17 April 2024

8km of Highly Prospective Anomalies and Follow-up Targets Identified at Gullwing and Tot Prospects

Highlights

- **Multiple North-South linear trends** analogous to the trends observed at the Gullwing and Tot pegmatite outcrops identified by the recent airborne magnetic survey.
- The magnetic anomalies are interpreted as either being **extensions of known pegmatites or representing additional pegmatite discoveries**/significant structural features.
- **Correlation of previously released geochemistry** results with the airborne magnetic survey data **provides increased confidence** in target prospectivity.
- Prospective structures have been identified within areas that contain anomalies with **elevated levels of lithium, caesium, and rubidium**.
- Exploration team preparing to undertake **immediate field reconnaissance**, mapping and sampling programs to ground-truth these encouraging geophysics and geochemistry results.

Lithium exploration and project development company, Critical Resources Limited **ASX:CRR** ("Critical Resources" or "the Company") is pleased to report highly encouraging results from the airborne magnetic survey completed across the Northern Prospects at the Company's flagship Mavis Lake Lithium Project in Ontario, Canada.

High-resolution survey completed across 8 kilometres of highly prospective ground

In October 2023, EarthEx Geophysical Solutions conducted a high-resolution, UAV-borne magnetic survey across the Northern Prospects of the Mavis Lake Project Area. The survey was designed to produce a detailed magnetic map to support litho-structural mapping for mineral exploration and future drill targeting.

An ~8km long prospective trend was covered by 798-line kilometres of survey, with data collected on 25m spaced lines and 250m spaced tie-lines.

The survey has revealed numerous magnetic anomalies closely associated with previously mapped spodumene-bearing pegmatites at surface and other geochemical anomalies identified from parallel exploration work streams.

The presence of coincident geophysical features and strong surface geochemical anomalies enhances confidence in the ability to identify high-confidence drill targets across the Northern Prospects.

UAV-Borne Magnetic Survey

High-resolution magnetic data collected by UAV survey has proven to be highly effective in identifying prospective new drill targets through the identification of possible litho-structures of potential pegmatite emplacement (see Figures 1 and 2 below). This form of survey offers exceptional litho-structural detail along the highly prospective 8km, East-West trend between the spodumene-bearing Gullwing and Tot Pegmatites within the Northern Prospects.

The survey has identified multiple North-South linear trends exhibiting magnetic lows, analogous to the trends observed in the Gullwing and Tot pegmatites. These magnetic anomalies are interpreted as either being the extension of known pegmatites, the presence of additional pegmatites, or previously undiscovered significant structural features.

Drawing from the magnetic signatures of the spodumene-bearing Gullwing and Tot pegmatite dykes, the Company has developed a template for targeting other potential pegmatites across the Project.

