

Annual General Meeting

LAKE
RESOURCES

30 November 2023

Disclaimer



General Statement and Cautionary Statement

This presentation has been prepared by Lake Resources N.L (Lake) for information purposes and not any particular party. The information in this presentation is based upon public information and internally developed data and reflects prevailing conditions and views as of this date, all of which are accordingly subject to change. The information contained in this presentation is of general nature and is not intended to address the circumstances of any particular individual or entity. There is no guarantee that the information is accurate as of the date it is received or that it will continue to be accurate in the future. No warranties or representations can be made as to the origin, validity, accuracy, completeness, currency or reliability of the information. No one should act upon such information without appropriate professional advice after a thorough examination of the particular situation. Lake Resources NL accepts no responsibility or liability to any party in connection with this information or views and Lake disclaims and excludes all liability (to the extent permitted by law) for losses, claims, damages, demands, costs and expenses of whatever nature arising in any way out of or in connection with the information, its accuracy, completeness or by reason of reliance by any person on any of it. The information regarding projects described in this presentation are based on exploration targets, apart from the Kachi project's resource statement. The potential quantity and grade of an exploration target is conceptual in nature, with insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that potentially economic quantities of lithium will be discovered. Some leases are located within and around the Orocobre, Orocobre/Advantage Lithium and Ganfeng/Lithium Americas projects and although data is limited within the properties, the leases may cover potential extensions to the Cauchari/Olaroz projects with potential extensions to aquifers, although this provides no assurance that any resource will be identified on the Lake leases. The lithium pegmatite leases occur adjacent to past producers of spodumene but no potential extension to any mineralisation can be assured.

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 announcement 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.

Compliance Statement

The information contained in this presentation relating to financial forecasts, production targets, exploration results, Measured, Indicated and Inferred resource estimates, project execution, infrastructure and testing work, has been derived from the information in Lake's JORC update announced on ASX on 22 November 2023. Lake Resources N.L. confirms that it is not aware of any information that materially affects the information included in Lake's JORC update announced on ASX on 22 November 2023 and all material assumptions contained in that announcement continue to apply and have not materially changed. On this basis, Lake confirms that the Competent Person's findings in Lake's JORC update announced on ASX on 22 November 2023 have not changed nor been modified in any material respects since that announcement.

Developing a Critical Global Asset in Argentina

Argentina is an attractive location for lithium investment at scale because of its globally significant lithium resource base

Kachi – Lake’s Flagship Project

- Located in Catamarca region, within the Lithium Triangle which holds ~56% of the world’s lithium reserves¹
- Government is committed to speedily developing the country’s lithium resources, with investments in Argentina’s lithium sector
- Strong relationship with the provincial government of Catamarca. We have had recent site visits by the Governor of Catamarca and the UK Ambassador to Argentina

Location	Catamarca Province, Argentina
Project Stage	Completion of Phase 1 Definitive Feasibility Study (DFS) targeted for December 2023
Products	Battery Grade Lithium Carbonate
Measured & Indicated Resources ²	7.3 million tonnes Lithium Carbonate Equivalent (LCE)
Inferred Resources ³	3.3 million tonnes LCE
Project Execution Approach ⁴	<ul style="list-style-type: none">• Phase 1 – construct plant with target capacity of 25,000 tpa• Phase 2 – construct plant with target capacity of 25,000 tpa

Notes:

1. US Geological Survey (USGS)
2. See JORC release on 22 November 2023. Refer to Appendix A for details of individual categories of the mineral resource.
3. See JORC release on 22 November 2023. Refer to Appendix A for details of individual categories of the mineral resource.
4. These figures refer to target plant capacity only and are not production targets, nor predictions of what the plant will produce. Further information will be available upon completion of the Phase 1 DFS.

