13 May 2024

INITIAL EXPLORATION IN GOAIS STATE COMPLETED IN BRAZIL

- **Goiás state concessions 860164-5/2024 covering 3,262Has were mapped and sampled for Rare Earths and Niobium**
- **Soils and stream sampling program completed**
- **PL054, PL055, PL065, PL058 samples highly prospective for REE in mica schists and saprolites**

Patagonia Lithium Ltd (ASX:PL3, Patagonia or **Company)** is pleased to advise that it has completed the first phase of field exploration on our concessions in Goais state adjacent to the CMOC niobium mine and Catalão I Rare Earth Element (REE) complex.

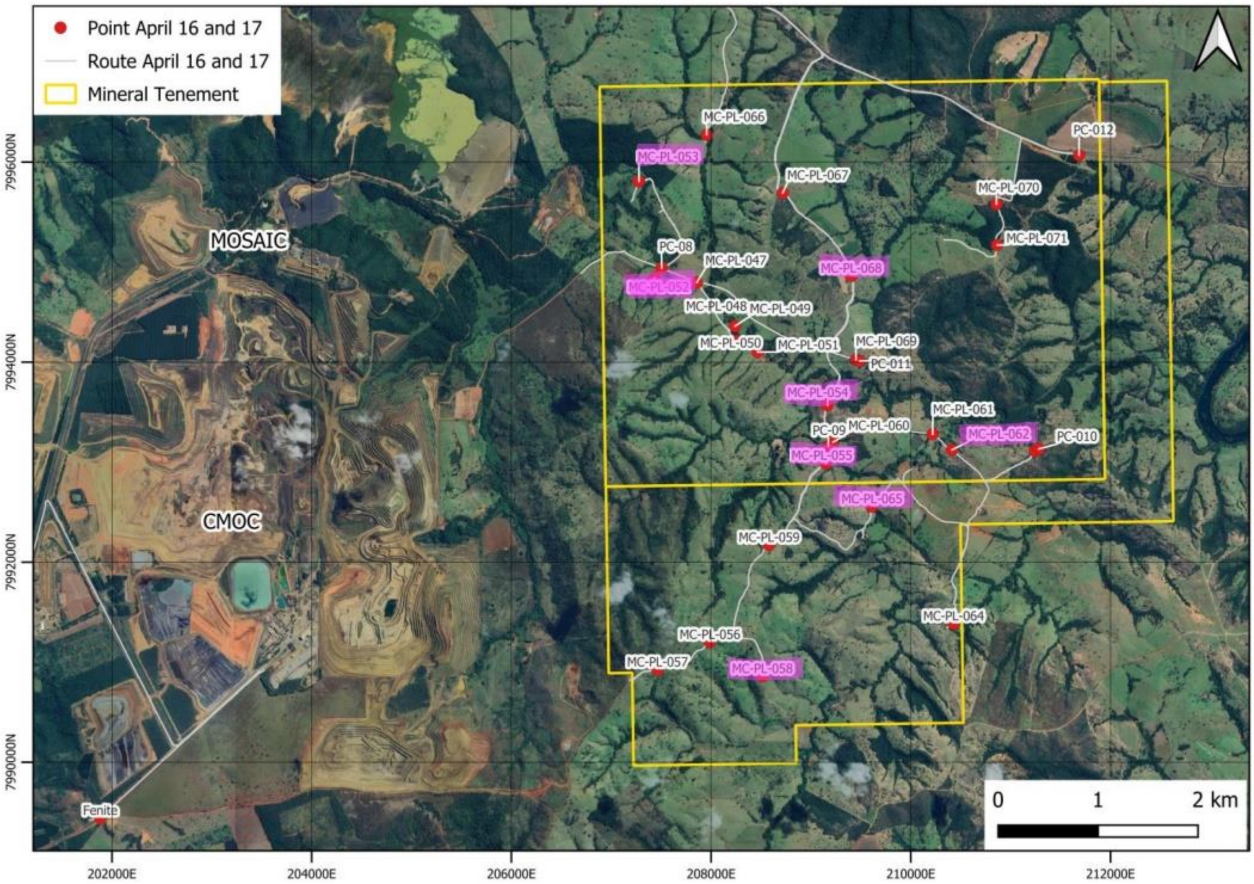

Figure 1. Shows the outline of the mineral tenements, the route taken over three days of exploration and the highlighted pink dots are the 24 soils, rock chip samples that were collected and will be sent for analysis.

