

## ASX ANNOUNCEMENT

ASX: SYA

17 April 2023

### MOBLAN BOOSTED BY SIGNIFICANT INCREASE IN LITHIUM RESOURCE

#### Highlights

- Major resource expansion for Sayona's Moblan Lithium Project, with Measured, Indicated and Inferred Resource of 51.4 million tonnes @ 1.31% Li<sub>2</sub>O representing one of North America's single largest lithium resources (sensitivity analysis at 0.55% Li<sub>2</sub>O cut-off grade)
- Flexibility for higher tonnage production, with estimated Measured, Indicated and Inferred Resource of 70.9 million tonnes @ 1.15% Li<sub>2</sub>O (0.25% Li<sub>2</sub>O cut-off grade)
- Over 60,000m of planned drilling anticipated to further expand size and grade of project, with added potential from recently acquired adjacent Troilus claims.

North American lithium producer Sayona Mining Limited (ASX:SYA; OTCQB:SYAXF) has significantly expanded its Canadian lithium resource base, with an initial JORC Mineral Resource estimate for its Moblan Lithium Project (SYA 60%; SOQUEM Inc 40%), including maiden resources for the South dyke discovery, highlighting the potential for its northern lithium hub in Québec's highly prospective Eeyou Istchee James Bay region.

Since acquiring Moblan in October 2021 in partnership with SOQUEM (a wholly owned subsidiary of Investissement Québec), approximately 37,700 metres of diamond core drilling has been conducted at the project. Sayona has now estimated a total JORC Measured, Indicated and Inferred Mineral Resource of **70.9 million tonnes @ 1.15% Li<sub>2</sub>O** (0.25% Li<sub>2</sub>O cut-off grade) which represents one of North America's single largest lithium resources.

This includes higher grade tonnage opportunities with Measured, Indicated and Inferred Resource of **51.4 million tonnes @ 1.31% Li<sub>2</sub>O** (0.55% Li<sub>2</sub>O cut-off grade in the sensitivity analysis). Sayona aims to further enhance the size and grade of this resource through additional drilling, with 60,000m of extra drilling planned at Moblan.

Opportunities exist to expand and build the Mineral Resources proximal to the known Moblan and Moleon deposits, where exploration has indicated that lithium mineralisation may extend to the north, northeast and at depth. Additional diamond drilling could potentially upgrade some of the Inferred mineral resources to the Indicated category and identify additional mineral resources down-plunge and

in the vicinity of the currently identified mineralisation, including extra drilling between the Main/Inter and Moleon dyke groups.

Sayona's acquisition of lithium claims from Troilus Gold Corp. (TSX:TLG) (refer ASX release dated 17 November 2022), located adjacent to Moblan, offers further potential for eastwards extensions of the Moblan mineralisation, as well as regional targets in the emerging lithium district. The Moblan properties remain largely unexplored outside known mineralised zones.

Meanwhile, Sayona is also advancing required characterisation works and studies including geomechanical characterisation (rock mechanics for pit design), geotechnical studies (soils), mine design, optimisation and scheduling, metallurgical testing, studies and design, environmental characterisation, infrastructure and power requirements, as it progresses Moblan's upcoming feasibility study. This includes the necessary permitting and environmental studies, which are progressing in line with regulatory requirements.

Sayona is committed to engaging local communities as the project progresses, including First Nations and other local community members, consistent with its proactive stakeholder engagement approach.

Sayona's Managing Director, Brett Lynch, welcomed the latest expansion of the Company's North American lithium resource base.

*"Speed and tonnes are crucial and with our North American Lithium operation in production, we are now bringing significant added resources to the market. Moblan now represents one of the single largest lithium resources in North America, justifying our move to fast-track a major drilling program that has delivered a resource within just a year of acquisition," Mr Lynch said.*

*"Sayona already has the leading advanced lithium resource base in North America and this latest expansion further entrenches our competitive advantage, particularly given our projects' favourable access to infrastructure, market proximity and availability of low-cost, sustainable hydropower.*

*"Together with our established Abitibi lithium hub in the south, Sayona has quickly developed two emerging centres of lithium production amid surging demand from North America's EV and battery revolution. As we progress these projects from spodumene concentrate production towards downstream processing, the significance of these assets will only increase as the market scrambles for supply."*

Moblan's mineral resource covers an area of 2,500m strike length and 900m width, extending to a depth of 350m below surface. The mineralisation model consists of 21 lithium pegmatite dykes modelled as the Main dykes, 20 as the South dykes, 17 as the Inter domain and 17 as the Moleon dykes, for a total of 75 lithium pegmatite dykes in the project's mineralisation model (Figure 1). The 2023 Mineral Resource Estimate (MRE) is based on diamond drill holes (DDHs) drilled between 2002 and 2022 and trenches sampled between 2004 and 2009. The database includes assay data from 366 surface drill holes and 10 surface trenches (Figure 2).

**Table 1 – Moblan – JORC 2023 Mineral Resource Estimate (0.25% Li<sub>2</sub>O cut-off grade)**

Classification	Measured		Indicated		Measured + Indicated		Inferred		Measured + Indicated + Inferred	
Lithium pegmatites	Tonnes (kt)	Li <sub>2</sub> O %	Tonnes (kt)	Li <sub>2</sub> O %	Tonnes (kt)	Li <sub>2</sub> O %	Tonnes (kt)	Li <sub>2</sub> O %	Tonnes (kt)	Li <sub>2</sub> O %
Main	6,313	1.46	11,541	1.19	17,854	1.28	3,406	1.00	21,260	1.24
South	-	-	23,498	1.17	23,498	1.17	8,939	1.12	32,438	1.16
Inter	-	-	5,601	0.89	5,601	0.89	7,209	0.81	12,810	0.85
Moleon	-	-	2,932	1.52	2,932	1.52	1,430	1.42	4,362	1.49
<b>Total</b>	<b>6,313</b>	<b>1.46</b>	<b>43,573</b>	<b>1.16</b>	<b>49,886</b>	<b>1.2</b>	<b>20,984</b>	<b>1.02</b>	<b>70,870</b>	<b>1.15</b>

**JORC Mineral Resource Statement notes:**

1. Independent and Competent Persons, as defined by JORC 2012, that prepared or supervised the MRE are Alain Carrier, M.Sc., P.Geo., Vincent Nadeau-Benoit, P.Geo., Simon Boudreau, P. Eng., all of InnovExplo inc.; and Ryan Cunningham, P.Eng. of Primero Group Americas. The effective date of the 2023 MRE is 21 March 2023;
2. The mineral resources are not mineral reserves as they do not have demonstrated economic viability;
3. The MRE was prepared in accordance with the JORC Code (2012);
4. A total of 75 dykes of lithium pegmatites were modelled in Leapfrog™ 2022.1.1 using implicit modelling techniques for the Main, South, Inter and Moleon domains. Dyke wireframes, used as geological resource solids, were modelled with a minimum thickness of 0.30m;
5. No assays were capped and compositing of 1.0m in length was completed using the grade of the adjacent material when assayed or a value of zero when not assayed;
6. The mineral resources were estimated using Leapfrog™ 2022.1.1 using hard boundaries on composited assays. The OK method was used to interpolate a sub-blocked model (parent block size = 5 m x 5 m x 5 m);
7. Measured mineral resources were defined for blocks inside geological resource solids within 15 m of a composite. Indicated mineral resources were defined for blocks inside geological resource solids within 30 m of a composite. Inferred mineral resources were defined for blocks inside geological resource solids within 50 m of a composite;
8. Density was estimated, in the pegmatites using a regression function developed using measurements of SG and Li<sub>2</sub>O%. The regression function used is  $SG = 0.0623644 * Li_2O\% + 2.61928$  which use Li<sub>2</sub>O% block values and is used for the conversion of the volume of each block interpolated into a tonnage. Values other host rocks were given fixed SG values of 3.04 g/cm<sup>3</sup> for the Gabbro 3.00 g/cm<sup>3</sup> for the Volcanics, 2.70 g/cm<sup>3</sup> for the Metasediments, 2.70 g/cm<sup>3</sup> for the Rhyolite;
9. The 'reasonable prospects for eventual economic extraction' standard is met by having used reasonable cut-off grades for an open pit extraction scenario and constraining pit shells (Whittle optimisation). The estimate is reported at a cut-off grade of 0.25% Li<sub>2</sub>O. The estimate was calculated using a price of US\$1,273 per tonnes of 6% Li<sub>2</sub>O concentrate, a USD:CAD exchange rate of 1.32, a recovery of 75%, a mining cost of \$5.50/t mined, transport cost of \$157.90/t concentrate, G&A cost of \$12.35/t, a tailing management cost of \$0.80/t processed, and processing cost of \$35.00/t. The cut-off grade takes into account a royalty of 2%. The cut-off grades should be re-evaluated in light of future prevailing market conditions (metal prices, exchange rate, mining cost, etc.);
10. The number of tonnes has been rounded to the nearest thousand. Any discrepancy in the totals is due to rounding effects
11. The Competent Persons are not aware of any problem related to the environment, permits or mining titles, or related to legal, fiscal, socio-political, commercial issues, or any other relevant factor that could have a significant impact on the 2023 MRE.

Table 2 presents the JORC sensitivity of the 2023 MRE at different cut-off grades using specific corresponding Whittle optimisation. Cut-off grades of 0.25% Li<sub>2</sub>O, 0.40% Li<sub>2</sub>O, 0.50% Li<sub>2</sub>O, 0.55% Li<sub>2</sub>O, 0.60% Li<sub>2</sub>O, 0.65% Li<sub>2</sub>O, 0.70% Li<sub>2</sub>O, 0.75% Li<sub>2</sub>O, and 0.80 % Li<sub>2</sub>O correspond respectively to prices of US\$1,273, US\$875, US\$730, US\$700, US\$650, US\$600, US\$550, US\$525 and US\$500 per tonne of 6% Li<sub>2</sub>O concentrate.

**Table 2 - Moblan – JORC 2023 Mineral Resource – Cut-off sensitivity analysis**

Cut-off Grade Li <sub>2</sub> O (%)	Measured		Indicated		Inferred		Measured + Indicated + Inferred	
	Tonnes	Li <sub>2</sub> O (%)	Tonnes	Li <sub>2</sub> O (%)	Tonnes	Li <sub>2</sub> O (%)	Tonnes	Li <sub>2</sub> O (%)
0.25	6,313,000	1.46	43,573,000	1.16	20,984,000	1.02	70,870,000	1.15
0.40	5,960,000	1.52	40,230,000	1.22	16,313,000	1.12	62,503,000	1.22
0.50	5,723,000	1.55	36,731,000	1.27	11,232,000	1.23	53,686,000	1.29
0.55	5,636,000	1.57	35,415,000	1.29	10,398,000	1.25	51,449,000	1.31
0.60	5,432,000	1.59	33,256,000	1.31	9,363,000	1.29	48,050,000	1.34
0.65	5,244,000	1.62	29,379,000	1.36	7,846,000	1.34	42,469,000	1.39
0.70	5,016,000	1.64	25,191,000	1.39	5,502,000	1.41	35,709,000	1.43
0.75	4,835,000	1.66	23,416,000	1.42	5,056,000	1.43	33,307,000	1.45
0.80	4,650,000	1.68	21,259,000	1.45	4,471,000	1.45	30,380,000	1.48

The reader is cautioned that the figures provided in this table should not be interpreted as a mineral resource statement. The reported quantities and grade estimates at different cut-off grades are presented for the sole purpose of demonstrating the sensitivity of the mineral resource model to the reporting cut-off grades.

#### **Reconciliation of Mineral Resource Estimates prepared in Accordance with Australian JORC 2012 to Canadian NI 43-101 Requirements**

As an Australian company, Sayona Mining is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act 2001 and the ASX. Investors should note that the ASX Listing Rules require that the reporting of Ore Reserves and Mineral Resources in Australia is in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") and that Sayona Mining's Mineral Resource estimates and reporting comply with the JORC Code disclosure.

Investors should note that Canadian securities laws require that the reporting of Mineral Reserves and Mineral Resources in Canada and the disclosure of scientific and technical information concerning a mineral project on a property material to Sayona Mining comply with NI 43-101.

For the current NI 43-101 Mineral Resource statement, the independent Qualified Persons have completed a reconciliation between JORC 2012 and NI 43-101 and have addressed the confidence levels required for the categorisation of mineral resources and mineral reserves.