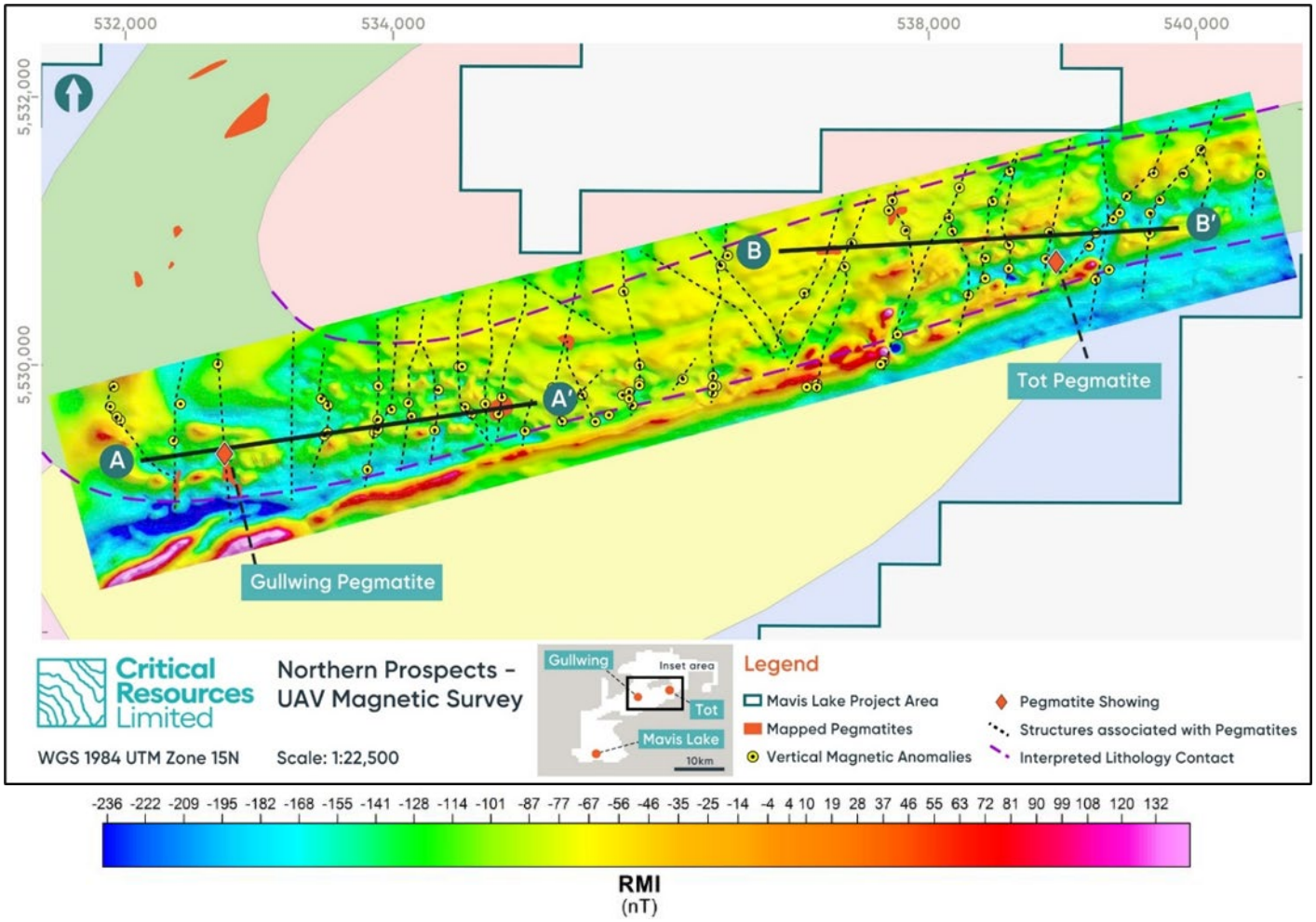

Figure 1: The residual magnetic intensity (RMI) of the Northern Prospects identifying numerous North-South magnetic breaks (depicted by dashed black lines) assessed as being caused by possible LCT pegmatite occurrences.

Additionally, the survey has facilitated the creation of detailed 3D models of magnetic variances across the property. The 3D magnetic model yields valuable exploration insights, including depth of structure, body dip and overall shape and morphology of lithological units as shown in Figure 2.

