## ASX ANNOUNCEMENT

RELEASED 30 OCTOBER 2023



# High Grade Lithium Intercepted at Lake Johnston

## **Highlights**

- First drill holes into Burmeister lithium soil anomaly intersect high grade mineralisation up to 2.28% Li<sub>2</sub>O
- Five of the six holes completed intersected pegmatite with all pegmatite intervals hosting lithium mineralisation in spodumene
- An average assay grade of 1.46% Li<sub>2</sub>O returned for fresh pegmatite with down-hole widths of between 9m and 12m
- The Burmeister lithium soil anomaly covers an area of 4.5km by 1.7km –
   with drilling completed on two lines 200m apart
- Drilling to recommence immediately

TG Metals Limited (**TG Metals** or the **Company**) (ASX:TG6) is pleased to provide this update on exploration drilling activities at the Lake Johnston Li-Ni-Au Project (Figure 1).

## **Lithium Drilling**

Initial drilling of the Burmeister lithium soil anomaly within the Lake Johnson Project has intersected spodumene bearing pegmatite with high grades up to 2.28% Li<sub>2</sub>O. Better results (provided in detail in Table A and Table C) include -

- 9m @ 1.35% Li<sub>2</sub>O from 30m
  - o including 1m @ 2.03% Li<sub>2</sub>O from 32m and 1m @ 2.21% Li<sub>2</sub>O from 37m
- 9m @ 1.62% Li<sub>2</sub>O from 87m
  - o including 1m @ 2.28% Li<sub>2</sub>O from 87m

#### TG Metals CEO, Mr. David Selfe stated;

"These are exceptional initial drilling results especially since we have only tested such a small part of the soil anomaly. There appears to be multiple pegmatites with consistent widths of between 8 to 12 metres, that are completely mineralised with spodumene. The targeted soil geochemical anomaly is very large and remains open, particularly to the east. The next phase of drilling will begin shortly and is proposed to test both the lateral and depth potential of this lithium pegmatite system. We are planning for an immediate follow up drilling campaign.

Table A – Significant RC drilling pegmatite intercepts >0.5% Li<sub>2</sub>O, downhole widths are approximate to true widths. Pegmatite samples include both fresh and weathered (lithium depleted) samples.

Hole ID	FROM (m)	TO (m)	Intercept (m)	Li <sub>2</sub> O %	Lithology
TGRC0006	30.00	39.00	9.0	1.35	Pegmatite
Including	32.00	33.00	1.0	2.03	Pegmatite
Including	37.00	38.00	1.0	2.21	Pegmatite
TGRC0007	26.00	32.00	6.0	0.79	Pegmatite
Including	29.00	30.00	1.0	1.12	Pegmatite
TGRC0010	113.00	121.00	8.0	1.25	Pegmatite
Including	115.00	121.00	6.0	1.36	Pegmatite
TGRC0011	87.00	96.00	9.0	1.62	Pegmatite
Including	87.00	88.00	1.0	2.28	Pegmatite
Including	88.00	96.00	8.0	1.53	Pegmatite

The RC drilling program (Phase 1) was designed as the initial test of a large lithium soil anomaly, previously defined by TG Metals (ASX announcement 10 July 2023). This lithium anomaly covers an area of approximately 4.5km by 1.7km, with the Phase 1 drilling testing a higher tenor area of anomalism (Figures 2 and 3).

Six holes were drilled to a minimum 120m and maximum 132m depth, dipping 60° to the West on two lines 200m apart (Figures 3, 6 and 7).

Multiple stacked, shallow-dipping pegmatites are interpreted from the drilling. The pegmatites have a consistent width of 8m to 12m and dip approximately  $10^{\circ} - 15^{\circ}$  to the west (on section Figures 6 and 7).

The pegmatites at shallow depths have been affected by weathering, resulting in a lower tenor of lithium mineralisation, due to the decomposition of the spodumene mineral. The weathering profile appears shallow and is not expected to be a significant hinderance to defining nearsurface high grade lithium pegmatites.

