

# Significant Acquisition Secured in World-Class Lithium Valley: Positive Preliminary LIBS Results from Itinga Lithium-Pegmatite Field

## HIGHLIGHTS

- Two option agreements entered into to secure a large strategic land holding adjacent to Perpetual's existing Itinga prospect in Minas Gerais, Bazil.
- New landholdings contain multiple confirmed lithium soil anomalies and peak value rock chips up to 2.1% Li<sub>2</sub>O<sup>1</sup> (based on initial pass LIBS analysis – to be confirmed by assay).
- Permits encompass historic artisanal mines exploiting large pegmatites, extending from mapped formations, with confirmed lithium soil anomalies within existing Itinga prospects.
- Acquisitions build scale for Perpetual in a highly prospective area and work programs will commence imminently on the new and existing land areas.

**Perpetual Resources Limited** (ASX: PEC, "**PEC**", "**Perpetual**" or "**the Company**") is pleased to announce a significant expansion of its exploration landholding in the Itinga region of Minas Gerais, Brazil, known as "Lithium Valley", through the execution of two option agreements.

The permits (shown at Figure 1), were secured from local landowners and provide a strong strategic complement to Perpetual's existing Itinga tenement position, including apparent extensions of the interpreted pegmatite trend and soil anomalies already identified by Perpetual in the region.

The newly secured permits suggest potential lithium mineralization<sup>1</sup>, with peak rock-chip values from initial pass Laser Induced Breakdown Spectroscopy ("**LIBS**") including:

- LIBS023: 2.1% Li<sub>2</sub>O Artisanal Mine 2 (See Figure 6 & 7)
- LIBS026: 1.8% Li<sub>2</sub>O Artisanal Mine 2 (See Figure 6 & 7)
- LIBS011: 1.5% Li<sub>2</sub>O Natural Outcrop (See Figure 5)

Commenting on the new exploration areas and LIBS results, Mr. Julian Babarczy, Chairman, said;

"Our successful exploration efforts to date had identified Itinga as the highest prospectivity region within our Brazilian exploration portfolio. Data collected from our existing land holdings clearly pointed to the high prospectivity of the land we have now secured, both in terms of potential scale and grade.

To have confirmed, using LIBS analysis, the highest grades we have seen to date in the region on this newly secured land, is an extremely encouraging result and one which fast tracks our efforts to identify drill-ready targets in coming periods."

<sup>&</sup>lt;sup>1</sup> LIBs readings are not a replacement for comprehensive laboratory analysis and only reflect lithium concentration at specific points, rather than the entire rock. While they assist in geological interpretation and verifying lithium presence, they offer only an approximate concentration. Each sample underwent testing between 4 and 8 times, with only the significant peak reading being presented in the document.





Figure 1: Map showing location of the new land holdings & significant locations of 'peak' LIBS<sup>2</sup> results.

All LIBS results referred to in this announcement are currently in the process of assay confirmation, with results expected within the next 4 weeks.

<sup>&</sup>lt;sup>2</sup> LIBs readings are not a replacement for comprehensive laboratory analysis and only reflect lithium concentration at specific points, rather than the entire rock. While they assist in geological interpretation and verifying lithium presence, they offer only an approximate concentration. Each sample underwent testing between 4 and 8 times, with only the significant peak reading being presented in the document.



The recently acquired tenements are situated within approximately 30km of world-class lithium deposits at Grota do Cirlo (Sigma Lithium) and the Banderia Project (Lithium Ionic). Most recently, Lithium Ionic has secured options for its Borges and Vale Projects, located approximately 11km from our Itinga Projects, which shares similar geology to Perpetual's land holding at the Itinga Prospect.



Figure 2: Regional map of Itinga Pegmatite Field, plus proximal projects<sup>3456</sup> to Perpetual's exploration permits in the Lithium Valley region of Minas Gerais.

<sup>&</sup>lt;sup>3</sup>Refer to NI 43-101 MRE for Lithium Ionic issued 24<sup>th</sup> June 2023:

https://www.lithiumionic.com/\_resources/reports/30112023\_PEA\_GE21\_Final.pdf?v=0322

<sup>&</sup>lt;sup>4</sup>Refer to NI 43-101 Sigma Technical Report issued 12<sup>th</sup> June 2023: <u>https://ir.sigmalithiumresources.com/wp-content/uploads/2024/01/AR-</u> <u>TR-Grota-do-Cirilo-2023-06-12.pdf</u>

<sup>&</sup>lt;sup>5</sup>Refer to CBL's website as of 22<sup>nd</sup> March 2024: <u>https://www.cblitio.com.br/en/mining</u>

<sup>&</sup>lt;sup>6</sup> In relation to the disclosure of pXRF results, the Company cautions that estimates of elemental abundances from pXRF

results should not be considered a proxy for quantitative analysis of laboratory assay results. Assay results are required to determine the actual level of mineralisation.