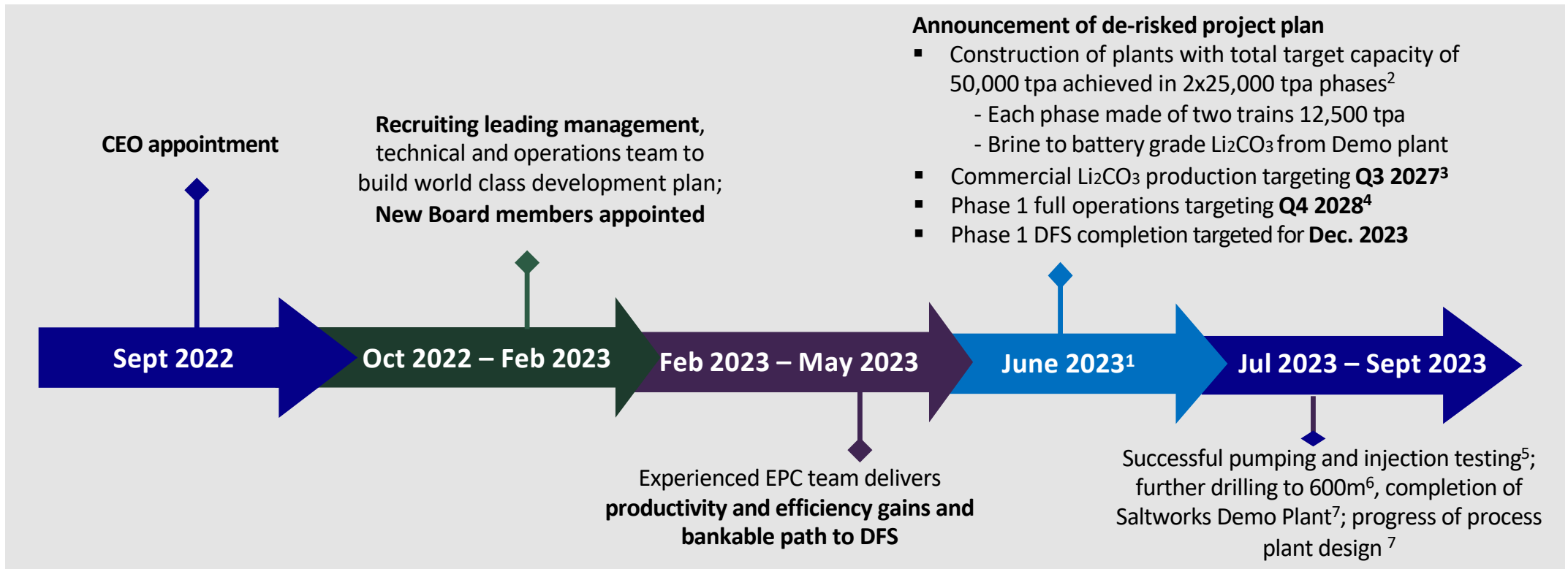


Applying a proven process and lessons learned:

- Using ion exchange DLE technology to optimize lithium extraction results from Kachi brine
 - Higher lithium recovery: DLE has shown average recovery rates of 80%+ compared with 40-60% for traditional methods (hard rock, evaporation ponds)
 - Less impact on environment: lower water usage, lower land usage, less waste volume
- Lithium chemical manufacturing
 - Proven, repeatable results of high purity, high quality lithium carbonate
- Experience in developing large capital projects in remote areas

Technical capability from oil and gas sector driving efficiencies at Kachi

A year of progress, preparing Kachi for project execution



Tpa = tonnes per annum DFS = Definitive Feasibility Study

1. Refer to ASX announcement dated 19 June 2023

2. These figures refer to target plant capacity only and are not production targets, nor predictions of what the plant will produce. Further information will be available upon completion of the Phase 1 DFS

3. 50,000 tpa target plant capacity made up of Phase 1 (25,000 tpa) + Phase 2 (25,000 tpa)

