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## **BILL GATES-LED FUND BACKS LAKE'S TECHNOLOGY PARTNER LILAC**

- **Lake Resources planned sustainable lithium production using direct extraction technology provider – Lilac Solutions – has gained the investment support of the Bill Gates -led fund, Breakthrough Energy, leading an investment round of US\$20 million.**
- **Breakthrough Energy Ventures looks to invest in startups that are capable of cutting emissions. The fund's investors include Jeff Bezos, founder of Amazon.com Inc., and Jack Ma, co-founder of Alibaba Group Holding Ltd and Michael Bloomberg, the founder of Bloomberg LP. MIT's The Engine fund is another key investor in Lilac.**
- **Lilac Solutions has partnered with Lake Resources and the first pilot plant using Lilac's technology will start in Argentina later this year.**

Lithium explorer and developer **Lake Resources NL (ASX: LKE)** is pleased to announce that Lake's technology provider of a direct extraction ion exchange process, Lilac Solutions, has raised US\$20 million in Series A funding. Led by Breakthrough Energy Ventures, a \$1 billion fund established by many of the world's top business leaders to support companies with the potential to significantly reduce greenhouse gas emissions, the round includes participation from MIT's The Engine fund, Lowercarbon Capital, and The Grantham Foundation.

Lilac is commercialising a new ion exchange technology for lithium extraction from brine resources that is significantly faster, cheaper, and more scalable than existing technology. The process does away with the need for large evaporation ponds and is able to return the lithium-depleted brine back underground. Lilac's funding will enable the expansion of its engineering team, scale up production of its unique ion exchange beads, the core of the company's lithium extraction system, and deploy the Lilac technology.

"This is a great vote of confidence in Lake's strategy from known successful investors to use direct extraction methods to produce high purity lithium. This is quality, third party validation in Lake selecting Lilac as our technology provider providing increased efficiency in recoveries and a shorter time to market with sustainable lithium products and a smaller environmental footprint without expansive evaporation ponds", said Lake's Managing Director Steve Promnitz. "These investors made money by investing in disruptive technologies, seeing opportunities and promoting higher efficiencies with greater environmental outcomes."

Carmichael Roberts of Breakthrough Energy Ventures stated that "While the electrification of vehicles is one of the most promising opportunities to reduce global emissions, today's limited supplies of battery raw materials like lithium and cobalt challenge this transition. Lilac Solutions' novel technology can change the supply and demand equation by helping lithium producers extract much larger quantities at a significantly lower cost, and from new sources. This is the type of industrial innovation required to support a transition to EVs at scale."

David Snyder, Chief Executive Officer of Lilac Solutions, stated that "Other companies have tried to build these ion-exchange beads in the past, but they were either not selective enough at picking lithium out of the mixture of minerals or fell apart after just a few cycles."

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ASX:LKE

**AT THE HEART OF THE  
LITHIUM TRIANGLE**

Lake aims for sustainable lithium production at its Kachi Lithium Brine Project producing a high quality, low impurity product capable of attracting premium pricing. The PFS which is almost completed is anticipated to show production costs in the lower part of the global cost curve.

The direct extraction process, together with the Kachi project, offers a sustainable solution for the downstream battery makers by extracting lithium from brines using ion exchange without traditional evaporation ponds. Brine is returned to the aquifer once the lithium has been extracted without changing the brine chemistry. This addresses increasing interest from electric vehicle makers (OEM's) and battery makers to demonstrate they have access to a sustainable scalable supply chain for raw materials.

Brine samples are being transported from Kachi and expected to arrive late next week to the docks in Oakland, California. These brine samples will be initially used to complete the commissioning of a Lilac Solutions pilot-scale ion exchange module. High-purity lithium chloride will be produced for conversion to battery-grade lithium carbonate. Deliveries of lithium carbonate samples to downstream groups are being planned to start the qualification process with off takers.

Lake looks forward to reporting on progress through to first large samples being produced late next month.

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**About Lilac Solutions**

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.  
<http://www.lilacsolutions.com/news/lilac-solutions-raises-series-a>

**About Lake Resources NL (ASX:LKE)**

Lake Resources NL (ASX:LKE, Lake) is a lithium exploration and development company focused on developing its three lithium brine projects and a hard rock project in Argentina, all owned 100%. The leases are in a prime location among the lithium sector's largest players 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 consistent security of supply, 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);
2. **Increased Engagement with Off-takers** as larger samples are produced, anticipated from late March 2020 onwards, for off-takers to commence qualification testing to then engage to assist in financing;
3. **Kachi Project PFS**, in the final stages of completion which is anticipated to show projected 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 is 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, with a pilot plant being commissioned, which 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%). Phase 1 Engineering Study results have shown operating costs forecast in the lowest cost quartile (refer ASX announcement 10 December 2018). Test results have been incorporated into a Pre-Feasibility Study (PFS) in the final stages of completion. The Lilac pilot plant in California will produce samples for downstream participants 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 jointly 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).

Significant corporate transactions have occurred in adjacent leases with development of Ganfeng Lithium/Lithium Americas Cauchari project as Ganfeng announced a US\$397 million investment for 50% of the Cauchari project, together with a resource that had doubled to be the largest on the planet. Ganfeng then announced a 10 year lithium supply agreement with Volkswagen on 5 April 2019. Nearby projects of Lithium X were acquired via a takeover offer of C\$265 million completed March 2018. The northern half of Galaxy's Sal de Vida resource was purchased for US\$280 million by POSCO in June-Dec 2018. LSC Lithium was acquired in Jan-Mar 2019 for C\$111 million by a mid-tier oil & gas company with a resource size half of Kachi. Orocobre has announced on 19 Feb 2020 the acquisition of all shares in Advantage Lithium, valued at around C\$63 million, which holds leases next to Lake at Cauchari. These transactions imply an acquisition cost of US\$55-110 million per 1 million tonnes of lithium carbonate equivalent (LCE) in resources.

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