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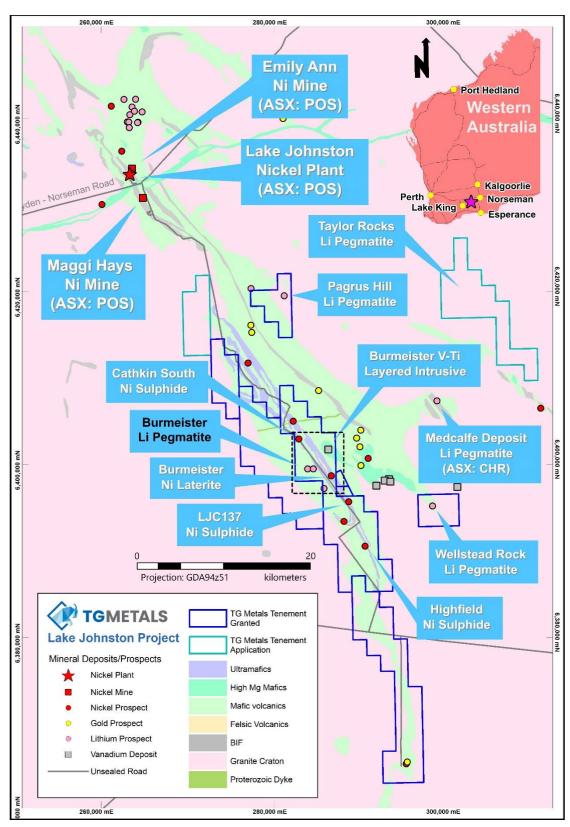
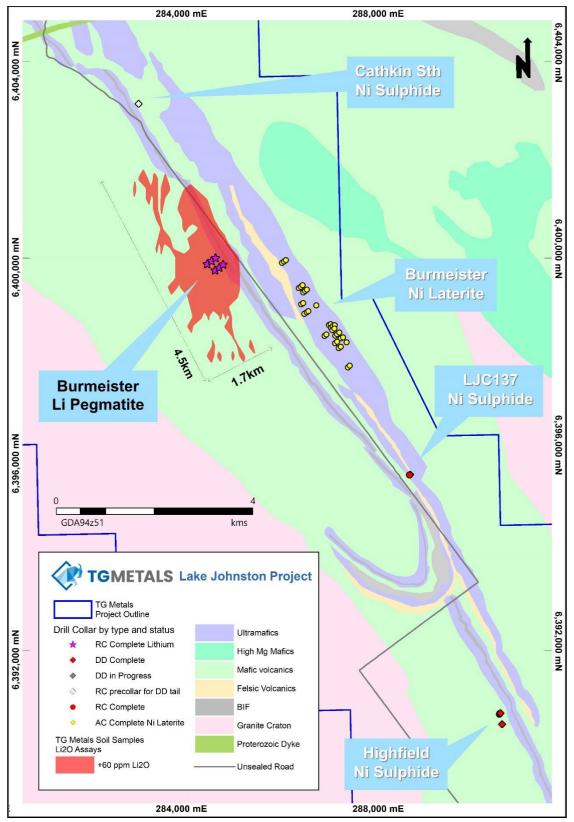


Figure 1 – Simplified Geology with prospect locations Datum: AMG Zone 51 (GDA94). The dashed outline of the lithium focused area of interest within the Lake Johnston Project

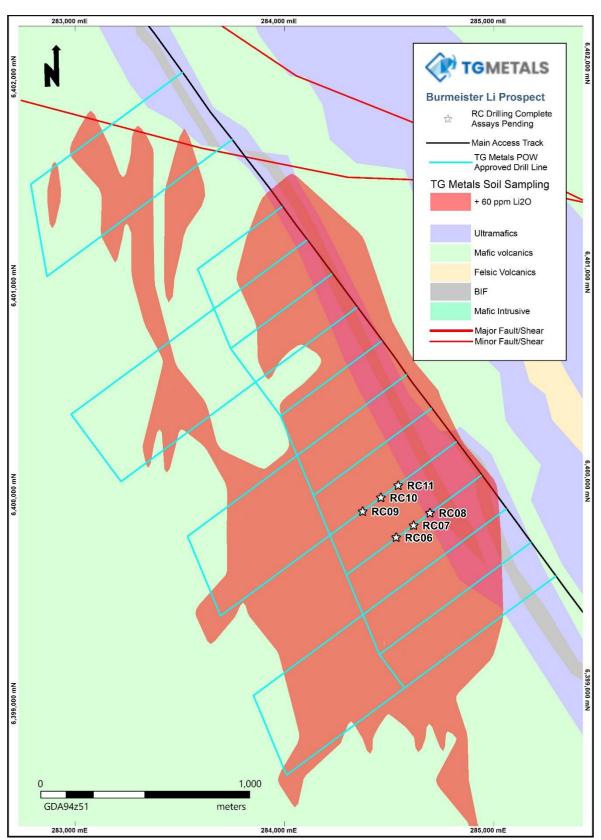




**Figure 2** – Burmeister lithium pegmatite drilling showing 60ppm LiO<sub>2</sub> soil grade contour with RC, AC and diamond drilling, major structures and simplified geology Datum: AMG Zone 51 (GDA94).

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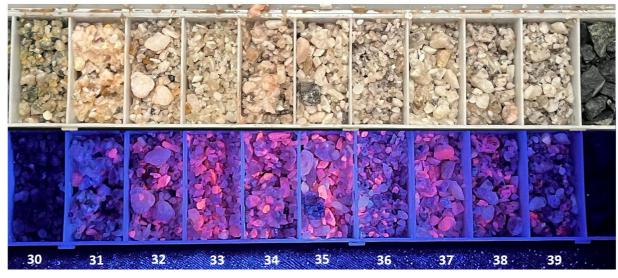
**Figure 3** – Burmeister lithium pegmatite drilling showing 60ppm LiO<sub>2</sub> soil grade contour with RC drill locations, major structures and simplified geology Datum: AMG Zone 51 (GDA94).



