

## **ASX ANNOUNCEMENT**

07 February 2023 ASX: PAT

# WICKENBURG LITHIUM EXPLORATION UNCOVERS SIGNIFICANT SPODUMENE TARGETS

## **HIGHLIGHTS**

- First pass field work at the Wickenburg Project, Arizona, USA, confirms significant surface expressions of rare-element lithium-caesium-tantalum (LCT) pegmatites.
- Widespread spodumene visually identified at the Dove target, with further mapping and sampling planned, seeking additional spodumene mineralisation.
- The current strike extent from initial field work across Dove is 165m for the Dove West pegmatite and  $\sim$ 250m for Dove East. The two pegmatites are  $\sim$ 150 m apart.
- Ongoing mapping and sampling to pave the way for a maiden drilling program.

Patriot Lithium Limited ("Patriot", "PAT" or "the Company") is pleased to report initial results of a field reconnaissance site visit at the Company's 100% owned Wickenburg Project in Arizona, USA (Figures 1 and 2).

As part of the Company's systematic exploration approach, a reconnaissance site visit has been conducted at Wickenburg to follow up on an extensive desktop review. The purpose of the visit was to verify surface expressions of pegmatites previously identified and reported in historical data sets.

Field inspection of the Dove priority target (Figure 3) has revealed two LCT pegmatites with widespread, visually identified spodumene mineralisation (Figure 4).

## Patriot Executive Director Matt Gauci commented:

"The exploration team is excited to have uncovered positive indications on the first reconnaissance site visit since listing. The surface expression seen at Dove is particularly encouraging, given the typical poor surface exposure of pegmatites in the Wickenburg area."

"At Dove we are seeing at least two groups of complex LCT pegmatites, trending parallel but separated by ~150m. Multiple spodumene crystals ranging from 15-60cm in size were visually identified, including zones of massive spodumene where most of the pegmatite is comprised of spodumene. The current reconnaissance field work establishes a strong foundation for a comprehensive drill program at Dove, seeking spodumene-rich mineralisation."

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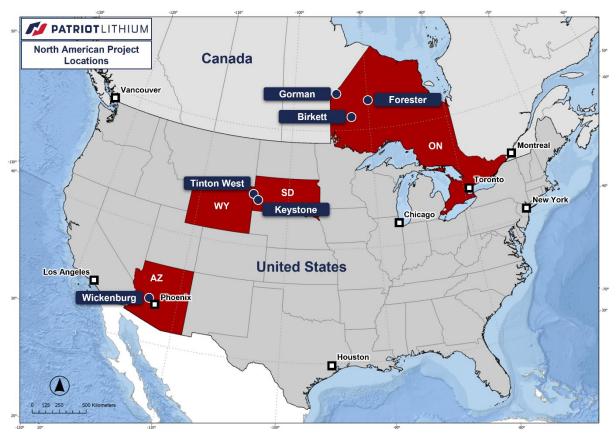
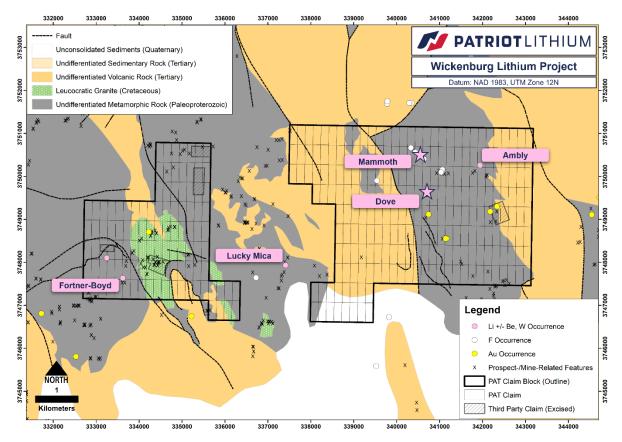


Figure 1. Locations of PAT's Projects in North America.



**Figure 2.** Locations of the Dove and Mammoth pegmatites, which have been the focus of a recent reconnaissance site visit.



