



# ASX ANNOUNCEMENT



31 JANUARY 2018

## DECEMBER 2017 QUARTERLY REPORT

### Highlights

- Authier JORC Mineral Resources and Ore Reserves upgraded
- Optimised PFS Completed - Pre-tax NPV<sub>8</sub> of C\$221m (AUD\$227m), Pre-Tax IRR of 56% and capital payback 2.5 years
- MOU signed with Changyuan for potential Authier off-take and downstream processing
- Authier permitting and environmental studies advancing towards completion in 2018
- Authier Definitive Feasibility Study and Phase 3 drilling program commences
- \$4.9 million renounceable rights offering successfully completed

**Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company")** is pleased to announce the activities report for the quarter, including:

- Authier, Canada – major focus on completion of the optimisation programs for the Authier Optimised Pre-Feasibility Study and commencement of the Definitive Feasibility Study;
- Western Australian Lithium, Australia – rock chip and soil sampling programs completed at Mallina and Deep Well; and
- Capital raising – a \$4.9 million capital raising to fund completion of the Authier Definitive Feasibility Study, Authier pilot metallurgical testing program and corporate costs was completed.

### Authier

The Company's primary strategy is to focus on completing the studies required to commence the development of the project, including the Definitive Feasibility Study. Authier is a near-term development project and cash-flow generation opportunity. The Company believes it will create significant share value-uplift potential for shareholders as the project is advanced towards development.

## MOU Signed for Authier Off-Take and Downstream Value Adding Opportunities

During the quarter, the Company signed a non-binding Memorandum of Understanding (“MOU”) with leading China based battery manufacturer, Huan Changyuan Lico Co Ltd (“Changyuan”).

Changyuan, a subsidiary of the Fortune 500 Company, China Minmetals Group, is a battery research, development, and production company. In 2016, the company produced more than 16,000 tonnes of battery cathode materials and is expanding its production capacity to 36,000 tonnes in 2018. The main products produced include, lithium cobalt oxide and lithium manganese oxide batteries, and ternary composite lithium-ion cathode materials.

The MOU paves the way for advancing discussions to facilitate a development alliance exploring marketing, technical and financial opportunities for the Authier project, including:

- Changyuan purchasing up to 100,000 tonnes of spodumene concentrate per annum;
- Development partnerships for the value-adding of the concentrates into lithium carbonate and/or lithium hydroxide in either China or Canada; and
- Funding and investment opportunities for Sayona and the Authier project.

## JORC Mineral Resources Upgrade

In June 2017, the Company reported a JORC 2012 compliant Mineral Resource following the Phase 2 drilling program<sup>1</sup>. During the quarter, the Mineral Resource was updated to include the Northern Pegmatite which was not previously incorporated in the Mineral Resource. In addition, the Authier Main pegmatite has been increased due to refinement of the lithium solids model for the main pegmatite. The Authier deposit has 20,183 metres of diamond drilling in 150 holes.

**Table 1 – Authier JORC Mineral Resources Estimate (0.45% Li<sub>2</sub>O cut-off grade)**

Category	Tonnes (Mt)	Grades %Li <sub>2</sub> O	Contained Li <sub>2</sub> O
Measured	5.86	1.01%	59,186
Indicated	10.19	1.03%	104,957
Inferred	2.30	0.99%	22,810
<b>Total</b>	<b>18.35</b>	<b>1.02%</b>	<b>186,953</b>

## Authier Optimised Pre-Feasibility Study

During the quarter, the Company completed the Optimised Pre-Feasibility Study (“PFS”). The PFS incorporates the new expanded JORC Mineral Resource, results from

<sup>1</sup> See ASX release, “Authier JORC Resource Increased, 14 June 2017

a number of technical optimisation programs, and realignment of pricing to reflect a concentrate grade of 6% Li<sub>2</sub>O and more recent industry forecasts. The PFS confirms the technical and financial viability of constructing a simple, low-strip ratio, open-cut mining operation and processing facility producing spodumene concentrate. The positive PFS demonstrates the opportunity to create substantial long-term sustainable shareholder value at a low capital cost.

Key findings of the PFS, include:

- Pre-tax NPV<sub>8</sub> of C\$221 million and IRR 56% (real terms at 8% discount rate);
- Annual average concentrate production of 96,000 tonnes at 6% Li<sub>2</sub>O;
- Average annual revenue of C\$73 million and EBITDA of C\$35 million;
- Mine gate cash costs of C\$370/t and FOB Port cash costs of C\$430/t (US\$327/t); and
- Initial capital expenditure of C\$64 million and C\$110 million over the life-of-mine.

The February 2017 PFS has been updated to incorporate the following new information:

- JORC Resource upgrade following the Phase 2 drilling program;
- Geotechnical and dilution studies;
- Improved metallurgical outcomes from the latest testing programs;
- Realignment of spodumene pricing to reflect current industry forecasts; and
- Review of operating and capital costs.

Based on the results of the new information, a new Proven and Probable Ore Reserve estimate of 11.66Mt @ 1.03% Li<sub>2</sub>O at a 0.45% Li<sub>2</sub>O cut-off grade (Table1) has been defined.

Table 2- Authier JORC Ore Reserve Estimate (0.45% Li <sub>2</sub> O cut-off grade)			
Category	Tonnes (Mt)	Grades (%Li <sub>2</sub> O)	Contained Li <sub>2</sub> O
Proven Reserve	5.59	0.99	55,341
Probable Reserve	6.07	1.06	64,363
<b>Total Reserves</b>	<b>11.66</b>	<b>1.03</b>	<b>120,098</b>

Note: The Ore Reserve estimate is based on the details published in a separate ASX release "Authier JORC Ore Reserve", 11 December 2017. The Ore Reserve Estimate is inclusive of 2% dilution and 5% ore loss

Summary PFS financial and operating highlights are summarised in Table 3 and 4.