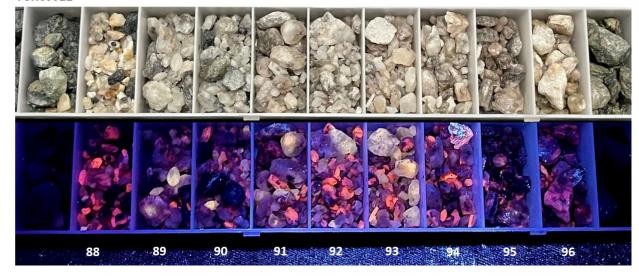
## **Spodumene**

Spodumene has been identified in pegmatite intercepts on RC drill chips in four of the six drillholes completed and corresponds to the lithium grades above 0.5% Li<sub>2</sub>O. In the other two drillholes, the pegmatite intercepts were too weathered to retain spodumene in its fresh state (and hence the depletion of lithium). UV light was used to distinguish the white spodumene from other white gangue minerals (Figure 4) in the pegmatites and selections of these fluorescing spodumene chips were confirmed as spodumene by RAMAN spectroscopy (Figure 5).

#### **TGRC0006**



#### **TGRC0011**



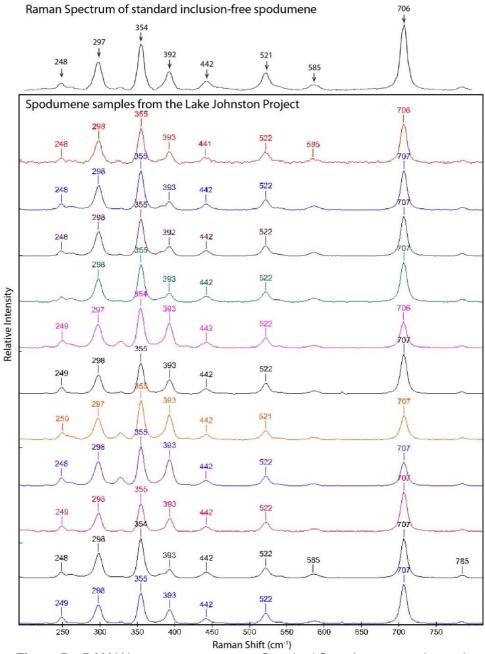
**Figure 4** – RC drill chipsTGRC0006 and TGRC0011 showing pegmatite intercepts (downhole depth in metres shown at base of each photo) under plain light (top) and long-wavelength UV light (bottom). Spodumene fluoresces orange-pink under UV light.



## **RAMAN Spectroscopy**

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RAMAN Spectroscopy is a non-destructive chemical analysis by laser light which provides detailed results on chemical structure, phase, polymorphy, crystallinity and molecular interaction. The Raman shift is the energy difference between the incident light and the scattered light and is expressed in wavenumbers as shown in the output graphs in Figure 5 below. Scans were conducted on the fluorescing minerals in drillhole TGRC00006 and compared to a control sample standard of spodumene. The result confirming the fluorescing minerals as spodumene.



**Figure 5** – RAMAN spectroscopy output, Standard Sample at top and samples from drilling in multi colours to distinguish individual samples



### **Pegmatite Intercepts**

Pegmatite has been intercepted at both upper and lower levels in drillholes only 200m apart along strike. Figure 3 shows the location of the six RC holes drilled, relative to the lithium soil anomaly. The intercepts are interpreted as two separate pegmatite bodies, this is to be confirmed in follow-up drilling. It is common for flat lying pegmatite bodies to be separated by more than 100m vertical distance. Until further drilling is undertaken it is not possible to fully determine the orientation or repetitive nature of the pegmatite bodies. To date, drilling has tested a small area of what appears to be a large system.

Drilled pegmatites remain open down dip, along strike and up dip on the deeper intercepted bodies. Above the base of oxidation pegmatites are degraded and spodumene has been adversely affected however the base of oxidation is shallow in this area of the project.

Figure 6 shows the pegmatite intercepted in the upper part of the weathering profile. The up dip position in hole TGRC0008 is occupied by a small dolerite dyke, down dip is open to the west. Figure 7 shows the pegmatite intercepted deeper down in fresh rock, open both down dip to the west and up dip to the east. It also demonstrates the correlation of elevated Li<sub>2</sub>O soil samples with weathered pegmatites approaching the surface at this location.

