



ASX ANNOUNCEMENT



07 DECEMBER 2016

PHASE II RESOURCE EXPANSION/DEFINITION AND EXPLORATION DRILLING PROGRAM

Highlights

- Permits for up to 4,000 metres of new expansion and definition drilling lodged
- Focus on the expansion of the resource following the highly successful drilling program in 2016 which significantly increased the resource and grade
- Drilling to define the size and lithium grade of the recently discovered, high-grade, northern pegmatite
- Exploration drilling to define additional lithium bearing pegmatites outside the existing resource area

Sayona Mining Limited (ASX: SYA) ("**Sayona**" or the "**Company**") is pleased to announce it has lodged the drilling permits for the Phase II resource expansion drilling program at the Authier lithium project, Quebec.

The Company believes there is excellent potential to both expand the size of the existing resource and to optimise and improve the existing resource. In addition the company is planning to further expand the total project area resource by drilling the recently discovered lithium pegmatite and undertaking exploration for further mineralised pegmatites.

The Company is planning a diamond drilling program of up to 4,000 metres commencing in early 2017. The mineralisation remains open in all directions (see Figure 1 and 2) and follow up drilling is being planned with the objectives, including:

- Defining the mineralised boundaries and lifting the resource categories in the western sector that were not accessible during the 2016 drill program. The 2016 drilling program in the western zone highlighted wide intervals of high grade lithium dioxide including 46m @ 1.26% Li₂O from a depth of 190 metres including 24m @ 1.62% Li₂O from 190 metres;
- Testing for mineralisation in the eastern and western strike extensions;
- Infill definition drilling within the main resource zone (Infill zone on Figure 1) where the mineralisation is not well defined and is currently treated as waste;
- Assessing the resource potential of the new northern pegmatite which intersected 7m @ 1.36% Li₂O from 15 metres. Any new mineralisation within the new pegmatite is likely to fall within the main Authier open-cut pit shell and significantly improve the waste to ore ratio in a future operation; and
- Pegmatites generally occur in "swarms" and the company's aim is to locate additional mineralised pegmatites in the area.

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The drilling program has been designed with three aims:

- To improve the overall quality and expand on the size of its JORC 2012 compliant Mineral Resource estimate. The project now has nearly 19,000 metres of diamond drilling in 141 holes. The Company's plan is to increase the size and confidence levels of the resource and to study the merits of an expansion and/or the value adding potential of the project beyond what has been studied in the current Pre-Feasibility Study which is nearing completion (Figures 1 and 2);
- Assess the resource potential of the newly discovered pegmatite (Figure 2); and
- Locate additional lithium mineralised pegmatites

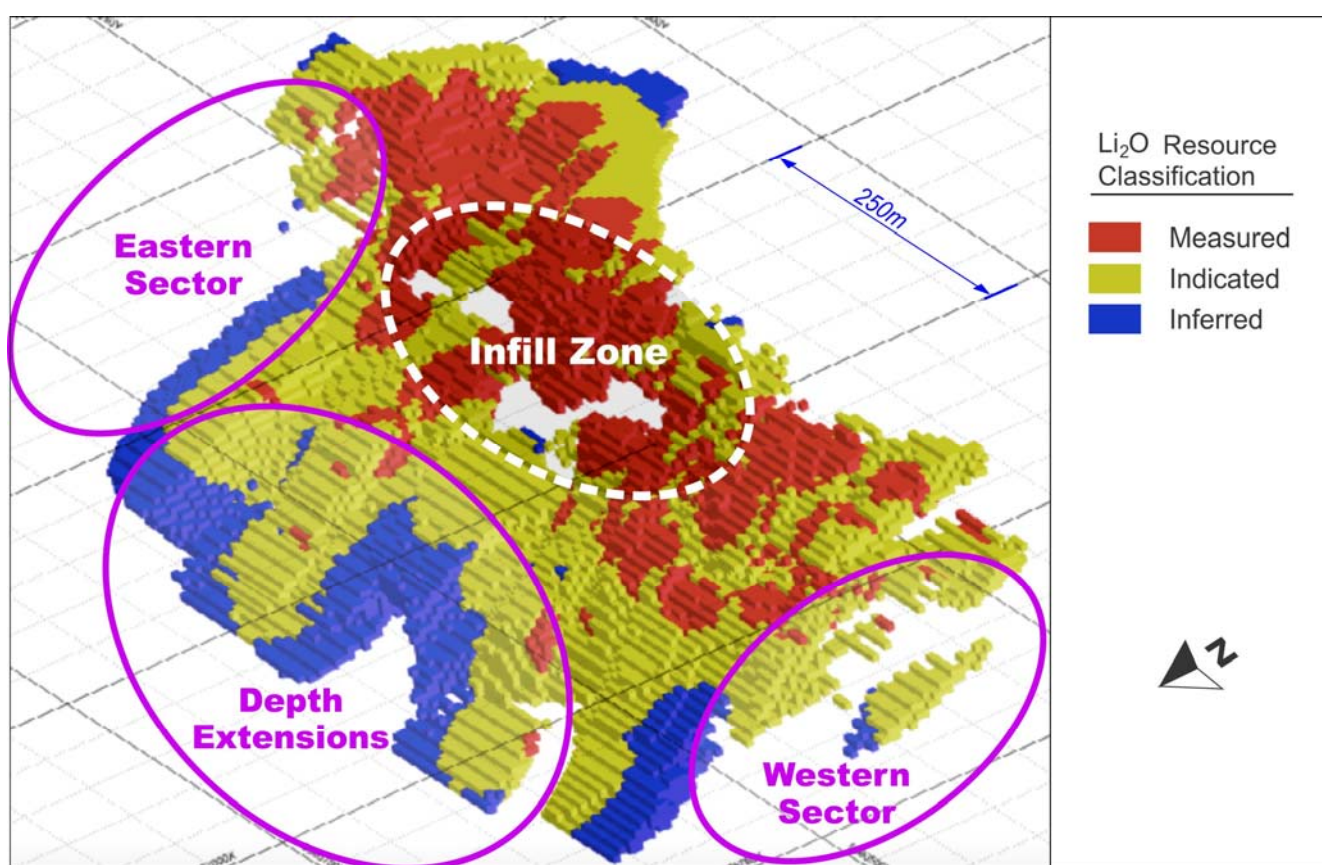


Figure 1: Main target zones within the main resource area for the 2017 drilling program

