ASX Announcement | 1 March 2023

High Resolution Aeromagnetic Survey Completed at Trieste Lithium Project to Support Pre-emptive Drilling Permit Application - Updated

Highlights:

- **A high-resolution aeromagnetic survey has been completed across the most prospective greenstone targets in the northwest section of the Trieste Lithium Project.**
- **The survey has been conducted ahead of the field program to support the preparation of a pre-emptive drilling application enabling a fast-tracked drilling campaign.**
- **Trieste Lithium Project is a large-scale lithium project located 14km east of Winsome Resources' (ASX: WR1) Adina Lithium Project's drill hole that recently recorded a significant lithium mineralised intercept(1).**
- **Trieste Lithium Project contains 153 logged pegmatite outcrop observations with 35 'A-Type' pegmatite samples (I1A) - which is the same classification (and 11 times more) as originally sampled at Winsome Resources' (ASX: WR1) Adina Lithium Project.**

Loyal Lithium Limited (**ASX:LLI**) (**Loyal Lithium**, **LLI** or the **Company**) is pleased to announce that it has completed a high-resolution aeromagnetic survey across prospective greenstone targets at the Trieste Lithium Project ("**Project**"). The survey will support a pre-emptive drilling application enabling a fast-tracked drilling campaign at the project, in the event of a successful inaugural field program. The 251 km^2 project is 8.6 times larger than Winsome Resources' Adina Lithium Project and contains 153 logged pegmatite outcrop observations and 35 'A-Type' (I1A) pegmatite samples.

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

"The prospectivity of the Trieste Lithium Project warrants an aggressive approach."

"Although a high-resolution aeromagnetic survey and the submission of a drilling application typically follows a successful infield program – we are planning for success. Conducting these works now, enables us to fast track a drilling campaign in the event of a successful inaugural field program."

"The opportunity at Trieste is exciting and we will continue to look for opportunities to fast track our exploration activates at Trieste."

HIGH-RESOLUTION AEROMAGNETIC SURVEY

Prospectair Geosurveys Inc. has completed a helicopter-borne high-resolution magnetic data survey over a 23 square kilometre area of the northwest Trieste claims, with a total of 555-line km flown at 50m line spacings. Prospectair is a highly regarded geophysics contractor, completing similar surveys on Patriot Battery Metals' Corvette (ASX:PMT, TSXV:PMET) lithium discovery[3], showing the utility of high-resolution magnetic data in lithium pegmatite exploration.

The area surveyed is highly prospective and contains a noted A Type pegmatite with a high concentration of resistive outcrop occurrences within and around the greenstone. The first pass raw high-resolution magnetic data has been received (figure 1), with levelling and findings report pending.