License 832503/2003 is positioned 6.3km from Itinga Township, just 600m north of Perpetual's existing licenses (830489/2023 & 830490/2023, 832837/2023 & 830226/2021). Geologically, the area is primarily situated on the S-type Monzogranite, with preliminary mapping revealing extensive NE-striking pegmatites. Several artisanal workings (Figures 3 & 4) have been found to exploit these formations providing excellent exposure to geometry and sub-surface mineralogy. Initial rock chip samples from the area have yielded significant anomalous LIBS readings, with peak values reaching up to 2.1% and 1.8% Li<sub>2</sub>O (see Figures 6 & 7) - Significant peak values table provided in the appendix.

License 831542/2004 shares geological similarities with Perpetual's existing Itinga landholdings, featuring Macaúbas schist and consistent identification of NE-striking pegmatites. Initial assessments have revealed numerous smaller artisanal workings exposing significant pegmatites, indicating fractionated mineralogy. Several significant lithium projects and deposits within the Itinga-Aracuai Pegmatite Fields and Lithium Valley show distinct associations with the Macaúbas Group and the Salinas Formation.

Preliminary work on the new permits has begun, encompassing targeted mapping and sampling efforts, closely aligned with Perpetual's established exploration strategy aimed at advancing the priority area of Itinga.



Figure 3: Artisanal Mine 1, located on permit 832503/2003, refer rock descriptions in Appendix 2.





Figure 4: Artisanal Mine 2, located on permit 832503/2003, refer rock descriptions in Appendix 2.



Figure 5: Pegmatite outcrop, located on permit 832503/2003, refer rock descriptions in Appendix 2.





Figure 6 & 7: SciAps LIBS<sup>7</sup> peak sample readings & respective samples (LIBS 023 & 026) on permit 832503/2003, refer rock descriptions in Appendix 2.

<sup>&</sup>lt;sup>7</sup> LIBs readings are not a replacement for comprehensive laboratory analysis and only reflect lithium concentration at specific points, rather than the entire rock. While they assist in geological interpretation and verifying lithium presence, they offer only an approximate concentration. Each sample underwent testing between 4 and 8 times, with only the significant peak reading being presented in the document.



## **OPTION AGREEMENT DETAILS**

Perpetual has entered into two option agreements, which each provide Perpetual with an initial 60-day exclusive option period, during which due diligence can be conducted on the respective tenements, prior to a decision to convert the options into a second 24-month option period for additional due diligence, after which Perpetual can elect to move to full ownership of the tenements.

The option agreements entered into by Perpetual are on the following terms:

#### Mineral Tenement No. 832503/2003

- o Total land size: 19.08km<sup>2</sup>
- Acquired by Perpetual from Bontempi Imoveis Ltda ("Bontempi") and Exotic Mineracao Ltda ("Exotic")<sup>8</sup>:
  - Option Deposit: ~A\$9,300 (R\$30,000) PAID
    - Perpetual now has an exclusive 60-day period (expiring on 27/05/2024), to undertake due diligence on the exploration permit.
  - Option Fee: ~A\$93,000 (R\$300,000) to be paid by Perpetual after confirmation of successful due diligence and exercise of the option, providing Perpetual with an additional 24-month option period to continue to conduct exploration activities to determine whether Perpetual intends to move to full ownership of the tenement. At the expiry of the option period Perpetual may either:
    - Pay: ~A\$827,700 (R\$2,670,000) Payment of the Final Payment is at Perpetual's election. If paid, it will take Perpetual to full ownership of the tenement, subject to the final approval of the Final Mineral Research Report and the endorsement authority of the transfer of the mineral rights by the relevant government department; or
    - Transfer legal title to the permit back to Bontempi and Exotic.
  - Should the Final Mineral Research Report or the transfer of mineral title not be endorsed, Perpetual will receive a refund of the Option Fee.

