

21 DECEMBER 2016

OPTION TO AQUIRE PILBARA LITHIUM PORTFOLIO WITH NEW SPODUMENE DISCOVERY ASSAYING UP TO 2.13% Li₂0

Highlights

- Option to acquire 871 km² package of tenements in the world-class Pilgangoora district, including the Mallina project with newly identified spodumene pegmatite:
 - $\circ~$ Rock chip samples up to 2.13% Li_2O in discovery pegmatite. The average of the 10 rock chip samples collected to date is 1.28% Li_2O
 - Spodumene crystals over 20 centimetres in diameter identified within the Discovery pegmatite, along a 500 metre strike zone
 - Pegmatite swarm remains unexplored; high potential for additional discoveries

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to announce that it has secured an option from Great Sandy Pty Ltd ("Great Sandy") to acquire a 871 km² package of tenements in the world-class Pilgangoora lithium district of Western Australia.

Recent reconnaissance exploration conducted on the Mallina tenement has located significant zones of visible spodumene mineralisation within a pegmatite. Sample results include rock chip assays up to 2.13% Li₂O within a pegmatite which has been mapped over 500 metres of strike extent. The average of the 10 rock chip samples collected to date is 1.28% Li₂O. The Mallina area is a new spodumene discovery and has never been previously explored for its lithium potential.

The Mallina project is located 80 kilometres west of the Pilgangoora lithium deposits of Altura Mining and Pilbara Minerals, and compliments the Company's other 1,000 km² lithium exploration portfolio in the Pilbara region.

The company plans to commence mapping and geochemical sampling in early 2017, to generate drill targets.

The purchase terms include an option to acquire 80% interest in all the tenements by making staged payments in cash or shares at Great Sandy's election of \$300,000 within 12 months and \$300,000 within 24 months (or \$500,000 within 18 months at Sayona's election), and free carrying Grant Sandy to Decision to Mine. Great Sandy can elect to convert the 20% interest to a 2% gross smelter royalty. Sayona is required to make a \$30,000 deal signing payment and commit to minimum expenditure of \$100,000 within the first 12 months.



Mallina Spodumene Project

The Mallina project overlies Archaean sediments and mafic volcanics which have been intruded by post tectonic monzogranite. The area does not appear to have been prospected for pegmatite mineralisation before the recent discovery, despite the combination of post tectonic granite, structure and proximity to the Wodgina / Pilgangoora lithium discoveries to the east.

The discovery pegmatite was recently identified during routine reconnaissance of the area. Twenty-two rock samples were collected from granite and pegmatite. Two of the samples, NEAC1362 and NEAC1363 returned assays of 5,755 ppm lithium (1.23% Li₂O) and 3,969ppm lithium (0.85% Li₂O), together with highly anomalous rubidium, caesium, tin and tantalum results (see table 2). The geochemical results are indicative of complex, rare metal highly fractionated, LCT pegmatite. Petrology and XRD analysis confirmed the lithium mineralisation is present as the mineral spodumene.

Subsequent sampling of the discovery area confirmed anomalous lithium, with the highest of the 10 samples returning up to 9,910 ppm lithium (2.13% Li₂O) and extending the strike of the pegmatite to over 500 metres. Of the 10 samples collected over the discovery pegmatite to date along its 500m strike, the average assay is 1.28% Li₂O.

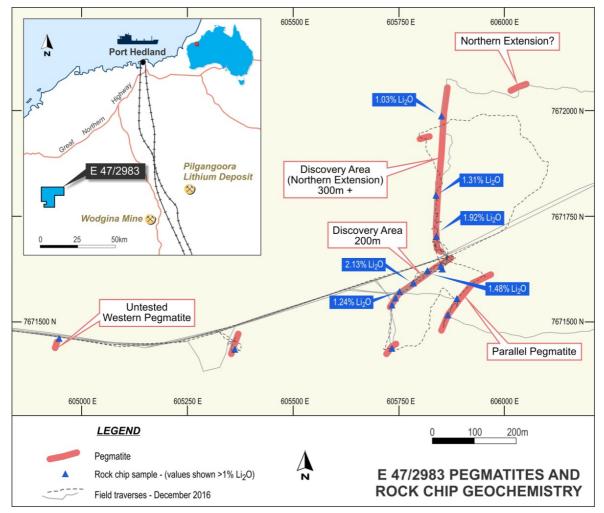


Figure 2: Discovery Pegmatite Area, Mallina Project



The Company's reconnaissance site visit confirmed visual spodumene mineralisation within the pegmatite, with crystals over 20 centimetres in size, (see Figure 1).



