

An aerial photograph of an industrial facility, likely a refinery or chemical plant, at night. The facility is illuminated by bright lights, showing various storage tanks, processing units, and a large area filled with shipping containers. The surrounding landscape is dark and appears to be a desert or scrubland. A large, semi-transparent triangle is overlaid on the right side of the image, pointing towards the center.

Kachi Phase One DFS Addendum Presentation

August 2025

LAKE
RESOURCES

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Compliance Statement

The information contained in this presentation relating to financial forecasts, production targets, exploration targets, exploration results, Measured, Indicated and Inferred resource estimates, project execution, infrastructure and testing work, has been derived from the information in Lake's Kachi Project Phase One Definitive Feasibility Update Study Results ("DFS Addendum") and Lake's Updated Ore Reserve Statement ("Ore Reserve Update") both announced on ASX on 4 August 2025 and mineral resource update announced on ASX on 3 June 2025. Lake confirms that it is not aware of any information that materially affects the information included in the DFS Addendum or the Ore Reserve Update both announced on ASX on 4 August 2025 and mineral resource update announced on ASX on 3 June 2025 and all material assumptions contained in those announcements continue to apply and have not materially changed, including all material assumptions underpinning the production targets or forecast information derived from production target, and all technical parameters underpinning the estimates of mineral resource and ore reserves. On this basis, Lake confirms that the findings of Mr. Andrew Fulton, the Competent Person, in the DFS Addendum and the Ore Reserve Update both announced on ASX on 4 August 2025 and, in respect of Lake's mineral resource, in the mineral resource update announced on 3 June 2025, have not changed nor been modified in any material respects since those announcements.

Hatch Disclaimer

The DFS Addendum was prepared by Hatch Ltd. ("Hatch"), together with certain other consultants (the "Other Consultants"), for the sole and exclusive benefit of Lake Resources N.L. (the "Principal") for the purpose of undertaking a study for the Kachi Project ("Project"), and may not be provided to, relied upon or used by any other party. This DFS Addendum summary report was created by the Principal to summarize material and key matters from the DFS Addendum. The use of the DFS Addendum by the Principal is subject to the terms of the relevant services agreement between Hatch and the Principal. This DFS Addendum summary report is meant to be read as a whole, and sections should not be read or relied upon out of context. The DFS Addendum summary report includes information provided by the Principal, the Other Consultants and by certain other parties on behalf of the Principal. Unless specifically stated otherwise, Hatch has not verified such information and does not accept any responsibility or liability in connection with such information. In particular, Hatch does not accept any responsibility or liability in connection with the sections of this DFS Addendum summary report that have been prepared by the Principal or by the Other Consultants. This DFS Addendum summary report contains the opinion of Hatch using its professional judgment and reasonable care, based upon information available at the time of preparation. The quality of the information, conclusions and estimates contained in the report are consistent with the intended level of accuracy as set out in this report, as well as the circumstances and constraints under which this DFS Addendum summary report was prepared. As the DFS Addendum is a feasibility study and the DFS Addendum summary report is a summary of a feasibility study updates, all estimates and projections contained in this DFS Addendum summary report are based on limited and incomplete data. Accordingly, while the work, results, estimates and projections in this DFS Addendum summary report may be considered to be generally indicative of the nature and quality of the Project, they are not definitive. No representation or prediction in this DFS Addendum summary report is intended as a guarantee of the results of future work, and Hatch does not promise that the estimates and projections in this DFS Addendum summary report will be realized this information in the form and context in which it appears. The information in this announcement is an accurate representation of the available data from initial exploration at the Kachi Project as prepared by Mr. Fulton.

Executive Summary

DFS Addendum delivers significant project improvements

Positive Updates Since Original DFS

- ✓ Higher brine grades – 249 mg/L Design Basis
- ✓ DLE technology improvements
- ✓ New high-quality resource and reserve data
- ✓ Well development and construction efficiencies
- ✓ Completed power supply FEED

DFS Addendum Financial Highlights

- US\$1,157M Capex
- US\$5,895/t Opex
- US\$1.5B Pre-Tax NPV₁₀
- 22.5% Pre-Tax IRR

2023



Completed Kachi
Phase 1 DFS

2024 - 2025



Completed Value
Engineering Study

2025



Completed DFS Addendum
with Hatch Engineering

Key drivers of DFS Addendum Results

Higher Brine Grade

- Updated **average lithium concentration** increased from 205 mg/L (Original DFS) to >250 mg/L¹
- DFS Addendum design basis set at **249 mg/L**, enabling more efficient lithium extraction
- Average lithium concentration **further increased to 268 mg/L²** indicating additional realizable improvements beyond those achieved in the DFS Addendum

Improved DLE Technology

- Transition to Lilac Gen4 Ion Exchange (IX) technology³
- **Recovery rates increased** from ~80% to ~90%
- **Greater throughput, longer IX media lifecycle, and fewer IX modules required** resulting in a **39% lower DLE Capex** and **40% lower DLE Opex**

Reduced Footprint and Reagent Use

- **~22% reduction in number of wells** representing **35% and 44% improvement in well Capex and Opex**, respectively
- **~50% reduction in number of DLE modules**
- **~15-20% reduction in plant footprint⁴**
- **Reduced brine pumping requirements** resulting from higher brine grades and improved flow rates
- **Significantly lower reagent consumption**

Stronger Project Economics

- **Lower capital intensity** and improved operational efficiency
- Engineering improvements **offset inflationary pressures**
- **Robust project IRR and NPV**

¹ Refer to ASX announcement dated 3 June 2025. ² Refer to ASX announcement dated 4 August 2025 – Updated Lithium Ore Reserve. The following cost savings are realized on the design basis of 249 mg/L. ³ Refer to Lilac Solutions' announcement and Technical White Paper dated 25 June 2024 about its latest generation lithium extraction technology. ⁴ With enhanced lithium content and advanced processing efficiencies, the plant's physical footprint is reduced while maintaining planned production capacity.

Kachi Phase 1 DFS Addendum Results

1	REDUCED CAPEX	<ul style="list-style-type: none"> Capex now US\$1,157M, representing ~US\$220M improvement from Original DFS figures¹ Represents a 19% improvement from the inflation adjusted baseline¹ or a 16% improvement from Original DFS Further Capex reduction achievable due to improved brine concentration of 268 mg/L²
2	REDUCED OPEX	<ul style="list-style-type: none"> Meaningful improvement in Opex to US\$5,895/t LCE, still one of the lowest on the industry cost curve Represents a 3% improvement from Original DFS numbers Further Opex reduction achievable due to improved lithium brine concentration to 268 mg/L²
3	ROBUST FINANCIALS	<ul style="list-style-type: none"> Estimated NPV_{10%} at US\$1,469M pre-tax and US\$1,011M post-tax based on Benchmark Mineral Intelligence (BMI) Q2 2025 average price of ~US\$20,500/t³ for battery grade lithium carbonate over life of mine Estimated IRR at 22.5% pre-tax and 19.7% post-tax 4.5-year payback period
4	REDUCED EXECUTION RISK	<ul style="list-style-type: none"> Plant design basis updated to 249 mg/L to reflect improved lithium concentration⁴ Measured resource increased from 3.0 to 4.2 Mt LCE, total resource increased from 10.6 to 11.1 Mt LCE⁴ Single phase⁵ plant construction approach now utilized Critical de-risking milestone for grid power – YPF-Luz completed FEED for Kachi power connection in May 2025, reflecting a better-understood, executable, and technically viable power solution⁶ Next generation DLE technology Benign brine chemistry eliminates costly pre-treatment, enhancing project economics Improved modularization for increased off-site fabrication, reducing field labour and site construction risk EIA final approval expected in 2025

¹ The 2023 DFS capital cost estimate of US\$1.38 billion was escalated to US\$1.42 billion to reflect prevailing inflationary indices as of February 2025, before being optimized to US\$1.16 billion following the value engineering study using 249mg/L design basis. The capital cost values have not been static positions while quantities, durations, power loadings and filed layouts (amongst other things) have remained under review. The February 2025 capital cost of US\$1.42 billion was only determined during the course of value engineering work undertaken to calculate the updated capital cost figure contemplated in this presentation. This applies to each reference to the US\$1.42 billion capital cost figure in this presentation. ² Refer to ASX announcement dated 4 August 2025 – Updated Lithium Ore Reserve. ³ Based on BMI Q2 2025 Lithium Price Forecast available via Lake Resources annual paid subscription. ⁴ Refer to ASX announcement dated 3 June 2025. To remain consistent with the environmental permitting, the well locations for unutilized wells have not been moved. ⁵ In the 2023 DFS, a two-phased construction philosophy was implemented due to the lack of grid power available early in the project's life. However, this approach is now considered unnecessary, and a single-phase construction approach will be utilized instead. ⁶ Refer to ASX Announcement dated 2 July 2025.

