#### 29 JULY 2016

# **JUNE 2016 QUARTERLY REPORT**

# Highlights

- Due diligence on Authier acquisition completed. Subsequent to the end of the quarter, the Authier acquisition completed
- Commencement of WA lithium exploration and expansion of tenure to 1065km<sup>2</sup>
- Initial results to 1.57% Li<sub>2</sub>O at Mt Edon and over 70 pegmatites identified
- Rare metal pegmatites identified at Pilbara Tabba Tabba and Cooglegong projects
- Maiden Itabela drilling program completed

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to announce activities for the quarter including advancement of technical and legal due diligence on the Authier lithium project in Canada, completion of a maiden drilling program at the Itabela in Brazil, and the first results of reconnaissance exploration work in Western Australia.

# Authier, Canada

During the quarter, the Company finalised a three week extension until 21 July 2016 for completion of the Authier lithium acquisition, announced on the 3 May 2016.

The Company is actively working through a due diligence program covering all the legal and technical aspects of the proposed acquisition. Subsequent to the end of the quarter, the Company announced:

- 1. An Authier JORC Mineral Resource Estimate;
- 2. Completion of the Authier acquisition; and
- 3. Capital raising to fund the Authier acquisition, development and corporate expenses.

#### **Authier JORC Mineral Resource Estimate**

Subsequent to the end of the quarter, part of its due diligence on the proposed Authier acquisition, an independent JORC Mineral Resource estimate, totalling 9.12 million tonnes containing 87,302 tonnes of Li<sub>2</sub>O was reported.

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The Company has independently undertaken a detailed audit of all the available data to verify the previous work and convert the foreign estimate to a JORC 2012 compliant Mineral Resource estimate, tabulated below at a 0.5% Li20 cut-off grade.

Table 1 – Authier JORC Mineral Resources Estimate (0.5% Li₂0 cut-off grade)					
Category	Million Tonnes	Grades Li <sub>2</sub> 0	Contained Li <sub>2</sub> 0		
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.

For the full details of the JORC resource please see ASX release, "Authier JORC Mineral Resource Estimate, 5 July 2016.

### Completion of Authier Due Diligence and Formal Purchase Documents

Subsequent to the end of the quarter, the Company completed the Authier due diligence and entered into formal transaction documents for the CAD\$4 million acquisition of the Authier lithium Project. The acquisition was completed on the 20 July 2016.

### **Capital Raising**

Subsequent to the end of the quarter, the Company has completed a A\$3.6 million Placement and commenced a fully underwritten A\$2.9 million Rights Issue to fund the Authier acquisition and development program. Of these funds, a total of A\$5,497,386 was placed upfront, with the balance of \$600,000 being subject to shareholder approval. The Company anticipates it will convene an Extraordinary General Meeting (EGM) to be held in early September 2016 for that purpose.

The Available Funds (together with the net proceeds from the Rights Issue and the Company's existing cash) will be applied to:

- acquisition of the Authier lithium Project;
- feasibility expenditure on the Authier lithium Project;
- exploration expenditure on the Australian Projects and
- administration and working capital requirements.

# **Western Australian Lithium Projects**

Western Australia is a premium lithium province with world-class, high-grade lithium deposits associated with rare metal pegmatites. The Company has secured two regional project areas covering a total 1065km2 (see figure 1) as part of its strategic move into lithium exploration.

During the quarter the company continued to carry out first pass exploration over its tenure, complimented by the pegging of two new tenements.