## **WICKENBURG RECONNAISSANCE PROGRAM**

At the Dove target (Figure 3), which has been described by previous workers 1 as an "extensive pegmatite dyke" with spodumene and lepidolite, PAT's reconnaissance site visit has uncovered and verified the presence of a LCT pegmatite system with massive spodumene zones (Figure 4).

The Dove pegmatites contain spodumene, including pink kunzite, lepidolite, green beryl and dark green tourmaline. The presence of these gem varieties potentially indicates a spodumene-rich pegmatite system.

Dove contains several pegmatites that can be traced along strike for at least  $\sim$ 165m at the Dove West pegmatite and  $\sim$ 250m at Dove East (Figure 3). The pegmatites are trending subparallel but are separated by  $\sim$ 150m. The apparent maximum width of the individual pegmatites is  $\sim$ 10m.

The Mammoth pegmatite (Figure 3), which is located ~500m to the north of Dove, is poorly exposed but its intermittent surface expressions can be traced along strike for ~300m. Field reconnaissance at Mammoth identified dark green tourmaline, which has also been recorded at nearby Dove. Further work, including mapping and sampling, will be required to evaluate the potential for spodumene mineralisation at Mammoth.

The information collected from this reconnaissance site visit will be synthesised by Patriot to further the evaluation of all data across the Wickenburg Project and plan for drill testing.

## **NEXT STEPS**

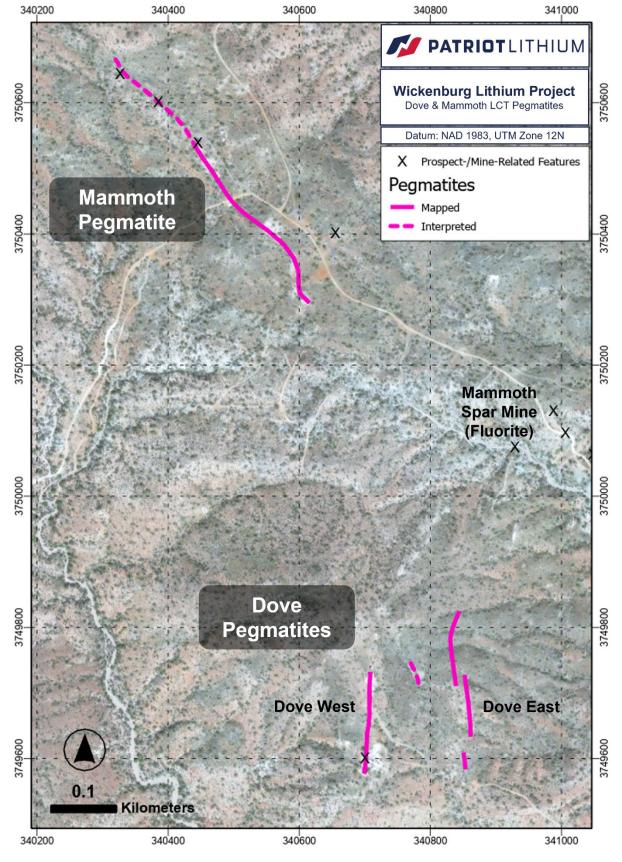
Detailed mapping and sampling of the Dove pegmatite system, among other targets within the Wickenburg Project, has commenced as a precursor to developing a drilling program.

As the winter snow melts, the Company will turn its attention to the Keystone and Tinton West Projects in the Black Hills of South Dakota and Wyoming, as well as the Gorman, Birkett and Forester Projects in northwest Ontario.

The Patriot exploration team has a long history of successful exploration using this systematic approach and remain excited about the lithium potential across all the project areas. As at Wickenburg, field work in the Black Hills and Ontario greenstone belts will initially focus on mapping and geochemical surface sampling as well as geophysics to determine priority drill targets.

