

16 MAY 2017

#### PHASE 2 DRILLING EXPANDS MINERALISED ZONES AT THE AUTHIER PROJECT

#### Highlights

- New zones of mineralisation drilled in the eastern, western and at depth in the main Authier pegmatite
- New results demonstrate extensions of the main pegmatite orebody up to 150 metres to the east and 300 metres to the west
- Main pegmatite is now 1,100 metres in strike length and remains open in all directions
- Updated Mineral Resource estimate being prepared

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to announce the assay results from the remaining twenty six diamond drill holes completed in the Phase 2 drilling program at the Authier lithium project in Canada.

Significant intersections from the final twenty six diamond drill holes, include:

- Hole 17-13 (Eastern zone): 26m @ 1.26% Li<sub>2</sub>O from 163m, including: 15 m @ 1.42 % Li<sub>2</sub>O from 169m;
- Hole 17-22 (Gap zone deep): 29m @ 0.92 % Li<sub>2</sub>O from 227m, including 13 m @ 1.10 % Li<sub>2</sub>O from 232m and 4 m @ 1.46 % Li<sub>2</sub>O from 248m;
- Hole 17-30 (Eastern zone shallow): 10m @ 1.04 % Li<sub>2</sub>O from 30m; and
- Hole 17-08 (Western zone): 8 m @ 1.07 % Li2O from 165 m; and
- Hole 17-11(Northern pegmatite): 6 m @ 1.32 % Li<sub>2</sub>O from 23m, including 3m @ 1.76 % Li<sub>2</sub>O from 24m.

The new holes drilled east, west and within the gap zone of the main Authier pegmatite orebody have successfully demonstrated potential extensions of the mineralisation at opencut mineable depths. Mineralisation within the main pegmatite orebody has been extended 150 metres to the east, up to 300 metres to the west within the deeper levels and 200 metres west at shallower levels, and at depth in the gap zone. The main pegmatite is now over 1,100 metres in total strike length. The mineralisation remains open in all directions and further drilling will be required to test the full extent of deposit. Additionally, new holes in the northern pegmatite have delineated a narrow and gently dipping tabular body with the potential for shallow, open-cut mineable tonnage.

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A revised Mineral Resource estimate is currently being prepared to incorporate into the planned updated Pre-Feasibility Study following completion of the metallurgical and geotechnical work programs.

# Phase 2 Diamond Drilling Program

The Phase 2 drilling program comprised thirty-one diamond drill holes totaling 4,104 metres aiming to test extensions of the mineralisation and expand the current JORC Mineral Resource.

Table 1 - Authie	JORC Mineral Resou	rces Estimate (0.5% L	i₂O cut-off grade)	
Category	Tonnes (Mt)	Grades Li <sub>2</sub> 0	Contained Li <sub>2</sub> 0	
Measured	4.72	1.03%	48,519	
Indicated	7.13	1.10%	78,280	
Inferred	1.90	1.05%	19,901	
Total	13.74	1.07%	146,700	
Please see ASX release, Authier JORC Resource Significantly Expanded, 17 November 2016				

To expand the size of the JORC Resource, a drilling program was planned with the following objectives:

- Defining the mineralised boundaries and lifting the resource categories in zones in the
  western sector that were drilled during the 2016 drill program. The 2016 drilling program
  in the west zone highlighted a number of new high-grade intersections between 120
  to 220 metres vertical depth such as hole 16-11 which returned 46m @ 1.26% Li<sub>2</sub>O from
  135 metres including, 24m @ 1.62% Li<sub>2</sub>O from 137 metres;
- Testing for mineralisation in the eastern strike extension at both shallow and deeper levels at similar vertical level to hole 16-14 which intercepted 45 metres @ 1.08 % Li<sub>2</sub>O from 148 metres including, 8 metres @ 1.36 % Li<sub>2</sub>O from 149 metres and 18 metres @ 1.34 % Li<sub>2</sub>O from 171 metres;
- Testing for a vertical extension of the mineralisation in the gap zone to follow up hole 16-16 which intersected 28 metres @ 1.20 % Li<sub>2</sub>O from 158 metres including, 18 metres @ 1.32 % Li<sub>2</sub>O from 149 metres; and
- Assessing the resource potential of the new northern pegmatite which intersected 7m
   20 from 15 metres in the Phase 1 drilling program.



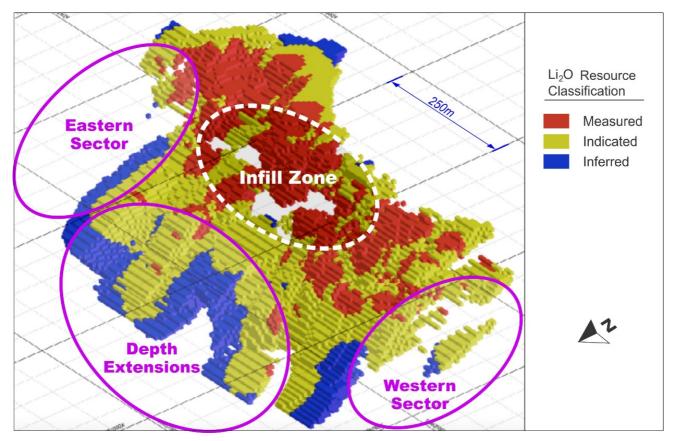


Figure 1: Target areas for the Phase 2 drilling program

## **Drilling Summary**

The Authier project mineralisation is now very well defined through nearly 22,000 metres of diamond drilling in 172 holes.