Table 3– Authier Lithium Project PFS Highlights			
Description	CAD\$	US\$	AUD\$
Average Spodumene Price	807	614	831
Initial Development Capital Costs	64	48	65
Total Life of Mine Capital Costs	110	84	113
Total Net Revenue (real terms)	1,322	1,004	1,361
Total Project EBITDA (real terms)	624	474	642
Average Life of Mine Cash Costs (Mine-gate)	370	281	381
Average Life of Mine Cash Costs (Montreal Port FOB basis)	430	326	442
Net Present Value (real terms @ 8% discount rate)	221	167	227
Pre-Tax Internal Rate of Return		56	
Project Payback Period		2.5	
Notes: CAD\$:US\$ 0.76 and CAD\$:AUD\$ 1.03			

Table 4– Authier Lithium Project PFS Operating Highlights		
Description	Unit	Results
Average Annual Ore Feed to the Plant	tonnes	686,000
Annual Average Spodumene Production	tonnes	96,000
Life-of-Mine	years	17
Life-of-Mine Strip Ratio	waste to ore	6.95:1

## Authier Definitive Feasibility Study

The Company awarded the main components of Authier Definitive Feasibility Study (“DFS”) including, the mining, processing and infrastructure to BBA.

BBA is an independent Canadian consulting engineering firm operating internationally. Its team is composed of highly-qualified experts in several engineering disciplines including electrical, civil, mechanical, industrial data processing, mining, metallurgical processes, automation, and construction management. BBA have extensive experience in the Canadian mining industry and have been actively involved in Feasibility Studies for Quebec lithium projects including, Nemaska and the North American Lithium project.

A number of other DFS work programs including geotechnical, transport and environmental have been outsourced to specialist contractors are underway.

The company is targeting completion of the DFS in the second quarter calendar 2018.

### **Authier Phase 3 Drilling Program**

The Company commenced a Phase 3 drilling program at Authier to collect a bulk sample for a pilot metallurgical program, and further expansion and optimisation of the resource.

#### **Pilot Plant Sample**

The initial phase of the program was aimed at collecting 5 tonnes of drill core for a pilot metallurgical testing program. The pilot program data will be used for inputs into the process plant design in the DFS. The sample was successfully collected by the end of December.

#### **Resource expansion**

Subsequent to the end of the quarter, the drilling program re-commenced in early January 2018. The objective of the diamond drilling is to expand and optimise, the resource and reserve position for incorporation into the DFS, including:

- Drilling at depth and within the eastern and western sectors at shallow levels to provide better definition and potential expansion of the orebody - see Figure 2;
- Potential expansion of the northern pegmatite zone where a small JORC Mineral Resources was defined as part of the Optimised Pre-Feasibility Study (see ASX release, Authier JORC Mineral Resource Update, 11<sup>th</sup> December 2017) – see Figure 3;
- Infill definition drilling within the main resource zone where the mineralisation is not as well defined and is currently treated as waste for the Ore Reserve estimation; and
- Converting inferred resources into a higher resource classifications by further higher density drilling (resource areas shown in blue in Figure 2).

The Company has successfully increased the size of the resource and reserve through previous drilling programs. Any further increases have the potential to enhance the positive economics demonstrated in the recently announced Optimised Pre-Feasibility Study. The new drilling data will be incorporated into the resource models for the DFS which is expected to be completed in the second quarter of 2018.

The Company will also be looking to drill extensions of the major structural east-west trend which is highlighted from historical geophysics - see Figure 3. The focus of the drilling is to target new pegmatite systems not outcropping on the surface. During the Phase 2 drilling program, the Company discovery of the Northern Pegmatite which doesn't outcrop at the surface. The areas in the west have not been extensively explored and the Company believes there is potential to identify new systems.

The Company will also complete some condemnation drilling to sterilise areas required for the process plant, and combined waste and tailings storage areas.

