4 December 2024

TWO CONCESSIONS GRANTED WITH SIGNIFICANT GEOPHYSICS ANOMALY DETECTED IN GOIÁS STATE BRAZIL – SUPERIOR REE TARGET

- **The Goiás application (two concessions 860164/860165-2024) covering 3,262Has adjacent to CMOC operating niobium mine with radiogeophysics and magnetic surveys indicating strong anomaly for rare earth elements in carbonatites.**

- **Patagonia's technical team plan to run short wave and IR satellite surveys to identify preferred soil and rock chip sampling locations.**

Patagonia Lithium Ltd (ASX:PL3, **Patagonia** or **Company)** is pleased to advise that it has been granted two prospective contiguous concessions covering 3,262Has. Through geophysics, artificial Intelligence analysis and existing deposit structures, a geological structure on its 860164/165 concession appears to be highly prospective for rare earth elements (REE) with large significant anomalies detected near the Catalão carbonatite complex.

Figure 1. Niobium mine and PL3 Concessions showing faulting and structural features.

Phillip Thomas, Executive Chairman commented "*We are delighted with the extensive research, artificial intelligence data processing and exploration confidence we have achieved over the past 6 months from* ***detailed analysis of the geophysics*** *and use of novel geophysics techniques. We have a good footing to complete integrated exploration campaigns of mapping, soil and rock chip sampling. We expect the next phase of exploration to commence in early 2025.*

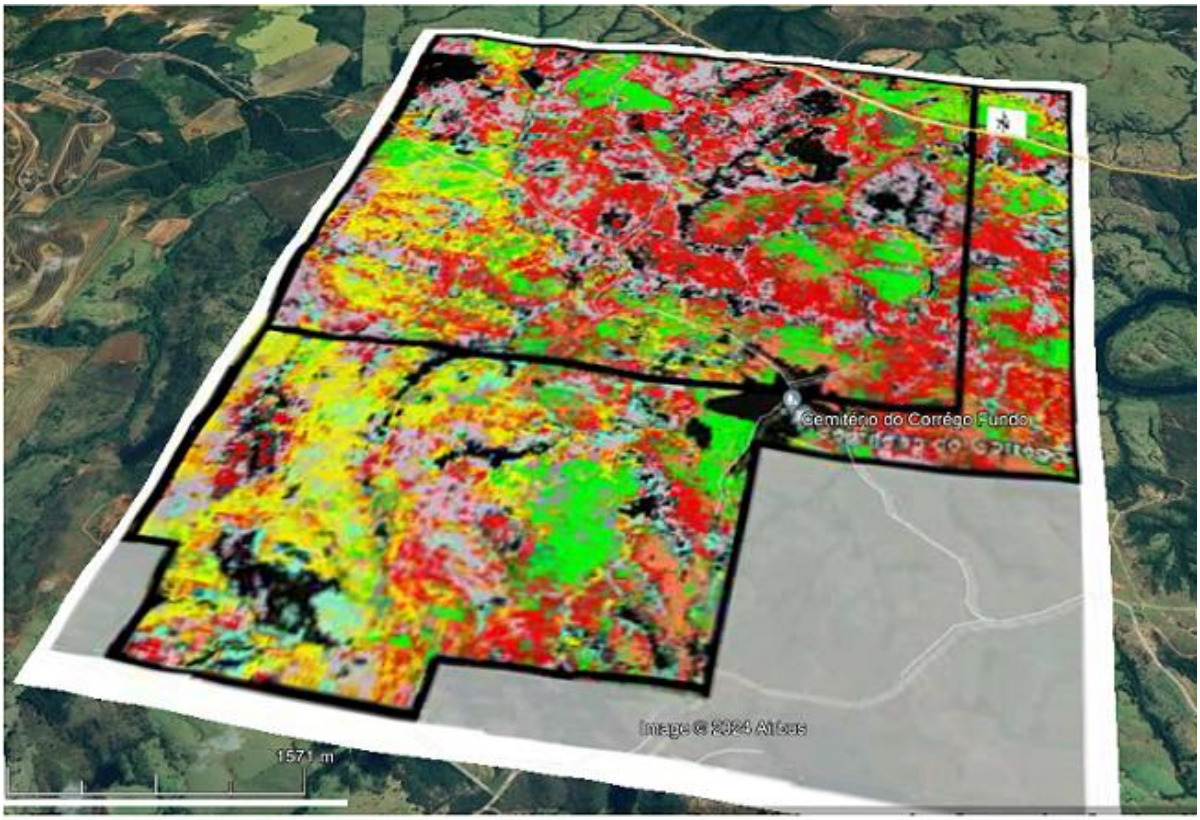

Figure 2. Potential mineralisation of 16 REE oxides VNIR (visible and near infrared + SWIR Short wave infrared) (courtesy Giselle Kempter – Minera Santa Maria).

