

Investor Webcast

L A K E
R E S O U R C E S

October 31, 2023



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Forward Looking Statements

Certain statements contained in this announcement, 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 15 June 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 15 June 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 15 June 2023 have not changed nor been modified in any material respects since that announcement.

On Today's Webcast:



David Dickson
CEO



Sean Miller
SVP, Field
Operations and
Evaluation

- Field operations update
- Update on DFS/EIA for Phase 1 of Kachi Project
- Argentina Elections Update
- Next Steps
- Answers to Investor Questions

In the last month:

- Hydrogeologic Model Calibration Complete
 - Applying data from pumping tests completed in August¹ to calibrate the hydrogeologic model for pumping and injection stresses
- Progress with wellfield design
 - Extraction and injection wellfield modeling and simulation going well.
 - Working on value engineering
- Completed a 30-day pumping test:
 - Important test to stress 30-days of continuous, problem free injection testing, which demonstrates proof-of-concept in a very robust manner.
 - Incorporating learnings into our updated designs
 - The team is currently working through all the data and a more detailed update will be provided once complete

Note:

¹ refer to ASX announcement on 15 August 2023

In the last month:

- Currently drilling at a third wellhole beyond 500 meters with the goal of drilling to 600 meters¹
- Resource and reserve for Phase 1 DFS are undergoing review processes; we will release updates to the market in the coming weeks as required, as a result of that review
- Interaction with local regulators:
 - Very positive feedback from the local regulators following visits out to site.
 - The team continue to work hard to build strong relationships to ensure both parties are meeting expectations
 - Regular site visits allow for further education of our injection process, which has never been done in Catamarca

Note:

¹ Refer to ASX Announcement dated 4 October 2023

Focus of the last 30 days:

Field exploration and modeling wrapping up

Working closely with Lilac on cost optimization and completion of work at demo plant

Narrowing list of vendors for EPCM

Continued focus on cost optimization

Strategic evaluation of project financing

Power Design – further progress evaluating commercial and technical proposals

Continued refinement of Capex/Opex estimates

Phase 1 DFS Communications Plan

All activities are progressing on schedule

Argentina Elections Results

Current Minister of Economy and candidate, Sergio Massa had highest percentage of votes

- ➔ None of the candidates managed to surpass 45%, or 40 percent with a 10-point margin of victory.
- ➔ Massa and Milei will face each other in a run-off election on November 19.
- ➔ Since election, Bullrich has publicly supported Milei



