

ASX Announcement | 21 March 2024

World Class Lithium and Tantalum Grades recorded within Dyke #05 Drill Intercepts at Trieste Lithium Project, James Bay, Quebec, Canada

Highlights:

- Dyke #05 drill assays have returned world class lithium and tantalum grades within multiple intercepts from near surface at the Trieste Lithium Project in James Bay, QC.
- The high-grade mineralisation compares favourably to world-class lithium projects such as Patriot Battery Metals' (ASX:PMT) Corvette Lithium Project in James Bay.
- The spodumene rich pegmatite of Dyke #05 boasts a thick zone of mineralisation that remains open. Notable near-surface sub-perpendicular results include:
 - 31.8m of 2.2% Li₂O and 499ppm Ta₂O₅ from 2.9m – TR24-010
 - including 10.2m at 3.0% Li₂O and 929ppm Ta₂O₅
 - 28.1m of 2.1% Li₂O and 66ppm Ta₂O₅ from 1.9m – TR24-002
 - including 7.2m at 3.0% Li₂O and 71ppm Ta₂O₅
 - 28.6m of 1.7% Li₂O and 1,050ppm Ta₂O₅ from 6.5m – TR24-008
 - including 5.9m at 2.7% Li₂O and 4,432ppm Ta₂O₅
 - 23.8m of 1.7% Li₂O and 732ppm Ta₂O₅ from 15.2m – TR24-007
 - including 18.4m at 2.2% Li₂O and 911ppm Ta₂O₅
 - 22.6m of 1.4% Li₂O and 70ppm Ta₂O₅ from 7.0m – TR24-001
 - including 10.0m at 2.2% Li₂O and 133ppm Ta₂O₅
- In addition to the six known spodumene-bearing pegmatite dykes, multiple locations of fertile geochemistry and anomalous magnetic lows have been identified within the Greenstone and Metasediment fault flow zone, demonstrating the significant potential for new discoveries and project scalability.
- The Trieste Lithium Project is strategically located within the James Bay lithium district of Quebec and connected along the Trieste Greenstone to multiple Spodumene bearing lithium projects of Rio Tinto/Midland Exploration, Azimut/SEQUEM and Winsome Resources' (ASX:WR1) Adina-Jamar project with a JORC Inferred Mineral Resource Estimate of 59 Mt at 1.12% Li₂O ⁽¹⁾.
- With \$6.4m⁽²⁾ in cash and drilling activities concluding on Dyke #04 (assays pending), Loyal Lithium is considering further drilling, geophysical, and field-based programs in the 2024 Canadian Summer to unlock the full potential of the Trieste Lithium Project.

Loyal Lithium Limited (ASX:LLI) (**Loyal Lithium, LLI**, or the **Company**) is proud to announce a significant development in the exploration activities at the Trieste Lithium Project in James Bay, Quebec, Canada. World-class lithium and tantalum grades have been recorded within multiple drill intercepts in Dyke #05, marking a pivotal moment in the project's development.

The exceptional mineralisation is comparable to renowned lithium projects such as Patriot Battery Minerals' Corvette Project and demonstrates the immense potential of the Trieste Lithium Project. With the spodumene-rich Dyke #05 boasting a thick mineralised zone that remains open, the project stands out amongst other pre-resource lithium projects within the James Bay Region. Additionally, the identification of fertile geochemistry and anomalous magnetic lows within the Greenstone and Metasediment Fault Flow Zone further accentuates the project's significant potential for new discoveries and scalability. Strategically located near emerging, well-funded high-profile lithium projects and with a robust financial position, Loyal Lithium is strongly poised to unlock the full potential of the Trieste Lithium Project.

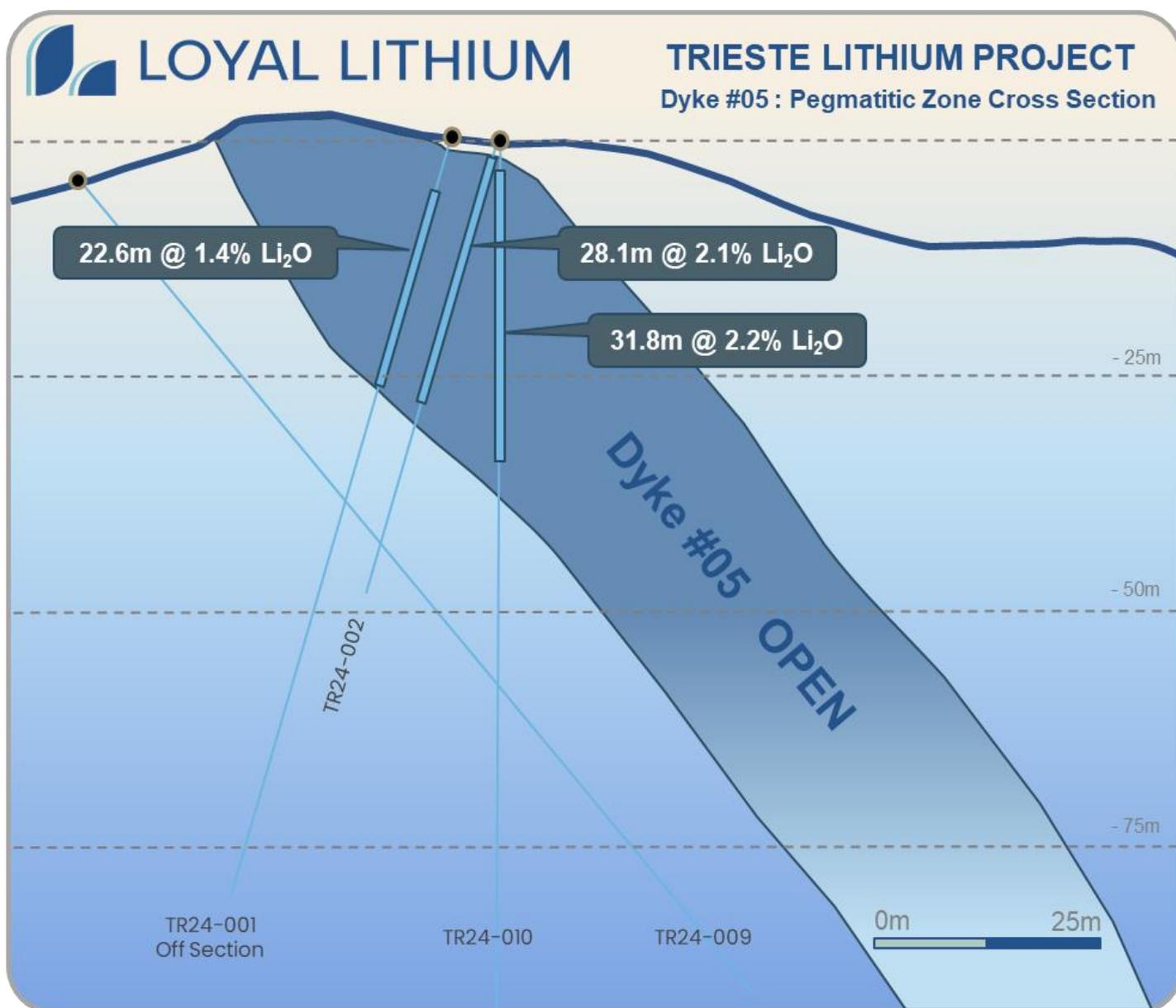


Figure 1: Trieste Lithium Project: Dyke #05 Cross section on section line A-A'.

