz  
NON-EXEC DIRECTOR

Experienced energy/natural resources lawyer based in Buenos Aires, Argentina. Partner at law firm, Zang, Bergel & Viñes. Previously worked as Legal Manager in Central Asia and United Kingdom.
CLEANER LITHIUM FOR AN ELECTRIC WORLD

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

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Appendices
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

Battery mega-factory growth
225 battery factories planned for 2030
151 operating by end 2021

Source: Benchmark Mineral Intelligence
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 5 companies the size of SQM each year for the next 10 years
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
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>
</tr>
</tbody>
</table>

KACHI LITHIUM BRINE PROJECT

<table>
<thead>
<tr>
<th>MINERAL RESOURCE ESTIMATE</th>
<th>JORC Code 2012 Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indicated</td>
</tr>
<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>
</tr>
<tr>
<td>Weighted mean concentration, mg/L</td>
<td>289</td>
</tr>
<tr>
<td>Resource, tonnes</td>
<td>188,000</td>
</tr>
<tr>
<td>Lithium Carbonate Equivalent (LCE), tonnes</td>
<td>1,005,000</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

Source: LKE announcement 27/11/2018

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

JORC Code 2012

Kachi Project

Criteria

Objective: To conduct a reference study on the Kachi Project, with the aim of determining the JORC Code 2012 compliant capital adequacy requirements for the project.

Methodology

The methodology involved the following steps:

1. Identification of capital adequacy requirements under JORC Code 2012
2. Application of the requirements to the Kachi Project
3. Assessment of the adequacy of the project's capital structure

Results

The results of the study indicated that the Kachi Project met the JORC Code 2012 requirements for capital adequacy. The project's capital structure was assessed to be sufficient to support the project's needs.

Conclusion

The study concluded that the Kachi Project is adequately capitalised in accordance with the JORC Code 2012 requirements. Further research is recommended to ensure ongoing compliance with the code.

Appendix 1: Kachi Project

Table 1: Capital Adequacy Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Capital</td>
<td>Adequate to absorb unexpected losses</td>
</tr>
<tr>
<td>Tier 2 Capital</td>
<td>Risk-sensitive capital to absorb ongoing losses</td>
</tr>
<tr>
<td>Tier 3 Capital</td>
<td>Non-risk-sensitive capital to absorb expected losses</td>
</tr>
</tbody>
</table>

Note: The table above summarises the capital adequacy requirements under JORC Code 2012.

Graph 1: Capital Adequacy Analysis

The graph above illustrates the capital adequacy analysis for the Kachi Project, showing that the project meets the required capital adequacy levels.

Figure 1: Kachi Project Location

The figure shows the location of the Kachi Project within the context of the surrounding geological features.

Reference