Significant milestones achieved in 2025 following successful 2023 and 2024 execution

2023 and 2024 Accomplishments

- ✓ Successfully completed demo plant – processed 5.2 million litres of brine and produced more than 1,300kg of >99.5% purity lithium carbonate
- ✓ Kachi Phase One DFS Completed¹
- ✓ Initiated Strategic Partnering Process²
- ✓ Submitted Environmental Impact Assessment (EIA)³
- ✓ Signed Letter of Intent (LOI) with YPF-Luz for power supply⁴
- ✓ Right-sized business and cost structure to reflect current scope of activities

2025+ Key Objectives

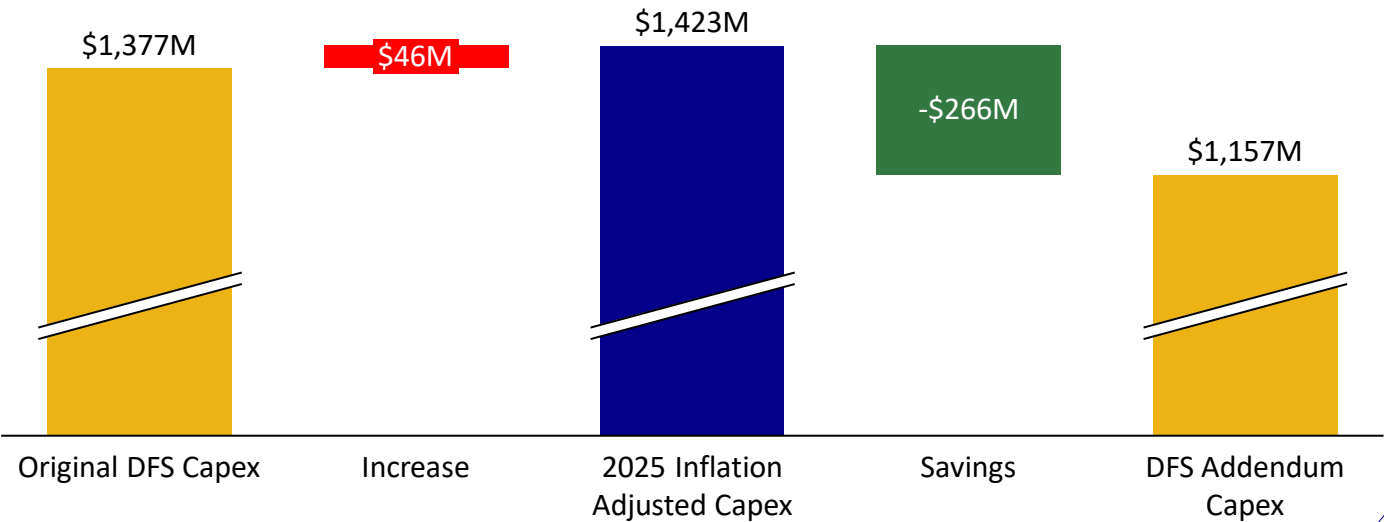
- ✓ Launched Kachi Strategic Review⁵
- ✓ JORC Update Increasing Total Resource to 11.1 Mt LCE⁶
- ✓ Completed Internal Capex and Opex Value Engineering Study
- ✓ Ore Reserve Statement Confirms 268 mg/L Lithium Grade⁷
- ✓ Completed Power Supply FEED⁸
- ✓ Completed Kachi Phase 1 DFS Addendum
- Obtain EIA Approval
- Complete Kachi Strategic Review
- Continue to optimize technical and commercial power solutions
- Work towards FID

¹ Refer to ASX announcement dated 19 December 2023. ² Refer to ASX announcement dated 29 November 2023. ³ Refer to ASX announcement dated 26 March 2024. ⁴ Refer to ASX announcement dated 6 May 2024. ⁵ Refer to ASX announcement dated 7 May 2025. ⁶ Refer to ASX announcement dated 3 June 2025. ⁷ Refer to ASX announcement 4 August 2025 – Updated Lithium Ore Reserve ⁸ Refer to ASX announcement dated 2 July 2025.

1. Improved Capex

DFS Addendum Capex estimates reduced by 16% compared to Original DFS figures

Capex Optimization (US\$)



Key Drivers of Capex Reduction (US\$)

- DFS Design basis improved from 205 mg/L to 249 mg/L
- Slight increase in Capex estimates reflects inflationary adjustments to labour and equipment
- Higher brine feed grade, and improved IX media performance led to:
 - Reduction in DLE modules** reduced major equipment, civil works and installation costs of ~\$98M in **savings**
 - Optimized piping specification** – swapping PE-X for HDPE – **saved \$45M**
 - Mechanical equipment modification** due to improved feed rates, smaller plant footprint resulted in **\$39M savings**
 - Strategic shift to **higher-grade wells** and greater efficiency resulting in **\$31M savings**
 - Other efficiencies including**, downsizing reagent storage, handling and dosing systems, efficient construction plan, elimination of interim costs and updated vendor pricing resulted in additional **\$53M savings**

Updated Wellfield Development Plan

	Lithium Concentration	Well Count
2023 DFS	205 mg/L	37 wells – 21 production, 16 injection
DFS Addendum Design Basis 2025 DFS Addendum	249 mg/L	29 wells – 13 production, 16 injection
2025 Ore Reserve ¹	268 mg/L	25 wells – 11 production, 14 injection

¹ Refer to ASX announcement dated 4 August 2025 – Updated Lithium Ore Reserve.

Lilac Gen 4 Ion Exchange

The Kachi DFS Addendum incorporates improvements from Lilac’s Gen 4 lithium extraction technology, which was launched in June 2024. This latest generation delivers significant performance improvements that enhance project economics and sustainability:

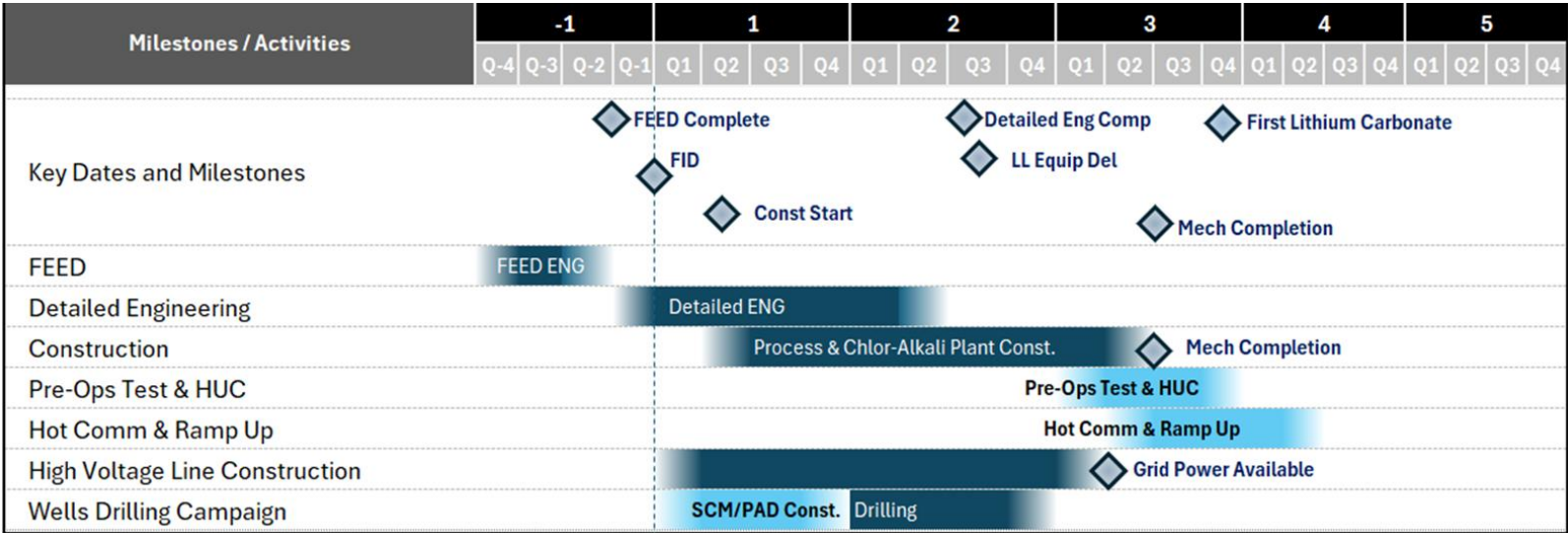
- **Lithium recovery rates increased from 80% to 90%.** Combined with increased brine grade, this improvement **reduces the volume of feed and reinjection brine needed by 30%** to meet plant capacity, thereby improving process efficiency and supporting higher reserve estimates
- **Impurity rejection of 99.9%** ensures high-purity eluate, reducing downstream processing complexity and cost
- **Extended IX media durability** significantly increases ion exchange media lifespan, reduces replacement frequency **and lowers reagent use by up to 70%**
- **Improved throughput and system design: 50% fewer IX modules** are now required, enabling a more compact system layout and **driving 39% lower capital cost for the IX package**
- **Proven in the field:** Gen 4 technology was successfully demonstrated at Lilac’s Jujuy plant with similar brine, exceeding the commercial design basis
- **Environmental and operational benefits:** Gen 4 **reduces water consumption by 32%**, supporting Kachi’s environmental sustainability objectives and lowering associated utility and infrastructure costs

LILAC	Original DFS (Gen 3 Lilac IX)	DFS Addendum (Gen 4 Lilac IX)
Lithium Recovery	80%	90%
Impurity Rejection	99.9%	99.9%
Product Lithium Concentration (mg/L)	2,280	2,320
Cycle Life	2,200	4,300+
IX Modules	8	4

Optimised construction schedule accelerates Kachi's commissioning by six months

- The Original DFS two-phase strategy was driven by uncertainties around timely grid power availability, forcing reliance on diesel and solar power to accelerate first lithium production in Phase 1A and delaying the power-intensive Chlor-Alkali plant until Phase 1B
 - Introduced higher reagent and power costs via added Capex for interim processing and temporary power systems for Phase 1A
- The DFS Addendum reflects a more streamlined and capital-efficient approach enabled by key shifts in project timing and power availability
 - Grid power availability now expected to coincide with hook-up and commissioning activities
 - Onsite commissioning of the Chlor-Alkali plant at handover enables in-house reagent production from Day 1
 - Eliminates redundancy – interim processing and temporary power systems

