

16 June 2022

## First Mavis Lake Assays Include 7.66m at 1.5% Li<sub>2</sub>O

Critical Resources Limited (ASX:CRR) ("Critical Resources" or the "Company") is pleased to announce assay results from drill hole MF22-64 (Hole 5) from its 100% owned Mavis Lake Lithium Project in Ontario, Canada. Hole 5 contained medium to large, cream coloured spodumene laths correlating with higher-grading lithium oxide assays, including 7.66m at 1.5% Li<sub>2</sub>O. Additionally, 24 of 25 drill holes have intersected spodumene-bearing pegmatite including four additional holes which include 14.7m of pegmatite with spodumene mineralisation from 146 to 160.70m downhole.

## **Highlights**

MF22-64 (Hole 5) Assay Results<sup>2</sup>

- 18.1m @ 0.98% Li<sub>2</sub>0 from 159.1 to 177.2m downhole, including:
  - 15.53m @ 1.1% Li₂O from 161 to 176.53m downhole
  - o 7.66m @ 1.5% Li<sub>2</sub>O from 161 to 168.66m downhole
  - 5.66m @ 1.68% Li<sub>2</sub>O from 161 to 166.66m downhole
- Several intervals of spodumene zonation contain higher grades up to 2.03% Li<sub>2</sub>O
- 24 out of 25 drill holes have intersected spodumene-bearing pegmatite mineralisation, the four most recent drillholes have intersected spodumene-bearing pegmatite within Pegmatite 6 including:

#### Hole 22

14.7m of white-grey, fine to large spodumene laths from 146 to 160.70m 1,2,3

#### Hole 23

13.2m of white-grey, fine to large spodumene laths from 163 to 176.2m<sup>1,2,3</sup>

#### Hole 24

• 6.7m of white-grey, fine to large spodumene laths from 122.05 to 128.75m 1,2,3

#### Hole 25

- 5.35m of white-grey, fine to large spodumene laths from 115.05 to 120.4m<sup>1,2,3</sup>
- Samples and core from completed drill holes have been sent for analysis
- Planning and permitting has commenced to extend the current drill program

<sup>1</sup>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. 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.

<sup>2</sup>The reported intersections are down hole measurements and are not necessarily true width

<sup>3</sup>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 Labs in Dryden, Ontario.



The Company is pleased to announce first assays from its 100% Mavis Lake Lithium Project in Ontario Canada. Assay data for Hole MF22-64 (Hole 5) has confirmed lithium mineralisation, correlating with initial visual results identified immediately post-drilling (ASX announcement 04 May 2022). Assays have proven the presence of lithium mineralisation across an 18.1m intercept with an average grade of 0.98% Li<sub>2</sub>O from 159.1 to 177.2m downhole and up to 7.66m of 1.5% Li<sub>2</sub>O from 161 to 168.66m downhole.

Further intersections of spodumene mineralisation have also been encountered in Holes 22 – 25 including 14.7m in Hole 22 from 146 to 160.70m downhole.

The Company's inaugural 5,000m drill program is approximately 50% completed and planning is underway for an extension to approximately 10,000m.

Critical Resources Managing Director Alex Biggs said: "Our first assays from Mavis Lake are very promising indicating a wide, high grade zone of  $\text{Li}_20$ . With significant grades within the 18.1m zone we are excited that this is a good starting point in defining the potential that Mavis Lake has to offer. Our drilling is continuing with all but one hole intersecting spodumene bearing pegmatite mineralisation. Additionally, we are very pleased to see continued significant intersections of spodumene in our most recent drill holes. We look forward to updating the market in due course with further results".

#### MF22-64 (Hole 5) Assay Results Elevated Lithium throughout Pegmatite 6 interval

MF-22-64 was designed to test lithium grade continuity and width at depth within Pegmatite 6. The hole intersected a 10.4m true width spodumene-bearing pegmatite and confirms significant lithium mineralisation at a downhole depth of 159.1m. Pegmatite 6 remains open at depth, down dip from this intersection. The higher grading Li<sub>2</sub>O values correlate well with local metre-scale zonations of increased spodumene mineralisation as shown in Table 1.