Loyal Lithium’s Managing Director, Mr. Adam Ritchie, commented:

“We are thrilled to announce these exceptional results from our drilling campaign at the Trieste Lithium Project in James Bay. Our team, alongside our geological partner, Dahrouge Geological Consulting, have been relentlessly advancing this unique and promising lithium project throughout the Canadian winter, facilitating a swift, low-cost focused drill campaign.”

“These outstanding high-grade lithium and tantalum results are truly world class and solidify the Trieste Lithium Project as a standout among the pre-resource lithium plays in Quebec.”

“As we continue to expand our geological interpretation efforts and streamline our operations, we are excited about the immense potential that lies ahead. With additional assay results from Dyke #04 anticipated in early Q2, we are well-positioned to further unlock the potential of the Trieste Lithium Project.”



Image 1: Trieste Lithium Project: Dyke #05 TR24-010 drill core showing significant spodumene mineralisation.

TRIESTE LITHIUM PROJECT DYKE #05 NOTABLE DRILL ASSAY SUMMARY					
Hole ID	Intersected (m)	Li ₂ O%	Ta ₂ O ₅ ppm	From (m)	To (m)
TR24-010	31.8	2.2	499	2.9	34.7
TR24-002	28.1	2.1	66	1.9	29.9
TR24-008	28.6	1.7	1,050	11.0	39.7
TR24-007	23.8	1.7	732	11.9	35.7
TR24-001	22.6	1.4	70	7.0	29.6
TR24-003*	17.3	3.0	1,460	2.3	19.6
TR24-011	15.4	1.4	60	34.2	49.7
TR24-012	8.3	1.1	45	48.2	56.5

Table 1: Dyke #05 notable drill assay results. *Drillhole ended in pegmatite redrilled as TS24-010.

Uniquely large spodumene and tantalum oxide mega crystals are found both on surface and within Dyke #05 drill core at the Trieste Lithium Project. In particular, drillhole TR24-003 stands out with a remarkable peak sample value of 5.3% Li₂O and 15,996 ppm Ta₂O₅. The presence of mega crystals within a pegmatite dyke, suggests many positive geological and metallurgical attributes that practically may result in a simpler and more cost-effective mining and processing solution.



Image 2: Spodumene MEGA crystals (left) and large tantalum oxides (black - right) observed in outcrop, were verified by drilling in this announcement.

The exploration work completed to date at the Trieste Lithium Project holds immense promise for two highly prospective areas: the underexplored Trieste Greenstone Discovery Trend and the 20km² Metasediment Fault Flow Zone. Geological analysis and interpretation indicate a high potential for new discoveries within these zones. The data from Dyke #05 drilling, will be instrumental in refining in-house geological models as Loyal Lithium considers further drilling, geophysical, and field-based programs for the upcoming Canadian summer.

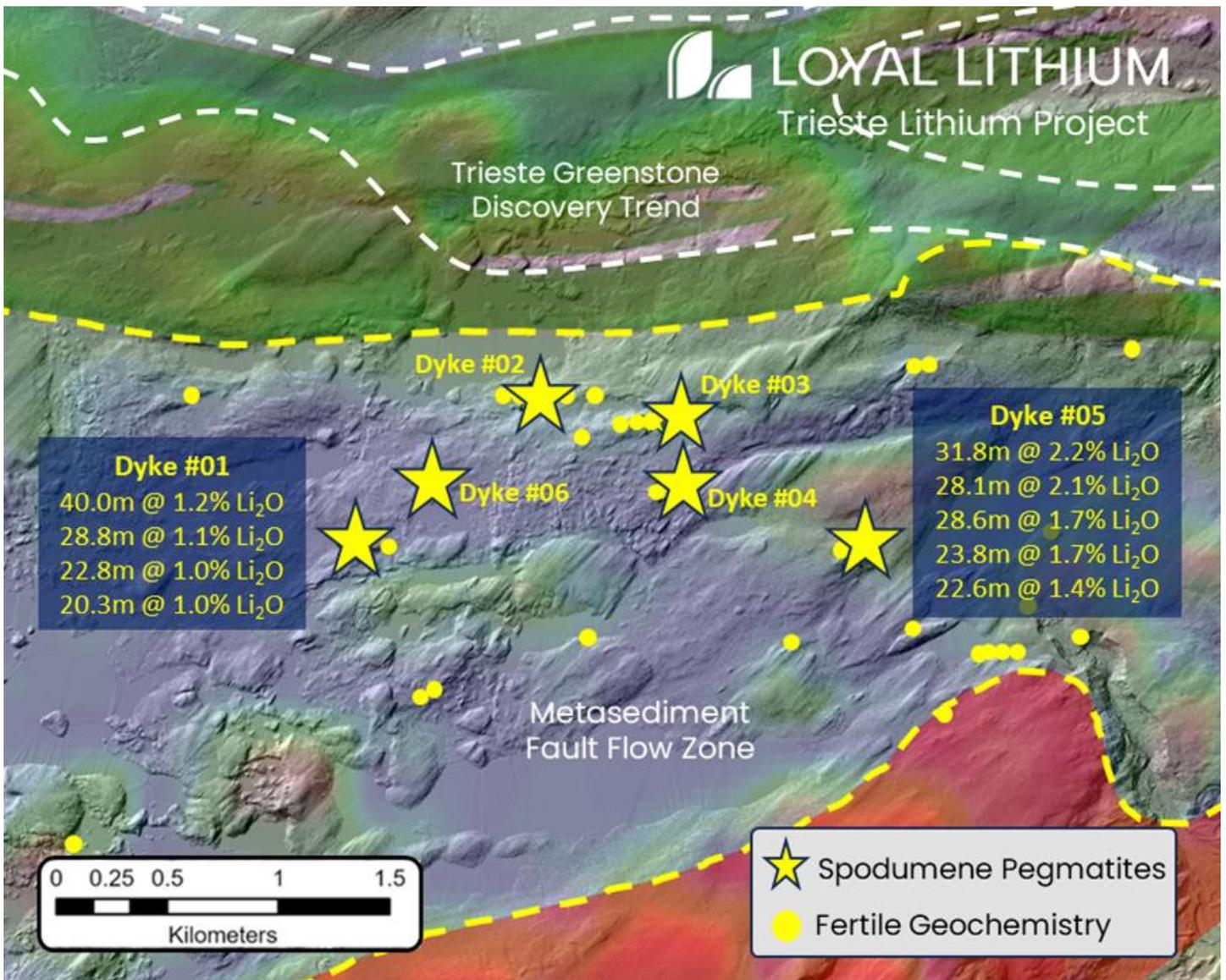


Figure 2: Trieste Lithium Project mineralised dykes and notable drilling intercepts with fertile geochemistry.