New Project Development Timeline



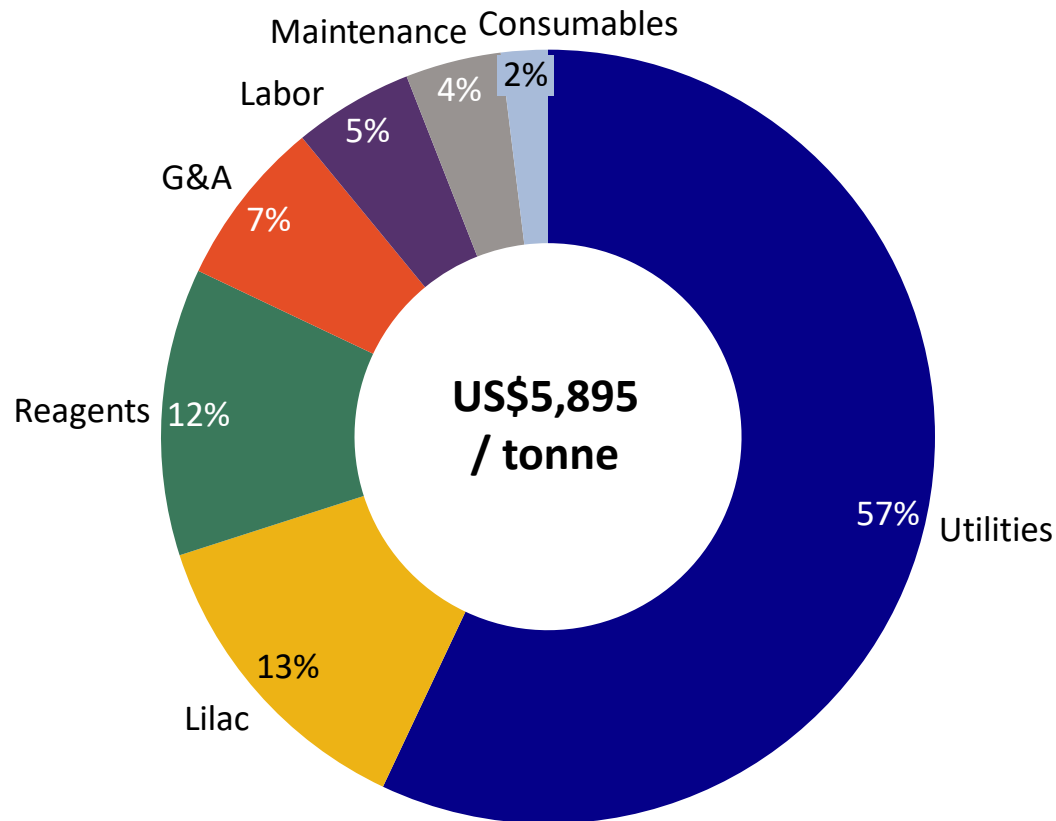
Project Schedule Improvements

	Original DFS	DFS Addendum
FID to Mechanical Completion	33 months	30 months
FID to First Lithium	33 months	33 months
FID to Operation Handover	48 months	42 months
Grid Power Available	36 months	30 months

2. Improved Opex

Kachi's US\$5,895/t Opex places it among the lowest-cost brine projects globally

Run-rate Operating Expense Categories

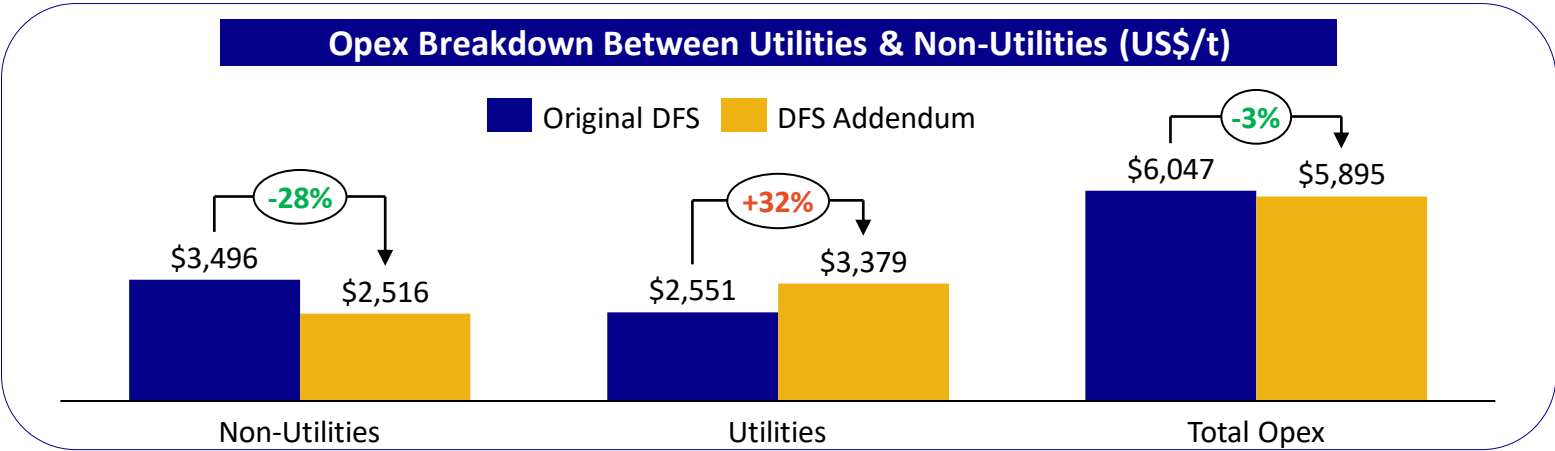
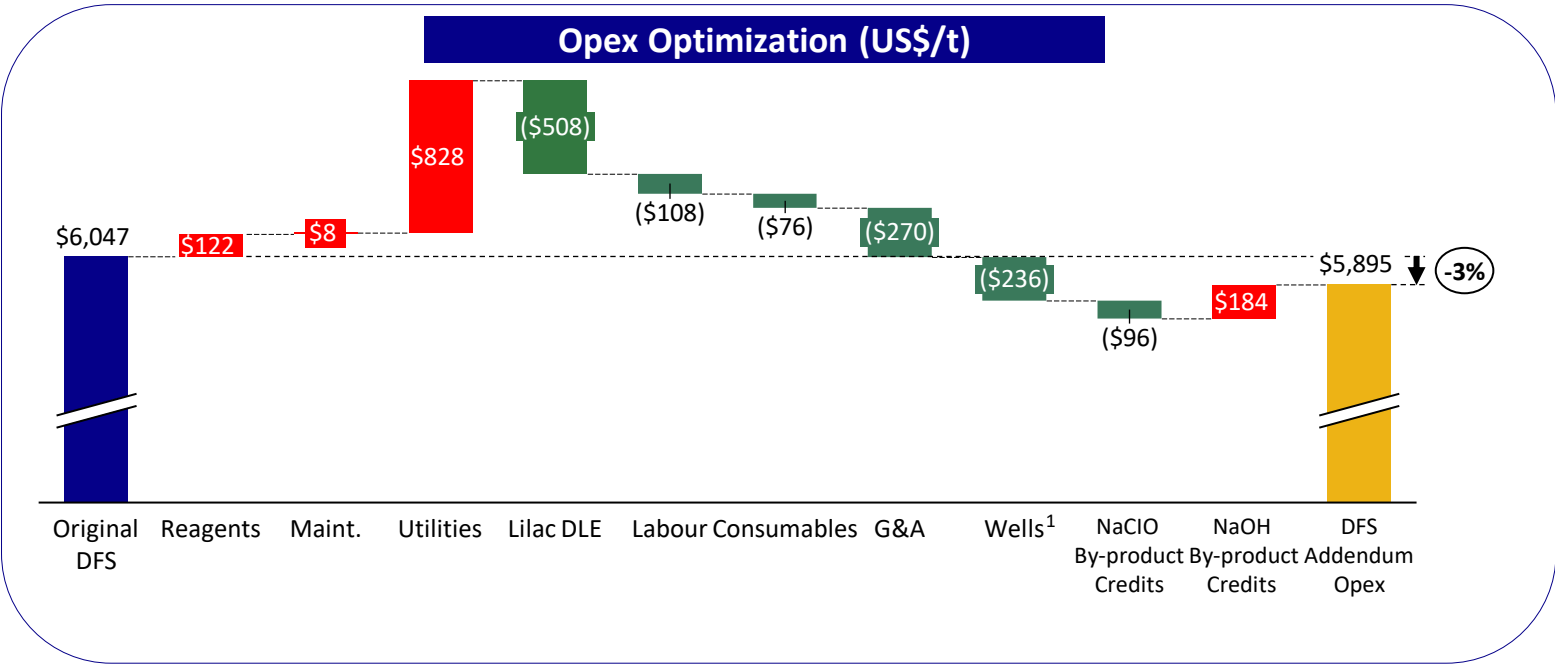


Summary of operating cost estimates¹

- **Utilities² is the largest contributor to Opex** with grid power expenses being the most significant factor (accounting for **55%** of Opex)
- **Next largest contributors are DLE costs and reagents cost** (offset by a by-product credit for excess sodium hydroxide and sodium hypochlorite production)
- Opex estimate is for **typical operating year after ramp-up**

¹Estimated operating costs are based on February 2025 estimates adjusted for inflation using US Consumer Price Index. ²Utilities made up of power and water.

Achieved 28% reduction in non-utilities Opex compared to Original DFS



Key Drivers of Opex Reduction

Improvements

- **DLE Technology:** ~40% decrease
- **G&A:** ~40% decrease
- **Consumables:** ~41% decrease
- **Labour:** 27% decrease
- **Utilities:** 31% decrease in power MW demand

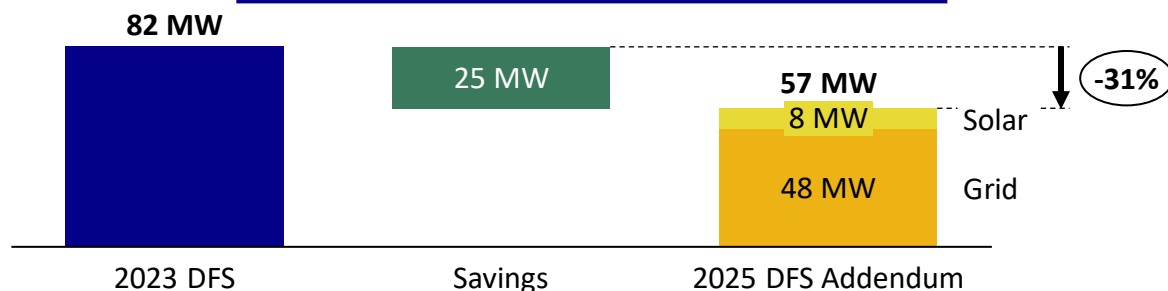
Increases

- **Maintenance:** ~4% increase
- **Reagents:** ~13% increase driven by rise in unit cost of sodium carbonate but partially offset via by-product credits
- **Utilities:** ~98% increase in grid power unit rate partially offset by 31% decrease in MW consumed

¹The wellfield sustaining cost (i.e., workover costs) calculation for the DFS Update are included in the project economic model as opposed to the Opex estimate costs.