Figure 1: White pegmatite hosts fine to medium, white-grey, spodumene crystals intersected from 159.1 to 177.2m depth in Hole MF22-64 (Hole 05). Close-ups illustrate significant spodumene mineralisation.



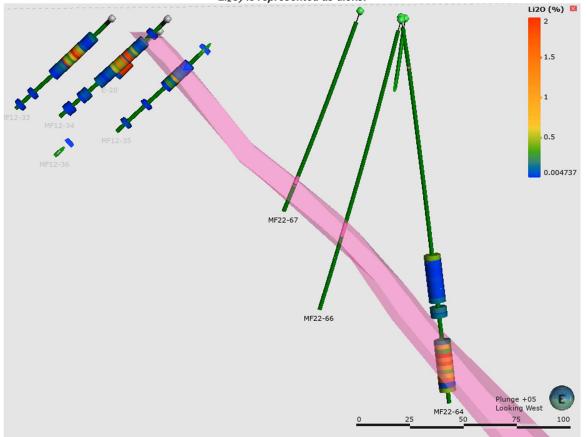
Table 1: Assay results from Hole MF22-64 (Hole 5)

Hole ID	From (m)	To (m)	Down Hole Interval (m)	Li2O (%)	True Width (m)
MF22-64	159.1	177.2	18.1	0.98	10.4
Including	161	176.53	15.53	1.1	8.9
	161	168.66	7.66	1.5	4.4
	161	166.66	5.66	1.68	3.2
	161	162.82	1.82	2.03	1
And	162.82	164.76	1.94	1.27	1.1
And	164.76	166.66	1.9	1.79	1.1
And	172.56	174.56	2	1.5	1.2

Table 2: Drill Hole Summary

Hole ID	Date D	rilled	UTM Zone 15N (NAD		NAD83)	Collar Orientation		Metres Drilled	
	Start Date	End Date	Easting	Northing	Elevation	Az	Dip	Casing Depth (m)	End Depth (m)
MF22-64	May 1, 2022	May 2, 2022	524253	5518025	448	319.9	-80.2	6	185

Figure 2: Cross-section, looking west, of Pegmatite 6 (pink shape) with previous drill hole traces (grey) and recently drilled holes of MF22-64, MF22-66, and MF22-67 (note: measurement in meters). Lithium Oxide (% of Li<sub>2</sub>O) is represented as disks.





#### Four more holes continue to intersect spodumene-bearing pegmatite within Pegmatite 6

#### Hole MF22-81 (Hole 22)

#### 14.7m interval of spodumene-bearing pegmatite intersected at depth

MF-22-81 was designed to test the lithium mineralisation continuity at depth. The thickness of the Pegmatite 6 is expanding at greater depths while maintaining significant lithium mineralisation. Local intervals of spodumene zonation occur internally within the pegmatite unit with visual analysis identifying fine to medium, white-grey spodumene crystals.

Figure 3: White pegmatite hosts fine to medium, white-grey, spodumene crystals intersected from 146 to 160.7m depth in Hole MF22-81 (Hole 22). Close-ups illustrate significant spodumene intervals



#### Hole MF22-82 (Hole 23)

#### 13.3m interval of spodumene-bearing pegmatite intersected at the greatest depth to date

MF-22-82 intersected spodumene-pegmatite at the greatest vertical depth to date within Pegmatite 6. Spodumene continues to be intersected throughout pegmatite 6 at previously unexplored depths. Visual analysis identified fine to medium, white-grey spodumene crystals The infill program is providing confidence of continuous spodumene mineralisation.



