



ASX ANNOUNCEMENT



29 AUGUST 2016

AUTHIER LITHIUM PROJECT PRE-FEASIBILITY STUDY

Highlights

- New phase of development with the commencement of a PFS, results due in 4th quarter 2016
- PFS to determine optimal project configuration, capital and operating costs
- Authier project benefits from excellent supporting infrastructure, well understood mining and metallurgical characteristics

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to announce the commencement of the Authier Pre-Feasibility Study ("PFS").

The PFS will assess the development potential of a simple, low strip ratio, open-cut mining operation and processing facility producing spodumene concentrate.

The PFS will be prepared by SGS Canada and Bumigeme who together have significant experience and expertise in all aspects of lithium resource definition, mining, processing and infrastructure requirements in Quebec. The PFS will assess the technical and economic viability of developing the Authier project, and expands on the Authier NI43-101 Technical Report, Preliminary Economic Assessment, completed in 2013.

The PFS will be based on a JORC Mineral Resource derived from 123 diamond historical drill holes totalling about 15,000 metres, and more than 2,143 assays for lithium. The independently prepared Authier JORC Mineral Resource, is summarised in Table 1.

The PFS will also draw on three other work programs currently underway, including:

1. A metallurgical study at SGS Lakefield to provide new data for process engineering studies. This will include flotation and dense media separation testing;
2. A process engineering study to identify enhancements and optimisation of the process flow-sheet, and to estimate the capital and operating costs; and
3. A resource definition and extension drilling program, including an updated JORC mineral resource estimate.

Corey Nolan, Chief Executive Officer, commented *"The PFS will provide important technical and financial information about the project for shareholders, and supporting discussions with potential of-takers, equipment suppliers, financiers and regulatory organisations. On completion of the PFS, the Company plans to progress towards*

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completing a Definitive Feasibility Study, Mining Licence applications, and product offtake contracts”.

Table 1 – Authier JORC Mineral Resources Estimate (0.5% Li ₂ O cut-off grade)			
Category	Million Tonnes	Grades Li ₂ O	Contained Li ₂ O
Measured	2.08	0.95%	19,730
Indicated	5.16	0.97%	50,092
Inferred	1.88	0.93%	17,480
Total	9.12	0.96%	87,302
Cautionary Note - Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into a Mineral Reserves estimate.			

Key components of the PFS will, include:

- Geological and geotechnical characterisation and resource assessment;
- Mine plan and design;
- Process plant design;
- Infrastructure requirements, including transport, power and water supply; and
- Market assessment and financial evaluation.

The PFS will identify the optimal project configuration, capital and operating costs, and the single go forward scenario for the Definitive Feasibility Study to be completed in the first half of 2017. The PFS study results are expected to be available in the 4th quarter 2016.

The Company believes that the feasibility of developing an operation to extract the Authier lithium resource has a number of distinctive competitive advantages which will form the basis of a fast-tracked PFS:

- Simple low-cost mining operation at low waste stripping ratio;
- Proven processing methodology from extensive testing, based on simple spodumene mineralogy, including recovery into saleable spodumene concentrate; and
- Unique position in respect of development infrastructure including roads, power, water, rail, gas, and labour.

Other Project Related Activities

In parallel with the fast-tracked PFS work program, the Company is working with a number of consulting groups to establish work programs for environmental permitting, indigenous and community relations, and the mining license application.

The Company is also continuing discussions with parties interested in securing a high-quality spodumene concentrate for further processing into value-added products for the global battery markets.

For more information, please contact:

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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

Reference to Previous ASX Releases

This presentation refers to the following previous ASX releases:

- "Authier JORC Resources", 5 July 2016

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.