ASX Announcement



11 September 2023

Thick Mineralised Intercepts up to 67.85m Across Multiple Zones, Including a Continuous 53.6m Intercept

Highlights

- In-fill drilling continues to strengthen and expand the "Swell Zone" at Mavis Lake, with multiple wide mineralised zones logged down-hole after recent drilling including;
 - MF23-214 with mineralised intercepts totaling 67.85m including a continuous **53.6m** intercept with visual estimates of spodumene of 10%
 - MF23-226 with mineralised intercepts totaling 61.75m with visual estimates of spodumene at 15%
 - MF23-225 with mineralised intercepts totaling 33.95m with visual estimates of spodumene at 20%
- The new mineralised intercepts are located along trend from the recently reported diamond drill-holes MF23-207 to MF23-211, which returned intersections of 40-74m at grades ranging from 1.18% Li₂O to 1.25% Li₂O.
- A series of in-fill drilling intercepts have delineated mineralised widths significantly greater than the current Inferred Mineral Resource Estimate (MRE) and has identified possible new mineralised zones, highlighting the potential to add substantial tonnage to a future MRE.
- Assay results from 15 holes are pending and will be released to market as soon as they become available.

Lithium exploration and project development company Critical Resources Limited ASX:CRR ("Critical Resources" or "the Company") is pleased to advise that follow-up drilling targeting the recently discovered Swell Zone at the Mavis Lake Lithium Project in Ontario, Canada has intersected further thick mineralised pegmatite zones, adding significant momentum to its current resource growth drilling program.

Logged intercepts from recent in-fill drilling, along trend from the breakthrough intercept of 74.4m grading 1.18% Li₂O including 32.9m @ 1.81% Li₂O (see ASX release, 24 July 2023), have continued to

¹ In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. The reported intersections are down hole measurements and are not necessarily true width. Descriptions of the mineral amounts seen and logged in the core are qualitative, visual estimates only. Refer to Cautionary Note – Visual Estimates

highlight the significance of the Swell Zone discovery. This includes several in-fill intercepts which are an order of magnitude wider than previous Resource modelling.

Current drilling forms part of a resource upgrade drilling program which commenced in June 2023. Through its exploration efforts, Critical Resources is seeking to establish Mavis Lake as the largest single-site, JORC Code 2012 Compliant Lithium Resource in Ontario.

Full exploration results are provided in Appendix 1.

In-fill Drilling

Recent drilling continues to successfully intersect the Swell Zone laterally, towards both the east and west. The Company has deliberately opted for a tight in-fill drill-hole spacing (25-50m spacing) to facilitate conversion of as much of the Resource to the higher-confidence Indicated category as part of a future Mineral Resource upgrade.

The Swell Zone occurs within and extends outside of the current Inferred Mineral Resource Estimate (MRE) shapes and, as such, is expected to add considerable tonnage to a future MRE upgrade.

The Swell Zone is likely emplaced in a remnant shear structure which could be related to regional shear structures. Shearing is located proximally to the pegmatite contacts within the host rock, multiple oriented measurements indicate the direction of the shearing is concordant to the pegmatite emplacement.

The trend of the Swell Zone is becoming more apparent and current drill results illustrate increased understanding of the emplacement, geometry and trend of the mineralised zone.

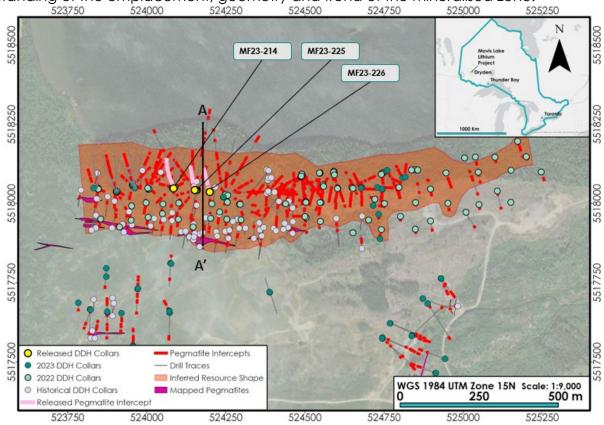


Figure 1 – Plan view of Mavis Lake with the Figure 3 cross-section reference

While the Swell Zone intercepts contain pervasive spodumene mineralization, the intercepts often contain multiple "core zones" that are characteristic of higher concentrations of spodumene as shown in Figure 2.