4. When first train (12,500 tpa) in Phase 1 commences operation

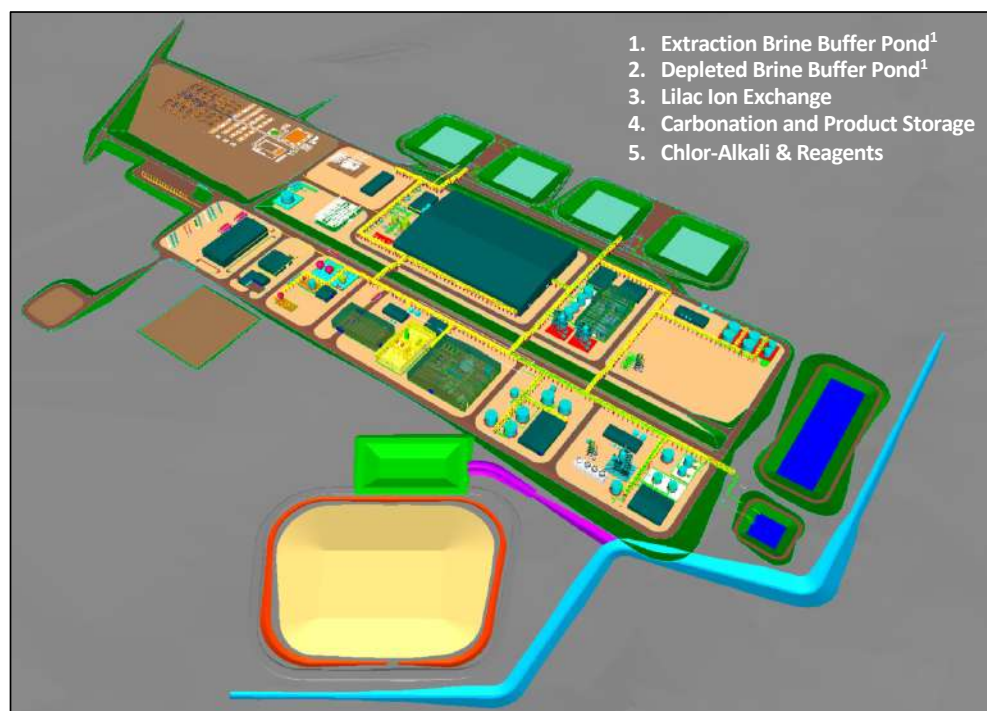
5. Refer to ASX announcement dated 15 August 2023

6. Refer to ASX announcement dated 22 August 2023

7. Refer to ASX announcement dated 26 Sept 2023

DLE Process Proven

Process flow sheet proven from brine to battery grade lithium carbonate



¹ Buffer pond size for our maximum plant capacity is more than 100x smaller than evaporation ponds required for same output.

² For DLE recovery only; >76% for total plant.

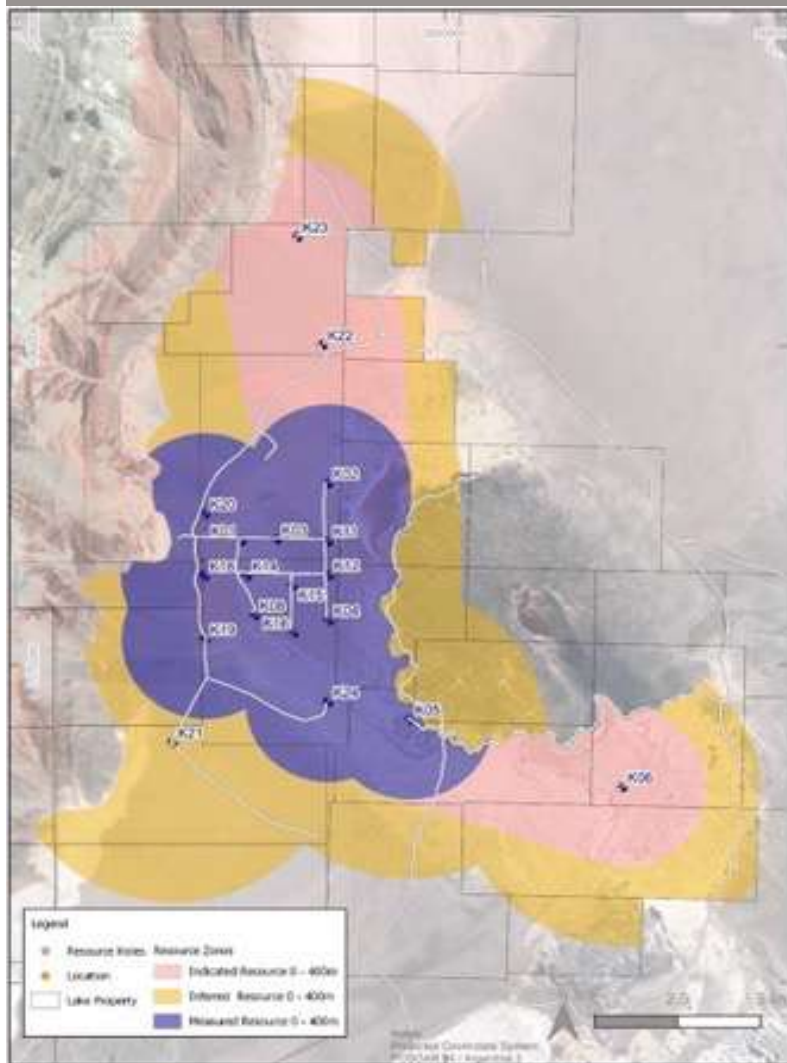
³ Refer to ASX Announcements on 3 April 2023, 19 June 2023 and 26 September 2023