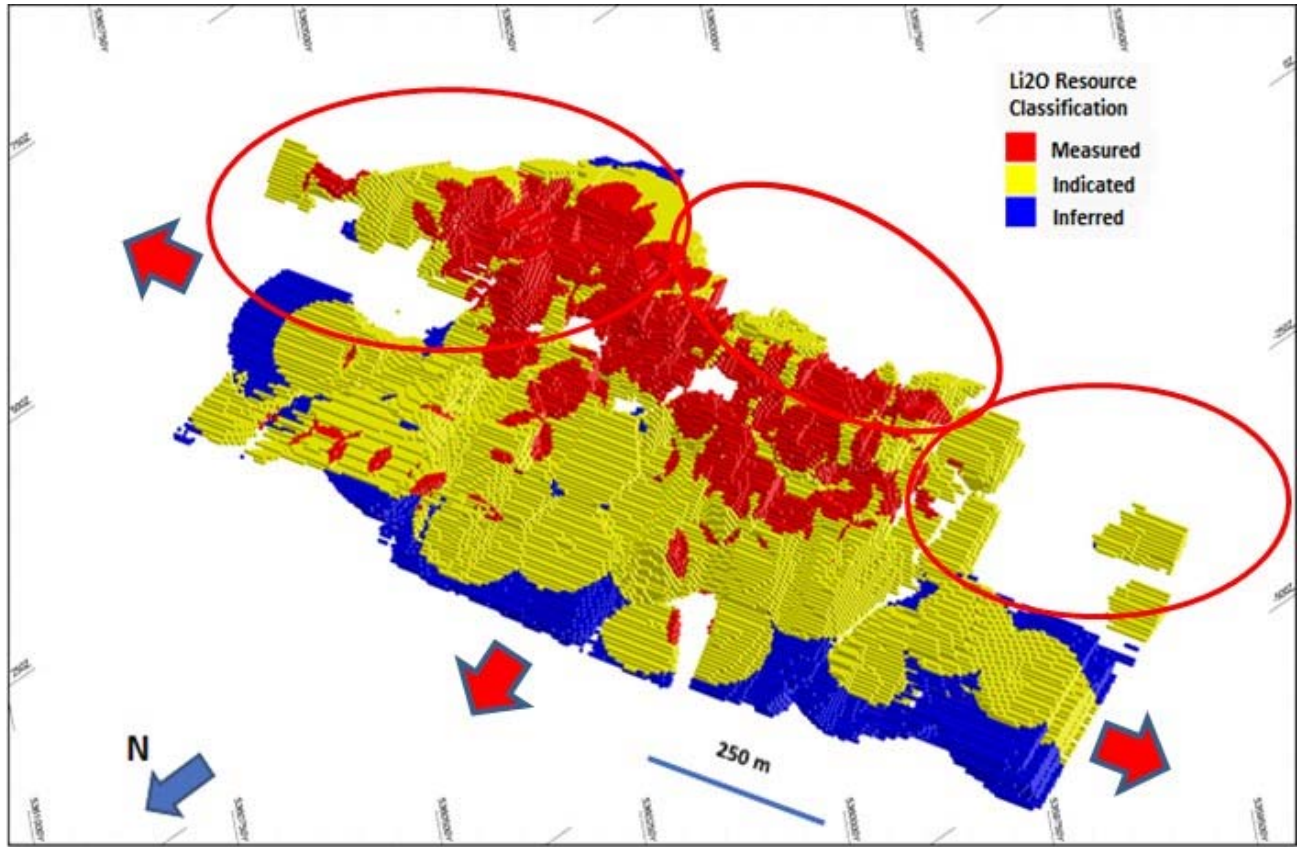


Figure 1: Potential areas to expand the Authier resource

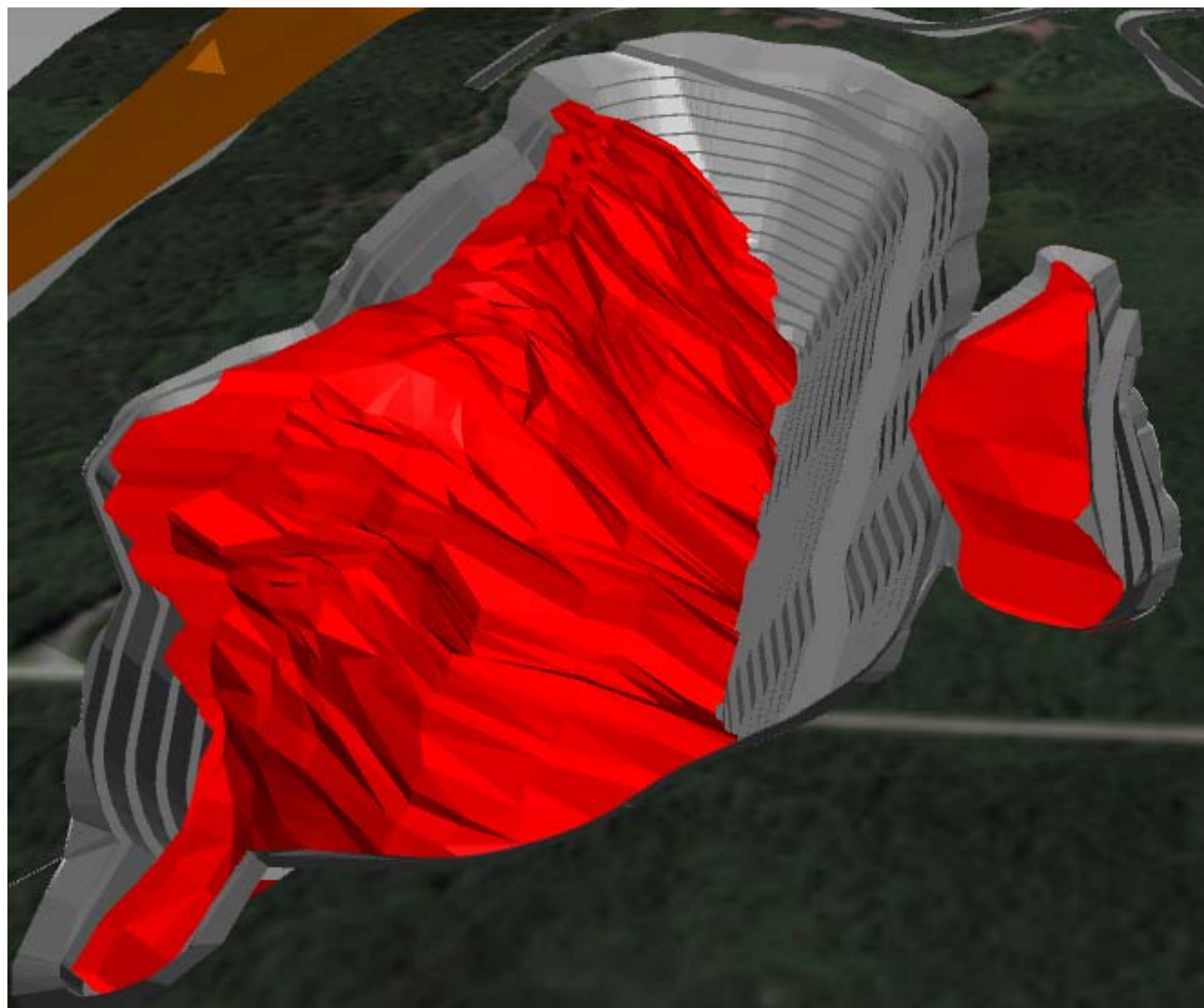


Figure 2: Main Authier deposit (left) and Authier North (right) lithium solids model at 0.45% Li<sub>2</sub>O

