ASX ANNOUNCEMENT

SAYONA MINING LIMITED

16 FEBRUARY 2017

AUTHIER MAIDEN JORC ORE RESERVES

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to announce a maiden Ore Reserve estimate based on the positive outcome of the Pre-Feasibility Study ("PFS") for the development of the Authier lithium project in Quebec, Canada.

The PFS which is the subject of a separate announcement made today, demonstrates the technical and financial viability of constructing a simple, low-strip ratio, open-cut mining operation and processing facility producing spodumene concentrate. The positive PFS demonstrates the opportunity to create substantial long-term sustainable shareholder value at a manageable capital cost.

The positive PFS is considered sufficient to determine, in accordance with the JORC Code 2012, that a subset of the Measured and Indicated Mineral Resource (please see ASX announcement "Authier Lithium Project JORC Resource Significantly Expanded", 23 November 2016) be classified as Ore Reserves – see Table 1.

Table 1 – Authier JORC Ore Reserve Estimate (0.45% Li_2O cut-off grade)

Category	Tonnes (Mt)	Grades (% Li_2O)	Contained Li_2O
Proven Reserve	4.9	0.97%	47,821
Probable Reserve	5.3	1.06%	55,904
Total Reserves	**10.2**	**1.02%**	**103,725**

The PFS demonstrates that a viable mining and processing operation, and the infrastructure to support this, are available to develop the project. The PFS takes into account all the modifying factors considered material to the development of the project and statement of Ore Reserves. The inputs into the economic and financial analysis were based on realistic assumptions of technical, engineering, operating and economic factors. The capital and operating cost estimates were obtained from reputable consulting groups at the appropriate level of confidence for the PFS.

The PFS recommends advancing the project to the next study phase in conjunction with a number of optimisation programs, including additional definition and expansion drilling, further geotechnical and metallurgical test-work, and consideration of other downstream value-adding opportunities.

Corey Nolan, Chief Executive Officer, commented "*This Ore Reserve, along with the recently completed Pre-Feasibility Study represents a significant milestone for the Company as it transitions from explorer to developer. A drilling program has commenced with the aim of significantly expanding the project resource and reserve base, and improving the economic returns of the project*".

SAYONA MINING LIMITED
Phone: +61 7 3369 7058
Email: info@sayona,mining.com.au
Address: Suite 68, 283 Given Tce, Paddington QLD 4064
Post: PO Box 1357, Milton, Qld 4064, Australia

www.sayonamining.com.au

ASX Code: **SYA**

Authier Pre-Feasibility Overview

Introduction

The Authier project area comprises 19 mineral claims totaling 653 hectares, and extends 3.4 kilometres in an east-west, and 3.1 kilometres in a north-south direction. The mineral claims are located over Crown Land. The tenure is all in good standing and there are no known impediments to obtaining a license to operate. The claims are subject to a number of underlying vendor royalties.

The Authier project is situated 45 kilometres north-west of the city of Val d'Or, a major mining service centre, situated in the Province of Quebec. Val d'Or is located approximately 466 kilometres north-east of Montreal. The project is easily accessed by a rural road network connecting to a national highway a few kilometres east of the project site.

The deposit is hosted in a spodumene-bearing pegmatite intrusion. The dimensions of the deposit drilled to date are 825 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. 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 4cm long) in a mid-to-coarse grained pegmatite facies.

Mineral Resources

The project has more than 18,800 metres of diamond drilling in 141 holes. The project was initially drilled between 1991 and 1999 by Raymor Resources Ltd (including bulk sampling and metallurgical testing programs), by Glen Eagle between 2010 and 2012, and Sayona has recently completed 3,967 metres of HQ size diamond drilling in 18 holes. Holes were typically drilled perpendicular to the strike of the mineralised pegmatite to provide high confidence in the grade, strike and vertical extensions of the mineralisation.

On 23 November 2016, an independent JORC Mineral Resource (2012) estimate was reported incorporating the 18 diamond core holes for 3,967 metres. The estimation was based on an Inverse Distance Squared interpolation using Micromine software. The parent block dimensions used were 5 metres x 5 metres x 5 metres with sub-blocks of 2.5 metres x 2.5 metres x 2.5 metres in accordance with the drill spacing and pegmatite body geometry.

The JORC compliant Mineral Resource estimate at 0.5% Li_20 cut-off grade is outlined in Table 2.

Table 2 – Authier JORC Mineral Resources Estimate (0.5% Li_20 cut-off grade)

Category	Tonnes (Mt)	Grades % Li_20	Contained Li_20
Measured	4.72	1.03%	48,519
Indicated	7.13	1.10%	78,280
Inferred	1.90	1.05%	19,901
Total	**13.75**	**1.06%**	**146,700**

Mineral Reserves

The Measured and Indicated Resources were used for the optimisation studies to estimate the Ore Reserves, and SGS Canada found no material flaws in the existing Mineral Resource model. All the mineralised material classified in the Inferred Resource category was considered as waste for the pit optimisation process.

SGS Canada's scope of work for the mining study, included:

- Mine planning criteria (dilution, ore losses and cut-off grade criteria);
- Open pit optimisation to determine pit shell for eventual economic extraction of the orebody;
- Mine design and scheduling;
- Mine infrastructure and layout;
- Mine production scheduling;
- Mining capital and operating cost estimation;
- Revenue and cost modelling; and
- JORC (2012) Ore Reserve reporting.

The non-mining related optimisation inputs and modifying factors utilised were derived from the PFS level assessment work, including:

- Processing costs for the plant designed by Bumigeme;
- Metallurgical recovery factor of 80% to a 5.75% Li_2O concentrate by SGS Lakefield;
- Average life of mine selling price of US$515/tonne for 5.75% Li_2O concentrate (source: Deutsche Bank);
- An exchange rate of 0.76 CAD:USD; and
- Concentrate handling costs provided by a logistics contractor.

As part of the 2016 drilling program, the Company drilled 18 holes totaling 3,967 metres of oriented HQ core. Geo-technical work included logging the spodumene bearing pegmatite and adjacent footwall and hanging wall rock of 18 drill holes. Two holes were fully logged and 2,681 structures were identified, and 142 point load tests were performed. The Company also collected 10 samples for uniaxial compression strength testing at the Université de Montréal l which confirmed the ore as being very hard to extremely hard. The information produced was used to define the proposed pit parameters outlined in Table 3.

Table 3 – Geotechnical Pit Design Parameters		
Parameter	**Unit**	**Value**
Overall Slope Angle (rock)	degrees	40-45
Overall Slope Angle (overburden)	degrees	30
Bench Height (single bench)	metres	5
Bench Height (double bench)	metres	10
Batter Face Angle	degrees	70/80
Berm Width (double bench)	metres	6

SGS Canada carried out the pit optimisation utilising Whittle Software based on conventional open pit mining using trucks and a hydraulic shovel, at a 0.45% Li_2O cut-off grade. The basic optimisation principle of the algorithm operates on a net value calculation for each block in the model (i.e. revenue from sales less total operating cost, being mining, processing, and general and administration costs) in order to determine to what extent the deposit can be mined profitably. The Ore Reserve statement outcomes are outlined in Table 4.

Table 4 – Authier JORC Ore Reserve Estimate (0.45% Li_2O cut-off grade)			
Category	**Tonnes (Mt)**	**Grades (% Li_2O)**	**Contained Li_2O**
Proven Reserve	4.9	0.97%	47,821
Probable Reserve	5.3	1.06%	55,904
Total Reserves	**10.2**	**1.02%**	**103,725**

The Company is pleased with the very high conversion rate of 86% of the Measured and Indicated Mineral Resources to Ore Reserves.

The design indicates a pit of ~900 metres in length (east-west), an average of 450 metres width (north-south) and down to a final pit depth of 190 metres. The maximum planned total material movement, including waste, stockpile reclaim, and ore to the run-of-mine ("ROM") pad is 7.8 Mtpa.

The Company is now looking at a number of optimisation options that it believes will significantly enhance the value of the project, including additional definition and expansion drilling, further metallurgical and geotechnical test-work, and other downstream value-adding opportunities.

