

19 November 2019

# EXPLORATION TARGET HIGHLIGHTS POTENTIAL FOR NEW LITHIUM DEPOSIT AT VIAU-DALLAIRE

#### **Highlights**

- Estimate of Exploration Target\* highlights potential of Sayona's Viau-Dallaire prospect (within the Tansim Lithium Project in Québec, Canada) to become a new lithium deposit, adding to the Company's nearby flagship Authier Lithium Project
- Drilling demonstrates mineralisation open in all directions; potential for further expansion
- Results provide further support for planned creation of lithium hub, incorporating North American Lithium (NAL) mine and concentrator (currently subject to bid by Sayona).

Emerging lithium miner Sayona Mining Limited (ASX: SYA) announced today an Exploration Target\* for the Viau-Dallaire prospect within the Company's Tansim Lithium Project in Québec, Canada, highlighting the potential for the development of a new lithium deposit.

Based on recent drilling (refer ASX announcement 9 April 2019), the Exploration Target\* has been estimated at between 5 million tonnes, at an estimated grade of 1.2-1.3% Li<sub>2</sub>O and 25 million tonnes at an estimated grade of 1.2-1.3% Li<sub>2</sub>O (Table 1). The mineralisation is open in all directions.

\* The potential quantity and grade of the Exploration Target is conceptual in nature, and is therefore an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Viau-Dallaire Exploration Target				
Range	Tonnes	Grade % Li₂O		
Lower	5,000,000	1.2 to 1.3		
Upper	25,000,000	1.2 to 1.3		



Acquired in January 2018, the project is located just 82km south-west of Sayona's flagship Authier Lithium Project. The Tansim project comprises 141 mineral claims spanning 8,500 hectares and is prospective for lithium, tantalum and beryllium.

Sayona's Managing Director, Brett Lynch said the Viau-Dallaire prospect could potentially become an important boost to the Company's growth plans in Québec.

"This Exploration Target demonstrates the potential for Viau-Dallaire to become another key part of our strategy to develop a lithium hub, supporting Québec's ambitions to generate a complete lithium value chain," he said.

"With our bid progressing for NAL backed by a world-class team, Sayona has the potential to feed spodumene ore from Authier and Viau-Dallaire into NAL's concentrator to generate the necessary quality product for lithium-ion battery manufacturing."

#### **Exploration Target outline**

Sayona completed a Phase 1 diamond drilling program at the Viau-Dallaire prospect during February 2019 consisting of 11 holes for 1,129 metres (refer ASX announcement 9 April 2019), which intercepted two subparallel dykes (including a second deeper and non-outcropping dyke), trending a minimum of 350m east-west along strike and dipping 45°-55° to the north, both with variable concentrations of coarse grain spodumene mineralisation. Mineralisation is open in all directions.

Based on the drilling data, an Exploration Target\* was set based on current geological knowledge concerning the area, as per follows (Table 2 and Figures 1 and 2):

- Viau-Dallaire Main: this encompasses the mineralised zone tested by Phase 1 drilling, with
  dimensions of 350m along strike, average mineralised combined width of 50m (10m for dyke 1
  and 40m for dyke 2) and up to 150m vertical depth, where some of the earlier shallow holes
  tested the shallower outcropping pegmatite dyke and were stopped before hitting the deeper
  and non-outcropping second dyke (Figure 1)
- Viau-Dallaire along strike extensions: potential strike extensions of known mineralisation at Viau-Dallaire Main to the east and to the west
- Viau-Dallaire down dip extensions: potential deep extension of Viau-Dallaire Main and Viau-Dallaire strike extensions up to 250m vertical depth, including a potential merging of dykes 1 and 2 down dip
- Viau-Dallaire potential subparallel mineralised dykes: potential subparallel mineralised dykes south of Viau-Dallaire main and along strike extensions.

Exploration and drilling at Viau-Dallaire is still in its early stages and further drilling may highlight new mineralised zones, given the east-west structural setting similar to the Authier project.



The following table provides a summary of the Exploration Target\*:

Tab	Table 2: Summary of Zones defining Viau-Dallaire Exploration Target*						
Target ID	Estimated Tonnage (Mt)		Estimated Strike Grade Extension		Depth	Drilling Status	
	Lower	Upper	(Li <sub>2</sub> O%)	(metres)	(metres)		
Viau-Dallaire Main	5.00	5.00	1.2 to 1.3	350	150	Outlined by Phase 1 drilling – Further drilling needed	
Viau-Dallaire Strike Extensions		10.00	1.2 to 1.3	450	150	Further drilling needed	
Viau-Dallaire Dip Extensions		5.00	1.2 to 1.3	800	100	Further drilling needed	
Viau-Dallaire Subparallel		5.00	1.2 to 1.3	800	100	Further drilling needed	
Subtotal:	5.00	25.00	1.2 to 1.3				

Note: Assumed Li2O % cut-off grade of 0.5%.