With a healthy cash position of \$6.4m⁽²⁾, Loyal Lithium is strongly positioned to advance exploration works and unlock the full potential of the Trieste Lithium Project, further solidifying its position as a key player in Quebec's lithium supply chain.

This announcement has been authorised for release by Loyal Lithium's Board of Directors

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About Loyal Lithium

Loyal Lithium Limited (ASX: LLI) is a well-structured listed resource exploration company with projects in Tier 1 North American mining jurisdictions in the Northwest Territories, Canada, James Bay Lithium District in Quebec, Canada and Nevada, USA. Through the systematic exploration of its projects, the Company aims to delineate JORC compliant resources, creating value for its shareholders.

Future Performance

This announcement may contain certain forward-looking statements and opinion. Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Nothing contained in this announcement, nor any information made available to you is, or and shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of Loyal Lithium Limited.

Competent Person Statement

The information in this announcement that relates to Exploration Results and Targets, is based, and fairly reflects, information compiled by Mr Darren Allingham, who is the Company's geologist. Mr Allingham is a Fellow of the Australian Institute of Geoscientists. Mr Allingham has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person (CP) as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results and Mineral Resources (JORC Code). Mr Allingham consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.

References

¹ ASX Announcement WRI: 11 December 2023: Globally significant maiden Mineral Resource of 59 Mt at 100% owned Adina Lithium Project.

² ASX Announcement LLI: 31 January 2024: Quarterly Activities Report – For the Quarter Ending 31 December 2023.

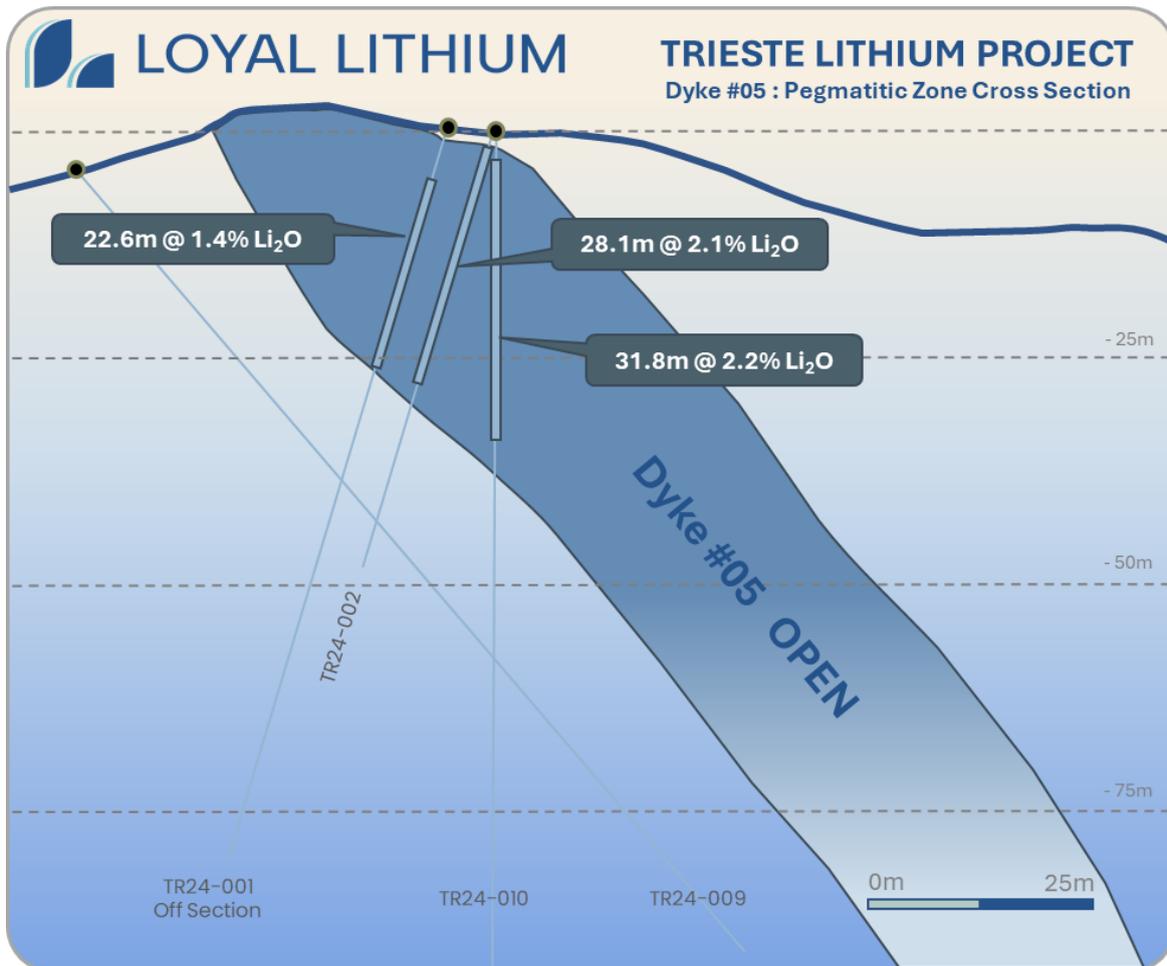
APPENDIX: Dyke #05 – Drillhole Lithium and Tantalum Intercepts Details

Trieste Lithium Project Dyke #05 Notable Drill Assay Intercepts (NAD83z18)										
Hole ID	Easting	Northing	Elevation (m)	Dip	Azimuth	From (m)	To (m)	Length (m)	Lithium Grade Li ₂ O%	Tantalum Grade Ta ₂ O ₅ ppm
TR24-010	685363	5906065	569	-90	0	2.9	34.7	31.8	2.2	499
	<i>Including</i>					2.9	13.1	10.2	3.0	929
TR24-002	685363	5906065	569	-70	20	1.9	29.9	28.1	2.1	66
	<i>Including</i>					5.1	12.3	7.2	3.0	71
TR24-008	685297	5906046	569	-70	20	11.0	39.7	28.6	1.7	1,050
	<i>Including</i>					13.9	19.7	5.9	2.7	4432
TR24-007	685297	5906046	569	-45	20	11.9	35.7	23.8	1.7	732
	<i>Including</i>					15.2	33.7	18.4	2.2	911
TR24-001	685340	5906064	570	-70	20	7.0	29.6	22.6	1.4	70
	<i>Including</i>					8.5	18.5	10.0	2.2	133
TR24-003	685363	5906065	569	-90	0	2.3	19.6	17.3	3.0	1,460
	<i>Incomplete</i>					<i>Hole ended in pegmatite - redrilled as TR24-010</i>				
TR24-011	685275	5906040	571	-45	0	34.2	49.7	15.44	1.4	60
TR24-012	685275	5906040	571	-70	0	48.2	56.5	8.33	1.1	45
TR24-006	685297	5906046	569	-90	0	13.8	21.4	7.55	0.2	1,036
	<i>And</i>					43.0	67.2	24.15	0.2	49
TR24-004	685387	5906042	565	-70	20	<i>No Significant Results (NSR)</i>				
TR24-005	685387	5906042	565	-45	20	<i>No Significant Results (NSR)</i>				
TR24-009	685346	5906102	567	-50	200	<i>No Significant Results (NSR)</i>				

The Metasedimentary host exhibits a Specific Gravity (Sg) of less than 2.8 g/cm³ which is like pegmatitic waste, comprising predominantly quartz and feldspars. Intercepts calculated using pegmatite rock type and/or a 0.20% Li₂O cut-off grade at margins, minimum 2m thickness and up to 4.05m of internal dilution.



