



# ASX ANNOUNCEMENT



10 April 2018

## PHASE 3 DRILL RESULTS DEMONSTRATE THE POTENTIAL TO INCREASE THE AUTHIER JORC RESOURCE AND RESERVE

### Highlights

- High-grade spodumene mineralisation intersected at mid and deep levels in the Authier pegmatite
- New drilling expands high-grade zones of spodumene mineralisation, including 25 metres @ 1.48% Li<sub>2</sub>O
- Drilling program has demonstrated the potential to expand the size of the JORC Resource and Ore Reserve. The Ore Reserve will be upgraded as part of the Definitive Feasibility Study

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to announce the assay results from the Phase 3 drilling program at the Authier lithium project, Quebec.

A number of diamond drill holes have intercepted high-grade spodumene mineralisation with best drilling intercepts, including:

- Hole 18-09 – 25 metres @ 1.48 % Li<sub>2</sub>O from 79 metres including, 6 metres @ 1.77 % Li<sub>2</sub>O from 80 metres and 6 metres @ 1.78 % Li<sub>2</sub>O from 94 metres;
- Hole 18-10 – 6 metres @ 1.26 % Li<sub>2</sub>O from 97.4 metres including, 4 metres @ 1.52 % Li<sub>2</sub>O from 98.4 metres;
- Hole 18-16 – 37 metres @ 1.03 % Li<sub>2</sub>O from 255 metres including, 11 m @ 1.24 % Li<sub>2</sub>O from 266 metres and 3 metres @ 1.67 % Li<sub>2</sub>O from 281 metres; and
- Hole 18-17 – 33 metres @ 1.18 % Li<sub>2</sub>O from 160 metres including, 10 metres @ 1.25% Li<sub>2</sub>O from 166 metres and 3 metres @ 1.75 % Li<sub>2</sub>O from 190 metres.

Drilling has successfully demonstrated depth extensions of the mineralisation at the main Authier pegmatite. Infill drilling successfully targeted areas of low drilling density with the objective of upgrading the resource categories. A number of holes testing the eastern extensions of the main Authier pegmatite at shallow levels were stopped due to the presence of a fault zone but warrant further testing in a future drilling program.

A potential third deep pegmatite dyke was intercepted at a depth of 300 metres and returned low grade mineralisation due the replacement of spodumene by phengite. Further drilling will be required to test the potential of this system, especially at shallower levels.

Drilling has successfully extended the mineralisation at the Authier North pegmatite from 300 metres to 500 metres in strike length, and at depth. The system remains open in all directions.

The Company believes the new drilling has the potential to expand the size of the existing Mineral Resource and Ore Reserve, and the mineralisation remains open in all directions.

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### Phase 3 Diamond Drilling Program

The Phase 3 diamond drilling program at Authier has been completed including 19 NO diameter holes for 2,170 metres and meeting the objectives of the program, including:

- Converting the Inferred Mineral Resources to Measured and Indicated, and upgrading Ore Reserves for the Definitive Feasibility Study which is underway;
- Exploring for extensions to the existing mineral resources and other potential mineralisation within the tenement package; and
- Collecting geotechnical data for incorporation into the Authier Feasibility Study and five tonnes of core for pilot metallurgical testing.

The lithium mineralisation at the Authier project is related to multiple pulses of spodumene bearing quartz-feldspar pegmatite. Higher lithium grades are related with high concentrations of mid to coarse spodumene crystals (up to 4 cm long axis) in a mid to coarse grained pegmatite facies.

### Summary of the Drilling Program

#### Main Authier Pegmatite

The following summarises the key outcomes of the drilling program:

- Holes 18-01 and 18-02 were stopped before hitting the target due to a fault zone;
- Holes 18-03, 18-04, 18-05, 18-06 and 18-07 tested the eastern extension of the main Authier pegmatite at shallow levels, intercepting narrow zones of weak lithium mineralisation;
- Holes 18-08 and 18-09 (Fig. 4) filled the gaps within the East zone of the main Authier pegmatite resource from 40 to 70 metres vertical depth. Hole 18-09 – 25 metres @ 1.48 % Li<sub>2</sub>O from 79 metres including, 6 metres @ 1.77 % Li<sub>2</sub>O from 80 metres and 6 metres @ 1.78 % Li<sub>2</sub>O from 94 metres;
- Hole 18-10 intercepted a narrow lithium mineralised zone that filled the gap of the main Authier pegmatite Resource in the Central Part including 6 metres @ 1.26 % Li<sub>2</sub>O from 97.4 metres including, 4 metres @ 1.52 % Li<sub>2</sub>O from 98.4 metres;
- Hole 18-12, drilled within a NNE fault zone intercepted narrow and weak lithium anomalies in the west zone;
- Hole 18-16, at the deep west zone of the main Authier pegmatite, intercepted a wide deep extension of the pegmatite at a vertical depth of 235 metres to 270 metres, 75 metres step back of hole 16-15 (20 metres @ 1.32 % Li<sub>2</sub>O from 242 metres, see ASX release of Nov 16, 2016) and Figure 2. A potential third pegmatite dyke was intercepted at a vertical depth of 300 metres, 25 metres downhole width, which returned no significant spodumene mineralisation due the replacement of spodumene by phengite. Additionally, hole 18-16 intercepted the north pegmatite with lithium mineralisation at shallow levels; and
- Hole 18-17, an infill hole at the East zone of the main Authier pegmatite intercepted a wide mineralised pegmatite zone of 33 metres @ 1.18 % Li<sub>2</sub>O from 160 metres including, 10 metres @ 1.25% Li<sub>2</sub>O from 166 metres and 3 metres @ 1.75 % Li<sub>2</sub>O from 190 metres (See Figure 3).

The Company believes the Main Authier pegmatite is still open in all directions. The geometry of the mineralised pegmatite at shallow levels in both, east and west extensions, seems affected by post-mineral faulting, and further drilling should be conducted at mid-to-deep levels to test the along strike extension of the main pegmatite. The deep extensions of the main pegmatite are demonstrating excellent grades and widths.

### **Authier North Pegmatite**

Holes 18-13, 18-14 and 18-16 successfully extended the mineralisation from 250 to 500 metres in strike extension. Holes 18-13, 18-18 and 18-19 were infill holes. The North pegmatite is narrow, gently dipping to the north, and is still open along strike

A new JORC Resource incorporating all the new assay results is being prepared and will be incorporated into the Definitive Feasibility Study which is underway.

### **DRILL HOLES AND ASSAY RESULTS**

Table 1 – Drill hole collar location and intercept information (downhole Intersections in metres)										
Drill Hole	East	North	RL	Azimuth	Dip	Depth	From (m)	To (m)	Thickness (m)	Grade (%Li2O)
AL-18-01	707939	5360341	333	180	-45	93				NSR
AL-18-02	707934	5360304	333	180	-55	39				NSR
AL-18-03	708127	5360298	333	180	-55	75				NSR
AL-18-04	708034	5360307	333	180	-55	90				NSR
AL-18-05	707984	5360279	333	180	-45	69				NSR
AL-18-06	707885	5360342	333	180	-50	153				NSR
AL-18-07	707829	5360348	331.1	180	-55	129.45				NSR
AL-18-08	707786	5360332	331.1	180	-45	132	57.3	64	6.7	0.94
AL-18-09	707720	5360345	331.1	180	-45	129	79	104	25	1.48
including							80	86	6	1.77
including							94	100	6	1.78
AL-18-10	707472	5360320	333.28	180	-55	156	97.4	103.4	6	1.26
including							98.4	102.4	4	1.52
AL-18-11	707400	5360360	335	180	-55	175				NSR
AL-18-12	706760	5360224	330	180	-45	138				NSR
AL-18-13	707250	5360600	333.1	180	-55	57	16.85	22.05	5.2	0.82
including							18	20	2	1.02
AL-18-14	707690	5360590	338.1	180	-55	36	8	14	6	0.85
including							10	11	1	2.01
AL-18-15	707325	5360606	330	180	-55	60				NSR
AL-18-16	707175	5360600	333.1	180	-70	342	18	22	4	1.08
							255	292	37	1.03
including							266	277	11	1.24
including							281	284	3	1.67

Table 1 – Drill hole collar location and intercept information (downhole Intersections in metres)

Drill Hole	East	North	RL	Azimuth	Dip	Depth	From (m)	To (m)	Thickness (m)	Grade (%Li2O)
AL-18-17	707665	5360440	332.46	180	-55	231	160	193	33	1.18
including							166	176	10	1.25
including							190	193	3	1.75
AL-18-18	707600	5360580	344	170	-55	39	11	18	7	0.94
including							11	12	1	1.46
including							14	18	4	1.12
AL-18-19	707550	5360580	344	170	-55	27	15.4	18	2.6	1.14
							16	17	1	1.84

Note: Downhole widths are not true widths.