The mica schists and shales with parallel planar lamination, clayey, associated with grey pelitic protolith were identified as possible host rocks. Mineralogy composed of phyllosilicates, mainly sericite, (which is an altered feldspar) fine-grained muscovite mica and quartz grains were evident as pathfinders.

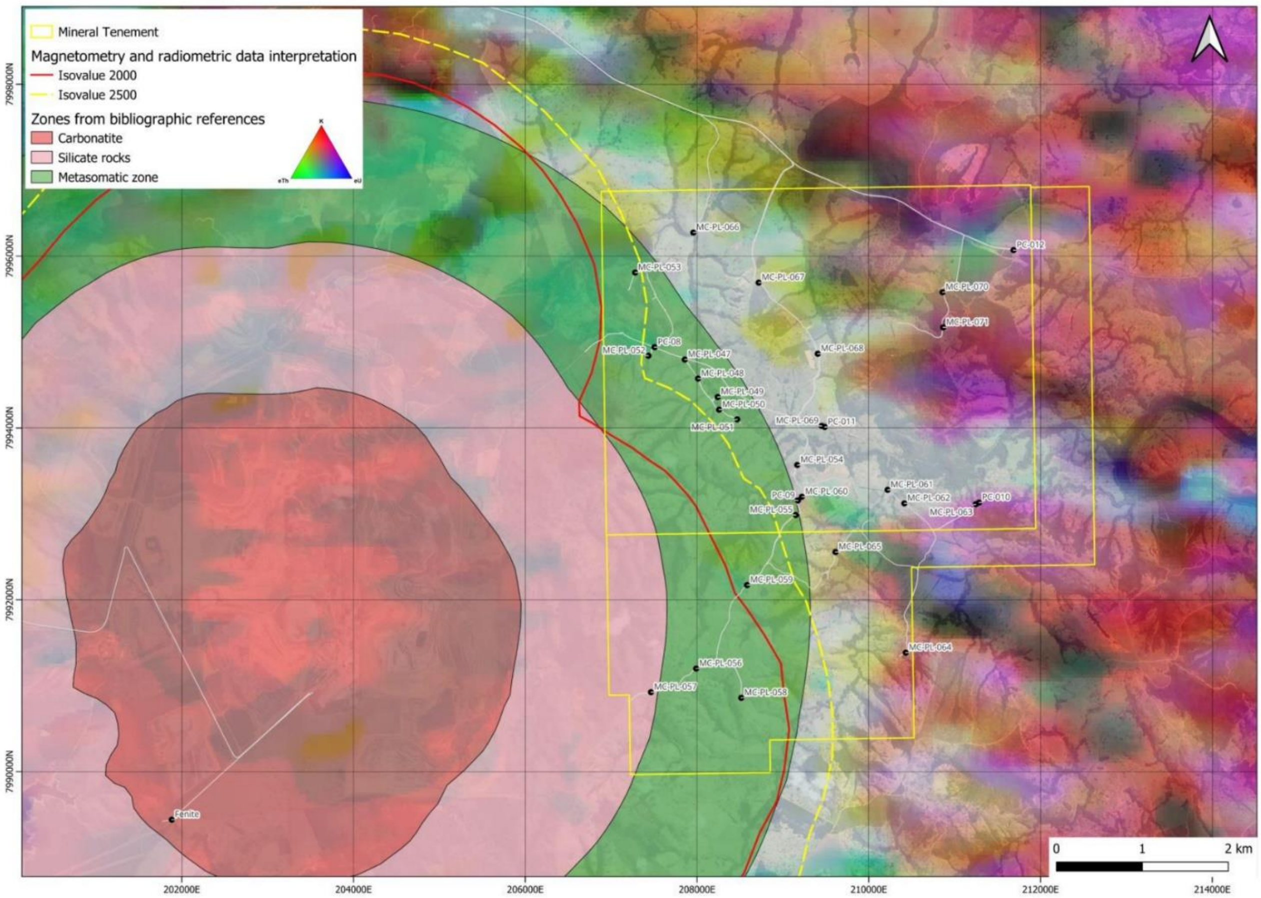

Figure 2. The interpreted magnetometry and radiometric data shows the high potential areas in white and the proximity to the Catalão carbonatite deposit. Black dots are 27 samples taken.

