ASX Announcement | 2 January 2024

High Grade Channel Assay Results at Trieste Lithium Project, James Bay, Quebec, Canada

Highlights:

- **High grade channel assay results received from the 2023 summer field program.**
- **Channel samples were collected from 3 of the 6 spodumene bearing pegmatite dykes to support the recently announced high grade rock chip assay results of up to 7.60% Li_2O.**
- **Notable high grade channel assay results are:**
    - **11.5m at 1.72% Li_2O at Dyke #01:** TR23CH-002 a partial cross section of dyke
        - Incl. **2.5m at 2.31% Li_2O**
        - and **3.6m at 2.03% Li_2O**
    - **7.4m at 1.99% Li_2O at Dyke #01:** TR23CH-001 a partial cross section of dyke
        - Incl. **1.9m at 3.63% Li_2O**
        - and **2.0m at 2.25% Li_2O**
    - **5.0m at 2.39% Li_2O at Dyke #01:** TR23CH-003 a partial cross section of dyke
        - Incl. **3.5m at 3.16% Li_2O**
    - **21.0m at 1.01% Li_2O at Dyke #04:** TR23CH-004
        - Incl. **1.0m at 5.44% Li_2O**
        - and **1.0m at 4.82% Li_2O**
    - **12.0m at 0.62% Li_2O at Dyke #05:** TR23CH-005 a partial cross section of dyke
        - Incl. **2.0m at 2.16% Li_2O**
- **Loyal Lithium is well capitalised with $9.6m[1] in cash to advance its upcoming drilling program this Canadian winter.**
- **The channel and rock chip results are being integrated with LiDAR, aeromagnetic and mapping data to further unlock the full potential of the fertile metasediment host zone located between the Trieste Greenstone Belt and the southern Tilly granitoid.**
- **The Trieste Lithium Project is located 10 km east of Winsome Resources (ASX:WR1) Adina-Jamar project with a JORC Inferred Mineral Resource Estimate of 59 Mt at 1.12% Li_2O[2].**

Loyal Lithium Limited (ASX: LLI) (**Loyal Lithium**, **LLI**, or the **Company**) is delighted to announce spectacular high grade channel assay results from three of the six pegmatite dykes at the Trieste Lithium Project, James Bay, Quebec, Canada . The channel results from the summer field program demonstrate a strong lithium average grade across each dyke sampled. The results compliment the recently announced high grade rock chip assay results[3] and confirm the abundance of large spodumene crystals that were documented on surface during the summer field campaign in August 2023[4]. The Company's focus now shifts to its upcoming drilling program this Canadian winter that will target the mineralised pegmatite dykes.

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

"The Trieste greenstone is rapidly evolving, with five distinct spodumene discoveries now documented, including Winsome Resources' recently announced maiden Mineral Resource Estimate of 59 Mt at 1.12% Li_2O at the Adina-Jamar Project, located just 10 km west of Loyal Lithium's Trieste Lithium Project."

"We firmly believe that understanding and maximizing the advantages of the metasediment host zone will distinguish the Trieste Lithium Project above other James Bay Lithium Projects. The potential mining and processing advantages could position Trieste as a low-cost producer, and we are eager to involve our loyal investors in this educational journey."

With the Dyke #01 drilling assay results due In January, we are excited about unlocking the unique metasediment host zone of the Trieste Lithium Project in 2024.

