LAKE RESOURCES

ASX ANNOUNCEMENT

30 October 2025

Lake Welcomes Lilac Solutions Release of Gen 5 Lilac IX Technology

- **Continuous improvement in capital and operating costs**
- **World leading technology partner for Kachi Project**
- **Projects incorporating Gen 5 Lilac IX are projected to rank in the first quartile of the global cost curve**
- **Simplifies project flowsheets**

Lake Resources N.L. (ASX:LKE; OTC:LLKKF) ("Lake") congratulates its technology and Kachi Project ("Kachi", "Kachi Project" or "Project") partner, Lilac Solutions ("Lilac") on the release of its fifth-generation ion exchange technology ("Gen 5 Lilac IX") and technical white paper.

The company's white paper shows that Gen 5 Lilac IX lowers brine pretreatment requirements and delivers improvements in media productivity, cycle life, and eluate quality, driving down capital and operating costs for lithium producers and simplifying project flowsheets.

"We are pleased to have a partner that is continually improving its technology," Lake CEO and Managing Director David Dickson said.

"We expect that these new improvements will reduce Kachi's energy demand and reagent use, which is expected to have a direct positive impact on Project capital and operating costs."

"Lithium producers are under intense cost pressure as prices remain volatile and the resources needed for new supply are increasingly complex," Raef Sully, CEO of Lilac said.

"Our Gen 5 technology gives producers a clear path to low-cost lithium production from a wider range of brine resources."

This improved technology is expected to deliver performance and cost improvements while maintaining recovery rates of over 96 percent for the Kachi Project. Four key attributes of Gen 5 Lilac IX which enable significant reductions in project costs are:

- **Solids Tolerance**: the improved system allows passage of 70x larger particles, enabling use of low-cost multi-media filtration and avoiding expensive ultrafiltration often required by adsorption technologies.

- **Media Productivity**: the lithium production rate per volume of IX media is 20x higher than adsorption technologies, reducing the required number of reactors and first fill media volume.
- **Media Durability**: delivers over 10,000 cycles before replacement, which is orders of magnitude higher than competing ion exchange technologies.
- **Eluate Quality**: 7x higher lithium concentration and higher purity with 100x lower boron:lithium ratio compared with adsorption technologies, simplifying downstream concentration and purification.

Lilac's media release is here:

https://lilacsolutions.com/news/lilac-unveils-fifth-generation-ion-exchange-lithium-extraction-technology

Lilac's technical white paper is here:

https://info.lilacsolutions.com/gen-5-white-paper-download

For investor queries, please contact:
InvestorRelations@lakeresources.com.au or log onto Investor Hub through Lake's public website

For media queries, please contact:
Nigel Kassulke
M: +61 407904874

About Lake Resources N.L. (ASX:LKE; OTC:LLKKF)
Lake Resources N.L. (ASX:LKE; OTC:LLKKF) is a responsible lithium developer utilising state-of-the-art ion exchange extraction technology for production of sustainable, high purity lithium from its flagship Kachi Project in Catamarca Province within the Lithium Triangle in Argentina.

This ion exchange extraction technology delivers a solution for two rising demands – high purity battery materials to avoid performance issues, and more sustainable, responsibly-sourced materials with low carbon footprint and significant ESG benefits.

Forward Looking Statements:
Certain statements contained in this announcement, including information as to the future financial performance of the projects and the Company, 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.