Figure 3. White colour mica schist altered by fluids, the mica is significant for REE minerals with chlorite.

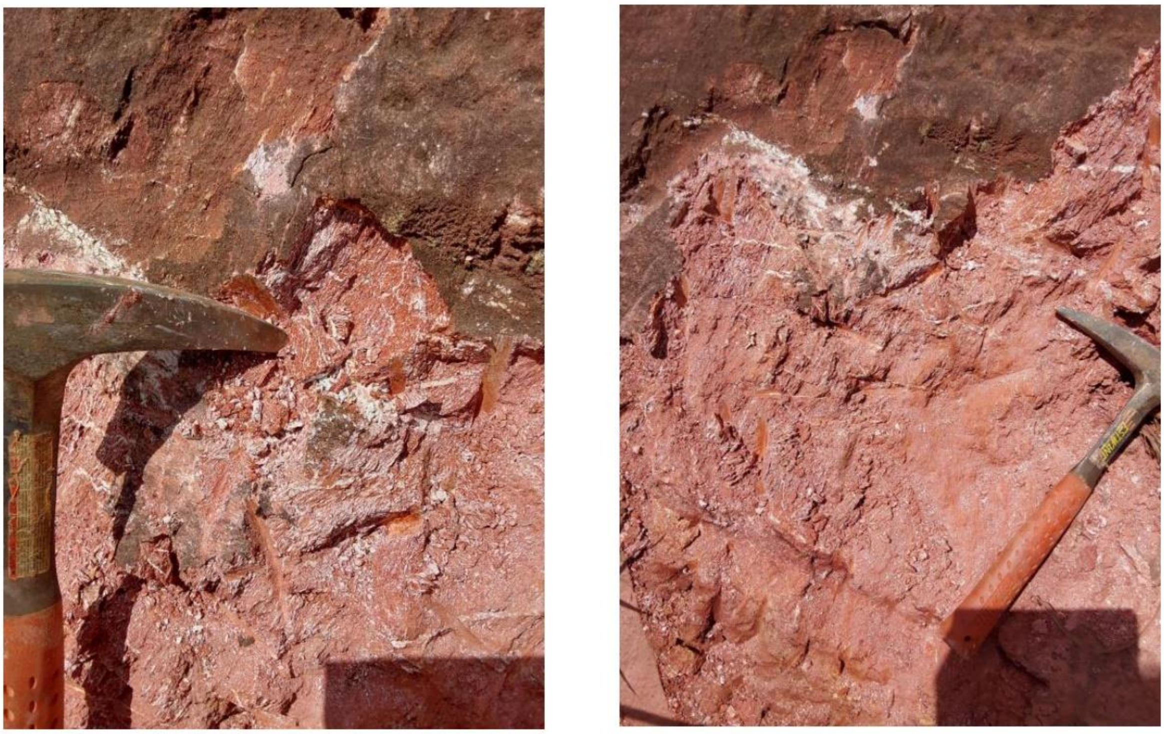

Figure 4. Fenitised Araxa shale. Metasomatic zone of chemical compositional alteration of the rock and percolation of the fluid network through the fractures when the carbonatite dome rose. Ionic clays and saprolite below the rock, prospective for REE's.

The Company has allocated the samples taken for analysis as follows:

- X-ray diffraction for specific samples of the Araxa schists in order to understand the (fine) mineralogy and contained elements/minerals;
- Chemical analysis for ETR leached at the points sampled;
- Evaluation of the chemical assay results for REE in the metasomatic zone stipulated by geophysics and isovalues.

Phillip Thomas, Executive Chairman commented "Our local geological team has done a great job mapping and sampling and coming up with some highly prospective samples. They have been sent for assay and hopefully the pathfinder minerals will assist us locate a major deposit."

Authorised for release by the Board of the Company.