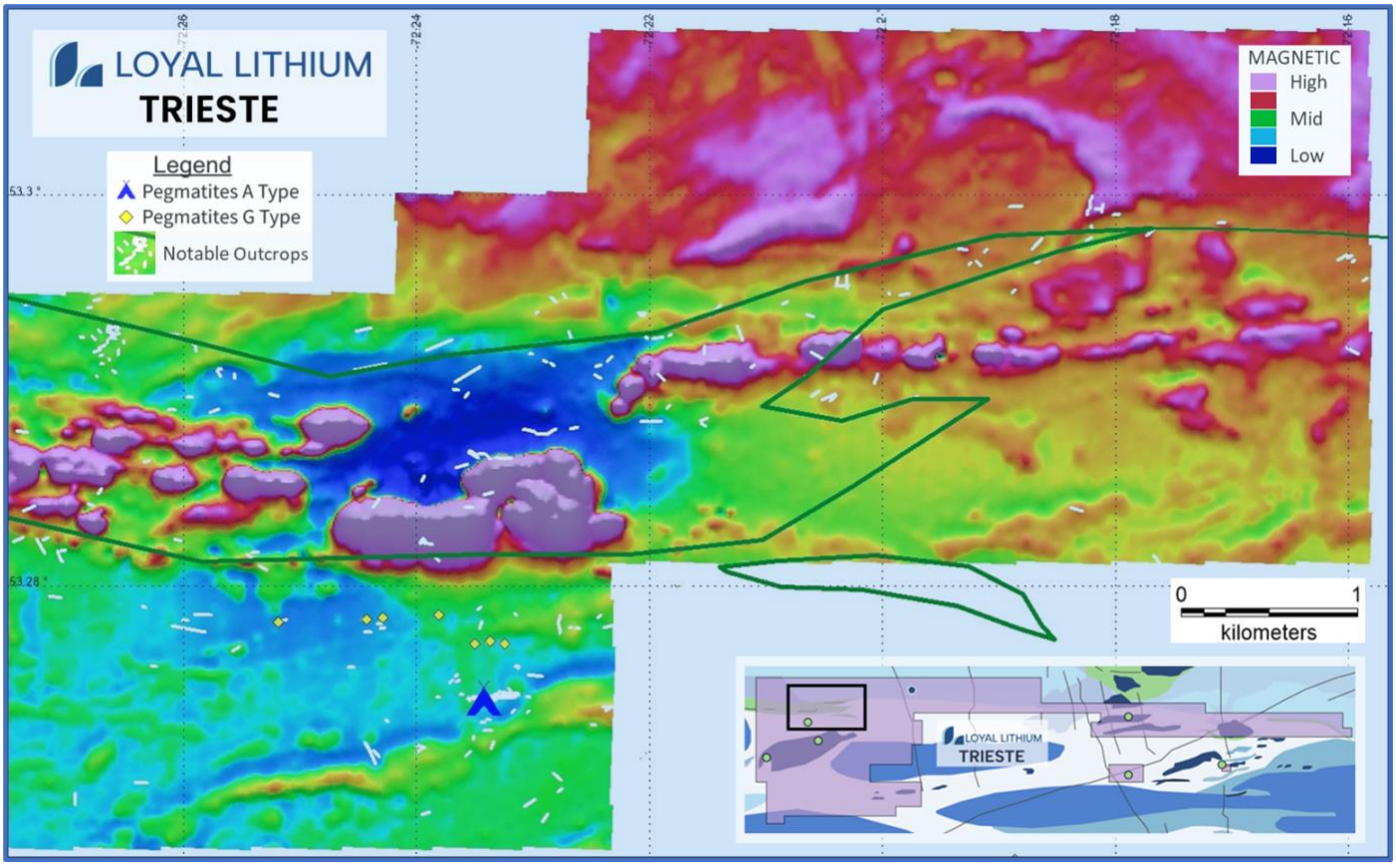

Figure 1 - Trieste Lithium Project –High-Resolution Aeromagnetic Image - First Pass Raw Data

High-resolution magnetic data has the potential to save significant exploration time and expense by identifying areas of demagnetisation (lithium pegmatites are not magnetic) and favourable structures around large volumes of volcanic and volcano-sedimentary rocks (greenstones), where pegmatites are more likely to intrude. The data can also be useful in inferring potential lithium source intrusives and identification of concealed (undercover) lithium pegmatite extensions.

The successful collection of high-resolution magnetic data could alter the priorities within the inaugural field program by providing further support for known pegmatites outcrops. The successful collection of high-resolution magnetic data could result in further deployment across other prospective targets at the Trieste Lithium Project.

