ASX ANNOUNCEMENT

19 OCTOBER 2017

FORTESCUE AGED ROCKS AND CONGLOMERATE TARGETS IDENTIFIED AT DEEP WELL AND NEW SPODUMENE PEGMATITES AT MALLINA

Highlights

- **Fortescue aged rocks identified on Deep Well tenement application with potential for conglomerate hosted gold occurrences**
- **15km strike extent to target corridor**
- **New area of spodumene pegmatite identified at Mallina project – Area C Prospect with spodumene rock chip results up to 4.61% Li_2O.**
- **Pegmatites identified along an 800m+ strike extent with soil sampling confirming a strong lithium anomaly**

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to report that exploration has progressed at several project areas in the Pilbara. Recent work at a new tenement application, Deep Well, has highlighted the potential for conglomerate hosted gold mineralisation. Ongoing work at Mallina includes the discovery of a new spodumene pegmatite system.

Figure 1; **Conglomerate outcrop and quartz pebble conglomerate, Deep Well Project**

Corey Nolan, Chief Executive Officer, commented *"The Company is encouraged by the identification of further zones of spodumene mineralisation at Mallina, where three pegmatite systems in a 5km x 3km area have now been discovered, representing a large mineralised system. Also, recent geological work at Deep Well which has identified Fortescue Group rocks prospective for conglomerate hosted gold, displays the inherent value of the 2,000+km² tenement holding Sayona has in the Pilbara."*

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DEEP WELL PROJECT

The Deep Well tenement application covers 119km^2, and was pegged to secure an area of interpreted granites intruding Mallina Formation sediments. The tenement geology is largely obscured by cover, but the interpreted geological setting appears similar to the Mallina project to the south where spodumene pegmatites are present.

Reconnaissance has failed to locate outcropping pegmatite but has identified volcanic rocks along the western tenement area. These volcanics include pillow basalts, flows and mafic fragmental typical of the Fortescue aged Mt Roe Basalt. They appear to be part of a previously unrecorded portion of Fortescue rocks, which the GSWA maps to the west and south (see figure 1 below). Poorly outcropping highly weathered volcanic and quartz pebble conglomerate are present east of the volcanics. The age of these conglomerates is uncertain, but their location adjacent to Fortescue aged volcanics indicates a potential for conglomerate hosted gold mineralisation, which has recently been identified at several nearby areas.

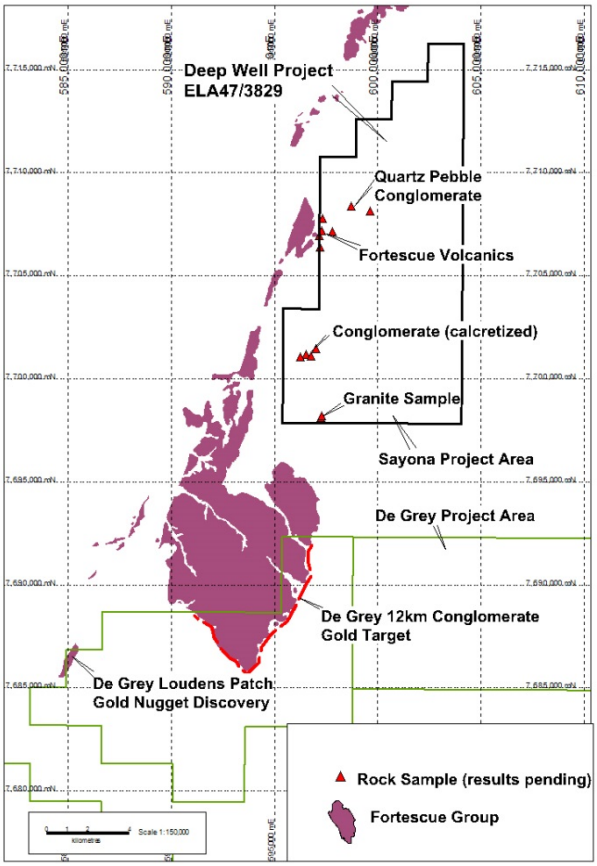

Figure 1, Deep Well Tenement, Fortescue Group and Nearby Gold Prospects

The conglomerate ranges from quartz pebble conglomerate to those being dominated by felsic volcanic and chert clasts. In some areas the rocks are strongly calcretised and may represent paleo-drainages, though sparse quartz veining suggests they have been affected

by past deformation and are of a tertiary or older age. Further work is planned in order to better understand the areas geology and it's potential.