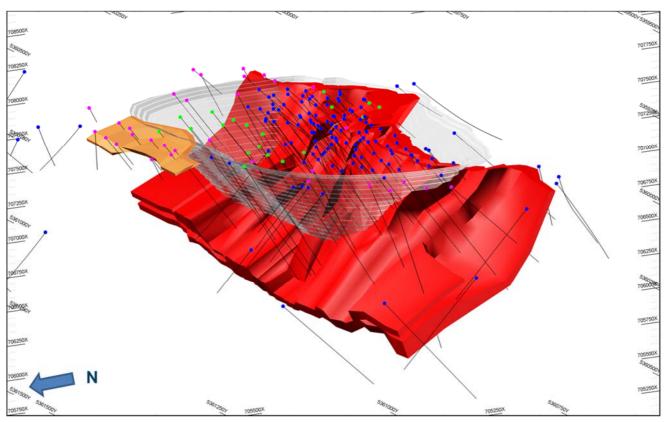
Since the Company reported the 2016 JORC Mineral Resource statement, drilling at Authier has extended the mineralisation within the main pegmatite orebody by 150 metres to the east, up to 300 metres to the west within the deeper levels, and 200 metres to the west at shallower levels, and at depth in the gap zone. The east-west strike length of the main deposit has now been extended from 850 metres to 1,100 metres, with an average thickness of 25 metres, ranging from 4 metres to 55 metres, dipping at 40 degrees to the north. The orebody remains open in the east, west and at depth.

The northern pegmatite has 670 metres of drilling completed in 13 holes. The northern pegmatite has a narrow and gently dipping geometry between 10 and 25 metres vertical depth, not visible from surface, and down-hole intersections typically averaging 5 to 8 metres in width. The pegmatite remains open in all directions. The Company aims to delineate a resource at shallow levels that would be amenable to open-cut mining at a low stripping ratio.

Mineralisation at the Authier project is hosted in spodumene-bearing pegmatite intrusions. The lithium mineralisation is related to multiple pulses of spodumene bearing quartz-feldspar pegmatites. Higher lithium grades are related with high concentrations of mid-to-coarse



spodumene crystals (up to 4 centimetres long axis) in a mid-to-coarse grained pegmatite facies.



**Figure 2**: Lithium solid and PFS ope-cut pit contours demonstrating extensions of the mineralisation from the Phase 2 drilling program. Main Authier pegmatite shown in red and northern pegmatite in brown



**Figure 3**: Diamond rig drilling at the west sector and diamond core AL-17-005 showing coarse grain spodumene crystals at 229 to 232 metres depth



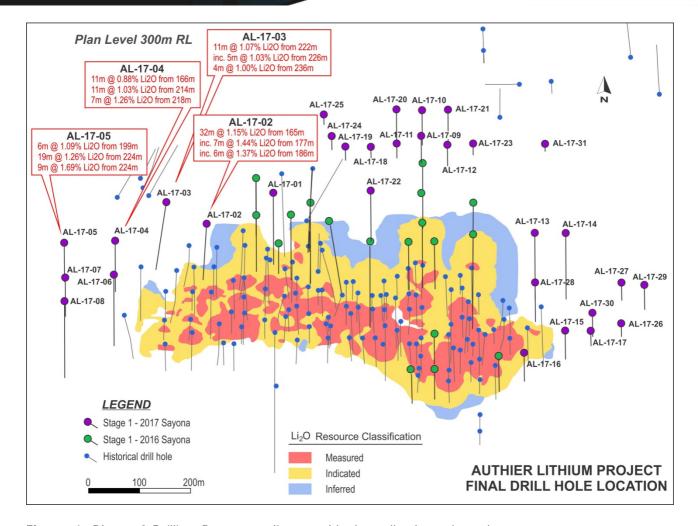


Figure 4: Phase 2 Drilling Program diamond hole collar location plan

#### **Drill Hole Results by Sector**

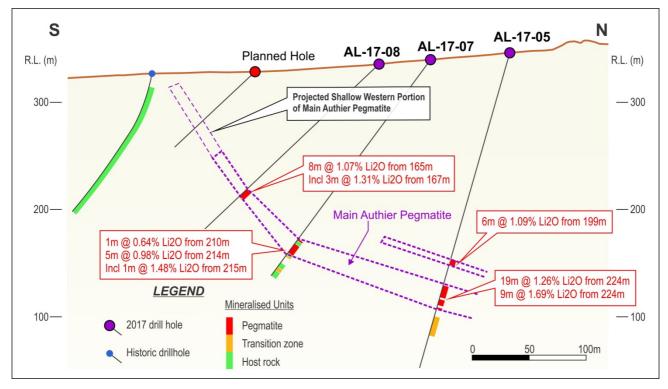
#### **Western Zone Shallow**

Drilling in the western zone at shallow levels has demonstrated an extension of the mineralisation 200 metres west, including:

- Hole 17-08 intersected 8 metres @ 1.07 % Li2O from 165 metres including, 3 metres @ 1.31% Li2O from 167 metres; and
- Hole 17-05 intersected 19 metres @ 1.26% Li2O from 224 metres including 9metres @ 1.69% Li2O.

