

12 November 2020

## ACTIVITIES UNDERWAY AT KACHI

- **Shallow drill geotechnical testing for the pilot and demonstration plant to commence shortly under COVID-19 protocols**
- **Shallow water wells to be commenced now that geophysical program almost completed. Both of these data are required for the Definitive Feasibility Study**
- **Lithium carbonate testing and sampling program progressing to plan – further updates pending**

Clean lithium developer **Lake Resources NL (ASX:LKE; OTC:LLKKF)** is pleased to announce project development activities are being ramped up and include shallow drill testing at the Kachi Lithium Brine Project, Argentina.

A geotechnical study of the site where the Direct Lithium Extraction Pilot Plant / Demonstration Plant will be located is underway following COVID-19 protocols. The study will be conducted by local qualified consultants from Catamarca and data will feed into the Definitive Feasibility Study. Shallow drill testing will commence shortly as part of this study

With interpreted geophysical results, shallow water wells of up to 60 metres in depth will be drilled for the Definitive Feasibility Study. The activities will also be conducted by a local company from Catamarca.

Drill contracts for both geotechnical and water drilling are being finalised for mobilization to site.

A geophysical program that has been underway for nearly two months is almost complete and will assist in the positioning of brine test holes. The final three lines of data of passive seismic geophysics are being collected and analysed to improve data quality.

The Company is well financed and these activities, while important, are not major expenditure items.

Updates on other activities with samples in the USA will be provided soon and the Company confirms that the program with Hazen is ongoing and advancing to plan and timelines. The focus is to produce and deliver bulk samples of similar quality and purity to Novonix for further testing and analysis for third parties.

Lake's ambition is to sustainably produce the cleanest quality lithium carbonate at scale for use in the fast-growing battery market and this works program assists in this regard.

*Note: Lake Resources will present at the Noosa Mining Conference today, Thursday 12 November 2020 at 4.00pm AEST (Sydney, Melbourne), 1.00pm (Perth, Hong Kong). Please register now at [www.noosaminingconference.com.au](http://www.noosaminingconference.com.au)*

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

### Cleaner high purity lithium using efficient disruptive clean technology

Lake Resources NL (ASX:LKE, OTC: LLKKF) is a clean lithium developer utilising direct extraction technology for the development of sustainable, high purity lithium from its flagship Kachi Project, as well as three other lithium brine projects in Argentina. The projects are in a prime location within the Lithium Triangle, where 40% of the world's lithium is produced at the lowest cost.

This method will enable Lake Resources to be an efficient, responsibly-sourced, environmentally friendly and cost competitive supplier of high-purity lithium, which is readily scalable, and in demand from Tier 1 electric vehicle makers and battery makers.

1. **Clean-Tech:** Efficient, disruptive clean technology to produce sustainable high purity lithium, with a smaller environmental footprint, in demand by Tier1 EV makers and battery makers. This is a cost-competitive technology provided by our partner in California, Lilac Solutions, who have received the backing of the Bill Gates-led Breakthrough Energy fund and MIT's The Engine fund.

2. **High Purity:** High purity lithium carbonate samples (99.97% purity) with very low impurities has been produced from lithium brines from Lake's flagship project (refer ASX announcement 9 January 2020 and 20 October 2020). The growth of higher density batteries to drive the latest electric vehicles has significantly increased demand for a high purity product with low impurities, and the process delivers this consistently for a premium price.

3. **Prime Location, Large Projects:** Lake's projects are located in the Lithium Triangle, in Argentina, the prime location globally for low cost lithium production from large projects. The Kachi project covers 70,000 ha over a salt lake south of Livent's lithium operation with a large indicated and inferred resource of 4.4 Mt LCE (Indicated 1.0Mt, Inferred 3.4Mt) (refer ASX announcement 27 November 2018). A pre-feasibility study (PFS) by a tier 1 engineering firm over Kachi shows a large, long-life low-cost potential operation with competitive production costs at the lower end of the cost curve similar to current lithium brine producers (refer ASX announcement 28 April 2020).

4. **Sustainable ESG Benefit:** The environmental footprint is far smaller than conventional brine evaporation processes or of hard rock mining. By using a benign water treatment process to produce lithium, Lake avoids any mining and returns virtually all water (brine) to its source without changing its chemistry (apart from lithium removal). This avoids the "water politics" in arid environments and is a better outcome for local communities. Tier 1 electric vehicle makers and Tier 1 battery makers have been seeking more sustainable, responsibly sourced materials in their supply chain which has driven demand for our products.

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 operating on Kachi brines and has shown 80-90% recoveries. Battery quality lithium carbonate (99.9% purity) has been produced from Kachi brine samples with very low impurities (Fe, B, with <0.001 wt%) (refer ASX announcement 9 January 2020). Test results were incorporated into a Pre-Feasibility Study (PFS). The Lilac pilot plant module in California is producing samples for downstream participants. A pilot plant /demonstration plant on site is planned to produce larger battery quality lithium samples. Discussions are advanced with downstream entities, as well as financiers, to develop the project.

On 3 July 2020, Lake Resources announced that the first samples of lithium chloride had been successfully produced from Lilac Solution's direct extraction pilot plant module, supporting the scale-up from previously successful lab-scale work. On 20 October 2020, independent laboratory, Hazen Research, produced the first samples of high purity (99.97% purity) battery quality lithium carbonate for testing in a NMC622 battery by Novonix. Hazen will produce further samples for downstream supply chain participants and off-takers. The sector continues to see positive news around demand and issues have been highlighted with a pending shortfall of supply of clean battery quality lithium.

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 28 May, 12 June 2019).

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