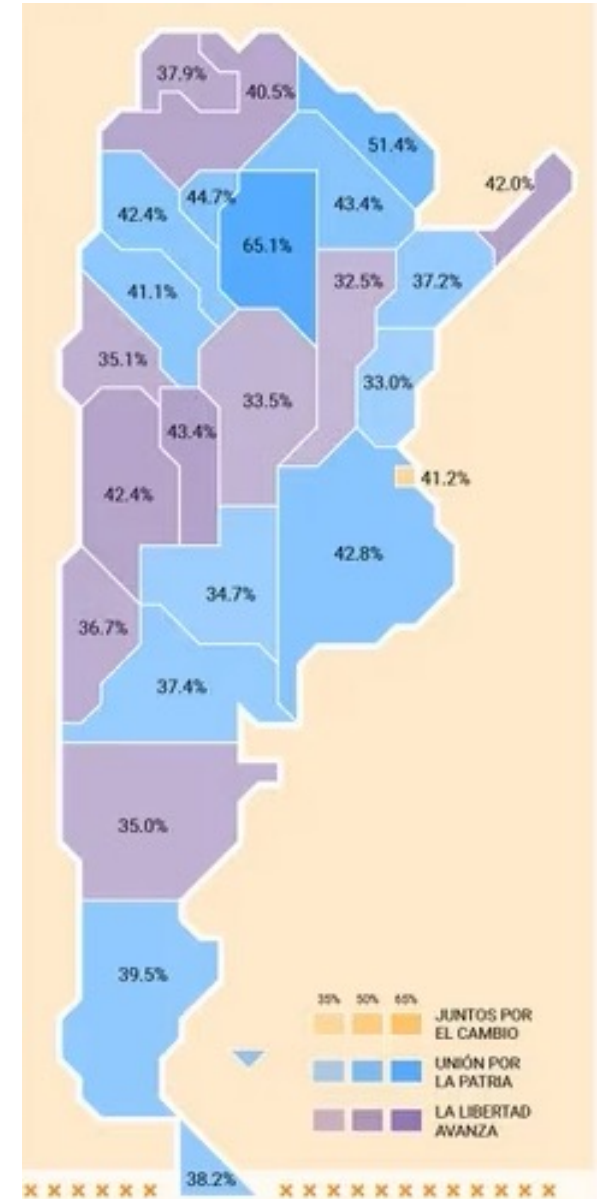
36,68%
NATIONAL



29,98%
NATIONAL



23,83%
NATIONAL



Importantly Raul Jalil, Governor of Catamarca, was re-elected. Continuity of incumbent government in Catamarca Province is very positive for Lake.

Strategically delivering on Kachi

- Working with strategic advisors on project financing
- Meeting with local communities and regulators in Catamarca monthly to provide project updates
- Targeting JORC updates to resource and reserve for Phase 1 DFS in coming weeks
- Finalize power design and selection of IPP (Independent Power Producer)
- Preparation of Phase 1 DFS communications materials

On target for completion of Phase 1 DFS in December 2023

Topics

- Impact of Argentina elections and fiscal instability
- Permitting process
- Scale up from demo plant to commercial production
- Perspectives on lithium pricing
- Next steps after Phase 1 DFS submission

Appendix A



Table 1: Updated resource estimate of contained lithium

Measured June 2023								
Unit	Sediment Volume m ³	Specific Yield %	Brine volume m ³	Litres	Li mg/l	Li grams	Li Tonnes	Tonnes LCE
A	14,620,000,000	0.07	1,073,675,256	1,073,675,256,000	200	214,735,051,200	214,735	1,142,390
B	4,594,900,000	0.08	358,054,366	358,054,366,070	222	79,488,069,268	79,488	422,877
C	8,487,400,000	0.06	543,960,861	543,960,860,960	223	121,303,271,994	121,303	645,333
Total	27,702,300,000		1,975,690,483	1,975,690,483,030	210	415,526,392,462	415,526	2,210,600
Indicated June 2023								
Unit	Sediment Volume m ³	Specific Yield %	Brine volume m ³	Litres	Li mg/l	Li grams	Li Tonnes	Tonnes LCE
A	5,559,400,000	0.07	401,416,477	401,416,477,000	172	69,043,634,044	69,044	367,312
B	1,968,900,000	0.07	144,809,839	144,809,838,540	176	25,486,531,583	25,487	135,588
C	3,528,700,000	0.06	225,883,379	225,883,378,840	177	39,981,358,055	39,981	212,701
Total	11,057,000,000		772,109,694	772,109,694,380	174	134,511,523,682	134,512	715,601
Combined Measured + Indicated								
	38,759,300,000	-	2,747,800,177	2,747,800,177,410		550,037,916,143	550,038	2,926,202
Inferred June 2023								
Unit	Sediment Volume m ³	Specific Yield %	Brine volume m ³	Litres	Li mg/l	Li grams	Li Tonnes	Tonnes LCE
A	35,100,000,000	0.08	2,695,188,600	2,695,188,600,000	188	506,695,456,800	506,695	2,695,620
B	8,982,700,000	0.07	661,907,317	661,907,316,630	201	133,043,370,643	133,043	707,791
C	20,794,000,000	0.07	1,534,617,994	1,534,617,994,000	218	334,546,722,692	334,547	1,779,789
Total	64,876,700,000		4,891,713,911	4,891,713,910,630	199	974,285,550,135	974,286	5,183,199

Note: This table has been directly extracted from the JORC update announced on 15 June 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 15 June 2023 and all material assumptions contained in that announcement continue to apply and have not materially changed.

- JORC definitions were followed for mineral resources.
- The Competent Person for this Mineral Resource estimate is Andrew Fulton, MAIG.
- No internal cut-off concentration has been applied to the resource estimate. The resource is reported at a zero mg/l cut-off, given the consistent grade of the deposit.
- Numbers may not add due to rounding.
- Specific Yield (Sy) = Drainable Porosity
- Lithium is converted to lithium carbonate (Li₂CO₃) with a conversion factor of 5.32.



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Thank you!