Holes 17-01, 17-06 and 17-07 have intercepted narrow zones of low-grade to barren pegmatite which has been affected by a large north-south fault cross cutting the mineralisation in the Beaver Dam area (Section 707560 m East). The pegmatite pinches within the fault zone but shows no significant evidence of post-mineral displacement.

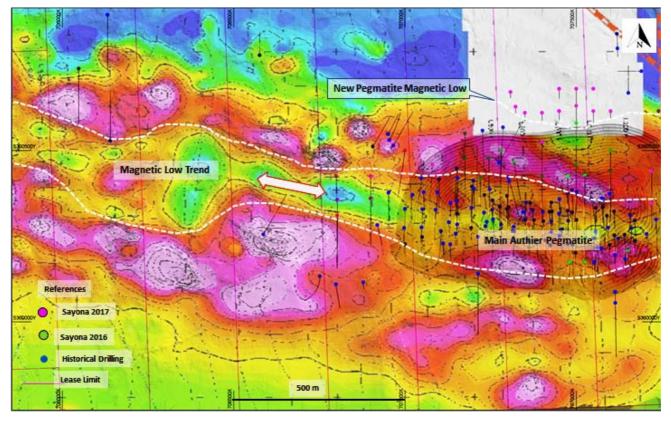




**Figure 5**: Section 7006800 looking west demonstrating western most extensions of the mineralisation between 110 metres to 220 metres vertical depth as well as the potential shallower extension that has to be tested in step forward hole of AL-17-08.

The Company believes the western sector remains highly prospective for further mineralisation west of Holes 17-05, 17-07 and 17-08. Figure 4 shows the main Authier pegmatite in relation to the local magnetic geophysical image. The main orebody is strongly correlated to a deep magnetic low which extends to the western tenement boundary. Additional drilling will be required to extend the mineralisation further west.





**Figure 6**: Magnetic geophysical image and the main Authier pegmatite orebody extensively drilled on the right hand side of the page

## **Western Zone Deep**

Drilling has successfully defined a 300 metre western extension of the main Authier pegmatite at between 110 and 220 metres vertical depth, including:

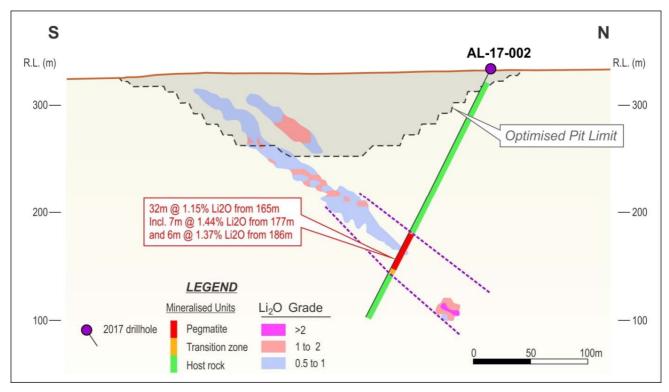
- 17-02 32 metres @ 1.15% Li20 including 7 metres @ 1.44% Li2O; and
- 17-05 19 metres @ 1.26% Li20 including 9 metres @ 1.69% Li2O.

Hole 17-02 and 17-05 demonstrated similar widths and grades to those in the Phase 1 deeper holes which included:

- 16-13: 24 metres @ 1.25 % Li2O from 184 metres and 8 metres @ 0.91 % Li2O from 216 metres, and
- 16-15: 20 metres @ 1.32 % Li2O from 242 metres including 11 metres @ 1.61 % Li2O from 248 metres.

The results indicate a potential western plunge of the high-grade mineralisation at deeper levels within the western sector. The higher-grade mineralisation below the economic opencut pit depths could be amenable to future underground mining.



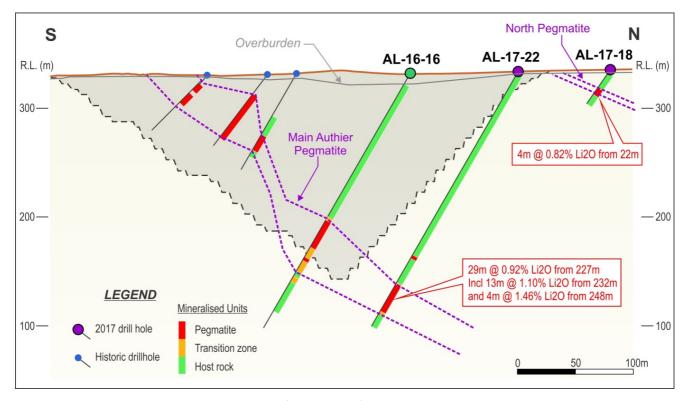


**Figure 7**: Section 706800 looking west demonstrating the extension of mineralisation below the open-cut pit limit outlined in the February 2017 Pre-Feasibility Study.

# Gap Zone

Hole 17-22 intersected a thick zone of spodumene mineralisation in the gap zone (29 metres @ 0.92%  $\text{Li}_2\text{O}$ ), confirming an 85 metre down-dip extension of the exploratory Phase 1 drill hole 16-16 which intersected 28 metres @ 1.20 %  $\text{Li}_2\text{O}$  from 158 metres including, 18 metres @ 1.39 %  $\text{Li}_2\text{O}$  from 162 metres. Hole 17-22 has confirmed an extension of the resource down to approximately 200 metres in the gap zone.