Mineral Resource Estimate (Summary Information Required by Listing Rule 5.8.1)

Geology and Geological

The Property geology comprises intrusive units of the La Motte pluton to the north and Preissac pluton to the south, with volcano-sedimentary lithologies of the Malartic Group in the centre. The volcano-sedimentary stratigraphy is generally oriented east-west and ranges between 500 metres and 850 metres in thickness (north-south). The volcanic units comprise principally ultramafic (peridotitic) metavolcanic flows with less abundant basaltic metavolcanics. Several highly metamorphosed metasedimentary units described as hornblende-chlorite-biotite schists occur on the south-central portion of the Property generally in contact with the La Motte pluton to the north (Karpoff 1994).

The northern border of the Preissac pluton, composed of granodiorite and monzodiorite, runs east-west along the southern edge on the Property. To the north, muscovite monzogranitic units of the La Motte pluton cover the Property. Numerous small pegmatites generally composed of quartz monzonite are intruding the volcanic stratigraphy including the larger spodumene-bearing pegmatite which is the focus of the current Mineral Resource estimate.

The deposit is hosted in a spodumene-bearing pegmatite intrusion. The dimensions of the deposit drilled to date are 825 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 under up to 10 metres of cover in the western sector. 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 4cm long) in a mid-to-coarse grained pegmatite facies**.**

Drilling Techniques and Hole Spacing

The project has more than 18,800 metres of diamond drilling in 141 holes. The project was initially drilled between 1991 and 1999 by Raymor Resources Ltd, by Glen Eagle between 2010 and 2012, and Sayona has recently completed 3,967 metres of drilling in 18 holes, HQ core diameter size, standard tube and bit. The core was oriented using a Reflex ACT III tool. All core drilling before 2016 was NQ core diameter size, standard tube and bit, not oriented.

Holes were typically drilled perpendicular to the strike of the mineralised pegmatite to provide high confidence in the grade, strike and vertical extensions of the mineralisation.

DDH holes were drilled on nominally grid patterns ranging from 30 metres x 30 metres up to 50 metres x 50 metres. The grid pattern is considered an adequate spacing for establishing geological and grade continuity along strike and down dip and therefore appropriate for defining Measured, Indicated and Inferred Resource categories within the resource area.

Sampling and Sub-Sampling

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.

Sampling boundaries are based in geological contacts of spodumene-bearing pegmatite with host rock.

In general, at least two host rock samples were collected each side of the contacts with the mineralised pegmatite.

Sample preparation of the 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 pulverising onsite to respect the specifications of the analytical protocol, and then are shipped to SGS Mineral Services laboratories in Lakefield, Ontario, for analysis.

Sample sizes are considered appropriate with regards to the grain size of the sampled material.

For sample preparation and sub-sampling techniques, and details of drill core samples before 2016, please refer to Table 1 of ASX release "Authier JORC Resource Estimate", 7 July 2016.

Sample Analysis Method

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 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 250g sub-sample which is then pulverised to 85% passing 200 mesh (75 microns).

The analyses of all 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 lithium are 10 ppm (lower) and 10,000 ppm (upper).

No geophysical or handheld tools were used.

Quality control protocols ("QA/QC") involve a review of laboratory supplied internal QA/QC and in-house controls, consisting of 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 JORC Resource Estimate", 7 July 2016.

Mineral Tenement and Land Tenure Status

The Property consists in one block of map designated claim cells located at the border between the La Motte Township and the Preissac Township, totalling 19 claims covering 653 hectares. The Property extends 3.4km in the east-west direction and 3.1km north-south. Approximately more than 75% of the Mineral Resources are present inside the 3 claims (CDC 2183454-2183455 and 2194819). Less than 25% of the estimated Mineral Resources are present inside the claim (CDC2116146).

All tenements covering the deposit are in good standing and there are no known impediments to obtaining a license to operate.

Estimation Methodology

The Resource Estimate was based on an Inverse Distance Power ("IDP") interpolation with an oriented "ellipsoid" search using Micromine software. The parent block dimensions used were 5 metres x 5 metres x 5 metres with sub-blocks of 2.5 metres x 2.5 metres x 2.5 metres in accordance with the drill spacing and pegmatite body geometry. The Mineral Resource estimate was undertaken using reported intercepts calculated using arithmetic averages, no top-cut, and a 0.5% Li_2O cut-off grade.

Three dimensional mineralised wireframes were used to domain the Li_2O data using a 0.5% Li_2O cut-off for mineralised domain limits. Sample data was composited to 1.0 metre down hole lengths. The Li_2O values in intervals with assays below the detection limit were set to half of detection limit. Internal low grade samples up to three consecutive metres (lower than 0.5% Li_2O) were included in the mineralised wireframe as internal dilution. Based on the statistical analysis there is no need for grade capping. The search ellipsoid was orientated to the average strike, plunge, and dip of pegmatite body. Three passes were used. The first pass had a range of 30 metres, with a minimum of 5 composites. For the second pass, the range was 50 metres, with a minimum of 4 composites. For the third pass, the range was extended to 90 metres, with a minimum of 1 composites. A maximum of 20 composites were used for all three passes.

The block model size used in the Mineral Resource estimate was based on drill sample spacing and pegmatite body geometry. Selective mining units were not modelled.

Resource Classification

The Authier Lithium Mineral Resource was classified as a Measured, Indicated and Inferred, based on drilling density, sample spacing and geological/mineralisation continuity in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012).

The Measured Mineral Resource was defined within areas of close spaced diamond drilling of less than 35 metres by 35 metres, and where the continuity and predictability of the spodumene bearing pegmatite was good. The Indicated Mineral Resource was assigned to areas where drill hole spacing was less than 50 metres by 50 metres. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 50 metres by 50 metres generally in the edges of the known mineralisation, mostly in down-dip extensions beyond the last drill holes in each section.

The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level

geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades.

The Mineral Resource estimates appropriately reflect the view of the Competent Person.

Cut-off Grade

The Mineral Resource has been reported at a 0.5% Li_2O cut-off. The cut-off grade is based on the detailed economic analysis performed by SGS in 2013 for the Authier Lithium Preliminary Economic Assessment ("PEA") report. It was updated in 2016, assuming the selling of the spodumene concentrate on the Asian market, taking into account the impact of the transportation cost, and using a more conservative approach. This resulted in a cut-off grade of 0.5 % Li_2O being reported, which is considered reasonable to develop an open cut operation on a standalone basis.

The Company notes that the JORC Mineral Resource has been prepared at 0.5% Li_20 cut-off grade which is higher than the Ore Reserve, which has been prepared at a 0.45% Li_20 cut-off grade. For the purpose of the PFS, the Company believes there is no material difference between the tonnage and grade at the two cut-off grades (a sensitivity table is provided in the ASX release, "Authier JORC Significantly Expanded", 23 November 2016).

Mining and Metallurgical Methods and Parameters and Other Modifying Factors

Taking into account the geometry and the depth of the mineralised zone, the Authier Lithium deposit will be mined using open-pit mining methods.

Based on the metallurgical test work conducted at Authier, a 5.75% Li_2O concentrate can be produced using conventional flotation technology suitable for a pegmatite orebody. The processing plant comprised seven key areas including three-stage crushing, grinding, mica-flotation, spodumene flotation, magnetic separation, concentrate dewatering and drying, and tailings filtering.

No dilution or ore loss factors have been taken into account in the JORC Resource.

Notes to Accompany Mineral Resources Estimate Table:

- Assays for the updated 2016 Resource Estimate at the Authier project were derived from 118 Diamond Core Holes for 16,048 metres. This dataset includes, 18 diamond core holes for 3,967 metres conducted by Sayona in 2016, at a HQ core size. Drilling before Sayona was NQ core size.
- Drilling density at Authier ranges from 30 metres x 30 metres up to 50 metres x 50 metres, with the grid pattern extending over the majority of the deposit area.
- Mineralisation wireframes were delineated based on a nominal 0.5% Li_2O lower cut-off at start and end of each mineralised interval.
- A resource block model was constructed with parent block dimensions of 5 metres x 5 metres x 5 metres with sub-blocks of 2.5 metres x 2.5 metres x 2.5 metres in accordance with the drill spacing and geological models, reflecting pegmatite body geometry and wall rock lithology.
- The Resource Estimate was based on an Inverse Distance Power (IDP) interpolation with an oriented "ellipsoid" search using Micromine software. No top cuts were applied.