NSR: No significant results

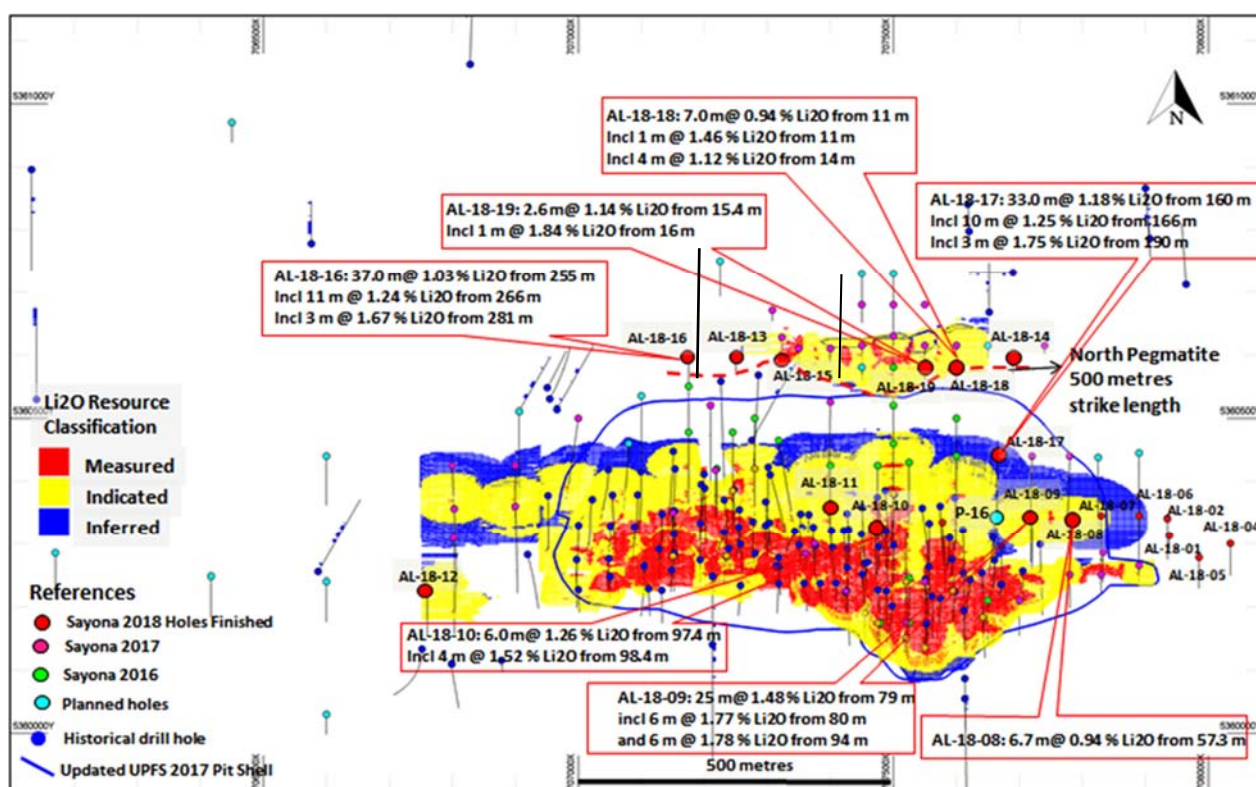