#### Drilling highlights - Phase 1 drilling

The 11 diamond drill holes for 1,219m completed at Viau-Dallaire intercepted variable concentrations of spodumene mineralisation distributed in two sub-parallel dykes (including a deeper non-outcropping dyke) with best drilling intercepts including:

- Hole VD19-01 6.3m @ 1.28 % Li<sub>2</sub>O from 3.9m, including 2m @ 1.66 % Li<sub>2</sub>O from 6m and 6.5m @ 1.28 % Li<sub>2</sub>O from 13.5m, including 3.5m @ 1.78 % Li<sub>2</sub>O from 13.5m (shallower dyke);
- Hole VD19-05 12.35m @ 1.29 %  $\text{Li}_2\text{O}$  from 4m, including 5m @ 1.63 %  $\text{Li}_2\text{O}$  from 9m (shallower dyke); and
- Hole VD19-10 43.7m @ 0.82 % Li₂O from 108.2m, including 16.1m @ 1.26 % Li₂O from 135.8m.

Drilling tested 350m strike extension and up to 150m vertical depth. Two main pegmatite albite-spodumene pegmatite dykes were intercepted, with an east-west strike dipping 45° to 55° to the north (Figure 1):

- Dyke 1 (upper dyke outcropping) 10m to 18m true width averaging 15m true width.
- Dyke 2 (deeper dyke not outcropping) 30 to 55m averaging 40m approximate true width



All the dykes showed variable percentages of mostly very coarse to coarse spodumene (crystals of up to 20 cm length and concentrations of 10% to 25% with peaks of 40-50%), with minor fine grain spodumene as well as internal zones of low grade to barren pegmatite.

There is potential for both strike extensions and deeper extensions testing potential coalescence of pegmatite dykes as well as new and not-outcropping pegmatite dykes.

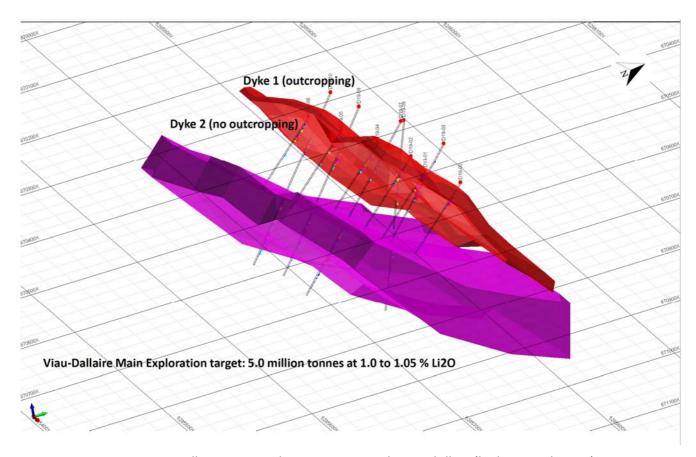


Figure 1 Viau-Dallaire main exploration target – phase 1 drilling (looking north-west)

#### **Project outline**

Acquired in January 2018, the Tansim project is located just 82km south-west of Sayona's flagship Authier Lithium Project. The project comprises 141 mineral claims spanning 8,500 hectares and is prospective for lithium, tantalum and beryllium.

Historical exploration on the property has included mapping, sampling, geophysics and preparation of a Canadian NI 43-101report.



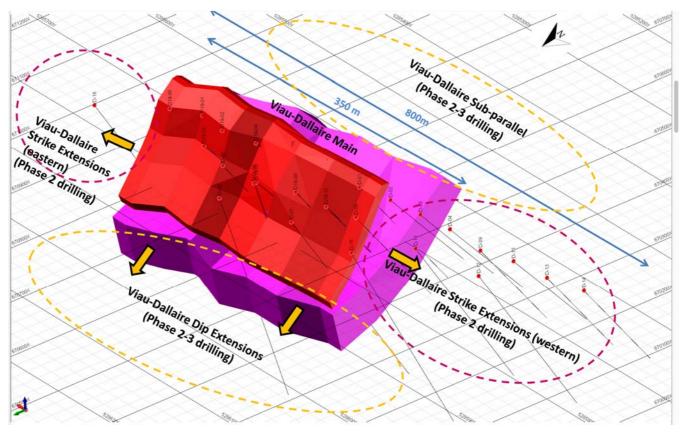


Figure 2: Viau-Dallaire total exploration target (looking south-east)

Access is via a well-maintained paved road to Remigny or Bellecombe (50km south-east of Rouyn-Noranda), then by a series of bush and logging roads. A Hydro Québec 120 kv power line crosses the forest 1km north of the property.

Mineralisation is hosted within spodumene-bearing pegmatite intrusions striking east-west, dipping to the north and hosted by metasedimentary – metavolcanic rocks of the Pontiac sub-province.

The main prospects are Viau-Dallaire, Viau and Vezina, with exploration activity having included phase 1 diamond drilling at Viau-Dallaire prospect (see detail on drill hole collar location and mineralised intersections in Figures 6 to 10 and Table 3) as well as an airborne geophysics survey and reconnaissance selective sampling.