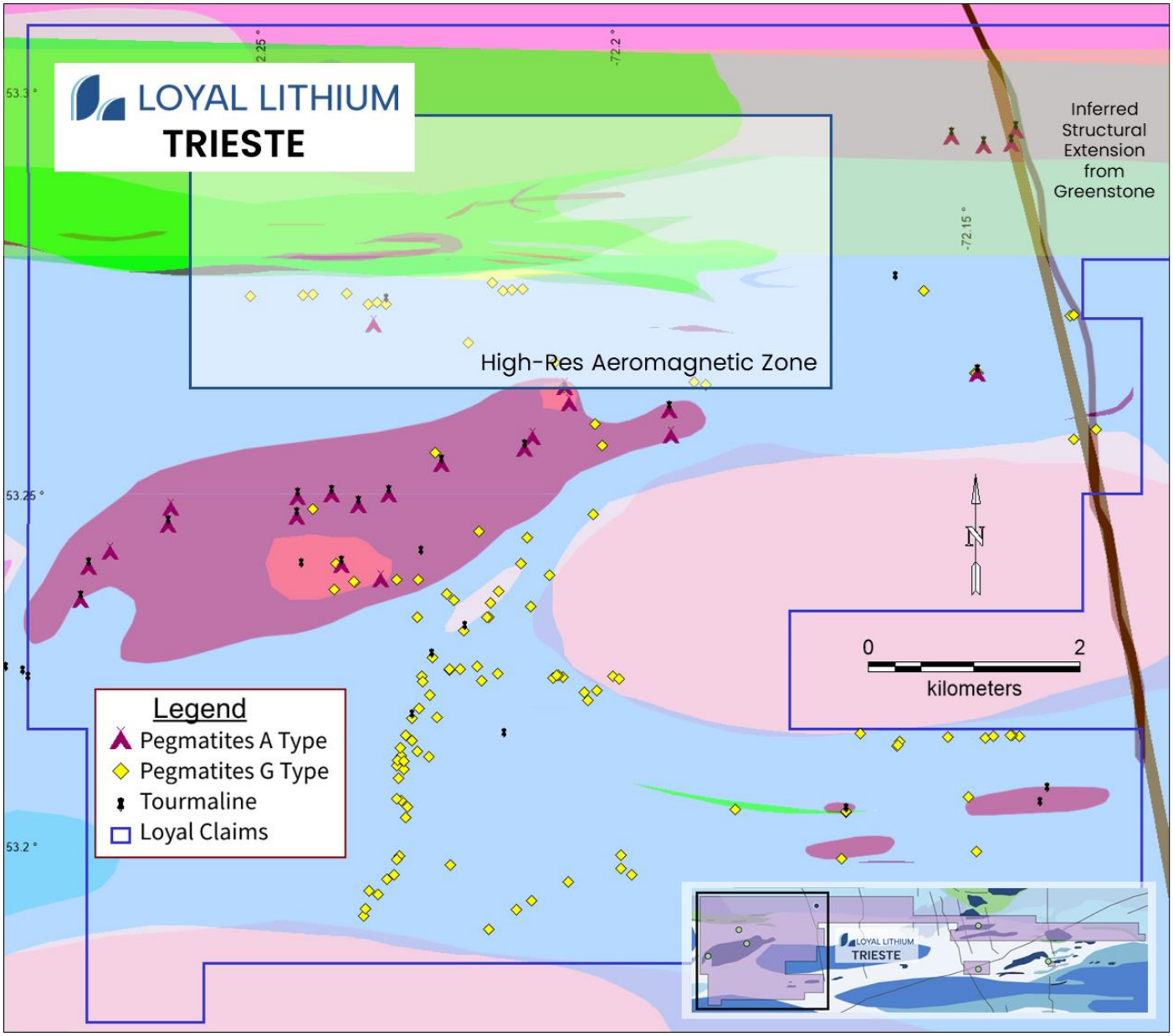

Figure 1 –Trieste Lithium Project (west) – Virginia Mines Local Interpretation (1:10k) overlay

Although, the Trieste Lithium Project has never been explored for lithium, historical data has 153 logged pegmatite outcrop observations, 35 of which are the same classification as those identified at Winsome Resources' (ASX: WR1) Adina Lithium Project. This is a notable 11 times more 'A Type' Pegmatites observations (I1A) than Adina. The historical data also includes 118 'G Type' mapped Pegmatite observations (I1G). Both 'A Type' & 'G Type' are prospective for lithium.

PRE-EMPTIVE DRILLING APPLICATION

The high-resolution magnetics survey will support the preparation of a pre-emptive drilling permit application. The data obtained will assist with the application by providing insight into the geological orientation and inferred extensions of the pegmatites, ultimately defining the potential drill locations.

A pre-emptive drilling application will also fast track a future expanded drilling program as it involves foundational activities, creates project awareness and establishes relationships with key stakeholders, such as first nations, the environment review board and other government and regulatory bodies.

THE TRIESTE LITHIUM PROJECT

The 100% owned Trieste Lithium Project is a large-scale lithium Project located 14km east of Winsome Resources' (ASX: WR1) Adina Lithium Project drill hole that recently recorded a significant Lithium mineralised intercept of 1.34% over 107.6m[(1)] (Figure 3). Loyal Lithium acquired the Trieste Lithium Project in October 2022 - prior to the recent drill campaign results at the Adina Lithium Project.