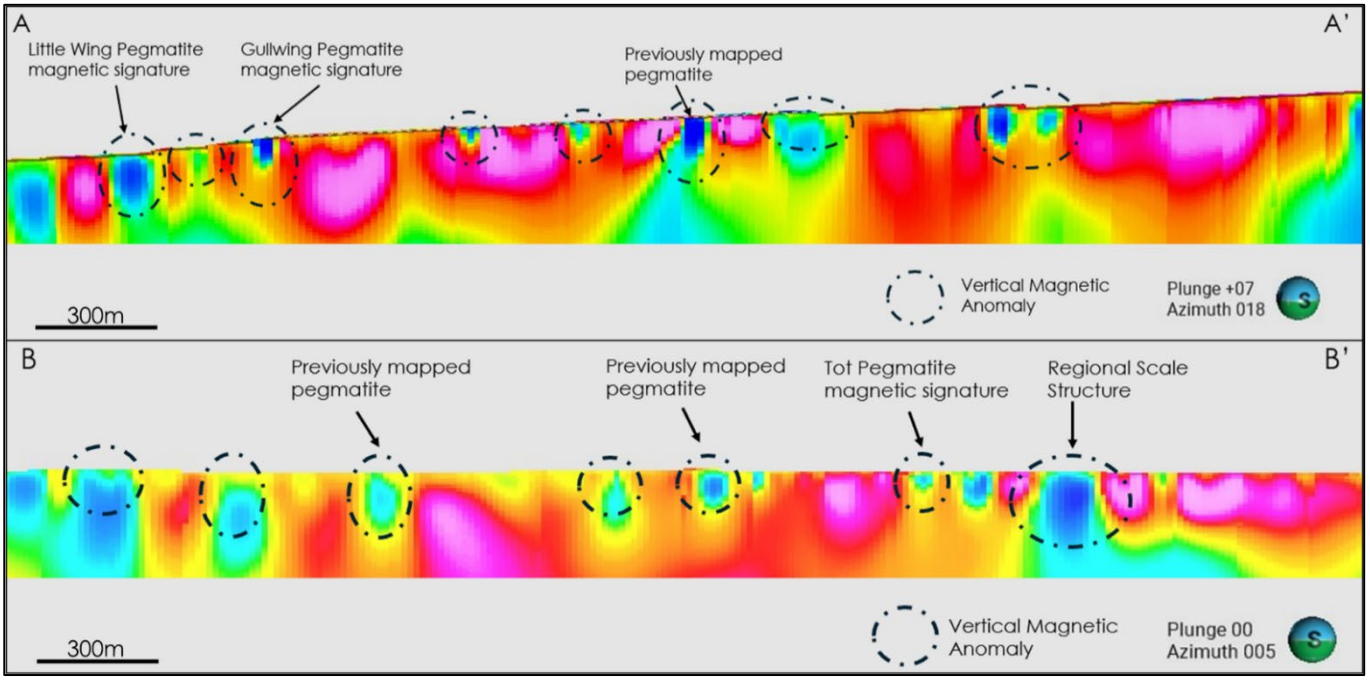

Figure 2: Cross sections of N-S trending magnetic lows (blue) within a magnetic high (pink) mafic volcanic host rock.

Layering exploration data to build high-confidence drilling targets

Building on previous exploration results, incorporating historical rock-chip and channel sampling data, litho-geochemical sampling and the multiple Li, Cs, Rb Mobile Metal Ion (MMI) results across the Northern Prospects, the Company is increasingly confident that significant LCT-Type mineralisation is associated with the magnetic low structures identified from the airborne magnetic survey.

The coincidence of magnetic lows and heightened geochemical responses for lithium and related elements form priority targets for the Company's future exploration efforts. These key target areas are shown in Figure 3.

Future Work

Follow-up prospecting activities will build upon the comprehensive magnetic survey, geochemical results and MMI soils results, with the aim of uncovering potential new spodumene-bearing pegmatite discoveries.

Using the high-resolution magnetic data collected from the UAV survey, future prospecting efforts will focus on delineating and exploring areas exhibiting magnetic lows indicative of favorable lithological structures associated with pegmatite emplacement.

Additionally, the integration of soil sample results, particularly those showcasing elevated concentrations of lithium and related elements identified through MMI analysis, will guide prospecting activities towards areas with heightened potential for mineralisation.

By systematically investigating these prospective zones – through geological mapping, grab sampling and targeted prospecting – exploration teams will attempt to identify and delineate new additional spodumene-bearing pegmatite occurrences, thereby advancing the understanding and potential of the Northern Prospects.