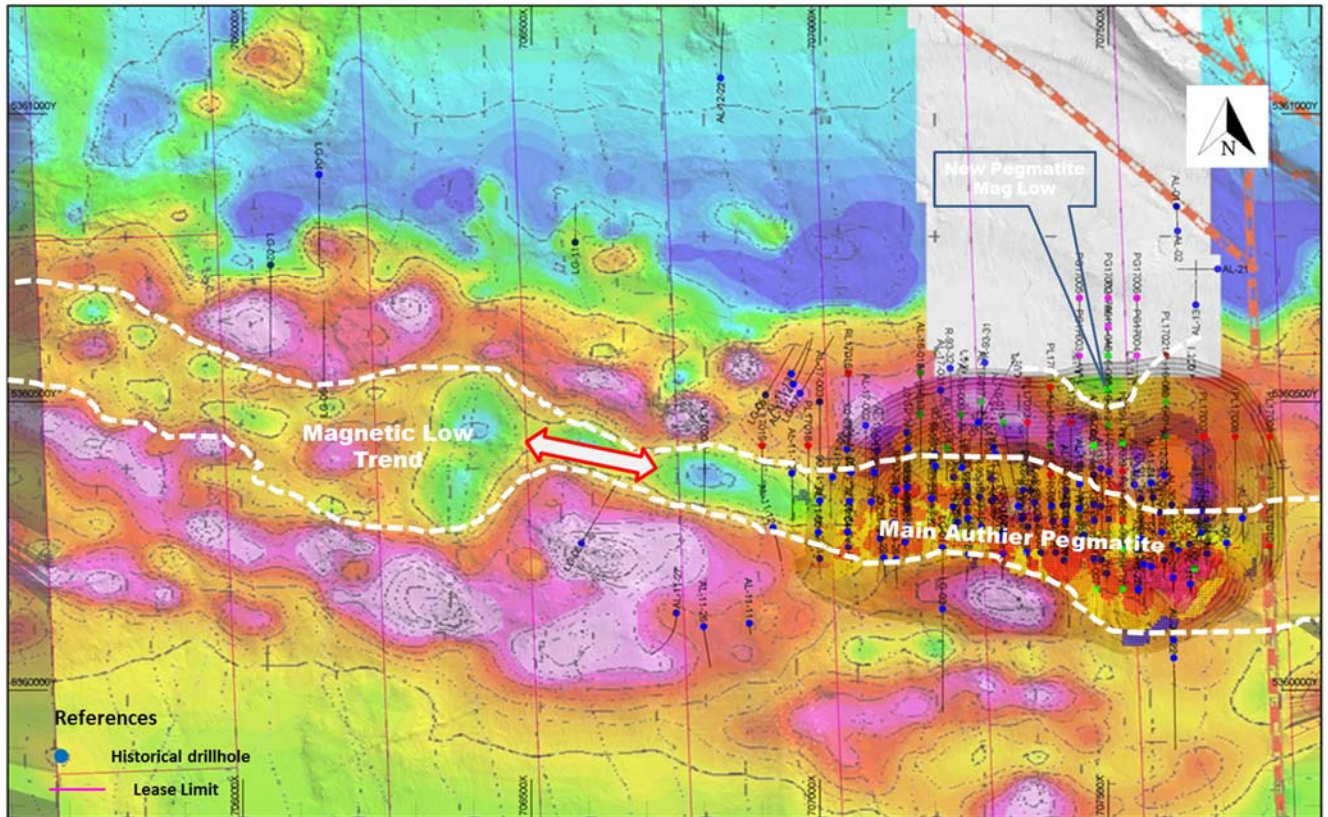


Figure 3: Main structural trend highlighted by historical geophysics

## Environmental and Permitting Work Programs

### Hydrogeological Survey

A ten-hole drilling program for the hydrogeology study has now been completed. The drill holes will be used to assess hydrogeological conditions prevailing in the project area. The information will be used to assess the current quality of the groundwater and to make the assessment of the potential projects impact on the ground water regime and quality in the area.

In addition, the data will be used to plan the pumping activities for the mine, and to provide information for the geotechnical engineering and geo-mechanics of the project. The program will improve the understanding of the project groundwater environment and is expected to mitigate the environmental risks attributable to the operation.

### Environmental Survey Update

The autumn flora and fauna field survey has now been completed. The survey included:

- Creating a vegetation inventory, including wetlands and species with special status;
- Inventory of fish and fish habitat;
- Inventories of wildlife species with special status; and



- Assessment of surface water quality.

No major issues have been identified. Final environmental reports will be completed by the first quarter of 2018.

### **Mining Lease Application Process**

The Company has now completed the project survey which is required for the Mining Lease approval process. The final four steps required to complete the Mining Lease application include, completion of Definitive Feasibility Study, public consultations, base line environmental work and rehabilitation plan. This is largely complete or in progress.

### **Stakeholder Engagement**

The Company is actively progressing the local community and First Nations stakeholder engagement programs. The program aims to ensure all environmental, social and economic concerns raised by stakeholders are integrated into the project development. Early discussions with the local La Motte council have not flagged any major issues and the council is looking forward to new investment and job creation for the region.

## Western Australian Projects

Exploration tenure in Western Australia includes leases covering some 1780km<sup>2</sup> in the world class Pilgangoora lithium district. The 141km<sup>2</sup> Mallina project, E47/2983, has been the main focus of work during 2017 and three new zones of spodumene pegmatite have been identified, including the recent Area C prospect discovery. A potential for gold mineralisation has also been recognised at the Deep Well and Friendly Creek areas. Pilbara tenure is displayed in the figure below.