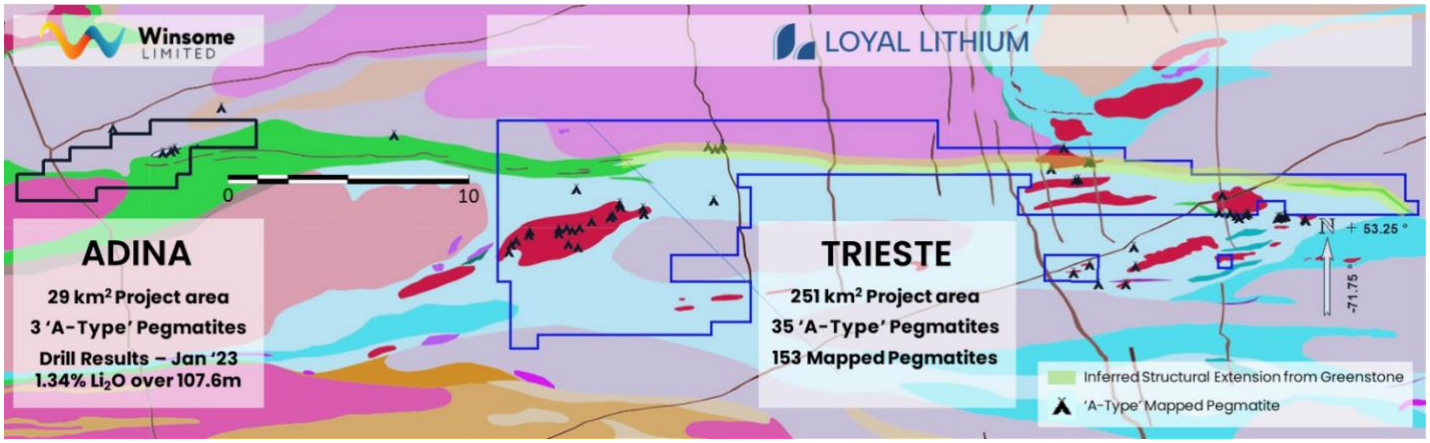

Figure 3 - Trieste Lithium Project – GSQ Region Interpretation (1:100k)

Loyal Lithium is the largest land holder within the highly prospective Trieste Greenstone Belt. The Trieste Lithium Project covers 251 km^2, which is 8.6 times larger than Winsome Resources' (ASX: WR1) Adina Lithium Project. The project area includes a 39 km long contact zone in the Trieste Greenstone Belt with a significant amount of historical data. Although the Project hasn't ever previously been explored for lithium, it does contain an anomalous historical lithium assay site (180ppm Li).

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 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.

Qualified and Competent Person

The information in this announcement that relates to exploration results, 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 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 WR1: 6th January 2023. Strong lithium mineralisation recorded from first Adina drill hole assays

[2] ASX Announcement LLI: 20th October 2022. Monger triples land position with the acquisition of the Trieste Lithium Project in the James Bay Lithium District, Quebec

[3] https://patriotbatterymetals.com/patriot-battery-metals-completes-property-wide-remote-sensing-survey-and-engages-prospectair-for-high-resolution-heliborne-magnetic-survey-at-the-corvette-fci-property-quebec-canada/

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this table apply to all preceding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g., 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 (e.g., '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 (e.g., submarine nodules) may warrant disclosure of detailed information.*	• High-Resolution Heliborne Magnetic Survey by Prospectair Geosurveys, 15 chemin de l'Étang Gatineau, Québec, J9J 3S9, acquired high-resolution magnetic data in the LG-4 area of the Baie-James Region, Québec. • The ideal spacing did not vary by more than 30 % over a distance of more than 300m. No re-flights were attempted as line spacing did not exceed this tolerance. The minimum length of any traverse or tie-line was 3 km. • Aircraft Speed and Altitude: The helicopter was flown at approximately 120 km/h in gentle terrain. Under these conditions, the distance between samples along survey lines were typically 3.3 meters. • This was magnetics only data acquisition, so nominal terrain clearance of the helicopter was set to 45 m with smooth line-to-line compatible draping of topography. The nominal mag detector ground clearance was approximately 25 meters. • Altitude was ultimately controlled at the discretion of the helicopter pilot with safety held in priority consideration.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• No geological logging occurred as this is a geophysical survey

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all cores 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.*	• No sub-sampling techniques and sample preparation occurred as this is a geophysical survey
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 (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.*	• To encourage improved magnetic data corrections, "racetrack flying" was NOT done. Adjacent flight lines were flown consecutively in a regular progression. Flying commenced at the end of the block and proceeded towards the other end until the block was completed. PROSPECTAIR provided the following instrumentation for this survey: • Airborne Magnetometers Geometrics G-822A: The heliborne magnetic sensor consisted of a non-oriented (strap-down) optically-pumped Caesium split beam sensor. These magnetometers have a sensitivity of 0.005 nT and a range of 15,000 to 100,000 nT with a sensor noise of less than 0.02 nT. The heliborne sensor is mounted in a bird made of nonmagnetic material located 19 m below the helicopter when flying. Total magnetic field measurements were recorded at 10 Hz in the aircraft. The ground system recording magnetic data at 1 sample every second. • An OmniStar Real-Time differential GPS navigation system provided real-

