



ASX ANNOUNCEMENT



3 JULY 2017

SUCCESSFUL THERMAL CONVERSION OF AUTHIER SPODUMENE CONCENTRATE

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to report the successful completion of a hydrometallurgical testing program on Authier lithium concentrates.

The program, performed by SGS Lakefield in Canada, demonstrated that the conversion of Authier lithium concentrate into traditionally extractable beta spodumene (a form of spodumene amenable to further processing) was achievable, at high conversion rates.

Three flotation concentrate samples were transformed from alpha to beta spodumene in a decrepitating kiln. The lithium was the extracted from lithium sulphate through sulphuric acid roasting and then leached with water to be transformed into aqueous lithium sulphate - further purification is required to produce a lithium carbonate end product. Up to 96.8% of the lithium was recovered in the process (Table 1) from a 5.98% Li₂O concentrate.

Table 1 – Authier Hydrometallurgical Results		
Lithium Concentrate Grade (% Li ₂ O)	Lithium Extraction (%)	Benchmarked Lithium Concentrate* (%)
5.62	96.4	95.6
5.81	96.7	96.2
5.98	96.8	96.6

* Theoretical recovery based on concentrate grade from a sample set of other spodumene projects in Canada

The results compare favourably with benchmark data generated from other hard-rock spodumene projects in Canada with similar testing conditions (i.e. decrepitation temperature and time). The testing was performed on concentrates that have been upgraded as part of the Company's on-going metallurgical optimisation program (see ASX release, Authier Update, 28 June 2017).

The results increase the confidence that battery grade lithium carbonate can be produced from Authier lithium concentrates.

The Company believes that this was an important next step towards evaluating value-adding opportunities for Authier the concentrates. Currently there is significant financial margins being achieved by the processing of spodumene concentrates into lithium carbonate (the current global spot price is between US\$18,000-US\$19,000/tonne for 99% min purity). The Company is evaluating the technical and economic viability of building a

SAYONA MINING LIMITED

Phone: +61 7 3369 7058

Email: info@sayona.mining.com.au

Address: Suite 68, 283 Given Tce, Paddington QLD 4064

Post: PO Box 1357, Milton, Qld 4064, Australia

www.sayonamining.com.au

ASX Code: **SYA**

lithium carbonate and/or hydroxide production conversion facility in Quebec to enhance the project value, and improve the long-term competitive position of the project. Quebec is uniquely positioned with a number of significant commercial and market advantages, including:

- High quality infrastructure, including roads, rail, and port access;
- Globally competitive, low-cost gas and electricity prices. Electricity is sourced from renewable energy;
- Skilled, competitive cost labor force;
- Sulphuric acid availability from a copper smelter at Rouyn Noranda, 80 kilometres west of the Authier project site;
- Road and rail transport networks connecting to export ports;
- Supportive government that invests directly into mineral development projects (e.g. Nemaska and North American Lithium); and
- Located in close proximity to the US markets including, the Tesla Giga factory in Nevada, and other planned Giga factories in the United States.

The Company will update the market on the next steps for the downstream strategy in due course.

For more information, please contact:

Corey Nolan

Chief Executive Officer

Phone: +61 (7) 3369 7058

Email: info@sayonamining.com.au

Sayona Mining Limited 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. Please visit us as at www.sayonamining.com.au