- The Authier Lithium Mineral Resource was classified as a Measured, Indicated and Inferred, based on drilling density, sample spacing and geological/mineralisation continuity in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012).
- The Measured Mineral Resource was defined within areas of close spaced diamond drilling of less than 35 metres by 35 metres, and where the continuity and predictability of the spodumene bearing pegmatite was good. The Indicated Mineral Resource was assigned to areas where drill hole spacing was less than 50 metres by 50 metres. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 50 metres by 50 metres, generally in the edges of the known mineralisation and mostly in down-dip extensions beyond the last drill holes in each section.
- Specific gravity ("SG") measurements were conducted by SGS on 38 mineralised core samples collected from drill holes AL-10-01 and AL-10-11. The measurements were performed using the water displacement method (weight in air/volume of water displaced) on representative half core piece, returning average SG value of 2.71 t/m3.
- The Resource Estimate was checked against previous estimates and internally against geological and mineralisation models.
- Future mining at Authier deposit is planned to be open cut using drill-blast, standard excavator and truck mining methods. No other assumptions on mining methodology have been made.

Ore Reserve Estimate (Summary Information Required by Listing Rule 5.9.1)

Material Assumptions

The material assumptions which support the Ore Reserve Estimate, the Production Targets and the forecast financial information derived from the Production Targets are disclosed in the body of the announcement and outlined in the ASX Additional Information – Material Assumptions section, with the exception of commercially sensitive information.

The mining costs used by SGS in the calculation of the Ore Reserve Estimate were based on the physicals derived from the Life-of-Mine ("LOM") schedule developed by SGS, mining costs obtained from hard rock mining equipment suppliers with experience in Quebec Province and current fuel prices, and an owner cost component developed by SGS with input from Sayona.

Criteria Used for the Classification of Ore Reserves

The Measured and Indicated Resources were used for the optimisation studies to estimate the Ore Reserves. All the mineralised material classified in the Inferred Resource category was considered as waste for the pit optimisation process.

SGS Canada carried out the pit optimisation utilising Whittle Software based on conventional open pit mining using trucks and a hydraulic shovel. The basic optimisation principle of the algorithm operates on a net value calculation for each block in the model (i.e. revenue from sales less total operating cost, being mining, processing, and general and administration costs), in order to determine to what extent the deposit can be mined profitably.

Proven Ore Reserves were determined from Measured Resource material.

Probable Ore Reserves were determined from Indicated Resource material as per the JORC guidelines.

The Ore Reserve Estimate has been classified based on guidelines specified in the 2012 JORC Code.

Mining Method and Assumptions

The mining method is based on conventional open pit mining using trucks and hydraulic shovel. In order to develop an optimal engineered pit design for the Authier deposit, an optimised pit shell was first prepared using the Dassault System Whittle software. The basic optimisation principle of the algorithm operates on a net value calculation for each block in the model (i.e. revenue from sales less total operating cost, being mining, processing, and general and administration costs), in order to determine to what extent the deposit can be mined profitably.

The design indicates a pit of ~900 metres in length (east-west), an average of 450 metres width (north-south) and down to a final pit depth of 190 metres. The maximum planned total material movement including waste, stockpile reclaim, and ore to the run-of-mine ("ROM") pad is 7.8 Mtpa.

The total surface area of the pit is roughly 350,000 m^2.

Major assumptions for pit optimisation include:

- Ore production rate of 0.7 Mtpa;
- 80% recovery of Li_2O as 5.75% spodumene concentrate;
- Total Ore Based Cost of CAD$21.85/t treated; and
- Waste mining cost at surface of CAD$2.94/t mined.

The NPV has been calculated with a selling price of US$/485t of concentrate at a discount rate of 8%. The mining dilution was estimated at 5%, and the Ore Losses have also been estimated at 5%. Mining infrastructure includes ROM pad, tailings pad, overburden and waste rock stockpiles haul roads, workshops and other buildings

Processing Method and Assumptions

Based on the results of the 2016 SGS Lakefield metallurgical testing, Bumigeme have designed a concentrator plant to process 2,000 tonnes per day or approximately 700,000 tpa of ore feed using conventional flotation technology suitable for a pegmatite orebody. The processing plant comprised seven key areas including three-stage crushing, grinding, mica-flotation, spodumene flotation, magnetic separation, concentrate dewatering and drying, and tailings filtering. The plant will produce a 5.75% Li_20 concentrate suitable for sale to lithium carbonate conversion plants that supply feed-stock to the lithium battery manufacturers.

In 2016, Sayona completed a detailed metallurgical testing program using core from twenty-three historical diamond holes totaling 430 kilograms, representing the entire deposit geometry (including the anticipated 5% mine ore dilution) at SGS Lakefield in Canada. The program included:

- Mineralogical analysis using QEMSCAN;
- Heavy Liquids Separation testing to demonstrate whether Authier spodumene ore is amenable to concentration using Dense Media Separation;

- Further grind-ability testing; and
- Batch and locked cycle flotation testing.

The Ore Reserve has been produced based on a 5.75% Li_2O spodumene concentrate.

Cut-off Grades

The economic parameters used by SGS in the pit optimisation outlined a breakeven cut-off grade for Authier of 0.3% assuming that the spodumene concentrate will be sold in the domestic market. Additional cut-off grade calculation was performed by SGS to estimate the difference if the spodumene concentrate was sold on the Asian market (i.e. transported to China), and to assess the impact of the transportation costs. The resulting open pit cut-off grade in this scenario was calculated at 0.45% Li_2O which was used by SGS to develop the production schedule and the Open Pit Mineral Reserve Estimate on a standalone basis. This cut-off grade of 0.45% Li_2O incorporates estimated mining dilution of 5%, and estimated Ore Losses of 5%.

Estimation Methodology

Please refer to the discussion on this item as set out in the previous section which details the summary information required by LR 5.8.1 for Mineral Resource estimates.

The independent Mineral Resource estimate was undertaken using reported intercepts calculated using arithmetic averages of 1 metre composites samples, no top-cut, and a 0.5% Li_2O cut-off grade. The estimation was based on an Inverse Distance Squared interpolation using Micromine software. The parent block dimensions used were 5 metres x 5 metres x 5 metres with sub-blocks of 2.5 metres x 2.5 metres x 2.5 metres in accordance with the drill spacing and pegmatite body geometry.

Inverse Distance Power interpolation with an oriented 'ellipsoid' search was used for the estimates. Micromine software was used for the estimations. Three dimensional mineralised wireframes were used to domain the Li_2O data. Sample data was composited to 1 metre down hole lengths. Based on the statistical analysis, there is no need for grade capping.

An orientated 'ellipsoid' search was used to select data and was based on the observed lens geometry. The search ellipsoid was orientated to the average strike, plunge, and dip of pegmatite body. Three passes were used. The first pass had a range of 30 metres, with a minimum of 5 samples. For the second pass, the range was 50 metres, with a minimum of 4 samples. For the third pass, the range was extended to 90 metres, with a minimum of 1 sample. A maximum of 20 samples was used for all three passes.

The parent block dimensions used were 5 metres x 5 metres x 5 metres with sub-blocks of 2.5 metres x 2.5 metres x 2.5 metres. The parent block size was selected on the basis of being approximately 25% of the average drill hole spacing.

The block model size used in the Mineral Resource estimate was based on drill sample spacing and pegmatite body geometry. Selective mining units were not modelled.

The Mineral Resource has been estimated and reported in accordance with the guidelines of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). The JORC compliant Mineral Resource estimate at 0.5% Li_20 cut-off grade are outlined in Table 5.