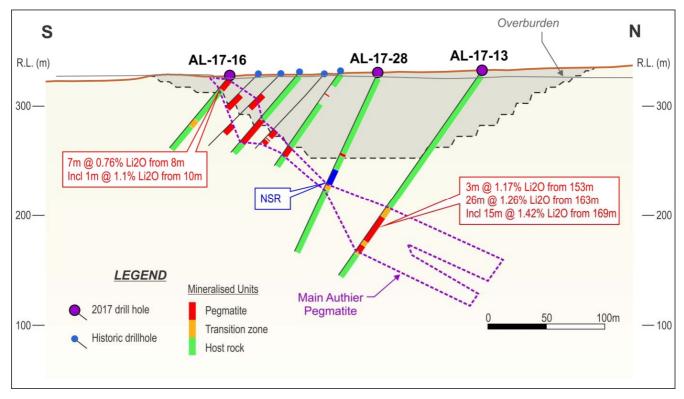
**Figure 8:** Section 707400 looking west (Gap Zone) showing the dip extension of mineralisation below the open-cut pit outlined in the Pre-Feasibility Study. Hole 17-18 is part of the new North Pegmatite and was collared 50 metres west of hole 17-11 (6 m @ 1.32 % Li2O from 23m, including 3m @ 1.76 % Li2O from 24m).

# **Eastern Zone Deep**

Holes 17-13 and 17-14 in the eastern deep zone have extended mineralisation 150 metres to the east. Hole 17-13 (26 metres @ 1.26% Li<sub>2</sub>O from 163 metres including 15 m @ 1.42% Li<sub>2</sub>O from 169 metres), located 120 metres east of hole 16-14, intercepted mineralised pegmatite from a vertical depth of 120 metres and is expected to result in a 80 metre deepening of the current pit outline.

Hole 17-28, a 100 metre step forward of hole 17-13, intercepted low-grade pegmatite affected by a fault zone which caused a local pinching of the main Authier pegmatite.





**Figure 9:** Section 707725 looking west showing the down-dip extension of mineralisation below the open-cut pit outlined in the Pre-Feasibility Study. Hole 17-13 is located 120 metres east of hole 16-14 and the bottom of pit should deepen approximately 80 metres to incorporate the mineralised interval from hole 17-13

#### **Eastern Zone Shallow**

Hole 17-16 intercepted a narrow zone of mineralised pegmatite (7 metres at 0.76% Li<sub>2</sub>0) within a wider zone of low-grade to barren pegmatite at shallow levels. It is interpreted that the mineralisation has been pinched with respect to the wider pegmatite intercepted by holes:

- 17-30 10 metres @ 1.04 % Li<sub>2</sub>O from 30 metres including 3 metres @ 1.26 % Li<sub>2</sub>O from 30 metres; and
- 17-26 13 metres @ 0.73 % Li<sub>2</sub>O from 27 metres including 2 metres @ 1.33 % Li<sub>2</sub>O from 37 metres.

Hole 17-17 intercepted (1 metre @ 1.03% Li<sub>2</sub>0) the narrow, lower portion of the eroded pegmatite immediately below 12 metres of overburden being collared 35 metres south (same section) of hole 17-30.

Holes 17-30 and 17-26 (separated 65 metres east-west) intercepted the main pegmatite slightly deeper than holes 17-15 and 17-17. The narrow mineralisation intercepted by hole 17-15 was extended 165 metres down dip by hole 17-14 (20 metres @ 0.95 % Li<sub>2</sub>O from 169 metres including 10 metres @ 1.19 % Li<sub>2</sub>O from 170 metres) from a vertical depth of 135 metres and collared 185 metres north in the same section.

Holes 17-27 and 17-29 (eastern most) intercepted narrow barren pegmatite in fault zones. The geometry of the pegmatite at narrow levels pinch and swells, but it is considered open and further drilling is required to test the eastern most strike extent.



## Northern Pegmatite

Drilling has started to define the geometry of the new northern pegmatite located 400 metres north of the main Authier pegmatite. During the Phase 1 drilling, Hole 16-10 intersected 7 metres at 1.36 % Li<sub>2</sub>O from 7 metres in depth in a step-back hole targeting deeper mineralisation in the main pegmatite. Drilling from the Phase 2 program has now defined additional mineralisation over 300 metres in strike length and the system remains open in all directions. Significant holes included:

- 17-11 6 metres @ 1.32 % Li<sub>2</sub>O from 23 metres including 3 metres @ 1.76 % Li<sub>2</sub>O from 24 metres;
- 17-12 5 metres @ 0.9 % Li₂O from 27 metres including 1 metre @ 1.71 % Li₂O from 30 metres.
- 17-19 8.27 metres @ 0.88 % Li<sub>2</sub>O from 10.7 metres including 4.27 metre @ 1.27 % Li<sub>2</sub>O from 10.7 metres.
- 17-23 8 metres @ 0.86 % Li₂O from 16 metres including 3 metre @ 1.53 % Li₂O from 21 metres.