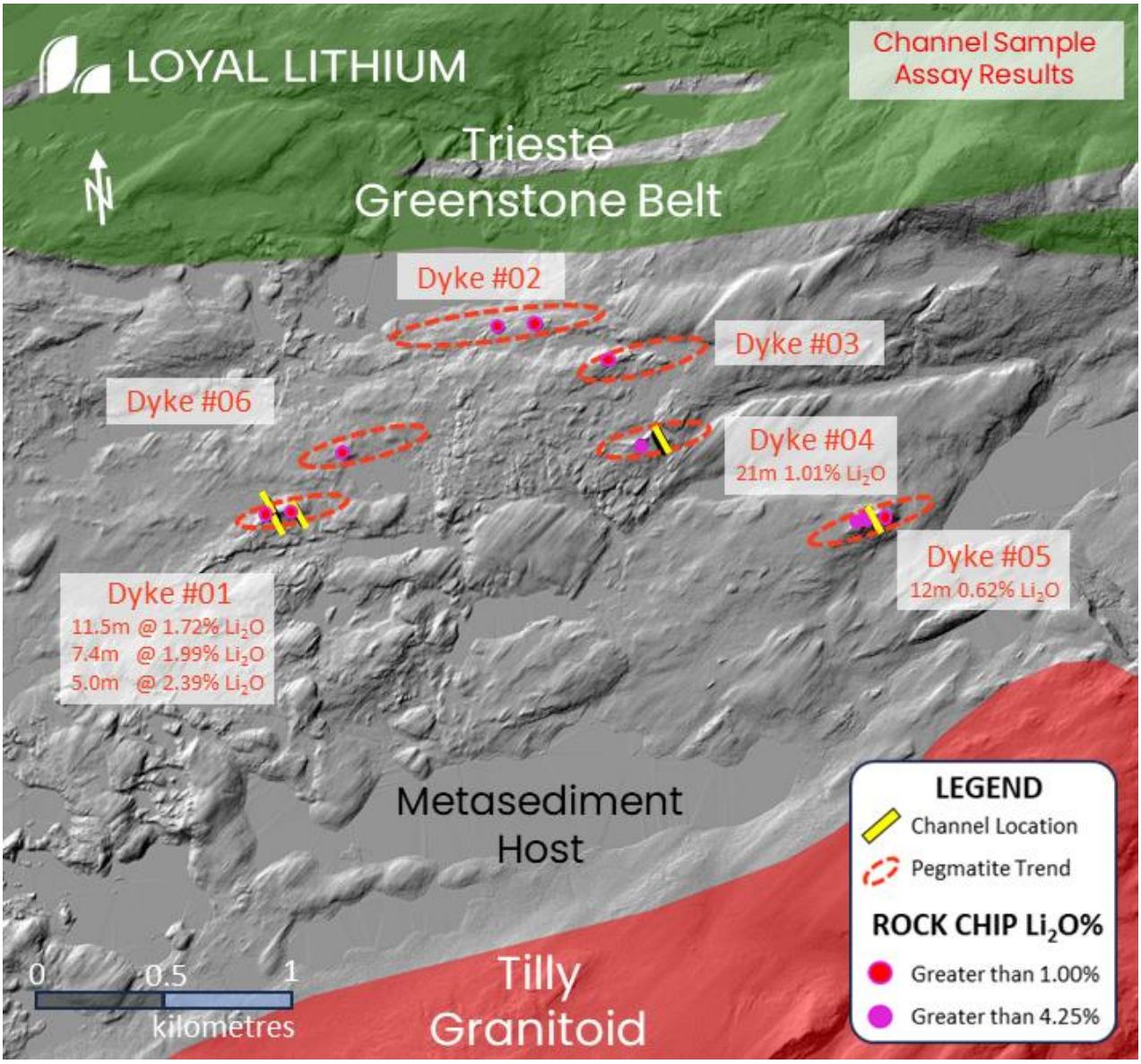

Figure 1: Trieste Lithium Project - Six spodumene bearing pegmatite dykes with outcrop rock chip and channel sample assay results represented on a digital elevation model from LiDAR survey.

Trieste Project 2023 Channel Sample Results - Li_2O% Length Weighted Averages of Samples (NAD83z18)					
Dyke ID	**Channel ID**	**Easting - Start**	**Northing - Start**	**Sample Length (m)**	**Li_2O%**
Dyke #01	TR23CH-001	683,118.0	5,906,089.0	7.4	1.99%
Dyke #01	TR23CH-002	683,115.0	5,906,105.0	11.5	1.72%
Dyke #01	TR23CH-003	683,209.0	5,906,087.0	5	2.39%
Dyke #04	TR23CH-004	684,547.0	5,906,350.0	21	1.01%
Dyke #05	TR23CH-005	685,333.0	5,906,076.0	12	0.62%

Table 1 –Trieste Lithium Project: Li_2O% length weighted average assay results from five channels. Samples taken from continuous intervals to demonstrate the high-grade potential of the project.

