

16 December 2021

New Drilling at Olaroz, Cauchari & Paso to Expand Lake's Lithium Projects

- **New 10 hole drilling program to test brines from Lake's other 100 percent owned Olaroz, Cauchari and Paso projects to assess resource potential in Jujuy province, Argentina.**
- **Brines will be sampled and tested with environmentally friendly lithium extraction processes.**
- **Program runs in parallel with DFS development at Lake's flagship Kachi Lithium Project, as Company eyes expanded resource base in response to accelerating lithium demand.**

Clean lithium developer Lake Resources NL (**ASX: LKE; OTC:LLKKF**) is aiming to expand its lithium projects and potential resources with new drilling at Lake's 100 percent owned lithium brine projects at Olaroz, Cauchari and Paso starting late January 2022 with a 10 hole 4000m drill program. These projects are located in Jujuy province, north-west Argentina, close to the Allkem (Orocobre) Olaroz operation and Lithium Americas – Ganfeng Cauchari project.

The drill program will be spread across the three projects, starting at the northern areas of the Olaroz leases, which cover 30km on the eastern side of established lithium producers. A second rotary drill rig is being sourced to potentially work alongside the diamond rig to quickly quantify brines identified, develop the aquifers and conduct pumping tests. Passive seismic geophysics are currently underway to be potentially followed by detailed electromagnetic geophysical surveys over key areas, once identified.

Brines will be sampled and tested with environmentally friendly direct lithium extraction methods, similar to previous work conducted on Kachi project lithium brines. This will be followed by a scoping study to expand future production, with Lake planning to commence pre-feasibility study work once a resource has been defined.

"Increasing demand expressed by potential offtakers for a secure supply of high quality, environmentally friendly lithium has encouraged Lake to drill and test our other 100 percent owned brine projects in Argentina, adding to our flagship Kachi Project", Lake's Managing Director, Mr. Steve Promnitz, said.

Lake has previously drilled and confirmed multiple high-grade lithium brines zones at its Cauchari Project over a 506m interval (102m to 608m depth) (refer ASX announcement 23 August 2019). This drilling confirmed similar grades and lithium brines extending into Lake's properties from the adjoining Ganfeng/Lithium Americas JV production development at Cauchari. The higher-grade results averaged 493 mg/L lithium over 343m (from 117m to 460m), up to 540 mg/L. Lake anticipates similar potential from Olaroz and Paso.

Lake holds mining leases over 47,000 hectares over the three lithium brine projects of Cauchari, Olaroz and Paso. At Olaroz, which is north of Cauchari, Lake's leases extend over 30 kilometres east and north of the adjoining Allkem (Orocobre's) Olaroz lithium production leases.

The new drilling follows recent drilling and DFS development work at Lake's flagship Kachi Lithium Project, in support of doubling the production target to meet the increasing demand for high-grade, battery quality lithium produced via the environmentally sustainable, direct extraction process. These additional projects make Lake well placed to expand output, with support from export credit agencies and international investors.

These moves follow further upgrades in lithium demand forecasts by a range of analysts and increased electric vehicle (EV) production plans by major automakers. This demand highlights the need for increased supply of

LAKE RESOURCES NL

Level 5, 126 Phillip Street
Sydney NSW 2000
+61 2 9188 7864

LAKERESOURCES.COM.AU
ASX:LKE FRA:LK1 OTC:LLKKF

battery-grade lithium such as planned from the environmentally sustainable, direct lithium extraction method Lake will be using.

“Now is the perfect time to expand our resource base, with Argentina gaining increasing international investment due to the quality of its lithium resources. Having recently visited the project site and engaged with local stakeholders, we are keen to ramp up activity early in the new year to seize this window of opportunity for Lake,” Mr Promnitz added.

Lake Investors please contact:

Steve Promnitz, Managing Director

steve@lakeresources.com.au +61 2 9188 7864

Twitter: https://twitter.com/Lake_Resources

LinkedIn: <https://www.linkedin.com/company/lake-resources/>

Facebook: <https://www.facebook.com/LakeResources>

Website: <http://www.lakeresources.com.au>

Join Lake’s mailing list: <http://eepurl.com/gwA3o9>

IR: Anthony Fensom, Republic PR, +61 (0) 407 112 623 , anthony@republicpr.com.au

For media queries, please contact:

Nigel Kassulke at Teneo

M: +61407904874

E: Nigel.Kassulke@teneo.com

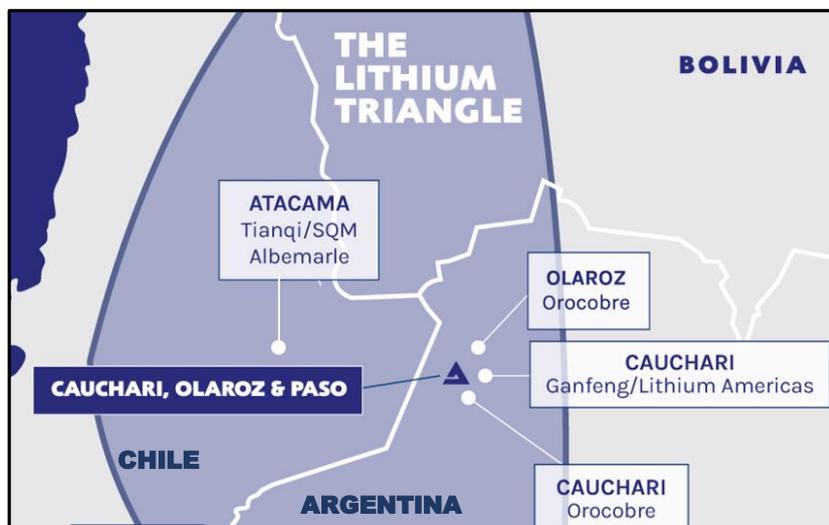


Figure 1. Location of Lake’s Cauchari, Olaroz and Paso Projects in Jujuy Province, Argentina.



Figure 2. Image of Lake’s Olaroz Project in the distance, looking east.



Figure 3. Geophysical lines at Olaroz Project.



Figure 4. Site of the first drillhole at Olaroz Project.



Figure 5. Geophysics at Paso Project.



Figure 6. Previous Lake drill results at Cauchari Project from 2019, in relation to adjoining projects.



Figure 7. Previous drilling at Cauchari Project.

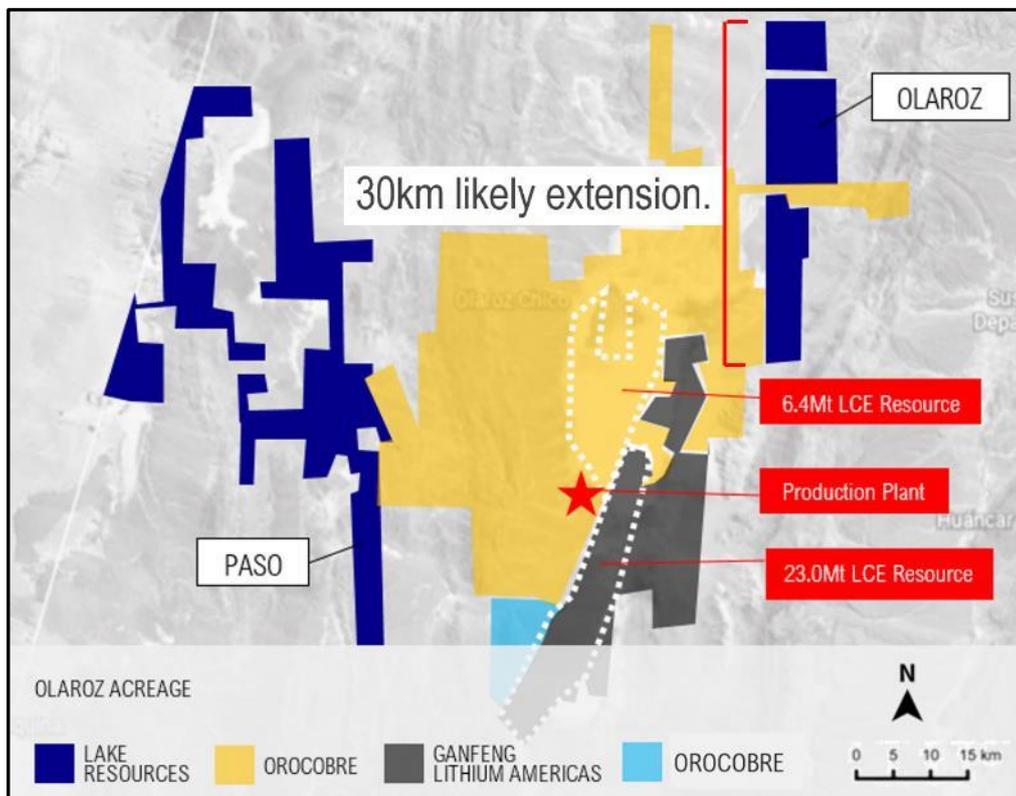


Figure 8. Location of Olaroz and Paso Projects in relation to others in the area.

