4 October 2023

LITHIUM-BEARING PEGMATITES INTERSECTED IN MAIDEN DRILLING AT TAMBOURAH

Assays from recent RC drilling confirm narrow intervals of lithium mineralisation with grades up to 1.75% Li_2O at the Eastern Prospect, with a much broader pegmatite 55m intercept at the Central Prospect providing a vector for follow-up drilling.

Highlights

- **Maiden first-pass Reverse Circulation (RC) drilling program completed at the 100%-owned Tambourah Lithium Project in the Pilbara region of Western Australia.**
- **The drilling intersected multiple narrow lithium-bearing pegmatites, with intercepts including:**
    - **5m @ 0.69% Li_2O from 36m in TARC002, including:**
      2m @ 1.44% Li_2O from 38m
    - **3m @ 0.45% Li_2O from 147m in TARC008, including:**
      1m @ 0.84% Li_2O from 148m
    - **2m @ 0.72% Li_2O from 24m in TARC012, including:**
      1m @ 1.07% Li_2O from 25m
- **The drill program was extended from a planned 3,800m program to 4,093m comprising a total of 20 holes.**
- **Encouragingly the only hole targeting a geophysical target intersected a substantial width of pegmatite (55m down-hole), opening up the large Central Prospect area as a priority search space for follow-up drilling.**

Trek Metals Limited (ASX: TKM) ("Trek" or "the Company") is pleased to advise that assay results from its maiden Reverse Circulation drill program at the 100%-owned Tambourah Lithium Project, located ~70km south-east of the world-class Pilgangoora lithium deposit in the Pilbara region of Western Australia, have confirmed the presence of fertile lithium-bearing pegmatites.

Trek's CEO Derek Marshall said: *"Intersecting significant lithium grades in pegmatite during our maiden drill program demonstrates the lithium fertility of the Lithium-Caesium-Tantalum pegmatite system we have identified at Tambourah. The key now is to identify a structural setting that may have allowed for a significant accumulation of this high-grade material.*

"Several holes were added into the program, including one into a geophysical target which has returned a significant down-hole width of pegmatite, much greater than was observed on the surface.

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"The success of this hole has provided a method of targeting thicker accumulations of pegmatite in this fertile greenstone belt. The significant grades returned in this first batch of samples have elevated the prospectivity of the greater Tambourah region, although we have further work to do refine our exploration targeting and vector into thicker, high-grade zones of spodumene mineralisation. We look forward to updating the market on the upcoming exploration plans at the Tambourah Project."

The maiden drill program at the Tambourah Project was recently completed and consisted of 4,093m of Reverse Circulation (RC) drilling completed across 20 drill-holes (refer Table 2, Figures 2 & 5 for collar information and location).

Drill-holes were designed to drill test beneath high-grade spodumene-bearing lithium rock chips in the Eastern Prospect area and larger pegmatites in the Central Prospect area, where soil and rock chip sampling indicated that the pegmatites are highly fractionated (*refer ASX: TKM 7th November 2022*).

Significant intercepts have been calculated for drill hole assays from Trek's entire maiden drill program at Tambourah, being holes TARC001 – TARC020 (Table 1, Figures 1 & 2).

Table 1: Significant intercept* table for Tambourah Project maiden drill program (holes TARC001-TARC020)

Hole ID	From (m)	To (m)	Interval (m)	Li_2O (%)
TARC001	74	78	4	0.172
TARC002	**36**	**41**	**5**	**0.691**
	including			
	38	***40***	***2***	***1.437***
TARC002	138	139	1	0.228
TARC003	120	122	2	0.226
TARC003	124	126	2	0.173
TARC004	185	187	2	0.119
TARC007	135	136	1	0.149
TARC008	147	150	3	0.455
	including			
	148	***149***	***1***	***0.837***
TARC009	230	232	2	0.123
TARC009	235	236	1	0.185
TARC012	24	26	2	0.717
	including			
	25	***26***	***1***	***1.072***
TARC012	127	128	1	0.114
TARC013	119	120	1	0.105
TARC013	122	123	1	0.123

**Significant intercepts calculated by weighted average of consecutive intervals with greater than 0.1% Li_2O. Including intercepts calculated by weighted average of consecutive intervals with greater than 0.5% Li_2O.*

The most significant lithium results came from TARC002 (Figures 1 & 2), with an intercept of 5m @ 0.69% Li_2O from 36m including 2m @ 1.44% Li_2O from 38m.