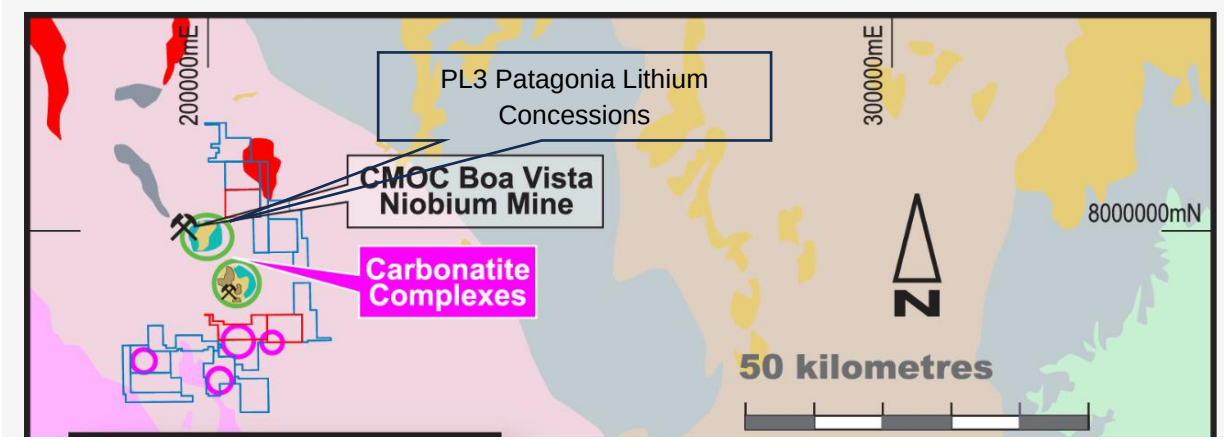

Figure 3. Red areas are granite intrusions – blue concessions around us are OzAurium Resources concessions.

The Catalão carbonatite complexes are located in central Brazil's Alto Paranaíba Igneous Province and are major producers of niobium and phosphates. The three complexes are Catalão I, Catalão II, and Araxá, and they are responsible for more than 85%[1] of the world's niobium supply.

[1] https://en.cmoc.com/html/Business/BRA-Nb-P/ CMOC Brazil website

Catalão I

Catalão I is the best understood of the three complexes with mining of the residual deposit commencing in 1976. The deposit is the last stage of carbonatite magmatism in the complex. The ore in the Catalão region is mostly made up of magnetite, ferric hydroxides, ilmenite, micas, quartz, and rare-earth minerals. Pyrochlore is the most abundant niobium phase in the primary mineralisation.

Exploration Targets

- *Interpolation of radiometric data for mineral tenement: Ternary.*
- *Areas of interest.*