Fifty metre step-back holes 17-10, 17-20, 17-21, 17-24 and 17-25 as well as scout hole 17-31 intercepted narrow and low-grade to barren pegmatite. Whilst the grades were lower than anticipated, the Company believes the system has good potential to host mineralisation. Zones within the pegmatite occur as coarse grained, narrow, high-grade mineralisation, suggesting potential for a large feeder system at depth. Further drilling will be required to test the down dip extensions of the pegmatite which has only been drilled to shallow levels.



**Figure 10**: Hole 10 in the northern pegmatite which intersected 7 metres at 1.36% Li<sub>2</sub>O from a downhole depth of 15 metres (vertical depth of 12 metres) including, 2 metres at 2.24% Li<sub>2</sub>O from 17 metres;



### **Next Steps**

The Company's plan is to increase the size and confidence levels of the 2016 JORC Resource and 2017 Ore Reserve released as part of the February 2017 Pre-Feasibility Study. The new resource will be incorporated into an updated Pre-Feasibility Study following the completion of metallurgical and geotechnical programs, and allow an updated Ore Reserve estimate.

Corey Nolan, Chief Executive Officer, commented, "The 2017 drilling program has demonstrated the potential to expand the size of the 2016 Mineral Resource. An expanded resource will extend the mine life beyond the 13 years outlined in the February 2017 Pre-Feasibility Study based on the 2017 Ore Reserve. The Company is currently working on completing an updated Mineral Resource estimate and this will be announced during the coming weeks".

## 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

# **Reference to Previous ASX Releases**

This release refers to the previous ASX Releases:

- "High-grade Lithium intersected over Large Widths during Authier drilling", 24 October 2016.
- "Drilling intersects Thick Zone of Mineralisation in Authier's gap Zone", 25 October 2016.
- "High-grade Lithium Intersections Extend Zone of Mineralisation at Authier", 03 November 2016.
- "High-grade Mineralisation in the New Pegmatite Discovered at Authier", 08 November 2016.
- "Final Ten Diamond Holes demonstrates potential to expand the Authier JORC Resource", 17 November 2016.
- "Authier Lithium Project JORC Resource Significantly Expanded", 23 November 2016.
- "Authier Maiden JORC Ore Reserves", 16 February 2017.

#### COMPETENT PERSON STATEMENT

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 the most recent Sayona exploration drilling campaigns (Stage 2, 4,104 metres and stage 1, 3,926 metres),



supervised the preparation of the technical information and audit of all the historical drilling data contained 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.

# Summary Drill Hole Details from Sayona 2017 Drilling Program

Table 1 - D	Prill hole c	ollar loca	tion and	intercept	informa	ation (do	wnhole	Interse	ctions in m	etres)
Drill Hole	East	North	RL	Azimuth	Dip	Depth	From (m)	To (m)	Thickness (m)	Grade (%Li₂O)
AL-17-01	707210	5360520	331.5	180	-60	283.0	241.8	251.5	9.7	NSR
AL-17-02	707080	5360460	331.0	180	-65	253.0	165.0	197.0	32.0	1.15
including							177.0	184.0	7.0	1.44
and							186.0	192.0	6.0	1.37
AL-17-03	707000	5360500	330.0	180	-60	268.0	222.0	233.0	11.0	1.07
including							226.0	231.0	5.0	1.42
							236.0	240.0	4.0	1.0
AL-17-04	706900	5360425	335.4	180	-70	264.0	166.0	177.0	11.0	0.88
including							166.0	169.0	3.0	1.26
							214.0	225.0	11.0	1.03
including							218.0	222.0	7.0	1.26
AL-17-05	706800	5360425	344.9	180	-75	303.0	199.0	205.0	6.0	1.09
							224.0	243.0	19.0	1.26
including							224.0	233.0	9.0	1.69
AL-17-06	706900	5360360	331.9	180	-55	240.0				NSR
AL-17-07	706803	5360356	339.0	180	-55	246.0	210.0	211.0	1.0	0.64
							214.0	219.0	6.0	0.89
including							215.0	216.0	1.0	1.48
AL-17-08	706802	5360310	335.0	180	-45	219.0	165.0	173.0	8.0	1.07
including							167.0	170.0	3.0	1.31
AL-17-09	707500	5360630	339.2	180	-55	90.0	26.0	31.0	5.0	0.84
including							28.0	29.0	1.0	2.34
AL-17-10	707500	5360680	340.3	180	-55	78.0	20.0	21.0	1.0	0.62
AL-17-11	707450	5360615	336.9	180	-55	48.0	23.0	29.0	6.0	1.32
including							24.0	27.0	3.0	1.76
AL-17-12	707550	5360615	338.7	180	-55	72.0	27.0	32.0	5.0	0.90
including							30.0	31.0	1.0	1.71
AL-17-13	707720	5360440	332.5	180	-55	228.0	153.0	156.0	3.0	1.17
including							154.0	156.0	2.0	1.32
							163.0	189.0	26.0	1.26
including							169.0	184.0	15.0	1.42