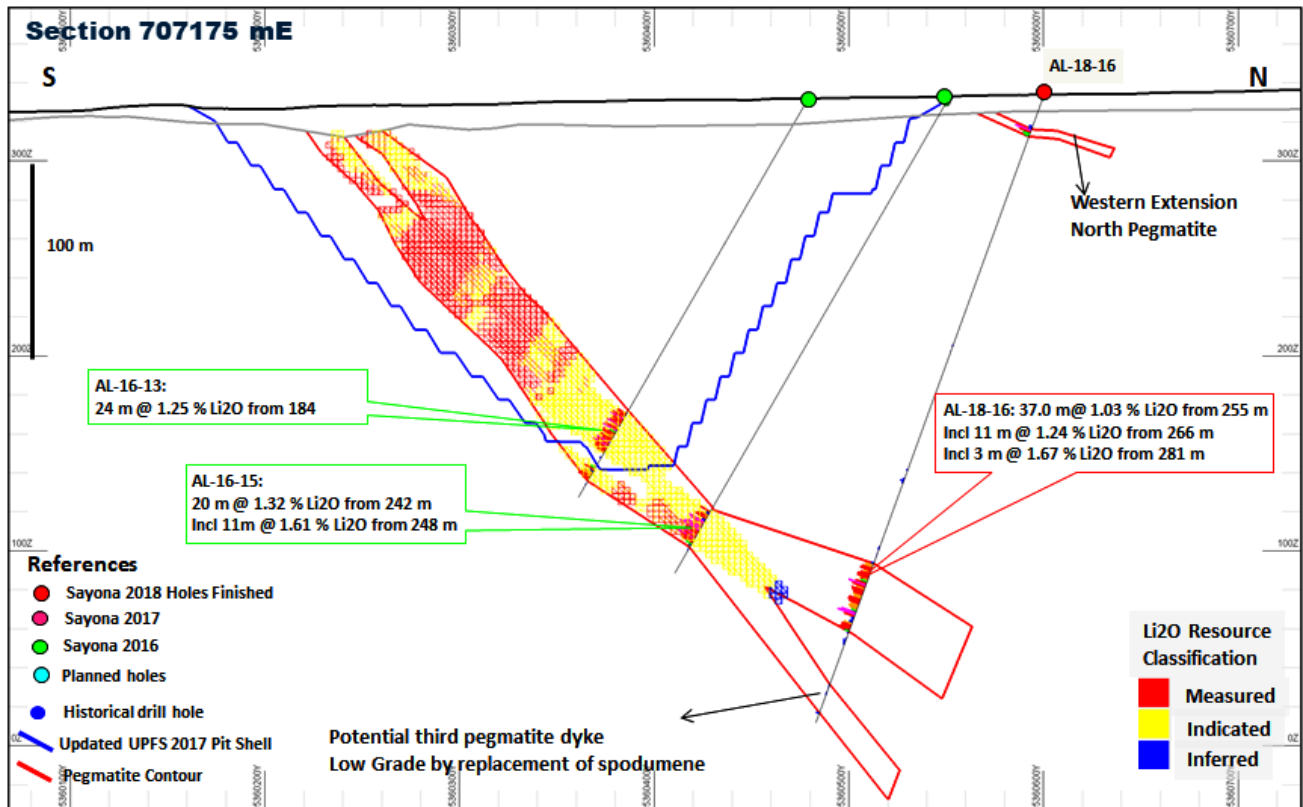
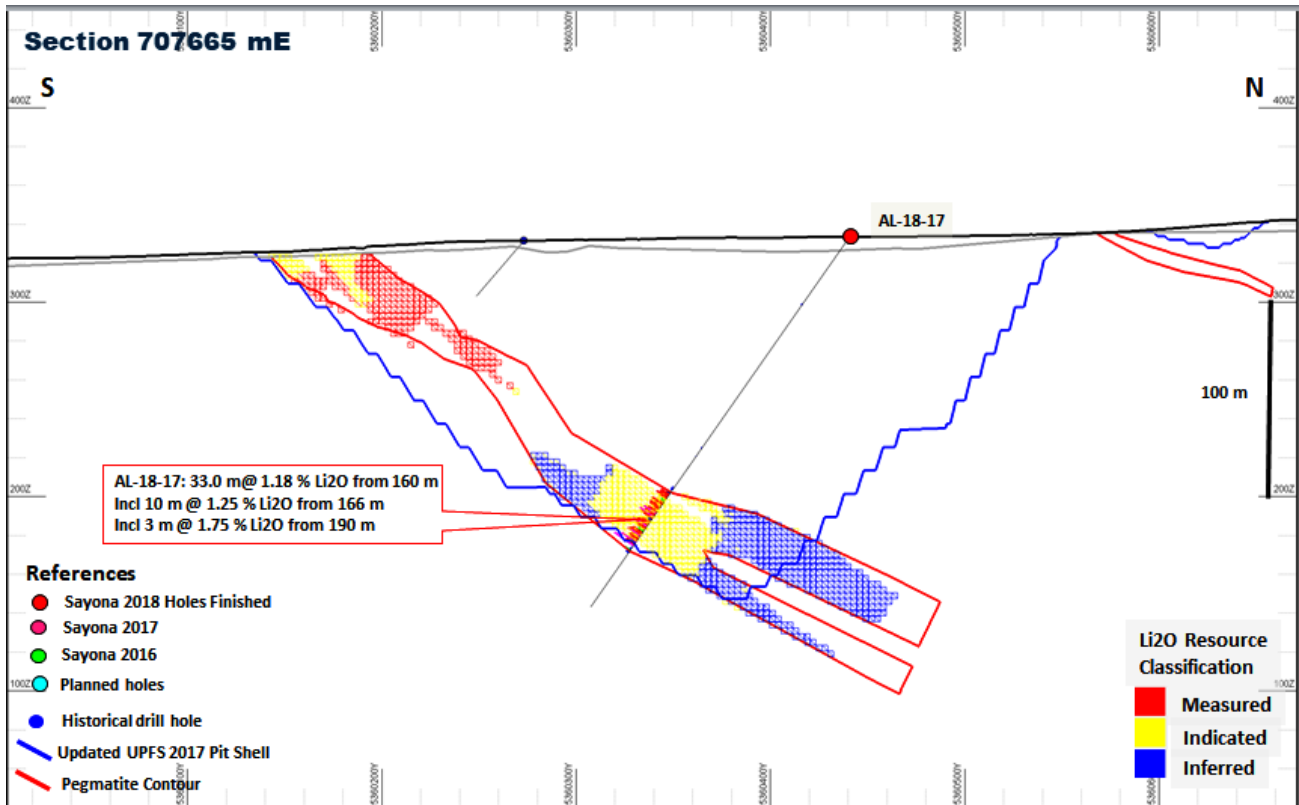