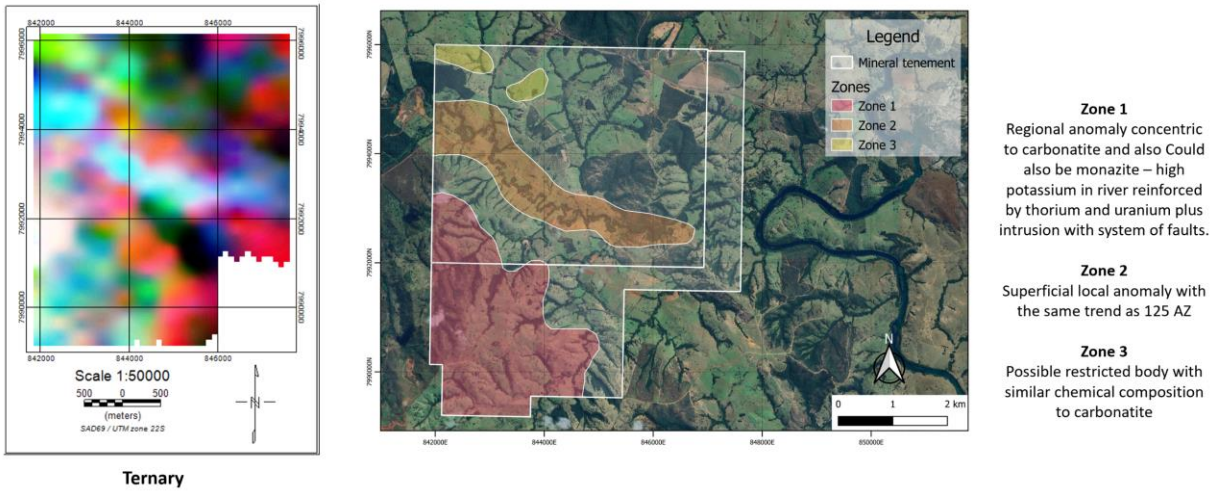

Figure 4. Shows the three zones in the Goias project we have targeted, zone 1 in the south with strong radiometric anomaly and system of faults.

CMOC produced 7,489 tonnes of niobium in 2023[2]. The niobium operations focus on mining and processing of niobium with ferroniobium as its major product.

Authorised for release by the Board of the Company.

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[2] *Sourced from CMOC website https://en.cmoc.com/html/Business/BRA-Nb-P/.*

About Patagonia Lithium Ltd

Patagonia Lithium (ASX:PL3) has two major lithium brine projects – Formentera/Cilon in Salar de Jama, Jujuy province and Tomas III at Incahuasi Salar in Salta Province of northern Argentina in the declared lithium triangle. It has been granted 24/25 applications covering **40,000 Has** of concessions exploring for **ionic REE clays, Niobium, and lithium in pegmatites**. The Company has five exploration concession packages. Four have been granted in Minas Gerais, Mato Grosso and Goias states.

Since listing on 31 March 2023, surface sampling and MT geophysics have been completed, drill holes JAM 24-01,24-02, and 24-03 completed and JAM 24-10 (well 4) is underway. Progress to date has been exceptional as measured by lithium assays. The MT Geophysics at Tomas III on Incahuasi salar is very prospective. In July 2023, a 10 hole drill program was approved for Formentera and a three well program for Cilon is pending. Samples as **high as 1,100ppm lithium** (2 June 2023 announcement) were recorded at Formentera and a Lithium value of **591ppm in well JAM 24-01** (Outstanding Assay Results from First Drilling in Argentina released on 3 May 2024). Very low resistivities were recorded to more than a kilometre depth during the MT Geophysics survey at Formentera.

Competent Person Statement

The information in this announcement that relates to exploration results is based on, and fairly represents information compiled by Phillip Thomas, MAIG FAusIMM, Technical Adviser of Patagonia Lithium Ltd and is Executive Chairman, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Thomas has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has 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 Thomas consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

The Company confirms it is not aware of any new information or data that materially affects the information in this announcement. The Company confirms that the form and context in which the Competent Person's finding are presented have not been materially modified from the original announcement.

JORC Code, 2012 Edition – Table 1 report Patagonia Lithium Ltd ASX:PL3 Goiás state 830164/2024 and 830165/2024

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.* • *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.*	• There was no sampling as the application concession 830164/165 is still waiting to be granted. Publicly available radiometric data was acquired from the bureau of mineral resources in the state of Goiás, Brazil. • The geophysics that measure Uranium, Thorium and Potassium were derived from satellite data accessing the Data from CPPLL, Codemge/Codemig, Metago, and others projects publicly available. • Acquisition and processing of LANDSAT, Sentinel 1, ASTER scenes, pre-processing, spectral analysis and evaluation/prioritization of results and the evaluation and processing of geophysical data was undertaken. • Public data from technical papers, the Catalao REE deposit and references on field sampling, drilling, geological lithologies and distances from source were collated.
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).*	• No drilling was undertaken.

Criteria	JORC Code explanation	Commentary
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.*	• No sampling was undertaken. The geophysics data analysed that included radiometric, magnetic and gravity data is publicly available.
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.*	• No logging was undertaken but the Artificial Intelligence model did reference sampling ratios of elements and distances from deposits of occurrences of rare earths. Araxa is a deposit. nearby.
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 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.*	• Not applicable no sampling undertaken.
Quality of assay data and	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether*	• Raw data from the magnetic surveys was reprocessed into 1D inversions.

Criteria	JORC Code explanation	Commentary
laboratory tests	*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.*	
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.*	• Not applicable as no sampling undertaken.
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.*	• Accuracy of the data is between 50-150m with data obtained at 400-600m intervals. Gravity data is more unreliable and thus was given a lower ranking.
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.*	• 400-600m spacing depending on the satellite data used.
Orientation of data in relation to	• *Whether the orientation of sampling achieves unbiased sampling of possible structures*	• Orientation was perpendicular to earth surface.