Table 5 – Authier JORC Mineral Resources Estimate (0.5% Li_2O cut-off grade)			
Category	**Tonnes (Mt)**	**Grades % Li_2O**	**Contained Li_2O**
Measured	4.72	1.03%	48,519
Indicated	7.13	1.10%	78,280
Inferred	1.90	1.05%	19,901
Total	**13.75**	**1.06%**	**146,700**

The Measured Mineral Resource was defined within areas of close spaced diamond drilling of less than 35 metres x 35 metres, and where the continuity and predictability of the spodumene bearing pegmatite was high. The Indicated Mineral Resource was assigned to areas where drill hole spacing was less than 50 metres x 50 metres. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 50 metres x 50 metres, generally in the edges of the known mineralisation, mostly in the down-dip extensions beyond the last drill holes in each section.

The cut-off grade is based on the economic analysis performed by SGS in the 2013 PEA report, and then updated in 2016 assuming the selling of the spodumene concentrate on the Asian market. A 0.5% Li_2O cut-off grade was reported, which is considered reasonable to develop an open cut operation on a standalone basis.

Infrastructure

The Authier project is situated approximately 466 kilometres north-west of Montreal. The established mining support city of Val d'Or is situated 45 kilometres south-east of the project, and the city of Amos is 20 kilometres to the north. The project is readily accessible from Val d'Or or Amos by the national highway and a high-quality rural road network five kilometres east of the project site. Val d'Or is a major mining centre in northern Quebec, and coupled with other nearby cities, can provide an experienced mining workforce and other mining related support services. Val d'Or is serviced several times daily by various airlines from Montreal.

Val d'Or has a very well established infrastructure including:

- The Canada National Rail has an extensive rail network throughout Canada. The closest rail connecting to export shipping ports is at Cadillac 20 kilometres to the south-west. The rail network connects to Montreal and Quebec City, and to the west through the Ontario Northland Railway and North American rail system; and
- Quebec is a major producer of electricity, as well as one the largest hydropower generators in the world. Green and renewable energy is well distributed through a reliable power network. Power will be accessed 5 kilometres to the east of the project site via an electricity grid supplied by low-cost, hydro-electric power. The estimated total power consumption for the project in full operation is 7.2 MW.

Economic

The economic analysis is based on cash flows driven by the production schedule. The cash flow projection includes:

- Initial and sustaining capital estimates;
- Mining, processing and concentrate logistics costs to the customer based on FOB Port of Montreal pricing;
- Revenue estimates based on concentrate pricing adjusted for fees, charges and royalties;
- Closure costs; and
- An 8% real discount factor.

Spodumene pricing was based on forecasts from the Deutsche Bank Lithium Report dated 9 May 2016.

Other factors, include:

1. The average head grade of the Ore has been estimated at 1.02% Li_2O over the 15 years of processing operation;
2. Processing recoveries of 80% of Li_2O as 5.75% spodumene concentrate;
3. Spodumene selling price of US$515/t of concentrate at a discount rate of 8%;
4. An exchange rate of 0.76 USD per CAD was used to convert the USD market price projections into Canadian currency;
5. **Corporate tax** - The current Canadian tax system applicable to Mineral Resource Income is used to assess the Project's annual tax liabilities. This consists of federal and provincial corporate taxes as well as provincial mining taxes. The federal and provincial corporate tax rates currently applicable over the Project's operating life are 15.0% and 11.9% of taxable income, respectively. The marginal tax rates applicable under the recently adopted mining tax regulations in Quebec (originally proposed as Bill 55, December 2013) are 16%, 22% and 28% of taxable income and depend on the profit margin. The analysis for the PFS is done on a pre-tax basis;
6. **Inflation** – All the forecasts within the financial analysis are on a real basis i.e. with no inflation adjustments; and
7. **Royalties** – The Quebec Government does not impose any royalties on mineral production. However, Authier is subject to a number of vendor royalty payments and a 2% NSR royalty was assumed in the Ore Reserve Estimate and financial modeling undertaken for the PFS.

Other Non-Mining Modifying Factors

No material naturally occurring risks have been identified.

The Authier Lithium Property comprises one block of 19 map designated claim cells covering 653 hectares that are properly granted and in good standing, and have sufficient area for open pit, plant and other infrastructure. Surface rights for all the claims composing the Property are owned by the government. There is no reason to believe that the Company will not be able to secure the surface rights to construct the infrastructure related to a potential

mining operation, including tailings storage and waste disposal areas, and processing plants. There are no apparent impediments to obtaining all government approvals required for the project. Sayona is conducting exploration work under valid intervention permits delivered by the Quebec Government, and there are no known environmental liabilities pertaining to the Property. Some of the claims containing Mineral Resources are subject to mining royalties. Road access has been granted.

Lithium concentrate produced from Authier will be classed as Chemical Grade specification, principally due to its high iron content. The principal markets for Chemical Grade concentrates are battery, lubricants, aluminum smelting and pharmaceuticals applications. The lithium market is currently experiencing a major demand shift driven by the increasingly critical role of the lithium-ion battery technology for storage applications in the automotive, consumer electronics and electricity storage/distribution sectors. For the Authier PFS, Deutsche Bank forecasts from a comprehensive lithium study prepared on the 9th May 2016 have been used.

The Company is exploring a number of options for selling high-quality spodumene concentrate that will be produced from a future operation at Authier. This includes direct sales of concentrate to converters that produce lithium products suitable for the global battery markets.

The Company has had discussions with companies that have or are proposing to build lithium carbonate plants in Canada, and has received strong interest for the supply of new concentrates to these facilities. In addition, in early November 2016, the Company attended a global lithium conference in China and held a number of discussions with interested parties seeking to establish long-term spodumene sales contracts. The Company is also assessing the option of processing and producing a lithium carbonate product through an integrated downstream processing facility at Authier.

For more information, please contact:

Corey Nolan
Chief Executive Officer
Phone: +61 (7) 3369 7058
Email: info@sayonamining.com.au

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 following previous ASX releases:

- "Authier JORC Resource Estimate", 7 July 2016
- "Authier Lithium Project JORC Resource Significantly Expanded", 23 November 2016

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Results and Mineral Resources 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 campaign (3,967 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.

The information in this report that relates to the Ore Reserves for the Authier Lithium deposit is based on information compiled by M. Patrick Perez, Professional Engineer and member of the Association of Professional Engineers and Geoscientists of Saskatchewan (member #16131). M. Perez is a Manager and Senior Mining Engineer of SGS Canada Inc. and has sufficient experience that is relevant to the activity of Ore Reserve estimation to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. M. Perez was responsible for the mining engineering sections of the Prefeasibility Study concerning the Authier project. M. Perez consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

FORWARD LOOKING STATEMENTS

This presentation may contain certain forward looking statements. Such statements are only predictions, based on certain assumptions and involve known and unknown risks, uncertainties and other factors, many of which are beyond Sayona Limited's control. Actual events or results may differ materially from the events or results expected or implied in any forward looking statement. The inclusion of such statements should not be regarded as a representation, warranty or prediction with respect to the accuracy of the underlying assumptions or that any forward looking statements will be or are likely to be fulfilled. Sayona Mining Limited undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date of this presentation (subject to securities exchange disclosure requirements). The information in this presentation does not take into account the objectives, financial situation or particular needs of any person. Nothing contained in this presentation constitutes investment, legal, tax or other advice.