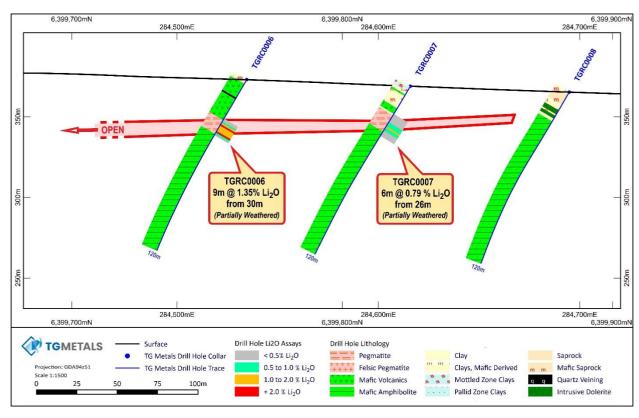
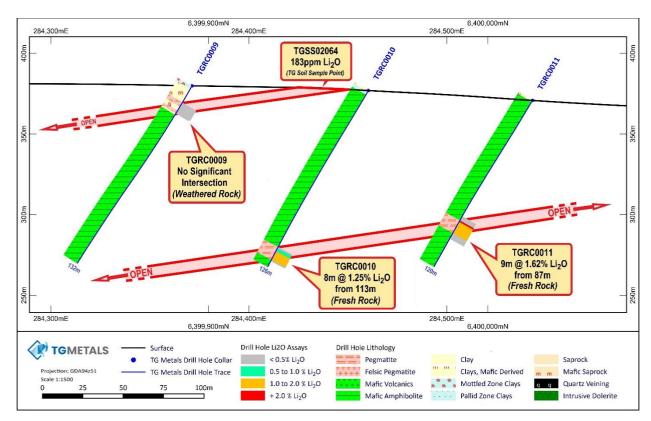


Figure 6 – Cross section TGRC0006 to TGRC0008 showing lithium pegmatite intercepts





**Figure 7** − Cross section TGRC0009 to TGRC0011 showing lithium pegmatite intercepts and correlation to elevated Li<sub>2</sub>O soil sample grades

## **Next Steps**

Drilling approvals are in place for further testing of the large lithium soil anomaly (Figure 3).

In consideration of the Phase 1 drilling results, preparations for Phase 2 are underway, with site works expected to commence in first week of November. The strategy of drilling proposed incudes:

- testing the defined lithium pegmatites at depth and along strike
- testing for further repetitions at depth
- the development of the geological model as more information is gained from drilling
- securing permits for initial diamond core drilling.



#### Other Exploration Activities at Lake Johnston

Diamond core drilling testing nickel sulphide targets is continuing (ASX announcement 2 October 2023).

Aircore nickel laterite samples are to be collected from the field and assessed for beneficiation testwork (ASX announcement 6 September 2023).

Expanded eastern lithium anomaly soil sample assays are pending (ASX announcement 2 October 2023).

#### Appendix 1

Table B - RC Drill Hole Collar Table

	Hole	Easting	Northing				
Hole ID	Type	GDA94 (m)	GDA94 (m)	RL (mASL)	EOH (m)	Azimuth	Dip
TGRC0006	RC	284,532.85	6,399,767.15	379.3	120.0	230.0	-60.0
TGRC0007	RC	284,616.40	6,399,824.53	375.4	120.0	230.0	-59.8
TGRC0008	RC	284,694.73	6,399,884.02	368.8	120.0	236.0	-60.0
TGRC0009	RC	284,372.91	6,399,891.85	390.8	132.0	221.0	-60.0
TGRC0010	RC	284,460.23	6,399,957.52	387.9	126.0	233.0	-60.0
TGRC0011	RC	284,543.09	6,400,016.22	385.7	120.0	231.5	-59.8

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**Table C** – Full Assay Results & Lithology – NSI = No significant lithium assay intercept