The Qualified Persons certify that the categorisation of mineral resources and mineral reserves also fulfil requirement of current Canadian Reporting Standards for Mineral Resources and Mineral Reserves, which are the Canadian Institute of Mining Metallurgy and Petroleum (“CIM”) Definition Standards for Mineral Resources and Mineral Reserves of May 2014 (“CIM Definition Standards”) and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines of November 2019 (the “CIM MRMR Best Practice Guidelines”). There are no material differences between the definitions of Measured, Indicated or Inferred Mineral Resources under the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves and the equivalent definitions in the JORC Code.

Note: Adding Inferred Resources to Measured & Indicated Resources is permitted under JORC (Table 1 and 2) but not NI 43-101 (Table 3 and 4).

**Table 3 - Moblan – NI 43-101 2023 Mineral Resource Estimate (0.25% Li<sub>2</sub>O cut-off grade)**

Classification	Measured		Indicated		Measured + Indicated		Inferred	
Lithium pegmatites	Tonnes	Li <sub>2</sub> O %	Tonnes	Li <sub>2</sub> O %	Tonnes	Li <sub>2</sub> O %	Tonnes	Li <sub>2</sub> O %
Main	6,313,000	1.46	11,541,000	1.19	17,854,000	1.28	3,406,000	1.00
South	-	-	23,498,000	1.17	23,498,000	1.17	8,939,000	1.12
Inter	-	-	5,601,000	0.89	5,601,000	0.89	7,209,000	0.81
Moleon	-	-	2,932,000	1.52	2,932,000	1.52	1,430,000	1.42
<b>Total</b>	<b>6,313,000</b>	<b>1.46</b>	<b>43,573,000</b>	<b>1.16</b>	<b>49,886,000</b>	<b>1.20</b>	<b>20,984,000</b>	<b>1.02</b>

**Cautionary Note: National Instrument 43-101 is a national instrument for the Standards of Disclosure for Mineral Projects within Canada. The Mineral Resources stated are foreign estimates and are not reported in accordance with JORC Code. See Table 1 above for JORC (2012) Resource Reporting for the Moblan Lithium project.**

NI 43-101 Moblan Lithium Project - 2023 Mineral Resource Estimate Notes:

1. The independent and qualified persons, as defined by NI 43 101, are Alain Carrier, M.Sc., P.Geo., Vincent Nadeau-Benoit, P.Geo., Simon Boudreau, P. Eng., all of InnovExplo Inc.; and Ryan Cunningham, P.Eng. of Primero Group Americas and they have reviewed and approved, or have prepared, as applicable, the disclosure of the scientific and technical information contained in this press release. The effective date of the 2023 MRE is 21 March 2023;
2. The mineral resources are not mineral reserves as they do not have demonstrated economic viability;
3. The MRE follows CIM Definition Standards (2014) and CIM MRMR Best Practice Guidelines (2019);
4. A total of 75 dykes of lithium pegmatites were modelled in Leapfrog™ 2022.1.1 using implicit modelling techniques for the Main, South, Inter and Moleon domains. Dyke wireframes, used as geological resource solids, were modelled with a minimum thickness of 0.30 m;
5. No assays were capped and compositing of 1.0 m in length was completed using the grade of the adjacent material when assayed or a value of zero when not assayed;
6. The mineral resources were estimated using Leapfrog™ 2022.1.1 using hard boundaries on composited assays. The OK method was used to interpolate a sub-blocked model (parent block size = 5 m x 5 m x 5 m);
7. Measured mineral resources were defined for blocks inside geological resource solids within 15 m of a composite. Indicated mineral resources were defined for blocks inside geological resource solids within 30 m of a composite. Inferred mineral resources were defined for blocks inside geological resource solids within 50 m of a composite;
8. Density was estimated in the pegmatites using a regression function developed using measurements of SG and Li<sub>2</sub>O%. The regression function used is  $SG = 0.0623644 * Li_2O\% + 2.61928$  which use Li<sub>2</sub>O% block values and is used for the conversion of the volume of each block interpolated into a tonnage. Values other host rocks were given fixed SG

values of 3.04 g/cm<sup>3</sup> for the Gabbro 3.00 g/cm<sup>3</sup> for the Volcanics, 2.70 g/cm<sup>3</sup> for the Metasediments, 2.70 g/cm<sup>3</sup> for the Rhyolite;

9. The 'reasonable prospects for eventual economic extraction' standard is met by having used reasonable cut-off grades for an open pit extraction scenario and constraining pit shells (Whittle optimisation). The estimate is reported at a cut-off grade of 0.25% Li<sub>2</sub>O. The estimate was calculated using a price of US\$1,273 per tonne of 6% Li<sub>2</sub>O concentrate, a USD:CAD exchange rate of 1.32, a recovery of 75%, a mining cost of \$5.50/t mined, transport cost of \$157.90/t concentrate, G&A cost of \$12.35/t, a tailing management cost of \$0.80/t processed, and processing cost of \$35.00/t. The cut-off grade takes into account a royalty of 2%. The cut-off grades should be re-evaluated in light of future prevailing market conditions (metal prices, exchange rate, mining cost, etc.);
10. The number of tonnes has been rounded to the nearest thousand. Any discrepancy in the totals is due to rounding effects. Rounding followed the recommendations of NI 43-101.
11. The qualified persons are not aware of any problem related to the environment, permits or mining titles, or related to legal, fiscal, socio-political, commercial issues, or any other relevant factor that could have a significant impact on the 2023 MRE.

Table 4 presents the NI 43-101 sensitivity of the 2023 MRE at different cut-off grades using specific corresponding Whittle optimisation. Cut-off grades of 0.25% Li<sub>2</sub>O, 0.40% Li<sub>2</sub>O, 0.50% Li<sub>2</sub>O, 0.55% Li<sub>2</sub>O, 0.60% Li<sub>2</sub>O, 0.65% Li<sub>2</sub>O, 0.70% Li<sub>2</sub>O, 0.75% Li<sub>2</sub>O, and 0.80 % Li<sub>2</sub>O correspond respectively to prices of US\$1,273, US\$875, US\$730, US\$700, US\$650, US\$600, US\$550, US\$525, and US\$500 per tonne of 6% Li<sub>2</sub>O concentrate.

**Table 4 - Moblan – NI 43-101 Mineral Resource – Cut-off sensitivity analysis**

Cut-off Grade Li <sub>2</sub> O (%)	Measured		Indicated		Measured + Indicated		Inferred	
	Tonnes	Li <sub>2</sub> O (%)	Tonnes	Li <sub>2</sub> O (%)	Tonnes	Li <sub>2</sub> O (%)	Tonnes	Li <sub>2</sub> O (%)
0.25	6,313,000	1.46	43,573,000	1.16	49,886,000	1.20	20,984,000	1.02
0.40	5,960,000	1.52	40,230,000	1.22	46,190,000	1.26	16,313,000	1.12
0.50	5,723,000	1.55	36,731,000	1.27	42,454,000	1.31	11,232,000	1.23
0.55	5,636,000	1.57	35,415,000	1.29	41,051,000	1.32	10,398,000	1.25
0.60	5,432,000	1.59	33,256,000	1.31	38,688,000	1.35	9,363,000	1.29
0.65	5,244,000	1.62	29,379,000	1.36	34,623,000	1.40	7,846,000	1.34
0.70	5,016,000	1.64	25,191,000	1.39	30,207,000	1.43	5,502,000	1.41
0.75	4,835,000	1.66	23,416,000	1.42	28,252,000	1.46	5,056,000	1.43
0.80	4,650,000	1.68	21,259,000	1.45	25,909,000	1.49	4,471,000	1.45

The reader is cautioned that the figures provided in this table should not be interpreted as a mineral resource statement. The reported quantities and grade estimates at different cut-off grades are presented for the sole purpose of demonstrating the sensitivity of the mineral resource model to the reporting cut-off grades.

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

### **Geology and Geological Interpretation**

The geology of the Moblan property is dominated by a large northwest-southwest trending gabbro. Apart from the lithium pegmatite dyke swarms, other important rock units are mafic volcanic rocks, intermediate volcanic rocks, felsic volcanic rocks and metasedimentary rocks. The gabbro is bordered to the northwest by mafic lava flows and to the southeast by a volcano-sedimentary sequence of tholeiitic and transitional lavas, volcanoclastic and sedimentary rocks. The gabbro is the main host rock for the lithium pegmatites (Main dykes, South dykes and Inter dykes) except for the Moleon dykes hosted in adjacent mafic volcanic rocks.

The western end of the pegmatite dyke swarm seems to correspond to the nose of the Frotet anticlinal fold. Several regional NE faults have been mapped in the area, and some have offset the eastern portion of the Main Dykes. A few N-NE and N-NW faults have also been documented on the property.

The project hosts several lithium pegmatites dykes, which mostly lie within the gabbro unit, close to the surface. Locally, the spodumene zone outcrops as escarpments. A total of 75 different dykes have been documented and modelled to date. During the 3D geological interpretation and for the purpose of the 2023 MRE (this report), the lithium pegmatites were grouped into four dyke swarms (groups or domains): Main, South, Inter and Moleon. Each corresponds to a series of stacked dykes of variable thicknesses.

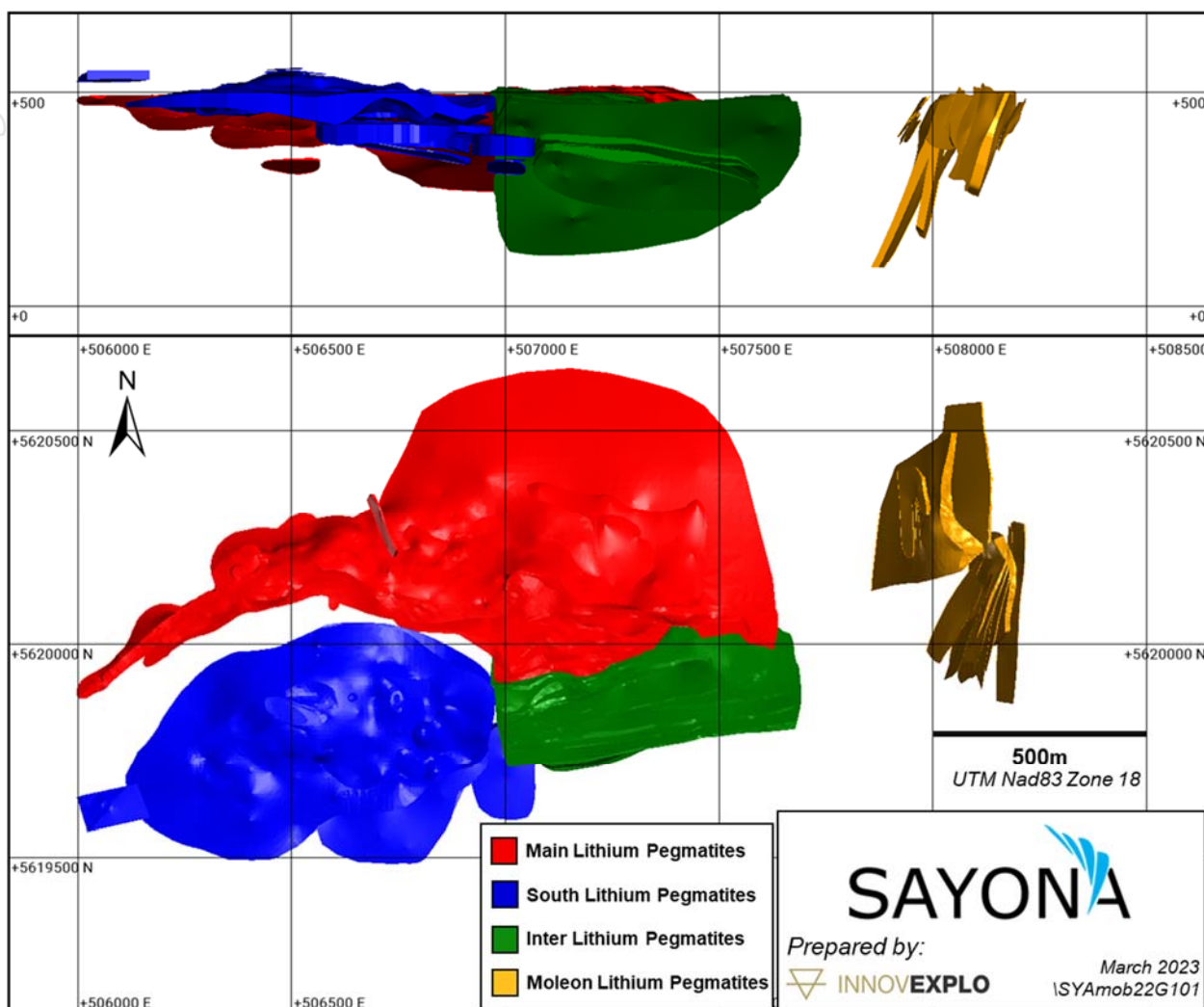
The boundaries between the Main, South, Inter and Moleon groups were determined by their attitudes (direction and dip) and geological continuity (number and thickness of the dykes) from section to section. The boundaries between the domains are marked and could be explained by structural discontinuities (e.g. a NNE fault between the South and Inter groups; and a NNE fault between the Main/Inter and Moleon groups).