Figure 4: White pegmatite hosts fine to medium, white-grey, spodumene crystals intersected from 163 to 176.2m depth in Hole MF22-82 (Hole 23). Close-ups illustrate significant spodumene intervals



#### Hole MF22-83 (Hole 24)

#### 6.7m of interfingered spodumene-bearing pegmatites intersected in step-out drill hole

MF-22-83 intersected several metre scale spodumene-bearing pegmatite dykes interfingered by mafic volcanic host. Visual analysis identified fine to medium, white-grey spodumene crystals.

Figure 5: White pegmatite hosts fine to medium, white-grey, spodumene crystals intersected from 122.05 to 128.75m depth in Hole MF22-83 (Hole 24). Close-ups illustrate significant spodumene intervals



#### Hole MF22-84 (Hole 25)

#### 5.35m of pervasive spodumene mineralisation throughout pegmatite intersection

MF-22-84 intersected fine to large spodumene laths pervasively throughout the pegmatite intersection, where as typically the pegmatite hosts intervals of spodumene zonation. Visual analysis across the interval identified fine to medium, white-grey spodumene crystals



Figure 6: White pegmatite hosts fine to medium, white-grey, spodumene crystals intersected from 115.05 to 120.4m depth in Hole MF22-84 (Hole 25). Close-ups illustrate significant spodumene intervals



Figure 7: Cross-section, looking west, of Pegmatite 6 (pink shape) with previous drill hole traces (grey) and recently drilled holes of MF22-74, MF22-75, MF22-76, MF22-78, MF22-81 (note: measurement in metres)

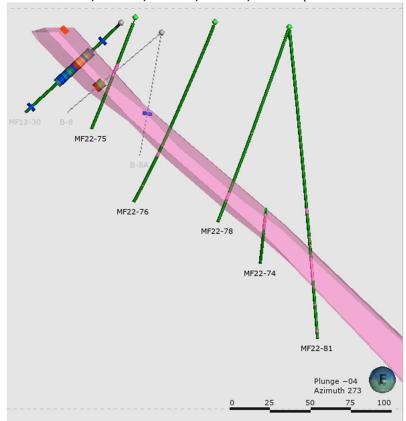
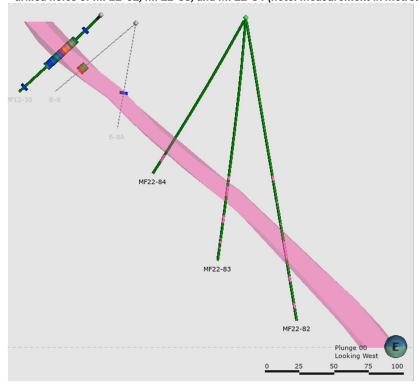
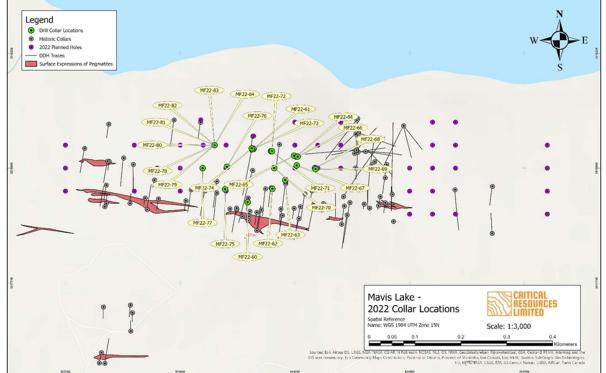




Figure 8: Cross-section, looking west, of Pegmatite 6 (pink shape) with previous drill hole traces (grey) and recently drilled holes of MF22-82, MF22-83, and MF22-84 (note: measurement in metres)









#### **Mavis Lake Project Description**

The Mavis Lake Lithium Project is 19 kilometres east of the town of Dryden, Ontario. The Project is in close vicinity to the Trans-Canada highway and railway major transportation arteries linking larger cities such as Thunder Bay, Ontario, to the southeast and Winnipeg, Manitoba, to the west. The region boasts excellent infrastructure with hydro-power located a few kilometres to the south-west of the project. The region is a well-established lithium province with multiple projects located within the vicinity.