Figure 1: Drill hole collar location plan. Block model correspond to Pre-Feasibility Study ("PFS") November 2017.

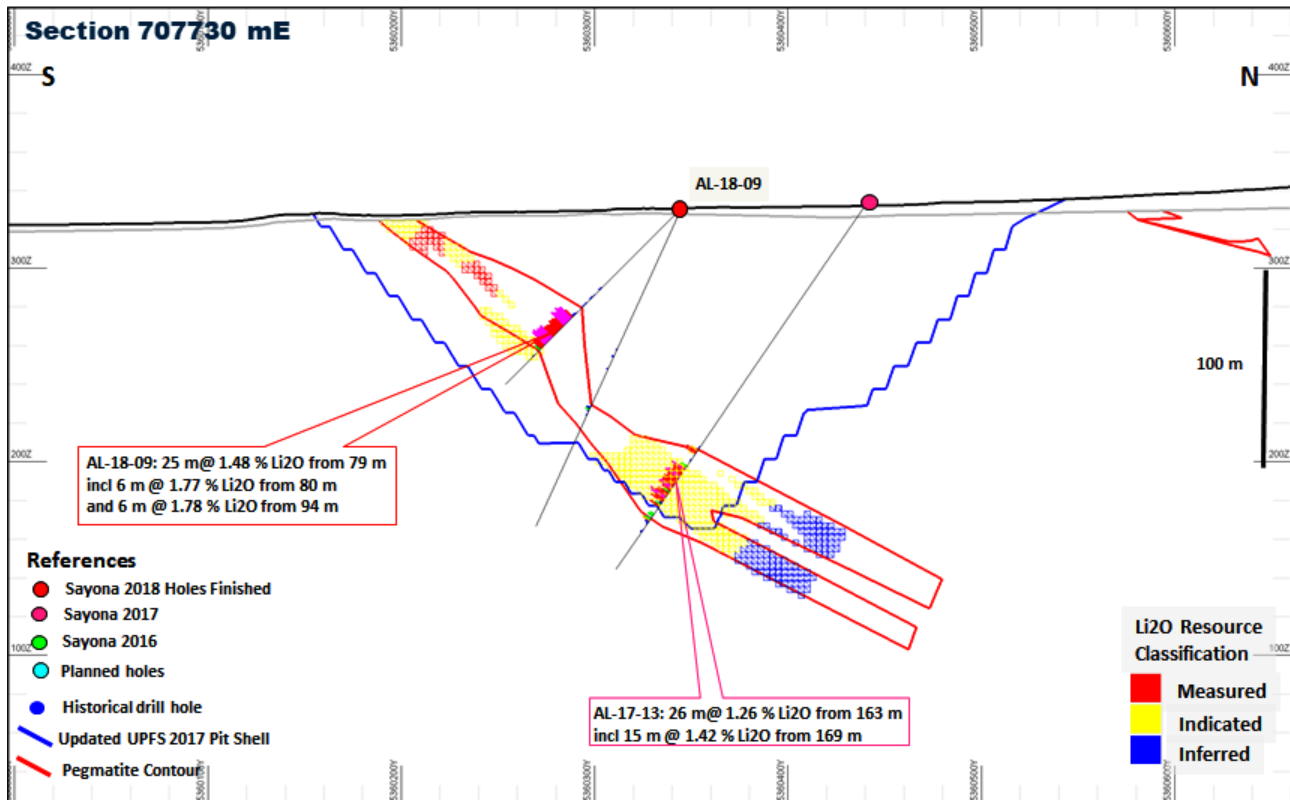




**Figure 2:** Section 707175 mE looking west showing vertical extension of main Authier Pegmatite intersected by hole AL-18-16 and a deeper potential third dike at around 300 metres vertical depth. This hole also intercepted the North pegmatite at shallow levels. Block model correspond to PFS November 2017.



**Figure 3:** Section 707665 mE looking west showing infill hole AL-18-017 which will uplift resource category 150 metres vertical depth in the East zone of Main Authier pegmatite. Block model correspond to PFS November 2017.



**Figure 4:** Section 707730 mE looking west showing filling of gap in the existing resource at 80 to 120 metres vertical depth by hole AL-18-009. Block model correspond to PFS November 2017.

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#### 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 this exploration drilling campaign, supervised the preparation of the technical information in this release and has relevant experience and competence of the subject matter. Dr Delendatti, as competent person for this announcement, has consented to the inclusion of the information in the form and context in which it appears herein.

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

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

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 problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>All holes reported in this program have been Diamond Core Drillholes (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. Sample preparation and assaying techniques are within industry standard and appropriate for this type of mineralisation.</li> </ul>
<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>Core drilling, core diameter size NQ. Standard tube and bit.</li> <li>In previous drilling campaigns of Sayona, core diameter size HQ, standard tube and bit</li> <li>Core was not oriented in this campaign. In previous campaign of Sayona 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>
<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</i></li> </ul>	<ul style="list-style-type: none"> <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> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>nature of the samples.</i></p> <ul style="list-style-type: none"> <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>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 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>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. For this 2018 drilling campaign and for metallurgical sample collection, not oriented core was collected and therefore no alfa and beta angle readings were performed.</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>For this campaign RQD and core recovery was systematically performed both, pegmatite and host rock.</li> <li>In 2016 and 2017, diamond core from exploration and resource expansion drilling was subject of detailed geotechnical logging including RQD, 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>