Table 1 -	Drill hole c	ollar loca	tion and	intercept	informa	ation (dc	wnhole	Interse	ctions in m	etres)
Drill Hole	East	North	RL	Azimuth	Dip	Depth	From (m)	To (m)	Thickness (m)	Grade (%Li <sub>2</sub> O)
AL-17-14	707780	5360440	332.3	180	-55	213.0	169.0	189.0	20.0	0.95
including							170.0	180.0	10.0	1.19
AL-17-15	707780	5360250	329.8	180	-55	81.0	11.0	14.0	3.0	1.02
including							12.0	13.0	1.0	1.40
AL-17-16	707700	5360210	328.6	180	-50	87.0	8.0	15.0	7.0	0.76
including							10.00	11.0	1.0	1.10
AL-17-17	707830	5360250	327.0	180	-60	57.0	22.0	23.0	1.0	1.13
AL-17-18	707400	5360610	335.8	180	-55	39.0	22.0	26.0	4.0	0.82
AL-17-19	707350	5360610	335.9	180	-55	45.0	10.73	19.0	8.27	0.88
including							10.73	15.0	4.27	1.27
AL-17-20	707450	5360680	338.4	180	-55	51.0				NSR
AL-17-21	707550	5360680	341.6	180	-90	69.0				NSR
AL-17-22	707400	5360525	334.06	180	-60	271.0	227.0	256.0	29.0	0.92
including							232.0	245.0	13.0	1.10
including							248.0	249.0	4.0	1.46
AL-17-23	707600	5360615	338.7	180	-55	36.0	16.0	24.0	9.0	0.82
including							21.0	24.0	3.0	1.53
AL-17-24	707323	5360628	335.9	180	-55	39.0	12.0	15.0	3.0	0.56
including							12.0	13.0	1.0	1.13
AL-17-25	707308	5360671	336.27	180	-65	42.0				NSR
AL-17-26	707890	5360265	332.5	180	-65	60.0	27.0	39.0	13.0	0.73
including							27.0	31.0	4.0	0.95
including							37.0	39.0	2.0	1.33
AL-17-27	707890	5360345	332.5	180	-65	87.0				NSR
AL-17-28	707720	5360345	331.1	180	-65	181.0				NSR
AL-17-29	707935	5360341	332.5	180	-45	71.0				NSR
AL-17-30	707833	5360286	332.5	180	-45	66.0	16.0	19.0	3.0	0.84
							30.0	40.0	10.0	1.04
including							30.0	33.0	3.0	1.26
including							35.0	39.0	4.0	1.16
AL-17-31	707740	5360615	332.5	180	-65	30.0				NSR

Note: Downhole widths are not true widths.



# JORC Code, 2012 Edition - Table 1 - Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>All holes reported in this program have been Diamond Core Drill holes (DDH)</li> <li>Diamond core typical sample length is 1.0 metre starting 2 to 3 metres above and below of the contact of the pegmatite with the barren host rock.</li> <li>High to low grade lithium-bearing mineralisation (spodumene) is visible during geological logging and sampling.</li> <li>The core selected for sampling was split and samples of half core were dispatched to a certified commercial laboratory for preparation and analysis of lithium according to industry standard practices.</li> <li>Sample preparation and assaying techniques are within industry standard and appropriate for this type of mineralisation.</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Core drilling, core diameter size HQ. Standard tube and bit.</li> <li>Core was oriented using a Reflex ACT III tool.</li> <li>All core drilling before 2016 was NQ core diameter size, standard tube and bit, not oriented.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Diamond drill hole core recoveries and RQD are logged. Measurements are taken systematically down hole between core blocks i.e. ~3 metre increments.</li> <li>Core recovery has been above 99%.</li> <li>Based on drilling method being diamond core and the near 100% core recovery the sampling is representative.</li> <li>High competence of the core tends to preclude any potential issue of sampling bias</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological logging, RQD measurements, alpha and beta angles of structures as core orientation using reflex tool completed for all holes done in 2016 and 2017 by Sayona.</li> <li>Geological logging of main characteristics such as rock type, spodumene abundance, mica abundance, etc has occurred in summary and detail at the pegmatite intervals and surrounding host rock.</li> <li>Detailed geotechnical logging including RQD,</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>orientation data (alpha and beta angles) for structures (faults, fractures, etc), point load tests (1 each 10 metres average) has also been undertaken.</li> <li>The geological and geotechnical logging is at an appropriate level for the stage of development drilling being undertaken.</li> <li>The logging of the geological features was predominately qualitative. Parameters such as spodumene abundance are visual estimates by the logging geologist.</li> <li>Core is photographed after metre marks and sample intervals have been clearly marked on the core. The core was photographed dry and wet. The core boxes were identified with Box Number, Hole ID, From and To using aluminum tags.</li> <li>The entire target mineralisation type core (spodumene pegmatite) and surrounding barren host rock has been logged, sampled and assayed. The footwall and hanging wall barren host rock has been summary logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Drill core /HQ diameter samples cut to two halves with one half placed in a new plastic bag along with the sample tag sent for analysis; the other half was replaced in the core box with the second sample tag for reference.</li> <li>Sampling boundaries are based in geological contacts of spodumene-bearing pegmatite with host rock.</li> <li>In general at least two host rock sample were collected each side from the contacts with the mineralised pegmatite.</li> <li>Sample preparation of drill core samples collected during the 2016 drilling program completed at the SGS Canada Inc laboratory ("SGS") facilities in Sudbury, Ontario follows industry best practice, involving oven drying, crushing and pulverizing there to respect the specifications of the analytical protocol and then shipped to SGS Mineral Services laboratories in Lakefield, Ontario, for analysis</li> <li>Sample sizes are considered appropriate with regard to the grain size of the sampled material</li> <li>For sample preparation and sub-sampling techniques details of drill core samples before 2016 please refer to Table 1 of ASX release "Authier Lithium Project JORC Resource Estimate" 7 July 2016.</li> </ul>
Quality of assay data	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Assaying of all 2016 drilling sample received at SGS were processed according to the following procedure at the SGS preparation facilities in Sudbury, Ontario. All samples are inspected and