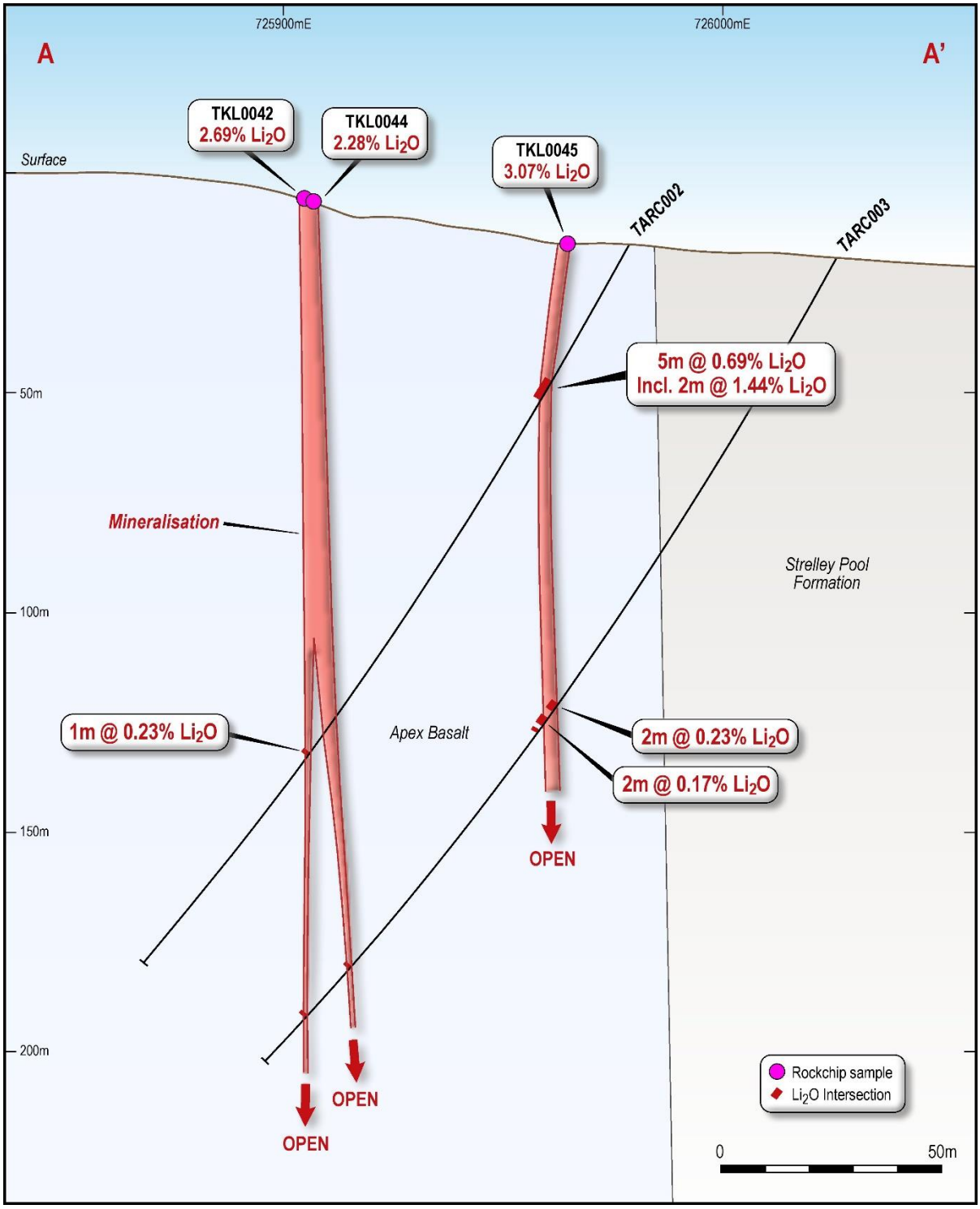

Figure 1: Cross section A-A' (see Figure 2 for location) showing significant intercepts in holes TARC002 & TARC003, drilled under high-grade spodumene-bearing rock chip samples.