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
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.*	• All holes reported in this program have been Diamond Core Drill holes (DDH) • 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. • High to low grade lithium-bearing mineralisation (spodumene) is visible during geological logging and sampling. • 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.
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).*	• Core drilling, core diameter size HQ. Standard tube and bit. • Core was oriented using a Reflex ACT III tool. • All core drilling before 2016 was NQ core diameter size, standard tube and bit, not oriented.
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.*	• Diamond drill hole core recoveries and RQD are logged. Measurements are taken systematically down hole between core blocks i.e. ~3 metre increments. • Core recovery has been above 99%. • Based on drilling method being diamond core and the near 100% core recovery the sampling is representative. • High competence of the core tends to preclude any potential issue of sampling bias
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*	• Geological logging, RQD measurements, alpha and beta angles of structures as core orientation using reflex tool completed for all holes done in 2016 by Sayona. • Geological logging of main characteristics such as rock type, spodumene abundance,

Criteria	JORC Code explanation	Commentary
	nature. Core (or costean, channel, etc) photography. • *The total length and percentage of the relevant intersections logged.*	mica abundance, etc has occurred in summary and detail at the pegmatite intervals and surrounding host rock. • 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. • The geological and geotechnical logging is at an appropriate level for the stage of development drilling being undertaken. • The logging of the geological features was predominately qualitative. Parameters such as spodumene abundance are visual estimates by the logging geologist. • 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. • 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.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• 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. • Sampling boundaries are based in geological contacts of spodumene-bearing pegmatite with host rock. • In general at least two host rock sample were collected each side from the contacts with the mineralised pegmatite. • 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 pulverising there to respect the specifications of the analytical protocol and then shipped to SGS Mineral Services laboratories in Lakefield, Ontario, for analysis • Sample sizes are considered appropriate with regard to the grain size of the sampled material • For sample preparation and sub-sampling techniques details of drill core samples before 2016 please refer to Table 1 of ASX

Criteria	JORC Code explanation	Commentary
		release “Authier Lithium Project JORC Resource Estimate” 7 July 2016.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• 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 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 pulverised to 85% passing 200 mesh (75 microns). • The analyses of all 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	• *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.*	• All the pegmatite intersections and assay results have been reviewed by the Competent Person and Sayona´s geologist and personnel. • Lithium (ppm) reported in assays is converted to Li2O by multiply Li (ppm) X 2.153 (conversion factor) • The entire drilling program conducted by Sayona in 2016 was logged by 2 geologists, a Sayona´s employee and Sayona´s Competent Person using technicians from

Criteria	JORC Code explanation	Commentary
		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. • The core boxes were photographed and are available for verification at Services GFE storage facilities less than 4 km southeast from the Authier project. • No twinned holes were drilled during this 2016 drilling campaign by Sayona. • Primary data was recorded on laptop computers directly into standardised 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 • No adjustments to assay data have been undertaken. • 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.
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.*	• 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. • 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. • Downhole surveys (dip and azimuth) were collected as multiple shot readings using a Reflex tool. • The grid system used is 1983 North American Datum (NAD83) • The level of topographic control offered by the collar survey is considered sufficient for the work undertaken at its current stage.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drill holes were drilled perpendicular to the lithium mineralised pegmatite as shown on the attached plan. • Drill collars were sited to provide the best geological information possible to test the grade, strike and vertical extensions of mineralisation. • The data spacing is sufficient to estimate geological and grade continuity of observed

Criteria	JORC Code explanation	Commentary
		mineralisation and therefore to produce a JORC compliant Mineral Resource estimate. • Sample compositing has not been applied.
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.*	• Drilling grid orientation is perpendicular to the strike of the mineralisation determined by previous mapping and historical drilling. • No bias attributable to orientation of sampling upgrading of results has been identified.
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 by company´s field personnel, recording of sample dispatch and receipt reports, secure delivering of samples to SGS laboratory facilities. • 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.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audit or review of the sampling techniques and data for this release has been carried out. • 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. • 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.

Section 2 - Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• 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 19 claims covering 653.57 ha. The Property extends 3.4 km in the east-west direction and 3.1 km north-south. • From the 19 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

Criteria	JORC Code explanation	Commentary
		acquired through two separate purchasing agreements and one claim is held under an option agreement. 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 • 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). • 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. • 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. • 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.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 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. • The project has more than 18,000 metres of drilling in 141 diamond holes, and 3,961 assay samples. The project was initially drilled between 1991 and 1999 by Raymor Resources, and then by Glen Eagle between 2010 and 2012. • 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

Criteria	JORC Code explanation	Commentary
		drilled a total of 3,034 m mainly on the Authier Pegmatite deposit and other areas.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit is hosted in a spodumene-bearing pegmatite intrusion. The deposit is 825 metres 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	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis 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.*	• 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. • Drill hole details are reported in the ASX announcement dated 23 November 2016, "Authier Lithium Project Resource Significantly Expanded".
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 weight averaging or high-grade cut has been applied to any of the sample assay results. • Reported intercepts have been calculated as arithmetic averages using a 0.5% Li_20 lower cutoff grade, as described in the body text of this release. • 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. • Metal equivalent values have not been reported.
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').*	• Drilling has been sited to intersect the lithium mineralisation orthogonally. • Drilling widths reported are downhole intercept widths and true width is approximately 90% of drilling width.
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*	• A Collar Plan and typical cross-sections are presented, drill hole details are reported in ASX announcement dated 23 November 2016, "Authier Lithium Project Resource Significantly

Criteria	JORC Code explanation	Commentary
	plan view of drill hole collar locations and appropriate sectional views.	Expanded".
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.*	• The reporting is considered to be balanced.
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 Sayona 2016 diamond drilling campaign was 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. • Details of metallurgical test work are detailed in ASX announcement dated 23 November 2016, "Authier Lithium Project Resource Significantly"
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.*	• Sayona´s Project Development strategy is detailed as follows: o Testing for mineralisation in the east and west strike extensions including potential extensions of high grade lithium mineralisation between 100 metres to 200 metres below surface. o Defining the mineralised boundaries and lifting the resource categories in the western sector that was not accessible during the summer months; o Assessing the resource potential of the new northern pegmatite. Any new mineralisation within the new pegmatite is likely to fall within the main Authier open-cut pit shell. Any new resources will significantly improve the waste to ore ratio in a future operation. o Exploring for extensions to the existing mineral resources and other potential mineralisation within the tenement package; o Completion of Environmental studies and Definitive Feasibility Studies; o Negotiating production off-take agreements; and o Sourcing development finance and constructing the project.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• The digital drill hole database was audited by the author using Micromine validation tools for: collar location, azimuth, dip, hole length, survey data and analytical values. There were no relevant errors or discrepancies noted during the validation. • For details on Database Integrity before 2016 please refer to Table 1 of ASX release "Authier JORC Resource Estimate" 7 July 2016.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• For the November 2016 JORC estimate, the Author was stationed on site and was responsible for the overall management, coordination and execution of the drilling program (this was approximately 2 months). • The author visited Authier Lithium deposit during 28 and 29 May 2016 prior to the project acquisition. For the July 2016 JORC Resource, the Author reviewed drill hole collars, surface geology and mineralised diamond core intervals stored at project field facilities and it was concluded that these were being conducted to best industry practice
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the geological interpretation at Authier Lithium deposit is considered to be good and is based on the drilling density and well known geological features. • Drill hole logging by Glen Eagle and Sayona's geologists, through direct observation of drill core samples have been used to interpret the geological setting. • The continuity of the main mineralised body is clearly observed by Li_2O grades correlated with spodumene rich pegmatite within the drill holes. The nature and continuity along strike of the lithium mineralisation would indicate that alternate interpretations would have little impact on the overall Mineral Resource estimation. • The mineralisation is related to a pegmatite intrusive with multiple phases of spodumene mineralisation.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Authier Lithium Mineral Resource area extends over a strike length of 825 m, has an average width of 25 m, typically extends down just below 200 metres, and dips 40 degrees to the north.
Estimation and	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation*	• Inverse Distance Power (IDP) interpolation with an oriented 'ellipsoid' search was used for the estimates. Micromine software was used for the estimations.