Hole ID	FROM (m)	TO (m)	Li <sub>2</sub> O (%)	Lithology	Comments
TGRC0006	28.0	29.0	0.07	Mafic	
TGRC0006	29.0	30.0	0.06	Pegmatite	
TGRC0006	30.0	31.0	0.98	Pegmatite	Partially Weathered
TGRC0006	31.0	32.0	1.06	Pegmatite	
TGRC0006	32.0	33.0	2.03	Pegmatite	
TGRC0006	33.0	34.0	1.24	Pegmatite	
TGRC0006	34.0	35.0	1.11	Pegmatite	
TGRC0006	35.0	36.0	1.29	Pegmatite	
TGRC0006	36.0	37.0	1.45	Pegmatite	
TGRC0006	37.0	38.0	2.21	Pegmatite	
TGRC0006	38.0	39.0	0.79	Pegmatite	Partially Weathered
TGRC0006	39.0	40.0	0.14	Mafic	, ,
TGRC0007	20.0	21.0	0.07	Mafic	
TGRC0007	21.0	22.0	0.04	Pegmatite	Very Weathered
TGRC0007	22.0	23.0	0.03	Pegmatite	Very Weathered
TGRC0007	23.0	24.0	0.07	Pegmatite	Very Weathered
TGRC0007	24.0	25.0	0.07	Pegmatite	Very Weathered
TGRC0007	25.0	26.0	0.32	Pegmatite	Very Weathered
TGRC0007	26.0	27.0	0.91	Pegmatite	Partially Weathered
TGRC0007	27.0	28.0	0.70	Pegmatite	Partially Weathered
TGRC0007	28.0	29.0	0.53	Pegmatite	Partially Weathered
TGRC0007	29.0	30.0	1.12	Pegmatite	Partially Weathered
			0.94		,
TGRC0007	30.0	31.0		Pegmatite	Partially Weathered
TGRC0007	31.0	32.0	0.54	Pegmatite	Partially Weathered
TGRC0007	32.0	33.0	0.20	Pegmatite	Weathered
TGRC0007	33.0	36.0	NSI	Mafic	Now Mostborod
TGRC0009	12.0	13.0	0.03	Pegmatite	Very Weathered
TGRC0009	13.0	14.0	0.07	Pegmatite	Very Weathered
TGRC0009	14.0	15.0	0.09	Pegmatite	Very Weathered
TGRC0009	15.0	128.0	NSI	Mafic	
TGRC0010	112.0	113.0	0.14	Pegmatite	
TGRC0010	113.0	114.0	0.93	Pegmatite	
TGRC0010	114.0	115.0	0.92	Pegmatite	
TGRC0010	115.0	116.0	1.09	Pegmatite	
TGRC0010	116.0	117.0	1.42	Pegmatite	
TGRC0010	117.0	118.0	1.45	Pegmatite	
TGRC0010	118.0	119.0	1.26	Pegmatite	
TGRC0010	119.0	120.0	1.39	Pegmatite	
TGRC0010	120.0	121.0	1.55	Pegmatite	
TGRC0010	121.0	122.0	0.48	Mafic/Peg	
TGRC0011	84.0	86.0	NSI	Mafic	
TGRC0011	86.0	87.0	0.46	Mafic/Peg	
TGRC0011	87.0	88.0	2.28	Pegmatite	
TGRC0011	88.0	89.0	1.63	Pegmatite	
TGRC0011	89.0	90.0	1.78	Pegmatite	
TGRC0011	90.0	91.0	1.67	Pegmatite	
TGRC0011	91.0	92.0	1.62	Pegmatite	
TGRC0011	92.0	93.0	1.01	Pegmatite	
TGRC0011	93.0	94.0	1.81	Pegmatite	
TGRC0011	94.0	95.0	1.27	Pegmatite	
TGRC0011	95.0	96.0	1.48	Pegmatite	
TGRC0011	96.0	97.0	0.47	Mafic/Peg	
TGRC0011	97.0	100.0	NSI	Mafic	

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#### **About TG Metals**

TG Metals is an ASX listed company focused on exploring for nickel, lithium and gold at its wholly owned Lake Johnston Project in the stable jurisdiction of Western Australia. The Lake Johnston Project, Figure 8, boasts proximity to current and past producing nickel mines, processing plants and geochemical and geophysical targets for immediate exploration.

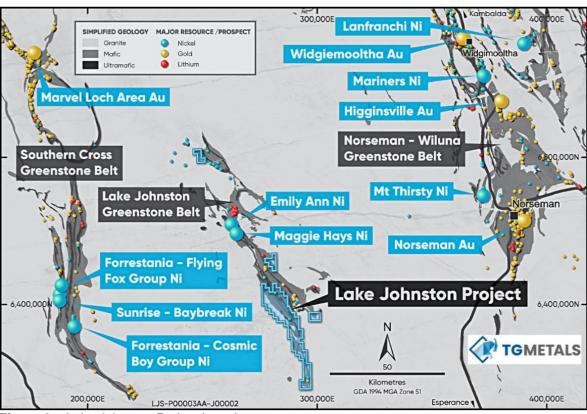


Figure 8 - Lake Johnston Project Location

#### Authorised for release by TG Metals Board of Directors.

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#### **Cautionary Statement – Visual Estimates**

This announcement contains references to visual results and visual estimates of mineralization. The Company draws attention to uncertainty in reporting visual results. Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses 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.

#### **Competent Person Statement**

Information in this announcement that relates to exploration results, exploration strategy, exploration targets, geology, drilling and mineralisation is based on information compiled by Mr David Selfe who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Selfe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities that he is undertaking 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 Selfe has consented to the inclusion in this presentation of matters based on their information in the form and context in which it appears.

#### **Forward Looking Statements**

This announcement may contain certain statements that may constitute "forward looking statements". Such statements are only predictions and are subject to inherent risks and uncertainties, which could cause actual values, results, performance achievements to differ materially from those expressed, implied or projected in any forward looking statements.

Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)" and similar expressions are intended to identify forwardlooking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

The Company believes that it has a reasonable basis for making the forward-looking Statements in the presentation based on the information contained in this and previous ASX announcements.

The Company is not aware of any new information or data that materially affects the information included in this ASX release, and the Company confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the exploration results in this release continue to apply and have not materially changed.