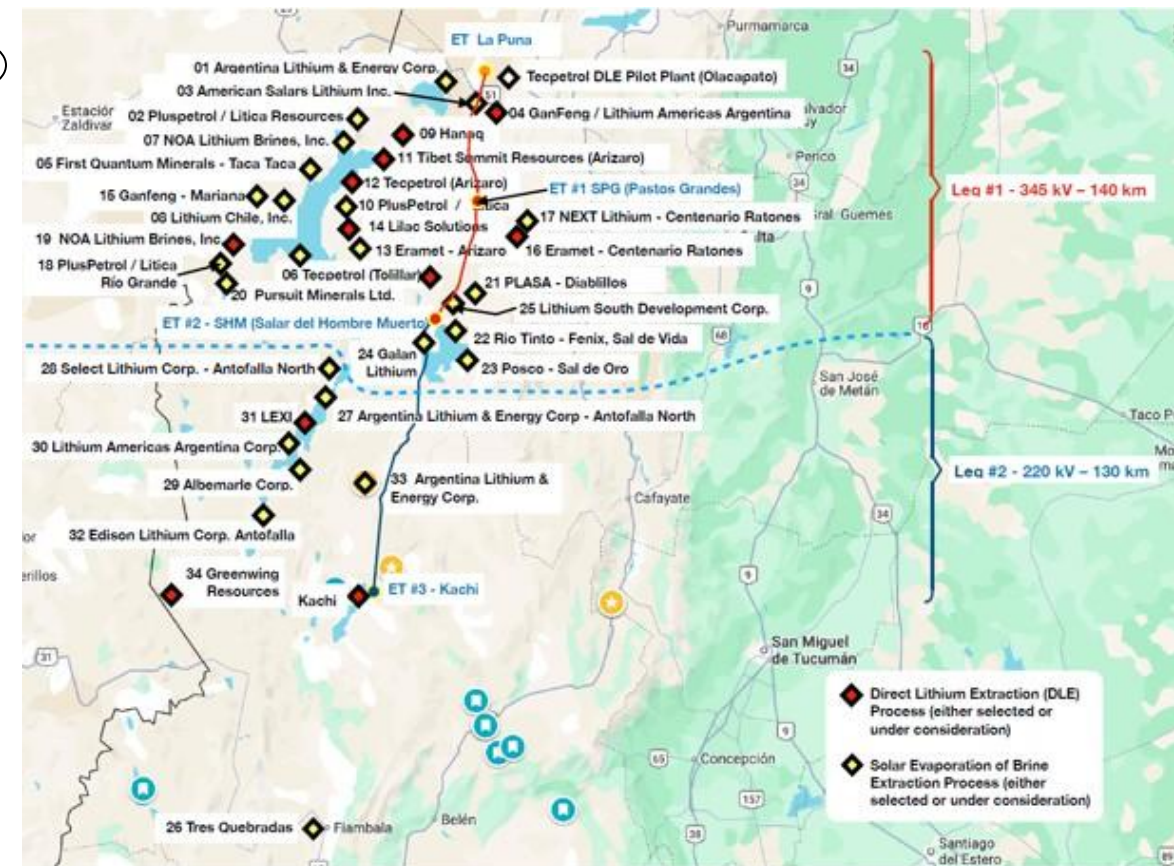
Continuous optimization of technical and commercial power solutions up to FID

Kachi Power Consumption¹



- Improved technology, resource quality, and value engineering have significantly reduced Kachi plant power consumption from 82MW to 57MW
- The 270 km line powering Kachi is expected to be built in two phases: Leg #1 - ET La Puna in the north to ET #2 SHM (Hombre Muerto); and Leg #2 - ET #2 SHM to ET #3 Kachi in the south
- DFS Addendum pro-forma power costs assume Kachi will carry (on a MWh basis) a significant portion of the capital costs of Leg #1 and 100% of Leg #2, materially impacting total Opex
- Kachi's power costs can potentially be reduced by adding additional users to the power line, and/or via alternative power solutions including geothermal, solar and trucked LNG
- Discussions are ongoing with YPF-Luz as Lake seeks to achieve the lowest cost power solution for Kachi

Grid Power Line – Potential Lithium Projects²



¹Does not include potential reduction in power consumption resulting from updating plant design basis to 268mg/L. ²Map developed internally and project locations are based on knowledge of Lake employees and consultants.

3. Robust Financials

RIGI Incentives Considered for Kachi Economic Analysis¹

- ✓ **25% Corporate Income Tax** flat rate
- ✓ **Accelerated depreciation**
- ✓ **0% export duties** after year three of obtaining RIGI approval
- ✓ **No customs duties on imports**
- ✓ **Foreign currency from financing will not be subject to restrictions**

Several Recent RIGI Authorizations

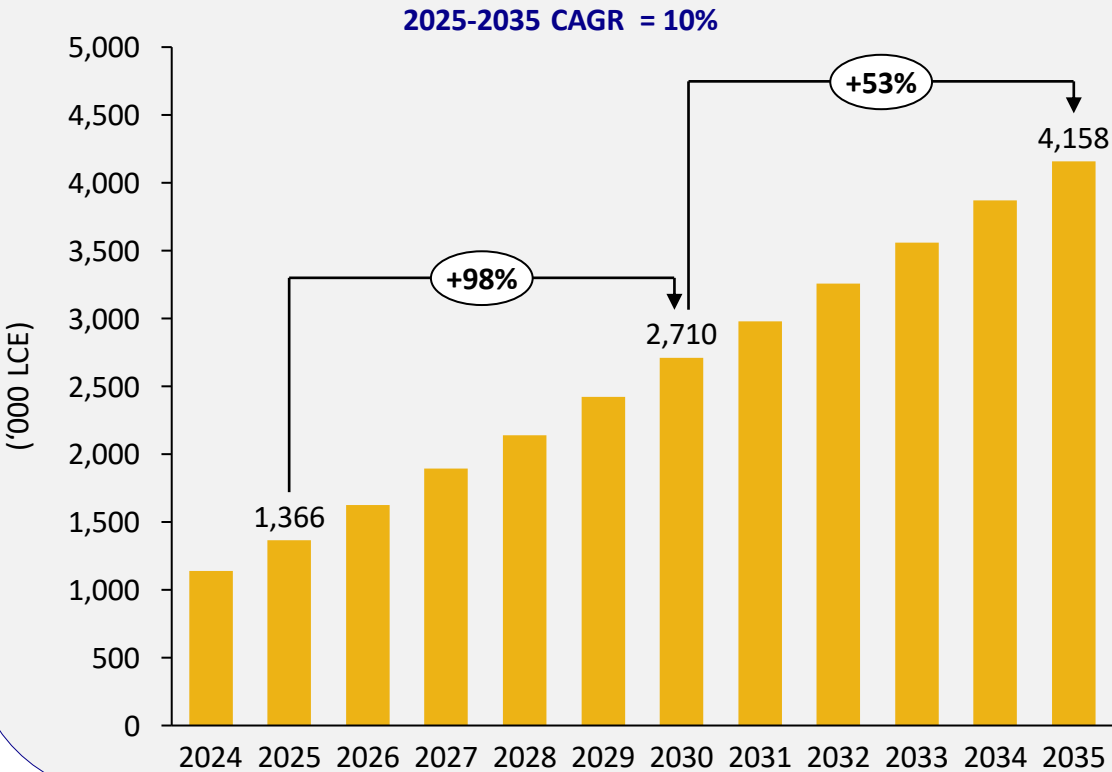
- Argentina's authorization of Rio Tinto's US\$2.5B Rincon project—the inaugural approval under the RIGI incentive regime—signals a transformative shift for lithium investors
- Galan Lithium's Hombre Muerto West lithium project was also approved for RIGI by the Argentine government, bringing the total number of RIGI-approved projects to six
- RIGI offers 30 years of regulatory stability, tax and customs benefits, and international arbitration rights, thereby enhancing confidence and accelerating capital deployment in the region
- Lake assumes Kachi can apply for the RIGI concessions in a timely manner

¹Based on provisions of Argentina RIGI Law that was passed in 2024 for qualified capital projects that invest more than \$200M in Argentina. Final terms are subject to extension of RIGI deadline to July 2027 and the outcome of direct negotiations between the Kachi Project and the Argentine Government throughout the application process.

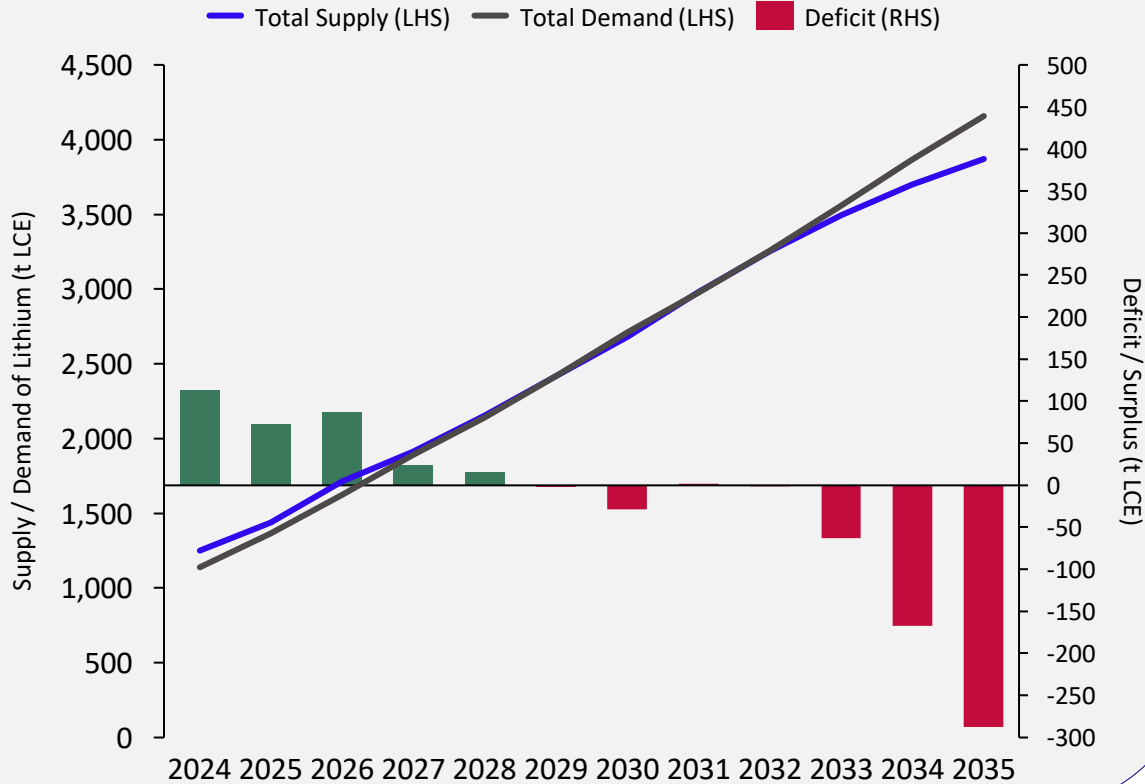
Lithium demand is expected to roughly double over the next five years, although the market is expected to be oversupplied over the same period