Previous drill programs have yielded high-grade Li<sub>2</sub>O intercepts including:

- 55.25m at 1.04% Li<sub>2</sub>O from 80.75m in drill hole MF18-53 and
- 26.30m at 1.70% Li<sub>2</sub>O from 111.9m inc. 7.70m at 2.97% Li<sub>2</sub>O from 130.5m in drill hole MF17-491.

These results present significant exploration potential, a summary of previous results can be seen in ASX announcement dated 25 October 2021. A future work program has been determined and is outlined in detail in ASX announcement dated 13 Dec 2021.

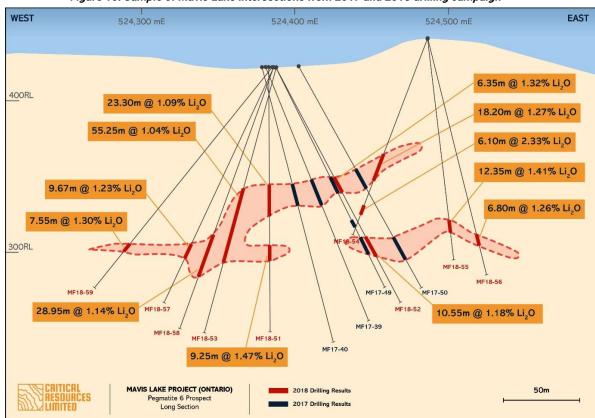


Figure 10: Sample of Mavis Lake intersections from 2017 and 2018 drilling campaign





Figure 11: Mavis Lake project location

#### **Deposit Type and Exploration Thesis**

Previous exploration campaigns at Mavis Lake have confirmed the presence of lithium-bearing pegmatites.

The pegmatite occurrences at Mavis Lake are found within the correct zonation for lithium enrichment from the Ghost Lake Batholith, a fertile granite intrusion. The zonation of pegmatite occurrences can be seen in Figure 12.

The recently conducted airborne survey (see ASX announcement 01 February 2022) demonstrated the potential continuity of geological trends between Pegmatite 6 and Pegmatite 18. This potential continuity represents new areas of interest for the company that will be investigated via surface mapping and sampling with the aim of identifying new drill targets.



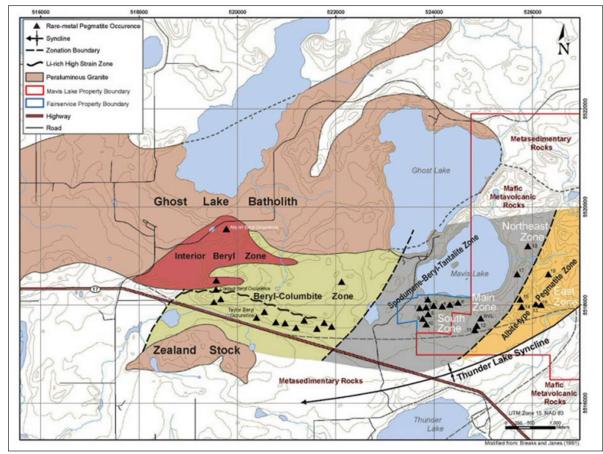


Figure 12: Regional zonation of Mavis Lake Pegmatite group

Sources: Demmeier and Mercier (2011), modified from Breaks and James (1991)

#### The Lithium Industry in Ontario

Canadian Government's C\$3.8 Billion Critical Minerals Strategy

Recently announced strategy by the Canadian government to boost domestic production of lithium, copper and other strategic minerals to help propel the country's efforts to become a key part of the global electric vehicle supply chain. The spending, announced during Canada's federal budget unveiling on 7 April 22, promises grants for mineral surveying, processing, and recycling, as well as tax credits for the development of new mines and subsidies for infrastructure.