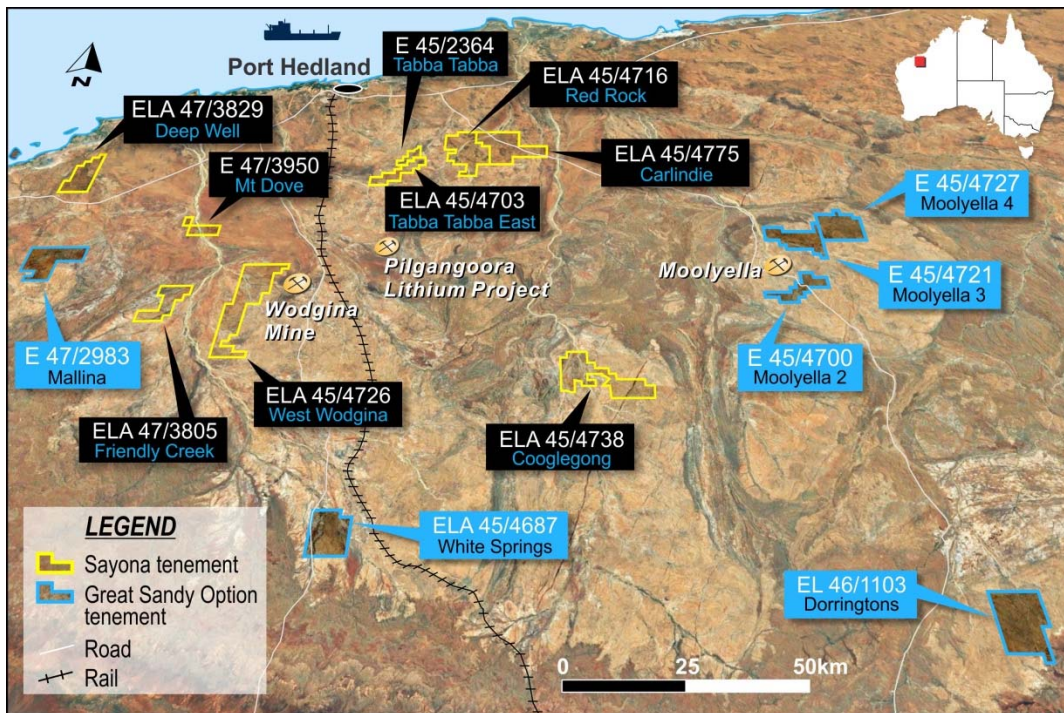
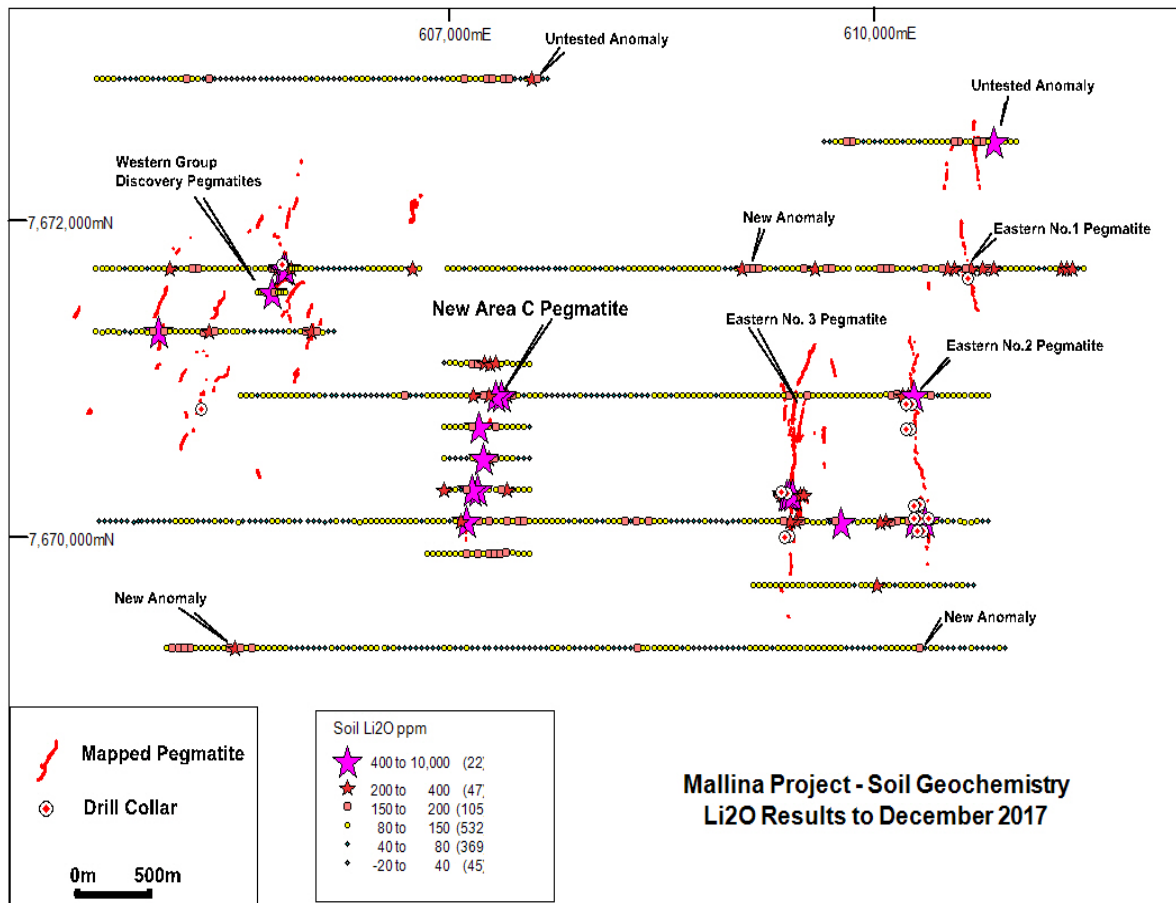


Figure 4: Sayona Lithium Tenements in Western Australia

## Mallina Project

Exploration at Mallina continued within a 6x3 kilometre zone where three groups of spodumene pegmatites have been identified to date. Work was focussed at the Area C prospect where spodumene pegmatites were first identified last quarter. Additional rock sampling has confirmed the presence of strong lithium mineralisation, with a maximum 4.27% Li<sub>2</sub>O returned in pegmatite with visual spodumene. Soil sampling (354 samples) returned a strong, coherent lithium anomaly as well as defining unexplained lithium anomalies in the more regional sampling. Results are displayed in the figure below.