However, significant demand growth is anticipated to induce market shortfall beginning in 2029

Lithium Demand (BMI Q2 2025 Forecast)



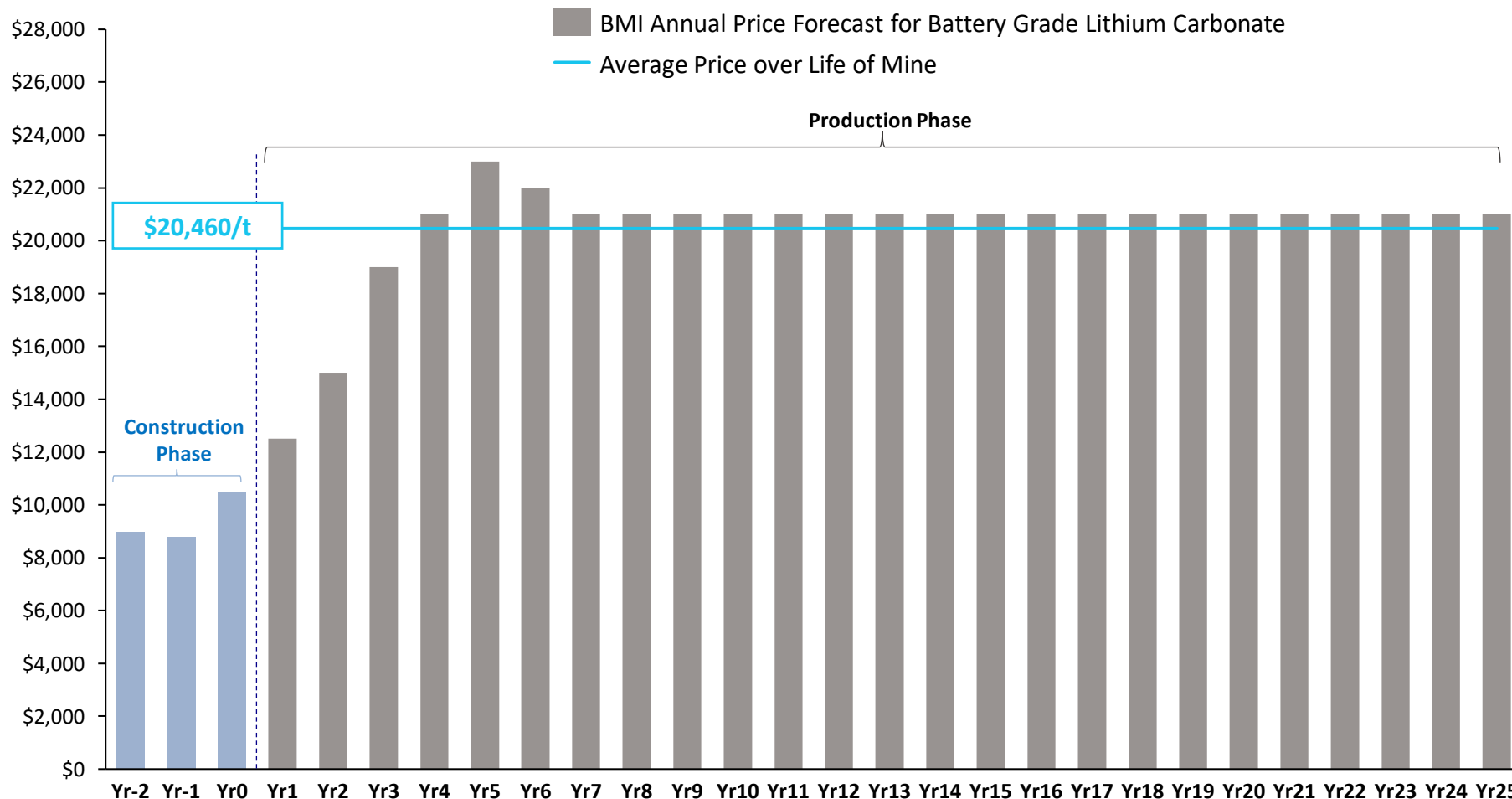
Lithium Supply and Demand Balance Forecast



Source: BMI Q2 2025 Lithium Forecast.
 Note: The Company does not verify the accuracy of information derived from BMI or from other company presentations or reports.

Average price of ~US\$20.5k/t over LOM based on BMI Q2 2025 forecasts for battery grade lithium carbonate

Price Forecast for Battery Grade Lithium Carbonate (US\$/t)



- Significantly more conservative price forecast compared to Original DFS
- The forecasted lithium prices are used to estimate project revenues. **Notably, prices in the first three years of production (years 1-3) are significantly below the average LOM price of ~US\$20,500**
- The lower prices in the early years reduce forecast revenues and Project cashflows
- BMI forecasts that lithium carbonate prices will recover from ~US\$9,000/t in 2025 to US\$21,000/t by 2031, as structural supply deficits emerge post-2029

Targeted project financial results¹ (\$US)

Drop in project economics compared to 2023 DFS are driven by significantly lower forecast lithium price curve and 10% discount rate⁴

DFS Addendum – 25 ktpa LCE

Production Target³

\$527M

Annual Lithium
Carbonate Revenues

\$1.5B

Pre-Tax NPV₁₀

22.5%

Pre-Tax IRR

\$361M

Annual Average EBITDA²

\$1.01B

Post-Tax NPV₁₀

19.7%

Post-Tax IRR

25 years

Life of Mine

\$1.16B

Capital Cost

\$5.9/kg

Run Rate Operating Cost

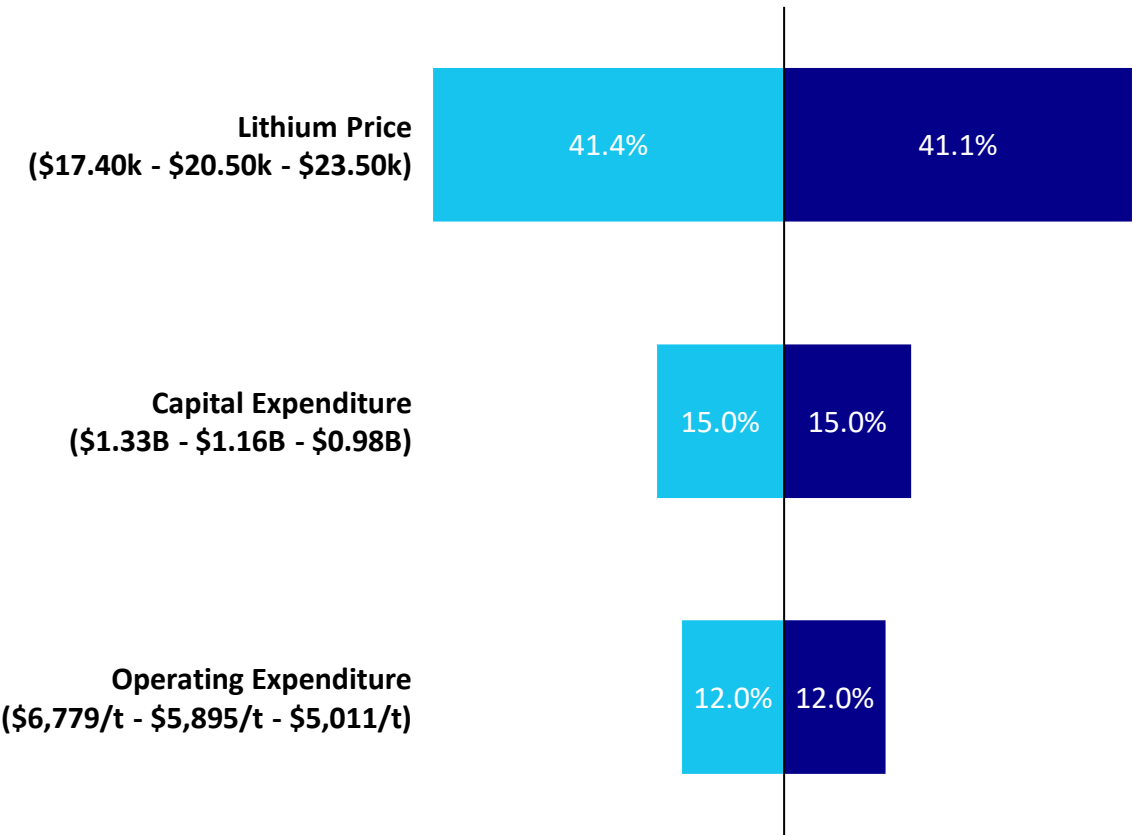
Note on Discount Rate: The Original DFS applied an 8% real discount rate, consistent with industry norms and aligned with the methodologies used by peer lithium developers at the time. In this updated DFS Addendum, we have adopted a 10% real discount rate. This change reflects our commitment to a more conservative and disciplined financial approach, aligns with current market expectations and provides a more robust, risk-adjusted view of the Kachi Project's economic resilience