The Main Dykes correspond to a group of 21 lithium pegmatite dykes oriented east and dipping slightly to the north (N280°/-20°). This swarm extends laterally E-W for approximately 1,500 m and 500 m N-S. In this group, three dykes have an average intercept length greater than 10 m.

The South Dykes correspond to a group of 20 lithium pegmatite dykes oriented EW and almost sub-horizontal or dipping slightly to the south (N080°/-10°). This swarm extends laterally E-W for approximately 750 m and 500 m N-S. In this group, five dykes have an average intercept length greater than 10m.

The Inter Dykes correspond to a group of 17 lithium pegmatite dykes oriented ENE and dipping moderately to the north (N260°/-20°). This swarm extends laterally E-W for approximately 750 m and 300 m N-S. In this group, only one dyke has an average intercept length greater than 10m.

The Moleon Dykes correspond to a group of 17 lithium pegmatite dykes oriented NS and dipping steeply to the west (N180°/-70°). This swarm extends laterally N-S for approximately 750 m and 250 m E-W. In this group, two dykes have an average intercept length greater than 10 m.



**Figure 1 - Moblan Lithium Pegmatites Dyke Swarms (Main, South, Inter and Moleon)**

## Drilling Techniques

Drilling from surface was carried out by diamond drilling methods, using standard tube to recover NQ and HQ size core. Core was not orientated. Downhole drill azimuth and dip has been determined by TN-14 azimuth aligner and downhole Reflex EZ shot recording instruments for 249 diamond drill holes; Flexit multishot for 99 diamond drill holes; and Tropari and acid test for 18 diamond drill holes. A total of 366 surface diamond drill holes, included in the Mineral Resource Estimate, were completed on the Moblan property, amounting to more than 53,000 m.

Since 2022, two drilling campaigns, the Northern Hemisphere 2022 winter drilling campaign and the 2022 summer-autumn (June-November 2022) drilling campaign, were completed by or on behalf of Sayona, totalling more than 37,000 metres in 265 diamond drill holes.

FTE Drilling of Sherbrooke (Quebec) provided the personnel, supplies and ancillary equipment for the 2022 winter drilling campaign. Nordik Drilling of Val-d'Or (Quebec) and Major Drilling of Rouyn-Noranda (Quebec) provided the personnel, supplies and ancillary equipment for the 2022 summer-autumn drilling campaign.



The eastern part was drilled with a track-based drill rig to adjust to the terrain, whereas the western part had a conventional skid-mounted drill rig. Drilling used NQ drilling barrels (47.6 mm core diameter). The holes were generally drilled with maximum stabilisation using 3-m rounded core barrels with 10" shells. Water-bearing drill holes were obturated with a Van Ruth plug to avoid water contamination.

Drill hole collars were spotted using a hand-held GPS Garmin 64S, and the planned azimuth was indicated using wooden spikes installed with a hand-held compass, corrected to the local magnetic declination (15° west).

At the beginning of each drill hole, the strike and dip were surveyed using a Reflex TN-14. The downhole orientation survey was performed by the drilling company and sent to the geologist for approval. A Reflex EZ-SHOTTM tool was used for the deviation surveys, with single-shot measurements taken every 50 m during drilling.

A multi-shot test every 3 m was taken at the end of each drill hole. Azimuth readings were dismissed where the magnetite content in the host lithology was high. In such cases, where possible, an average of the azimuth variation was calculated for the station as a weighted average for the distance from the nearest assumed valid azimuth readings uphole and downhole of the station or the azimuths were flatlined near the end of the drill hole if no valid reading was available downhole.

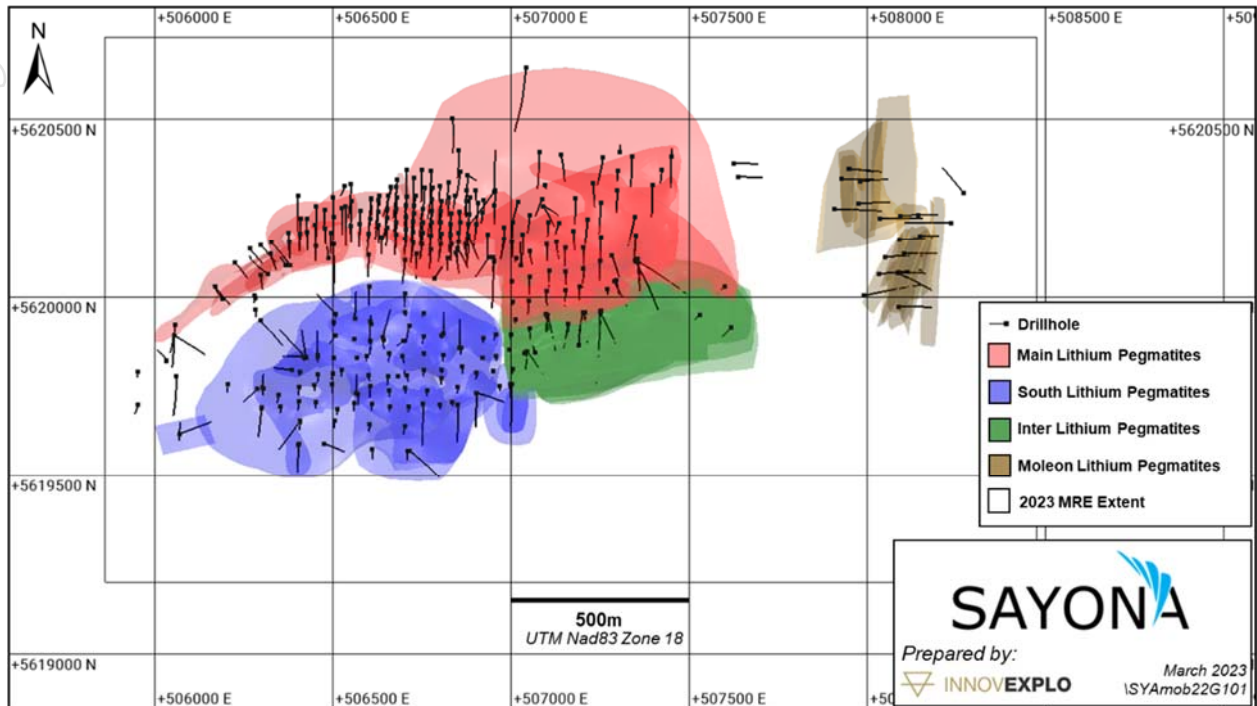
As per the issuer's standard procedures, the driller helper placed the core into core boxes at the rig, marking off every 3 m with wooden blocks. Once a box was full, the helper wrapped it in tape. Drillers delivered the core to the issuer's core logging facility daily by road. Drill hole casings remained anchored in bedrock to allow future surveying or lengthening and were capped and identified.

### **Sampling and sub-sampling techniques**

The drill core was logged and sampled by experienced geologists or by a geologist-in-training under the supervision of a qualified geologist. A geologist marked the samples by placing a unique ID tag at the end of each core sample interval. Core sample lengths vary from 0.5 to 1.5 m, and sample contacts respect lithological contacts and changes in the appearance of mineralisation or alteration (type and/or strength). Digital photographs of the marked and tagged core were taken for archival purposes. The core boxes were then palletted and sent to an external workshop for sampling.

During the winter campaign, sampling was conducted at Service MNG in Val-d'Or. During the summer-autumn campaign, sampling was conducted at Services Technominex in Rouyn-Noranda. During sampling, a technician sawed each marked sample in half lengthwise. One-half of the core was placed in a plastic bag along with a detached portion of the unique bar-coded sample tag. The other half of the core was returned to the core box, and the remaining tag portion was stapled to the box. According to the geologist's instructions, QA/QC samples are prepared and bagged ahead of time by core shack personnel and batched at the core shack.

For the winter campaign, samples were submitted, grouped into bulk bags, to AGAT Laboratories ("AGAT") in Val-d'Or for sample preparation and analysed at their Mississauga laboratory in Ontario. For the summer-autumn campaign, samples, grouped into bulk bags, were submitted to ALS Laboratories ("ALS") in Rouyn-Noranda for sample preparation and analysed at their Vancouver laboratory in British Columbia.



**Figure 2 - Moblan 2023 MRE Drill Holes Database**

### Sample Analysis method

AGAT: each sample was dried and weighed, and the entire sample was crushed to 75% passing 2 mm. A split of up to 250 g was taken using a riffle splitter and pulverised to better than 85% passing 75 µm.

ALS: each sample was dried and weighed, and the entire sample was crushed to 70% passing 2 mm. A split of up to 250 g was taken using a riffle splitter and pulverised to better than 85% passing 75 µm.

All samples were analysed by Sodium Peroxide Fusion and ICP-MS finish using a 0.2 g aliquot of pulverised material. Assay sample of Certified Reference Material, half core duplicate sampling and insertion of blanks into the sample sequence has been undertaken to ensure QA/QC. The Protocols include systematic insertion of CRM standards (OREAS 750, OREAS 752 and OREAS 753; selected to reflect the target mineralisation) at approximately 1 in every 25 samples, and alternating blank samples of quartz and core duplicate samples for every 1 in 25 samples.

The core samples have been selected by visual logging methods and is considered appropriate for the analytical work being carried out and, in an industry standard way. Half core sampling is considered an appropriate method to ensure a sufficient quantity of sample is collected for it to be representative of the drill material and appropriate for the grain size of the material being sampled.

Remaining crushed sample (reject) and pulverised sample (pulp) were retained for further analysis and quality control.

The assaying techniques and quality control protocols used are considered appropriate for the data to be used for estimation of Mineral Resources. Both laboratories (AGAT and ALS) have received ISO/IEC 17025 accreditation through the Standards Council of Canada ("SCC"). They are all independent of the issuer and have no interests in the property.

No geophysical tools or XRF instruments have been used in determining mineralisation.

### **Estimation Methodology**

Ordinary Kriging was selected as the method for grade interpolation as the Moblan lithium deposit is considered an homogeneous deposit (based on geology, geostatics and variography). No grade capping was applied to the 1.0m assay composites.

An unrotated block model (octree type) was created in Leapfrog™ (v.2022.1.1) to cover the deposit. The parent block dimensions of 5 m x 5 m x 5 m and sub-blocks can go down to a size of 1.25 m x 1.25 m x 1.25 m; the mineralisation and lithological models were used as sub-blocking triggers.