Figure 3: Main geological targets at Tansim; note the location of Viau-Dallaire prospect

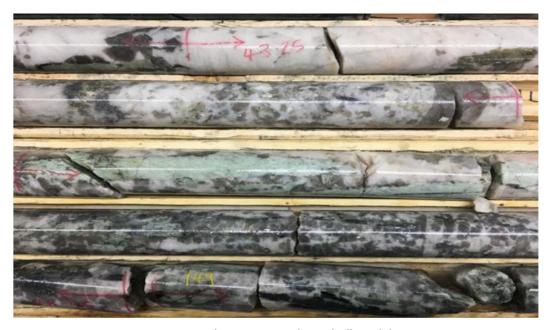


Figure 4: Large spodumene crystals at shallow dyke VD19-06





Figure 5: Coarse grain spodumene crystals at deep dyke VD19-10

#### **Additional work**

Additional, phase 2 diamond drilling at Viau-Dallaire to be considered includes:

- Testing the two known spodumene-bearing pegmatite dykes along strike and to depth;
- completing two deep exploration holes looking for additional subparallel dykes;
- confirming the geometry of dyke 2 at shallow levels not intercepted in phase 1 drilling; and
- continuing collection of data for further metallurgical testwork.

Mr Lynch added: "These results highlight the ability of Sayona to expand our lithium assets, supporting Quebec's ambitions to be at the forefront of the global revolution in lithium-ion battery technology. We look forward to further advancing this project together with Authier, while pushing forward with our bid for NAL backed by our world-class support team."

For more information, please contact:

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#### **About Sayona Mining**

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. The Company has lithium projects in Quebec, Canada and in Western Australia.

Please visit us as at www.sayonamining.com.au



#### **COMPETENT PERSON STATEMENT**

The information in this report that relates to Exploration Results is based on information compiled by Dr Gustavo Delendatti, a member of the Australian Institute of Geoscientists. Dr Delendatti is an independent consultant, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which it is undertaking to qualify as a Competent Person as defined in the JORC Code (2012 Edition) of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Dr Delendatti was responsible for the design and conduct of this exploration drilling campaign, supervised the preparation of the technical information in this release and has relevant experience and competence of the subject matter. Dr Delendatti, as competent person for this announcement, has consented to the inclusion of the information in the form and context in which it appears herein.

#### **Forward Looking Statements**

This announcement may contain forward-looking statements. These forward-looking statements are based on Sayona's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Sayona, which could cause actual results to differ materially from such statements. Sayona makes no undertaking to subsequently update or revise the forward-looking statements made in the announcement, to reflect the circumstances or events after the date of that announcement.

#### Reference to Previous ASX Releases

This document refers to the following previous ASX releases:

- High-grade Lithium assay returned from reconnaissance sampling at Tansim, 20 August 2018
- Drilling results boost prospects for new lithium deposit at Tansim, 9 April 2019
- Sayona expands Tansim project with new acquisition, 15 April 2019

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.



# **DRILL HOLES AND ASSAY RESULTS**

		e collar locat	ion and	intercept				e interse		
Drill	East	North	RL	Azimuth	Dip	Depth	From	To (m)	Thickness	Grade
Hole	670042.0	5005706.0	200 7	400	4.5	70	(m)	22	(m)	(%Li2O)
VD19-00	670812.9	5285796.2	309.7	180	-45	72	19	22	3	0.95
							19	20	1	1.33
VD19-01	670772.2	5285780.1	311.7	180	-45	72	3.9	10.2	6.3	1.28
including							6	8	2	1.66
							13.5	20	6.5	1.28
including							13.5	17	3.5	1.78
VD19-02	670731.3	5285783.0	309.8	180	-45	75	10	20	10	0.71
including							15	16	1	1.64
including							22	25	3	0.85
VD19-03	670720.6	5285817.5	307.2	180	-50	99	46	54	8	1.17
including							46	47	1	2.03
including							50	54	4	1.38
VD19-04	670683.0	5285771.0	308.5	180	-45	72	13.9	18	4.1	1.37
including							13.9	15	1.1	2.22
							21	30	9	0.95
including							24	27	3	1.6
VD19-05	670628.0	5285758.8	304.9	180	-45	81	4	16.35	12.35	1.29
including							4	6.1	2.1	1.61
And							5	6.1	1.1	2.24
including							9	14	5	1.63
And							12	14	2	2.02
VD19-06	670573.3	5285749.9	300.8	180	-45	75	3.85	5.9	2.05	0.89
including							3.85	4.9	1.05	1.08
							12	14.8	2.8	0.76
							20.2	24.45	4.25	0.87
including							22	23	1	1.2
VD19-07	670627.7	5285813.5	296.3	180	-50	172	42.75	46.0	3.25	1.25
							49	58	9	0.95
including							51	53	2	2.02
							109.5	115.0	5.5	0.77
including							112	113	1.0	1.38
							134.0	141.0	7.0	1.35
including							135	136	1.0	2.15
										l .