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## JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Reverse Circulation (RC) drill cuttings were bagged and labelled every metre. One calico sample per metre was collected. Only metre interval samples that were logged as 'pegmatite' were analysed for lithium mineralisation, all non pegmatite rock was 4m composite sampled.
		Drill cuttings, (sieved and washed rock chips) logged as pegmatite and stored in chip trays were used for Raman spectroscopy analysis. Rock chips from hole TGRC006 were selected based on UV luminescence as spodumene can have a fluorescent response to UV light.
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	RC samples logged as pegmatite were assayed per metre interval drilled and submitted to Jinning Laboratories. Sample blanks (yellow sand) were inserted at every 50 <sup>th</sup> sample interval. Duplicate sampling will be completed once the assay results have been received. These samples will be selected based on grade range and cover the areas of mineralisation. Duplicate samples will be split from the remainder of the drill cutting and sent to Jinning Laboratories for assay. Jinning Laboratories included and reported their own lithium standards, blanks and pulp duplicates at rates compliant to industry standards.
		Raman spectroscopy was calibrated using reference material (spodumene) in addition to standard daily calibrations and checks as per University of Western Australia (UWA) procedures.
	• Aspects of the determination of mineralisation that are Material to the Public Report.	Certified Laboratory assays – Jinning Laboratoies Pty Ltd RAMAN Spectroscopy at the CMCA, University of Western Australia.
	• In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for	The RC rig used was fitted with a cone splitter (industry standard) from which a representative 3kg sample of the drilling interval was collected directly from the rig. The driller's offsider attached the calico sample bag

Criteria	JORC Code explanation	Commentary
	fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	to the chute designed to collect a 3kg sample for assay, while the remainder of the drill material was collected and placed in a labelled green bag (with hole id and sample interval). The calico bag/sample was then submitted for assay to Jinning Laboratories, Maddington. Samples were sorted, dried and pulverized to less than 75 microns. A 5 gram sample was taken and fused in a furnace (~ 650°C) with Sodium Peroxide using a zirconia crucible. The melt was then dissolved in dilute Hydrochloric acid and the solution analysed. This process provides complete dissolution of most minerals including silicates. Volatile elements are lost at the high fusion temperatures.
		Refer to 'Quality of assay data and laboratory tests' Section 1 of this JORC Table for a detailed description of the process involved in sample preparation and analysis for Raman Spectroscopy.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	All samples for assay were obtained from a RC rig. The reverse circulation drilling process involved a harden metal drill bit that fractures rock driven by a drilling mechanism in the form of a pneumatic reciprocating piston, referred as a 'hammer'. The hammer is used to recover compressed rock samples that have been forced through the rig. Air is pumped through the annulus (a ring-shaped structure) of the rod, the pressure differential generates a reverse circulation, causing the samples to ascend to the inner tube. The drill cuttings (rock sample) reach the top of the rig and delivered to the cyclone through a hose. Drill cuttings will flow through the cyclone via a cone splitter and fall through shoots specifically sized to collect sample splits. TG Metals Limited requested that only one calico bag be collected per drilling interval and the remainder of the drilling cutting collected and placed in the green labelled bag. The calico bags were labelled with a unique sample id. Only the calico/samples logged as pegmatite were collected and dispatched to Jinning Laboratories. All non pegmatite rock was 4m composite sampled.
		The RC holes were angled 60 degrees toward 230 degrees azimuth,

Criteria	JORC Code explanation	Commentary
		perpendicular to general orientation of the local geology. Holes were planned to 120m and were extended at the discretion of the supervising geologist. RC drilling is considered the most appropriate method for drilling fresh rock. It is a proven technique whereby a reliable representative sample can be obtained for assay and rock chips (drill cuttings) can be used to identify lithology geology units.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	RC samples were collected directly from the rig passing through the cyclone and industry standard fitted cone splitter. A labelled calico bag was attached to a shoot at the base of the cyclone and splitter to collect a 12% split of the metre interval (drill cutting) to achieve a 3kg representative sample for assay. The remainder of the drill cutting (metre interval) was placed in labelled 600 x 900 mm green bag, lain on the ground in order of depth (drilled interval) with the calico bag tied securely and placed on top of the green bag. The supervising geologist recorded sample id to corresponding metre interval in the field on the geological log sheet. This data was entered into a spreadsheet and uploaded into micromine mining software.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The volume of RC material recovered was visually checked by the supervising geologist and driller to ensure consistent relative volumes were obtained for each metre interval. The estimated value (recovery) was recorded on the geological log sheet.
	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.	Sample recoveries were consistent during the drill program and no groundwater was encountered to affect air pressure and/or slow the drilling process. An industry standard cone splitter was fitted to the base of the cyclone of the RC rig with shoots configured to collect a 3kg representative sample for assay and remainder collected in labelled green bag. Cone splitters are widely used as literature and studies (AusIMM publication) found to provide the best split in terms of particle size distribution, with no apparent size bias.