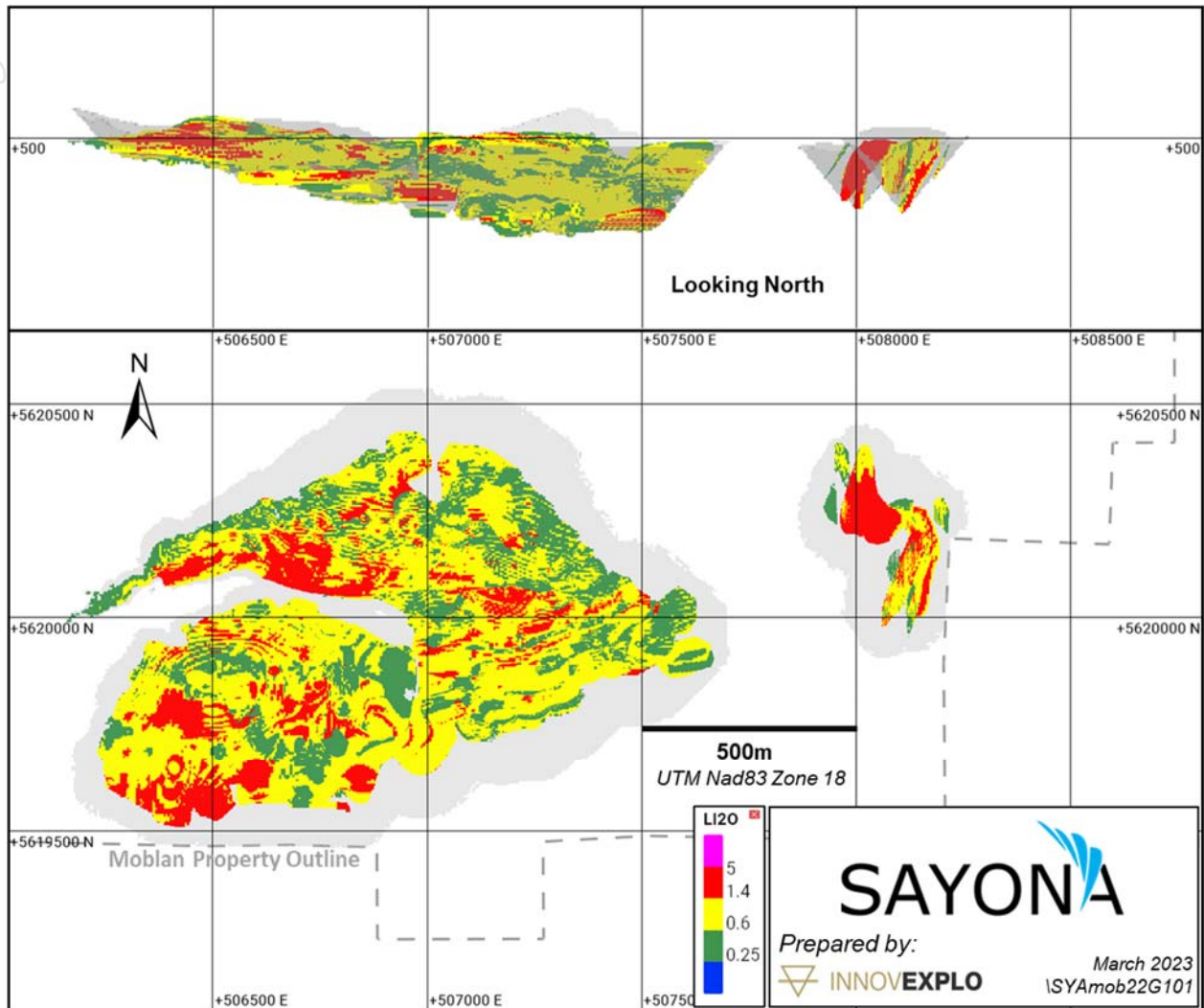
Experimental variograms were modelled, in Snowden Supervisor™ v8.14 using composites on a domain by domain basis (four experimental variograms were modelled).

Estimation was completed using a three passes approach. For thicker pegmatites (drillhole intersects longer, on average, than 10 m), for passes 1-3, 13, 13 and 4 minimum composites were required, 24, 24 and 24 maximum composites using 0.5 times, 1.0 times and 2.0 times the variogram ranges as search ellipses respectively. For the remaining pegmatites, for passes 1-3, 5, 5 and 2 minimum composites were required, 8, 8 and 8 maximum composites using 0.5 times, 1.0 times and 2.0 times the variogram ranges as search ellipses, respectively.

The lithium pegmatites, from the mineralisation model, were used to hard boundary the estimation domains.

Block model validation was completed by comparing visually the results of the OK, NN and ID2 estimates with the composited and raw assay data. Swath plots on 10m wide slices through the block model (comparing OK, ID2 and NN estimations) and the composite data set were conducted for the X, Y and Z directions. The current estimate was also compared with the previous historical estimate, both visually and with resulting volumetrics.

The SMU used for the optimisation was the parent block size (5 m x 5 m x 5 m).



**Figure 3 - Moblan 2023 MRE - Li<sub>2</sub>O % Grade Distribution**

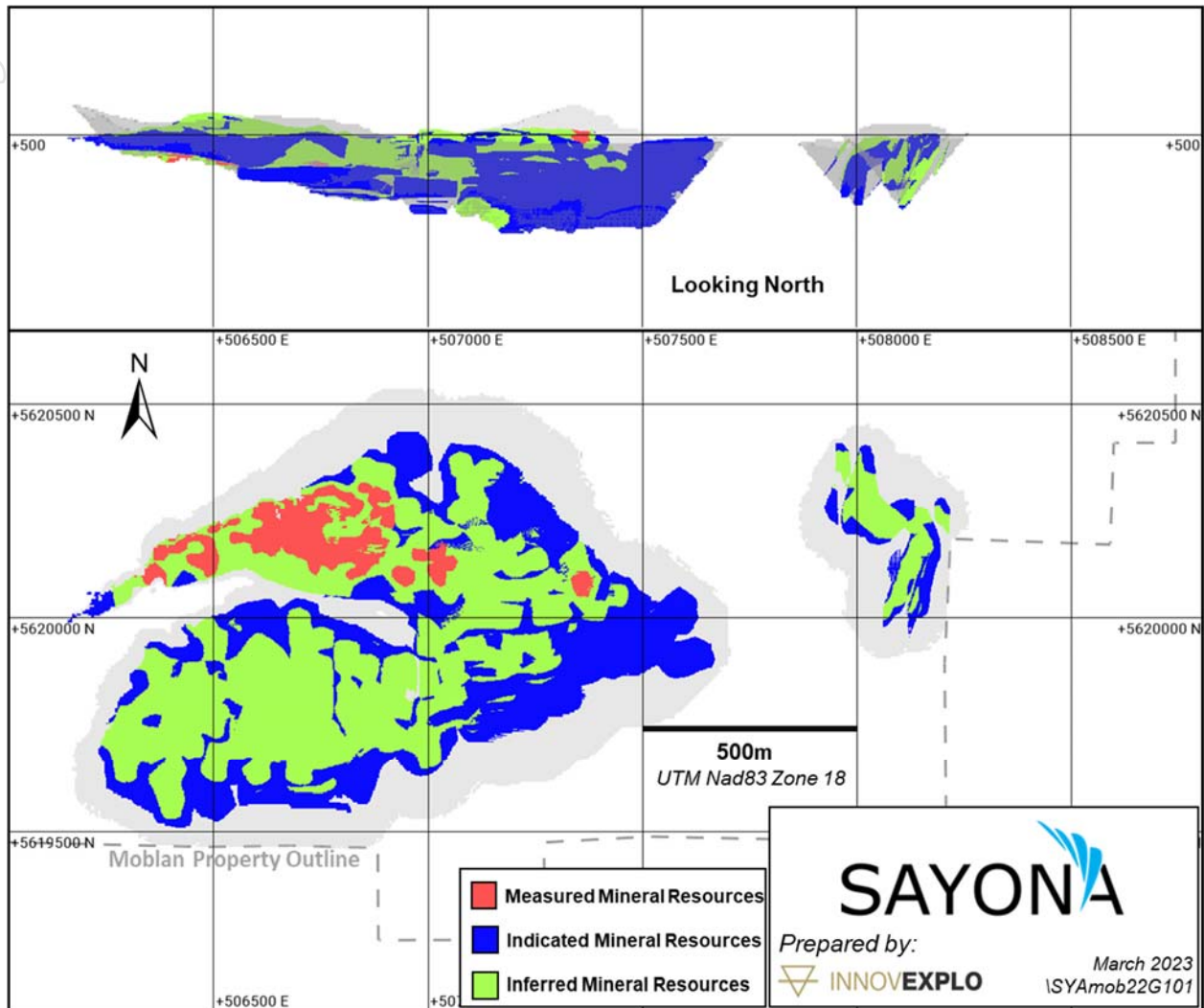
#### Criteria used for classification

The Mineral Resource estimate has been classified as a Measured Mineral Resource, Indicated Mineral Resource and Inferred Mineral Resource. The resource classification is based on drillhole spacing and geological and grade continuity including the assessment of minimum distance of informing composites.

Within the modelled lithium pegmatites only, criteria used for classification goes as follow:

- The Measured Mineral Resource estimate is classified with a nominal drill spacing less than 30 m x 30 m and interpolated by pass 1 and pass 2 (within the full variogram ranges);
- The Indicated Mineral Resource estimate is classified with a nominal drill spacing less than 60 m x 60 m and interpolated by pass 1 and pass 2 (within the full variogram ranges); and
- The Inferred Mineral Resource estimate is classified within a nominal drill spacing less than 100 m x 100 m and interpolated by pass 1 and pass 2 (within the full variogram ranges).





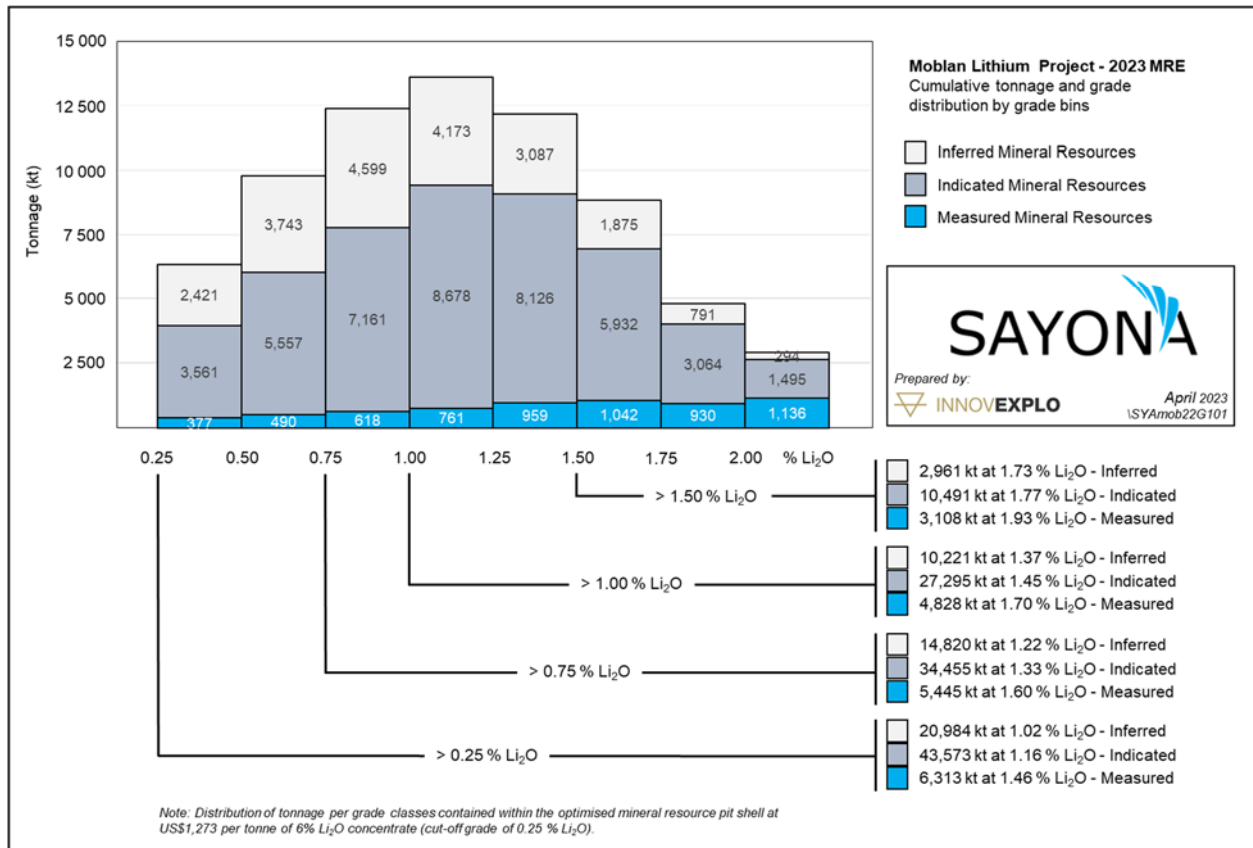
**Figure 4 – Moblan 2023 MRE – Mineral Resources Classification**

#### Cut-off grades, including the basis for the selected cut-off grades

The estimate is reported at a cut-off grade of 0.25%  $\text{Li}_2\text{O}$  for an open pit scenario. The estimate was calculated using a price of US\$1,273 per tonne of 6%  $\text{Li}_2\text{O}$  concentrate, a USD:CAD exchange rate of 1.32, a recovery of 75%, a mining cost of \$5.50/t mined, transport cost of \$157.90/t concentrate, G&A cost of \$12.35/t, a tailing management cost of \$0.80/t processed, and processing cost of \$35.00/t. The cut-off grade takes into account a royalty of 2%. The cut-off grades should be re-evaluated in light of future prevailing market conditions (metal prices, exchange rate, mining cost, etc.).