MALLINA PROJECT

At the Mallina project a new area of spodumene pegmatite has been identified at the Area C prospect. This area lies centrally between the Discovery and the Eastern group of pegmatites which together cover some 5km^2 x 3km^2.

The Area C pegmatites are intermittently outcropping along an 800m+ strike extent and have been observed up to 15m in width. The true width or length of the system is not known. Assay results of the five rock samples collected range up to 4.61% Li_2O with spodumene the only observed lithium mineral. Results are displayed in the figure below.

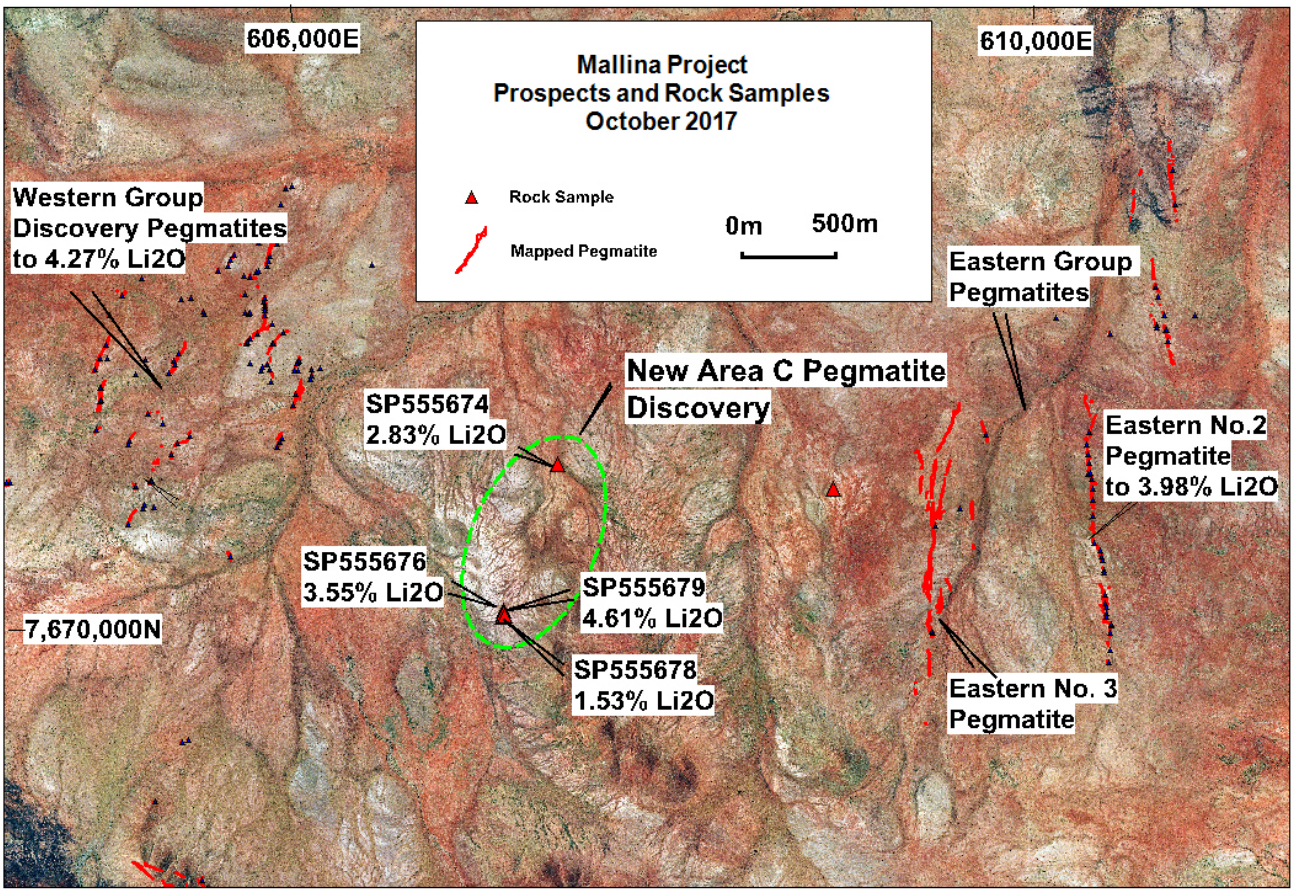

Figure 2, Mallina Pegmatites and New Area C Prospect Rock Sampling

Soil geochemistry has confirmed the anomalism at the Area C Prospect, although only two soil traverses 800m apart have been completed.