Figure 1: Spodumene crystal in the weathered discovery pegmatite and petrography

The pegmatite is weathered, in part silicified and has poor outcrop, typically visible over widths of 3 to 5 metres and up to 8 metres, but without the contacts to adjacent greenstone rocks being observed. Its true width is not known.

The pegmatite typically has fine grained as well as very coarse portions. Petrology has identified that the fine pegmatite material contains up to 25% spodumene, as well as being present in the coarser grained pegmatite. Lepidolite has not been observed to date.

Multiple pegmatites have been observed in the area but have not been systematically mapped or sampled. Significantly, a separate pegmatite in the swarm, located 800 metres to the west, has returned 1,970ppm lithium (0.42% Li₂O), indicating multiple mineralised pegmatite's are present in the system. There is very good potential for additional discoveries in the area of the discovery pegmatite and within the greater 140 km^2 tenement area.

The Company plans to commence mapping and geochemical sampling over the discovery pegmatite swarm in early 2017, to define key drill targets.

Other Project Areas

The Option includes three other project area comprising 8 tenements. The Mt Edgar project, located east of Marble Bar comprises 6 exploration licence applications covering 440km² adjacent to the Moolyella tin-tantalum field and post tectonic monzogranite.

The Dorringtons project is located 15 kilometres to the south east of Nullagine. It covers the post tectonic Split Rock granite and eluvial tantalite workings. The White Springs project is located 170 kilometres south of Port Hedland and secures historic tin and tantalite prospects, associated with Split Rock granite pegmatites.



All the project areas remain virtually unexplored for lithium mineralisation despite evidence of fertile pegmatite systems being present.

Tenement Details

Table 1 Option Tenement Schedule				
Project	Tenements	Status Are. (block		
Mallina	E47/2983	Granted 13/8/2014	44	
Dorringtons	E46/1103	Granted 10/8/2016	40	
White Springs	E45/4687	Pending, applied 22/1/2016	30	
Mt Edgar	E45/4721	Pending, applied 15/3/2016	39	
Mt Edgar	E45/4727	Pending, applied 21/3/2016	42	
Mt Edgar	E45/4787	Pending, applied 27/5/2016	8	
Mt Edgar	E45/4788	Pending, applied 27/5/2016	25	
Mt Edgar	E45/4700	Pending, applied 8/2/2016	23	
Mt Edgar	E45/4723	Pending, applied 17/3/2016	23	

Option Terms

The Heads of Agreement with Great Sandy Pty Ltd, includes the following terms:

- \$30,000 non-refundable deposit paid on signing;
- 24 month Option period whereby Sayona may acquire 80% of the tenements with Great Sandy retaining a 20% Free Carried Interest to Decision to Mine ("FCI");
- Option Payments of \$300,000 after 12 months and \$300,000 after 24 months from date;
- Sayona also has the option to acquire 80% at any time for \$500,000 within the first 18 months;
- \$100,000 minimum expenditure within first 12 months;
- Great Sandy may convert its 20% FCI to 2% Gross Production Royalty at any time;
- SYA may withdraw from the agreement at any time after the expenditure of \$100,000 in exploration;
- SYA to acquire rights to all pegmatite related minerals (including Li, Sn, Ta, W) with Great Sandy retaining the rights to all non-pegmatite minerals (including gold and base metals);
- A 10 kilometre Area of Influence will be in place around all tenements included in the agreement. Any tenements applied for or acquired by either party after the



signing of the initial agreement within this 10 kilometre zone will form part of the agreement;

- Pegmatite mining activities will always take priority over other mining activities; and
- SYA to keep tenements in good standing.