Table 1	– Drill hole	e collar locat	ion and	intercept	inforn	nation (	downhol	e Interse	ctions in m	etres)
including							67	69	2	1.55
including							72	75	3	1.22
							119	126.1	7.7	0.67
including							124	126.1	2.1	1.09
							142	149.8	7.8	1.04
including							146	149.8	3.8	1.54
							155	163.5	8.5	0.91
including							155	156	1	1.98
including							158	162	4	1.16
VD19-09	670576.6	5285795.4	297.4	180	-55	162	43.8	51.25	7.45	1.05
including							49.95	51.25	1.3	2.17
							110.35	119.55	9.2	0.72
including							118.25	119.55	1.3	1.25
							124.75	127.4	2.65	1.44
VD19-10	670528.3	5285788.0	295.7	180	-55	165	45.5	58.8	13.3	1.04
including							48.15	49.75	1.6	2.13
including							55.4	56.45	1.05	2.00
							108.2	151.9	43.7	0.82
including							135.8	151.9	16.1	1.26

Note: Downhole widths are not true widths.

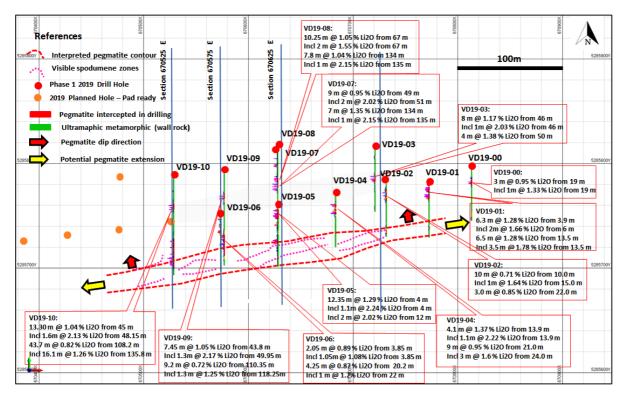


Figure 6: Drill hole collar location plan Phase 1 drilling Viau-Dallaire prospect, Tansim project.



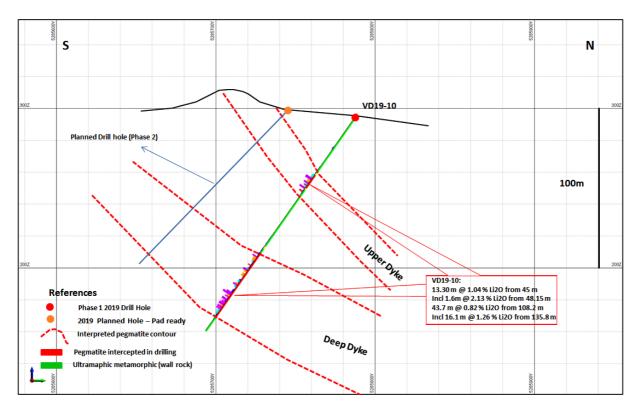


Figure 7: Section 670525 mE looking west showing geometry and Li<sub>2</sub>O % mineralisation distribution for the 2 pegmatite dykes intersected during phase 1 drilling program at Viau-Dallaire prospect. Planned hole (orange collar) will test both dykes at shallower levels

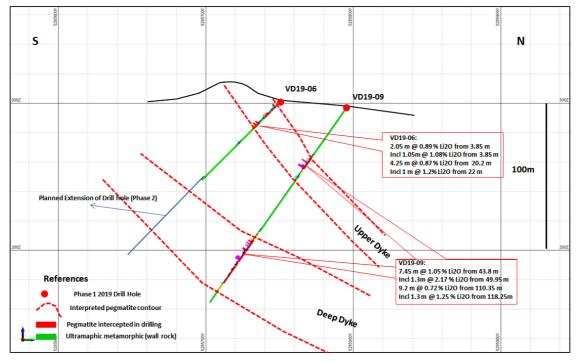


Figure 8: Section 670575 mE looking west showing geometry and Li<sub>2</sub>O % mineralisation distribution for the 2 pegmatite dykes intersected during phase 1 drilling program at Viau-Dallaire prospect.

Note Drill hole VD19-06 will be extended in order to test the deeper dyke at shallow levels.



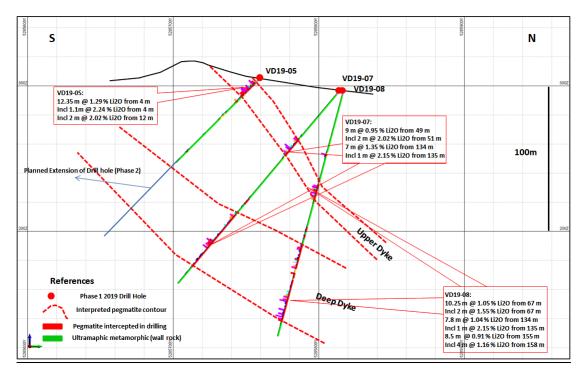


Figure 9: Section 670625 mE looking west showing geometry and Li<sub>2</sub>O % mineralisation distribution for the 2 pegmatite dykes intersected during phase 1 drilling program at Viau-Dallaire prospect. Note Drill hole VD19-05 will be extended in order to test the deeper dyke at shallow levels.

