

25 June 2020

LILAC PILOT PLANT COMMISSIONING COMPLETED USING KACHI BRINES

- Lake's technology partner, Lilac Solutions, has completed the commissioning of the pilot plant module with processing of brines from Lake's Kachi Project.
- Samples of Lake's Kachi brines are being processed to produce lithium chloride.
- Initial samples of lithium chloride will be analyzed next week.

Lithium explorer and developer **Lake Resources NL (ASX:LKE; OTC:LLKKF)** together with its technology partner, Lilac Solutions Inc, announced today the completion of commissioning of its direct lithium extraction pilot plant module dedicated for the Kachi Lithium Brine Project.

Processing is underway of the 20,000 litres of brine at Lilac's newly upgraded industrial facility in California, USA. Initial samples of lithium chloride, which is the targeted product from the direct extraction process, will be analyzed next week, which will then be converted to lithium carbonate. Additional lithium chloride will be produced from a second shipment of 20,000 litres of Kachi brine, once that arrives.

Lake's recent Kachi Pre-Feasibility Study (PFS) (refer ASX announcement 30 April 2020) and recently published research (available on the company's website) demonstrated the disruptive, cost competitive, sustainable and scalable nature of the Lilac process which will be employed at Kachi and its ability to produce a premium, battery-grade product sought by battery and cathode manufacturers globally.

Recent announcements from Europe have pointed to the full-scale electric vehicle revolution currently underway and the need for up to 60 times more lithium by 2050 for Europe alone, according to the EU Market Commissioner. China, the world's largest EV market, has extended EV subsidies, while North America's clean energy industry continues to pick up speed.

Lake's Managing Director, Steve Promnitz said: *"The processing of the Kachi brines is a key milestone for both Lake and Lilac, as they are a central plank in establishing Kachi as a low-cost, large scale lithium project that can meet both the supply and product quality requirements of large off-takers."*

"While lithium demand forecasts continue to be revised upwards, the supply response is falling further behind, particularly the lack of battery-grade product. Put simply, this is an industry that desperately needs high-quality supply and it simply isn't being produced in sufficient quantities to meet future demand numbers."

"We look forward to demonstrating unequivocally that we can produce large volumes of high purity lithium carbonate samples and deliver them to industry buyers that are eagerly awaiting our results."

Lilac's CEO, Dave Snyder said: *"Lilac's engineering team has commissioned a custom pilot module for the Kachi brine and is achieving excellent results. Scale-up has gone smoothly thanks to the robust design of the Lilac modules, which are manufactured in California and can be easily shipped and installed on-site to avoid the multi-year commissioning process that we've seen with evaporation pond-based lithium projects in Argentina. We are excited to advance the work at Kachi with on-site pilot operations."*

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**AT THE HEART OF THE
LITHIUM TRIANGLE**

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About Lake Resources NL (ASX:LKE)

Lake Resources NL (ASX:LKE, OTC: LLKFF) is a lithium exploration and development company focused on producing sustainable, high purity lithium suitable for battery makers by developing its flagship Kachi Project, as well as three other lithium brine projects and a hard rock project in Argentina, all owned 100%. The leases are in a prime location among major producers within the Lithium Triangle, where 40% of the world's lithium is produced at the lowest cost. Lake holds one of the largest lithium tenement packages in Argentina (~200,000Ha) which provides the potential for security of supply, and scalable as required.

Lake considers it is in a strong position to benefit from the market opportunity in electric vehicles and the batteries that power the energy revolution due to:

1. High Purity Lithium Carbonate samples (99.9% refer ASX announcement 9 January 2020) with very low impurities, recently produced from the pilot plant using a direct extraction process (ion exchange), which can achieve premium pricing;
2. Increased Engagement with Off-takers as larger samples are produced, anticipated from Q2 2020 onwards, for off-takers to commence qualification testing to then engage to assist in financing;
3. Kachi Project PFS, which 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. The Kachi project has a resource (announced 27 Nov 2018) considered large enough for long term production and could be potentially scaled to a much larger project as required as leases cover an area 10 times Manhattan.
4. Sustainable and Scalable Future Lithium Production, demanded by the larger electric vehicle makers and an increasing number of battery/cathode makers, who need to show both the quality and provenance of battery materials for ESG/sustainability and carbon footprint reporting. The direct extraction process reinjects brine once the lithium has been removed using ion exchange beads without affecting the chemistry. This means a much smaller footprint and less water usage because evaporation ponds are not used.

The Kachi project covers 70,000 ha over a salt lake south of FMC/Livent's lithium operation in Catamarca Province. Drilling confirmed a large lithium brine bearing basin over 20km long, 15km wide and 400m to 800m deep. Drilling over Kachi produced a maiden indicated and inferred resource of 4.4 Mt LCE (Indicated 1.0Mt, Inferred 3.4Mt) (refer ASX announcement 27 November 2018).

A direct extraction technique has been tested in partnership with Lilac Solutions, supported by the Bill Gates – led Breakthrough Fund and MIT's The Engine fund. A pilot plant module being commissioned, has shown 80-90% recoveries and lithium brine concentrations over 60,000 mg/L lithium. Battery grade lithium carbonate (99.9% purity) has been produced from Kachi brine samples with very low impurities (Fe, B, with <0.001 wt%) (ASX announcement 9 January 2020). Test results have been incorporated into a Pre-Feasibility Study (PFS) (refer ASX announcement 30 April 2020). The Lilac pilot plant module in California will produce samples for downstream participants in Q2 2020, prior to being transported to site to produce larger battery grade lithium samples. Discussions are advanced with downstream entities, mainly battery/cathode makers, as well as financiers, to develop the project.

The Olaroz, Cauchari and Paso brine projects are located adjacent to major world class brine projects either in production or being developed in the highly prospective Jujuy Province. The Olaroz-Cauchari project is located in the same basin as Orocobre's Olaroz lithium production and adjoins the Ganfeng Lithium/Lithium Americas Cauchari project, with high grade lithium (600 mg/L) with high flow rates drilled immediately across the lease boundary.

The 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 scheduled for production in late 2020 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/>

About Lilac Solutions Inc

Lilac Solutions is a mining technology company based in Oakland, California. Lilac has developed a patented ion exchange technology that facilitates production of lithium from abundant brine resources with minimal cost and ultra-low environmental footprint. Lilac's mission is to increase lithium supplies needed for electric vehicles and renewable energy storage. For more information, please visit <https://www.lilacsolutions.com/>