Criteria	JORC Code explanation	Commentary
<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>• Drill core NQ 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 barren host rock.</li> <li>• In general at least two host rock sample was collected each side from the contacts with the mineralised pegmatite.</li> <li>• Sample preparation of drill core samples collected during the 2018 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>
<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) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Assaying of all 2018 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 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).</li> <li>• The analyses of all 2018, 2017 and 2016 exploration and resource expansion drilling 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.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>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).</li> <li>No geophysical or handheld tools were used.</li> <li>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.</li> <li>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.</li> </ul>
Verification of sampling and assaying	<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>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 Li<sub>2</sub>O by multiply Li (ppm) X 2.153 (conversion factor)</li> <li>The entire drilling program conducted by Sayona in 2018 was logged by 2 geologists, a Sayona's employee and a contracted geologist from Services Forestiers et d'Exploration GFE ("Services GFE"), controlled by Sayona's Competent Person and using technicians from 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 2018 drilling campaign by Sayona.</li> <li>Primary data was recorded on laptop computers directly into standardized Excel</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>logging templates with built in look-up codes. This information is merged with the assay certificate data into a Sayona's in-house database</p> <ul style="list-style-type: none"> <li>No adjustments to assay data have 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>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) for 2018 drilling were collected as single shot readings using a Reflex tool. Measurements are made at the beginning (25 m below surface) and at the end of the hole length. An intermediate measure was done when drill hole length exceeded 150 m.</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. A LIDAR topography will be available in the following weeks.</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>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>
<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</i></li> </ul>	<ul style="list-style-type: none"> <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>