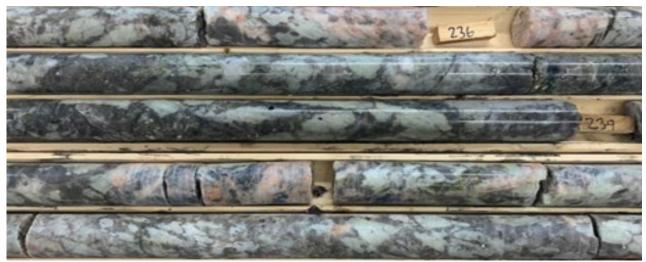


Figure 2 – Large Spodumene lathes in dark grey quartz from drill hole MF23-225

In-fill drilling of the Swell Zone is currently tracking towards the east, with recent logged intercepts in drill-holes MF23-225 and MF23-226 highlighting significant growth potential.

Both drill holes intersected mineralised pegmatite two-three times the width of the current MRE shapes, indicating a clear pathway to resource upgrade in terms of both tonnage and category.

Recent drilling has also identified a possible significant new Lower Zone. An initial intercept from drill hole MF23-208 (13.3m at 1.56% Li₂O from 343.9m down-hole – refer to ASX Announcement released 21 August 2023) has been interpreted to link with a lower zone intersected in drill-holes MF23-214, MF23-225 and MF23-226.

Key details are shown in Table 1, with the intercept cross-section shown in Figure 3.

The potential new Lower Zone has not been factored in previous resource modelling and presents as an immediate target for follow-up drilling.

Table 1 – Significant Results from Drill-holes MF23-214, MF23-225 and MF23-2261

	Main Zone Intercepts						
Hole ID	From	То	Length	Visual Estimate of Spodumene	Zone Area		
MF23-214	186.25	239.85	53.6	10%	Swell Zone		
and	242.9	251.7	8.8	10%	Swell Zone		
and	349.55	355	5.45	10%	Lower Zone		
MF23-225	208	233.75	25.75	20%	Swell Zone		
and	346.7	354.9	8.2	20%	Lower Zone		
MF23-226	145.7	155.65	9.95	15%			
and	205.6	237.15	31.55	15%	Swell Zone		
and	339.3	359.55	20.25	15%	Lower Zone		

Future Work

Drilling is continuing to test and further define both the Swell Zone and the Lower Zone. The western portion of the Swell/Lower trend is a high-priority and has yet to be thoroughly drill tested.

In order to test the western limits and the down-dip potential of the Swell Zone, a series of new drill pad permits are required (and are currently awaiting regulatory approval).

Current drilling is focused on extending the Swell Zone to the east through targeted in-fill drilling, while also targeting the Lower Zone at the same time.

Drill core samples from new 15 drill-holes have been sent for assay with results pending.

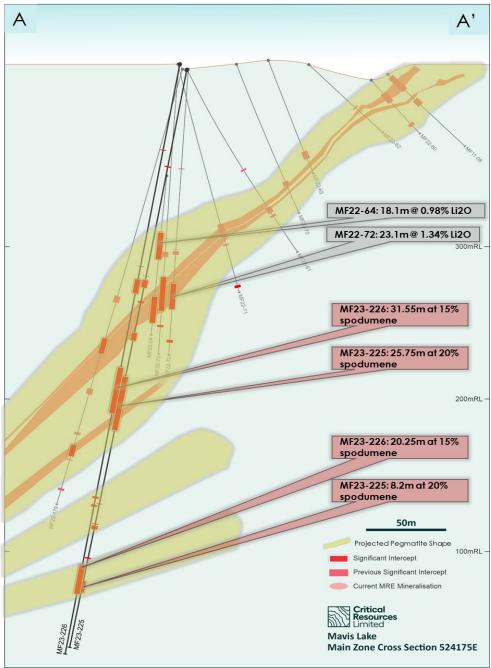


Figure 3 – Cross-section of drill-holes MF23-225 and MF23-226 with Projected pegmatite (yellow) overlayed on the current MRE shape (light red) ¹

Critical Resources Managing Director, Alex Cheeseman said:

"Our confidence and understanding of the Mavis Lake mineralisation continues to increase with every drill hole. Drilling is now hitting thick mineralised pegmatite regularly, as the Swell Zone is tracked to the east and west.

"The addition of a possible new Lower Zone also provides an exciting opportunity to add tonnage to a future Resource upgrade.

"We also must not lose sight of the significance of what is happening in the region surrounding Mavis Lake. Southern Ontario and Michigan State are being subjected to billions of dollars of investment to build out electric vehicle manufacturing and supply chain capacity.

"This investment further reinforces the enormous strategic opportunity for the Mavis Lake Project to become an integral part of the booming North American battery raw materials market."