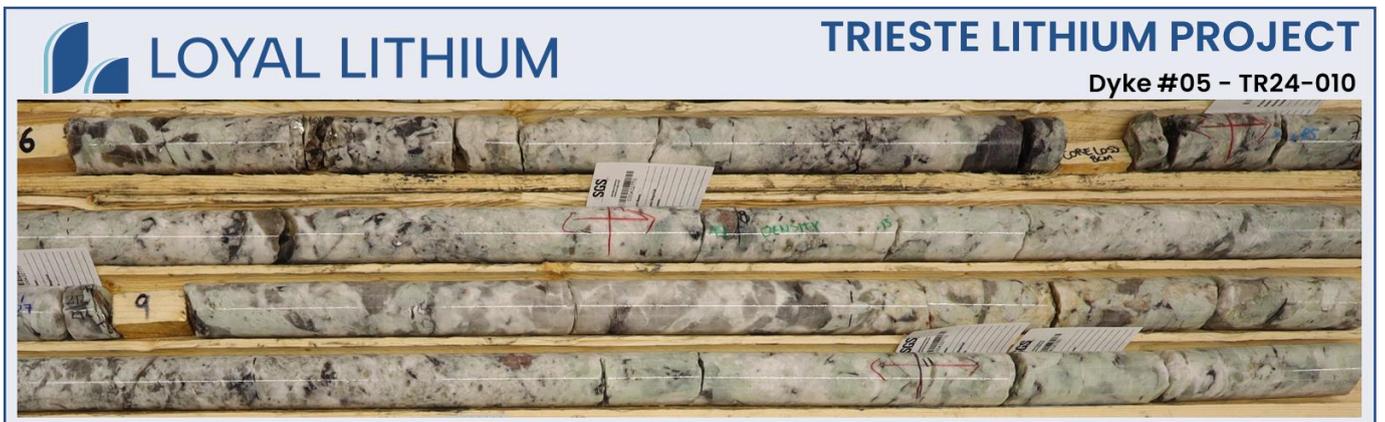
Appendix Image 1: Trieste Lithium Project - Dyke #05 plan showing drillhole locations and cross section lines.



Appendix Image 2: Trieste Lithium Project - Dyke #05 cross section line A-A'.



Appendix Image 3: Trieste Lithium Project - Dyke #05 core photo of Spodumene crystals drillhole TR24-010.



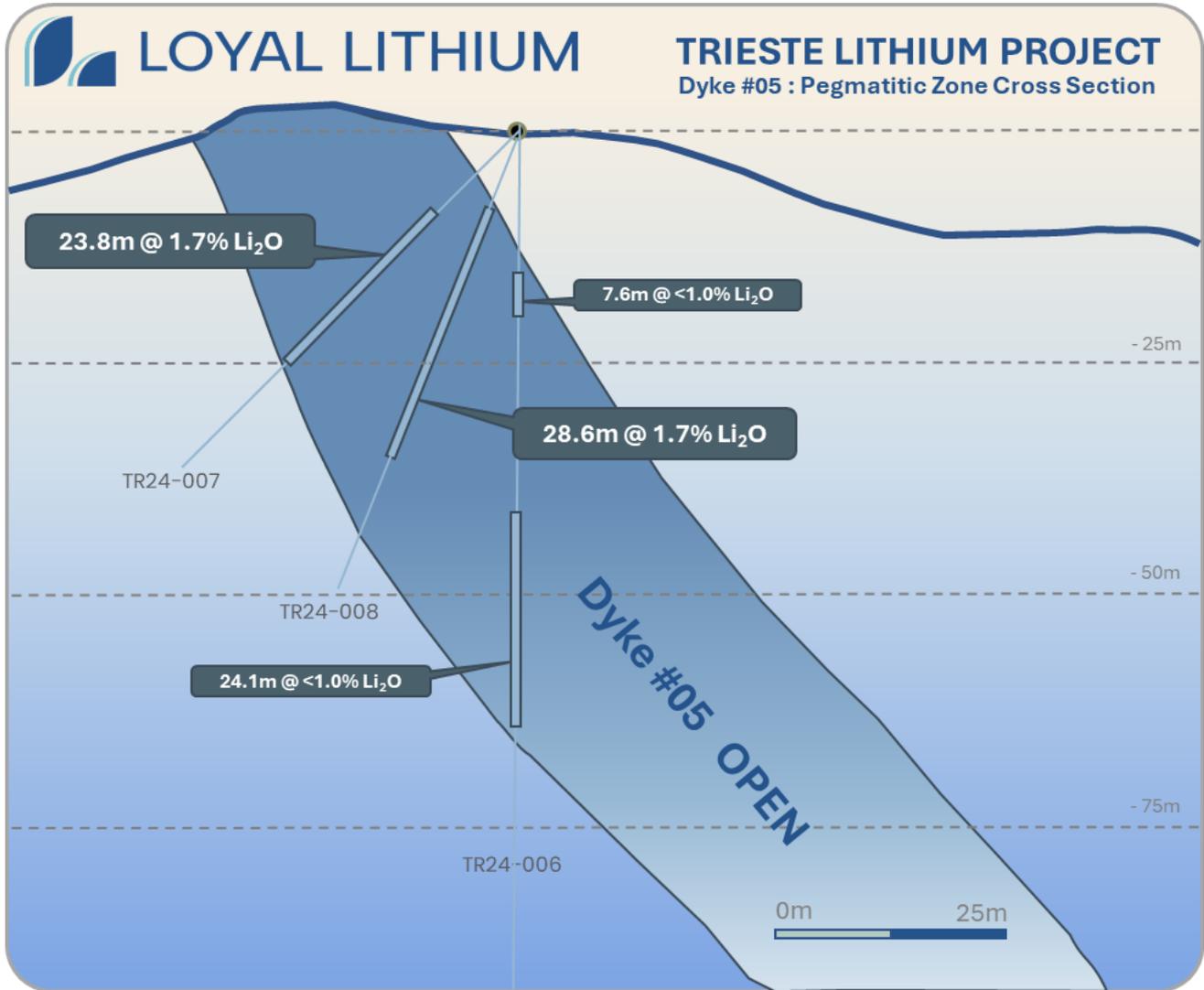
Appendix Image 4: Trieste Lithium Project - Zoomed in core photo of Spodumene crystals drillhole TR24-010.