	Units	Period	Original DFS	DFS Addendum
Lithium Carbonate Revenue	\$M	Life of Mine	20,700	12,837
Lithium Carbonate Revenue	\$M	Annual Average	827	513
EBITDA ²	\$M	Life of Mine	15,870	9,031
EBITDA ²	\$M	Annual Average	635	361
EBITDA Margin	%	Run Rate	76%	71%
Net Profit After Tax	\$M	Life of Mine	8,959	5,771
Opex	\$/t	Run Rate	6,047	5,895
Total Capex	\$M		1,377	1,157
NPV ₈ Pre-Tax	\$M		3,854	-
NPV ₈ Post-Tax	\$M		2,333	-
NPV ₁₀ Pre-Tax ⁴	\$M		-	1,469
NPV ₁₀ Post-Tax ⁴	\$M		-	1,011
IRR Pre-Tax	%		25.4	22.5
IRR Post-Tax	%		20.9	19.7
Total Free Cashflows (Post-Tax)	\$M	Life of Mine	9,310	6,794
Payback Period (Post-Tax)	Years		4.5	4.5

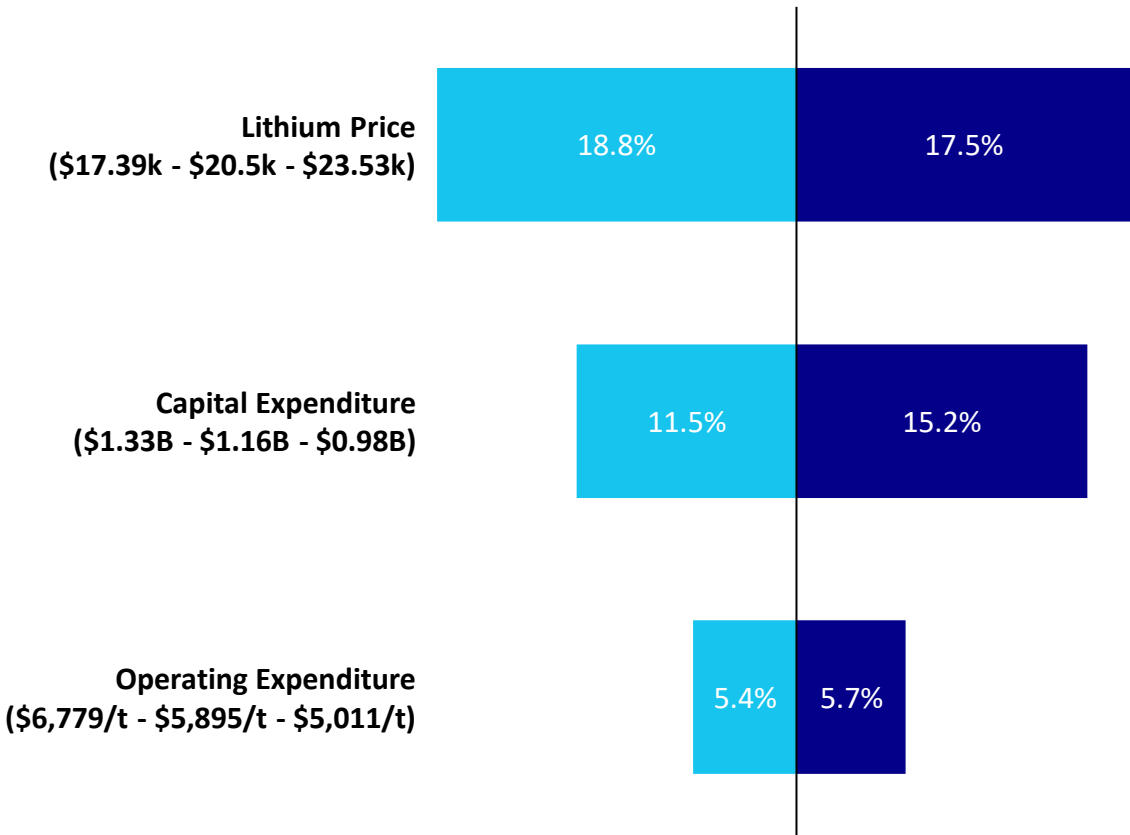
¹ Economics based on average price of ~\$20,500 per tonne LCE over the LOM, derived from forward price projection provided by BMI in their Q2 2025 lithium price forecast, available via annual subscription. ² Please see "Non-GAAP Financial Measures" in the appendix. Results reflect the impact of Argentina's RIGI concessions on corporate income tax, export duties and accelerated depreciation. Final terms are subject to extension of RIGI deadline to July 2027 and the outcome of direct negotiations between the Kachi Project and the Argentine Government throughout the application process. ³ Refer to ASX announcement dated 4 August 2025, "Kachi Phase One Lithium Brine Definitive Feasibility Study Addendum" for full details regarding material assumptions relied upon. Lake confirms the material assumptions in that announcement continue to apply and have not materially changed. ⁴ See Appendix for peer data on discount rate and "Non-GAAP Financial Measures".

Sensitivity analysis shows Kachi is highly resilient to Capex and Opex variations

Post-Tax NPV₁₀ Sensitivities Chart (-15% / +15%; Base \$1,011M) (\$US)

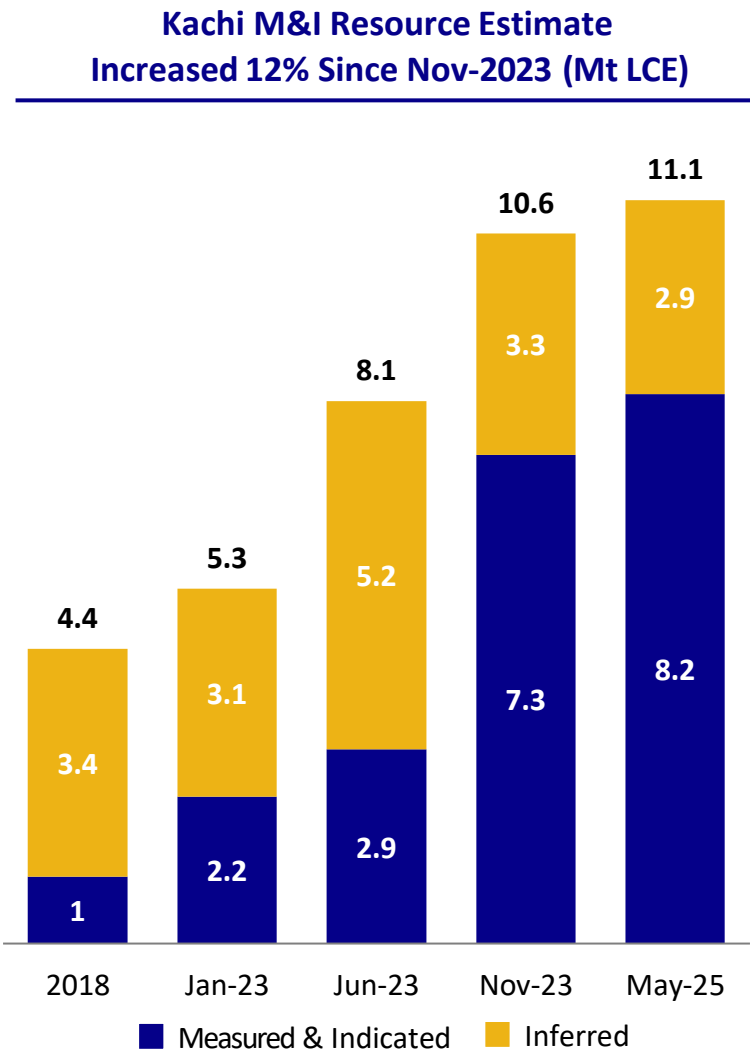
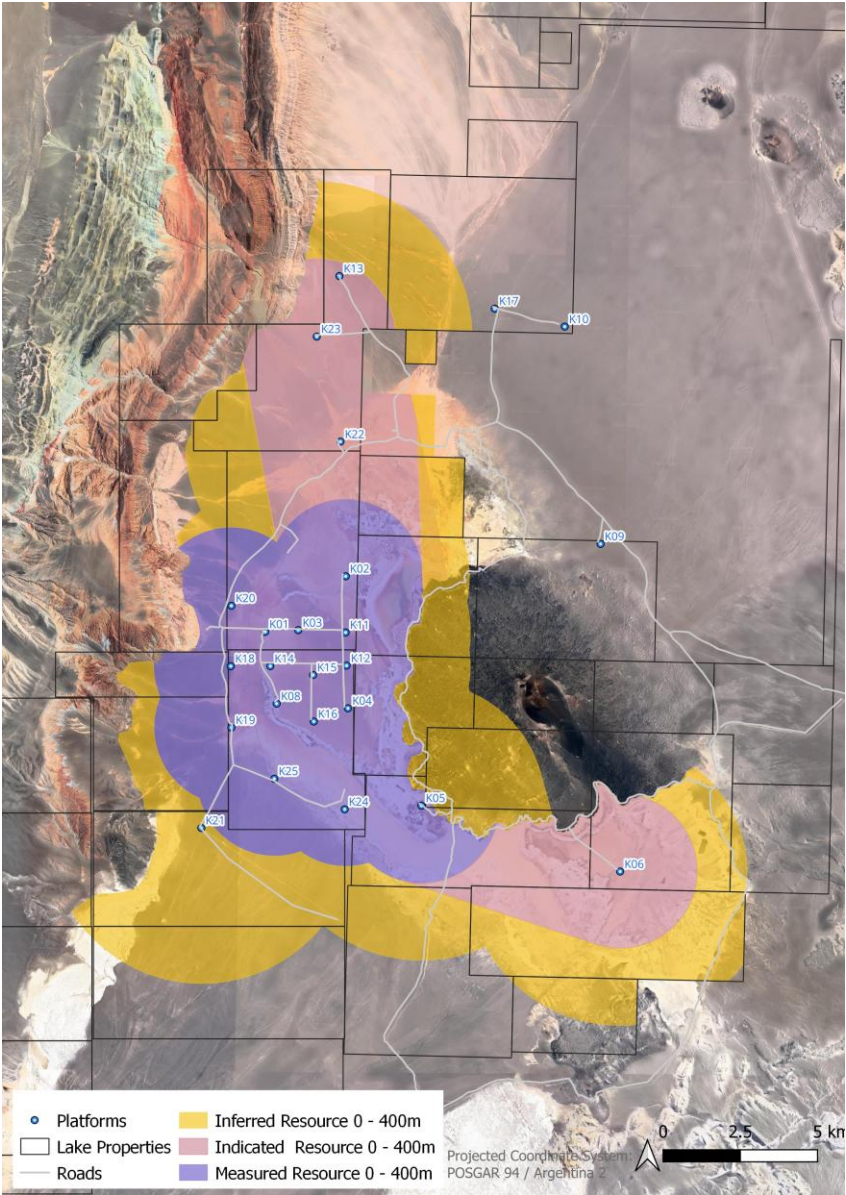


Post-Tax IRR Sensitivities Chart (-15% / +15%; Base 19.7%) (\$US)



Notes: Assumes +/- 15% sensitivity on post-tax NPV₁₀ and IRR.