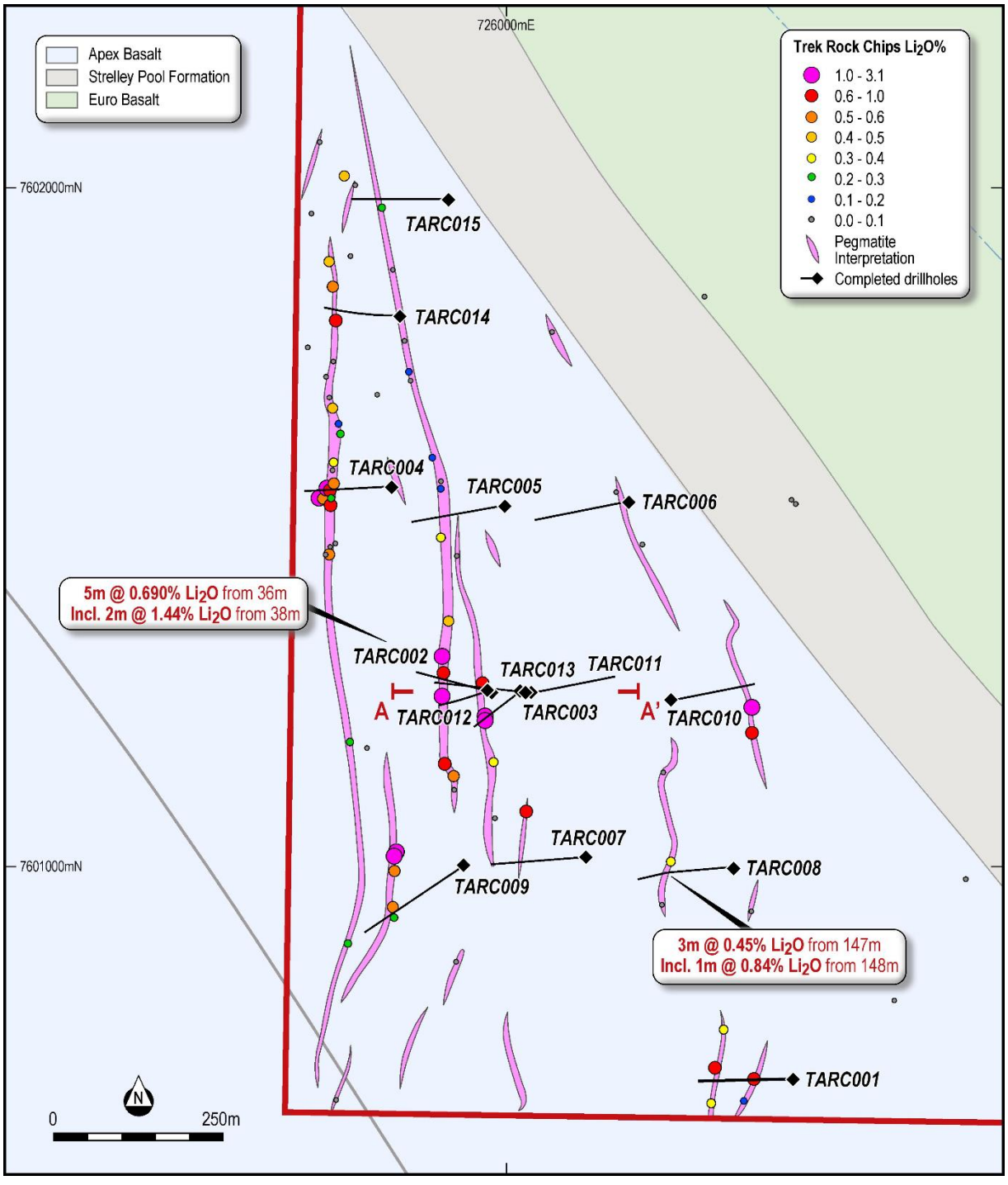

Figure 2: Completed drill-holes in the Eastern Prospect area. Section line A-A' relates to Figure 1.