Further soil sampling, geological reconnaissance and interpretation is being carried out to help advance the prospect to drill stage.

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

The information in this report 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 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

Table 1 Rock Geochemical Results

Sample	Easting	Northing	Li2O ppm	Li2O %	Location
SP555674	607409	7670896	28,300ppm	2.83%	Area C
SP555675	608895	7670764	36ppm	0%	Regional Pegmatite
SP555676	607113	7670073	35,500ppm	3.55%	Area C
SP555677	607122	7670108	162ppm	0.01%	Area C
SP555678	607120	7670095	15,300ppm	1.53%	Area C
SP555679	607125	7670084	46,100ppm	4.61%	Area C

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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 problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• 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. • Samples are grab samples. • The presence or absence of mineralisation was initially determined visually by the field geologist. • The type of geochemical sampling is a standard approach during the initial style reconnaissance.
Drilling techniques	• *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).*	• Not applicable, no drilling is reported
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Not applicable, no drilling is reported
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Not applicable, no drilling is reported. This information is of insufficient detail to support any Mineral Resource Estimation.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Not applicable, no drilling is reported • • 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

Criteria	JORC Code explanation	Commentary
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	project. • The sample size is considered appropriate to the early stage of exploration carried out.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• 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. Four samples which reported high Li values by this method were re-assayed by peroxide fusion, method ME-ICP89, to give a high precision result. This is considered a total digest appropriate to the samples submitted. • Not used • No additional quality control measures beyond that of the Laboratory QA/QC were implemented.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• The results are considered acceptable and have been reviewed by multiple geologists. The company conducts internal data verification protocols which have been followed. • Li has been converted to Li_2O for the purposes of reporting. The conversion used was $Li_2O = Li \times 2.153$. No other adjustments to assay data has been undertaken
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Samples were located during collection by handheld GPS • The grid system used is Australian Geodetic MGA Zone 50 (GDA94). • The level of topographic control offered by the handheld GPS is considered sufficient for the work undertaken
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• There was no predetermined grid spacing to the rock sampling program. • The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation procedures. • Samples have not been composited.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Sampling was carried out over small areas of the project and it is not known if they are representative. • Not applicable, Not applicable, no drilling is reported

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• Industry standard sample collection and storage have been reported by the vendor geologist.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of the data have been conducted at this stage

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
Mineral tenement and land tenure status	• *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.* • *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.*	• 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 21st December 2016 ASX release titled 'Option to Acquire New Pilbara Spodumene Discovery'. • The Deep Well tenement application E47/3829 is proceeding through the grant process. There are no reasons known to indicate it will not be granted to Sayona. • There are no impediments that have been identified for operating in the project areas
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• At Mallina past exploration has focused on the gold and base metal potential of the area. • Little past exploration has been carried out at the Deep Well project. GSWA mappinfg and open file data such as airborne magnetics data have been used to infer bedrock geology.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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. • At Deep Well the target is gold associated with sediments of the Fortescue Group.
Drill hole Information	• *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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis*	• Not applicable, no drilling is reported.

Criteria	JORC Code explanation	Commentary
	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.	
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No variation to laboratory reported assays has been made.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• Exploration is at an early stage and information contains insufficient data points to allow these relationships to be reported
Diagrams	• *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.*	• Sample plans are attached
Balanced reporting	• *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.*	• All relevant assay results are reported herein.
Other substantive exploration data	• *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.*	• The exploration reported herein is at a very early stage but results are consistent with geological and other data
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further mapping and follow up sampling is required to define lithium targets and mineralisation for drill testing. • Further exploration is required at Deep Well to provide context to the observations recorded to date.