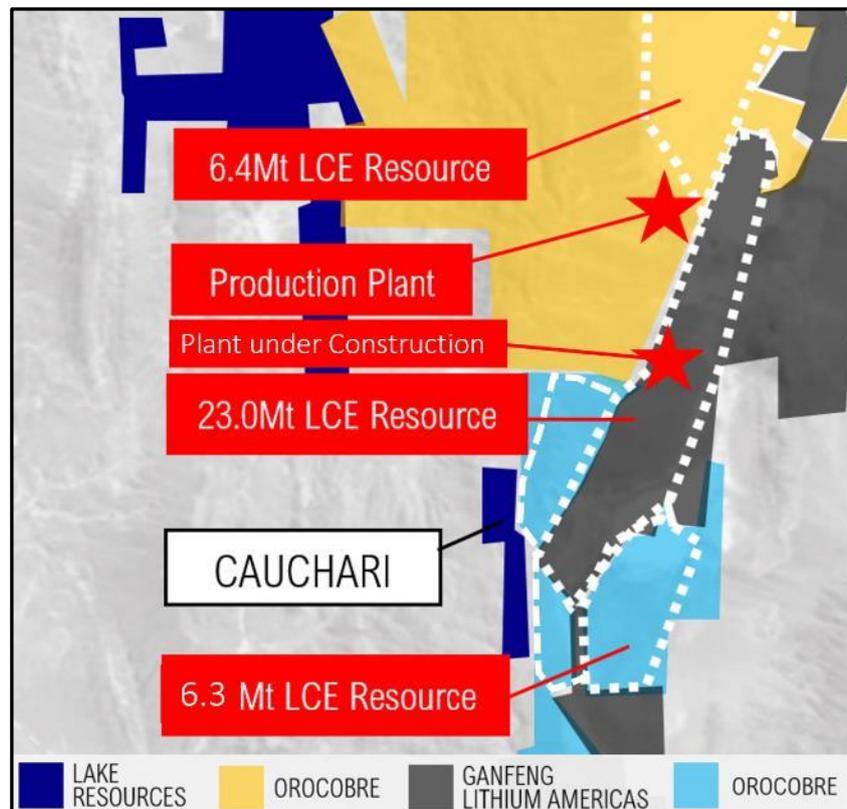


Figure 9. Location of Cauchari Project in relation to others in the area.

About Lake Resources NL (ASX:LKE OTC:LLKKF) –

Clean high purity lithium using efficient disruptive clean technology - in demand by EV makers and lithium-ion batteries

Lake Resources NL (ASX:LKE, OTC: LLKKF) is a clean lithium developer utilising direct extraction technology for production of sustainable, high purity lithium from its flagship Kachi Project in Catamarca Province within the Lithium Triangle in Argentina among three other projects covering 220,000 ha.

This direct extraction method 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.

1. **Climate-Tech:** Efficient, disruptive, clean, cost-competitive technology using well-known water treatment re-engineered for lithium (not mining). Technology partner, Lilac Solutions Inc, is supported by the Bill Gates led Breakthrough Energy fund, MIT’s The Engine fund, Chris Sacca’s Lowercarbon Capital, BMW, Sumitomo and SK Materials. Lilac will earn in to the Kachi Project, up to a 25% stake, based on certain milestones and then be expected to fund their c.US\$50 million pro-rata share (refer ASX announcement 22 September 2021)

2. **High Purity:** 99.97% purity lithium carbonate samples for a premium price. Demonstrated high quality in nickel rich NMC622 lithium-ion batteries (refer ASX announcement 20 October 2020; 2 March 2021).

3. **Sustainable /ESG:** Far smaller environmental footprint than conventional methods, that returns virtually all water (brine) to its source with a low CO2 footprint.

4. **Prime Location, Large Projects:** Flagship Kachi project in prime location among low-cost producers with a large lease holding (70,000 ha) and expandable resource (4.4 Mt LCE) of which only 20% is used for 25 years production at 25,500tpa (JORC Resource: Indicated 1.0Mt, inferred 3.4Mt, refer ASX announcement 27 November 2018). Pre-feasibility study by tier 1 engineering firm shows large, long-life low-cost operation with US\$1.6 billion NPV pretax, and annual EBITDA of US\$260 million from 2024 (refer ASX announcement 17 March 2021; 28 April 2020). (No changes to the assumptions in the resource statement or the PFS have occurred since the announcement date.)

5. Finance Indicatively Available: Long duration, low-cost project debt finance for the Kachi Lithium Project is indicatively available from the United Kingdom's Export Credit Agency UKEF and Canada's EDC with Expressions of Interest to support approx. 70% of the total finance required for Kachi's development, subject to standard project finance terms (refer ASX announcements 11 August 2021; 28 September 2021).

An innovative direct extraction technique, based on a well-used ion exchange water treatment method, has been tested for over 18 months in partnership with Lilac Solutions, with a pilot plant module in California operating on Kachi brines and has shown 80-90% recoveries. Battery quality lithium carbonate (99.97% purity) has been produced from Kachi brine samples with very low impurities (refer ASX announcement 20 October 2020). The first samples of high purity (99.97% purity) battery quality lithium carbonate were tested in a NMC622 battery by Novonix with excellent results (2 March 2021).

This method of producing high purity lithium can revolutionise and disrupt the battery materials supply industry as it's scalable, low cost, and delivers a consistent product quality with a significant ESG benefit.

Lake's other projects include the Olaroz and Cauchari brine projects, located adjacent to major world class brine projects in production or construction, including Orocobre's Olaroz lithium production and adjoins the impending production of Ganfeng Lithium/Lithium Americas' Cauchari project. Lake's Cauchari project has shown lithium brines over 506m interval with high grades averaging 493 mg/L lithium (117-460m) with up to 540 mg/L lithium. These results are similar to lithium brines in adjoining leases and infer an extension and continuity of these brines into Lake's leases (refer ASX announcements 12 June 2019, 23 March 2021).

For more information on Lake, please visit <http://www.lakeresources.com.au/home/>