**Figure 5 Mallina Pegmatites and New Area C Prospect Geochemistry**

Results are considered encouraging. The infill soil sampling at Area C returned up to 1399ppm Li<sub>2</sub>O, and using a 150ppm Li<sub>2</sub>O threshold (displayed by green hatch in the figure below), results define a coherent anomaly over 1200m in strike extent. This anomaly is centred over variably outcropping pegmatite up to 15m in surface width (true width not known).

Statutory requirements to allow drilling at the Area C prospect have been lodged and approved. Planning for drill testing the Area C prospect and other target areas within the Mallina tenement is well advanced.

### Regional Lithium Projects

During the quarter, reconnaissance was made at the West Wodgina tenement, E45/4726. Twenty one rock samples were collected of granite and pegmatite to identify fractionation trends and help define the general prospectivity of the area. Results include elevated lithium and tin, indicating several areas for follow up sampling in the 2018 field season.

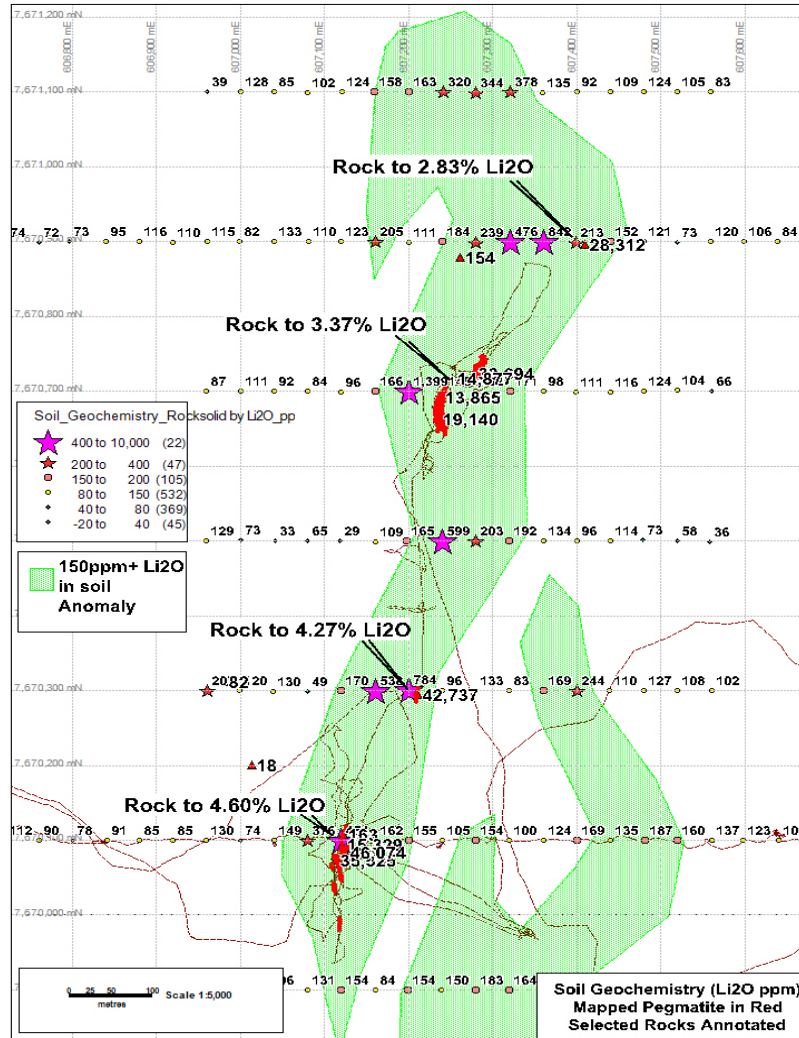


Figure 6 Area C Prospect Soil Geochemistry and Selected Rock assay Results

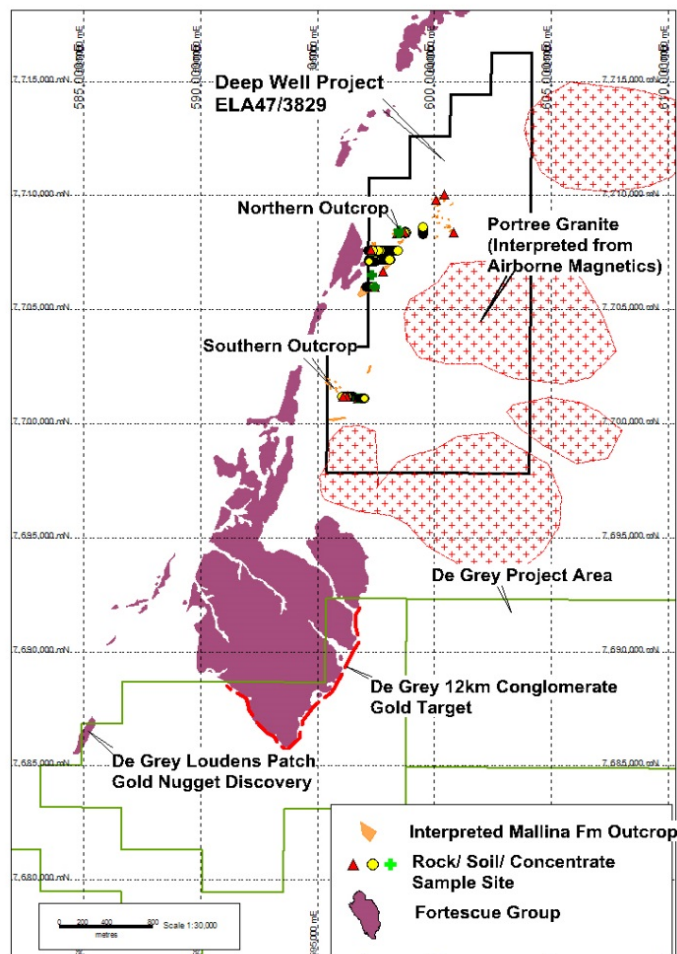
## Great Sandy Option

During the quarter, the Company made the first stage option payment to Great Sandy Pty Ltd ("Great Sandy") to acquire a 694 km<sup>2</sup> package of 6 tenements in the world-class Pilgangoora lithium district of Western Australia (see Figure 4).

The Great Sandy purchase terms include an option to acquire an 80% interest in all the tenements by making staged payments in cash or shares at Great Sandy's election of \$300,000 (current payment) within 12 months and \$300,000 within 24 months and free carrying Grant Sandy to Decision to Mine. At the Decision to Mine, Great Sandy can either elect to dilute or contribute to ongoing expenditure commitments or convert the 20% interest to a 2% gross smelter royalty.

## Deep Well Project

The Deep Well tenement application covers 119km<sup>2</sup> of a poorly outcropping sequence of Mallina Formation sediments, intruded to the east by nested plutons of the Portree granite. Volcanic rocks of the Fortescue aged Mt Roe Basalt in the western tenement region are margined eastwards by poorly outcropping, highly weathered sediments with local pyrite and conglomerate textures (see figure below). The age or origin of these conglomerates is uncertain, and mapping has not been able to identify sedimentary units or horizons that can be traced along strike. The geological setting of the tenement however indicates a potential for conglomerate hosted gold mineralisation, which has recently been identified at several nearby areas.



**Figure 7 Deep Well Tenement, Fortescue Group and Nearby Gold Prospects**

Work in the quarter included commencement of orientation geochemistry with 147 soil and 22 rock samples collected. Results for the first sample batch of coarse soil material (59 samples) returned subdued assay results up to 2.5ppb gold. Results from the finer sample fractions are pending.