Criteria	JORC Code explanation	Commentary
geological structure	*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.*	
Sample security	• *The measures taken to ensure sample security.*	• Not applicable as no sampling undertaken.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Not applicable as no sampling undertaken.

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 licence to operate in the area.*	• Mining concession 830.164/2024 and 830165/2024 are granted in the state of Goiás, Brazil – the concessions are 100% owned by Patagonia Lithium subsidiary PL3 Mineracao Brazil Ltda. The licence is for a 3 year period unless it is renewed for a further period. It has been referenced for lithium exploration. Both concessions cover a total of 3,262Has.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No exploration has been undertaken on this concession application. Adjacent to 830164/2024 is the CMOC Niobium mine. This is a private operation and information is not readily available on drill core data.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The first target zone, of greatest importance, is the metasomatic zone. The second, an anomaly of Thorium and Uranium located within a structure aligned to the 125-degree Azimuth, is characterized by a topographic low that may be associated with the accumulation of radioactive minerals (possibly Monazites?) and potentially, Rare Earth Elements. The third zone, the second anomaly situated northwest of the area, also enriched in Uranium and Thorium, is located at the summit of a topographic elevation. This anomaly may represent an igneous body with chemical characteristics similar to carbonatite, albeit smaller, not identified in the MVI magnetic geophysics data. • The Catalão I alkaline–carbonatite–phoscorite complex (ferro niobium mine adjacent) contains both fresh rock and residual (weathering-related) niobium mineralization. The fresh rock niobium deposit consists of two plug-shaped orebodies named Mine II and East Area, respectively emplaced in carbonatite and phlogopitite. Together, these orebodies contain 29 Mt at 1.22 wt.% Nb_2O_5 (measured and indicated). In closer detail, the orebodies consist of dyke swarms of pyrochlore-bearing, olivine-free phoscorite-series rocks (nelsonite) that can be either apatite-rich (P2 unit) or magnetite-rich (P3 unit). Dolomite carbonatite (DC) is

Criteria	JORC Code explanation	Commentary
		intimately related with nelsonite. Natropyrochlore and calciopyrochlore are the most abundant niobium phases in the fresh rock deposit. Pyrochlore supergroup chemistry shows a compositional trend from Ca–Na dominant pyrochlores toward Ba-enriched kenopyrochlore in fresh rock and the dominance of Ba-rich kenopyrochlore in the residual deposit. Carbonates associated with Ba-, Sr-enriched pyrochlore show higher δ18OSMOW than expected for carbonates crystallizing from mantle-derived magmas. We interpret both the δ18OSMOW and pyrochlore chemistry variations from the original composition as evidence of interaction with low-temperature fluids which, albeit not responsible for the mineralization, modified its magmatic isotopic features. The origin of the Catalão I niobium deposit is related to carbonatite magmatism but the process that generated such niobium-rich rocks is still being determined and might be related to crystal accumulation and/or emplacement of a phosphate–iron-oxide magma.
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 from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• The main geophysical data coming from georeferenced PDFs, highlighted by the correlation between samples is the F parameter, followed by the thorium-uranium ratio. There is a high correlation between Kd potassium factor and Thorium.

Criteria	JORC Code explanation	Commentary
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.*	• Not applicable – 1D inversion was used to better define the fenitization in the radiometric and magnetic surveys.
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').*	• Not Applicable as no drilling was undertaken.
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 no drilling was undertaken.
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*	• Not Applicable as no drilling was undertaken.

Criteria	JORC Code explanation	Commentary
	misleading reporting of Exploration Results.	
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• See above for detailed geophysical results - Carbonatites and alkaline-silicate rocks are the most important sources of rare earth elements (REE) and niobium (Nb). Cooling and crystallizing carbonatitic and alkaline melts expel multiple pulses of alkali-rich aqueous fluids which metasomatize the surrounding country rocks, forming fenites during a process called fenitization. We are exploring for these rocks. These alkalis and volatiles are original constituents of the magma that are not recorded in the carbonatite rock, and therefore fenites are a key focus of a carbonatite system and our exploration efforts. • RGB 3,2,10 – ratio 4,12 – PCA band 8,3 were used to identify lithium minerals. **Sentinel-2** imagery (low resolution – pixel 32m) yielded poor results so we will use Hi Res spectral.
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.*	• We intend to commence detailed geophysics, soil sampling and rock chip sampling now that the exploration concessions are granted 830164/2024 and 830165/2024.