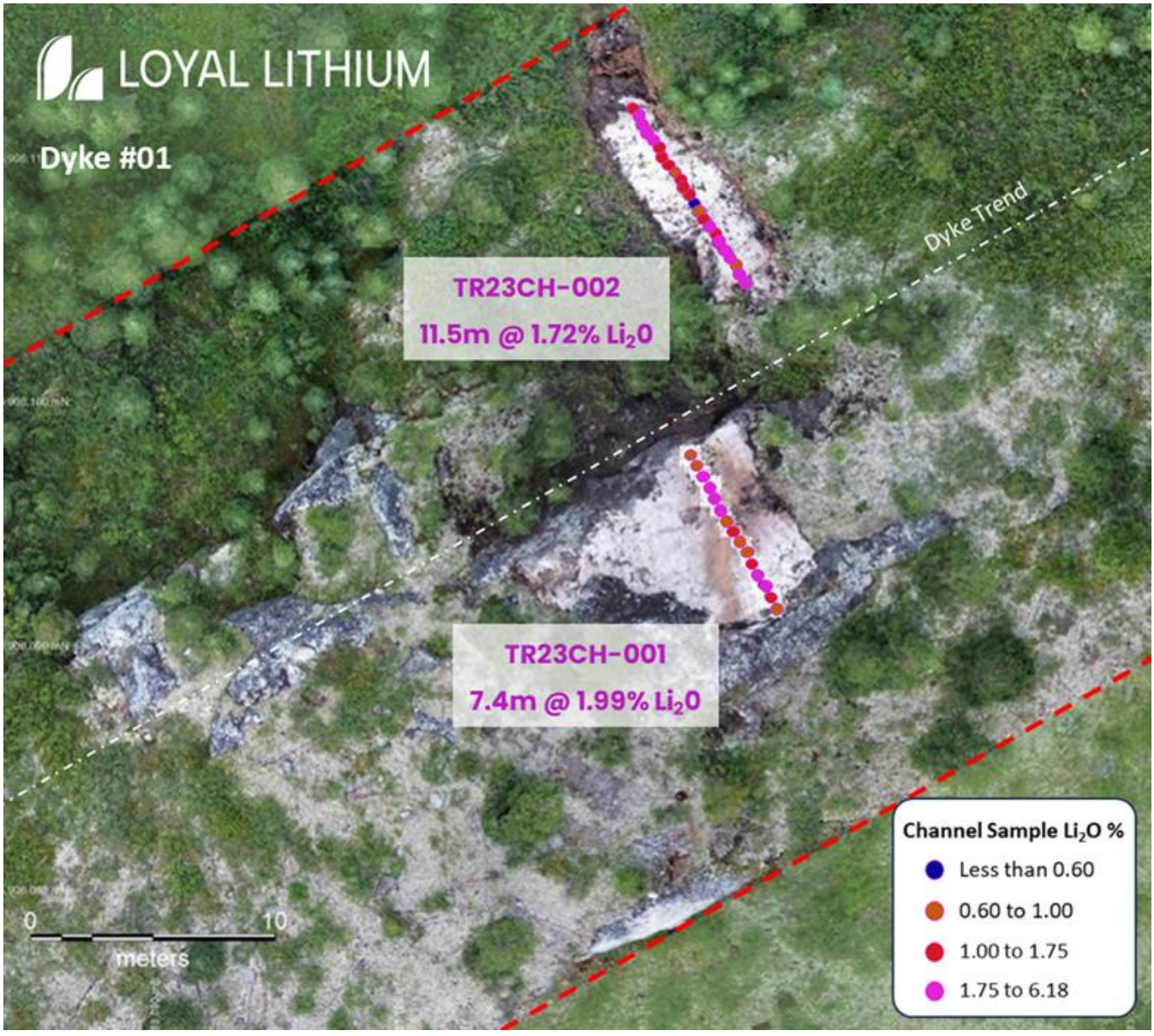

Image 1 - Dyke #01: Aerial view of Dyke #01 showing channel samples for TR23CH-001 and TR23CH-002, illustrating the offset of the two channels and the high grade Li_2O% results at both channels.

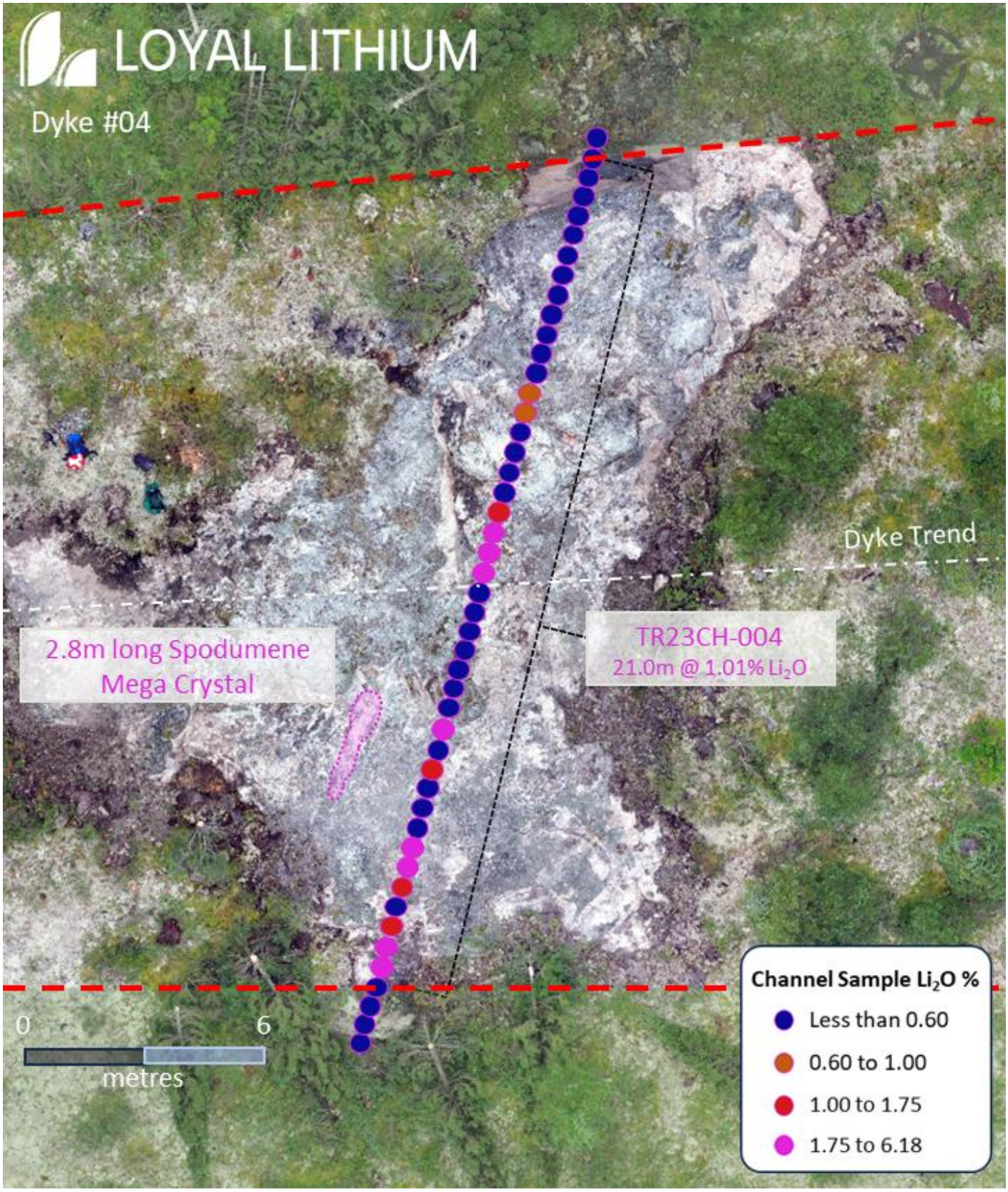

Image 2: Aerial view of Dyke #04 channel sample locations at TR23CH-004 with parallel 2.8m long spodumene mega crystal outlined.