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Encouragingly, a significant down-hole width of pegmatite (55 metres from 119m down-hole, including 4m of mafic wall rock internal dilution) was intersected in the final hole of the program, TARC020 (Figures 3 & 4). This hole targeted a demagnetised zone, providing a key targeting method for proposed future drill-holes at the project.

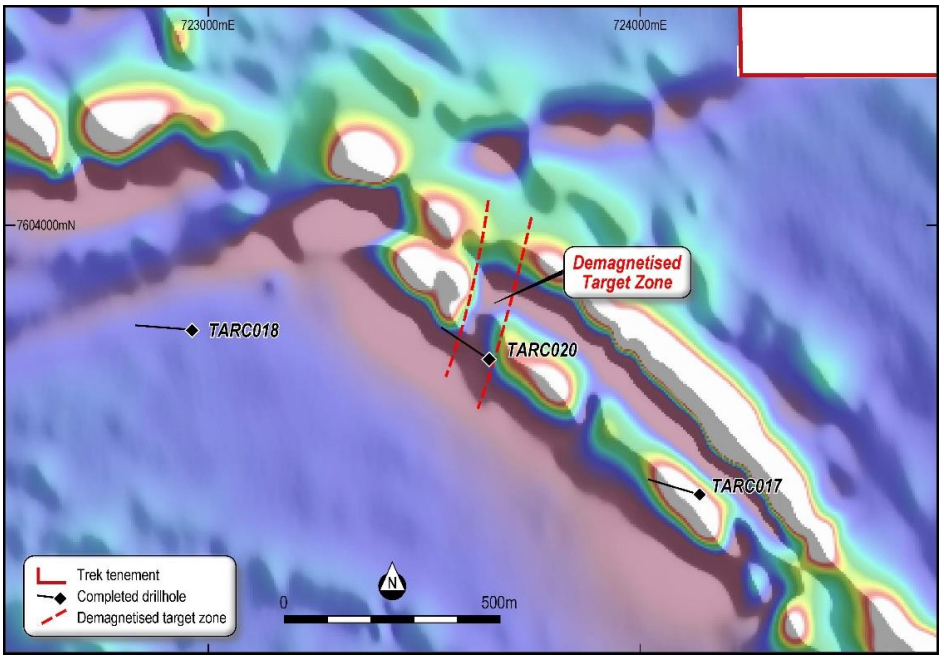

Figure 3: Plan view showing TARC020 targeting a demagnetised zone, seen in aeromagnetic TMI data.

Figure 4: Drill spoil from TARC020 highlighting the significant down-hole intersection of pegmatite (in white).