The 2023 MRE reports overall %  $\text{Li}_2\text{O}$  average grade results ranging from 1.02, 1.16 to 1.46 % (from Inferred, Indicated to Measured). The following graph, cumulative tonnage and grade distribution by grade bins, illustrates significant portions of the current mineral resources close or above 1.40%  $\text{Li}_2\text{O}$  average. It presents different block selections at different cut-offs contained within the official resource pit shell (optimised at US\$ 1,273/tonne of 6%  $\text{Li}_2\text{O}$  concentrate; 0.25 %  $\text{Li}_2\text{O}$ ). This table helps to illustrate one form of sensitivity within this fixed pit shell for cut-offs ranging from 0.25%, 0.50%, 0.75%, 1.00%, 1.25%, 1.50%,

1.75%, and 2.00% Li<sub>2</sub>O. The reported quantities and grade estimates at different cut-off grades are presented for the sole purpose of demonstrating the variability of the block model inside the selected US\$ 1,273 / tonne of 6% Li<sub>2</sub>O concentrate's pit shell caused by the selection of a different reporting cut-off grade.



**Figure 5 – 2023 MRE cumulative tonnage and grade distribution by grade bins**

### Mining and metallurgical methods and parameters, and other material modifying factors considered to date

An open pit scenario was retained for the 2023 MRE. All remaining tonnage located outside of an optimised pit shell (Whittle) was excluded of the mineral resource statement. Resource's level pit shell optimisation was completed at 0.25% Li<sub>2</sub>O (1,273 US\$/t Conc 6% Li<sub>2</sub>O), on 5 x 5 x 5 m SMU, using pit wall angles of 50° (in rocks) and 30° (in overburden).

The main metallurgical assumptions are the production of a 6% Li<sub>2</sub>O concentrate and Li<sub>2</sub>O metallurgical recovery of 75.0%; these assumptions are based on historical metallurgical tests and ongoing metallurgical testing conducted under the supervision of independent Competent Person and Sayona representatives.

A bulk sample or pilot scale testwork has not been undertaken.

## Mineral Tenement and Land Tenure Status

There are 10 properties in the Moblan James-Bay Group, comprising 1,966 map-designated cells ("CDC") for an aggregate area of 105,503.22 ha: Moblan, Lac Albert, Gariteau, Albert-Sud, Lezai-Troilus, Tortigny, Regnault, Larabel, Frotet and De-Maurès.

The Moblan property, host to the lithium mineral resources outlined in the 2023 MRE, consists of 20 claims (roughly 433 ha or 4.3 km<sup>2</sup>) held by Sayona (60%) and SOQUEM (40%). The Moblan property is subject to a 1.5 to 2.5% Gross Overriding Revenue (GOR) Royalty to Lithium Royalty Corporation.

All claims are in good standing as of 15 March 2023.

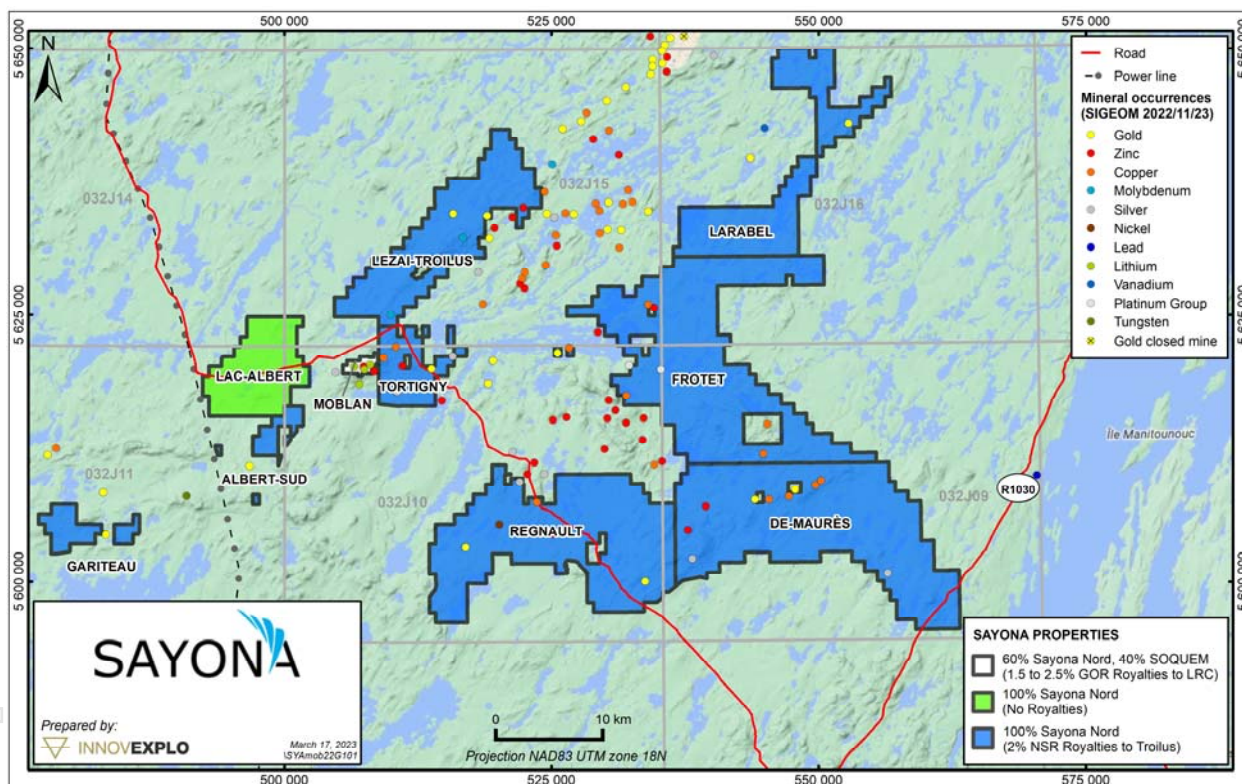


Figure 6 – Location map of the Moblan James-Bay Group of Properties belonging to Sayona



Property	Number of Mining Titles	Total Area (ha)	Ownership	Royalties
Moblan	20	433.37	60% Sayona / 40% SOQUEM	1.5 to 2.5% Gross Overriding Revenue (GOR) Royalty to Lithium Royalty Corp.
Lac Albert	121	6,592.01	100% Sayona	No royalties
Gariteau	37	2,009.4	100% Sayona (currently registered under Troilus Gold on GESTIM)	2% Net Smelter Return (NSR) to Troilus Gold
Albert-Sud	24	1,240.82		
Lezai-Troilus	216	11,673.06		
Tortigny	76	3,850.17		
Regnault	386	20,669.63		
Larabel	193	10,482.11		
Frotet	442	24,086.04		
De-Maurès	451	24,466.61		
<b>TOTAL</b>	<b>1,966</b>	<b>105,503.22</b>		

**Table 5 - Moblan James-Bay Group of Properties (Ownership and Royalties)**

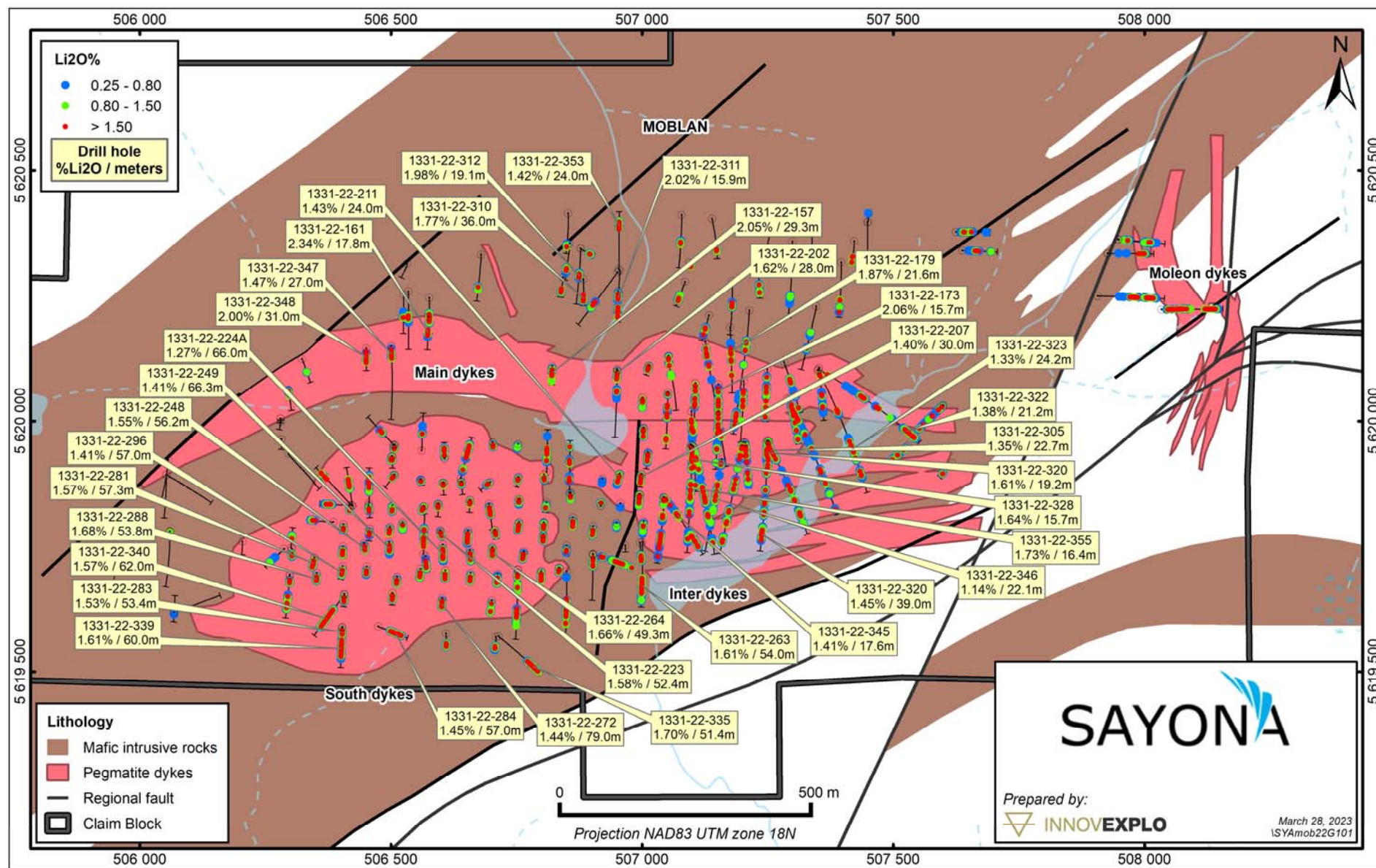
## 2022 Drilling Results

Sayona's drilling results were illustrated in the previous ASX announcement "New lithium discoveries strengthen Moblan potential – 27 June 2022."

New drilling results obtained by Sayona since June 2022 included 226 diamond drill holes for a total length of 33,052m. The drilling program was focused on infill drilling of the Main and Moleon dykes as well as the delineation of the South and Inter dykes area.

All the results are illustrated on Figure 7 (including drill hole traces and Li<sub>2</sub>O assay results) and presented in selected highlights in Table 6. The selection of the most significant intercepts was based on metal factors (Li<sub>2</sub>O content x m length) ranging from 25 to 115 (average of 65 for the selected intervals) for spodumene pegmatite dykes. Depending on the azimuths and plunges of the selected boreholes, the drilled lengths are apparent and are not directly true thicknesses. The coordinates in the Figures and Table are in UTM NAD83 Zone 18.