Photo 1 - Dyke #04: Quebec QP Geologists measuring (with a tape measure) a single 2.8 metre long spodumene crystal as identified In Image 2 & Photo 2.

Photo 2 - Dyke #04: Channel sample TR23CH-004 with parallel 2.8m long spodumene mega crystal outlined.

Photo 3 - Dyke #05: Quebec QP Geologist lying next to a surface outcrop exposure showing exceptionally large twinned 1.4m cream coloured spodumene crystals. Also below geologist is multiple clusters of spodumene crystals in the foreground intergrown with quartz-feldspar-muscovite.

Channel assay results from Dyke #05 correlate with lithium contained within mapped spodumene minerals exposed in large clusters as shown in Photo 3. The channel sampling did not cross this large spodumene cluster zone, so that there is the potential for the underrepresentation of the actual lithium grade of the pegmatite from channel samples. Drill holes planned in 2024 will provide a more accurate representation of the lithium grade in the bulk of the pegmatite.

Notable Rock Chip Assays

The Trieste Lithium Project summer field program collected 155 outcrop and 80 boulder samples[4] to confirm strong mineralisation from the six spodumene bearing pegmatite dykes. These rock chip results compliment the channel samples to enhance the understanding of the local group of pegmatites, including their spodumene content and lithium grade continuity enabling exploration for new pegmatites and finding the highest-grade sources of lithium.

Trieste Lithium Project Dyke Outcrop Assay Results (NAD83z18)				
Dyke ID	**Sample ID**	**Easting**	**Northing**	**Li2O %**
Dyke #01	C00428065	683,096	5,906,098	**1.02**
Dyke #01	C00428066	683,095	5,906,086	**1.75**
Dyke #01	C00428067	683,097	5,906,087	**1.43**
Dyke #01	C00428068	683,189	5,906,096	**1.20**
Dyke #02	C00428631	684,092	5,906,791	**1.43**
Dyke #02	C00428632	683,950	5,906,780	**1.43**
Dyke #02	C00428633	683,817	5,906,780	**0.93**
Dyke #03	C00428682	684,356	5,906,656	**7.44**
Dyke #04	C00428617	684,480	5,906,343	**7.60**
Dyke #05	C00428707	685,381	5,906,075	**4.25**
Dyke #05	C00428708	685,321	5,906,071	**4.56**
Dyke #05	C00428709	685,292	5,906,060	**1.97**
Dyke #06	C00428662	683,373	5,906,316	**1.47**

Table 1 – Trieste Lithium Project: Notable assay results from the six spodumene bearing pegmatite dykes.

In addition to the robust channel sample results and outcrop sample assay results[3], the boulder assay results are very encouraging for the overall geological interpretation. The presence of mineralised boulders infers the potential for concealed spodumene bearing pegmatites along strike of the already identified spodumene bearing pegmatite dykes.

Sample characteristics and assay results are being integrated with LiDAR, aeromagnetic and mapping data to enhance the understanding of the fertile metasediment host rock zone between the Trieste Greenstone Belt and the northern contact of the Tilly Granitoid intrusion.

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 LLI: 31 October 2023 Quarterly Activities Report – 30 September 2023

[2] ASX Announcement WR1: 11 December 2023: Globally significant maiden Mineral Resource of 59 Mt at 100% owned Adina Lithium Project.

[3] ASX Announcement LLI: 04 December 2023: New Discovery of 6th Spodumene Bearing Pegmatite Dyke at the Trieste Lithium Project, James Bay, Canada

[4] ASX Announcement LLI: 16 August 2023 Multiple Spodumene Bearing Pegmatite Dykes Discovered at the Trieste Lithium Project, James Bay, Canada

[5] ASX Announcement LLI: 27 February 2023. High Resolution Aeromagnetic Survey completed at Trieste Lithium Project to support Pre-emptive Drilling Permit Application

[6] *ASX Announcement LLI: 27 March 2023 Identification of Multiple High Value Targets at Trieste Lithium Project, James Bay, Canada*

[7] *ASX Announcement LLI: 07 August 2023 Inaugural Field Program Commenced at Trieste Lithium Project*

[8] Yuan *et al* 2023. Lithium enrichment of the magmatic-hydrothermal fluid in albite-spodumene pegmatite from Lijiagou, Eastern Tibetan Plateau: Evidence from fluid inclusions. Ore Geology Reviews Volume 162, November 2023, 105685

APPENDIX 1: Channel Sample Assay Details

Note: Channel samples were taken sub-perpendicular to interpreted outcrop contacts. Intervals do not imply true thicknesses of the dykes.