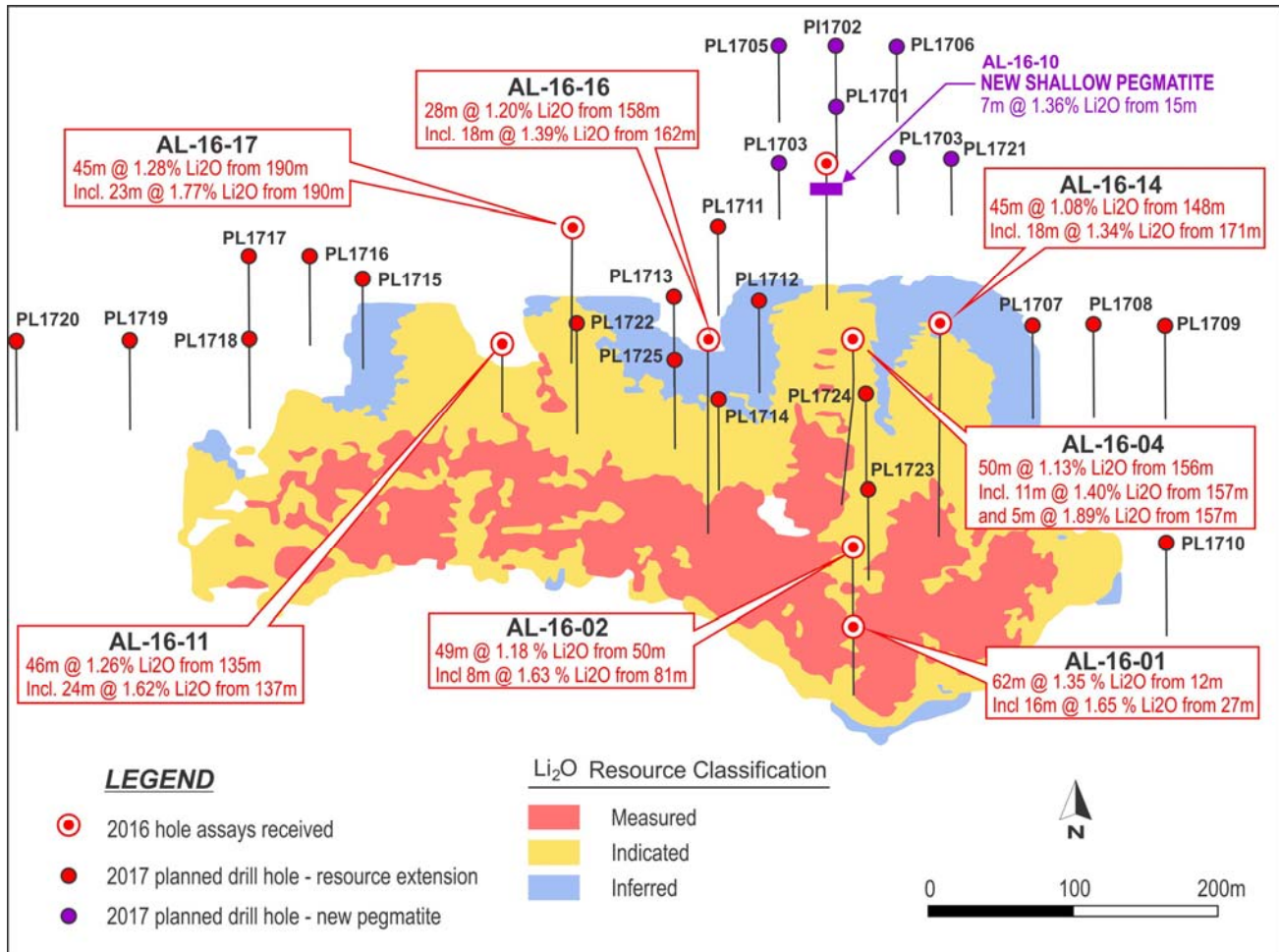


Figure 2: Drill hole collar location plan including, extensions and the new pegmatite

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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.

The Company's primary focus is the development of the advanced stage Authier lithium project in Quebec, Canada. Authier mineralisation is hosted in a spodumene-bearing pegmatite intrusion with more than 18,000 metres of drilling in 139 holes.

The Authier JORC (2012) compliant Mineral Resource estimate is tabulated below at a 0.5% Li₂O cut-off grade.

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	4.72	1.03%	48,519
Indicated	7.13	1.10%	78,280
Inferred	1.90	1.05%	19,901
Total	13.74	1.07%	146,700

Authier is amenable to simple open-cut mining and processing methods, and is situated in close proximity to development infrastructure. The Company is currently completing a pre-feasibility study due for completion in late 2016.

In addition, the Company controls a portfolio of lithium and graphite exploration projects in Western Australia.

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

Reference to Previous ASX Releases

This presentation refers to the following previous ASX releases:

- "Authier Expanded JORC Resource", 21 November 2016
- "Drill Results Demonstrate Potential to Expand JORC Resource", 17 November 2016
- "High-Grade Lithium Intersections Extends Mineralisation Zone", 3 November 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.