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 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 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 2 Rock Geochemistry

Sample	East	North	Li	Li2O	Li20_%	Cs	Rb	Та
NEAC1353	603225	7667200	119.8	258		12	140	1
NEAC1354	603970	7668565	88.7	191		12	152	1
NEAC1362	605752	7671572	5755	12391	1.24	163	2615	56
NEAC1363	605850	7671632	3968.9	8545	0.85	129	2408	60
NEAC1364	607134	7672338	16.1	35		5	111	2
NEAC1365	607204	7672343	14.7	32		9	185	2
NEAC1366	607307	7672348	13.5	29		6	154	1
NEAC1367	604223	7668611	43.1	93		12	137	2
NEAC1368	604472	7668521	11.9	26		11	218	3
NEAC1369	604472	7668523	10.2	22		4	76	2
NEAC1370	604471	7668498	12.1	26		7	200	2
NEAC1371	604472	7668460	7.4	16		12	137	7
NEAC1372	604476	7668430	4.5	10		16	171	2
NEAC1373	604437	7668368	19.8	43		7	209	2
NEAC1374	604416	7668336	7.1	15		7	198	9
NEAC1375	604406	7668283	28.1	60		24	106	3
NEAC1376	604406	7668283	20.8	45		23	177	3
NEAC1377	604406	7668283	31	67		21	195	5
NEAC1378	604406	7668283	17.7	38		32	202	4
NEAC1379	604405	7668214	18.4	40		16	228	3
NEAC1380	610516	7672027	6.3	14		3	160	2
NEAC1381	610559	7671870	10	22		9	120	1
NEAC1382	612414	7668757	8.1	17		5	162	2
L103918	605853	7671625	3390	7299	0.73	122	2560	57
L103919	605818	7671622	6890	14834	1.48	162	2890	72
L103920	605794	767607	6030	12983	1.30	158	3250	110
L103921	605785	7671592	9910	21336	2.13	138	2930	87
L103922	605742	7671557	4000	8612	0.86	156	2870	70
L103923	605734	7671540	212	456		178	3290	75
L103924	605734	7671438	15	32		8	265	3
L107589	605,839	7,671,703	8910	19183	1.92	139	2100	58
L107590	605,838	7,671,799	6100	13133	1.31	79	1500	64
L107591	605,850	7,671,988	4790	10313	1.03	199	3560	234
L107594	606,376	7,671,460	62	133		58	791	102
L107595	605,866	7,671,517	33	71		118	2780	51
L107596	605,887	7,671,555	73	157		135	2810	57
L107597	605,362	7,671,435	613	1320	0.13	134	2690	57
L107598	604,947	7,671,461	1970	4241	0.42	138	2630	98

Note: Datum is Australian Geodetic MGA Zone 50 (GDA94)



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. 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 has been carried out
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 has been carried out
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 has been carried out. This information is of insufficient detail to support any Mineral Resource Estimation.
Sub-sampling techniques and	 If core, whether cut or sawn and whether quarter, half or all core taken. 	 Not applicable, no drilling has been carried out No measures have been taken to ensure sampling



Criteria	JORC Code explanation	Commentary
sample preparation	 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. Quality control procedures adopted for all subsampling 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. 	 is statistically representative of the in situ sampled material. The collection methodology is considered appropriate for this early stage assessment of the project. The sample size is considered appropriate to the early stage of exploration carried out.
<i>Quality of assay data and laboratory tests</i>	 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 Bureau Veritas, Perth which is a certified laboratory in compliance with AS/NZS-9001:2000. Analysis was determined by sodium peroxide fusion followed by ICP-OES. 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 have been provided by the vendor party. Site visit by a Sayona geologist has confirmed spodumene mineralisation at surface in the areas of elevated lithium assay results, consistent with reported assay grades. Independent laboratory check sampling has not been carried out. Li has been converted to Li₂O for the purposes of reporting. The conversion used was Li₂O = Li x 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 	 There was no predetermined grid spacing to the program. The data spacing and distribution is not sufficient to



Criteria	JORC Code explanation	Commentary
	 grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 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, no drilling has been carried out
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
<i>Mineral tenement and land tenure status</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. 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 Option terms and tenement details are reported within the main text of this ASX release. 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. The reported lithium mineralisation has been provided by the vendor geologist, Mr. Brian Richardson. Together with government data provided by GSWA past information has allowed recognition of the projects potential.
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.
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: easting and northing of the drill hole collar 	Drilling has not been carried out.



Criteria	JORC Code explanation	Commentary
	 elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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.	
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 geophysical 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 more detailed mapping and follow up sampling is required to identify lithium targets and mineralisation