**Figure 7 – June-November 2022 Drilling Results**  
(all Li<sub>2</sub>O % raw assays illustrated along drill hole traces and selected highlights)

**Notes:** The selection of the most significant intercepts was based on metal factors (Li<sub>2</sub>O content x length in m) ranging from 25 to 115 (average of 65 for the selected intervals) for spodumene pegmatite dykes. Depending on the azimuths and plunges of the selected boreholes, the drilled lengths are apparent and are not directly true thicknesses. The coordinates in the Figures and Table are in metres in UTM NAD83 Zone 18 and elevation are above sea level.

Table 6 - Selected Highlights from June-November 2022 Drilling Results

Target area	Drill hole	Easting (m)	Northing (m)	Elevation (m)	Azimuth	Dip	Max Depth	From (m)	To (m)	Length (m)	Li <sub>2</sub> O (%)
Main dykes	1331-22-157	506821.0	5620109.0	504.6	181.0	-62.9	81.0	13.70	43.00	29.30	2.05
	1331-22-161	506574.5	5620208.0	525.8	180.0	-53.0	110.4	42.70	60.50	17.80	2.34
	1331-22-173	507151.9	5620072.7	515.4	180.0	-55.1	210.0	14.00	29.70	15.70	2.06
	1331-22-179	507175.0	5620187.1	518.8	180.3	-55.1	225.0	71.90	93.45	21.55	1.87
	1331-22-202	506950.4	5620099.8	505.3	180.0	-80.0	150.0	12.80	40.80	28.00	1.62
	1331-22-211	506955.4	5619895.7	507.0	180.0	-80.0	153.0	26.50	50.50	24.00	1.43
	1331-22-310	506882.9	5620283.3	498.9	180.0	-65.0	150.0	90.00	126.00	36.00	1.77
	1331-22-311	506955.1	5620300.3	495.2	180.0	-65.0	162.0	117.80	133.70	15.90	2.02
	1331-22-312	506877.3	5620344.4	496.5	180.0	-65.0	252.0	114.20	133.30	19.10	1.98
	1331-22-347	506500.5	5620149.1	513.4	180.0	-45.0	204.0	8.50	35.50	27.00	1.47
South dykes	1331-22-348	506450.5	5620144.5	513.3	180.0	-50.0	63.0	9.40	40.40	31.00	2.00
	1331-22-353	506953.8	5620303.1	495.2	0.0	-55.0	198.0	138.20	162.20	24.00	1.42
	1331-22-223	506597.9	5619781.2	542.7	180.0	-80.0	99.0	15.80	68.20	52.40	1.58
	1331-22-224A	506603.0	5619753.0	528.0	180.0	-80.0	126.0	28.90	94.90	66.00	1.27
	1331-22-248	506446.6	5619755.6	563.2	180.0	-80.0	111.0	34.80	91.00	56.20	1.55
	1331-22-249	506496.5	5619757.6	560.4	180.0	-80.0	144.0	30.80	97.10	66.30	1.41
	1331-22-263	507000.3	5619757.9	498.9	180.0	-80.0	222.0	125.30	179.30	54.00	1.61
	1331-22-264	506701.6	5619747.5	534.2	180.0	-80.0	111.0	51.20	100.50	49.30	1.66
	1331-22-272	506602.0	5619646.0	535.2	180.0	-80.0	150.0	35.90	114.90	79.00	1.44
	1331-22-281	506347.3	5619727.1	549.3	180.0	-80.0	129.0	30.50	87.80	57.30	1.57
	1331-22-283	506402.7	5619589.1	547.7	180.0	-80.0	108.0	28.80	82.20	53.40	1.53
	1331-22-284	506474.5	5619590.4	546.5	180.0	-80.0	144.0	59.20	116.20	57.00	1.45
	1331-22-288	506352.2	5619695.9	549.5	180.0	-80.0	120.0	39.70	93.50	53.80	1.68
	1331-22-296	506403.7	5619709.7	556.5	180.0	-80.0	138.0	38.90	95.90	57.00	1.45
	1331-22-335	506713.7	5619570.5	532.5	130.0	-55.0	192.0	130.50	181.90	51.40	1.70
Inter dykes	1331-22-339	506402.5	5619588.0	547.8	180.0	-55.0	141.0	44.00	104.00	60.00	1.61
	1331-22-340	506406.9	5619653.7	549.8	210.0	-45.0	141.0	51.50	113.50	62.00	1.57
	1331-22-207	506998.7	5619894.7	514.0	180.0	-80.0	150.0	16.20	46.20	30.00	1.40
	1331-22-305	507250.2	5619961.4	504.5	180.0	-50.0	306.0	21.30	44.00	22.70	1.35
	1331-22-320	507248.6	5619960.5	504.7	180.0	-47.0	315.0	24.00	43.20	19.20	1.61
	1331-22-320	507248.6	5619960.5	504.7	180.0	-47.0	315.0	248.60	287.60	39.00	1.45
	1331-22-322	507350.7	5620102.2	521.9	116.0	-44.0	343.0	286.00	307.20	21.20	1.38
	1331-22-323	507349.2	5620100.3	521.9	150.0	-45.0	357.0	219.90	244.10	24.20	1.33
	1331-22-328	507099.5	5619950.8	504.0	180.0	-47.0	300.0	29.80	45.50	15.70	1.64
	1331-22-345	507042.9	5619847.9	511.7	140.0	-55.0	240.0	70.60	88.20	17.60	1.41
	1331-22-346	507158.7	5619923.9	500.4	190.0	-55.0	309.0	124.60	146.70	22.10	1.14
	1331-22-355	507102.0	5619949.1	503.8	165.0	-40.0	309.0	116.40	132.80	16.40	1.73

**Notes:** The selection of the most significant intercepts was based on metal factors (Li<sub>2</sub>O content x length in m) ranging from 25 to 115 (average of 65 for the selected intervals) for spodumene pegmatite dykes. Depending on the azimuths and plunges of the selected boreholes, the drilled lengths are apparent and are not directly true thicknesses. The coordinates in the Figures and Table are in metres in UTM NAD83 Zone 18 and elevation are above sea level.

## About the Moblan Project

The Moblan project is located about 130km north of the town of Chibougamau and approximately 85km from the Cree (First Nations) community of Mistissini. The project is accessible year-round via the Route du Nord and its proximity to Chibougamau and Mistissini with their available infrastructure makes it an ideal location for exploring and mining deposits of industrial energy minerals. The project also has access to low-cost, environmentally friendly hydropower.

In January 2022, Sayona expanded its northern hub with the acquisition of 121 new claims, the Lac Albert Project, located 3.5km west of Moblan and spanning more than 6,500ha (refer ASX release 25 January 2022). This was followed by the November 2022 acquisition of the Troilus Gold lithium claims (refer ASX release 17 November 2022) as Sayona continued to develop its northern lithium hub.

Sayona is committed to engaging local communities as the project progresses, including First Nations and other local community members, consistent with its proactive stakeholder engagement approach.

Issued on behalf of the Board.

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## About Sayona Mining

Sayona Mining Limited is a North American lithium producer (ASX:SYA; OTCQB:SYAXF), with projects in Québec, Canada and Western Australia.

In Québec, Sayona's assets comprise North American Lithium together with the Authier Lithium Project and its emerging Tansim Lithium Project, supported by a strategic partnership with American lithium developer Piedmont Lithium Inc. (Nasdaq:PLL; ASX:PLL). Sayona also holds a 60% stake in the Moblan Lithium Project in northern Québec.

In Western Australia, the Company holds a large tenement portfolio in the Pilbara region prospective for gold and lithium. Sayona is exploring for Hemi-style gold targets in the world-class Pilbara region, while its lithium projects are subject to a joint venture with Morella Corporation (ASX:1MC).

For more information, please visit us at [www.sayonamining.com.au](http://www.sayonamining.com.au)

## About SOQUEM

SOQUEM, a subsidiary of Investissement Québec, is dedicated to promoting the exploration, discovery, and development of mining properties in Quebec. SOQUEM also contributes to maintaining strong local economies. Proud partner and ambassador for the development of Quebec's mineral wealth, SOQUEM relies on innovation, research, and strategic minerals to be well-positioned for the future.

## References to Previous ASX Releases

- Northern lithium hub expands in major acquisition – 17 November 2022
- New lithium discoveries strengthen Moblan potential – 27 June 2022
- New lithium pegmatite discovery at Moblan project – 26 April 2022
- Sayona expands northern Québec lithium hub – 121 new claims – 25 January 2022
- Resource expansion eyed as Moblan acquisition closes – 18 October 2021

Sayona confirms that it is not aware of any new information or data that materially affects the information included in the original releases and that all material assumptions and technical parameters underpinning the estimates in the original releases continue to apply and have not materially changed. Sayona confirms that the form and context in which the competent person's findings are presented have not been materially modified from the original releases.

Sayona has filed a NI 43-101 Technical Report on this Mineral Resource estimate for its Moblan James-Bay Group of Properties (the "Technical Report"). The Technical Report was prepared by the independent firms of InnovExplo Inc. and Primero Americas and has an effective date of 21 March 2023 and signature date of 14 April 2023. The Technical Report is available for review on SEDAR ([www.sedar.com](http://www.sedar.com)) and on the Company's website at <https://www.sayona.ca>.

## Competent Person's Statement

The information in this report that relates to the Moblan Mineral Resource 2023 MRE is based on information compiled by Vincent Nadeau-Benoit, P.Geo., Alain Carrier, P.Geo., Simon Boudreau, P.Eng. and Ryan Cunningham, P.Eng, members of the Ordre des Géologues du Québec (OGQ) or Ordre des Ingénieurs du Québec (OIQ). Vincent Nadeau-Benoit, P.Geo., Alain Carrier, P.Geo., Simon Boudreau, P.Eng are full time employees of InnovExplo, and Ryan Cunningham, P.Eng. is a full time employee of Primero Group Americas. and each has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which is being 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".

Messrs. Nadeau-Benoit, Carrier, Boudreau, P.Eng. and Cunningham supervised the preparation of the technical information in this release and each has relevant experience and competence in the subject matter. As competent persons for this announcement, each has consented to the inclusion of the information in the form and context in which it appears herein.

The information in this document relating to exploration results is based on information compiled by Mr Carl Corriveau, PGeo. a member of the Ordre des Géologues du Québec (OGQ). Mr Corriveau is Vice President Exploration of Sayona Inc. a subsidiary of Sayona Mining Limited 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."

Mr Corriveau consents to the inclusion of the information in the form and context in which it appears.