#### Ontario's First-Ever Critical Mineral Strategy

In March of 2022 the government of Ontario announced their first-ever critical minerals strategy. The strategy aims to secure Ontario's position as a global leader of responsibly sourced critical minerals. To achieve this, collaboration is dependent between government, industry, Indigenous peoples, communities, and other stakeholders. Working together, this strategy will build a stronger, more resilient economy and revitalise local communities. The strategy is comprised of six pillars, or areas of government action, which will solidify Ontario's position as a global leader of responsibly sourced critical minerals. The pillars are; Enhancing geoscience information and supporting critical minerals exploration, Growing Domestic processing and creating resilient supply chains, Improving Ontario's regulatory framework, Investing in innovation, research, and development, Building economic development opportunities with Indigenous partners, and Growing labour supply and developing a skilled labour force.

#### Tesla Battery Gear Manufacturing Plant Opens

Tesla has recently announced the opening of a battery gear manufacturing plant in Markham, Ontario demonstrating the significant opportunity for Ontario to become one of the world's leading lithium provinces. The facility will be the first branded Tesla Canada manufacturing facility in Canada. A significant amount of activity in the lithium exploration sector is currently occurring in Ontario. Due to the



quality of lithium assets in the region, the fundamental drivers behind the lithium market and the intent of North American manufacturers to source lithium for battery manufacturing from localised supplychains, it is an excellent time to be gaining a foothold in Ontario.

#### Thunder Bay Regional Lithium Refinery

Avalon Advanced Materials Inc (TSX:AVL) has recently announced the agreement of a binding letter of intent to develop a regional battery supply chain in Ontario and elsewhere. The first step of this development will be establishing a lithium refinery in Thunder Bay, Ontario, approximately 350km from the Mavis Lake Lithium Project. The plant aims for a production capacity of 20,000 tonnes per annum of lithium hydroxide and/or lithium carbonate. Sources of lithium concentrate will be initially from Avalon's Separation Rapids Lithium Project while other projects begin production.

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

-End-

#### **EXPLORATION WORK - COMPETENT PERSONS STATEMENT**

The information in this ASX Announcement that relates to Exploration Results is based on information compiled by 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 Ltd. Troy 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". Troy Gallik consents to the inclusion in this ASX Announcement of the matters based on his information in the form and context in which it appears.

#### FORWARD LOOKING STATEMENTS

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing



obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

#### NO NEW INFORMATION

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

#### **ABOUT CRITICAL RESOURCES LIMITED**

Critical Resources is a base metals and lithium exploration and development focused company headquartered in Perth, Western Australia and is listed on the Australian Securities Exchange (ASX:CRR). The Company has recently been undergoing a structured process of change at the Director and Executive level. These changes mark the commencement of a renewed focus by the Company on providing shareholder value through the exploration, development and advancement of the Company's long held NSW assets, its newly acquired Lithium assets in Canada and also of its Copper assets in Oman.