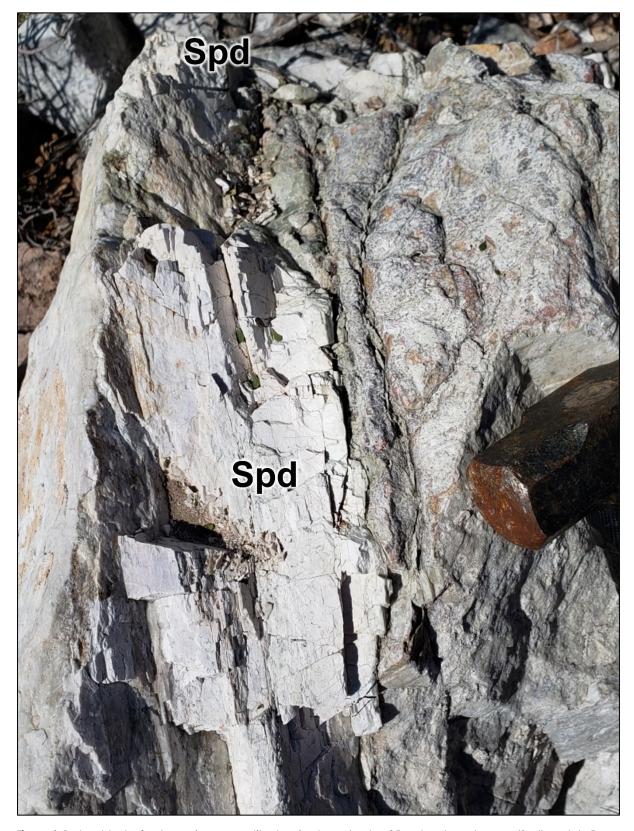
<sup>&</sup>lt;sup>1</sup> Dove Claims File, Memorandum, 15 December 1980, Arizona Department of Mines and Mineral Resources (ADMM) Mining Collection (https://library.azgs.arizona.edu/item/ADMM-1552433708600-431)





**Figure 3.** Map illustrating the locations of the Dove and Mammoth pegmatites as currently mapped in outcrop and interpreted from satellite imagery.





**Figure 4:** Broken block of outcropping pegmatite showing large (up to >25cm-long) spodumene (Spd) crystals, Dove West pegmatite.





**Figure 4 (cont.):** Surface expression at the Dove pegmatites. The right-hand image shows a zone of massive spodumene. For reference, the pick shown to the right is 64cm tall.

This announcement is authorised for ASX release by the Board of Directors.

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#### **ABOUT PATRIOT LITHIUM LIMITED**

Patriot Lithium Limited is primarily focused on the exploration of high-grade, hard rock lithium projects located in the prolific **Black Hills** lithium district of South Dakota and Wyoming and the **Pegmatite Belt** of Arizona, United States of America, as well as highly prospective **Archean Greenstone Belts** in northwest Ontario, Canada. The Company intends to build the size and scale of these properties by staking additional lithium prospective ground and through pragmatic assessment of potential acquisition opportunities. Patriot is working with US-based exploration, generative and land management teams to progress exploration and project development.

#### **Competent Person's Statements**

The information in this announcement that relates to Exploration Results is based on information compiled and conclusions derived by Dr Oliver Kreuzer and Mr David Johnson. Mr Ralph Porter has reviewed the content and images of the spodumene crystals.

Dr Kreuzer is a Member (#2762) and Registered Professional Geologist (RPGeo #10073) of the Australian Institute of Geoscientists (AIG) and a Member (#208656) of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr Kreuzer is an employee of Patriot Lithium Limited and holds securities in the Company. Dr Kreuzer has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Kreuzer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr Johnson is a Member (#4358) of the Australian Institute of Geoscientists (AIG). Mr Johnson is an employee of Patriot Lithium Limited and holds securities in the Company. Mr Johnson has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Johnson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to lithium prospectivity outlined within this document is based on information reviewed by Mr Ralph Porter, a full-time employee of CSA Global Pty Ltd. Mr Porter is a professional geoscientist and Member of The Australian Institute of Geoscientists (#4836) and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves. Mr Porter consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

#### **Forward Looking Statements**

Some statements in this announcement regarding estimates or future events are forward-looking statements. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Statements regarding plans with respect to the Company's mineral properties may also contain forward looking statements.

Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results expressed or implied by such forward-looking statements. These risks and uncertainties include but are not limited to liabilities inherent in exploration and development activities, geological, mining, processing and technical problems, the inability to obtain exploration and mine licenses, permits and other regulatory approvals required in connection with operations, competition for among other things, capital, undeveloped lands and skilled personnel; incorrect assessments of prospectivity and the value of acquisitions; the inability to identify further mineralisation at the Company's tenements, changes in commodity prices and exchange rates; currency and interest rate fluctuations; various events which could disrupt exploration and development activities, operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions; the demand for and availability of transportation services; the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks and various other risks. There can be no assurance that forward-looking statements will prove to be correct.



# APPENDIX 1: JORC CODE, 2012 EDITION – TABLE 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 (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.	Rock chip sampling by Patriot Lithium Limited (Patriot or the Company) of outcropping pegmatites at the Company's Wickenburg Project, Arizona, is being conducted in conjunction with a mapping program. The mapping and sampling are ongoing. Samples are being collected from outcrop using a hammer. Sample locations are being recorded by handheld GPS. Upon conclusion of the current program, the rock chip samples will be submitted to a laboratory for geochemical analysis. The purpose of collecting the rock chip samples is to establish the tenor of any mineralisation visible in outcrop and float.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The purpose of collecting the rock chip samples is to establish the tenor of any mineralisation visible in outcrop and float. Therefore, the samples are biased towards mineralised samples and are not representative of bulk composition. This is appropriate for this type of reconnaissance-stage work. Patriot is collecting both mineralised and unmineralised pegmatite samples to establish background values and provide input to a study characterising the geochemistry of the pegmatites at the Company's Wickenburg Project.
	Aspects of the determination of mineralisation that are Material to the Public Report.	• Spodumene (LiAlSi <sub>2</sub> O <sub>6</sub> ) has a diagnostic cleavage, crystal habit and lustre that can be used to distinguish it from other pegmatite minerals such as alkali feldspar. Spodumene crystals encountered at the Dove Pegmatite are up to 60 cm long with the large size aiding visual identification.



Criteria	JORC Code explanation	Commentary
	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.	Mineralised lithium-caesium-tantalum (LCT) pegmatite is heterogenous on a macro scale: Spodumene crystals are frequently >30 cm long and sometimes occur as clusters and in zones/domains up 1 metre wide. Only bulk samples can be truly representative. The aim of the sampling currently underway is to confirm the tenor of the lithium mineralisation.
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).	Not applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	Not applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
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>	Not applicable. As of the date of this announcement, no drilling has been conducted by Patriot.



Criteria	JORC Code explanation	Commentary
Sub- sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples are to be prepared using industry standard techniques:     Coarse crush, followed by riffle split to produce sample for pulverising and homogenisation. Samples are to be submitted to ALS, an ISO-certified lab.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not applicable. As of the date of this announcement, no samples have been submitted to a laboratory.
	<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>	Not applicable as not appropriate for this early stage of reconnaissance exploration.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes smaller than one tonne are unlikely to be representative, given the extreme inhomogeneity of LCT pegmatites. However, the size of rock chip samples being collected by Patriot is appropriate for this early stage of reconnaissance exploration.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	Samples are to be submitted to ALS, an ISO-certified lab. Quality control samples (blanks and standards) are to be inserted into the sample sequence every ten samples.



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	Not Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
	The use of twinned holes.	Not Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Sample location data are recorded on the geologist's field tablet and downloaded to CSV files containing sample numbers, coordinates and descriptions for upload to a database and pairing with assay data uploaded from certificates supplied by the lab.
	Discuss any adjustment to assay data.	Not applicable
Location of data points	<ul> <li>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.</li> </ul>	Coordinates of samples are recorded using a handheld GPS with an accuracy of about 2 m.
	Specification of the grid system used.	The grid system used for the Wickenburg Project is NAD 1983 UTM Zone 12N.
	Quality and adequacy of topographic control.	Handheld GPS accuracy (2 m) is adequate for reconnaissance stage exploration intended to establish the presence of a mineralised system and plan follow-up drilling, trenching, etc.
Data spacing and	Data spacing for reporting of Exploration Results.	Samples are taken where pegmatite is exposed, not on a regular grid.
distribution	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 applicable as no Mineral Resources or Ore Reserves have been determined.
	Whether sample compositing has been applied.	Not applicable as no Mineral Resources or Ore Reserves have been determined.
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.	Not Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.