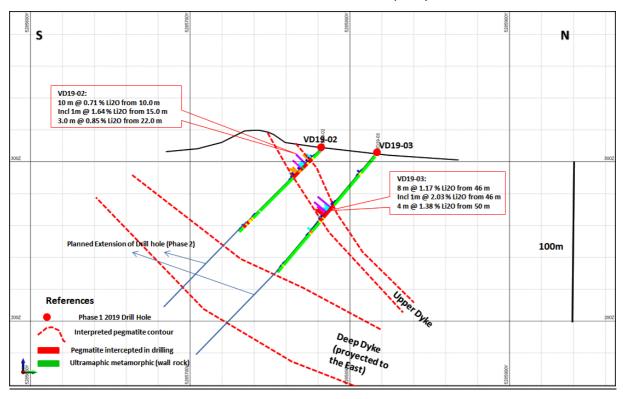


Figure 10: Section 670675 mE looking west showing geometry and Li<sub>2</sub>O % mineralisation distribution for the 2 pegmatite dykes intersected during phase 1 drilling program at Viau-Dallaire prospect. Note Drill holes VD19-02 and 03 will be extended in order to test the deeper dyke at shallow and deep levels.



# 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
Drilling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast,</li> </ul>	<ul> <li>All holes reported in this program have been Diamond Core Drillholes (DDH).</li> <li>Diamond core typical sample length averages 1.0 metre starting 2 to 3 metres above and below of the contact of the pegmatite with the barren host rock. Zones within the pegmatite containing either higher concentrations of spodumene or xenoliths of barren host rock were selectively sampled in order to better understand lithium grade distribution.</li> <li>High to low grade lithium-bearing mineralisation (spodumene) is visible during geological logging and sampling.</li> <li>The core selected for sampling was split and samples of half core were dispatched to a certified commercial laboratory for preparation and analysis of lithium according to industry standard practices. Sample preparation and assaying techniques are within industry standard and appropriate for this type of mineralisation.</li> <li>Core drilling, core diameter size NQ. Standard tube and bit.</li> </ul>
	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 was not oriented.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether</li> </ul>	<ul> <li>Diamond drill hole core recoveries and RQD are logged. Measurements are taken systematically down hole between core blocks i.e. ~3 metre increments.</li> <li>Core recovery has been above 99%.</li> </ul>



Criteria	JORC Code explanation	Commentary
Logging	sample bias may have occurred due to preferential loss/gain of fine/coarse material.  • Whether core and chip samples have	<ul> <li>Based on drilling method being diamond core and the near 100% core recovery the sampling is representative.</li> <li>High competence of the core tends to preclude any potential issue of sampling bias.</li> <li>Geological logging, core recovery and</li> </ul>
Logging	<ul> <li>whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological logging, core recovery and RQD measurements completed for the 2019 drilling at Tansim project.</li> <li>Geological logging of main characteristics such as rock type, spodumene abundance, mica abundance, etc has occurred in summary and detail at the pegmatite intervals and surrounding host rock.</li> <li>For this campaign RQD and core recovery was systematically performed both, pegmatite and host rock.</li> <li>The geological and geotechnical logging is at an appropriate level for the stage of development drilling being undertaken.</li> <li>The logging of the geological features was predominately qualitative. Parameters such as spodumene abundance are visual estimates by the logging geologist.</li> <li>Core is photographed after metre marks and sample intervals have been clearly marked on the core. The core was photographed dry and wet. The core boxes were identified with Box Number, Hole ID, From and To using aluminum tags.</li> <li>The entire target mineralisation type core (spodumene pegmatite) and surrounding barren host rock has been logged, sampled and assayed. The footwall and hanging wall barren host rock has been summary logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul> <li>Drill core NQ diameter samples cut to two halves with one half placed in a new plastic bag along with the sample tag sent for analysis; the other half was replaced in the core box with the second sample tag for reference.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Sampling boundaries are based in geological contacts of spodumene-bearing pegmatite with barren host rock.</li> <li>In general, at least two host rock sample was collected each side from the contacts with the mineralised pegmatite.</li> <li>Sample preparation of drill core samples collected during the 2019 drilling program completed at the SGS Canada Inc laboratory ("SGS") facilities in Val D'Or, Quebec, follows industry best practice, involving oven drying, crushing and pulverizing there to respect the specifications of the analytical protocol and then shipped to SGS Mineral Services laboratories in Lakefield, Ontario, for analysis.</li> <li>Sample sizes are considered appropriate with regard to the grain size of the sampled material.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Assaying of Sayona's 2019 drilling samples received at SGS were processed according to the following procedure at the SGS preparation facilities in Val D'Or, Quebec. All samples are inspected and compared to the chain of custody (COC) and logged into the SGS laboratory management system, then weighted and dried. Sample material is crushed to 75% passing 10 mesh (2mm), split to obtain a 250 g sub-sample which is then pulverized to 85% passing 200 mesh (75 microns).</li> <li>The analyses of the drilling samples were conducted at the SGS laboratory located in Lakefield, Ontario, which is an accredited laboratory under ISO/IEC 17025 standards accredited by the Standards Council of Canada.</li> <li>The analytical protocol used at SGS Lakefield for Lithium (Li) is the GE ICP91A 29 element analysis - sodium peroxide fusion, which involves the</li> </ul>