Criteria	JORC Code explanation	Commentary
and laboratory tests	<ul> <li>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.</li> <li>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.</li> </ul>	compared to the chain of custody (COC) and logged into the SGS laboratory management system, then weighted and dried. Sample material is crushed to 75% passing 10 mesh (2mm), split to obtain a 250 g sub-sample which is then pulverized to 85% passing 200 mesh (75 microns).  • The analyses of all 2017 and 2016 drilling sample were conducted at the SGS laboratory located in Lakefield, Ontario, which is an accredited laboratory under ISO/IEC 17025 standards accredited by the Standards Council of Canada.  • The analytical protocol used at SGS Lakefield is the GE ICP90A 29 element analysis - sodium peroxide fusion, which involves the complete dissolution of the sample in molten flux for ICP-AES analysis. The detection limits for Li are 10 ppm (lower) and 10,000 ppm (upper).  • No geophysical or handheld tools were used.  • Quality control protocol ("QA/QC") involve a review of laboratory supplied internal QA/QC and in-house controls consisting in the insertion of in-house reference standards (high and low grade, prepared with material of the project and certified by lab round-robin) and samples of "barren" material (blanks), on a systematic basis with the samples shipped to SGS.  • For Quality of Assay Data and Laboratory Tests of all samples before 2016 please refer to Table 1 of ASX release "Authier Lithium Project JORC Resource Estimate" 7 July 2016.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>All the pegmatite intersections and assay results have been reviewed by the Competent Person and Sayona's geologist and personnel.</li> <li>Lithium (ppm) reported in assays is converted to Li2O by multiply Li (ppm) X 2.153 (conversion factor)</li> <li>The entire drilling program conducted by Sayona in 2017 was logged by 2 on-site geologist, a Sayona's employee and Sayona's Competent Person using technicians from the Company contracted Services Forestiers et d'Exploration GFE ("Services GFE"). Services GFE provided the office, core logging and storage facilities to the Company which are located less than 4 km southeast from the Authier project near the town of La Motte.</li> <li>The core boxes were photographed and are available for verification at Services GFE storage facilities less than 4 km southeast from the Authier project.</li> <li>No twinned holes were drilled during this 2017</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>drilling campaign by Sayona.</li> <li>Primary data was recorded on laptop computers directly into standardized Excel logging templates with built in look-up codes. This information is merged with the assay certificate data into a Sayona's in-house database</li> <li>No adjustments to assay data have been undertaken.</li> <li>For Verification of Sampling and Assaying details of all samples before 2016 please refer to Table 1 of ASX release "Authier Lithium Project JORC Resource Estimate" 7 July 2016.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill collar locations coordinates were surveyed using handheld Garmin GPS. Drill collar will be surveyed by professional surveyor at the end of this drilling campaign.</li> <li>Collar positions previous to 2016 have been surveyed and the survey values are recorded as the final coordinates and hole orientation in the database by an independent and qualified land surveyor.</li> <li>Downhole surveys (dip and azimuth) were collected as multiple shot readings using a Reflex tool.</li> <li>The grid system used is 1983 North American Datum (NAD83)</li> <li>The level of topographic control offered by the collar survey is considered sufficient for the work undertaken at its current stage.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill holes were drilled perpendicular to the lithium mineralised pegmatite as shown on the attached plan.</li> <li>Drill collars were sited to provide the best geological information possible to test the grade, strike and vertical extensions of mineralisation.</li> <li>The data spacing is sufficient to estimate geological and grade continuity of observed mineralisation and therefore to produce a JORC compliant mineral resource estimate.</li> <li>Sample compositing has not been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Drilling grid orientation is perpendicular to the strike of the mineralisation determined by previous mapping and historical drilling.</li> <li>No bias attributable to orientation of sampling upgrading of results has been identified.</li> </ul>
Sample security	The measures taken to ensure sample security.	All reasonable measures have been taken to ensure sample security along the value chain. These measures include the sample collection



Criteria	JORC Code explanation	Commentary
		<ul> <li>by company's field personnel, recording of sample dispatch and receipt reports, secure delivering of samples to SGS laboratory facilities.</li> <li>For details on Sample Security of all samples before 2016 please refer to Table 1 of ASX release "Authier Lithium Project JORC Resource Estimate" 7 July 2016.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No audit or review of the sampling techniques and data for this release has been carried out.</li> <li>The quality control protocols implemented at Authier Lithium deposit are considered to represent good industry practice and allow some assessment of analytical precision and accuracy. The assay data is considered to display acceptable precision.</li> <li>For details on Audits or reviews of all samples before 2016 please refer to Table 1 of ASX release "Authier Lithium Project JORC Resource Estimate" 7 July 2016.</li> </ul>

(Criteria in this section apply to all succeeding sections.)