Pyrite cubes are locally abundant in several areas of the bedrock sediments, providing encouragement that high energy sedimentary processes may have occurred during

deposition. To help identify potential heavy mineral assemblages (magnetite, uranium, and chromite etc), which may be associated with gold mineralisation, a small number of stream sediment and loam samples were collected. These were concentrated by panning to give a heavy mineral concentrate. Readings of magnetic susceptibility and radioactivity (scintillometer readings of counts per second) have also been collected along traverse and sample lines. Interpretation of these results is on-going.

Further work is planned, to expand the geochemical and geophysical programmes and carry out further geological mapping.

### **Other Project Areas**

No exploration was carried out at either the Mt Edon Lithium project or the East Kimberley Graphite project during the quarter.

## **Corporate Activities**

### **Capital Raising**

During the quarter, the company completed a pro rata renounceable rights issue, comprising an offer on the basis of one (1) new share for every two (2) existing shares held at an issue price of 1 cent (\$0.01) per share. Under the Rights Issue, 487,409,777 new shares were issued raising \$4,874,097 before the costs of the offer. The Rights Issue is partially underwritten up to \$2.0 million by Patersons Securities Limited, who also acting as the lead manager to the issue.

### **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](http://www.sayonamining.com.au)

### **Reference to Previous ASX Releases for Authier, Canada**

This presentation refers to the following previous ASX releases:

- Authier JORC Resource Expanded , 11 December 2017
- Authier Maiden JORC Ore Reserve, 11 December 2017
- Authier PFS, 11 December 2017

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.

## Competent Person Statement

The information in this report relating to projects on Western Australia 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 Attagold Pty Ltd ("Attagold") which provides geological services to Sayona.

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.

## Tenement Schedule

Australian Tenement Schedule				
Tenement	Name	Status	Interest at Start 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*
E45/4703	Tabba Tabba East	Granted	100%	100%
E45/4716	Red Rock	Granted	100%	100%
E45/4726	West Wodgina	Granted	100%	100%
E45/4738	Cooglegong	Granted	100%	100%
E45/4775	Carlindie	Granted	100%	100%
E80/4511	Western Iron	Granted	100%	100%
E80/4949	Corkwood	Granted	100%	100%
ELA80/4968	Keller	Application	100%	100%
ELA47/3802	Friendly Creek	Application	100%	100%
ELA47/3829	Deep Well	Application	100%	100%
<b>Great Sandy Pty Ltd Option</b>				
E47/2983	Mallina	Granted	Option Rights to 80%	Option Rights to 80%
E46/1103	Dorringtons	Granted	Option Rights to 80%	Option Rights to 80%
E45/4687	White Springs	Granted	Option Rights to 80%	Option Rights to 80%
E45/4721	Mt Edgar	Granted	Option Rights to 80%	Option Rights to 80%
E45/4727	Mt Edgar	Granted	Option Rights to 80%	Option Rights to 80%
E45/4700	Mt Edgar	Granted	Option Rights to 80%	Option Rights to 80%