# **Appendix 1: MF22-64 Assay Results**

Hole ID	Sample ID	From (m)	To (m)	Length (m)	Li20 (%)	Li (ppm)
MF22-64	742068	113.9	115.7	1.8	0.409	1900
MF22-64	742069	115.7	116.18	0.48	0.368	1710
MF22-64	742070	116.18	118.15	1.97	0.023	107
MF22-64	742072	118.15	120.14	1.99	0.016	76
MF22-64	742073	120.14	122.08	1.94	0.005	22
MF22-64	742074	122.08	124.06	1.98	0.006	26
MF22-64	742075	124.06	125.63	1.57	0.031	144
MF22-64	742076	125.63	126.72	1.09	0.025	115
MF22-64	742077	126.72	128	1.28	0.013	59
MF22-64	742078	128	129.8	1.8	0.017	79
MF22-64	742079	129.8	131.62	1.82	0.029	135
MF22-64	742080	131.62	132.9	1.28	0.020	92
MF22-64	742082	132.9	134.5	1.6	0.017	80
MF22-64	742083	134.5	135	0.5	0.159	740
MF22-64	742084	135	136.85	1.85	0.133	618
MF22-64	742085	139	141	2	0.170	788
MF22-64	742086	141	141.46	0.46	0.157	730
MF22-64	742087	141.46	141.84	0.38	0.011	53
MF22-64	742088	141.84	142.2	0.36	0.107	499
MF22-64	742089	142.2	144	1.8	0.147	684
MF22-64	742090	154.74	156.7	1.96	0.187	870
MF22-64	742092	156.7	158.68	1.98	0.872	4050
MF22-64	742093	158.68	159.1	0.42	0.347	1610
MF22-64	742094	159.1	161	1.9	0.334	1550
MF22-64	742095	161	162.82	1.82	2.035	9450
MF22-64	742096	162.82	164.76	1.94	1.270	5900
MF22-64	742097	164.76	166.66	1.9	1.787	8300
MF22-64	742098	166.66	168.66	2	0.965	4480
MF22-64	742099	168.66	170.56	1.9	0.390	1810
MF22-64	742100	170.56	172.56	2	0.900	4180
MF22-64	742102	172.56	174.56	2	1.511	7020
MF22-64	742103	174.56	176.53	1.97	0.045	208
MF22-64	742104	176.53	177.2	0.67	0.066	305
MF22-64	742105	177.2	177.53	0.33	0.329	1530
MF22-64	742106	177.53	179.46	1.93	0.452	2100



# Appendix 2: JORC Table 1 - MF22-64 Assay Exploration Results

2.1 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.	<ul> <li>Oriented NQ core was cut in half using a diamond saw, with a half core sent for assay and half core retained.</li> <li>No other measurement tools other than directional survey tools have been used in the holes at this stage.</li> </ul>
	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	Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples  Core sample interval was based in logged mineralisation
	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.	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.  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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>NQ2 diamond double tube coring by Cyr EF-50 rig was used throughout the hole.</li> <li>Core orientation was carried out by the drilling contractor.</li> </ul>



Criteria	JORC-Code Explanation	Commentary
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 loss are discussed below.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	<ul> <li>Experienced driller contracted to carry out drilling.</li> <li>In broken ground the driller produced NQ core from short runs to maximise core recovery.</li> <li>Core was washed before placing in the core trays.</li> </ul>
	Whether a relationship exists between sample recovery and grade and whether sample bias	Core was visually assessed by professional geologists before cutting to ensure representative sampling.
	may have occurred due to preferential loss/gain of fine/coarse material.	See "Aspects of the determination of mineralisation that are Material to the Public Report" above.
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.	Core samples were not geotechnically logged.     Core samples have been geologically logged 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 core logging was qualitative in nature. All core was photographed
	The total length and percentage of the relevant intersections logged.	•Total length of the MF22-64 was 185m • 100% of the relevant intersections were logged.
Sub-sampling techniques and	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
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	representative samples  •Oriented NQ core was cut in half using a diamond saw, with
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>half core sent for assay and half core retained.</li> <li>Core sample intervals were based in logged mineralisation</li> <li>No duplicates or second half-sampling</li> <li>Appropriate method: oriented NQ core cut in half using a</li> </ul>
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	diamond saw, with a half core sent for assay and half core retained