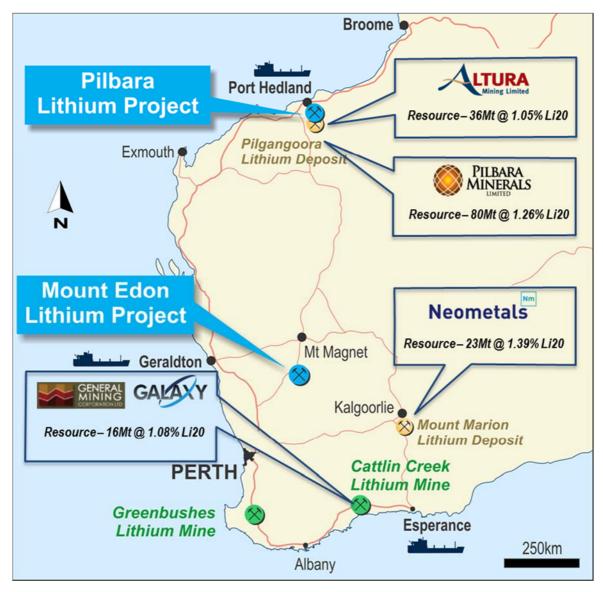


Figure 1: Project location and significant lithium mines and deposits in Western Australia

# Pilbara Lithium Project, Pilgangoora district

The Pilbara tenure covers 986km² and covers areas of tin-tantalum mineralised pegmatites with no past lithium exploration. The company is exploring these targets for spodumene bearing pegmatite. Target areas are shown on the figure below.



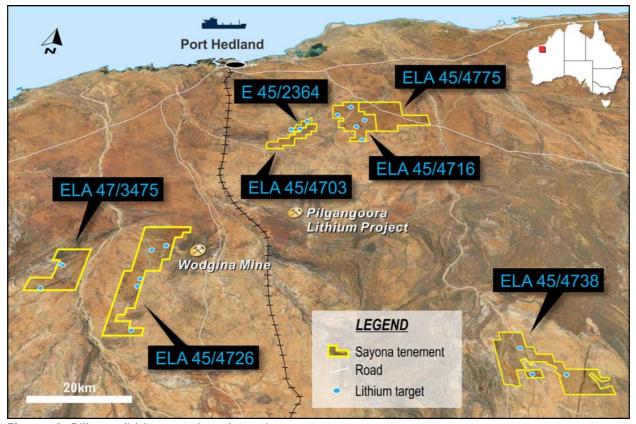


Figure 2: Pilbara lithium project location

### Tabba Tabba Area -E45/2364 (pegmatite rights only) and ELA45/4703.

The Tabba Tabba project, located north of Pilgangoora is prospective for spodumene bearing pegmatites, similar to those located at Pilgangoora and Mount Cassiterite at Wodgina.

Sayona has focused its exploration over granted E45/2364, where it has an option to acquire 100% of the pegmatite rights. The tenement covers a 10 km strike extent of the greenstone stratigraphy to the south of the Tabba Tabba tantalum mine and has not been explored for its lithium potential in the past.

Within E45/2364 and adjoining ELA45/4703 the Company has carried out geochemical orientation with collection of a total 69 pegmatite rock samples, 88 soil samples and 11 stream samples.

Results define three new zones of anomalous pegmatites within greenstone, (maximum 357ppm tantalum, 428ppm cesium and 3,000ppm rubidium). The peak lithium value in sampling is 387ppm Li2O. The Company is encouraged by the discovery of previously unidentified target rare metal pegmatites within the project area.

A second trend of pegmatites and geochemical anomalism, marginal to granite along the Tabba Tabba shear, has also been noted by explorers to the south west and remains to be systematically sampled. Historic stream sampling in this area recorded up to 5,000ppm tantalum and 1,700ppm tin.

A large number of target areas have been identified for systematic follow up exploration.



# Red Rock Project; ELA45/4716, ELA45/4775

The Red rock project (415km2), is located to the east of Tabba Tabba and covers the northern extension of the Pilgangoora belt, securing the Red Rock pegmatite as well as greenstone remnants and old dredging claim areas, indicative of past tin-tantalum prospecting.

A new application ELA45/4775 was made following processing of magnetic and radiometric data. This work suggests remnant greenstone lithologies adjacent to a favourable granite contact may host lithium prospective pegmatites. The bedrock geology is obscured over much of the application area. The Company intends applying its developing exploration methodology to identify those areas of highest prospectivity.