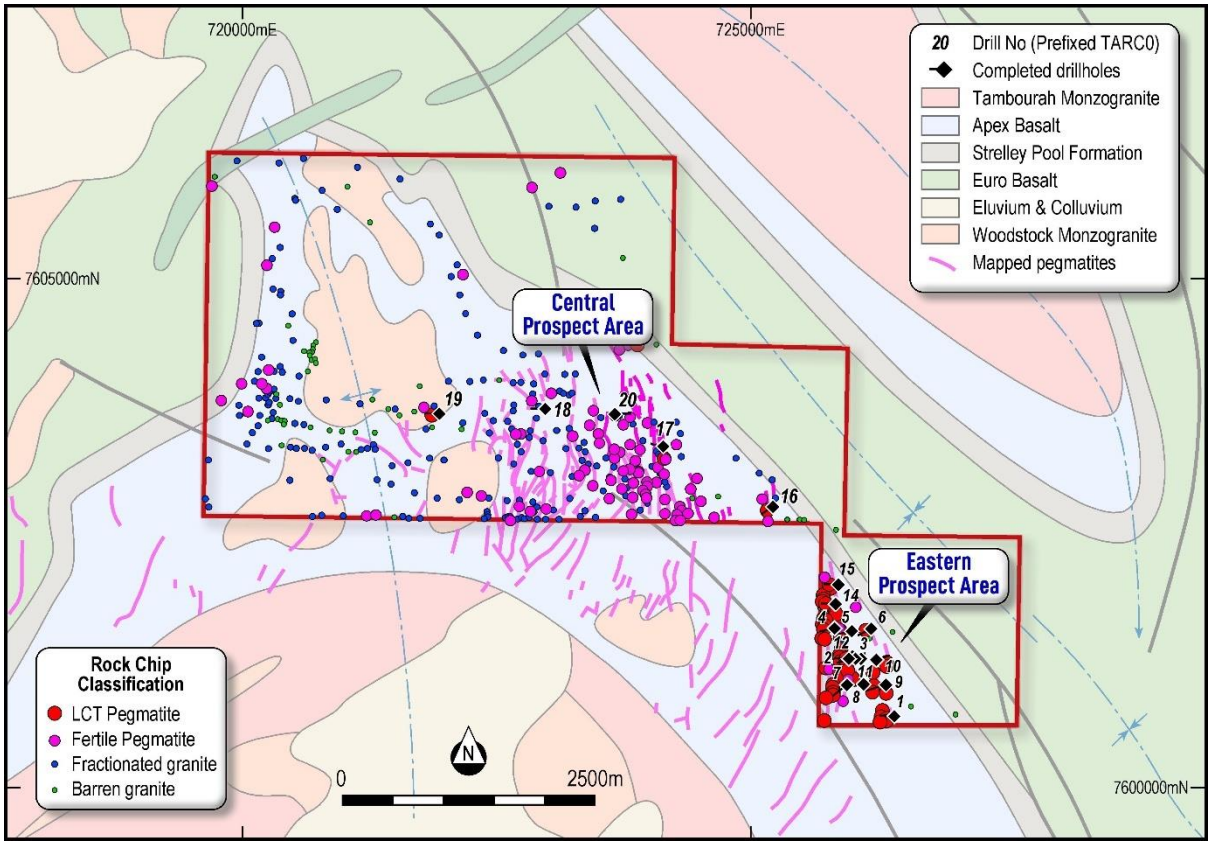

Figure 5: Completed drill-holes across the greater project area (black diamonds with drill hole ID) over rock chip classification and regional geology.

About the Tambourah Project

The Tambourah Lithium Project is located 70km south-east of Pilbara Minerals' (ASX: PLS) world-class Pilgangoora lithium mine site in the Pilbara region of Western Australia (Figure 6). Trek's extensive landholding at Tambourah comprises two Exploration Licences (E45/5484 & E45/5839) which are 100%-owned by ACME Pilbara Pty Ltd, a wholly owned subsidiary of Trek Metals Ltd.

The Project encompasses large areas of the Western Shaw Greenstone Belt, predominantly within the hinge and eastern limb of an anticline folded around the Tambourah Dome. The greenstone rocks comprise Archean-aged metavolcanic, metasedimentary, and various granitoids with associated pegmatitic phases. Historic exploration data highlighted the potential for lithium-bearing pegmatite mineralisation on both of Trek's tenements (*refer ASX: TKM 26th May 2022 for additional information*).