4. Reduced Risk

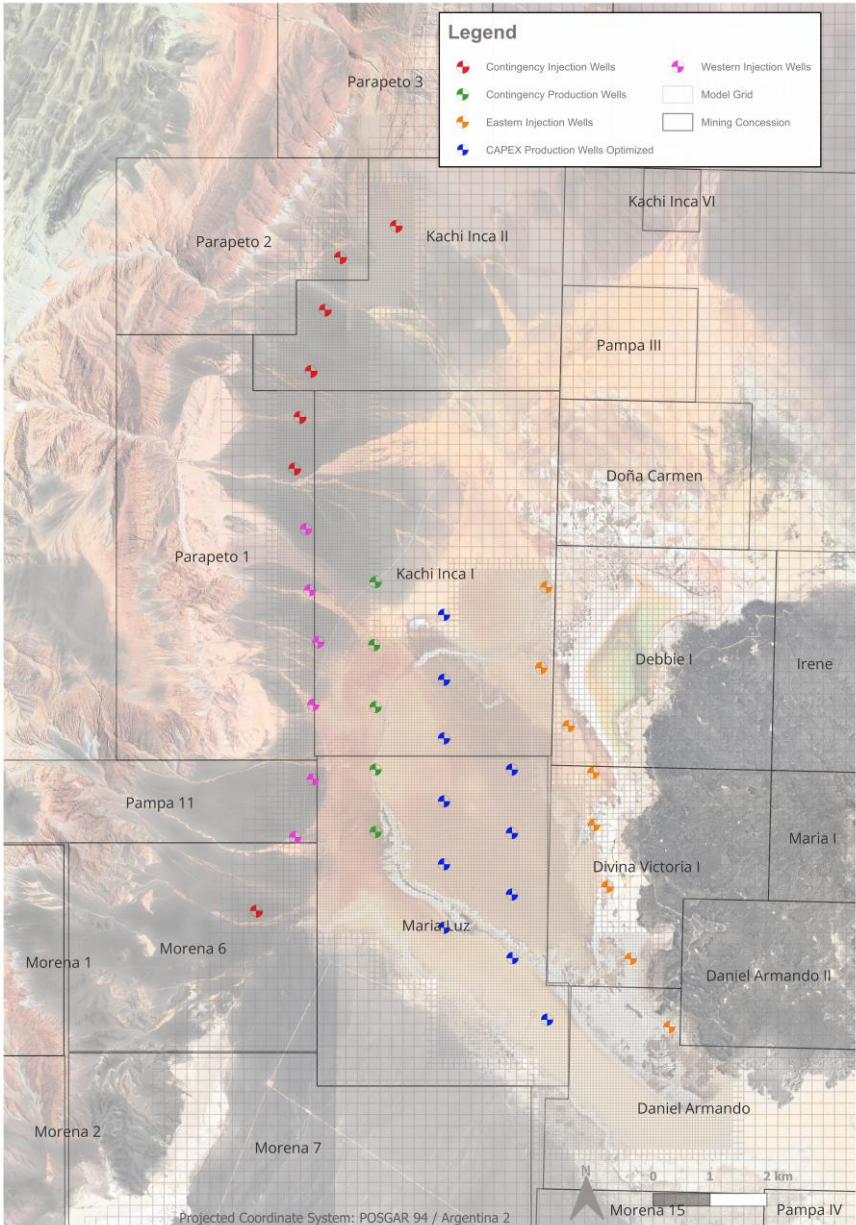


- Resource Expansion From Nov-2023 Update¹

 - Measured & indicated resource has increased **from 7.3 to 8.2 Mt LCE**
 - Measured resource has increased **from 3.0 to 4.2 Mt LCE**
 - Indicated resource has decreased **from 4.3 to 4.0 Mt LCE**
 - Inferred resource has decreased **from 3.3 to 2.9 Mt LCE**
- Exploration Target¹

 - Kachi’s exploration target estimate has a high range of 14.5 Mt LCE, and a low of 3.6 Mt LCE
 - Figures represent the potential low and high range of contained lithium that has not yet been drilled and confirmed

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 exploration target itself will be realized; ¹ Numbers are based on information in Lake’s JORC update in respect of mineral resources announced on ASX on 3 June 2025. Refer to the Appendix for details of individual categories of the mineral resource. All material assumptions contained in that announcement continue to apply and have not materially changed.



Reserve Category	Years	Lithium (Tonnes)	LCE (Tonnes)	Average Lithium Concentration (mg/L)
Proved	1	4,390	23,310	270
Proved	2-7	28,360	150,850	270
Probable	8-25	85,060	452,540	267
Total	1-25	117,810	626,760	

- Globally Significant Resource:** The wellfield development plan produces 692,900 t LCE, which represents less than 9% of the Measured & Indicated Mineral Resource². **However, this production rate is limited by plant capacity, resulting in numbers presented above – 626,760t LCE which represent Phase 1 production over life of mine**
 - Year 1: 23,310t LCE
 - Years 2-25: 25,141t LCE
- High level of confidence: Production in Years 1-7 is predicted to be 100% from Measured Resources
- Elimination of the western-most production wells, which were closest to the western injection wells, further reduced dilution in feed grade to the plan. **Dilution in lithium grade is predicted to be less than 3% over the LOM**
- Wellfield layout (11 Production Wells and 14 Injection Wells) designed to:
 - Maximize lithium grade recovered;
 - Maximize Proved Ore Reserve; and
 - Minimize environmental impact
- Modelling supports reinjection strategy; maintaining reservoir pressures and minimizing potential environmental impact

Wellfield development plan represents less than 9% of the Measured & Indicated Mineral Resource¹

¹ Refer to ASX announcement dated 4 August 2025 – Updated Ore Reserve Statement ² Refer to ASX announcement dated 3 June 2025.

Kachi has undergone a rigorous permitting process and has been optimized through multiple studies



Exploitation EIA Approval Process

- Company Exploitation EIA submitted March 2024
- The Catamarca Mining Ministry is currently in the technical review process of the Exploitation EIA
- Lake has conducted several technical working review sessions with mining ministry and other key stakeholders
- Significant progress on technical review and anticipate completion early Q3 2025
- Public consultation anticipated to commence end Q3 2025

Estimate Exploitation EIA Approval by the end of 2025

Key Takeaways

Key Takeaways



- ① Largest Independent Development Project Across the Lithium Triangle with Total Resource of 11.1 Mt LCE
- ② Phase One Definitive Feasibility Study Addendum Completed for World Class 25 ktpa Battery Grade Lithium Carbonate Project with Potential For Expansion
- ③ Proven Ion-Exchange DLE Technology Increases Process Efficiency, Allows for Greater Cost Effectiveness and Reduces Environmental Footprint
- ④ DFS Addendum Completed¹ with Capex of US\$1,157M and Opex of US\$5,895/t
- ⑤ Kachi Near Shovel-Ready, with Power FEED Completed and EIA Approval Imminent

¹For 25ktpa plant.

- Lake held cash of AUS\$12.37M (US\$8.04M) at 30 June 2025 (including currencies in AUD, USD and Argentine Pesos) with no debt
 - AUS\$14.47M pro-forma liquidity at 30 June 2025 including AUS\$2.1M in funds received from issuing 65,000,000 fully paid ordinary LKE.ASX shares to Acuity Capital as part of Lake's ATM¹
- As expected, Lake's cash expenditures for the quarter ending 30 June 2025 were ~40% lower than the prior quarter, reaffirming calendar year 2025 expectations for materially reduced cash outgoings compared to calendar year 2024²:
 - The Company is now expecting calendar year 2025's total cash expenditures to be approximately 35% to 40% lower as compared to calendar year 2024^{3, 4}
- Lake and its advisor Goldman Sachs continue to progress the strategic alternatives process initiated in early May 2025 and remain engaged with a group of interested parties⁵
- Management remains focused on ensuring Lake preserves its financial flexibility by continuing to right-size its cost structure and maintaining appropriate levels of liquidity

¹ Refer to ASX announcement dated 23 July 2025. ² Refer to ASX announcement dated 23 July 2025. ³ Excluding impact of foreign exchange; refer to ASX announcement dated 30 January 2025. ⁴ Refer to ASX announcement dated 23 July 2025. ⁵ Refer to ASX announcement dated 7 May 2025.

Lake Resources Leadership Team



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

Board of Directors



Stu Crow
Non-Executive Chairman



David Dickson
Managing Director / CEO



Robert Trzebski
Non-Executive Director



Don Miller
Chief Financial Officer



Justin Olson
Chief Legal Officer



Barbara Cozzi
Country Manager, Argentina

Leadership experience acquired across technical, financial and project execution



Appendix

Definitions and Abbreviations

Term / Abbreviation	Definition
A\$	Australian Dollars
B	Billions
BG	Battery Grade
Capex	Capital Expenditures
DFS	Definitive Feasibility Study
DLE	Direct Lithium Extraction
EIA	Environmental Impact Assessment
EPCM	Engineering, Procurement, Construction Management
FEED	Front End Engineering Design
FID	Final Investment Decision
IPP	Independent Power Producer
IRA	Inflation Reduction Act
IX	Ion Exchange
IXM	Ion Exchange Media
k	Thousands
Kachi	Kachi Project
kg	Kilograms
KLP	Kachi Lithium Pty Ltd
ktpa	Kilotonne per Annum
L	Liter
Lake	Lake Resources N.L.