# Cooglegong Project (ELA45/4738)

The Cooglegong project is a new application for the quarter. It covers 140 km2 of the northern part of the Shaw River tin field, an area of historic tin mining. The area is host to albite pegmatites associated with younger, post tectonic granite with lithium potential.

First pass geological traversing and broad spaced sampling (75 pegmatite samples collected) has identified a large number of pegmatites. Assay results define three areas of elevated Ta-Rb-Cs-Nb, indicative of more fractionated, rare metal pegmatite. The maximum lithium result of 166ppm Li2O is also elevated. Further reconnaissance and detailed sampling over the three target areas is planned.

# Wodgina Project (Friendly Creek, ELA47/3475 and West Wodgina ELA45/4726)

The project areas at Friendly Creek (ELA47/3475) and West Wodgina (ELA45/4726) cover 339km2, and secure areas of past tin and tantalum prospecting activity. The bedrock rare metal pegmatite hosts have not been subject to modern exploration or assessment for their lithium potential. The project areas show similarities with the tin pegmatites at Mt Cassiterite in the Wodgina field which host spodumene bearing albite pegmatites, the Company's target exploration focus.

### **Mount Edon Project**

Mount Edon covers the southern portion of the Paynes Find greenstone belt, South Murchison, which are host to an extensive swarm of pegmatites. The pegmatites have not previously been assessed for their lithium potential but have been variably prospected and mined for tantalum, mainly within an excised mining lease (see Figure 3).



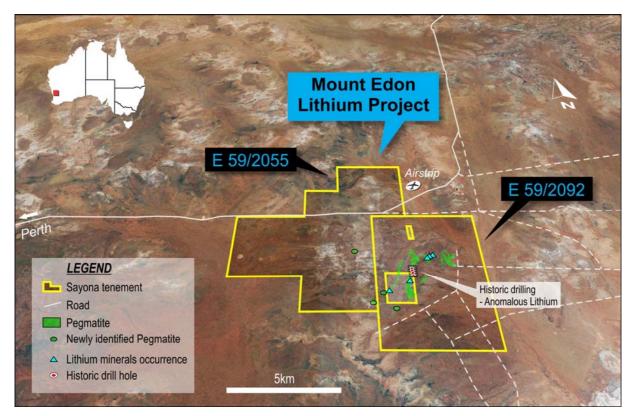


Figure 3: Mt Edon project location

The Mt Edon pegmatites range from simple microcline feldspar dominated occurrences to evolved rare metal albite types, mineralised with tantalum niobium and lithium. The Company is exploring the project for its potential to host the albite – spodumene class of rare metal pegmatite, similar to other greenstone hosted occurrences in the Yilgarn.

Pegmatites range from five metres to over 100 metres in surface width, arranged in swarms of up to 1 kilometre in strike extent. The pegmatites have variable outcrop and are in part obscured by colluvium.

Over 70 pegmatites have been identified during reconnaissance mapping, spread out over a 4km zone. Others are present further to the north and west but outcrop in these areas is poor and these systems are poorly defined at present.

A total of 95 pegmatite rock samples have been collected during reconnaissance work and have returned a peak assay of 1.57% Li2O. The pegmatites also contain anomalous tantalum, rubidium and cesium, indicative of rare metal pegmatites. Other anomalous lithium results nearby define a 400metre wide package of pegmatites which is a high priority target (Figure below – eastern anomaly).

Rubidium assays to 2.6% Rb have been returned in association with lithium and cesium. Since rubidium is radiogenic, high-quality airborne radiometrics data has been reprocessed to help identify minerals with rubidium that occur in association with lithium mineralisation. This data is being used as a low-cost exploration methodology to cover the large project area, but is only effective in areas of outcrop. The radiometric data over the central portion of the project is displayed below.