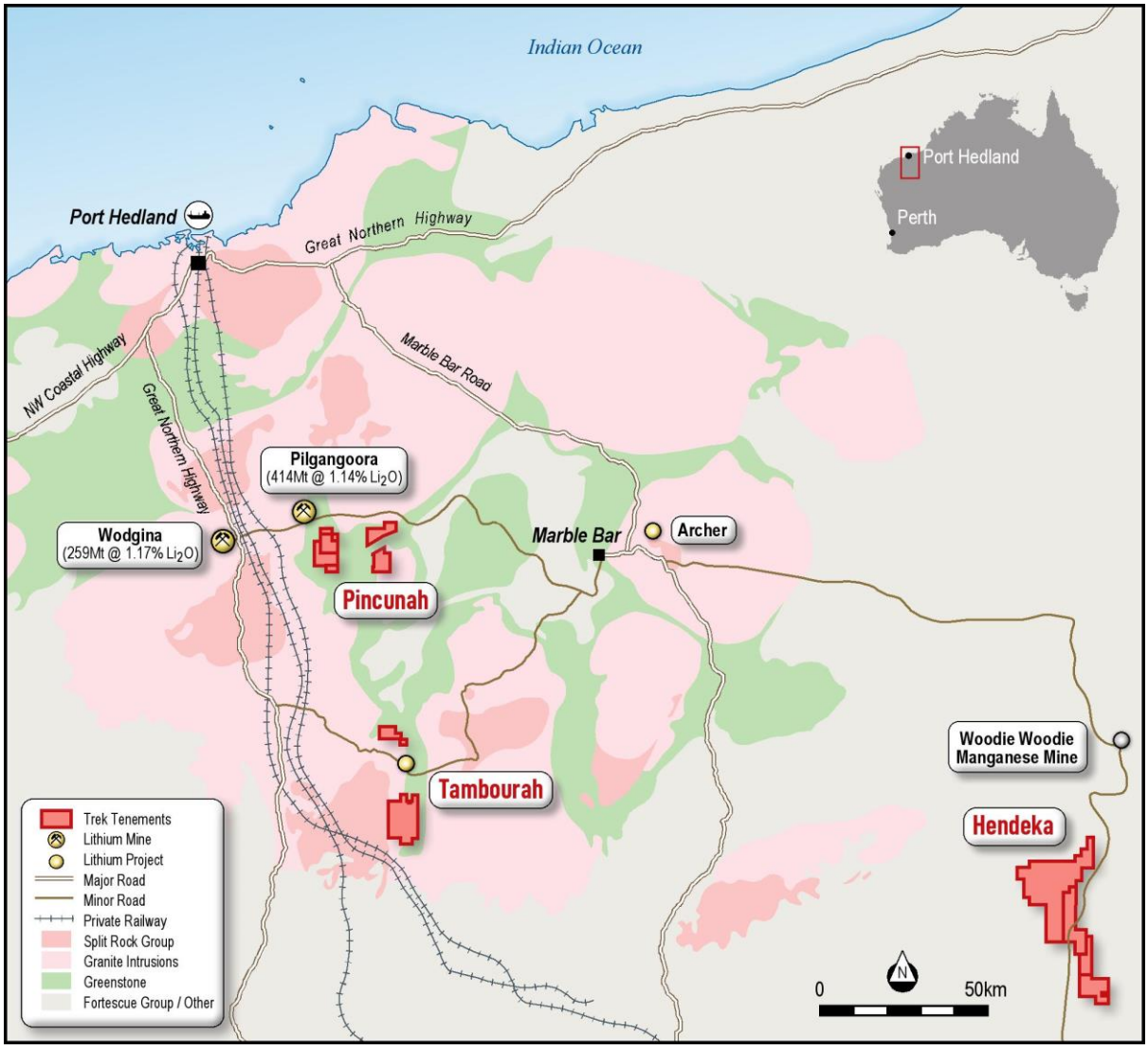

Figure 6: Location of the Tambourah Lithium Project ~70km south-east of world class lithium mines Pilgangoora and Wodgina.

Both stream sediment and rock chip data (Figures 5) indicate the presence of highly fractionated Lithium-Caesium-Tantalum (LCT) pegmatites with the potential for lithium mineralisation. Rock chip data has confirmed the presence of high-grade spodumene lithium mineralisation with individual assays up to 3.07% Li_2O (refer ASX: TKM 7th November 2022 for additional information).

A review upgraded the prospectivity of the Central Prospect area due to the apparent fractionation trends defining classic LCT pegmatite zonation within soil data (*refer ASX: TKM 14th February 2023*). The samples were selected for geochemical analysis due to the abundance of mapped pegmatites, the anomalous lithium values in stream sediment samples and the fertility ratios – e.g., K/Rb in rock chips – in this Central Prospect area (*refer ASX: TKM 7th November 2022*).