Table: Summary of the 120 channel sample assay results from the 2023 Trieste Project field program.

Trieste Project 2023 Channel Sample Results - Li_2O% Length Weighted Averages (NAD83z18)							
Dyke ID	Channel ID	Sample Number	Easting - Start	Northing - Start	Sample Length (m)	Li_2O%	Interval Li_2O%
Dyke #01	TR23CH-001	C00428201	683,118.0	5,906,089.0	0.5	0.60%	
	TR23CH-001	C00428202	683,117.7	5,906,089.5	0.5	1.22%	
	TR23CH-001	C00428203	683,117.4	5,906,090.0	0.5	3.49%	3.15%
	TR23CH-001	C00428204	683,117.1	5,906,090.5	0.5	2.81%	
	TR23CH-001	C00428206	683,116.9	5,906,091.0	0.5	1.46%	
	TR23CH-001	C00428207	683,116.6	5,906,091.5	0.5	0.85%	
	TR23CH-001	C00428208	683,116.3	5,906,092.0	0.5	0.64%	
	TR23CH-001	C00428209	683,116.0	5,906,092.5	0.5	1.69%	
	TR23CH-001	C00428210	683,115.7	5,906,093.0	0.5	1.10%	
	TR23CH-001	C00428211	683,115.4	5,906,093.5	0.5	1.93%	
	TR23CH-001	C00428212	683,115.1	5,906,094.0	0.5	3.96%	3.63%
	TR23CH-001	C00428213	683,114.9	5,906,094.5	0.4	2.87%	
	TR23CH-001	C00428215	683,114.6	5,906,095.0	0.5	5.62%	
	TR23CH-001	C00428216	683,114.3	5,906,095.5	0.6	0.91%	
	TR23CH-001	C00428217	683,114.0	5,906,096.0	0.4	0.79%	
Channel ID TR23CH-001 Li_2O% Average					7.4	1.99%	
Dyke #01	TR23CH-002	C00428218	683,115.0	5,906,105.0	0.5	2.06%	
	TR23CH-002	C00428219	683,114.7	5,906,105.2	0.5	2.17%	
	TR23CH-002	C00428220	683,114.5	5,906,105.5	0.5	0.91%	
	TR23CH-002	C00428222	683,114.2	5,906,105.7	0.5	2.73%	
	TR23CH-002	C00428223	683,113.9	5,906,105.9	0.5	2.36%	2.58%
	TR23CH-002	C00428224	683,113.6	5,906,106.1	0.5	2.64%	
	TR23CH-002	C00428225	683,113.4	5,906,106.4	0.5	1.13%	
	TR23CH-002	C00428226	683,113.1	5,906,106.6	0.5	2.70%	
	TR23CH-002	C00428227	683,112.8	5,906,106.8	0.5	1.28%	
	TR23CH-002	C00428228	683,112.5	5,906,107.0	0.5	0.86%	
	TR23CH-002	C00428230	683,112.3	5,906,107.3	0.5	0.45%	
	TR23CH-002	C00428231	683,112.0	5,906,107.5	0.5	1.21%	
	TR23CH-002	C00428232	683,111.7	5,906,107.7	0.5	1.72%	
	TR23CH-002	C00428233	683,111.5	5,906,108.0	0.5	1.08%	
	TR23CH-002	C00428234	683,111.2	5,906,108.2	0.5	0.68%	
	TR23CH-002	C00428235	683,110.9	5,906,108.4	0.4	1.19%	
	TR23CH-002	C00428236	683,110.6	5,906,108.6	0.45	1.66%	2.13%
	TR23CH-002	C00428237	683,110.4	5,906,108.9	0.45	1.35%	

