ASX ANNOUNCEMENT

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FIRST LITHIUM CHLORIDE SAMPLES SUCCESSFULLY PRODUCED FROM LILAC PILOT PLANT USING KACHI BRINES

- Samples show high lithium concentrations from pilot plant module as previously demonstrated at lab scale.
- Processing of 20,000 litres of brines from Lake's Kachi Lithium Brine Project continues at technology partner Lilac Solutions' upgraded facility in California.

Clean lithium developer Lake Resources NL (ASX:LKE; OTC:LLKKF) together with its technology partner, Lilac Solutions Inc, announced today another step towards the delivery of high purity, responsibly sourced lithium, with the first samples of lithium chloride successfully produced from Lilac's direct lithium extraction pilot plant module dedicated for Lake's Kachi Lithium Brine Project.

The samples show high lithium concentrations as previously demonstrated at lab scale (refer ASX announcement, 9 January 2020). These samples will be analysed by external laboratories next week.

Processing continues of 20,000 litres of brine at Lilac's newly upgraded industrial facility in California.

Lake is targeting the production of one lithium chloride sample per week, which will later be converted into lithium carbonate and then dispatched to potential off-takers.

Lake's recent Kachi Pre-Feasibility Study (PFS) (refer ASX announcement 30 April 2020) and recently published research (available on the company's website) demonstrates 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.

Momentum towards the electrification of global transport continues to accelerate, as seen by new lithium ion battery megafactories, including the UK government's commitment of 1 billion British pounds of funding towards building a lithium-ion battery megafactory. Currently 142 battery megafactories are being built worldwide, according to analysts Benchmark Mineral Intelligence, with the market size having quadrupled since 2015 on the back of the EV revolution.

Lake's Managing Director, Steve Promnitz said: "Production of larger size lithium chloride samples has now been demonstrated at a much larger scale with similar results to the initial, smaller samples reported. The next step is producing lithium carbonate samples that can meet product quality requirements of large off-takers. We eagerly await the release of these first samples and ramping up our negotiations with potential off-takers."

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About Lake Resources NL (ASX:LKE)

Lake Resources NL (ASX:LKE, OTC: LLKKF) 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%) with very low impurities, recently produced from the pilot plant using a direct extraction process (ion exchange), which can achieve premium pricing (refer ASX Announcement 9 January 2020);

2. Increased Engagement with Off-takers as larger samples are produced, 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 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%). Test results have been incorporated into a Pre-Feasibility Study (PFS). 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/