Criteria	JORC Code explanation	Commentary
modelling techniques	*parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Three dimensional mineralised wireframes were used to domain the Li_2O data. Sample data was composited to 1.0m down hole lengths. The Li_2O values in intervals with assays below detection limit were set to half of detection limit. • Based on the statistical analysis there is no need for grade capping. • An orientated 'ellipsoid' search was used to select data and was based on the observed lens geometry. The search ellipsoid was orientated to the average strike, plunge, and dip of pegmatite body. • Three passes were used. The first pass had a range of 30 m, with a minimum of 5 samples. For the second pass, the range was 50m, with a minimum of 4 samples. For the third pass, the range was extended to 90 m, with a minimum of 1 sample. A maximum of 20 samples was used for all three passes. • The parent block dimensions used were 5 m x 5 m x 5 m with sub-blocks of 2.5 m x 2.5 m x 2.5 m. The parent block size was selected on the basis of being approximately 25% of the average drill hole spacing. • The block model size used in the Mineral Resource estimate was based on drill sample spacing and pegmatite body geometry. Selective mining units were not modelled.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis. • A table in the body of the ASX release "Authier JORC Resource Estimate" 7 July 2016 demonstrates the grade and tonnage sensitivity to variation in the cut-off grade
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource has been reported at a 0.5% L_2O cut-off. • The cut-off grade is based on the economic analysis performed by SGS in the 2013 PEA and the updated in 2016 assuming the selling of the spodumene concentrate on the Asian market, taking into account the impact of the transportation cost. The 0.5 % Li_2O cut-off grade reported is considered reasonable to develop an open cut operation on a standalone basis
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions*	• Taking into account the geometry and the depth of the mineralised zone, the Authier Lithium deposit will be mined using open-pit mining methods. • No dilution or ore loss factors have been taken into account in the JORC Mineral Resource.

Criteria	JORC Code explanation	Commentary
	made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Metallurgical testing at Authier Lithium deposit was conducted in three stages; 1999, 2012 and 2016. • During 1999 COREM conducted metallurgical testing of approximately 40 tonnes of spodumene-bearing pegmatite material sampled from the main mineralised pegmatite intrusion as part of a pre-feasibility study of the Project during that period under the supervision of Bumigeme. • The complete metallurgical study conducted in laboratory consisted in a total of 48 tests but only 16 tests returning satisfactory results were reported. The most significant results from the process flowsheet returned a Li_2O concentrate grade ranging from 5.78% to 5.89% with a recovery between 67.52% and 70.19% (tests 33 and 47). The average Li2O grades of the pegmatitic material from tests 33 and 47 were 1.15% and 1.13% Li_2O respectively. Test number 12, with an average grade of 1.35% Li_2O, produced a Li_2O concentrate grade of 5.96% with a recovery of 75.02%. • In early fall of 2012, the Company has ordered some mineral processing and metallurgical tests to the SGS Lakefield Laboratory, • The results of these tests are the base of the study prepared by Bumigeme to develop the metallurgical process involved in this PEA Technical Report. Glen Eagle Resources Inc had mandated Bumigeme Inc a Canadian Engineering consulting firm based in Montreal, working mainly in the mining and metallurgical sector, to develop the metallurgical aspect of his Authier Lithium Project. This mandate is part of the Preliminary Economic Assessment (PEA) compliant with NI 43-101 regulations. • The mandate indicated the development a conventional lithium flotation process plant with a capacity of 2,000 TPD, and estimating the capital investment (CAPEX) and operating cost (OPEX) of the concentrator. • The main parameters retained by Bumigeme in their metallurgical section are: o concentrate grade of 6.0% Li2O, and; o overall mill recovery of 80%; o no mica pre-flotation is considered necessary in the processing.

Criteria	JORC Code explanation	Commentary
		• In September 2016, Sayona collected 430 kilograms of half NQ size core from twenty three historical diamond holes for metallurgical testing. The testing is being prepared at SGS Lakefield in Canada. Flotation testing and grinding testing programs are being completed and the results indicated recovery of 80% to a 5.75% Li_20 concentrate. Bumigeme used the data to undertake process engineering studies to design the proposed metallurgical circuit.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• The actual preliminary environmental report, prepared by DESSAU and GFE Forestry & Exploration Services, for Authier Project didn't return environmental issues. Activities by DESSAU and GFE were performed to determine constraints linked to water and sediments quality and to environmental (physical, biological, human) impact. • According to public databases and from field inventories lead during this study by Dessau and GFE, no endangered species or habitats were found. However it is recommended to produce exhaustive inventories to validate or invalidate the presence of specific fauna, flora or habitat. At the end of the drilling program, the revegetation appears to be in a good state. • A plan regarding proposed waste and process residue facilities management and disposal has been prepared and included in the PFS report. • Sayona Mining is currently conducting a geochemical characterisation study of ore, waste rock and tailings samples. The geochemical program will allow to classify the waste rock and tailings according to provincial authorities standard for acid mine drainage and leachability and identify any chemical that could potentially affect the surface or groundwater quality. • No evidence of sulfides were observed in the ore or in the waste rock. Considering the geology of the site at this stage of the study, it is assumed that the waste rock and the tailings will not be acid generating or leachable. • A rehabilitation and closure plan is a requirement under the "Loi sur les mines". It must be approved before the mining lease is issued, and a financial guarantee to fully implement the plan must be provided in three payments in the first two years following the approval of the plan.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the*	• As part of the 2010 independent data verification program, SGS Geostat conducted specific gravity ("SG") measurements on 38 mineralised

Criteria	JORC Code explanation	Commentary
	frequency of the measurements, the nature, size and representativeness of the samples. • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	core samples collected from drill holes AL-10-01 and AL-10-11. The measurements were performed using the water displacement method (weight in air/volume of water displaced) on representative half core pieces weighting between 0.67 kg and 1.33 kg with an average of 1.15 kg, results average SG value of 2.71 t/m3
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Mineral Resource have been classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). • The Authier Lithium Mineral Resource was classified as Measured, Indicated and Inferred Mineral resource based on drilling density, sample spacing and geological / mineralisation continuity. • The Measured Mineral Resource was defined within areas of close spaced diamond drilling of less than 35m by 35m, and where the continuity and predictability of the spodumene bearing pegmatite was good. The Indicated Mineral Resource was assigned to areas where drill hole spacing was less than 50m by 50m. The Inferred mineral resource was assigned to areas where drill hole spacing was greater than 50m by 50m generally in the edges of the known mineralisation mostly in down-dip extensions beyond the last drill holes in each section. • The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades. • The Mineral Resource estimates appropriately reflect the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Prior to Sayona's acquisition of Authier, Internal audits have been completed by SGS Geostats at the request of Glen Eagle Resource Inc in a NI43-101 Technical Report, Preliminary Economic Assessment, 22 January 2013 • No external audits have been undertaken on the Sayona JORC Resource estimate. However, SGS in Canada who are assisting with the preparation of the 2016 Authier Pre-Feasibility Study has reviewed the data for mine planning

Criteria	JORC Code explanation	Commentary
		purposes.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The pegmatite geometry and continuity has been adequately interpreted to reflect the applied level of Measured, Indicated and Inferred Mineral Resource. The data quality is good and the drill holes have detailed logs produced by qualified geologists. All diamond core obtained by Glen Eagle and Sayona drilling campaigns are properly stored and mineralised intervals can be reviewed when required. Recognised laboratories have been used for all analyses. • The Mineral Resource statement relates to global estimates of tonnes and grade.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Ore Reserve Estimate is based in the Mineral Resource Estimate released in 23 November 2016, by Sayona Mining and prepared by Dr. Gustavo Delendatti as Competent Person. The Mineral Resource was reported using a 0.5% Li_2O cut-off. • The Mineral Resource Estimate was reported as: o Measured Resource of 4.72 Mt at 1.03% Li_2O o Indicated Resource of 7.13 Mt at 1.10% Li_2O o Inferred Resource of 1.9 Mt at 1.05% Li_2O • The Mineral Resources are reported inclusive of Ore Reserves
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• For the November 23 2016 Mineral Resource estimate, the Author was stationed on site and was responsible for the overall management, coordination and execution of the drilling program (this was approximately 2 months).