Criteria	JORC Code explanation	Commentary
		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 Authier project and certified by lab round-robin) and samples of "barren" material (blanks), on a systematic basis with the samples shipped to SGS.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>All the pegmatite intersections and assay results have been reviewed by the Competent Person and Sayona's geologist and personnel.</li> <li>Lithium (ppm) reported in assays is converted to Li<sub>2</sub>O % by multiply Li (ppm) X 2.153 (conversion factor)</li> <li>The entire drilling program conducted by Sayona in 2019 was logged by 2 geologists, a Sayona's employee and a contracted geologist from Services Forestiers et d'Exploration GFE ("Services GFE"), controlled by Sayona's Competent Person and using technicians from Services GFE. RNC provided the office, core logging and storage facilities to the Company which are located at Amos, 175 km north by car from the Viau- Dallaire prospect Tansim project.</li> <li>The core boxes were photographed and are available for verification at Services GFE storage facilities, 80 km north of Tansim project.</li> <li>No twinned holes were drilled during this 2019 drilling campaign by Sayona.</li> <li>Primary data was recorded on laptop computers directly into standardized Excel logging templates with built in look-up codes. This information is</li> </ul>



Criteria	JORC Code explanation	Commentary
		merged with the assay certificate data into a Sayona's in-house database  No adjustments to assay data have been undertaken.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill collar locations have been surveyed and the survey values are recorded as the final coordinates and hole orientation in the database by an independent and qualified land surveyor.</li> <li>Downhole surveys (dip and azimuth) for 2019 drilling were collected as single shot readings using a Reflex tool. Measurements are made at the beginning (25 m below surface) and at the end of the hole length. An intermediate measure was done when drill hole length exceeded 150 m.</li> <li>The grid system used is 1983 North American Datum (NAD83)</li> <li>The level of topographic control offered by the collar survey is considered sufficient for the work undertaken at its current stage.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill holes were drilled perpendicular to the lithium mineralised pegmatite as shown on the attached plan.</li> <li>Drill collars were sited to provide the best geological information possible to test the grade, strike and vertical extensions of mineralisation.</li> <li>The data spacing is sufficient to estimate geological and grade continuity of observed mineralisation.</li> <li>Sample compositing has not been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this</li> </ul>	<ul> <li>Drilling grid orientation is perpendicular to the strike of the mineralisation determined by previous mapping and historical drilling.</li> <li>No bias attributable to orientation of sampling upgrading of results has been identified.</li> </ul>



Criteria	JORC Code explanation	Commentary
	should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	<ul> <li>All reasonable measures have been taken to ensure sample security along the value chain. These measures include the sample collection by company's field personnel, recording of sample dispatch and receipt reports, secure delivering of samples to SGS laboratory facilities.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No audit or review of the sampling techniques and data for this release has been carried out.</li> <li>The quality control protocols implemented at Tansim Lithium project are considered to represent good industry practice and allow some assessment of analytical precision and accuracy. The assay data is considered to display acceptable precision.</li> </ul>

# **Section 2 - Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Tansim Lithium Property consists in one block of map designated claim cells located within the         Temiscamingue region of Quebec, north of Lake Simard and 82 km south-west of the Company's flagship Authier lithium project, totaling 243 mineral claims covering 13,764 ha.         The property extends 24 km eastwest direction and 7 km north-south.</li> <li>On January 23, 2018 Sayona signed and option-to-purchase agreement with Matamec Explorations Inc ("Matamec") to acquire 100 % of Tansim project through a staged acquisition strategy.</li> <li>The agreement states that Sayona obtains an initial 50 % interest in the property through the expenditure of CAD\$ 105k for claim renewal costs of</li> </ul>



Criteria	JORC Code explanation	Commentary
		the property, as required by the
		Quebec department of natural energy
		and resources. This expenditure
		amount is reduced by the exploration
		amount (up to CAD\$ 65k) completed
		on the property prior to 31 January
		2018. Sayona can then earn 100 %
		interest in the property by completing the milestones in the timeframes
		outlined below:
		Investing CAD\$200k in
		exploration and pay CAD\$100k in
		cash to Matamec within the first
		12 months; and
		Investing CAD\$350k in
		exploration and pay CAD\$250k in
		cash to Matamec within 12 and
		24 months of signing.
		Sayona will be the operator of a joint
		venture to be signed between both
		parties to manage the property. Once
		Sayona earns 100 %, Matamec
		receives a 2% Net Smelter Return
		Royalty ("NSR") from the payable
		metals extracted from the property.
		The NSR can be bought back for an
		amount of CAD\$ 1.0M per royalty
		percentage. Sayona will have the
		choice to buy back 1.0% or 2.0% NSR for an amount of CAD\$1.0M or
		CAD\$2.0M, respectively.
		If Sayona earns 50% but doesn't
		proceed any further with the
		purchase option, Matamec can buy
		the 50 % back property interest for
		CAD\$1 and Sayona will receive a 2%
		NSR.
		<ul> <li>According to Quebec government</li> </ul>
		records, no part of the land covered
		by the Tansim property is a park or
		mineral reserve. To our knowledge,
		the property is devoid payments or
		other encumbrances. The Tansim
		property is not subject to
		environmental liabilities. The Issuer,
		Matamec Explorations Inc., holds 100% of the claim titles of the Tansim
		property.