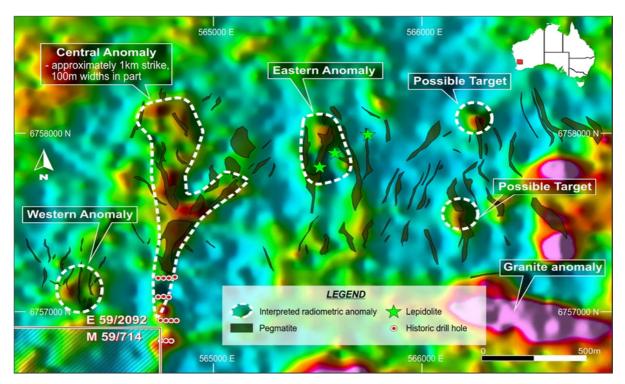


Figure 4: Mt Edon project radiometrics (to be updated)

A soil orientation sampling programme commenced during the quarter but had to be curtailed due to rain. Completion of this survey will be undertaken as soon as possible to provide further vectoring to additional lithium bearing pegmatite targets.

# East Kimberley Graphite Project, Western Australia

During the quarter, the Company completed petrographic study of chips from the RC drilling program at the Snowbird, Windrush and Firefly prospect areas has been completed and results demonstrate the large flake graphite potential of the project:

- Snowbird SKRC016 (37-38m), flake size commonly between 300-400+ micron length, with instances of flakes over 1000 micron;
- Windrush SKRC007, flake size to over 500 micron and an average 200 micron length,
- Firefly SKRC005 reported approximately 20% of graphite flakes between 350-400 micron length, with an average 225 micron length.

The RC drilling method has resulted in many of the graphite flakes being broken into smaller pieces and diamond core sample will be required to finalise the actual flake size distribution. The results give encouragement that the project has the potential to host high-value coarse flake graphite.

The Company has also completed flotation test work on both surface and RC chip samples. The best flotation results were achieved in surface rocks from the Snowbird prospect, where a floatation concentrate grade of 96.2% TGC was achieved, with 43% above 180 mesh size. The metallurgical results provide encouragement that the Corkwood coarse flake graphite can deliver a high purity graphite concentrate using simple flotation technology.



Testwork on two RC drill chips samples were not successful, most likely due to oil contamination of sample during the RC drilling process.

Results provide encouragement that Corkwood can deliver high quality concentrate with large flake size. Diamond core is required to advance flake size characterisation and floatation testing. Planning of an appropriate programme has commenced.

Study is also being directed to identify higher grade zones to the mineralisation. Only one drilling program of 33 reverse circulation drill holes (for 2,949 metres) has been completed, focussed at six prospect areas, along portions of a 7 km strike extent. The drilling has identified higher grade zones, including an individual metre assay up to 12.2% TGC and a best intersection of 16 metres @ 5.03% TGC1 from 13m in SKRC006 at Windrush.

An approximate 20km strike extent to the target horizon displays coincident VTEM anomalism and remains untested by any exploration. This large target has potential to host additional high grade zones. Drilling in these new areas will be subject to heritage surveying and the Company reaching a satisfactory commercial arrangement with the Kimberley Land Council.

# Itabela, Brazil

During the quarter, the Company completed its maiden drilling program at Itabela. Fortynine air-core and reverse circulation drill holes totalling 2,440 metres were completed at the Sao Manuel and Sao Rubens prospects, during March and April 2016. The aim of the drilling program, included:

- Testing the grade, strike and lateral extensions of known mineralisation at Sao Manuel and Sao Rubens;
- Testing depth extensions to known mineralisation where the limit of previous auger drilling is generally between 10 and 20 metres from surface; and
- Validating assays from historical drilling programs.

The graphite mineralisation is hosted in a sequence of very deeply weathered, saprolitic paragneiss which extends down to at least 84 metres, the limit of current drilling. The saprolite mineralisation remains very soft and friable with visible super jumbo, jumbo and large flake graphite consistently observed in most drill intersections, and along road cuttings exposed by surface earthworks to prepare drill access and pads.