Criteria	JORC Code explanation	Commentary
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• SGS conducted a PFS study on the Authier Lithium Project based on the Measured and Indicated Resources as part of the Mineral Resource Estimate released in November 23, 2016. • As part of the Authier PFS study a mine plan was developed that was technically achievable and economically viable. This mine plan considered material Modifying factors such as mining, processing, metallurgy, infrastructure, economic, marketing, legal, environmental, social and regulatory.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The Mineral Resource provided was a geologically domained resource; this geological model was evaluated to determine which block produced cash surplus when treated as ore. • A cut-off grade calculation was performed by SGS to estimate the difference if the Spodumene concentrate was sold on the Asian market (i.e. transported to China), and to assess the impact of the transportation costs. The resulting open pit cut-off grade was in this scenario calculated at 0.45% Li_2O. • SGS decided to use the most conservative numbers (a cut-off grade of 0.45% Li_2O) to develop the production schedule and the Open Pit Mineral Reserve Estimate on an standalone basis. • An exchange ratio of CAD:USD of 0.76:1.00 has been used for the study.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*	• In order to develop an optimal engineered pit design for the Authier deposit, an optimised pit shell was first prepared using the Dassault System Whittle software. The basic optimisation principle of the algorithm operates on a net value calculation for each block in the model (in other words revenue from sales less total operating cost; mining, processing, and general and administration costs) in order to determine to what extent the deposit can be mined profitably. • The mining method is based on open pit mining. • The pit that has been designed for the Authier deposit is approximately 900 m long and 450 m wide at surface with a maximum pit depth from surface of 190 m. The total surface area of the pit is roughly 350,000 m2. • Overall slope angle: 40° to 45°in rock and 30° in overburden, in accordance with the geotechnical recommendations • Face angle: 70º (footwall) to 80º (hanging wall) • Bench height: 5 m for single bench and 10 m for

Criteria	JORC Code explanation	Commentary
	• *The infrastructure requirements of the selected mining methods.*	double bench. • Safety berm: 6 m width (1 safety berm at each 10 m vertically) • Ramp grade: 10%, acceptable for CAT 772 haul trucks or their equivalents • Ramp width: 14.0 m (single lane) and 19 m (double lanes) following industry practice standards. • The haul road was designed to accommodate the use of conventional mining trucks such as a CAT 772 (46 t payload truck, with 4.7 m width) or equivalent. • As such, the running surface has been designed to 14 m width. The allowance for berms and ditches increases the overall haul road width to 19 m. • Major assumptions for pit optimisation include: ore production rate of 0.7 Mtpa; 80% recovery of Li_2O as 5.75% Spodumene concentrate; total Ore Based Cost of CAD$ 21.85 /t treated; and waste mining cost at surface of CAD$2.94/t mined. The NPV has been calculated with a selling price of 485 US$/t of concentrate at a discount rate of 8%. • The mining dilution was estimated at 5%, and the Ore Losses have also been estimated at 5%. This is to take into account the fact that some waste material will be added into the Ore stream going to the Processing plant and that some of the Ore material will be directed to the Waste dump. The grade of the dilution material (added to the Ore stream) was estimated as an average value of 0% Li_2O. • The addition of mining dilution resulted in lowering the Li2O grade of the Mineral Reserves from 1.06% to 1.02% Li_2O. • In order to access these reserves, 5.6 Mt of overburden and 56.7 Mt of waste rock must be mined. This total waste quantity of 62.3 Mt results in a stripping ratio of 6.1 to 1. • The overburden thickness averages approximately 6 m and ranges from 0 to 12 m. • All the mineralised material classified in the inferred category was considered as waste for the Pit Optimisation process. • Mining infrastructure includes, ROM pad, tailings pad, overburden and waste rock stockpiles haul roads, workshops and other buildings.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.*	• In 2016, Sayona completed a detailed metallurgical testing program using core from twenty three historical diamond holes totaling 430 kilograms, representing the entire deposit geometry (including the anticipated 5% mine

Criteria	JORC Code explanation	Commentary
	• *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	waste dilution), at SGS Lakefield in Canada. The test work delivered an average recovery of 80% at a lithium concentrate grade of 5.75% Li_2O, as used in the pit optimisation. The program included: • Mineralogical analysis using Quantitative Electromicroscopy QEMSCAN; • Heavy Liquids Separation testing to demonstrate whether Authier spodumene ore is amenable to concentration using Dense Media Separation; • Further grind-ability testing; and • Batch and locked cycle flotation testing. • Based on the results of the 2016 SGS Lakefield study, Bumigeme have designed a concentrator plant to process 700,000 tpa of ore feed using conventional flotation technology suitable for a pegmatite orebody. The processing plant comprised key areas including, three-stage crushing, grinding, mica-flotation, spodumene flotation, magnetic separation, concentrate dewatering and drying, and tailings filtering. The plant will produce a 5.75% Li20 concentrate suitable for lithium carbonate conversion plants that supply feed-stock to the lithium battery manufacturers (the iron content of Authier concentrate is too high to supply the ceramics or glass industry). • Further metallurgical optimisation and enhancement to improve the metallurgical recoveries and concentrate grades is underway. Historically, recoveries of up to 85% have been achieved in certain parts of the deposit and further testing is required to ascertain whether this can be extended homogenously across the deposit. • All technologies proposed are proven and well tested with easily sourced components. • Potential deleterious elements have not been observed. Iron content of Authier concentrate is too high to supply the ceramics or glass industry.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• The Regulations Designating Physical Activities (SOR/2012-147) identify the physical activities that constitute the “designated projects” that may require an environmental assessment by the Canadian Environmental Assessment Agency (CEAA). The CEAA is responsible for the Canadian Environmental Assessment Act (2012). Because the Project did not generate any “designated activity”, an impact study under

Criteria	JORC Code explanation	Commentary
		the Canadian Environmental Assessment Act is not required. • On the provincial side, no Environmental Impact Assessments (EIA) will be required for the Project as the proposed output remains less than 2,000 tpd (EQA Q-2, r.23). Mainly two provincial ministries will issue permits: the MERN and the MDDELCC. The Company is currently engaged with the local provincial authorities to establish the permitting regime for Authier. • Certificates of authorisation under provincial Environmental Quality Act (LQE), art.22, will have to be obtained from the MDDELCC for most of activities that may result in a change in the quality of the environment. In order to expedite the start of construction, preparation of the permit applications can begin before the completion of the Detailed Engineering. • A detailed base-line environmental study was completed for Authier in 2013 by Dessau. The study reviewed available information across a number of disciplines, including geology and soils, hydrogeology, hydrology, air quality and noise, flora and fauna, socio- economic setting, and archaeology. • Whilst the environmental study didn't highlight any significant environmental issues, it recommended a high-level focus on water and tailings management. As such, the Company has engaged consulting firms to undertake a number of updated studies at part of this PFS, including: o Best practice tailings and waste rock disposal options. The PFS contemplates that the best practice is producing filtered tailings will be co-disposed with the waste rock in order to facilitate water management and reduce the footprint; o Progressive site reclamation and remediation planning during operation and for end of mine activities; o Geochemical characterisation program of waste rock and tailings. Preliminary results showed that the waste rocks and tailings are not acid generating and don't leach heavy metals. This is consistent with the experience of other nearby similar deposits and operations; and o A hydrogeological study to assess the hydrogeological conditions prevailing in the area, the current quality of the groundwater, and identify any potential impacts on the

Criteria	JORC Code explanation	Commentary
		project groundwater, plan the pumping activities, and to provide information for the geotechnical engineering and geo-mechanics of the project (note – this study is planned to commence in early 2017. • A rehabilitation and closure plan is a requirement under the "Loi sur les mines". It must be approved before the mining lease is issued, and a financial guarantee to fully implement the plan must be provided in three payments in the first two years following the approval of the plan. • Mining lease applications are initiated through the Ministère de l'Énergie et des Ressources naturelles ("MERN"). A mining lease will be granted only when the following conditions are fulfilled: o Completion of a Feasibility Study; o Completion of a scoping and marketing study for processing within Quebec. o Rehabilitation and restoration plans have been approved; o Certificate of authorisation stipulated in sections 22, 31.5, 165 and 201 of the Environment Quality Act has been issued; and o A survey plan has been formalised by the Office of the Surveyor-General of Québec. Before a mining lease can be granted for a metal mine project where the mine has a production capacity of less than 2,000 metric tons per day, a public consultation, initiated by the proponent, must be held in the region in which the mine will be located. The Company has initiated early discussions with the La Motte Council outlining the plans for the development of the Authier project.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The Authier project is situated 45 kilometres north-west of the city of Val d'Or, a major mining service centre, with several operating mines and active exploration companies, situated in the Province of Quebec.Val d'Or is located approximately 466 kilometres north-east of Montreal. • The project is easily accessed by a rural road network connecting to a national highway a few kilometres east of the project site. • The transcanadian railway is located around 20 km south of Authier. Such railway has the capacity to ship the concentrate to both Atlantic