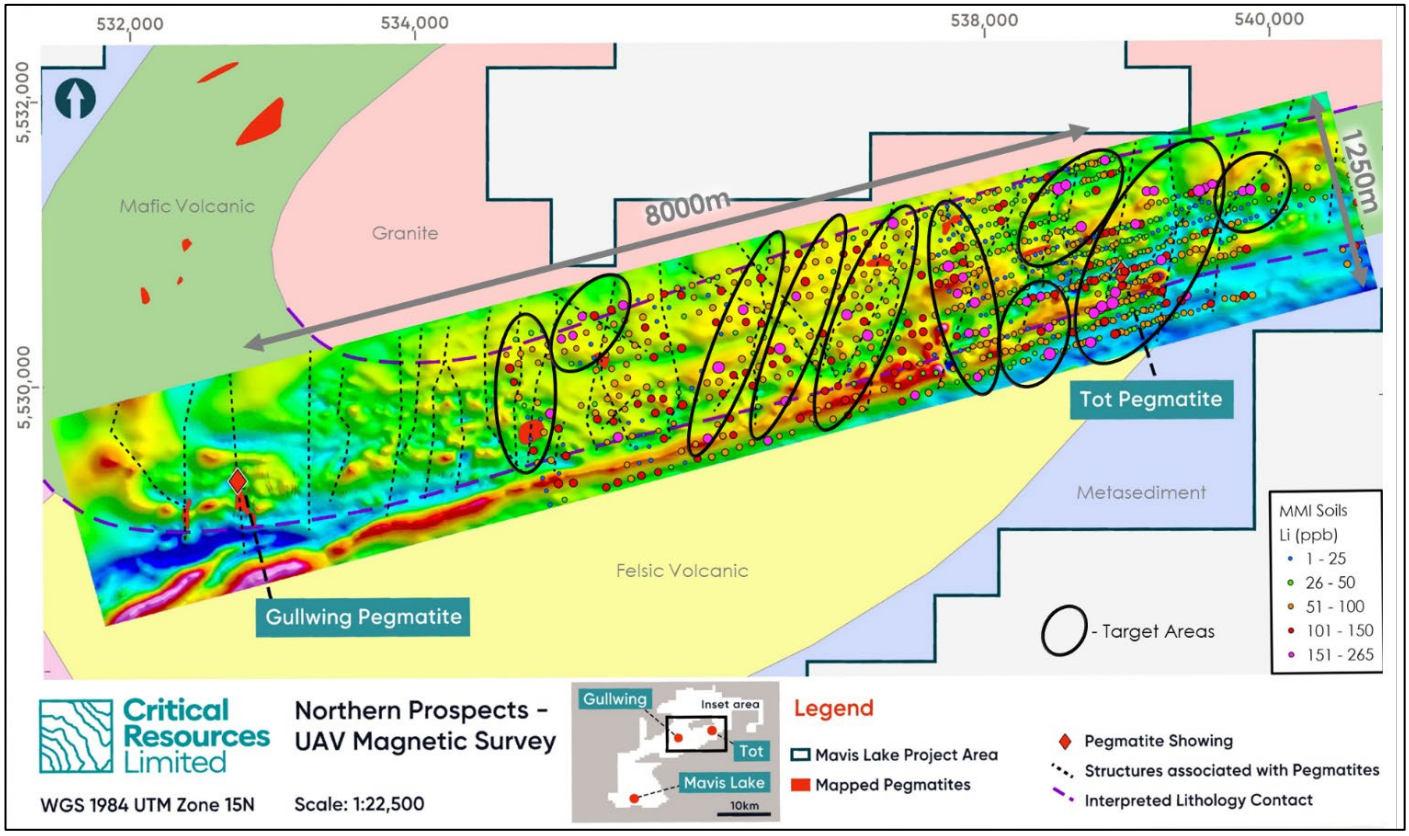

Figure 3: Priority targets identified through overlaying MMI soil survey lithium results with the Aero-magnetic survey results – illustrating geochemical relationships with magnetic low structures.

Critical Resources Managing Director, Alex Cheeseman said:

"These exciting results provide a great example of how an aeromagnetic survey can accelerate focused LCT pegmatite exploration efforts.

"The correlation of the aero-mag survey data with the geophysical 'fingerprints' of the known spodumene-bearing Gullwing and Tot pegmatites – as well as overlaying anomalous geochemical trends – has provided excellent targets for immediate follow-up field work.

"Given the size of the broader Mavis Lake Project area, the ability to focus fields teams onto highly prospective targets ensures that we can continue to achieve the best possible return for every exploration dollar spent.

"We see great exploration and discovery potential at the Northern Prospects and we are excited to continue to test this part of the Project Area."

This announcement has been approved for release by the Board of Directors.

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ABOUT CRITICAL RESOURCES LIMITED Critical Resources is focused on the exploration, development and delivery of the critical metals required for a decarbonized future, underpinned by a portfolio of lithium projects in Ontario, Canada which are ideally positioned to participate in the rapidly growing North American battery materials supply chain.