Trieste Project 2023 Channel Sample Results - Li_2O% Length Weighted Averages (NAD83z18)							
Dyke ID	Channel ID	Sample Number	Easting - Start	Northing - Start	Sample Length (m)	Li_2O%	Interval Li_2O%
	TR23CH-002	C00428238	683,110.1	5,906,109.1	0.65	2.29%	
	TR23CH-002	C00428239	683,109.8	5,906,109.3	0.55	3.00%	
	TR23CH-002	C00428240	683,109.5	5,906,109.5	0.5	1.89%	
	TR23CH-002	C00428242	683,109.3	5,906,109.8	0.5	2.32%	
	TR23CH-002	C00428243	683,109.0	5,096,110.0	0.5	1.41%	
Channel ID TR23CH-002 Li_2O% Average					11.5	1.72%	
	TR23CH-003	C00248244	683,209.0	5,906,087.0	0.5	0.45%	
	TR23CH-003	C00248245	683,209.1	5,906,087.6	0.5	0.82%	
	TR23CH-003	C00248246	683,209.2	5,906,088.1	0.5	0.56%	
	TR23CH-003	C00248247	683,209.3	5,906,088.7	0.5	3.40%	
Dyke #01	TR23CH-003	C00248248	683,209.4	5,906,089.2	0.5	2.39%	
	TR23CH-003	C00248249	683,209.6	5,906,089.8	0.5	2.87%	
	TR23CH-003	C00248250	683,209.7	5,906,090.3	0.5	3.37%	3.16%
	TR23CH-003	C00248252	683,209.8	5,906,090.9	0.5	3.95%	
	TR23CH-003	C00248253	683,209.9	5,906,091.4	0.5	3.17%	
	TR23CH-003	C00248254	683,210.0	5,906,092.0	0.5	2.95%	
Channel ID TR23CH-003 Li_2O% Average					5	2.39%	
	TR23CH-004	C00428256	684,547.0	5,906,350.0	0.5	0.07%	
	TR23CH-004	C00428257	684,547.1	5,906,350.5	0.5	0.01%	
	TR23CH-004	C00428258	684,547.3	5,906,351.0	0.5	0.05%	
	TR23CH-004	C00428259	684,547.4	5,906,351.5	0.5	0.04%	
	TR23CH-004	C00428260	684,547.5	5,906,352.0	0.5	0.19%	
	TR23CH-004	C00428261	684,547.6	5,906,352.4	0.5	3.92%	4.43%
	TR23CH-004	C00428262	684,547.8	5,906,352.9	0.5	4.93%	
	TR23CH-004	C00428263	684,547.9	5,906,353.4	0.5	1.03%	
	TR23CH-004	C00428264	684,548.0	5,906,353.9	0.5	0.03%	
	TR23CH-004	C00428265	684,548.1	5,906,354.4	0.5	1.09%	
	TR23CH-004	C00428266	684,548.3	5,906,354.9	0.5	4.32%	4.82%
Dyke #04	TR23CH-004	C00428267	684,548.4	5,906,355.4	0.5	5.32%	
	TR23CH-004	C00428268	684,548.5	5,906,355.9	0.5	0.02%	
	TR23CH-004	C00428269	684,548.7	5,906,356.4	0.5	0.03%	
	TR23CH-004	C00428270	684,548.8	5,906,356.9	0.5	0.02%	
	TR23CH-004	C00428271	684,548.9	5,906,357.3	0.5	1.12%	
	TR23CH-004	C00428272	684,549.0	5,906,357.8	0.5	0.02%	
	TR23CH-004	C00428273	684,549.2	5,906,358.3	0.5	3.05%	
	TR23CH-004	C00428275	684,549.3	5,906,358.8	0.5	0.03%	
	TR23CH-004	C00428276	684,549.4	5,906,359.3	0.5	0.03%	
	TR23CH-004	C00428277	684,549.6	5,906,359.8	0.5	0.04%	
	TR23CH-004	C00428278	684,549.7	5,906,360.3	0.5	0.32%	
	TR23CH-004	C00428279	684,549.8	5,906,360.8	0.5	0.04%	
	TR23CH-004	C00428280	684,549.9	5,906,361.3	0.5	0.03%	

Trieste Project 2023 Channel Sample Results - Li_2O% Length Weighted Averages (NAD83z18)							
Dyke ID	Channel ID	Sample Number	Easting - Start	Northing - Start	Sample Length (m)	Li_2O%	Interval Li_2O%
Dyke #04	TR23CH-004	C00428281	684,550.1	5,906,361.7	0.5	0.04%	
	TR23CH-004	C00428282	684,550.2	5,906,362.2	0.5	2.04%	
	TR23CH-004	C00428283	684,550.3	5,906,362.7	0.5	6.18%	5.44%
	TR23CH-004	C00428284	684,550.4	5,906,363.2	0.5	4.70%	
	TR23CH-004	C00428285	684,550.6	5,906,363.7	0.5	1.37%	
	TR23CH-004	C00428286	684,550.7	5,906,364.2	0.5	0.14%	
	TR23CH-004	C00428287	684,550.8	5,906,364.7	0.5	0.17%	
	TR23CH-004	C00428288	684,551.0	5,906,365.2	0.5	0.01%	
	TR23CH-004	C00428289	684,551.1	5,906,365.7	0.5	0.02%	
	TR23CH-004	C00428290	684,551.2	5,906,366.1	0.5	0.79%	
	TR23CH-004	C00428291	684,551.3	5,906,366.6	0.5	0.71%	
	TR23CH-004	C00428292	684,551.5	5,906,367.1	0.5	0.07%	
	TR23CH-004	C00428294	684,551.6	5,906,367.6	0.5	0.03%	
	TR23CH-004	C00428295	684,551.7	5,906,368.1	0.5	0.11%	
	TR23CH-004	C00428296	684,551.9	5,906,368.6	0.5	0.04%	
	TR23CH-004	C00428297	684,552.0	5,906,369.1	0.5	0.03%	
	TR23CH-004	C00428298	684,552.1	5,906,369.6	0.5	0.01%	
	TR23CH-004	C00428299	684,552.2	5,906,370.1	0.5	0.01%	
	TR23CH-004	C00428300	684,552.4	5,906,370.6	0.5	0.02%	
	TR23CH-004	C00430551	684,552.5	5,906,371.0	0.5	0.02%	
	TR23CH-004	C00430552	684,552.6	5,906,371.5	0.5	0.02%	
	TR23CH-004	C00430553	684,552.7	5,906,372.0	0.5	0.26%	
	TR23CH-004	C00430554	684,552.9	5,906,372.5	0.5	0.24%	
	TR23CH-004	C00430555	684,553.0	5,906,373.0	0.5	0.27%	
Channel ID TR23CH-004 Li_2O% Average					24	0.90%	
Dyke #05	TR23CH-005	C00430556	685,333.0	5,906,076.0	0.5	0.86%	
	TR23CH-005	C00430557	685,333.1	5,906,075.6	0.5	1.36%	
	TR23CH-005	C00430558	685,333.2	5,906,075.1	0.5	0.03%	
	TR23CH-005	C00430559	685,333.3	5,906,074.7	0.5	0.31%	
	TR23CH-005	C00430561	685,333.3	5,906,074.3	0.5	0.04%	
	TR23CH-005	C00430562	685,333.4	5,906,073.8	0.5	0.08%	
	TR23CH-005	C00430563	685,333.5	5,906,073.4	0.5	0.03%	
	TR23CH-005	C00430564	685,333.6	5,906,073.0	0.5	0.03%	
	TR23CH-005	C00430565	685,333.7	5,906,072.5	0.5	0.02%	
	TR23CH-005	C00430567	685,333.8	5,906,072.1	0.5	0.10%	
	TR23CH-005	C00430568	685,333.8	5,906,071.7	0.5	0.07%	
	TR23CH-005	C00430569	685,333.9	5,906,071.2	0.5	0.09%	
	TR23CH-005	C00430570	685,334.0	5,906,070.8	0.5	0.13%	
	TR23CH-005	C00430571	685,334.1	5,906,070.4	0.5	0.25%	
	TR23CH-005	C00430572	685,334.2	5,906,069.9	0.5	0.10%	
	TR23CH-005	C00430573	685,334.3	5,906,069.5	0.5	0.07%	