Canadian Tenement Schedule				
Claim Number	Registered holder	Registration Date	Expiration Date	Area (hect)
2116146	Sayona Mining Limited	8/8/2007	7/8/2019	43.24
2116154	Sayona Mining Limited	8/8/2007	7/8/2019	42.88
2116155	Sayona Mining Limited	8/8/2007	7/8/2019	42.87
2116156	Sayona Mining Limited	8/8/2007	7/8/2019	42.86
2183454	Sayona Mining Limited	2/6/2009	1/6/2019	42.85
2183455	Sayona Mining Limited	2/6/2009	1/6/2019	42.84
2187651	Sayona Mining Limited	2/9/2009	1/9/2019	21.39
2187652	Sayona Mining Limited	39853	43474	21.29
2192470	Sayona Mining Limited	22/10/2009	21/10/2019	21.08
2192471	Sayona Mining Limited	22/10/2009	21/10/2019	21.39
2194819	Sayona Mining Limited	19/11/2009	18/11/2019	42.82
2195725	Sayona Mining Limited	27/11/2009	26/11/2019	29.03
2219206	Sayona Mining Limited	22/04/2010	21/04/2018	5.51
2219207	Sayona Mining Limited	22/04/2010	21/04/2018	17.06
2219208	Sayona Mining Limited	22/04/2010	21/04/2018	55.96
2219209	Sayona Mining Limited	22/04/2010	21/04/2018	42.71
2240226	Sayona Mining Limited	9/7/2010	8/7/2018	42.71
2240227	Sayona Mining Limited	40428	43319	42.71
2247100	Sayona Mining Limited	23/08/2010	22/08/2018	42.75
2247101	Sayona Mining Limited	23/08/2010	22/08/2018	53.77

### JORC Code, 2012 edition – Table 1 (section 1; Sampling Techniques and Data)

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling</i></li> </ul>	<ul style="list-style-type: none"> <li>Geochemical samples have been collected as a first pass assessment and orientation of the project area. The samples have an irregular spacing reflecting the reconnaissance nature of the assessment.</li> <li>Samples are grab samples.</li> <li>The presence or absence of mineralisation was initially determined visually by the field geologist.</li> <li>The type of geochemical sampling is a standard approach during the initial style reconnaissance that has been carried out.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, no drilling has been carried out</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, no drilling has been carried out</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, no drilling has been carried out. This information is of insufficient detail to support any Mineral Resource Estimation.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, no drilling has been carried out</li> <li>• No measures have been taken to ensure sampling is statistically representative of the in situ sampled material. The collection methodology is considered appropriate for this early stage assessment of the project.</li> <li>• The sample size is considered appropriate to the early stage of exploration carried out.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias)</i></li> </ul>	<ul style="list-style-type: none"> <li>• Analysis was carried out by ALS, Brisbane which is a certified laboratory in compliance with AS/NZS-9001:2000. Analysis, of a 48 element suite, was determined by mixed acid digest followed by ICP-MS61. Six samples which reported high Li values by this method were re-assayed by peroxide fusion, method ME-ICP89, to give a high precision result. For samples collected at the Deep Well project low level gold determination by ST43 super trace aqua regia extraction and ICPMS finish was carried out. This is considered a</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>and precision have been established.</i>	<p>total digest appropriate to the samples submitted.</p> <ul style="list-style-type: none"> <li>• Not used</li> <li>• No additional quality control measures beyond that of the Laboratory QA/QC were implemented.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The results are considered acceptable and have been reviewed by multiple geologists. The company conducts internal data verification protocols which have been followed.</li> <li>• Li has been converted to Li<sub>2</sub>O for the purposes of reporting. The conversion used was Li<sub>2</sub>O = Li x 2.153. No other adjustments to assay data has been undertaken</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were located during collection by handheld GPS</li> <li>• The grid system used is Australian Geodetic MGA Zone 50 (GDA94).</li> <li>• The level of topographic control offered by the handheld GPS is considered sufficient for the work undertaken</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• There was no predetermined grid spacing to the rock sampling program.</li> <li>• The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation procedures.</li> <li>• Samples have not been composited.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sampling was carried out over small areas of the project and it is not known if they are representative.</li> <li>• Not applicable, no drilling has been carried out</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Industry standard sample collection and storage have been reported by the vendor geologist.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits or reviews of the data have been conducted at this stage</li> </ul>

## JORC Code, 2012 edition – Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Mallina project, E47/2983 is part of a larger tenement portfolio held under Option Agreement with Great Sandy Pty Ltd. The Option terms and tenement details have been previously reported, for example in 21<sup>st</sup> December 2016 ASX release titled 'Option to Acquire</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<p>New Pilbara Spodumene Discovery’.</p> <ul style="list-style-type: none"> <li>The Deep Well project is application E47/3829 which is pending grant and which has no known reasons why this should not proceed to grant.</li> <li>There are no impediments that have been identified for operating in the project areas</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>At Mallina past exploration has focused on the gold and base metal potential of the area.</li> <li>Together with government data provided by GSWA past information has allowed recognition of the projects potential.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Lithium is being targeted within rare metal pegmatites which represent the most fractionated and evolved pegmatite type. Sayona’s main focus is in discovery of albite-spodumene pegmatite types which host high grade lithium mineralisation. Rare metal pegmatites are uncommon, typically hosted in greenstone rocks near to granite intrusion. The Deep Well project is being explored to determine if gold mineralisation associated with heavy minerals which accumulated during deposition in the late Archaean is present.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling has not been carried out.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No variation to laboratory reported assays has been made.</li> </ul>
<i>Relationship between mineralisation</i>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration is at an early stage and information contains insufficient data points to allow these relationships to be</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	reported
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample plans are attached</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All relevant assay results are reported herein.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The exploration reported herein is at a very early stage but results are consistent with geological and other data</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further mapping and follow up sampling is required to define lithium targets and mineralisation for drill testing</li> </ul>