Table 2: Reverse Circulation (RC) Drill Collar Details

Hole ID	Easting	Northing	RL	Depth	Azi	Dip	Assays
TARC001	726,433	7,600,688	343	200	269.64	-54.87	Received
TARC002	725,979	7,601,249	342	200	280.57	-60.13	Received
TARC003	726,026	7,601,252	345	226	273.86	-60.94	Received
TARC004	725,829	7,601,559	344	264	269.84	-59.41	Received
TARC005	725,995	7,601,529	338	202	262.62	-55.93	Received
TARC006	726,181	7,601,542	341	196	265.04	-54.32	Received
TARC007	726,114	7,601,008	349	202	266.49	-54.53	Received
TARC008	726,329	7,600,991	343	200	268.73	-53.87	Received
TARC009	725,936	7,601,000	345	250	234.21	-53.92	Received
TARC010	726,254	7,601,243	345	196	78.77	-55.45	Received
TARC011	726,038	7,601,255	339	202	86.86	-55.41	Received
TARC012	725,977	7,601,251	342	142	257.20	-56.14	Received
TARC013	726,018	7,601,256	339	140	233.16	-55.34	Received
TARC014	725,840	7,601,813	336	196	272.91	-55.13	Received
TARC015	725,908	7,601,975	336	274	270.70	-54.67	Received
TARC016	725,256	7,602,820	346	196	236.60	-54.19	Received
TARC017	724,136	7,603,379	353	196	283.88	-55.73	Received
TARC018	722,963	7,603,760	342	214	273.51	-55.30	Received
TARC019	721,926	7,603,699	338	197	275.54	-56.24	Received
TARC020	723,652	7,603,689	344	200	299.05	-55.32	Received

Projection MGA 2020 Z50 EPSG:7850

Authorised by the Board.

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DISCLAIMERS AND FORWARD-LOOKING STATEMENTS

This announcement contains forward looking statements. Forward looking statements are often, but not always, identified A words such as "seek", “target”, "anticipate", “forecast”, "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions.

The forward-looking statements in this announcement are based on current expectations, estimates, forecasts and projections about Trek and the industry in which it operates. They do, however, relate to future matters and are subject to various inherent risks and uncertainties. Actual events or results may differ materially from the events or results expressed or implied by any forward-looking statements. The past performance of Trek is no guarantee of future performance.

None of Trek's directors, officers, employees, agents or contractors makes any representation or warranty (either express or implied) as to the accuracy or likelihood of fulfilment of any forward-looking statement, or any events or results expressed or implied in any forward-looking statement, except to the extent required by law. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

COMPETENT PERSONS STATEMENT

The information in this report relating to Exploration Results is based on information compiled by the Company's Chief Executive Officer, Mr Derek Marshall, a competent person, and Member of the Australian Institute of Geoscientists (AIG). Mr Marshall has sufficient experience relevant to the style of mineralisation and to the type of activity described 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 Marshall has disclosed that he holds or controls Shares and Performance Rights in the Company. Mr Marshall consents to the inclusion in this announcement of the matters based on his information in the form and content in which it appears.

JORC Table 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.* • *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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• Drill sampling is conducted by Trek Metals Limited appointed technical personnel rig side. • The location of drill holes was located by handheld GPS. • RC drilling was sampled on either 1m splits generated by a rig mounted cyclone and cone splitter or 4m composite samples were collected by spear sampling green bags as per standard industry practice. • Selected intervals of 1m samples within target zones and a selected 4m composite sample outside of target zones were selected by a qualified field geologist and submitted to Nagrom Laboratory in Kelmscott for analysis.
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).*	• Early-stage exploration drilling at the Tambourah Project has been undertaken utilizing a track-mounted reverse circulation (RC) drill rig operated by Strike Drilling. • Reverse circulation drilling used a face sampling bit.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Reverse circulation drilling recoveries were good, with any issues noted by supervising geologist and recorded in the database. There was no observed relationship between sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Geological logging descriptions are recorded by a Trek geologist rig side for every metre of RC drill spoil and validated and recorded in the database.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and*	• The preparation of the RC samples follows industry practice with a ~3kg sample retained or dispatched for laboratory assay. • Field QA/QC was undertaken with duplicates, standards and blanks inserted in samples submitted to the laboratory. Additional laboratory QA/QC was