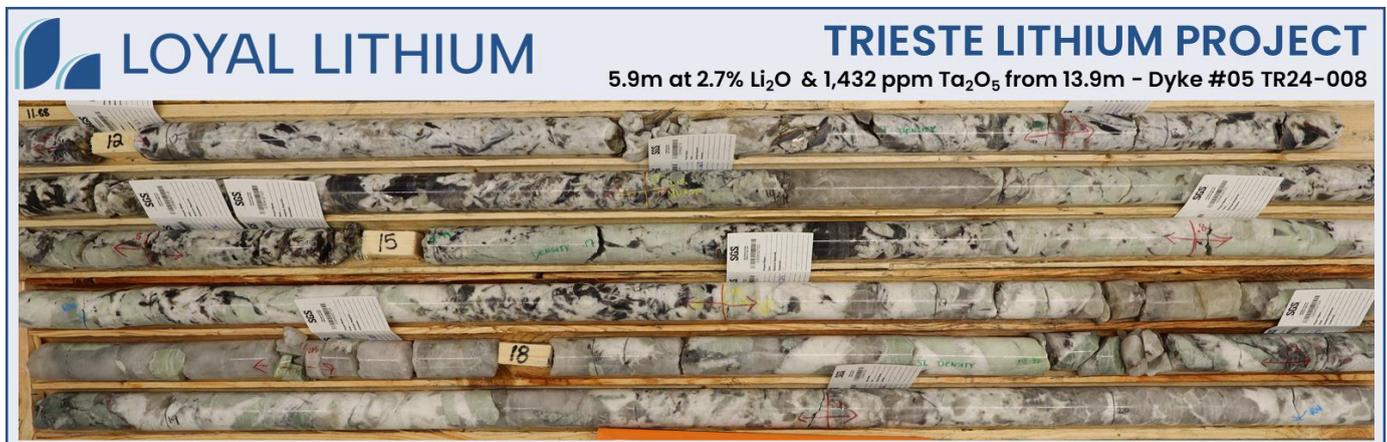
Appendix Image 5: Trieste Lithium Project – Zoomed in core photo of Spodumene crystals drillhole TR24-002.



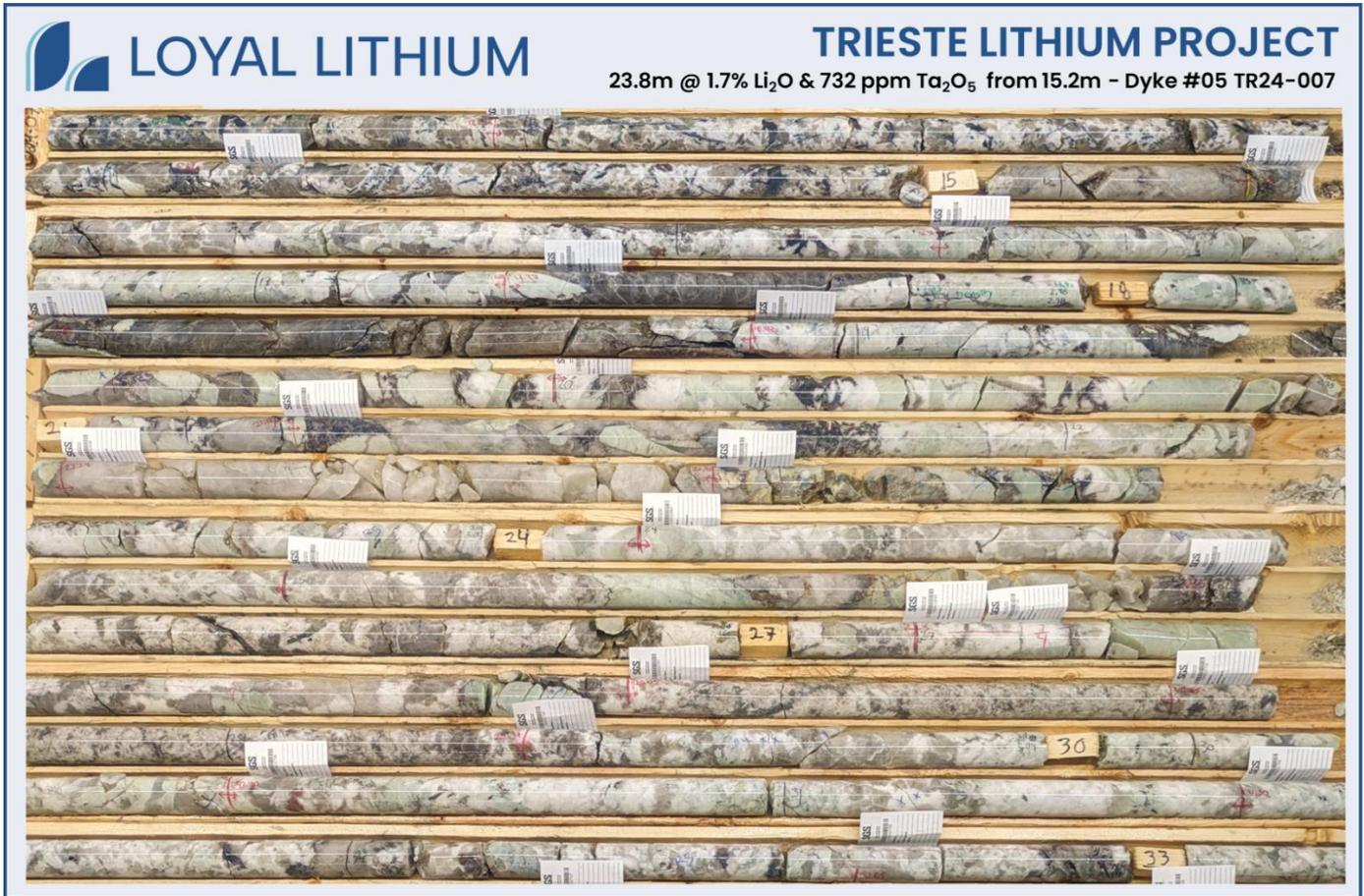
Appendix Image 6: Trieste Lithium Project – Zoomed in core photo of Spodumene crystals drillhole TR24-002.