⁴ Refer to ASX Announcement on 26 September 2023

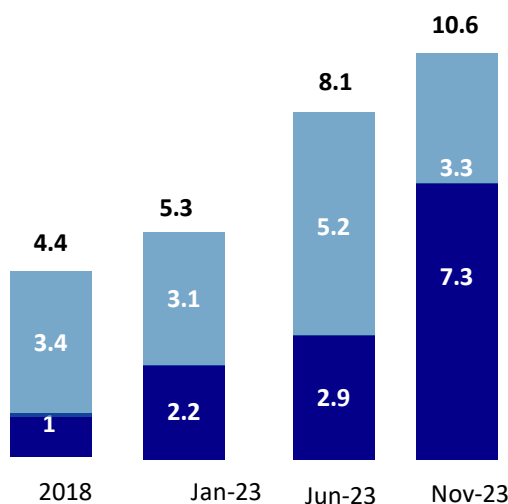
Major Milestones Achieved in Kachi Demonstration Plant using Lilac DLE Technology

- DLE demonstration plant continuously operational for more than 2,500 hours with 90% uptime
- Highly selective process with consistent results on sample testing
 - > 90% impurity removal³
 - > 80%² lithium recovery³
- 200,000 liters of eluate containing more than 4,100 kg of LCE has been tested
- Lithium Carbonate exceeds battery grade requirements > 99.8% purity³
- Initial offtake samples shipped
- Lithium carbonate demonstration plant completed operations in September⁴

>10.6 million tonne LCE inferred resource



Kachi M&I resource estimate increased 250% since June 2023



■ Measured & Indicated ■ Inferred

Resources in Million Tonnes LCE

1 Numbers are based on information in Lake's JORC update announced on 22 November 2023. Refer to Appendix A for details of individual categories of the mineral resource. All material assumptions contained in that announcement continue to apply and have not materially changed

Resource expansion from June 2023 update¹:

- Measured resource has increased from **2.2 to 3.0 million tonnes LCE**
- Indicated resource has increased from **0.72 to 4.3 million tonnes LCE**
- Inferred resource has decreased from **5.2 to 3.3 million tonnes LCE**

Exploration Target¹:

- High: 14.8 million tonnes LCE; Low: 3.7 million tonnes LCE
- 25,000 tpa over a 25-Year operation represents less than 10% of the M&I resource

Note: The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realized.

Lake Resources Leadership Team



Experienced, well-credentialed and highly motivated management team ready to deliver on Lake's new strategy and accelerate the Company's next growth phase



David Dickson, Managing Director / CEO



Executive experience
acquired across technical, financial and project execution



Project Execution and Next steps



- JORC Update increased Measured and Indicated Resource by 250% for Kachi; targeting reserve update for Phase 1 DFS in coming weeks.
- 30-day pumping test complete; reviewing data to incorporate learnings into future well designs
- Process plant design close to completion
- Finalizing power design and selection of Independent Power Producer (IPP)
- Preparing Environmental Impact Assessment, targeted for submission in Q1 2024
- Emphasis on strategic delivery of Kachi:
 - Engaged Goldman Sachs as financial adviser to assist in determining optimal capital strategy to build Kachi.
 - Considering range of financing alternatives, including but not limited to the introduction of a strategic partner, project finance, pre-payments from potential customers, and royalties.
 - Process will enable us to widen aperture of funding opportunities beyond the current Conditional Framework Agreements, allowing us to better optimize the economics of our offtake
 - Ongoing conversations with Export Credit Agencies in the UK and Canada for debt-financing solutions.
 - Working with US and Argentina on strengthening lithium supply partnerships.