Criteria	JORC Code explanation	Commentary
	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.	Not Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
Sample security	The measures taken to ensure sample security.	Samples are stored in the geologist's utility vehicle and in the garage at the Chiel Operating Officer's residence until sent by courier to the sample prep lab. These measures are adequate to ensure that the samples are not tampered.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews of sampling techniques and data were conducted given the early-stage nature of the reported exploration activity.

## 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 tenure within which the Company's Wickenburg Project is located consists of 347 unpatented mining lode claims on US Federal land administered by the Bureau of Land Management (BLM). The claimant is New Energy Metals (US) Inc., a wholly owned subsidiary of Patriot Lithium Ltd. Details about the claims are provided in the Company's Quarterly Activities Report for the Period ending 31 December 2022 (Patriot ASX Release dated 31 January 2023).
	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.	Claims are renewed annually upon payment to the BLM Management of the prescribed annual maintenance fees.     Provided the fees are paid on time, renewal is automatic and no administrative decision is involved. Obtaining permits to conduct ground-disturbing activities involves consultation with the relevant Federal bureau (in this case, BLM) and may require environmental and archaeological surveys, etc.



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Prospecting and small-scale pegmatite mining have been undertaken at the Dove LCT pegmatite within PAT's Wickenburg Project. Little information is available in the public domain regarding the nature of this work (Dove Claims File, Arizona Department of Mines and Mineral Resources (ADMM) Mining Collection, https://library.azgs.arizona.edu/item/ADMM-1552433708600-431).
Geology	Deposit type, geological setting and style of mineralisation.	• PAT's Wickenburg Project is located in the Arizona Pegmatite Belt, a 400 km long and 50–130 km wide crystalline basement high that forms part of the Basin and Range tectonic province. The pegmatites at Wickenburg are hosted in multi-deformed metasedimentary and metavolcanic rocks of the 1800–1600 Ma (Paleoproterozoic era) Yavapai Supergroup as well as Paleoproterozoic granite. The pegmatites at PAT's Wickenburg Project are poorly known and described. However, they appear to belong to the same pegmatite swarm and be similar in nature to the Lucky Mica LCT pegmatite, which is located in between PAT's Wickenburg claim blocks. The historical LCT pegmatite workings of the White Picacho (also known as San Domingo) pegmatite field are c. 11 km to the northeast. LCT pegmatites constitute the main exploration target at the Wickenburg Project.
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:  a 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	Not Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.



Criteria	JORC Code explanation	Commentary
	depth o 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 Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
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.	Not Applicable. As of the date of this announcement, no data aggregation has been conducted by Patriot.
	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.	Not Applicable. As of the date of this announcement, no data aggregation has been conducted by Patriot.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not Applicable. As of the date of this announcement, no data aggregation has been conducted by Patriot.
Relationship between mineralisation widths and intercept	These relationships are particularly important in the reporting of Exploration Results.	Not Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
lengths	If the geometry of the mineralisation with	Not Applicable. As of the date of this announcement, no drilling has been



Criteria	JORC Code explanation	Commentary
	respect to the drill hole angle is known, its nature should be reported.	conducted by Patriot.
	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').	Not Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
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.	Not Applicable. As of the date of this announcement, no drilling has been conducted by Patriot.
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.	Patriot's Wickenburg Project is at the earliest stages of exploration. Preliminary results highlighted herein are being used to guide exploration and to establish the tenor of any mineralisation visible in outcrop and float.
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	Not applicable at this stage



Criteria	JORC Code explanation	Commentary
	rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Detailed geological mapping has commenced. Once the surface extent of the pegmatites is known, a soil sampling program will be planned.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable at this stage