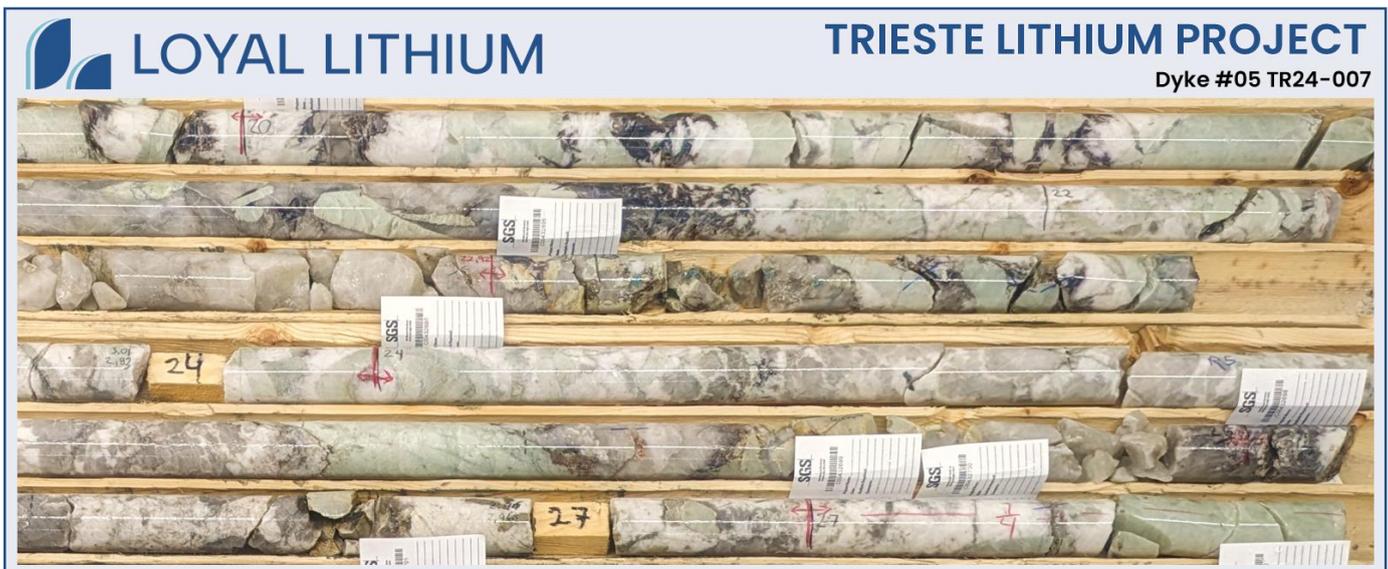
Appendix Image 7: Trieste Lithium Project – Dyke #05 cross section line B-B’. TR24-006 shown to illustrate an anomalous interval in pegmatite with extreme tantalum results of a maximum of 2,076ppm Ta₂O₅.



Appendix Image 8: Trieste Lithium Project – Dyke #05 core photo of a high grade lithium and tantalum interval from drillhole TR24-008.



Appendix Image 9: Trieste Lithium Project – Dyke #05 core photo of Spodumene crystals drillhole TR24-007.



Appendix Image 10: Trieste Lithium Project – Dyke #05 core photo of Spodumene crystals drillhole TR24-007.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <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> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <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> 	<ul style="list-style-type: none"> • Core samples were selected by the logging geologists over intervals and marked up on drill core by crayon with sample number selected from a water-resistant sample tag book in sequential order using prewritten sample numbers, Hole Id, interval (m) and sample number. Regular sampling was taken in the host rock at distance from the pegmatite intervals to characterise the host rock geochemistry. • Core boxes exteriors were marked with paint to indicate that samples were taken from that core box. Metal tags with hole number, box number and depth from, depth to were affixed to each core box. • Samples were given a unique sample number on a weather resistant ticket that was provided by AGAT for sample analysis. Each sample tag lists the project name and unique sample number. • Core was half cut using a diamond blade saw that was only used for this project. Core boxes were sealed with a lid after sampling, with core stored on wrapped pallets at the Otish (639) camp site. • Intervals for cutting and assaying of both pegmatite and wall rock were selected at varying intervals. Specific Gravities were calculated using the water immersion method. • Samples were stored in a locked truck and placed in larger sample bags marked with sample numbers and bag sequence then transferred to a pallet and wrapped with plastic shipping then shipped to AGAT Laboratories Val d'Or preparation and analysis for multielement analysis and sodium peroxide digest lithium analysis. • Certified Reference Materials (OREAS standards and quartz blanks) were inserted once in every twenty samples across the sample stream as part of the QA-QC program.

<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Drill Core was BTW size core, 41.3mm diameter. • Core is non-oriented. • Drill holes were downhole surveyed using a GYRO. Geologists marked locations and azimuths of drill holes with the azimuth checked by tablet software. 												
<p><i>Drill sample recovery</i></p>	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <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> 	<ul style="list-style-type: none"> • Core recoveries over each metre interval were recorded. The targeted pegmatite has very high core recoveries due to being fresh rock with no faults or weathered zones. Very minor (<0.5%) core loss occurs where fine-grained muscovite and quartz occurred in pegmatites. There was one drill hole TR24-002 that had significant core loss. <table border="1" data-bbox="1317 515 1765 608"> <thead> <tr> <th>Hole number</th> <th>From</th> <th>To</th> <th>Recovery %</th> </tr> </thead> <tbody> <tr> <td>TR24-002</td> <td>18</td> <td>21</td> <td>43.33</td> </tr> <tr> <td>TR24-002</td> <td>30</td> <td>33</td> <td>54.67</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Loyal Lithium utilises maximum and minimum core sample intervals to ensure no sample bias occurs. 	Hole number	From	To	Recovery %	TR24-002	18	21	43.33	TR24-002	30	33	54.67
Hole number	From	To	Recovery %											
TR24-002	18	21	43.33											
TR24-002	30	33	54.67											
<p><i>Logging</i></p>	<ul style="list-style-type: none"> • <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> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • MX Deposit was used to record geological and sampling data. These data were backed up instantly to a secure cloud storage site owned by the Geological Contractor. • Logging was both qualitative and quantitative with percentage estimates of spodumene and other minerals that were then confirmed by a multielement suite assay of each sample. • Core was photographed in boxes, both wet and dry, before sample cutting occurred. 												
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • Dry, crush, pulverise. • Core was sampled at approximate 1m intervals in the pegmatite but was defined by geological contacts selected by the logging geologists. Shorter intervals of samples occur at the geological contacts. • The core was half cut, with one half delivered to the laboratory. • All samples collected were transported by the Geological Contractor to AGAT Laboratories - Val d Or • Ontario laboratory for standard sample preparation which includes drying at 105°C, crushed to 75% passing 2 mm, riffle split 250g, and pulverized 85% passing 75 microns. The pulps were homogenized and subsequently analysed for 57 elements using sodium peroxide fusion with ICP-AES/MS finish. 												
<p><i>Quality of assay data</i></p>	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is</i> 	<ul style="list-style-type: none"> • Samples collected by Loyal Lithium were analysed using 50g dissolution in sodium peroxide (total Lithium digestion) coupled 												

<p><i>and laboratory tests</i></p>	<p><i>considered partial or total.</i></p> <ul style="list-style-type: none"> • <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> • <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<p>with ICP-AES+MS 57 (57 elements), AGAT internal code GE_ICM91A50 which is appropriate for lithium.</p> <ul style="list-style-type: none"> • CRMs were inserted once in every twenty samples across the sample stream, as part of the internal quality control procedures. • AGAT Canada are ISO 17025 certified and implement routine Quality Assurance and Quality Control (QA/QC) protocols during the analytical process. The procedures include using pulp duplicates and internally certified reference materials. • Analytical procedures are considered Standard Industry Practice. • The Competent Person considers the sample and analytical procedures acceptable for exploration core drilling
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • The drill program was managed by a Dahrouge Geological Consulting Quebec QP - Order of Geologists of Quebec and examined by a JORC Competent Person on site for the entire drilling program. • All original geological and assay data was entered electronically and stored in an MX Deposit database in an as-received basis from the geological contractor, with no adjustment to geological data. • One drill hole was partially twinned. The partial drill hole exhibited higher lithium grades over the same depth intervals while the complete drill hole is more representative of a cross section of the entire orebody. This illustrates the short scale variability due to large spodumene crystals and the preferred orientation of those crystals. The previous drill program on Dyke #01 completed a drill hole parallel to the geological contacts and perpendicular to the inferred preferred orientation of spodumene crystals (and all drill hole azimuths). More work needs to be completed on this geological factor, with drill holes that may be completed with azimuths parallel to the geological contacts to be considered.
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • Drill collars were pegged and picked up after drilling using a Garmin GPS 66S. Drill collar locations were photographed before and after drilling. • Drill data is stored in UTM NAD 83 Zone 18N projection format.