The Company's principal focus is on its flagship Mavis Lake Lithium Project in Ontario, Canada, where it has completed over 45,000m of drilling and defined a maiden Inferred Mineral Resource of 8Mt grading 1.07% Li_2O. Recent exploration success has demonstrated substantial potential to expand this resource and make new discoveries in the surrounding area. Critical is progressing a dual-track strategy at Mavis Lake of targeting resource growth in parallel with multiple permitting and project development workstreams.

COMPETENT PERSONS STATEMENT The information in this ASX Announcement that relates to Exploration Results is based on information compiled by Mr. Troy Gallik (P. Geo), a Competent Person who is a Member of the Association of Professional Geoscientists of Ontario. Troy Gallik is a full-time employee of Critical Resources. Mr. Gallik has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Gallik consents to the inclusion in this Announcement of the matters based on his information in the form and context in which it appears.

COMPLIANCE STATEMENT This document contains information on the Mavis Lake Lithium Project, Canada extracted from ASX market announcements dated 20 December 2022, 29 December 2022, 18 May 2023 ,17 July 2023, 2 November 2023 and 18 March 2024, reported in accordance with the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" ("2012 JORC Code"). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX market announcements. This document contains information relating to the Mineral Resource estimate for the Mavis Lake Lithium Project is extracted from the Company's ASX announcement dated 5 May 2023. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply.

FORWARD LOOKING STATEMENTS This announcement may contain certain forward-looking statements and projections. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. Critical Resources Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Critical Resources Limited or any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.

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 (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.*	A drone-borne magnetic survey was conducted with a line spacing of 25 m and tie line spacing of 250 m. The mean terrain clearance for the survey was 30 m. Two line azimuths were chosen for this survey due to the orientations of the overall geological trend. The Gullwing (NS) was flown at 165-degree azimuth to cover the geology of the entire area and the Gullwing (EW) was flown at 75 degrees azimuth to map the lithium bearing pegmatites within the mafic volcanic host rock. These pegmatites typically trend N-S to NNW-SSW, therefore surveying at 165- and 75-degrees azimuth gives the best possible survey coverage possible. The system comprises: • DJI Matrice Pro 600 airborne platform. • RTK Telemetric navigation hardware. • Scintrex Cs-VL – Cesium Vapor Magnetometer. • Proprietary navigation system with automatic obstacle avoidance. • GEM Overhauser or Proton Precession base station Before surveying a grid, a "cloverleaf" test is completed to confirm that the geophysical system is performing correctly. While doing this test the UAV flies in a cloverleaf pattern recording the total magnetic field in the centre of the cloverleaf on each pass, while flying in several different directions. This provides a measure of the consistency of the readings with the sensor in various orientations. The standard deviation of the centre readings should be within 2 nT to indicate that the sensor is performing well, and the drone is following its flight path accurately. The data were treated with several quality control and processing steps as follows: 1. Statistics were calculated, recorded, and analysed to provide a quick assessment of the magnitude of magnetic anomalism of the data. 2. Appropriate filters and control files were designed based on their parameters such as flight height, line spacing, data quality and orientation of the Earth's magnetic field at the time of surveying. 3. A convolution filter was applied to remove ringing artefacts from levelled data for higher order derivatives. This was applied with the purpose of smoothing out unnecessary noise, while preserving magnetic data and retaining geological information. 4. From the final processed residual magnetic intensity data (RMI), the following grids are produced: a. First vertical derivative of the residual magnetic intensity (RMI)_1vd.
	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.	