#### Sao Manuel

Forty drill holes were completed at the Sao Manuel prospect over 1.7 kilometres of strike extent, and to a maximum depth of 85 metres in some areas. The width of the mineralisation pinches and swells along strike but is typically defined over 80 to 100 metres, but remains open to both the east and west. Best intersections, include:

- 77 metres at 2.9% TGC from 7 metres, including:
  - 33 metres at 3.04% TGC

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<sup>&</sup>lt;sup>1</sup> TGC - Total Graphitic Carbon



- o 20 metres at 4.08% TGC
- 26 metres at 4.01% TGC; and
- 43 metres at 3.14% TGC.

Further drilling will be required to improve the definition of the mineralisation along strike, the lateral extent and at depth.

#### Sao Rubens

Nine drill holes were completed at the Sao Rubens prospect over 90 metres of strike extent, and to a maximum depth of 67 metres. The Sao Rubens prospect is demonstrating higher grades than Sao Manuel and visible jumbo and large flake graphite throughout all the samples. Best intersections, include:

- 23 metres at 4.78%TGC from 3 metres; and
- 48 metres at 3.65%TGC from 3 metres.

The Company is now reviewing all the drilling information and project acquisition terms to determine whether the project will meet its investment criteria, and whether it can structure a long-term arrangement to continue exploration and development the project.



### 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

### **Competent Person Statement**

East Kimberley, Mt Edon and Pilbara - The information in this report that relates to Exploration Results is based on information compiled by Mr Simon Attwell, a Competent Person, and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Attwell is an employee of Attgold Pty Ltd ("Attgold") which provides geological services to Sayona. Mr Attwell is a financial beneficiary, being a director and shareholder of Attgold if Sayona exercises its option to purchase the East Kimberley Graphite project or Tabba Tabba lithium project.

Mr Attwell has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Attwell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**Authier and Itabela** - The information in this report that relates to Exploration Results is based on information compiled by Dr Gustavo Delendatti, a member of the Australian Institute of Geoscientists. Dr Delendatti is an independent consultant, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which it is undertaking to qualify as a Competent Person as defined in the JORC Code (2012 Edition) of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Dr Delendatti was responsible for the design and conduct of this exploration drilling campaign, supervised the preparation of the technical information in this release and has relevant experience and competence of the subject matter. Dr Delendatti, as competent person for this announcement, has consented to the inclusion of the information in the form and context in which it appears herein.

#### Previous Disclosure - 2012 JORC Code

Certain Information relating to Mineral Resources, Exploration Targets and Exploration Data associated with the Company's projects in this June 2016 Quarterly Report has been extracted from the following ASX Announcements:

"Authier JORC Mineral Resource Estimate, 5 July 2016.



Copies of these reports are available to view on the Sayona Mining Limited website www.sayonamining.com.au. These reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. 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. 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 announcement.

# **Tenement Schedule**

Table 1: Tenement Schedule					
Tenement	Name	Status	Interest at Beginning of Quarter	Interest at end of Quarter	
E59/2092	Mt Edon	Granted	80%, with rights to 100% of pegmatite minerals*	80%, with rights to 100% of pegmatite minerals*	
E59/2055	Mt Edon West	Granted	100% (pegmatite minerals)	100% (pegmatite minerals)	
E45/2364	Tabba Tabba	Granted	Rights to 100% of pegmatite minerals*	Rights to 100% of pegmatite minerals*	
ELA45/4703	Tabba Tabba East	Application	100%	100%	
E45/4716	Red Rock	Application	100%	100%	
ELA45/4726	West Wodgina	Application	100%	100%	
ELA47/3475	Friendly Creek	Application	100%	100%	
ELA45/4738	Cooglegong	Application	100%	100%	
ELA45/4775	Carlindie	Application	0%	100%	
E80/4511	Western Iron	Granted	100% (Graphite)	100% (Graphite)	
ELA80/4949	Corkwood	Application	100%	100%	
ELA80/4959	Killarney	Application	100%	100%	
ELA80/4968	Keller	Application	100%	100%	
*Option-to-Purchase pegmatite rights only, subject to Attgold and Bruce Legendre agreements					