Criteria	JORC Code explanation	Commentary
		<ul> <li>An intervention permit must be obtained from the Quebec Province government in order to initiate a drilling campaign.</li> <li>There are no mineral resources or mineral reserves on the Tansim property according to the JORC 2012 and 2005 CIM Definition Standards.</li> <li>There are no existing mines workings, tailing ponds, waste deposits and important natural features and improvements relative to the outside property boundaries. There is sufficient unused land within the Tansim claim block for waste and tailing disposal and the construction of a mine and milling installations.</li> <li>The Tansim property contains mineralized zones manifested by outcrops, small pits and/or trenches.</li> <li>Sayona will apply for drilling and forestry permits in short term as per agreement schedule with Matamec.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The Property has been explored in the late 1950's and early 1960's when zoned granitic pegmatite dykes containing spodumene, beryl, and colombo-tantalite were found.</li> <li>In 1977, the discovery of tantalum and uranium-rich granitic pegmatites samples from the Ille du Refuge site sparked new interest from Noranda and particularly SOQUEM, the latter conducting geophysical surveys, mapping campaigns and lithogeochemical sampling during the early 1980's.</li> <li>In 2003, Matamec acquired a large package of land (the Tansim property) located north of Lake Simard and encompassing most of the previously investigated rare metal showings.</li> <li>Matamec has conducted exploration on the property including mapping, sampling (rock and soil), geophysics and the preparation of a Canadian NI43-101.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>The project has been subject of historical reconnaissance shallow drilling at Viau Dallaire, Viau and Ile du Refuge showings (1961, 1974 and 1979 respectively) for 446.5 metres of drilling in 12 diamond holes. There are no assay records of diamond core stored, except a visual description of spodumene in the 4 holes drilled at Viau Dallaire.</li> <li>Sayona conducted an airborne magnetic survey in December 2017 and the reconnaissance sampling reported in this announcement.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Tansim property is part of the Pontiac subprovince; a Late Archean metasedimentary-metavolcanic-granitoid-gneiss terrane situated along the southeastern margin of the Superior Province of Quebec.</li> <li>Mineralisation at Tansim is hosted within east-west trending complex spodumene-bearing pegmatite intrusions.</li> <li>The priority focus of the exploration program is to define drilling targets at the following priority prospects: <ul> <li>Viau Dallaire – a 300-metre-long dyke, dipping 40° north, and 12-20 metres in thickness, hosted by metamorphic schists. Three channel samples include 10.3 metres @ 1.40% Li<sub>2</sub>0, 11.15 metres @ 0.84% Li<sub>2</sub>0 &amp; 18.95 metres @ 0.94% Li<sub>2</sub>0 (including 7.3 metres at 1.77% Li<sub>2</sub>0); and</li> <li>Viau – pegmatites have been mapped up to 200 metres long and 30 metres wide. Two separate channel samples returned grades of up to 2.77% Li<sub>2</sub>0 and 1.37% Li<sub>2</sub>0 over 3.2 metres, respectively.</li> <li>The lithium mineralisation at the</li> </ul> </li> </ul>
		Viau Dallaire and Viau prospects are related to coarse spodumene



Criteria	JORC Code explanation	Commentary
		bearing quartz-feldspar pegmatite. Higher lithium grades are related with high concentrations of mid-to-coarse spodumene crystals (up to 30 cm long).
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>In 2019, Sayona drilled 1,219 metres in 11 diamond holes. The aim of the program was to test the outcropping spodumene bearing pegmatite at Viau Dallaire prospect along strike and to depth; exploring for other potential mineralised dykes within the prospect; and starting the collection of data for further metallurgical test work.</li> <li>Drill hole details are reported in the body of this announcement as Table 1.</li> <li>All historical exploration data has been compiled by Matamec.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No modification of results was conducted</li> <li>No aggregation of data was conducted.</li> <li>No weight averaging or high-grade cut has been applied to any of the sample assay results.</li> <li>No metal equivalent values are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul> <li>Drilling has been sited to intersect the lithium mineralisation orthogonally.</li> <li>Drilling widths reported are downhole intercept widths and true width is approximately 90 % of drilling width.</li> <li>The general orientation and geometry of revised pegmatite bodies are</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	described in the body of this announcement.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	A Collar Plan and typical cross- sections are presented in the body of this report.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>The reporting is considered to be balanced.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>The Sayona 2019 phase 1 diamond drilling campaign was conducted after Sayona 2016 Stage 01 and Sayona prospecting, geochemical sampling and geophysical surveys, sawn blade channel and scout drilling that covered the Property targeted areas. This work confirmed the presence of several pegmatite occurrences across the Property.</li> <li>All the available historical data pertaining to the project area has been compiled by Matamec and used for all Sayona's announcements at date.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Sayona's Project Development strategy will be initially focused at Viau Dallaire and Viau prospect. Work program includes:         <ul> <li>Follow-up drilling at Viau-Dallaire prospect to extend existing pegmatite dykes and test for additional sub-parallel dykes;</li> <li>Additional exploration at Viau prospect; and</li> <li>First metallurgical test work.</li> </ul> </li> </ul>