Criteria	JORC-Code Explanation	Commentary
		b. Second vertical derivative of the residual magnetic intensity (RMI_2vd) c. The residual magnetic intensity reduced to pole (RTP) d. First vertical derivative of the reduced to pole (RTP_1vd) e. Second vertical derivative of the reduced to pole (RTP_2vd) f. Analytic Signal calculated from the residual magnetic intensity (AnSig) g. Tilt calculated from the residual magnetic intensity (RMI_TILT) h. The horizontal tilt derivative of the residual magnetic intensity (RMI_TILTHD) 5. An imagery suite is produced for each grid with a variety of colour ranges. For example, the RMI is delivered with the following colour ranges: a. Non-linear distribution (histogram equalization) b. Non-linear with no shading effects c. Non-linear in black and white d. Linear distribution e. Linear with a 0.5% histogram clip f. Linear with a 2 or 5% histogram clip g. Linear with no shading effects h. Normal distribution 6. Two custom EarthEx interpreter's views (iView) that maximize structural detail while retaining the magnetic intensity information using hybridized imaging algorithms using: a. The RMI, RMI_1vd and RMI_2vd (iView#1) b. The RMI and RMI_TILT (iView #2) Two inversions were completed for both blocks using VOXI-3D-susceptibility inversion code. These inversions implemented one mesh with a cell size of 25x25x12.5 m (X,Y,Z) for the Gullwing NS block and 10x10x5 m for the Gullwing EW block. This allowed the entire exMAG data set to be inverted in a single mesh for each block. The data sets can be further divided into sub-sets to specific areas of interest to improve the model resolution in the near-surface for those areas. The input magnetic data for the inversion is the final RMI grid for Gullwing project. The input digital elevation model (DEM) is a provided by the Shuttle Topography Radar mission (SRTM 1 Arc Second) available online, which was used to extend coverage of the DEM and provide elevation data over the padding of the inversion mesh.

Criteria	JORC-Code Explanation	Commentary
		Inversion parameters were optimized, including error tolerance, weighting, focussing constraints and detrending of data.
Drilling techniques	*Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., 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 was undertaken
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	•No drilling was undertaken
	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.	
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.*	• Not applicable, as no drilling has been undertaken.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	• Not applicable, as no drilling has been undertaken.
	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.	

Criteria	JORC-Code Explanation	Commentary
	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.	
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.*	• Not applicable, as no drilling has been undertaken.
	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.	
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	• Not applicable, as no drilling has been undertaken. Data is stored in a cloud-based storage system and on company laptop hard drive.
	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.	
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.*	Navigation was controlled by an integrated GPS Inertial Measurement System with Magnetic Heading Sensors. The data was collected in UTM WGS 84, zone 34N grid system, the converted to MGI 1901/ Balkans Zone 6. The project topographic surface was generated from a LiDAR survey to an accuracy of approximately 0.05m. It is considered sufficiently accurate for the Company's current activities.
	Specification of the grid system used.	
	Quality and adequacy of topographic control.	
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Line spacing was 25m, height at ~30m, and 250m tie line spacing.

Criteria	JORC-Code Explanation	Commentary
	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.	
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.*	The magnetics survey grid was aligned to cross the majority of the known structures, stratigraphy and mineralisation.
	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.	
Sample security	*The measures taken to ensure sample security.*	Not applicable, as no drilling has been undertaken.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Not applicable, as no samples has been taken.

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 Mavis Lake Lithium Project consists of 1097 unpatented Single Cell Mining Claims and six separate surface leases which secure the surface rights of the land required for the Project footprint. The Gullwing-Tot/Northern Prospects area consists of 358 individual unpatented Single Cell Mining Claims. All claims and leases are active and in good standing. The leases have a term of 21 years and are not set to expire until 2032, at which time they can be renewed for an additional 21 years if required.
	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.	
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Previous exploration has been conducted by a number of parties including Lun-Echo Gold Mines Limited (1956), Selco Mining Corporation (1979-1980), Tantalum Mining Corporation of Canada Limited (1981-1982), Emerald Field Resources (2002), International Lithium Corp (2006-2021) and Pioneer Resources Limited/Essential Metals Limited (2018-2021). Power Metals prospecting programs (2018 and 2022)
Geology	*Deposit type, geological setting and style of mineralisation.*	The Fairservice and Mavis Lake Prospects host zoned pegmatites that are prospective for lithium and tantalum The Gullwing-Tot area hosts pegmatites that are prospective for lithium and tantalum.
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:*	No drilling was undertaken
	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.	

Criteria	JORC-Code Explanation	Commentary
	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.	
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.*	No data aggregation was carried out and no truncation or top cuts of results were employed.
	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.	
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	The geometry of any mineralized bodies is not known at this stage.
	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').	
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.*	Refer to images in the main document.

Criteria	JORC-Code Explanation	Commentary
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 to avoid misleading reporting of Exploration Results.*	All known and relevant geological data has been 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*	All known and relevant data has been reported.
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).*	• Field investigations of the recently identified anomalies presented in this report is planned. •Reconnaissance drilling is imperative to confirm models/investigations and observations with the objective of detecting bedrock lithium mineralisation.