Criteria	JORC Code explanation	Commentary
	<i>mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	
<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>All reasonable measures have been taken to ensure sample security along the value chain. These measures include the sample collection by company's field personnel, recording of sample dispatch, receipt reports and 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>
<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 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>

## 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> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <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, totalling 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 an option-to-purchase agreement to acquire 100 % of</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>tenement CDC 2187652 located along strike to the east of the main Authier deposit.</p> <ul style="list-style-type: none"> <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 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).</li> <li>• The spodumene-bearing pegmatite intrusion is located on claims number CDC 2183455, 2194819 and 2116146, and extends at surface between approximately 707,050mE and 707,775mE 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	<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>• 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 29,000 metres of drilling in 224 diamond holes, including 5 tonnes of pegmatite in 6 holes drilled for metallurgical purposes. The project was initially drilled between 1991 and 1999, and</li> </ul>

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		<p>then by Glen Eagle between 2010 and 2012.</p> <ul style="list-style-type: none"> <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> <li>Sayona Mining has completed three phases of drilling including 68 drill holes for 10,255 metres, including 19 drill holes for 910 metres in Authier North pegmatite. All the holes completed by Sayona for exploration and resource expansion purposes have used standard diamond drill holes (DDH), HQ or NQ core diameter size, using a standard tube and bit. The drilling programs have been subject to very robust QA/QC procedures.</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>Mineralisation is hosted within spodumene-bearing pegmatite intrusions. The Authier project hosts two separate mineralised pegmatite systems, including: <ul style="list-style-type: none"> <li>Authier Main - 1,100 metres long striking east-west, with an average thickness of 25 metres (ranging from 4 metres to 55 metres), dipping at 40 degrees to the north. The deposit outcrops in the eastern sector and then extends up to 10 metres under cover in the western sector; and</li> <li>Authier North - 500 metres long striking east-west, with an average thickness of 7 metres (ranging from 6 metres to 8 metres), dipping at 15 degrees to the north.</li> </ul> </li> <li>The lithium mineralisation at the Authier project is related to multiple pulses of spodumene bearing quartz-feldspar pegmatite. Higher lithium grades are related with high concentrations of mid-to-coarse spodumene crystals (up to 4 cm long) in a mid-to-coarse grained pegmatite facies.</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></li> </ul>	<ul style="list-style-type: none"> <li>In 2018, Sayona drilled 2,170.45 metres in 19 diamond holes. The aim of the program was to extend the zones of mineralisation along strike and depth, expand the resource and reserve size, improve the resource and</li> </ul>

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	<ul style="list-style-type: none"> <li>o <i>easting and northing of the drill hole collar</i></li> <li>o <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>o <i>dip and azimuth of the hole</i></li> <li>o <i>down hole length and interception depth</i></li> <li>o <i>hole length.</i></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>	<p>reserve categories and explore the Authier north pegmatite, discovered during 2016 Stage 01 drilling by Sayona.</p> <ul style="list-style-type: none"> <li>• Drill hole details are reported in the body of this announcement as Table 1.</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 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 0.45 % 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>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <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>	<ul style="list-style-type: none"> <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>
<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>• 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.</li> </ul>

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<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The reporting is considered to be balanced.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The Sayona 2018 diamond drilling campaign was conducted after Sayona 2016 Stage 01 and Sayona 2017 Stage 02 drilling campaigns and the Glen Eagle 2010-2012 diamond drilling campaigns which were 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 described in Sayona PFS ASX releases dated on August 29, 2017 and February 16, 2017.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Sayona's Project Development strategy is detailed as follows: <ul style="list-style-type: none"> <li>Converting the inferred mineral resources to measured and indicated through further higher density drilling;</li> <li>Infill drilling within the main deposit where there is no resource due the low drilling density especially in the east and west extension, and to add the resource base;</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 Definitive Feasibility Studies;</li> <li>Negotiating production off-take agreements; and</li> <li>Sourcing development finance and constructing the project.</li> </ul>