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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.

About Patagonia Lithium Ltd

Patagonia Lithium 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 also applied **for 41,746 Has** of concessions exploring for **ionic REE clays, Niobium, and lithium in pegmatites**. Four exploration concession packages have been applied for. 830178/2024 has been granted.

Since listing on 31 March 2023, recharge water analysis, surface sampling and MT geophysics have been completed in preparation of an upcoming drill program at Formentera, where the first well JAM 24-01 has been completed with MT Geophysics at Tomas III showing low resistivity and very prospective. In July 2023, a 13 hole drill program was submitted for approval which was granted in January 2024. Samples as **high as 1,100ppm lithium** (2 June 2023 announcement) were recorded at Formentera and resistivity values as low as 0.3Ω.m were recorded during the MT Geophysics survey at Formentera making the project highly prospective. The Company confirms it is not aware of any new information or data that materially affects the information in this announcement.

JORC Code, 2012 Edition – Table 1 report Patagonia Lithium Ltd ASX:PL3 Goias State applications 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)*	• Two geologists visited the state of Goias, Brazil and spent three days in the field on the concession. They used shovels, a sample auger to 0.5m depth and hammers to take samples. Samples were taken from the outcrop or soils in a discrete 10cm diameter area. • The samples were recorded by using a handheld Garmin GPS of the location, approximate depth and rock types recorded. The label was put on the bag and it was sealed. • The focus of the sampling was to identify host rocks that were subject to Fenetisation and formed ionic clays from saprolites • Public data from technical papers, the Catalao REE deposit and references on field sampling, drilling, geological lithologies and distances from source were collated to guide the sampling.

Criteria	JORC Code explanation	Commentary
	may warrant disclosure of detailed information.	
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.
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.*	• Each rock chip sample had the host rock mineralisation recorded and the location, dip and strike where the data was available to recorded.
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 apart for rock type or soil type, GPS location etc. Each nominated sample will be analysed using ICP or XRF. • There was no costeaning done or channel work.
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.*	• Not applicable as it was soil sampling in clays and saprolites or rock chip samples that could not be riffled to take a representative sample. • The samples taken where path finders rather than assay based samples as the exploration is at an early stage.

Criteria	JORC Code explanation	Commentary
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.*	• Assay testing using several techniques is the next stage in analysis. • No handheld analysis tools were used.
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.*	• Only field sampling using augurs and hammers was 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.*	• No drilling occurred – a Garmin GPS accurate to 2m was used for location of the samples.

Criteria	JORC Code explanation	Commentary
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.*	• Spacing was dependant on the extent of the outcrop or the section of soils to be tested. Once assays are in longitudinal and grid soil testing will be undertaken. • Soils were tested on spot locations.
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.*	• Sampling was random in areas where pathfinder rock types wre observed eg clays, saprolites, granites, gneiss, or other micas or schists which had been altered by fluids. For example sericite was sampled with micas for the alteration of the feldspars.
Sample security	• *The measures taken to ensure sample security.*	• Each bag was secured tied, labelled and held till it was presented to the supervising geologist who completed a location ID check and inspected the bag for the closure tab. The bags will be taken to the assay laboratory for assay shortly.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been undertaken until results are received from the laboratory.

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 still pending being granted in the state of Goais, Brazil – the concessions when granted will be 100% owned by Patagonia Lithium subsidiary PL3 Mineracao Brazil Ltda. The licence when granted 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 3,262 Has.
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

Criteria	JORC Code explanation	Commentary
		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 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 $\delta^{18}O_{SMOW}$ than expected for carbonates crystallizing from mantle-derived magmas. We interpret both the $\delta^{18}O_{SMOW}$ 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*	• 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.

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	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.	
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 – no results have been received from laboratory.
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 only chip and soils were sampled.
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 assays have been received.
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.*	• Not Applicable as no assays have been received.
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.*	• 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

Criteria	JORC Code explanation	Commentary
		carbonatite rock, and therefore fenites are a key focus of a carbonatite system and our exploration efforts.
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 extend soil sampling and rock chip sampling as soon as assay results are received and set up a drill program in the areas that have ionic clays with REE or REE in carbonatite and or monazite samples taken.