On target for completion of Phase 1 DFS in December 2023

Appendix A



Table 2 Updated resource estimate of contained lithium

Measured November 2023 (to 400 m depth)								
Unit	Sediment Volume m ³	Specific Yield %	Brine volume m ³	Liters	Li mg/l	Li grams	Li Tonnes	Tonnes LCE
A	11,001,000,000	0.078	858,078,000	858,078,000,000	210	179,783,644,000	180,000	956,000
B	4,366,100,000	0.081	352,090,000	352,090,162,000	229	80,628,647,000	81,000	429,000
C	8,007,400,000	0.068	544,503,000	544,503,200,000	230	125,427,401,000	125,000	667,000
Fan West	8,833,000,000	0.095	839,135,000	839,135,000,000	220	184,609,700,000	185,000	982,000
Total	32,207,500,000	-	2,593,806,000	2,593,806,362,000	-	570,449,393,000	570,000	3,035,000
Indicated November 2023 to 600 m								
Unit	Sediment Volume m ³	Specific Yield %	Brine volume m ³	Liters	Li mg/l	Li grams	Li Tonnes	Tonnes LCE
A (South)	3,694,300,000	0.076	278,924,000	278,924,452,000	181	50,485,326,000	50,000	269,000
B (South)	1,489,000,000	0.075	111,543,000	111,543,670,000	179	19,959,624,000	20,000	106,000
C (South)	4,382,400,000	0.067	294,407,000	294,407,879,000	182	53,582,234,000	54,000	285,000
A (North)	3,075,200,000	0.095	292,144,000	292,144,000,000	232	67,891,052,000	68,000	361,000
B (North)	4,294,400,000	0.095	407,968,000	407,968,000,000	241	98,166,484,000	98,000	522,000
C (North)	9,188,400,000	0.092	845,333,000	845,332,800,000	182	206,021,447,000	206,000	1,096,000
400 – 600m Under Salar	12,230,170,000	0.066	806,922,000	806,922,156,000	242	195,275,162,000	195,000	1,039,000
400 – 600m West Fan Deep	4,858,200,000	0.092	446,954,000	446,954,400,000	244	109,056,874,000	109,000	580,000
Total	43,212,070,000		3,484,197,000	3,484,197,358,000		800,438,203,000	800,000	4,258,000
Combined Measured + Indicated								
	75,419,570,000		6,078,004,000	6,078,003,721,000		1,370,887,596,000	1,370,000	7,293,000
Inferred November 2023								
Unit	Sediment Volume m ³	Specific Yield %	Brine volume m ³	Liters	Li mg/l	Li grams	Li Tonnes	Tonnes LCE
A	4,756,500,000	0.080	378,325,000	378,325,351,000	185	69,975,435,000	70,000	372,000
B	1,671,300,000	0.079	131,198,000	131,197,886,000	191	25,101,960,000	25,000	134,000
C	5,287,600,000	0.074	393,746,000	393,746,422,000	218	85,950,119,000	86,000	457,000
Fan North	8,895,490,000	0.081	716,324,000	716,324,455,000	232	166,081,974,000	166,000	884,000
Fan South	12,248,490,000	0.064	781,249,000	781,249,112,000	239	186,718,538,000	187,000	993,000
Under volcano	6,718,700,000	0.074	500,471,000	500,471,260,000	192	96,334,211,000	96,000	512,000
Total	39,578,080,000		2,901,314,000	2,901,314,485,000		630,162,237,000	630,000	3,352,000

Note: This table has been directly extracted from the JORC update announced on 22 November 2023. Lake Resources N.L. confirms that it is not aware of any information that materially affects the information included in Lake's JORC update announced on ASX on 22 November 2023 and all material assumptions contained in that announcement continue to apply and have not materially changed.

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