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

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ABOUT CRITICAL RESOURCES LIMITED Critical Resources is advancing and developing critical metals projects for a decarbonised future. The Company holds a suite of lithium prospects across Ontario, Canada, including Mavis Lake, Graphic Lake, Plaid and Whiteloon Lake. The Company's other projects include a copper project in Oman, and a base metals project in Halls Peak NSW, Australia. The Company's primary focus is the rapid development of its flagship Mavis Lake Lithium Project. Mavis Lake is an advanced exploration project with near-term development potential. The Company completed over 19,500m of drilling in 2022 and has commenced another significant drilling program in 2023. In early 2023, Critical Resources released its maiden JORC Code 2012 Compliant Inferred Mineral Resource Estimate (MRE) for Mavis Lake with 8.0Mt at 1.107% Li2O – making Critical Resources just one of two ASX-listed companies with a JORC Code 2012 compliant mineral resource in Ontario. In parallel, the Company has also commenced initial studies that will underpin the transition from explorer to developer.

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.

CAUTIONARY NOTE - VISUAL ESTIMATES The Company stresses that the reported visual estimated percentages in Table 1 relate specifically to the abundance of spodumene logged in the drill core and is not estimated lithium grade for the interval. In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. Laboratory assay results are required to determine the widths and grade of the visible mineralisation reported in preliminary geological logging. The Company will update the market when laboratory analytical results become available. The reported intersections are down hole measurements and are not necessarily true width. Descriptions of the mineral amounts seen and logged in the core are qualitative, visual estimates (they are listed in order of abundance of estimated combined percentages). Quantitative assays will be completed by Activation Lab.

COMPLIANCE STATEMENT This announcement contains information regarding the Mavis Lake Mineral Resource Estimate extracted from ASX market announcement dated 5 May 2023 and reported in accordance with the 2012 JORC Code

and available for viewing at criticalresources.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in any original announcement and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. This document contains information on the Mavis Lake Lithium Project extracted from ASX market announcements reported in accordance with the 2012 JORC Code and available for viewing at www.criticalresources.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in any original ASX market announcement. ASX announcements pertaining to key assays are as follows: Drill Hole MF22-64 refer to ASX announcement dated June 16 2022, Drill Holes MF22-72 refer to ASX announcement dated July 21 2022, Drill Holes MF22-85 refer to ASX announcement dated 28 September 2022, Drill Hole MF23-211 refer to ASX announcement dated 21 August 2023

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.

Appendix 1 - Exploration Results

Table 2 - Drill Hole Summary

Hole ID	Date Drilled		UTM Zone 15N (NAD83)		Collar Orientation		Metres Drilled		
Hole ID	Start Date	End Date	Easting	Northing	Elevation	Az	Dip	Casing Depth	End Depth
MF23-214	28-Jul-23	01-Aug-23	524085	5518048	439	345	-75	3	377
MF23-225	28-Aug-23	01-Sep-23	524152	5518043	447	345	-78	3	392
MF23-226	01-Sep-23	05-Sep-23	524199	5518037	445	345	-78	3	377

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC-Code Explanation	Commentary
Sampling techniques	(e.g., cut channels, random chips,	 Oriented NQ core was cut in half using a diamond saw, with a half core sent for assay and half core retained. No other measurement tools other than directional survey tools have been used in the holes at this stage.
	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	 Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples. Sampling is conducted based on core logging, 100% of drill hole core is logged. The core logger is a geologist, has experience in lithium mineralisation, and determines the intervals of samples. All pegmatite intersections are sampled regardless of the visual presence of lithium minerals/spodumene. Host rock is typically not sampled as lithium mineralisation is localized to pegmatites (spodumene mineral) or their alteration halos (holmquistite mineral) within mafic volcanic host rock. Determination of mineralisation has been based on geological logging and photo analysis. Diamond Core drilling was used to obtain 3m length samples from the barrel which are then marked in one metre intervals based on the drillers core block measurement. Assay samples are selected based on geological logging boundaries or on the nominal metre marks.

Criteria	JORC-Code Explanation	Commentary
	may warrant disclosure of detailed information.	Samples will be dispatched to an accredited laboratory (ActLabs) in Dryden, Ontario, Canada for sample preparation and shipment to analysis.
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, facesampling bit or other type, whether	 NQ2 diamond double tube coring by Cyr EF-50 rig was used throughout the hole. Core orientation was carried out by the drilling contractor.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Lithological logging, photography Core samples were measured with a standard tape within the core trays. Length of core was then compared to the interval drilled, and any core loss was attributed to individual rock units based on the amount of fracturing, abrasion of core contacts, and the conservative judgment of the core logger. Results of core
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	loss are discussed below. • Experienced driller contracted to carry out drilling. •In broken ground the driller produced NQ core from short runs to
	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.	 Core was washed before placing in the core trays. Core was visually assessed by professional geologists before cutting to ensure representative sampling. See "Aspects of the determination of mineralisation that are
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.	Material to the Public Report" above.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	