Trieste Project 2023 Channel Sample Results - Li_2O% Length Weighted Averages (NAD83z18)							
Dyke ID	**Channel ID**	**Sample Number**	**Easting - Start**	**Northing - Start**	**Sample Length (m)**	**Li_2O%**	**Interval Li_2O%**
	TR23CH-005	C00430574	685,334.3	5,906,069.0	0.5	0.15%	
	TR23CH-005	C00430575	685,334.4	5,906,068.6	0.5	0.09%	
	TR23CH-005	C00430577	685,334.5	5,906,068.2	0.5	1.59%	
	TR23CH-005	C00430578	685,334.6	5,906,067.7	0.5	0.84%	
	TR23CH-005	C00430579	685,334.7	5,906,067.3	0.5	1.84%	
	TR23CH-005	C00430580	685,334.8	5,906,066.9	0.5	2.19%	2.16%
	TR23CH-005	C00430581	685,334.8	5,906,066.4	0.5	1.49%	
	TR23CH-005	C00430582	685,335.0	5,906,066.0	0.5	3.10%	
Channel ID TR23CH-005 Li_2O% Average					12	0.62%	

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	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Channel sites were selected on areas of exposed pegmatite outcrop that represented the approximate central portions of each of the dykes. • A straight-line traverse was drawn using biodegradable paint across surface outcrop and 0.5 metre intervals were marked along each traverse using a tape measure. A motorised rock saw sliced two parallel vertical cuts 10cm deep and 4cm wide. • A LIBS Analyser was used to confirm high lithium values from spodumene identified in sample hand specimens. • Samples were inserted into sequentially numbered calico bags, closed by string attached to the bags.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• No drilling reported in this announcement
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No drilling reported in this announcement.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate*	• MX Deposit was used to record geological and sampling data at the level of each sampled interval, mostly 0.5m in length or

	Mineral Resource estimation, mining studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	similar. • These data were backed up instantly to a cloud source electronically and were also recorded in physical notebooks. • Samples sites were photographed in the field and individual samples photographed at the camp site.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Dry, crush, pulverise. • All samples collected were shipped by enclosed truck to SGS Ontario laboratory for standard sample preparation (code PRP89) 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 multi-elements using sodium peroxide fusion with ICP-AES/MS finish (GE_ICP91A50 and GE_IMS91A50) This is considered a total digestion method.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples collected by Loyal Lithium in 2023 were analysed using 50g dissolution in sodium peroxide (total Lithium digestion) coupled with ICP-AES+MS 56 (56 elements), SGS internal code GE_ICM91A50, which is appropriate for lithium. • Laboratory Certified Reference Materials (CRMs) were inserted at regular intervals for each dyke channel A total of 12 OREAS 752 and quartz blanks at a rate of one per ten samples, were inserted into the sample stream as part of the internal quality control procedure. • SGS Canada are ISO 17025 certified and implement routine Quality Assurance and Quality Control (QA/QC) protocols during the analytical process. The procedures include inserting laboratory internal pulp duplicates and certified reference materials. • Analytical procedures are considered current Standard Industry Practice. • The Competent Person considers the sample and analytical procedures acceptable for field exploration channel sampling and assaying.

Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• A SciAps LIBS Z-903, with lithium in spodumene pegmatite standards calibration was used to positively identify lithium in spodumene identified by qualified geologists in samples, at the site camp, after samples were returned from the field. Note these lithium values are not reported in this announcement and do not represent the lithium grade of samples. • All original geological and assay data were stored in an MX Deposit database in an as-received basis with no adjustment to geological data. • The sampling program was managed by a qualified Quebec QP of "Ordre professionnel des géologues du Québec". LLI's JORC Competent Person was also present during the program.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Start and end of trenches sampled were picked up using a Garmin GPS 66S on electronic base maps with underlying satellite and drone plan imagery. Azimuths and dips on the trenches were recorded manually by compass. • Data is stored in UTM NAD 83 Zone 18N projection format.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Channel sites were all within selected identified pegmatite outcrop that had both hanging wall and footwall contacts with metasedimentary wall rock. The channels were designed to be perpendicular to contacts, representing apparent widths of dykes. • Systematic sample assays from channel samples cut between 10 cm deep and 5 cm wide sampled every half metre are reported in this announcement. Samples were taken along 0.50m intervals with 6 samples taken at slightly different intervals (between 0.40m to 0.65m) • Fieldwork was more concentrated in the fault-flow area found with a cluster of six spodumene bearing pegmatite dykes. Channels were selected on 3 dykes (#01, #04 and #05) • Samples of between 1.66 to 7.02 kg, with an average of 4.11 kg were taken using a rock saw. Sample recovery was >99% with the only sample loss being due to fine rock saw cuttings on the boundary of the sample and pegmatite outcrop. • Channel data spacing is clustered and was dependant on outcrop exposed by field geologists.

Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Channel sites were all within pegmatite selected where outcrop was interpreted to have both a hanging wall and footwall contact of metasedimentary wall rock and were sub-perpendicular to the contacts to represent apparent widths of the dykes.
Sample security	• *The measures taken to ensure sample security.*	• The area is remote and only Loyal Lithium's geological contractors (DGC) and Loyal Lithium field staff who were on site including the Competent Person, had access to the samples at the base camp. Samples were transported from the field, 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 SGS laboratory. SGS provided a reconciliation sheet from the sample submission versus the samples received. Once field samples were logged the entire sample was sent for assay. • Samples were given a unique sample number on a weather resistant ticket in each bag, as well as the same sample number on the outside of the bag was provided by SGS for sample analysis. Each sample tag lists the project name and unique sample number. • Samples were stored in a locked shipping container 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 by road transport to SGS Sudbury preparation and analysis for multielement analysis and sodium peroxide digest lithium analysis. • SGS laboratory services are in secure compounds. • Sample pulps are stored for later reference by SGS laboratory and Loyal Lithium.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of sampling techniques or data have been completed on this filed sampling program. The Loyal Lithium CP examined geological contractor sampling in the field and camp for the entire field program.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary

Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*
		• 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:
		  ○ 228 claims are under a Binding Letter of Intent agreement 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, 2024, and October 19, 2025.

Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 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 Caniapiscau Property. The Caniapiscau 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 survey 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 Caniapiscau 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.
- In 2017, Abitibi Geophysics on behalf of Osisko Mining Inc. (formerly Osisko Baie James), executed an 11.25 km OreVisionTM 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 convers 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).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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 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.*
		• No drill hole results are reported in this announcement

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• The grade aggregation method is length weighted.

Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• The channels were similar or smaller than the inferred true thicknesses of the pegmatite dykes. No inference is made from the channel lengths on the true thicknesses of the pegmatite dykes.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Site plans and sample photos and are included in this announcement.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.*	• All exploration field channel sample results are presented in this announcement.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• In August 2023, Loyal Lithium mapping program discovered a cluster of five spodumene bearing pegmatites on surface that were sampled with assays presented in an ASX announcement • In October 2023 LLI completed a LiDAR and orthophoto fixed wing aircraft survey across all claims • In early 2023 LLI completed a high-resolution 50m spaced aeromagnetic survey across the Trieste greenstone belt • In early 2023 LLI completed resampling of historical drill core • 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 later mapped pegmatite dykes.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Based on favourable geologic setting for lithium pegmatite occurrences, and especially the newly recognised Fault-Flow Zone containing a large cluster of 6 unique pegmatite dykes identified to

• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	date, the Trieste Lithium Project is considered to have sufficient geological merit to warrant considerable drill testing and additional field survey work. The Project measures approximately 38 km in the east-west direction and has never been subject to systematic exploration for lithium-bearing pegmatites until the exploration programs of Loyal Lithium. • 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 and LIDAR surveys, with high resolution orthophotos were flown to aid in target delineation across the Project area. • An aggressive 14-day mapping and sampling program in August 2023 discovered a cluster of five spodumene bearing pegmatite outcrops, that were interpreted to form part of five distinct dykes. Subsequent analysis of field data including sample assays and photos identified a sixth pegmatite dyke. • 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. A systematic drill hole approach was adopted when drilling following from the middle portion of the dyke following the extent outwards along strike to understand the orientation and extent of the dyke. Active geological modelling is being completed and assays are to be received to understand the extensive spodumene distribution within the pegmatite. Due to the nature of pegmatite emplacement, which may commonly form irregular bodies and/or develop sharp changes in orientation along trend further drilling on Dyke #01 is required along strike both to the east and to the west, where no outcrop occurs. In the east, pegmatite drill hole intercepts are found concealed beneath areas with no readily discernible surface outcrop. Dykes #01 and #06 are on LLI's 100% owned claims.