<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Drill hole spacing was dependant on safe drill pad locations with mostly single, but also multiple drill holes at different dips and azimuths on some sections with new drill holes selected based on previous drilling results.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Drill holes were drilled at a high angle (sub-perpendicular) to the interpreted pegmatite contact observed in surface outcrop. The dyke appears to be highly irregular in form and generally dips sub vertically to very steeply to the south. There is an inferred plunge towards the west.
<i>Sample security</i>	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • The area is remote and only DGC contractors and Loyal Lithium field staff have access to the core at a base camp. Samples were transported from the drilling rig, after cataloguing, by helicopter daily back to the base camp and then transferred to a locked sea container, then transferred to a transport truck specifically for samples, dropped off directly to AGAT laboratory. AGAT provides a reconciliation sheet from the sample submission versus the samples received. • Samples at AGAT laboratory are in secure compounds. • Once drill core is logged and sampled the core trays were covered with a lid and packed onto a pallet then stored in a mine site shed. •
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No audits or reviews of sampling techniques or data have been completed on this new 2024 drilling.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>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.</i> 	<ul style="list-style-type: none"> The Trieste Lithium Project is in the James Bay Region, Quebec, Canada and is centred on 53°18'00"N, 72°02'00"W, within NTS sheets 33H08, 33H01, 23E05 and 23E04. The Project comprises 466 mining claims totalling 24,033.94 ha and is divided into three (3) discontinuous claim blocks extending over 38 km in an east-west direction. The Trieste Lithium Project was originally acquired by Loyal Lithium Ltd (previously Monger Gold) in October 2022 through both online map staking and agreements: <ul style="list-style-type: none"> 228 claims are 75% owned by Loyal Lithium and 25% with Osisko Development Corporation. 12 claims were acquired from Noranda Royalties 226 claims were acquired through online map staking by Monger Gold in October 2022 (with 126 of these claims entered a NSR agreement with Jody Dahrouge and Loyal Lithium Ltd.) The claims are currently registered under two different company names: 228 claims under Osisko Baie-James SENC, and 238 under Project Trieste Lithium Inc. (a 100% subsidiary of Loyal Lithium Ltd.). All 466 claims that comprise the Project are in good standing as of the Effective Date of this report. A consultant Quebec claims manager is employed by Loyal Lithium to ensure regulatory compliance. The work expenditure required to satisfy the current term for all 466 claims that comprise the Project is \$602,130, \$2500 per claim for 228 claims and \$135 per claim for 238 claims. The combined excess expenditure currently attributed to the Project is \$343,406.00. The combined renewal fee for the Project required to satisfy the current term for all 467 claims, due prior to claim expiry (i.e., the Anniversary Date), is \$79,220 (\$170 per claim). As of the Effective Date of this report, the Anniversary Dates for the Project vary between March 13, 2023, and October 19, 2025.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> The first known acquisition of mineral claims within the area of the current Trieste Lithium Project, was in 1998 with a joint venture between Virginia Gold Mines and Cambior called the Caniapiscou Property. The Caniapiscou Property consisted of three different areas; the Bloc Est and Bloc Ouest areas fall within the current Project boundary and the Noella area is north of the current Project. Numerous

field programs were executed from 1998 to 2001 including prospecting, mapping, geophysical surveys and channel sampling targeting precious metals (GM 57170, GM 58442, GM 59201). No drilling on the Project area was recorded during that time.

- Virginia Mines Inc. increased their land holding in the area in 2007 and signed a joint venture agreement with Breakwater Resources on the Trieste Property, which encompassed the historical Caniapiscou Property and makes up the western portion of the current Trieste Lithium Project. An intensive prospecting and mapping program was executed in the summer of 2007 resulting in the discovery of several Au mineralized outcrops and boulders. A total of 326 outcrops were described from which 94 outcrop samples and 95 boulder samples were collected from within the current Trieste Lithium Project boundary (GM63378).
- In 2009, Virginia Mines followed up anomalous values the 2007 exploration work with prospecting and till sampling that resulted in the collection of 235 rock samples and 155 till samples from the Trieste Property (GM65024). In 2011, additional prospecting and mapping took place on the Trieste Property with 169 outcrops and 114 boulders described and 203 rock samples collected (GM 66254). Another significant ground exploration program was completed in 2012, with 155 outcrops and 52 boulders described with 104 rock samples collected. An additional 25 trenches were excavated using a heli-portable excavator to test various geophysical and geochemical anomalies (GM67952). All samples collected from 2009 to 2012 fall within the current Trieste Project area.
- Numerous geophysical surveys were completed by Virginia Mines from 2008 to 2012 including a 2009 IP survey (40 line-km) (GM64304), 2009 EMH Survey (49.5 line-km) (GM64304), 2011 Heliborne HD magnetic survey (3,320 line-km) (GM65712), and a 2012 IP survey and line cutting (108.25 line-km) (GM66977).
- In 2015, Virginia Mines changed its name to Exploration Osisko Baie James Inc. and continued to advance the historical Trieste Property with minimal prospecting work (5 outcrop and 3 boulder samples) and a ninety-one (91) sample till survey. Additionally, 10 NQ diamond drillholes totalling 1,559 m were completed on the southern portion of historical Trieste Property. The drillholes were designed to test Au-As anomalies in till and corresponding IP anomalies and resulted in 231 samples sent for analysis (GM 69682). All 2015 drillholes fall within the current Trieste Lithium Project boundary.