Criteria	JORC-Code Explanation	Commentary					
The total length and percentage of the relevant intersections logged.		 Core samples were not geotechnically logged. Core samples have been geologically logged to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. The core logging was qualitative in nature. All core was photographed 					
		Total length of MF23-214 was 377m • 100% of the relevant intersections were logged. Total length of MF23-225 was 392m • 100% of the relevant intersections were logged. Total length of MF23-226 was 377m • 100% of the relevant intersections were logged.					
Sub-sampling techniques and sample	If core, whether cut or sawn and whether quarter, half or all core taken.	Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative					
preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Oriented NQ core was cut in half using a diamond saw, with half					
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	core sent for assay and half core retained. *Core sample intervals were based in logged mineralisation *No duplicates or second half-sampling *Appropriate method: oriented NQ core cut in half using a diamond saw, with a half core sent for assay and half core					
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	retained					
	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 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.	 Assays methods appropriate for style of mineralisation will be used: UT-7 (Li up to 5%) QOP Sodium Peroxide (Sodium Peroxide Fusion ICPOES + ICPMS. No assay results are available nor have been reported at this time. 					

Criteria	JORC-Code Explanation	Commentary				
	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.	Samples have been sent to an accredited laboratory - Activation Laboratories Ltd. (ActLabs). Either standards or blanks are inserted every 10 th sample interval as a part of a QAQC process. Standard and blank results from recent drilling are within acceptable margins of error.				
	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.	 Activation Laboratory performs internal QA/QC measures. Results are released once all internal QA/QC is verified and confirmed to be acceptable. 				
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No independent verification completed at this stage.				
	The use of twinned holes.	No holes are twins of previous holes.				
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.					
	Discuss any adjustment to assay data.	 All assay results are provided. No adjustments to the assay data. No assay cut off grades are applied. 				
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.	• WGS 1984 UTM Zone 15N.				
	Quality and adequacy of topographic control.	 No specific topography survey has been completed over the project area. 				
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					

Criteria	JORC-Code Explanation	Commentary
	Reserve estimation procedure(s) and classifications applied.	Not relevant to current drilling.
		Not relevant to current drilling.
	Whether sample compositing has been applied.	•Core sample intervals were based in logged mineralisation and no sample composting applied. Reporting of final results includes many weighted average- composting of assay data.
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	The orientation of the mineralisation is unknown. The drilling program is aimed at determining orientation of the mineralisation. If orientation of mineralisation is known or thought to be known, drill holes are planned to intersect at an appropriate angle relative to true width of the mineralisation. Intercepts with mineralisation released are given as downhole widths, not true
	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.	widths unless true widths are stated It is uncertain whether sampling bias has been introduced, or whether the thickness drilled is a true thickness.
Sample security	The measures taken to ensure sample security.	Core samples were stored at the Dryden core yard and core shack under lock and key before delivery to ActLabsGroups in Dryden, Ontario for analysis.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not undertaken at this stage.

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. 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
	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.	years if required.

Criteria	JORC-Code Explanation	Commentary							
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).				elco oration of 2002),			
Geology	Deposit type, geological setting and style of mineralisation.	The Fairservice and Mavis Lake Prospects host zoned pegmat that are prospective for lithium and tantalum				pegmatites			
Drill hole Information	A summary of all information material to the understanding of	Hole ID	Easting 524085	Northing 5518048	Elevation 439	Az 345	Dip -75	End Depth	
	the exploration results including a tabulation of the following information for all Material drill	MF23-225 MF23-226	524152 524199	5518043 5518037	447 445	345 345	-78 -78	392 377	
	holes: Easting and northing of the drill hole collar				ed at a lat ar coordir		upon co	ompletion	
	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.	1							
	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.	Uncut.All aggredaverages.	gate inter	cepts det	ailed on to	ables a	re weigh	ted	
	Where aggregate intercepts incorporate short lengths of highgrade 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.	None used.							

Criteria	JORC-Code Explanation	Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	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.	True width is calculated from logging geologists structural measurements from upper and lower contacts of pegmatite dyke and the host rock. Resource shapes and geometries may aid in determine true widths as the pegmatites chaotic contacts can be miss leading. True widths are provided unless otherwise stated. The precise geometry is not currently known but is being tested by the planned drilling, with diamond drill hole azimuths designed to drill normal to the interpreted mineralised structure. Down-hole length reported, true width has been interpreted.
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.
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.	Representative reporting of all relevant grades is provided in tables to avoid misleading reporting of Exploration Results.
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	
Further work	extensions or depth extensions or large-scale step-out drilling).	Further drilling underway to confirm, infill and extend known mineralisation. A total of 20,000m of drilling for CY2023 has currently been approved with consideration for further extensions at the Board's discretion.