Sayona Mining Ltd: Novonix Test Authier Potential for Lithium Hydroxide Battery

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Brisbane, Australia - Emerging lithium miner Sayona Mining Ltd. (ASX:SYA) (FRA:DML) (OTCMKTS:DMNXF) plans to conduct product trials with leading battery researcher Novonix Limited, focused on delivering a clean and green 99.97% lithium hydroxide battery suitable for North American EV makers.

Highlights

- Leading battery researcher Novonix Limited to test Authier Lithium Project samples for potential to deliver minimum 99.97% purity lithium hydroxide for batteries for EV makers

- Australian clean tech hydroxide provider, ICS Lithium to support trials by providing product to Novonix, based on sustainable and economical closed loop process

- Testing at Novonix's battery lab in Canada to commence in May 2021, with full testing to include the development of a battery cell based on Authier lithium product

- Trials to reinforce Sayona Quebec's potential to deliver environmentally friendly, cost-competitive and high-quality lithium hydroxide product suitable for fast-growing North American battery market.

Under an agreement with Novonix and Australian clean tech hydroxide technology provider ICS Lithium, spodumene samples from Sayona Quebec's flagship Authier Lithium Project will initially be processed into lithium hydroxide using the ICS closed loop refining system.

The samples will then be sent to Novonix's independent battery testing facilities in Nova Scotia, Canada, to evaluate their conformity with lithium-ion battery standards and enable performance comparisons in commercial cells suitable for potential offtake partners. The aim of the tests is to highlight the Authier Project's ability to deliver a minimum 99.97% lithium hydroxide product suitable for leading battery cathode makers in North America.

Sayona's Managing Director, Brett Lynch, said the tests would demonstrate Sayona Quebec's ability to deliver an environmentally friendly and competitive product to the fast-growing North American industry.

"We are rapidly developing a blueprint for moving towards downstream processing in Quebec, benefitting from its environmental and economic advantages including low-cost, renewable hydropower, an established mining services industry and proximity to the North American battery market," Mr Lynch said.

"These tests will underpin our ability to produce a clean and green, cost-effective and high-quality product perfect for the world's top EV makers."

Novonix is developing 'million mile' battery technologies with revolutionary anode and cathode materials. It has designed and manufactured high precision battery testing equipment for Tier 1 battery makers and

OEMs in 15 countries, including Bosch, Dyson, Honda, Panasonic, LG Chem and SK Innovation.

Reinforcing its capabilities, the company recently appointed leading lithium-ion battery researcher Prof. Jeff Dahn as its Chief Scientific Advisor. Prof. Dahn and the Dalhousie University research team in Nova Scotia currently work alongside U.S. EV maker Tesla. In January 2021, Tesla extended its battery research contract with Prof. Dahn's team for a second five-year term, highlighting its prominence in battery research.

Concerning ICS Lithium, Sayona formed a collaboration last year with the Australian company, which has developed a closed loop process for the refining of spodumene into battery-grade lithium hydroxide, as preferred by leading automakers.

Compared with sulfuric acid-based processes, scoping studies undertaken on the ICS process foreshadow lower capital and operating costs, together with game-changing environmental benefits. The process also allows sulfuric acid-based hydroxide plants to be refurbished into clean ICS hydroxide plants at low cost

(refer ASX release 28 October 2020).

Testing at Novonix's research facilities is due to commence in May, with initial results expected by June.

Testing is planned to continue for up to three months and Sayona will update the market as results become available.

About ICS Lithium

Since 2014, ICS Lithium has been developing an improved process for the refining of lithium-rich minerals such as spodumene. Over this period, the process has been proven and its operations are currently being optimised at small pilot-plant scale.
The ICS process is closed insofar as the chemicals required are internally recycled, essentially eliminating the need for their purchase, and the need to dispose of by-product chemicals generated from their use.

Scoping studies by a leading EPCM firm foreshadow that compared with sulfuric acid-based processes, the ICS process offers the potential for lower capital costs and the halving of operating costs for the conversion of spodumene concentrates to lithium hydroxide monohydrate, plus game-changing environmental benefits.

About Sayona Mining Ltd:

Sayona Mining Ltd. (ASX:SYA) (OTCMKTS:DMNXF) is an Australian, ASX-listed (SYA) company focused on sourcing and developing the raw materials required to construct lithium-ion batteries for use in the rapidly growing new and green technology sectors. The Company has lithium projects in Quebec, Canada and in Western Australia.

Please visit us as at www.sayonamining.com.au

About NOVONIX Ltd:

NOVONIX Limited (ASX:NVX) (FRA:GC3) (OTCMKTS:NVNXF) is an integrated developer and supplier of high-performance materials, equipment and services for the global lithium-ion battery industry with operations in the USA and Canada and sales in more than 14 countries. NOVONIX's mission is to support the global deployment of lithium-ion battery technologies for a cleaner energy future.

Source:
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Contact:

Brett Lynch Managing Director Phone: +61 (7) 3369 7058 Email: info@sayonamining.com.au