# **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	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The digital drill hole database was audited by the author using 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.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person was stationed on site and was responsible for the overall management, coordination and execution of Sayona's Phase 1 drilling program at Viau-Dallaire prospect in February 2019 (approximately 4 weeks)</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The confidence in the geological interpretation at Viau Dallaire prospect Lithium deposit is considered to be good and is based on the drilling density and well known geological features.</li> <li>Drill hole logging by Sayona's geologists, through direct observation of drill core samples have been used to interpret the geological setting.</li> <li>The continuity of the main mineralised bodies is clearly observed by Li<sub>2</sub>0 % 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.</li> <li>The mineralisation is related to a pegmatite intrusive with multiple phases of spodumene mineralisation.</li> </ul>
Dimensions	<ul> <li>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.</li> </ul>	<ul> <li>N/A - Exploration Target Ranges only.</li> </ul>



Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation 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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	• N/A – Exploration Target Ranges only
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Dry in situ basis.
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>A 0.5 % Li2O cut-off grade was assumed for the ETR being the same cut-off grade used to bound drill-hole mineralized intervals reported in Sayona's phase 1 drilling.</li> </ul>



Criteria	JORC Code explanation	Commentary
Mining facto	<ul> <li>Assumptions made regarding possible</li> </ul>	<ul> <li>N/A – Exploration Target Ranges only.</li> </ul>
or	mining methods, minimum mining	
assumptions	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 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	
Motallurgian	assumptions made.	a NI/A Fundamentian Toward Devices of
Metallurgica factors or		N/A – Exploration Target Ranges only
	regarding metallurgical amenability. It is	Future work includes first
assumptions		metallurgical test work for Li2O
	of determining reasonable prospects for	recovery.
	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.	
Environment	1 5 51	<ul> <li>N/A – Exploration Target Ranges only</li> </ul>
factors or	waste and process residue disposal	
assumptions	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.	
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Criteria	IORC Code explanation	Commentary
Bulk density  Classification	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> <li>The basis for the classification of the</li> </ul>	An assumed SG value of 2.71 t/m3 was used based in average SG value of Authier pegmatite and other pegmatite deposits in the region.     SG values measurements will be taken as part of further works.  Proportion Target Ranges only.
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Exploration Target Ranges only.</li> <li>Tonnes (Low) includes Viau-Dallaire Main which is the portion of the Viau -Dallaire prospect tested during 2019 phase 1 drilling consisting in 2 sub- parallel spodumene-bearing pegmatite dykes striking a minimum of 350 metres east-west, average mineralised combined width of 50 metres (10 metres for dyke 1 and 40 metres for dyke 2) and up to 150m vertical depth, and dipping 40° to 55° north where some of the earlier shallow holes tested the shallower outcropping pegmatite dyke and were stopped before hitting the deeper and non-outcropping second dyke</li> </ul>
		<ul> <li>Tonnes (High) includes:</li> <li>1- Vaiu-Dallaire Main (detailed above)</li> </ul>
		2- Viau-Dallaire along strike extensions (450 metres strike extension, 50 metres combined mineralised width and up to 150 metres vertical depth);
		3- Viau-Dallaire down dip extensions (800 metres along strike by 50 metres combined mineralised width and 100 metres vertical extension



Criteria	JORC Code explanation	Commentary
		(from 150 metres vertical depth up to 250 metres
		vertical depth)
		<ul> <li>4- Viau-Dallaire potential subparallel mineralised dykes: potential subparallel mineralised dykes south of Viau-Dallaire main and along strike extensions (800 metres along strike extension, 20 metres width and 200 metres vertical depth)</li> <li>Grade ranges were defined as +/-10% of the average grade determined within Viau -Dallaire main zone tested by Sayona's Phase 1 drilling.</li> <li>The ETR reflect the view of the</li> </ul>
Audits or	The results of any audits or reviews of	<ul> <li>Competent Person.</li> <li>N/A – Exploration Target Ranges only</li> </ul>
reviews	Mineral Resource estimates.	• N/A – Exploration Target Nanges Only
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	N/A – Exploration Target Ranges only