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.	Assays methods appropriate for style of mineralisation:     UT-7 (Li up to 5%)     QOP Sodium Peroxide (Sodium Peroxide Fusion ICPOES + ICPMS      Samples have been sent to highly
		accredited Activation Laboratories Ltd. (Actlabs)
	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.	<ul> <li>Either standards or blanks are inserted every 10<sup>th</sup> sample interval as a part of a QAQC process. Standard and blank results from recent drilling are within acceptable margins of error.</li> <li>Activation Laboratory performs internal QAQC measures.</li> </ul>
	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.	Results are released once all internal QAQC 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.	Core measured, photographed and logged by geologists.     Digitally recorded plus back-up records.
	Discuss any adjustment to assay data.	No adjustments to the 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.	• Drill collars recorded with Garmin GPS that has an accuracy in the order of ±3 metres for location. A registered surveyor will be contracted to accurately survey all drill collars at completed of drill program.
	Specification of the grid system used.	
	Quality and adequacy of topographic control.	• WGS 1984 UTM Zone 15N
		No specific topography survey has been completed over the project area
Data spacing and distribution	Data spacing for reporting of Exploration Results.	



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.	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.	• The orientation of the mineralisation is unknown. The drilling program is aimed at determining orientation of the 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.	• 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

2 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.	<ul> <li>The Mavis Lake Lithium Project consists of 189 unpatented Single Cell Mining Claims and six separate surface leases which secure the surface rights of the land required for the Project footprint.</li> <li>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.</li> </ul>
	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.	



Criteria	JORC-Code Explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• Previous exploration has been conduced 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).
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
Drill hole Information	A summary of all information material to the understanding of the exploration	
inivi mauvii	results including a tabulation of the	Hole ID Easting Northing RL Azimuth Dip To Depth
	following information for all Material drill holes:	MF22-64 524253 5518035 448 319.9 -80.2 185
	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.	• Not relevant



Criteria	JORC-Code Explanation	Commentary
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	Uncut      All aggregate intercepts detailed on tables are weighted averages.
	typical examples of such aggregations should be shown in detail.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	
		• None used
Relationship between mineralisation widths and	These relationships are particularly important in the reporting of Exploration Results.	• True width is calculated from logging geologists structural measurements from upper and lower contacts of pegmatite dyke and the host rock. Both apparent downhole lengths and true widths are provided.
intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The precise geometry is not currently known but is being tested by the planned drilling, with diamond drill hole azimuths designed to
	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').	drill normal to the interpreted mineralised structure.  • Down-hole length reported, 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.	The drilling is aimed at clarifying the structure of the mineralisation.
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.



Criteria	JORC-Code Explanation	Commentary
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.	Overview of exploration data leading to selection of drill targets provided.  There were no deleterious elements identified
Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale stepout drilling).	• Drill program of 49 holes for a total of 5,000m to confirm, infill and extend previous drilling conducted by various parties.



# Appendix 3: JORC Table 1 - MF22-81, MF22-82, MF22-83, and MF22-84 Exploration Results

3.1 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.	<ul> <li>Oriented NQ core was cut in half using a diamond saw, with a half core sent for assay and half core retained.</li> <li>No other measurement tools other than directional survey tools have been used in the holes at this stage.</li> </ul>
	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	Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples  Core sample interval was based in logged mineralisation  Determination of mineralisation has been based on
	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.	<ul> <li>geological logging and photo analysis.</li> <li>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.</li> <li>Assay samples will be selected based on geological logging boundaries or on the nominal metre marks.</li> <li>Samples will be dispatched to an accredited laboratory (ActLabs) in Dryden, Ontario, Canada for sample preparation and shipment to analysis</li> </ul>
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).	<ul> <li>NQ2 diamond double tube coring by Cyr EF-50 rig was used throughout the hole.</li> <li>Core orientation was carried out by the drilling contractor.</li> </ul>