Criteria	JORC Code explanation	Commentary
		RC drilling method was selected as appropriate being able to penetrate fresh rock and for generating a suitable sample for assay. RC rigs are designed to drill fresh rock using a significant amount of air pressure to move sample/drill cutting up the rod into the splitter. The importance of maintaining air pressure is imperative to achieving consistent sample return for the interval drilled. Samples were collected every metre interval (m) using markers on the 6m rods. Competent drilling staff maintained consistent air pressure at rod changes resulting in no obvious and significant reduction in sample recoveries that can commonly occur. No groundwater was encountered which too can hinder air pressure and reduce sample return/recovery.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	A portion of the drilled metre interval was placed into a chip tray for geological logging and future reference. Clay intervals were not sieved, however any rock/hard material were sieved for identification. TG Metals Limited geological logging system recognises fresh rock vs regolith and is both qualitative and quantitative Industry and Geological standards were followed. Every metre drilled was collected and logged. Chip trays were used to store the intervals. These have been retained.
Sub- sampling	• If core, whether cut or sawn and whether quarter, half or all core taken.	No core obtained only RC drilling return.
techniques and sample preparation	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Every metre drilled was collected - a calico sample for assay and the remainder of the drill cutting (interval) was retained in industry standard green bags. The calico sample was obtained directly from the chute at the bottom of the cone splitter. This sample was approx. 12% of the total interval drilled and up to 3kg in weight (no less than 2kg)
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Splitting of sample was done directly off the RC rig using a fitted cone spiltter attached to bottom of the cyclone. The sample weight was checked to ensure 2-3kg representative sample was collected for the drilling interval (m)

Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The splitter was checked and cleaned after every metre drilled to ensure no sample build up had occurred. All sample return from the metre interval was captured (calico and green bag). As previously mentioned the cone splitter is proven to provide a representative sample with less bias.
	<ul> <li>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.</li> </ul>	Duplicate sampling will be completed after initial assay results are received. Sample duplicates will cover intervals of mineralisation to ensure a desired range of grade bins are achieved for QAQC checks, statistics and grade variability.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample size was considered appropriate for the style of material.
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.	Jinning Laboratories is a Certified Analytical Laboratory. Samples analysed for multielement (lithium suite) were fused in a furnace (~ 650 °C) with sodium peroxide in a zirconia crucible. The melt was dissolved in dilute hydrochloric acid and the solution analysed. This process provides complete dissolution of most minerals, including silicates. Volatile elements were lost at the high fusion temperatures.
	• 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.	Selected rock chips collected by TG Metals Limited for mineral identification were analysed by RAMAN Spectroscopy at the CMCA, University of Western Australia. Raman spectroscopy was conducted on a WITec Alpha 300RA+ system with an Andor iDUS 401 CCD maintained at -60°C and a 20x objective. An infrared (785nm) laser was used with 600mm-1 grating. The Raman map size is 4mm x 4mm. The mineral identification was conducted by comparing the measured Raman spectra with spectra obtained from Spodumene reference materials. The comparison shows a clear overlap of both reference and measured spectra. Raman spectroscopy has been widely used to identify minerals within the rock samples. Raman spectroscopy is a non-destructive method for identifying minerals and other materials. The method

Criteria	JORC Code explanation	Commentary
		illuminates a mineral with monochromatic light for an illumination duration and a true Raman spectrum is determined. The true Raman spectrum data is compared to reference spectrums to identify the mineral or material by calculating an identification score for each reference Raman spectrum relative to the Raman spectrum data of the unknown material using a formula that includes both a coincident-peak term and a missing-peak-penalty term. Minerals can have overlapping Raman spectrum response, as such any identification of minerals is interpretive and can require collaboration using alternate methods. Ultraviolet (UV) light has also been used in mineral identification. Spodumene can have a fluorescent response to UV light.
	• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	A sand blank was inserted at every 50th sample. Jinning Laboratory included their own lithium standards, blanks and replicates at rates compliant to industry standards.
Verification of sampling	• The verification of significant intersections by either independent or alternative company personnel.	Significant assay intersections were determined by the presence of spodumene by Dr Hua Li
and assaying	The use of twinned holes.	No twinned holes were drilled during campaign.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All primary logging and assaying data was recorded on a MS Excel worksheet (geological log) and loaded into Micromine for validation. Data is retained as a flat table in the Micromine Database. The original MS Excel spreadsheet is also retained. Micromine and server backups are completed weekly.
	Discuss any adjustment to assay data.	All reported assay data was imported into the TG Metals Limited Micromine Database. Only a minor adjustment was made to reported lithium. Jinning Laboratories measure and report lithium as ppm and TG Metals Limited have converted to report as the oxide Li <sub>2</sub> 0%