## Appendix 1

### JORC Code, 2012 Edition – Table 1

#### Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>Core samples are obtained from core drilling (NQ and HQ diameter core) from a total of 366 surface drill holes. Some samples were collected from surface channel samples (10 surface trenches). Sample database has been established in UTM coordinates (NAD 83 Zone 18).</li> <li>Geological logging of recovered drill core visually identified pegmatite and this determined the intervals for sampling. Lithium bearing spodumene is easily identified. Sample interval has been determined on geological characteristics and ranges from between 0.4 and 1.5m in length. Core was cut using a diamond saw core-cutter and half core sampled.</li> <li>Sample preparation and assaying methods are industry standard and appropriate for this type of mineralisation.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling from surface was carried out by diamond drilling methods, using standard tube to recover NQ and HQ size core. Core was not orientated. Downhole drill azimuth and dip has been determined by TN-14 azimuth aligner and downhole Reflex EZ shot recording instruments for 249 drill holes; Flexit multishot for 99 drill holes; and Tropari and acid test for 18 historical drill holes.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling has been within fresh rock from surface and core recovery approximates 100%. Core has been marked up, and core recovery and RQD measurements recorded.</li> <li>Core recoveries were typically high and are considered acceptable and it is not believed a bias has been introduced into the sampling system.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>Geological logging recorded qualitative descriptions of lithology, alteration, mineralisation, veining, and structure (for all 366 drill holes - 53,088.47m). Geological logging, RQD measurements and structural information has been completed. The logging is qualitative and is supported by core photography of marked up core. The geological and geotechnical logging is at an appropriate level for the style of exploration drilling being reported on.</li> <li>All drill core has been geologically logged. Drill cores were photographed, prior to cutting and/or sampling the core.</li> <li>The logging was of sufficient quality to support the</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all 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>	<p>Mineral Resource estimate</p> <ul style="list-style-type: none"> <li>• Sampling, sample preparation and quality control protocols are considered appropriate for the material being sampled. Samples sizes are considered appropriate for the style of mineralisation.</li> <li>• Drill core has been cut in half by diamond saw with half-core samples packaged, grouped into bulk bags for dispatch to the laboratory.</li> <li>• Sample preparation was conducted in independent accredited laboratories (ALS and AGAT laboratories in Val-d'Or, Quebec).</li> <li>• AGAT: each sample is dried and weighed, and the entire sample is crushed to 75% passing 2 mm. A split of up to 250 g is taken using a riffle splitter and pulverised to better than 85% passing 75 µm.</li> <li>• ALS: each sample is dried and weighed, and the entire sample is crushed to 70% passing 2 mm. A split of up to 250 g is taken using a riffle splitter and pulverised to better than 85% passing 75 µm.</li> <li>• The core samples have been selected by visual logging methods and is considered appropriate for the analytical work being carried out and in an industry standard way.</li> <li>• Half core sampling is considered an appropriate method to ensure a sufficient quantity of sample is collected for it to be representative of the drill material and appropriate for the grain size of the material being sampled.</li> <li>• Remaining crushed sample (reject) and pulverised sample (pulp) are retained for further analysis and quality control.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Assaying of drill core samples was conducted at independent accredited laboratories (ALS and AGAT laboratories in Val-d'Or, Quebec).</li> <li>• All samples are analysed by Sodium Peroxide Fusion and ICP-MS finish using a 0.2 g aliquot of pulverised material. Sayona regularly inserts 3rd party reference control samples and blank samples in the sample stream to monitor assay and laboratory performance.</li> <li>• No geophysical tools or XRF instruments have been used in determining mineralisation.</li> <li>• Assay sample of Certified Reference Material, half core duplicate sampling and insertion of blanks into the sample sequence has been undertaken to ensure QA/QC. Protocols include systematic insertion of CRM standards at approximately 1 in every 25 samples, and alternating blank samples of quartz and core duplicate samples for every 1 in 25 samples.</li> <li>• The CRM material used is OREAS 750, OREAS 752 and OREAS 753. These standards have been selected to reflect the target mineralisation. Assays of quality control samples were compared with reference samples in database and verified as acceptable prior to use of data from analysed batches.</li> <li>• It is believed the sampling is representative of the drilled</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <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>	<p>material and appropriate for this type of diamond drilling method.</p> <ul style="list-style-type: none"> <li>The assaying techniques and quality control protocols used are considered appropriate for the data to be used for estimation of Mineral Resources.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Sampling intervals defined by the geologist have assigned sample identification numbers prior to core cutting.</li> <li>All sampling and assay information were stored in a secure GeoticLog database with restricted access.</li> <li>Assay results from the laboratory with corresponding sample identification are loaded directly into the GeoticLog database.</li> <li>The results have been reviewed by multiple geologists. The company conducts internal data verification protocols which have been followed. The verification of significant intersections has been completed company personnel and Competent Person.</li> <li>Li% has been converted to Li<sub>2</sub>O% for the purposes of reporting. The conversion used is Li<sub>2</sub>O = Li x 2.1527. No other adjustments to assay data have been undertaken.</li> <li>No twinned holes have been completed.</li> <li>There are no currently known drilling, sampling, recovery, or other factors that could materially affect the accuracy or reliability of the data.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drill collars have been located by handheld GPS with an error of approximately +/-5m. Paul Roy land surveyor and Caouette, Thériault &amp; Renaud, professional surveyors of Chibougamau, provided a land surveyor with a GPS base station to survey the completed drill collar locations.</li> <li>Drill rig alignment was attained using an electronic azimuth aligner. Downhole survey was collected at 3m intervals.</li> <li>The grid system used is UTM NAD83 zone 18.</li> <li>A government's LIDAR survey was completed over the area was used to prepare a DEM / topographic model for the project.</li> <li>The quality and adequacy of the topographic control are considered appropriate for the data to be used for estimation of Mineral Resources.</li> <li>The drill hole spacing ranges from 15–100m within the mineral resource area.</li> <li>The data spacing is sufficient to establish the degree of geological and grade continuity for a Measured, Indicated and Inferred Mineral Resources within the Main dykes and for an Indicated and Inferred Mineral Resources within the South, Inter and Moleon dykes.</li> <li>Significant assay intercepts remain open. be undertaken. Further drilling is required to determine the extent of currently defined mineralisation. One metre (1m)</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>compositing is applied to samples for the estimation of Mineral Resources.</p> <ul style="list-style-type: none"> <li>Samples have not been composited.</li> <li>Drilling intersects mineralisation at various angles but are mostly orthogonal to the Lithium pegmatites dykes.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Drill holes exploring the extents of the Moblan Lithium Project intersect four (4) dyke swarms: the Main dykes, South dykes, Inter dykes and Moleon dykes (Figures 1 and 2). Each of those corresponds to a series of stacked dykes of variable thickness. The Main dykes correspond to a group of 21 lithium pegmatite dykes EW oriented and slightly dipping to the North (N280°/-20°). The South dykes correspond to a group of 20 lithium pegmatite dykes EW oriented and almost sub-horizontal or slightly dipping to the South (N080°/-10°). The Inter dykes correspond to a group of 17 lithium pegmatite dykes ENE oriented and moderately dipping to the North (N260°/-20°). The Moleon dykes correspond to a group of 17 lithium pegmatite dykes NS oriented and steeply dipping to the West (N180°/-70°). Mineralisation remains open in all directions.</li> <li>Drilling direction is oriented to intersect the mineralisation orthogonally or at an intersection angle of greater than 40 degrees. The drilled length of reported intersections is typically greater than true width of mineralisation.</li> <li>Lithium pegmatites in the area are typically tabular bodies and the reported results appear consistent with that style of mineralisation. There does not appear to be an introduction of a sampling bias due to the drillhole orientation.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All reasonable measures and Industry standard sample security and storage have been undertaken.</li> <li>The security of samples is controlled by tracking samples from drill rig to database. Drill core was delivered from the drill rig to the Project core yard every shift. On completion of geological and geotechnical logging, core processing was completed by Sayona or SOQUEM personnel, and/or by their representatives.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Internal reviews of core handling, sample preparation and assays laboratories were conducted on a regular basis by both Sayona or SOQUEM personel and/or by owners representatives.</li> <li>The Competent Person, Mr. Alain Carrier, completed independent review of logging and sampling, and conducted re-sampling of selected core intervals. The results of the independent re-sampling program carried out by the CP are satisfactory.</li> <li>In the Competent Person's opinion, the sample preparation, security and analytical procedures are consistent with current industry standards and are entirely appropriate and acceptable for the styles of mineralisation identified and will be appropriate for use in Mineral Resource estimates. There are no identified</li> </ul>



Criteria	JORC Code explanation	Commentary
		drilling, sampling or recovery factors that materially impact the adequacy and reliability of the results of the drilling program in place at the Moblan Project.

## Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <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 licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Properties are situated in the northwestern part of the Province of Quebec, Canada. The centroid of the Properties is approximately 90 km to the north-northwest of the town of Chibougamau and 42 km west of Lake Mistassini, Quebec. The Properties cover an area of 1,055.22 km<sup>2</sup>, extending 85 km east-west and 55 km north-south. The Properties fall within the area covered by NTS map sheets 32J09, 32J10, 32J11, 32J14, 32J15 and 32J16. The approximate coordinates of the geographic centre of the Properties are 74°54' W and 50°44' N (UTM coordinates: 507,059mE and 5,618,693mN, NAD 83, Zone 18. There are 10 properties in the Moblan James-Bay Group, comprising 1,966 map-designated cells ("CDC") for an aggregate area of 105,503.22 ha: Moblan, Lac Albert, Gariteau, Albert-Sud, Lezai-Troilus, Tortigny, Regnault, Larabel, Frotet and De-Maurès.</li> <li>The Moblan Property, host to the lithium mineral resources outlined in the 2023 MRE, consists of 20 claims (roughly 433 ha or 4.3 km<sup>2</sup>) held by Sayona Nord (60%) and SOQUEM (40%). The Moblan Property is subject to 1.5 to 2.5% Gross Overriding Revenue (GOR) Royalty to Lithium Royalty Corporation.</li> <li>The Lac Albert Property comprises 121 claims 3.5 km west of the Moblan Property and covers 6,592 ha (65.92 km<sup>2</sup>). These claims are held 100% by Sayona (through its subsidiary Sayona Nord) and have no royalties.</li> <li>Sayona acquired the other eight (8) properties in November 2022 from Troilus Gold through its subsidiary 9474-9454 QC. Sayona subdivided this vast territory for exploration into the Gariteau, Albert-Sud, Lezai-Troilus, Tortigny, Regnault, Larabel, Frotet and De-Maurès properties. They consist of 1,825 claims near the Moblan Property and extend over a major part of the Frotêt-Evans Greenstone Belt, covering approximately 98,478 ha (985 km<sup>2</sup>). These 8 properties are subject to 2% Net Smelter Return (NSR) to Troilus Gold Corporation.</li> <li>All claims are in good standing as of March 15, 2023. Seven (7) claims have an expiration date before October 2022, thirty-six (36) before January 2023, and two (2) before March 2023; renewals are currently being processed by the MRNF. At the time of preparing this report, 1,825 claims were under the name Troilus Gold; transfer to Sayona is currently being processed by the MERN.</li> <li>There are no impediments that have been identified for operating in the project areas</li> </ul>

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The current Moblan James-Bay Group of Properties (the "Properties": Moblan, Lac-Albert, Gariteau, Albert-Sud, Lezai-Troilus, Tortigny, Regnault, Larabel, Frotet and De-Maurès) covers and overlaps many historical mining and exploration properties. The boundaries and names of those properties have evolved following changes in ownership, option agreements or land packages as claims were abandoned or added. Exploration work has been varied (e.g. prospecting, mapping, geophysics, geochemistry, drilling, etc.) and focused on the potential for several commodities (e.g. precious metals, base metals, and more recently, critical and strategic minerals).</li> <li>Interest in lithium in the area began in the 1960s within the current limit of the Moblan Property. Surface prospecting and trenching performed by Muscocho Explorations Ltd in 1963 resulted in the discovery of numerous lithium bearing dykes. A few of the dykes had been sampled earlier and revealed a high grade lithium oxide content. Twenty-eight lithium bearing pegmatite dykes have been discovered in six separate areas on the Moblan Property between 1992 and 2004, with work conducted by Abitibi Lithium Corporation.</li> <li>The project has been the subject of significant exploration and drilling effort, geophysics, geochemistry, historical studies, metallurgical testing and engineering studies.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Properties host several mineral occurrences and showings. These (and other adjacent) occurrences highlight the strong potential of the area for (i) Li pegmatites deposits; (ii) Cu-Zn VMS deposits; (iii) Au orogenic quartz-carbonate veins and disseminated sulphide deposits; (iv) Ni-Cu-PGE magmatic sulphide deposits; and (v) Au-Cu porphyry system (e.g. Troilus Gold).</li> <li>The economic potential of the Moblan Property is for lithium mineralisation. Lithium pegmatites were grouped into four (4) dyke swarms: Main, South, Inter and Moleon. Each corresponds to a series of stacked dykes of variable thicknesses.</li> <li>Main Dykes correspond to a group of 21 lithium pegmatite dykes oriented E and dipping slightly to the north (N280°/-20°). This swarm extends laterally E-W for approximately 1,500 m and 500 m N-S. In this group, three (3) dykes have an average intercept length greater than 10 m.</li> <li>South Dykes correspond to a group of 20 lithium pegmatite dykes oriented EW and almost sub-horizontal or dipping slightly to the south (N080°/-10°). This swarm extends laterally E-W for approximately 750 m and 500 m N-S. In this group, five (5) dykes have an average intercept length greater than 10 m.</li> <li>Inter Dykes correspond to a group of 17 lithium pegmatite dykes oriented ENE and dipping moderately to the north (N260°/-20°). This swarm extends laterally E-W for approximately 750 m and 300 m N-S. In this group, only one (1) dyke has an average intercept length greater than 10m.</li> <li>Moleon Dykes correspond to a group of 17 lithium</li> </ul>