Criteria	JORC-Code Explanation	Commentary
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 loss are discussed below.
	Measures taken to maximise sample recovery	
	and ensure representative nature of the samples.	Experienced driller contracted to carry out drilling.     In broken ground the driller produced NQ core from short runs to maximise core recovery.
		Core was washed before placing in the core trays.
		Core was visually assessed by professional geologists before cutting to ensure representative sampling.
	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.	• See "Aspects of the determination of mineralisation that are Material to the Public Report" above.
Logging	Whether core and chip samples have been	Core samples were not geotechnically logged.
	geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Core samples have been geologically logged 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 core logging was qualitative in nature. All core was photographed
	The total length and percentage of the relevant intersections logged.	•Total length of the MF22-81 was 197m
	retevant intersections togged.	• 100% of the relevant intersections were logged.
		•Total length of the MF22-82 was 221m
		• 100% of the relevant intersections were logged.
		Total length of the MF22-83 was 176m  100% of the relevant intersections were logged
		• Total length of the MF22-84 was 134m
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	No sampling completed at this stage
sample preparation	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.	No assays have been conducted for this drill program.  Techniques will be updated when assays are completed.		
	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.	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.	Core measured, photographed and logged by geologists.     Digitally recorded plus back-up records.		
	Discuss any adjustment to assay data.	No assay data received at this stage		
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.	• Drill collars recorded with Garmin GPS that has an accuracy in the order of ±3 metres for location. A registered surveyor will be contracted to accurately survey all drill collars at completed of drill program.		
	Specification of the grid system used.			
	Quality and adequacy of topographic control.	• WGS 1984 UTM Zone 15N		
		No specific topography survey has been completed over the project area		
Data spacing and distribution	Data spacing for reporting of Exploration Results.			



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.	Not relevant to current drilling.  Not relevant to current drilling.
	Whether sample compositing has been applied.	
		No 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 orientation of the mineralisation is unknown. The drilling program is aimed at determining orientation of the 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.	• 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 will be stored the Dryden core yard 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

### 4 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.	<ul> <li>The Mavis Lake Lithium Project consists of 189 unpatented Single Cell Mining Claims and six separate surface leases which secure the surface rights of the land required for the Project footprint.</li> <li>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.</li> </ul>
time of reporting time of reporting time to the contract of th	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.	



	JORC-Code Explanation	Commentary						
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• Previous exp including Lun Corporation ( Limited (1981 Lithium Corp Metals Limite	-Echo Gold (1979-1980 (-1982), En (2006-202	d Mines Lim )), Tantalum nerald Field '1) and Pion	iited (19 Mining Resour	956), Selco Corporat ces (2002)	Mining ion of C ), Intern	g Canada Cationa
Geology	Deposit type, geological setting and style of mineralisation.	• The Fairser that are prosp					oned pe	gmatite
Drill hole Information								
	A summary of all information material to the understanding of the exploration results including a tabulation of the	Hole ID	Easting	Northing	RL	Azimuth	Dip	To Depth
	to the understanding of the exploration	MF22-81	524076	5518047	443	55	-80	Depth 197
	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		-	_			-	Depth
	to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	MF22-81 MF22-82	524076 524075	5518047 5518048	443 442	55 350	-80	197 221
	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	MF22-81 MF22-82 MF22-83	524076 524075 524074	5518047 5518048 5518047	443 442 440	55 350 176	-80 -80 -85	197 221 176
	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	MF22-81 MF22-82 MF22-83	524076 524075 524074	5518047 5518048 5518047	443 442 440	55 350 176	-80 -80 -85	197 221 176
	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	MF22-81 MF22-82 MF22-83	524076 524075 524074	5518047 5518048 5518047	443 442 440	55 350 176	-80 -80 -85	197 221 176



Criteria	JORC-Code Explanation	Commentary
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	Uncut      All aggregate intercepts detailed on tables are weighted averages.
	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.	
		• None used
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	True width not currently known. All lengths are down-hole lengths and not true width.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	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.
	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').	• Down-hole length reported, 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.	The drilling is aimed at clarifying the structure of the mineralisation.
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.



Criteria	JORC-Code Explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Overview of exploration data leading to selection of drill targets provided.      There were no deleterious elements identified.
Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale stepout drilling).	• Drill program of 49 holes for a total of 5,000m to confirm, infill and extend previous drilling conducted by various parties.