Term / Abbreviation	Definition
Lilac Solutions	Lilac Solutions Inc.
LOM	Life of Mine
lps	Liters Per Second
m	Meters
M	Millions
m bgs	Meters Below Ground Surface
mg / L	Milligrams per Liter
Mt	Million tonnes
MVM	Morena Del Valle Minerals SA
MW	Megawatt
NRG	Lith NRG Pty Ltd
Opex	Operating Expenditures
PEA	Preliminary Economic Assessment
PFS	Pre-Feasibility Study
PPA	Power Purchase Agreement
ROFR	Right of First Refusal
t	Tonne / Metric Ton or 1,000 kilograms
tpa	Tonnes Per Annum
US\$ / USD	United States Dollars
VAT	Value Added Tax
VPU	Vehicle Project Unit

Mineral Resource Estimate Table

Measured May 2025 (to 600 m depth)

Unit	Sediment Volume (m ³)	Specific Yield %	Brine Volume (m ³)	Liters	Li (mg/l)	Li (Grams)	Li (Tonnes)	Tonnes LCE
A	10,339,000,000	0.078	806,442,000	806,442,000	0.210	169,352,820,000	169,000	901,000
B	4,385,500,000	0.088	385,740,000	385,740,248,000	0.229	88,334,517,000	88,000	470,000
C to 400	7,561,800,000	0.068	514,202,000	514,202,400,000	0.230	118,266,552,000	118,000	629,000
Fan West to 400	11,088,000,000	0.095	1,053,360,000	1,053,360,000,000	0.220	231,739,200,000	232,000	1,233,000
K24 – K25 below 400	7,744,200,000	0.093	720,211,000	720,210,600,000	0.250	180,132,593,000	180,000	958,000
Total	41,118,500,000		3,479,955,000	3,479,955,248,000		787,825,682,000	788,000	4,191,000

Indicated May 2025 (to 600 m depth)

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	278,924,453,000	0.181	50,485,326,000	50,000	269,000
B (South)	1,489,000,000	0.075	111,544,000	111,543,670,000	0.179	19,927,611,000	20,000	106,000
C (South)	4,434,492,000	0.067	297,111,000	297,110,964,000	0.182	54,076,275,000	54,000	288,000
A (North)	3,075,200,000	0.095	292,144,000	292,144,000,000	0.232	67,776,824,000	68,000	361,000
B (North)	4,294,400,000	0.102	438,029,000	438,028,800,000	0.241	105,431,342,000	105,000	561,000
C (North)	4,115,300,000	0.102	419,761,000	419,760,600,000	0.182	76,396,429,000	76,000	406,000
D (North)	5,073,100,000	0.102	517,456,000	517,456,200,000	0.182	94,177,028,000	94,000	501,000
K21	8,304,500,000	0.065	541,394,000	541,393,608,000	0.192	103,822,511,000	104,000	552,000
Under Measured ABC 400 – 600	7,453,100,000	0.067	501,818,000	501,817,968,000	0.242	121,529,774,000	122,000	647,000
Under Measured Fan 400 – 600	3,775,900,000	0.063	239,343,000	239,343,351,000	0.242	57,850,485,000	58,000	308,000
Total	45,709,292,000		3,637,524,000	3,637,523,614,000	0	751,473,605,000	751,000	3,998,000

Combined Measured + Indicated

86,827,792,000 7,117,478,861 7,117,478,861,140 1,539,299,286,959 1,539,299 8,189,000

Inferred May 2025

Unit	Sediment Volume (m ³)	Specific Yield %	Brine Volume (m ³)	Liters	Li (mg/l)	Li (Grams)	Li (Tonnes)	Tonnes LCE
A	3,870,500,000	0.08	309,640,000	309,640,000,000	0.185	57,283,400,000	57,000	305,000
B	1,569,100,000	0.079	123,959,000	123,958,900,000	0.191	23,676,150,000	24,000	126,000
C	5,446,470,000	0.074	404,338,000	404,338,308,000	0.218	88,218,532,000	88,000	469,000
Fan North	9,109,970,000	0.102	929,217,000	929,216,940,000	0.232	215,578,330,000	216,000	1,147,000
Fan South	2,767,500,000	0.093	257,378,000	257,377,500,000	0.239	61,513,223,000	62,000	327,000
Under volcano	6,718,700,000	0.074	500,187,000	500,187,059,000	0.193	96,425,185,000	96,000	513,000
Total	29,482,240,000	-	2,522,621,000	2,522,620,663,000	-	542,294,093,000	542,000	2,885,000

Note: This table has been directly extracted from the JORC update announced on 3 June 2025. 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 3 June 2025 and all material assumptions contained in that announcement continue to apply and have not materially changed.

Reserve Statement

Reserve Category	Years	Lithium (Tonnes)	LCE (Tonnes)	Average Lithium (mg/L)
Proved	1	4,390	23,310	270
Proved	2 – 7	28,360	150,850	270
Probable	8 – 25	85,060	452,540	267
Total	1 – 25	117,810	626,760	

Note: This table has been directly extracted from the Updated Ore Reserve statement announced on ASX on 4 August 2025. Lake Resources N.L. confirms that it is not aware of any information that materially affects the information included in the Updated Ore Reserve statement announced on ASX on 4 August 2025 and all material assumptions contained in that announcement continue to apply and have not materially changed.

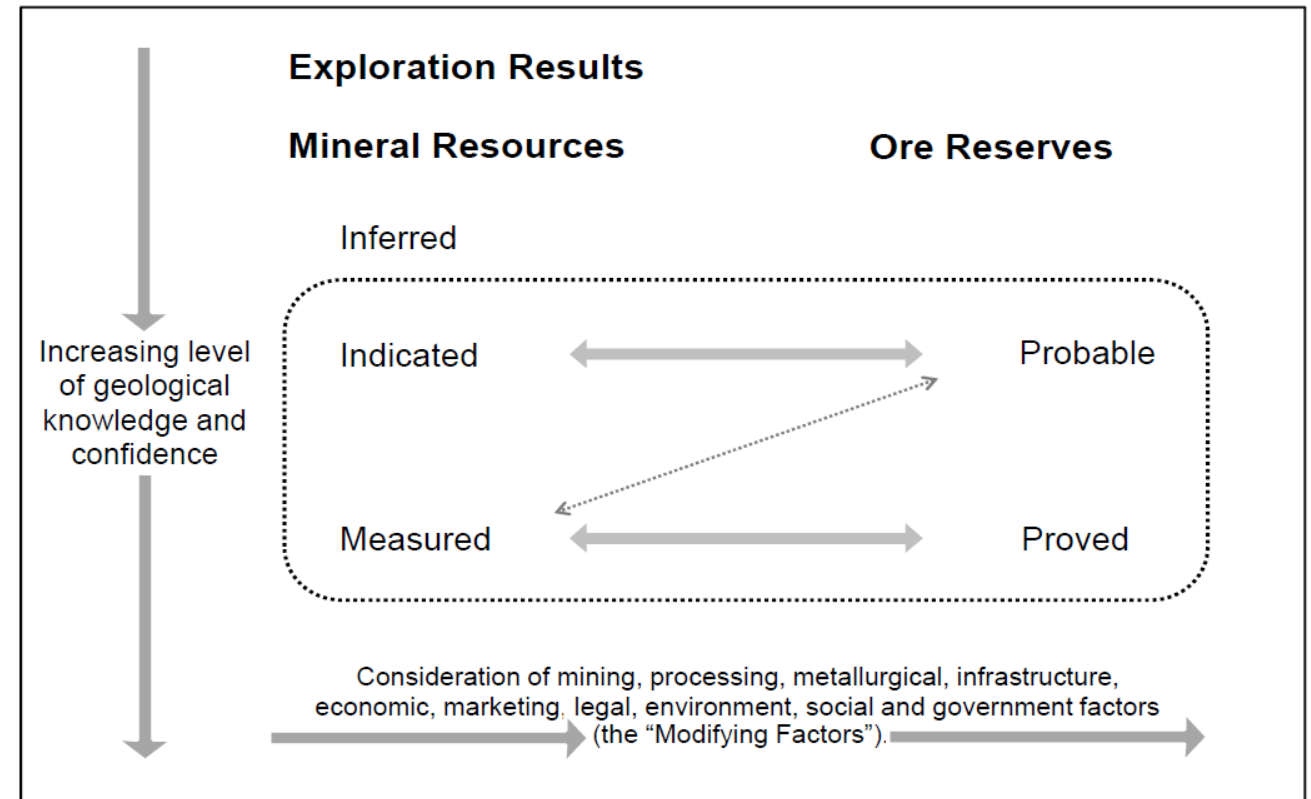
Project	Discount Rate	Deposit Type	Country	Source
Allkem	10%	Brine Evaporation	Argentina	https://www.kitco.com/news/2022-10-07/Lithium-producer-alkem-IFC-agree-on-200M-project-financing-for-Sal-de-Vida.html
Lithium Power	10%	Brine Evaporation	Chile	https://www.edisongroup.com/publication/riding-the-lithium-wave/30632/

■ Resource – what is in the ground?

- Inferred
- Indicated
- Measured

■ Reserve – what can we extract?

- Probable
- Proven



Source: Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
The JORC Code, 2012 Edition. Prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geosciences and Minerals Council of Australia

Definitions

Note: These financial definitions are alternative performance measures that are not defined or specified under IFRS or AASC standards and for which there are no generally accepted reporting formats

- EBITDA = Earnings before Interest, Taxes, Depreciation and Amortization
- IRR = Internal Rate of Return
- NPV = Net Present Value

This presentation includes certain non-GAAP financial measures or ratios, including the average annual EBITDA regarding the results of the internal preliminary analysis. These measures have no standardized meaning under IFRS and may not be comparable to similar measures used by other issuers. The Company believes these measures and ratios provide investors with an improved ability to evaluate the Company's prospects, and in particular the Kachi Project. As the Kachi Project is not in production, the prospective non-GAAP financial measures or ratios presented may not be reconciled to the nearest comparable measure under IFRS and the equivalent historical non-GAAP financial measure for the prospective non-GAAP financial measures or ratios discussed herein is nil.