Criteria	JORC Code explanation	Commentary
		pegmatite dykes oriented NS and dipping steeply to the west (N180°/-70°). This swarm extends laterally N-S for approximately 750 m and 250 m E-W. In this group, two (2) dykes have an average intercept length greater than 10 m.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>New significant results from 2022 Sayona drilling program are presented on Figure 7 and in Table 6. The selection of the most significant intercepts was based on metal factors (Li<sub>2</sub>O content x length in m) ranging from 25 to 115 (average of 65 for the selected intervals) for spodumene pegmatite dykes</li> <li>Refer to previous exploration releases for drillhole information of the previously reported intercepts.</li> <li>All the detailed information on drill holes have been provided to the Competent Persons for the completion of the 2023 MRE.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Significant assay intercepts are reported as weighted average over total pegmatite intercepts (on Figure 7 and in the Table 6).</li> <li>Li<sub>2</sub>O grades does shows great variations (coefficient of variation of 0.85). Based on statistical analysis, no capping is required, and no capping was applied on Moblan's Li<sub>2</sub>O grades.</li> <li>No metal equivalent used.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Significant assay intervals reported represent apparent widths. Drilling is not always perpendicular to the dip of mineralisation and true widths are less than downhole widths. Lithium pegmatites corresponds to a series of stacked dykes of variable true thicknesses.</li> <li>Pegmatite intercepts, on Figure 7 and in Table 6, are expressed over down hole length (not over true width).</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Figures 1 to 4 and Figure 7 provides different illustrations of drill holes, assays, and block model results of the 2023 MRE.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All assay results were used for reporting and for the estimation of the 2023 MRE.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics;</li> </ul>	<ul style="list-style-type: none"> <li>The early stage drill results reported are consistent with geological observations as described.</li> <li>Metallurgical testing and geotechnical studies are in progress.</li> <li>No other meaningful exploration data is reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>potential deleterious or contaminating substances.</i>	
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Further work includes further drilling to outline the morphology and extents to the lithium mineralisation identified to date.</li> <li>Infill drilling is underway on the Inferred Mineral Resource portion of Moblan, looking to upgrade a portion of the Inferred Mineral Resource to Indicated Mineral Resource.</li> <li>Growth drilling is planned to extend the limits of the mineralised system down depth and looking to establish additional resources outside those stated in this announcement (between Main / Inter dykes and Moleon dykes).</li> </ul>



### Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Data are stored in a Geotic™ Database (MS Access database). Assays and geological data are electronically loaded into Geotic. In-built validation tools are used Geotic™.</li> <li>The final database of drillholes and trenches which included collars, deviations, assays and geology was supplied to the CPs as an MS excel export by Sayona staff.</li> <li>By the CPs, downhole surveys were checked visually and statistically for outliers. Assay data was checked for negative, extreme and missing values. Overlapping intervals are flagged when imported in Leapfrog. Below detection assay values were set to half the lower detection limit for estimation.</li> <li>Suspicious geological intervals, that didn't fit with surrounding drillholes intersections were verified by the CPs with core photos and investigated and corrected where possible.</li> <li>A 5% audit was completed by the CPs on the collars coordinates, downhole survey values, assays values, comparing the databases values with assay certificates (received directly from the independent and certified laboratories), surveyor certificate or source file from the DGPS, and source file from the downhole deviation survey tools used. Data that is found to be in error is investigated and corrected where possible.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The site visit was completed by Alain Carrier, M.Sc., P.Geo, Competent Person, Member of the OGQ, a Recognised Overseas Professional Organisation and the Co-President Founder of InnovExplo Inc. The CP reviewed core intervals from previous and 2022 drilling program, site review of the Property, visit an active drill rig and review drilling, logging and sampling procedure, completed field validation of drill collar locations, and conducted independent re-sampling.</li> <li>The Competent Person is satisfied with the quality of the measures undertaken.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Geology was modelled by independent Competent Person in Leapfrog™ (v.2022.1.1) using implicit modelling techniques. A total of 75 dykes of lithium pegmatites were modelled for the Main, South, Inter and Moleon domains.</li> <li>These volumes were modelled from logged geology. These are based on drilling and surface trenching database supplied by Sayona. Geology is the controlling factor in guiding mineral resource estimation.</li> <li>Geological continuity is tested directly by drilling, assay and geological observation on surface and during core logging</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The Main, South and Inter Mineral Resource extent 700 m South, dips at around 60-70deg to the West with a width of ~300m and a ~300m in vertical extent,</li> <li>The Moleon Mineral Resource extent 1700 m WSW, dips at</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>around 0-25deg to the NWN with a width of 50-400m and a ~350m in vertical extent,</p> <ul style="list-style-type: none"> <li>The mineralisation remains open at depth and laterally for all domains.</li> </ul> <ul style="list-style-type: none"> <li>Ordinary Kriging was selected as the method for grade interpolation as the Moblan Lithium deposit is considered an homogeneous deposit (based on geology, geostatics and variography). No grade capping was applied to the 1.0m assay composites.</li> <li>Experimental variograms were modelled, in Snowden Supervisor <sup>TM</sup> v8.14 using composites on a domain by domain basis (4 experimental variograms were modelled).</li> <li>Estimation was completed, in Leapfrog <sup>TM</sup> (v.2022.1.1), using a three passes approach. For thicker pegmatites (drillhole intersects longer, on average, than 10 m), for passes 1-3, 13, 13 and 4 minimum composites were required, 24, 24 and 24 maximum composites using 0.5 times, 1.0 times and 2.0 times the variogram ranges as search ellipses respectively. For the remaining pegmatites, for passes 1-3, 5, 5 and 2 minimum composites were required, 8, 8 and 8 maximum composites using 0.5 times, 1.0 times and 2.0 times the variogram ranges as search ellipses, respectively.</li> <li>Block model is octree type and have parent block dimensions of 5 m x 5 m x 5 m and sub-blocks can go down to a size of 1.25 m x 1.25 m x 1.25 m.</li> <li>Geological interpretation (lithium pegmatites) used to hard boundary the estimation domains.</li> <li>Block model validation completed by comparing visually the results of the OK, NN and ID<sup>2</sup> estimates with the composited and raw assay data. Swath plots on 10m wide slices through the block model (comparing OK, ID<sup>2</sup> and NN estimations) and the composite data set were conducted for the X, Y and Z directions.</li> <li>The SMU used for the optimisation was the parent block size (5 m x 5 m x 5 m).</li> <li>There are no by-products.</li> <li>The currents estimate was compared with previous historical estimate; both visually and with resulting volumetrics. No reconciliation data is available, the project has not reached extraction stage.</li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>All tonnages are calculated and reported on a dry tonnes basis.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Economic assumptions: Selling price: 1,273 US\$/t Conc 6% Li<sub>2</sub>O Royalties: 2.00% Exchange rate: 1.32</li> <li>Process: Processing cost: 35.00 \$/t processed Rehandling cost: 0.90 \$/t processed</li> </ul>

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		<p>Transport cost: 157.90 \$/t conc</p> <p>Tailing Management Costs: 0.80 \$/t processed</p> <p>% Li<sub>2</sub>O in concentrate: 6.0%</p> <p>Li<sub>2</sub>O metallurgical recovery: 75.0%</p> <ul style="list-style-type: none"> <li>Administration: <p>General administration: 12.35 \$/t processed</p> <p>Camp and remote area: include in general admin</p> </li> <li>Mining: <p>Mining cost – Mineralised material: 5.50 \$/t mined</p> <p>Mining cost – Waste material: 5.25 \$/t mined</p> <p>Mining cost – Overburden: 3.94 \$/t mined</p> <p>Mining recovery: 100%</p> <p>Loss of reserves: 0%</p> <p>Pit wall angles – rock: 50 degrees</p> <p>Pit wall angles – overburden: 30 degrees</p> </li> <li>Cut-off grade: 0.25% Li<sub>2</sub>O</li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>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 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.</li> </ul>	<ul style="list-style-type: none"> <li>An open pit scenario was retained for the 2023 MRE. All remaining tonnage located outside of an optimised pit shell (Whittle) was excluded of the mineral resource statement. No underground mining scenario was retained.</li> <li>Resource's level pit shell optimisation was completed at 0.25% Li<sub>2</sub>O (1,273 US\$/t Conc 6% Li<sub>2</sub>O), on 5 x 5 x 5 m SMU, using pit wall angles of 50° (in rocks) and 30° (in overburden).</li> <li>Estimated mining costs are presented with the cut-off parameters above.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical recovery assumptions are based on historical metallurgical tests and ongoing metallurgical testing conducted under the supervision of independent Competent Person and Sayona representative.</li> <li>Main metallurgical assumptions are the production of a 6% Li<sub>2</sub>O concentrate and Li<sub>2</sub>O metallurgical recovery of 75.0%.</li> <li>Estimated processing costs are presented with the cut-off parameters above.</li> <li>Bulk sample or pilot scale test work has not been undertaken.</li> </ul>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>As Moblan is an early stage project the potential environmental impact assessments are not well advanced.</li> <li>The assumption is that there will be no significant impediments to conventional waste management of rock and tailings.</li> </ul>



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<i>Bulk density</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>Bulk density measurements have been carried out in accordance with standard procedure and used a water immersion method. Intervals for bulk density determination are selected according to lithology. 267 measurements were taken using a standard water immersion method on core samples, on average 0.75 m long, throughout the Moblan Lithium deposit (no sample taken in the vicinity of the Moleon domain); 169 were taken in lithium pegmatites, 95 in gabbro and 3 in mafic volcanic.</li> <li>Pegmatite densities were estimated using a regression function developed using measurements of bulk density and <math>\text{Li}_2\text{O}\%</math>. The regression function used is <math>\text{SG} = 0.0623644 \cdot \text{Li}_2\text{O}\% + 2.61928</math> (<math>R^2=0.8632</math>) which use <math>\text{Li}_2\text{O}\%</math> block values and is used for the conversion of the volume of each block interpolated into a tonnage. Based on the mean of the measurements or theoretical values other host rocks were given fixed densities values of 3.04 g/cm<sup>3</sup> for the Gabbro 3.00 g/cm<sup>3</sup> for the Volcanics, 2.70 g/cm<sup>3</sup> for the Metasediments, 2.70 g/cm<sup>3</sup> for the Rhyolite.</li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>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).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimate has been classified as Measured Mineral Resource, Indicated Mineral Resource and Inferred Mineral Resource.</li> <li>The resource classification is based on drillhole spacing and geological and grade continuity including the assessment of minimum distance of informing composites. Within the modelled lithium pegmatites only, the Measured Mineral Resource estimate is classified with a nominal drill spacing less than 30 m x 30 m and interpolated by pass 1 and pass 2 (within the full variogram ranges), the Indicated Mineral Resource estimate is classified with a nominal drill spacing less than 60 m x 60 m and interpolated by pass 1 and pass 2 (within the full variogram ranges), the Inferred Mineral Resource estimate is classified within a nominal drill spacing less than 100 m x 100 m and interpolated by pass 1 and pass 2 (within the full variogram ranges) and the contiguous footprint of the reasonable prospect of eventual economic extraction.</li> <li>The Measured Mineral Resource, Indicated Mineral Resource and Inferred Mineral Resource classifications appropriately reflects the view of the independent Competent Persons.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>Independent Competent Persons are Alain Carrier, M.Sc., P.Geo., Vincent Nadeau-Benoit, P.Geo., Simon Boudreau, P. Eng., all of InnovExplo Inc.; and Ryan Cunningham, P.Eng. of Primero Group Americas.</li> <li>The different key assumptions for the 2023 MRE were reviewed, discussed and decided with peers internally at InnovExplo, with Primero and Sayona representatives.</li> <li>The estimate has been prepared using accepted industry practice, has been completed in accordance with the JORC Code guidelines, is suitable for preparing a public report documenting the Mineral Resource estimate.</li> </ul>
<i>Discussion of relative</i>	<ul style="list-style-type: none"> <li><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate</i></li> </ul>	<ul style="list-style-type: none"> <li>The uncertainty of the geological domain (Main, South, Inter and Moleon lithium pegmatite dykes) is considered low.</li> </ul>



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accuracy/ confidence	<p><i>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.</i></p> <ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>The boundaries between the Main, South, Inter and Moleon domains are marked and could be explained by structural discontinuities (e.g., a NNE fault between the South and Inter groups; and a NNE fault between Main / Inter and Moleon groups) which remains to be more accurately addressed.</li> <li>Inferred Mineral Resources reflects wide spaced drilling and infill drilling is recommended for potentially upgrade this category to higher confidence level.</li> <li>There is no production data for Moblan.</li> </ul>