Criteria	JORC Code explanation	Commentary
	appropriateness of the sample preparation technique. • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	completed on laboratory samples. • Sample sizes are considered appropriate for the material and analysis method.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples were analyzed by peroxide fusion digest with ICP finish (ICP004) at Nagrom in Kelmscott. These techniques are considered full digest and appropriate for the elements of interest. • Certified Reference Material (standards), blanks and field duplicate samples were inserted into the sample sequence on a regular basis and performed within acceptable tolerances.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Significant intersections have been reviewed by several alternative company personnel. • All company data has been verified and included in the company database. • Lithium results have been converted from elemental Li to Li_2O for the purpose of reporting. The conversion used was Li_2O = Li x 2.153.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Location of samples & holes were recorded using a handheld GPS which is considered appropriate at this stage of exploration. • Grid projection system is GDA20 MGA Zone 50. • Surface RL data is collected using GPS.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drilling and sampling targeted LCT pegmatite lithium mineralisation and is considered appropriate for this early stage of mineral exploration.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• No orientation bias is considered to have an effect on the data, however this at this early stage of exploration the exact influence is unknown.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by the Company. Samples are freighted directly to the laboratory with the appropriate documentation.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of the sampling techniques or data has been carried out due to the early stage of exploration, it is considered by the Company that industry best practice methods have been employed at all stages of exploration to date.

JORC Table Section 2: Reporting of Exploration Results:
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The Tambourah Project is located 80 km south-west of Marble Bar and comprises granted licences E45/5484 and E45/5839 held by ACME Pilbara Pty Ltd ("APP"), a 100% owned subsidiary of Trek Metals Ltd. • The Project is located on Palyku Country and intersects two determined claims WAD23/2019: Palyku and Palyku #2 (WCD2021/003) & WAD23/2019: Palyku Part A (WCD2019/002) both represented by the Palyku-Jartayi Aboriginal Corporation (PJAC). APP has an Aboriginal Heritage Agreement with PJAC for Exploration Licences E45/5839 & E45/5484 and has undertaken on-country heritage surveys and utilised traditional owner monitors during ground disturbing activities. • E45/5484 has 29% overlap with Class C Reserve R 21802 Pastoral Research Station.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• FMG (2016-2020): Mt Webber (Glacier Valley) Project carried out a stream sediment sampling and rock chip sampling targeting gold, base metal and lithium, tin and tantalum mineralisation. Refer WAMEX Final Surrender Report A124826.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Mineralisation identified at Tambourah is interpreted to be Lithium-Caesium-Tantalum (LCT) pegmatite & orogenic gold. • LCT pegmatites represent the most highly differentiated (enriched in incompatible elements such as lithium, caesium, tin, rubidium and tantalum) and last to crystallize components of certain granitic melts. • LCT pegmatites at Tambourah are predominantly hosted in greenstones of the West Shaw Greenstone Belt, an Archean belt within the Pilbara Craton of Western Australia.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *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*
		• Data provided within body of the announcement, refer Tables 1 & 2.

Criteria	JORC Code explanation	Commentary
	from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Significant intercepts were calculated by weighted average of consecutive intervals with greater than 0.1% Li_2O. Including intercepts were calculated by weighted average of consecutive intervals with greater than 0.5% Li_2O. • No metal equivalents values have been reported. • All rock chip & drill hole locations are displayed in Figure 5. • Pegmatite fertility has been defined utilising a Mg/Li vs Li plot, with LCT Pegmatites Mg/Li<1, Fertile Pegmatites Mg/Li<10, Fractionated Granite Mg/Li<50 and Barren Granite Mg/Li>50.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• The true width of mineralization is not currently known due to the early-stage nature of the exploration.
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.*	• See relevant maps in the body of this announcement.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All exploration data and results conducted by Trek to date have been reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Exploration data for the project continues to be reviewed and assessed and new information will be reported if material.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Soil and rock chip sampling, in conjunction with mapping will be used to further define drill targets. • First pass exploration drilling was undertaken by Reverse Circulation. Information from all the holes in the maiden program will be assessed prior to determining further work.