	<ul style="list-style-type: none"> • In 2017, Abitibi Geophysics on behalf of Osisko Mining Inc. (formerly Osisko Baie James), executed an 11.25 km OreVision™ survey along 200 m spaced lines which resulted in several anomalies (GM70438). Osisko Mining followed up the geophysical survey with three (3) NQ diamond drillholes, totalling 636 m, to test out the identified anomalies (GM70437). A total of 226 drill core samples were sent for analysis. • In 2018 the Government of Quebec continued with regional mapping in the Lac Dalmas region (33H08, 33H09, 23E05 and 23E12) at scale of 1:85,000 (RG-2018-02). This area covers the northern portion of the Property. Another mapping project, covering the southern portion of the claims, was completed in the Lac Joubert area (33H08, 33H09, 23E05 and 23E12) at a scale of 1:130,000 (RG-2018-04).
<p><i>Geology</i></p> <ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • The Trieste Project is situated in the Archean Superior Province of the Canadian Shield in the James Bay area of northern Quebec. The James Bay region consists of alternating east-west trending metavolcanic-rich and metasediment-rich domains. These domains comprise the La Grande volcano-plutonic sub-province and the Opatica, Nemiscau River, and Opinaca metasedimentary sub-provinces (Card & Ciesielski, 1986). The Trieste claims are located within the La Grande Sub-province just north of the contact with the Opinaca Sub-province. • The La Grande Sub-province in the Project area is characterized by Archean domes and basins with the remains of volcanic sequences and sedimentary basins wrapping around large syntectonic to post-tectonic felsic to intermediate intrusions. Volcanic sequences consist of altered mafic-dominant rocks and silicate- and oxide-facies iron formation. The abundance of strongly altered volcanic rocks sets this region of the La Grande Sub-province apart from other sectors of the Sub-province (Burniaux, Guemache, & Goutier, 2018 - RG 2018-02; Hammouche & Burniaux, 2018 - RG 2018-04). • The Tilly Pegmatite is post tectonic and post-metamorphic and cuts the regional fabric in the area. This unit is characterized by small intrusions in the scale of hundreds of meters to kms in length and decametric thicknesses that form whiteish “whaleback” ridges. The unit consists of pegmatitic granite with medium-grained biotite, coarse to very coarse muscovite and accessory tourmaline, garnet, beryl, magnetite, and/or apatite. Titanite and epidote have also been observed locally. Micrographic and perthitic textures are common. It often contains mafic enclaves of deformed metasediments (Burniaux, Guemache, & Goutier, 2018 - RG 2018-02; Hammouche & Burniaux, 2018

- RG 2018-04).

- There have been several recorded occurrences of both I1A and I1G rock types available from online data sources from SIGEOM that likely relate to the Tilly Pegmatite unit and are potential hosts for spodumene. In total, 37 occurrences of rock-type I1A and 86 occurrences of I1G are reported in the Project area.
- The La Grande Sub-province is prospective for various commodities including gold, silver, base metals, platinum group elements, and lithium over several different deposit styles including orogenic gold (Au), volcanogenic massive sulphide (Cu, Au, Ag), komatiite-ultramafic (Au, Ag, PGE, Ni, Cu, Co), and lithium pegmatite (Li, Ta). The focus of the Company is on the potential for lithium pegmatite occurrences in the Project area (Burniaux, Guemache, & Goutier, 2018 - RG 2018-02; Hammouche & Burniaux, 2018 - RG 2018-04).

Drill hole Information

- *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
 - *easting and northing of the drill hole collar*
 - *elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar*
 - *dip and azimuth of the hole*
 - *down hole length and interception depth*
 - *hole length.*
- *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*

- Drill Hole Details to date (Coordinates NAD83 UTM z18N):

Hole ID	Easting	Northing	Elevation (m)	Dip	Azimuth	Total Depth (m)
TR24-001	685340	5906064	569.9	-70	20	87
TR24-002	685363	5906065	569.0	-70	20	51
TR24-003	685363	5906065	569.0	-90	0	18
TR24-004	685387	5906042	564.6	-70	20	126
TR24-005	685387	5906042	564.6	-45	20	87
TR24-006	685297	5906046	569.2	-90	0	102
TR24-007	685297	5906046	569.2	-45	20	55
TR24-008	685297	5906046	569.2	-70	10	56
TR24-009	685346	5906102	567.0	-50	200	138
TR24-010	685363	5906065	569.0	-90	0	96
TR24-011	685275	5906040	570.8	-45	0	66
TR24-012	685275	5906040	570.8	-70	0	102

Data aggregation methods

- *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*
- *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such*

- Lithium and tantalum grades have been weight length averaged.
- Geological assayed intercept lengths of pegmatite are presented as down hole individual lengths and cumulative intercepts within each drill hole with higher grades within an intercept having the potential to skew the grade distribution are stated. These are apparent and not true widths until the geometry is fully understood by geological modelling and further drilling of the pegmatite dyke, as to date the dyke appears to be irregular shaped.

	<p><i>aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> • Drill holes were drilled at a high angle (sub-perpendicular) to the interpreted pegmatite contact observed in outcrop. Dykes appear highly irregular in form.
<i>Diagrams</i>	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> • Photos, assay intercepts and plans and sections are included in this announcement and drill hole locations dips, azimuths and depths are provided in an announcement table.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> • All exploration drilling results from Dyke #05 are presented in this announcement.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> • In August 2023 an intensive Loyal Lithium mapping and sampling program discovered a cluster of five spodumene bearing pegmatites on surface. Assay results, outcrop photos and LiDAR survey confirmed the presence of a 6th dyke. • In January 2023, Loyal Lithium purchased archived high resolution satellite imagery of priority target areas of the Trieste Project. The object was to utilise the imagery as a trial to correlate mapped pegmatites to the imagery. Loyal Lithium engaged Geospatial Intelligence Ltd. to conduct more complex derivations of the satellite imagery (multispectral) to help in refining targets for the inaugural exploration campaign. Terra Resources then completed reprocessing of Sentinel 2 and Aster image data and found in the Lithium Band Combination large anomalies on and to the south of the amphibolite, subsequently found to be spodumene bearing pegmatites. The spectral imagery interpretations appeared to correlate with the general area of the mapped pegmatite dykes.
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-</i> 	<ul style="list-style-type: none"> • Based on favourable geologic setting for lithium pegmatite occurrences, the Trieste Project is considered to have sufficient

- scale step-out drilling).*
- *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*

geological merit to warrant further intensive exploration, both more surface mapping and sampling, and new and step out drilling. The Project measures approximately 38 km in the east-west direction and has never been subject to systematic exploration for lithium-bearing pegmatites until Loyal Lithium's exploration programs.

- Initial work focused on detailed data compilation to ensure that all historical work completed on the Property was digitised and incorporated into the current database. Airborne geophysical aeromagnetic and LIDAR surveys, with high resolution orthophotos were flown in late 2023 to aid in target delineation across the Project area.
- With pegmatite outcrops identified containing significant lithium-bearing minerals in outcrop (spodumene) in the first phase of work, a first drilling program targeted Dyke #01 and second drill program targeted Dykes #04 and #05. A systematic drill hole approach was adopted when drilling starting from the central portion of the dyke following the extent outwards along strike to understand the orientation and extent of each dyke. Active geological modelling is being completed. Due to the nature of pegmatite emplacement, and rheology of the metasedimentary host rocks, dykes may commonly form irregular bodies and/or develop sharp changes in orientation along trend further drilling on Dykes #01, #04 and #05 is required along strike to the east and to the west, where no visible outcrop occurs. Dykes #02, #03 and #06 have not been drilled. Dyke #03 contains very rich large spodumene crystals parallel to the geological contact (different than observed at Dyke #01). Dykes #02 and #03, have the longest outcrop strikes observed on the property, but appear on surface have thinner widths. This has the potential to change at depth due to the irregular form of the dykes drilled to date. Dyke #01 has the longest strike of outcrops on the property and there are additional outcrops along strike that contain trace elements associated with lithium. There is also the largest boulder field of glacial till associated with this dyke that suggests the dyke is longer than suggested from surface outcrops and/or larger at depth and/or a much larger dyke was eroded.