Criteria	JORC Code explanation	Commentary
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.	The location of each hole, as drilled, was recorded at the collar at ground level with a Garmin Montana 750i Handheld GPS. Accuracy is +/-3m. Satellite coverage was checked every recording to ensure accuracy.
	Specification of the grid system used.	The field datum used was MGA_GDA94, Zone 51. All maps in this report are referenced to GDA94 when merged with Geophysics data.
	Quality and adequacy of topographic control.	Regional Topographic Control was captured using an airborne imagery and LIDAR survey conducted by TG Metals in early 2023. Z level (aka rL) was projected to this surface and updated in the TG Metals Limited collar file. GPS z level is only used outside of this surface.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The drill spacing was a nominal 100m across strike and 200m along strike. This RC drilling campaign was a first pass discovery grid. Drill hole locations were chosen to test surface lithium index soil anomalies.
	• 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.	Too few holes currently have been drilled to establish a MRE. However the primary 100m x 200m is deemed sufficient for an inferred MRE.
	Whether sample compositing has been applied.	Intervals logged as 'not pegmatite' were composite sampled. These results are pending and not yet reported. Only the pegmatite intercepts completed for this campaign were assayed per metre interval with a fast high priority at the lab.
Orientation of data in relation to	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The pattern was rotated to ensure the long axis (200m) was along strike, while the short axis (100-50m) was across strike of the targeted mafic/pegmatite areas.
geological structure	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have	Drilling was done using angled holes on an expected shallow dipping orientated style of mineralisation. No sampling bias was assumed.

Criteria	JOF	RC Code explanation	Commentary
	intro mate	duced a sampling bias, this should be assessed and reported if erial.	
Sample security	•	The measures taken to ensure sample security.	Calico bags were placed for each interval on top of the tied green bag containing the remainder of the drill cutting. A total of 5 calico bags were collected and placed into white polyweave at the end of drilling, and securely cable tied closed. Each polyweave bag was then collected and placed into Bulka Bag on a TG Metals Limited owned tandem trailer. The trailer and samples were driven direct from drill site to the lab by a TG Metals Limited staff member.
Audits or reviews	• data	The results of any audits or reviews of sampling techniques and	Standards and blanks were cross checked against expected values to look for variances of greater than 2 standard deviations.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral Tenement	<ul> <li>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.</li> </ul>	The reported areas were located on exploration tenement E63/1997, 100% owned and operated by TG Metals Limited. This area is under ILUA legislation, and the claimants are the Ndadju people whom TG Metals has a Heritage Protection Agreement with.  The area is also within PNR 84, a proposed nature reserve since 1982.
	• 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.	At the time of reporting there are no known impediments to obtaining a license to operate in the area other than those listed, and TG Metals Limited tenements are in good standing.
Exploration Done by Other Parties	Acknowledgement and appraisal of exploration by other parties.	Exploration in the area previously concentrated on nickel and gold and was conducted by Maggie Hays Nickel, Lionore International, Norilsk and White Cliff Nickel. No recorded lithium exploration has occurred in the subject area in the past.

Criteria	JORC Code explanation	
Geology	Deposit type, geological setting and style of mineralisation.	The deposit type sought is to be Lithium-Cesium-Tantalum (LCT) spodumene bearing pegmatite. LCT mineralised pegmatites within the Yilgarn Craton are commonly low lying intrusives in ultramafic/mafic greenstone sequences of amphibolite metamorphic grade.
Drillhole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole down hole length and interception depth hole length.	Refer to tables and maps in the body text.
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	None used. All assays reported as received.
	• 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 aggregation should be shown in detail.	Aggregate intervals for significant intercepts may include 1m intervals of lower grade material than the cutoff where that interval is bounded top and bottom by higher grade material above cutoff grade and the overall weighted average grade does not drop below the cutoff grade
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	None used.
Relationship Between Widths and Intercept Widths	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	The program was a first pass to test the strong lithium index soil anomaly and determine the orientation of the mineralised pegmatite. This region lacked historical drilling/data and there are no recorded or known rock outcrops to determine local structural controls. However, this RC drill pattern inferred the flat lying orientation of pegmatite at this location from AC drilling at Burmeister Ni Laterite project.

Criteria	JORC Code explanation	
Diagrams	<ul> <li>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 drillhole collar locations and appropriate sectional views.</li> </ul>	Map of the processed data is provided in the body text.
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.	Reporting used a grade cutoff of $0.5\%\ \text{Li}_2\text{O}$ for significant mineralisation. Results below this, unless in an extension into a "low Grade zone" are not reported.
Other Substantive Exploration Data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No historical drilling was available, only non-disturbing ground exploration – open file GSWA regional geophysics and surface soil geochemistry (lithium index completed by TG Metals Limited)
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).	Step out drilling from the RC holes drilled will occur in several phases at TG Metals Limited lithium prospect, Burmeister This will ensure that most drilling is centered around significant mineralisation avoiding 'waste drilling'. RC drilling is considered to be effective for locating and defining LCT pegmatite mineralisation, no geochemical or geophysical techniques are suitable. Diamond tails/holes will be considered when TG Metals Limited commences MRE for ore charatertisation (including waste) and to determine specific gravity (SG) for MRE and mining scoping studies.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Map of the processed data is provided in the body text.