Criteria	JORC Code explanation	Commentary
		and Pacific coast. A sideway located in Cadillac, 27 km southwest of Authier by route, could be used after build a storage facility capable to store 1,500 t of Authier´s concentrate. • The regional resources regarding labour force, supplies and equipment are sufficient, the area being well served by geological and mining service firms. The cities of Val d'Or and Rouyn-Noranda are regional centers for the Abitibi region and have the necessary infrastructures and workforce to support a mining operation. • The electrical power will easily be available from Hydro-Quebec. The estimated power demand for the project is estimated to be 7.2MW • Based on a preliminary evaluation from Hydro-Québec, a total of 2.7 km of new network power line needs to be installed in order to supply power to Authier mine site • No detailed investigations into the water requirements and supply sources have been carried out. Primary water sources would be from pit dewatering, collection of surface runoff in natural or artificial structures, existing ponds, reclaim water from the TMF and other sources. Studies on the water supply balance and remedial measures will need to be conducted as part of the next developing stages.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Project Capital was derived on the following basis: o The overall plant layout and equipment sizing was prepared with sufficient detail to permit and assessment of the engineering quantities for the majority of the facilities for concrete, steelwork and mechanical items. The layouts enabled preliminary estimates of quantities to be taken for all areas. o Unit rates for labour and materials were obtained from quotations from fabricators and contractors experienced in the scale and type of work in the region o Fixed and firm pricing was obtained for major items of equipment. Budget pricing was obtained from reputable suppliers for minor items of equipment with the exception of low value items which were costed from BUMIGEME and SGS´s database of recent project costs. • Contingency has been applied to account for the accuracy of the estimate. • Mining capital costs include site establishment costs and mobilisation of equipment and pre-

Criteria	JORC Code explanation	Commentary
		production costs. Pre-production includes clearing and stockpiling of topsoil. • Process Plant Operating costs were compiled by BUMIGEME using first principal estimation and industry experience for projects of similar size and nature in the region. • Manning level and pay rates were derived by BUMIGEME and SGS to suit the proposed process plant and scale of operation for the Quebec province location. • Consumables pricing were sourced from vendor quotes where applicable. • Flotation reagent consumption was based on metallurgical test work, the production schedule and factored from similar operations. • Crushing and grinding energy and consumables were derived from the comminution test work at SGS Lakefield Laboratory and vendor quotes. • Mine operating expenditure was based on mining volumes, and hourly operating costs for all the different mining equipment that are intended to be operated by the Company. The Company's team for Mine Management and Technical Services were based on personal levels required to manage the operation and the Q4 2016 salary guide. • Exchange rates were provided by the Company based on the rate at time of publication however it is consistent with the exchange ratio data over the last 12 months. • Transport and part charges were derived from quotations by reputable suppliers. • Allowances were made for marketing and grade variability in the revenue factors. • The Quebec Government doesn't impose any royalties on mineral production. However, Authier is subject to a number of vendor royalty payments.

Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*
	• *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*
		• Spodumene pricing was based on forecasts from the Q4 2016 Deutsche Bank Lithium Market Report.
		• Spodumene revenue factors were:
		  • The average head grade of the Ore has been estimated at 1.02% Li_2O over the 15 years of processing operation
		  • Processing recoveries applied at 80%.
		  • Spodumene price of USD 515 / t for 5.75% Li_2O content
		  • Exchange ratio of 0.76 CAD:USD
		  • Vendor's royalty of 2% NSR
		  • Marketing and grade variability penalty have not been considered in the Reserves

Criteria	JORC Code explanation	Commentary
		estimate
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• Lithium concentrate produced from Authier will be classed as Chemical Grade specification, principally due to its high iron content. The principal markets for Chemical Grade concentrates are battery, lubricants, aluminum smelting, and pharmaceuticals applications. • The lithium market is currently experiencing a major demand shift driven by the increasingly critical role of the lithium-ion battery technology for storage applications in the automotive, consumer electronics and electricity storage/distribution sectors. • There are a number of pricing benchmarks for various lithium products (lithium carbonate or lithium hydroxide whose prices can vary significantly depending on grade) but the most relevant for spodumene concentrate pricing is the Lithium Carbonate Equivalent (LCE) price. This pricing data is typically only available via paid subscription services, such as Benchmark Mineral Intelligence, and its limited by the number of transactions available in the public domain. • For the Authier PFS, Deutsche Bank forecasts from a comprehensive lithium study prepared on the 9th May 2016 have been used. • The Company is exploring a number of options for selling high-quality spodumene concentrate that will be produced from a future operation at Authier. This includes direct sales of concentrate to converters that produce lithium products suitable for the global battery markets. Strong demand for the lithium products has driven concentrate prices to record levels. • The Company has had discussions with companies that have or a proposing to construction lithium carbonate plants in Canada and has received strong interest for the supply of new concentrates to these facilities. • In addition, in early November 2016, the Company attended a global lithium conference in China and held a number of discussions with interested parties seeking to establish long-term spodumene sales contracts. China is the global centre for the production of value-added lithium products and one of the potentially largest markets for the consumption of lithium-ion batteries. The Chinese Government has a stated clean energy policy, which includes significant investment subsidies, for growing electric vehicle sales from less than 500,000 in 2016 to over 5 million by 2020.

Criteria	JORC Code explanation	Commentary

Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*
	• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*
		• The economic analysis is based on cash flows driven by the production schedule. The cash flow projection include:
		  • Initial and sustaining capital estimates.
		  • Mining, processing and concentrate logistics costs to the customer based on FOB pricing.
		  • Revenue estimates based on concentrate pricing adjusted for fees, charges and royalties.
		  • Closure costs.
		  • Company tax estimates.
		  • An 8% discount factor.
		  • The Project PFS showed a positive NPV.

Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• The Authier property is located in Government land (public). • The Authier property is located about 26 kilometres from the Algonquin community of Pikogan and it is in Algonquin nation claimed territory. Furthermore, municipalities of La Motte, Preissac, Rivière-Héva and Amos are located close to the Authier Property. • Considering this context, a communication plan will have to be prepared and presented to open a dialogue concerning interests and preoccupations of municipalities, communities and organisms implied directly or indirectly with the mining project of Authier.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• No material naturally occurring risks have been identified. • All the claims composing the Property are located over Public Land owned by the government. There is no reason to believe that the Company won't be able to secure the surface rights to construct the infrastructures related to a potential mining operation, including tailings storage and waste disposal areas, and processing plant. • There are no apparent impediments to obtaining all government approvals required for the project. • Road access granted.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Proven Ore Reserves were determined from Measured resource material. • Probable Ore Reserves were determined from Indicated resource material as per the

Criteria	JORC Code explanation	Commentary
	• *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	guidelines.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• Ore Reserve estimates have been internally reviewed by SGS and Sayona mining. No material flaws have been identified and the Ore Reserve is considered appropriate at a PFS level of study. • No external reviews or audits have been undertaken on the Ore Reserve.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Ore Reserve is the outcome of the PFS that has taken into account geological, metallurgical, geotechnical, process engineering and mining engineering considerations. It has a nominal accuracy of +/-25%. • The project has a NPV which makes it robust in terms of cast variations. It is sensitive to price variations for Spodumene and mining recovery of the ore from within the pit, and to the destination of the product. • All estimates are based on local costs in Canadian dollars. • There are no known undisclosed areas of uncertainty. • There has been no production to date, so no comparison or reconciliation of data can be made. Standard Industry practices have been used in the estimation process.