Criteria	JORC Code explanation	Commentary
		time guidance for the pilot and to position data to an absolute accuracy of better than 5 m. The Omnistar receiver provided real-time differential GPS for the Agis on-board navigation system. The differential data set was relayed to the helicopter via the Omnistar network appropriate geosynchronous satellite for the survey location. The receiver optimized the corrections for the current location. • Airborne Navigation and Data Acquisition System: Pico-Envirotec AGIS-XP system. The Airborne Geophysical Information System (AGIS-XP) is advanced, software driven instrument specifically designed for mobile aerial or ground geophysical survey work. The AGIS instrumentation package included an advanced Satellite navigation (GPS), real-time flight path information that was displayed over a map image (BMP format) of the area, and reliable data acquisition software. Thanks to simple interfacing, the radar and barometric altimeters, the RSI spectrometer and the Geometrics magnetometer were easily integrated into the system and digitally recorded. Automatic synchronization to the GPS position and time provided very close correlation between data and geographical position. The AGIS is equipped with a software suite allowing easy maintenance, upgrades, data QC, and project and survey area layout planning. A Magnetic Base Station GEM GSM-19 Overhauser magnetometer, a computer workstation and a complement of spare parts and test equipment serve as the base station. PROSPECTAIR establish the base station in a secure location with low magnetic noise. The GSM-19 magnetometer had resolution of 0.01 nT, and 0.2 nT accuracy over its operating range of

Criteria	JORC Code explanation	Commentary
		20,000- to 100,000 nT. Its data output rate is 1 Hz. • A Free Flight Radar Altimeter measured height above ground to a resolution of 0.5 m and an accuracy of 5% over a range up to 2,500 ft. The radar altimeter data was recorded and sampled at 10 Hz. • The digital barometric pressure sensor measured static pressure to an accuracy of ± 4 m and resolution of 2 m over a range up to 30,000 ft above sea level. The barometric altimeter data were sampled at 10 Hz. • Survey helicopter was a Eurocopter EC120 (registration C-GEDI) that handled efficiently the equipment load and the required survey range.
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.*	• DIURNAL ACTIVITY: Diurnal activity did not exceed 5nT per minute so no re-flights occurred. • Base-station magnetic data for the removal of diurnal variations were collected. • A 0.5 nT magnetic noise envelope was exceeded over 500 metres line-length so no re-flights occurred. • The final data will be lag-corrected and levelled using both tie-line leveling and micro-levelling. • The data will be levelled to the degree that there will be no flight line striping visible in the first vertical derivative of the magnetic data and minimal flight line striping visible in the second vertical derivative of the magnetic data. This shall be ascertained using the current industry standard GEOSOFT version 2022.1 or higher. Leveling shall be done with no amplitude loss for any frequency content in the magnetic data.
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*	• The survey block was defined by the digital kml file delivered with the proposal, which was created based on the information provided by LLI and adjusted for the 3 km minimal line length. The coordinates were given with respect to NAD-83, UTM zone

Criteria	JORC Code explanation	Commentary
	control.	18N.
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.*	• The survey was undertaken with traverse lines oriented 178 in order to properly map the dominant magnetic/geological strike, and with a 50m line spacing. Control lines flown perpendicular to traverse lines and at a 500 m line spacing. This led to a total survey distance of 555 l-km.
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.*	• Flight lines were oriented perpendicular to the D1 structure and geological contacts
Sample security	• *The measures taken to ensure sample security.*	• Data was downloaded nightly and uploaded to the central office. Multiple copies of the dataset were generated to minimise the potential for data loss.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of sampling techniques or data were undertaken.

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.*	• Loyal Lithium Ltd. (100% subsidiary Project Trieste Lithium Inc.) (LLI) and Osisko Development Corporation have signed a Binding Letter of Intent pursuant to which ensures that LLI has exclusivity to work towards the formulation of an agreement to acquire 100% of the Mineral Claims.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical work has not been assessed or appraised in this announcement as this was a new dataset collected • Regional exploration geological mapping 1:130,000 scale has been conducted historically only by the government agency The Quebec Geological Survey.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Archean aged Lithium in LCT type pegmatites
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No data aggregation methods were used as this is a geophysical survey
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 (e.g., 'down hole length, true width not known').*	• No mineralisation has been reported as this is a geophysical survey
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*	• Appropriate plan and location maps on regional and prospect scales are included in this ASX announcement.

Criteria	JORC Code explanation	Commentary
	locations and appropriate sectional views.	
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 survey results are reported
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.*	• Geological descriptions included in this announcement from the Quebec Geological Survey and a 1:130k geological interpretation
Further work	• *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Given the encouraging results from this high-resolution geophysics survey, more geophysical surveys will be planned including extending this survey across targets generated from a current work program of satellite data analysis