# 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	<ul> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Authier Lithium Property consists in one block of map designated claim cells located at the border between the La Motte Township and the Preissac Township, totaling 20 claims covering 674.89 ha. The Property extends 3.4 km in the east-west direction and 3.1 km north-south.</li> <li>From the 20 claims composing the Property, 3 claims were acquired by staking on November 27, 2009 (CDC 21955725) and July 9, 2010 (CDC 2240226 and 2240227), 15 claims were acquired through two separate purchasing agreements and one claim is held under an option agreement. On March 17, 2017 Sayona signed and option-to-purchase agreement to acquire 100 % of tenement CDC 2187652 located along strike to the east of the main Authier deposit.</li> <li>Sayona is conducting exploration work under valid intervention permits delivered by the Quebec Government, and there is no known environmental liabilities pertaining to the Property. Some of the claims containing mineral</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>resources are subject to mining royalties</li> <li>Approximately more than 75% of the mineral resources are present inside the 3 claims (CDC 2183454-2183455 and 2194819). About less than 25% of the estimated mineral resources are present inside the claim (CDC2116146). Mineralised pegmatite has been also intercepted in claims CDC 2183454 and 2187652.</li> <li>The spodumene-bearing pegmatite intrusion is located on claims number CDC 2183454, 2183455, 2194819, 2116146 and 2187652, and extends at surface and shallow levels between approximately 706,800mE and 707,935mE in the East-West direction, and between 5,359,975 mN and 5,360,275 mN in the North-South direction.</li> <li>The Property is adjacent to a protected area reserved for groundwater catchment supply located just the north of the Property, which has been excluded for exploration and mining activities.</li> <li>Sayona is conducting exploration work under valid forest intervention permit delivered by the provincial Ministère des Ressources Naturelles et de la Faune ("MRNF"). As of the date of this report, the Company confirmed having valid work permits.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The Property has been explored in the 1950's and 1960's for volcanic nickel-copper sulfides mineralisation, and later for lithium mineralisation since the late 1960's with the discovery of a significant spodumene-bearing pegmatite intrusion. The Property saw significant amount of exploration work between 1966 and 1980 with delineation drilling programs from 1991 until 1999 with bulk sampling and metallurgical testing programs.</li> <li>The project has more than 22,000 metres of drilling in 172 diamond holes, and 4,209 assay samples. The project was initially drilled between 1991 and 1999, then by Glen Eagle between 2010 and 2012 and by Sayona since 2016.</li> <li>In 2010, Glen Eagle secured the mining rights and completed exploration work as well as 1,905 m of diamond drilling totaling 18 holes targeting the deposit. During 2011, Glen Eagle drilled a total of 4,051 m mainly on the Authier pegmatite deposit and other areas. In 2012, Glen Eagle drilled a total of 3,034 m mainly on the Authier Pegmatite deposit and other areas.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The deposit is hosted in a spodumene-bearing pegmatite intrusion. The deposit is 1,100 metres



Criteria	JORC Code explanation	Commentary
		long, striking east-west, with an average thickness of 25 metres, minimum 4 metres and maximum 65 metres, dipping 40 degrees to the north.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>In 2017, Sayona drilled 4,104 metres in 31 diamond holes. The aim of the program was to extend the zones of mineralisation along strike and depth, to infill to improve the resource categories and to test the new northern pegmatite discovered in the 2016 diamond drilling campaign.</li> <li>In 2016, Sayona drilled 3,967 metres in 18 diamond holes. The aim of the program was to extend the zones of mineralisation along strike and depth, and to infill to improve the resource categories.</li> <li>Drill holes drilled in 2017 and reported in this release are described in the body of this announcement as TABLE 1.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No weight averaging or high-grade cut has been applied to any of the sample assay results.</li> <li>Reported intercepts have been calculated as arithmetic averages using a 0.5 % Li<sub>2</sub>0 lower cutoff grade, as described in the body text of this release.</li> <li>The majority of the lithium assay results show a simple normal population and it is not believed the reporting of intercepts is skewed by the inclusion of high and low grade results.</li> <li>Metal equivalent values have not been reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>Drilling has been sited to intersect the lithium mineralisation orthogonally.</li> <li>Drilling widths reported are downhole intercept widths and true width is approximately 90 % of drilling width.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	A Collar Plan and typical cross-sections are presented in the body of this report. Drill hole details are reported in the body of this announcement as TABLE 1.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high	The reporting is considered to be balanced.



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> <li>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.</li> </ul>	<ul> <li>The Sayona's 2016 and 2017 diamond drilling campaigns were conducted after the Glen Eagle 2010-2012 diamond drilling campaign which was preceded by prospecting, geochemical sampling and geophysical surveys that covered the Property targeted areas. This work confirmed the presence of several pegmatite occurrences across the Property having a similar geochemical signature to the main Authier pegmatite.</li> <li>Details of metallurgical test work are detailed in the body of this release and other Sayona ASX releases.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Sayona's Project Development strategy is detailed as follows:         <ul> <li>Converting the inferred mineral resources to measured and indicated through further drilling;</li> <li>Converting the mineral resources to reserves;</li> <li>Exploring for extensions to the existing mineral resources and other potential mineralisation within the tenement package;</li> <li>Consolidating other potential resources / mineralisation in the district;</li> </ul> </li> <li>Completion of Environmental studies and Pre-Feasibility and Definitive Feasibility Studies;</li> <li>Negotiating production off-take agreements; and</li> <li>Sourcing development finance and constructing the project.</li> </ul>