#### Mineral Tenement No. 831542/2004

- Total land size: 9.96km<sup>2</sup>
- Acquired by Perpetual from Bontempi under the following transaction structure<sup>8</sup>:
  - Option Deposit: ~A\$9,300 (R\$30,000) PAID
    - Perpetual now has an exclusive 60-day period (expiring on 27/05/2024), to undertake due diligence on the exploration permit.
  - Option Fee: ~A\$93,000 (R\$300,000) to be paid by Perpetual after confirmation of successful due diligence and exercise of the option, providing Perpetual with an additional 24-month option period to continue to conduct exploration activities to determine whether Perpetual intends to move to full ownership of the tenement. At the expiry of the option period Perpetual may either:
    - Pay: ~A\$827,700 (R\$2,670,000) Payment of the Final Payment is at Perpetual's election. If paid, it will take Perpetual to full ownership of the tenement, subject to the final approval of the Final Mineral Research Report and the endorsement authority of the transfer of the mineral rights by the relevant government department; or
    - Transfer legal title to the permit back to Bontempi.
  - Should the Final Mineral Research Report or the transfer of mineral title not be endorsed, Perpetual will receive a refund of the Option Fee.

<sup>&</sup>lt;sup>8</sup> All amounts have been converted from Brazilian Real to Australian Dollar at the rate of 1 BRL : 0.31 AUD



### - ENDS -

This announcement has been authorised by the Board of Directors.

**KEY CONTACT** 

Robert Benussi Managing Director E info@pecsilica.com.au

#### **ABOUT PERPETUAL RESOURCES**

Perpetual Resources Limited (Perpetual) (ASX:PEC) is an ASX listed company pursuing exploration and development of critical minerals essential to the fulfillment of global new energy requirements.

Perpetual is active in exploring for lithium and other critical minerals in the Minas Gerais region of Brazil, where it has secured approximately 120km<sup>2</sup> of highly prospective lithium exploration permits, within the pre-eminent lithium (spodumene) bearing region that has become known as Brazil's "Lithium Valley".

Perpetual also operates the Beharra Silica Sand development project, which is located 300km north of Perth and is 96km south of the port town of Geraldton in Western Australia.

Perpetual continues to review complementary acquisition opportunities to augment its growing portfolio of exploration and development projects consistent with its critical minerals focus.



#### **COMPLIANCE STATEMENTS**

#### **Reporting visual estimates of mineralisation**

Visual assessments of mineral abundance should never be viewed as a stand-in for laboratory analyses, especially when concentrations or grades are of primary economic importance. Visual estimates may also fail to provide any insight into impurities or detrimental physical properties that are pertinent to valuations. The Company anticipates obtaining laboratory analytical results of rock chip samples at the end of April.

#### **Forward-looking statements**

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

#### Disclaimer

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#### **Competent Person Statement**

The information in this report related to Geological Data and Exploration Results is based on data compiled by Mr. Allan Harvey Stephens. Mr. Stephens is an Exploration Manager at Perpetual Resources Limited and is a member of both the Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). He possesses sound experience that is relevant to the style of mineralisation and type of deposit under consideration, as well as the activities he is currently undertaking. Mr. Stephens qualifies as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves.' He provides his consent for the inclusion of the matters based on his information, as well as information presented to him, in the format and context in which they appear within this report.



Sample ID	Easting	Northing	Licence	Li%	Li ppm	Li20 %	Mg%	<b>K%</b>	Ca%	Mn%	Fe%	Comments
LIBS023	853170	8164462.9	832503/2003	0.977	9770	2.10	0.447	3.41	7.47	ND	1.58	Artisanal Mine 2
LIBS026	853170	8164462.9	832503/2003	0.84	8400	1.81	0.76	8.18	1.04	0.029	4.39	Artisanal Mine 2
LIBS011	851335.3	8164520.2	832503/2003	0.711	7110	1.53	0.018	4.65	2.89	2.34	1.23	Sugar Loop
LIBS013	853170	8164462.9	832503/2003	0.562	5620	1.21	0.017	6.1	1.41	3.85	1.35	Sugar Loop
LIBS116	853170	8164462.9	832503/2003	0.234	2340	0.50	0.922	27.79	0.326	0.156	4.95	Sugar Loop
LIBS116	853170	8164462.9	832503/2003	0.183	1830	0.39	0.405	4.17	0.368	0.152	1.56	Sugar Loop
LIBS018	851335.3	8164520.2	832503/2003	0.107	1070	0.23	0.438	6.06	0.456	0.092	1.56	Sugar Loop
LIBS021	851335.3	8164520.2	832503/2003	0.073	730	0.16	0.231	7.15	0.14	0.066	1.05	Sugar Loop
	CRM/QAQ	C Samples		Li%	Li ppm	Li2O %	Mg%	<b>K%</b>	Ca%	Mn%	Fe%	Expected Li%
Spodumene				0.594	5940	1.28	0.069	3.15	0.101	0.022	0.297	-
GTA-06				0.649	6490	1.40	0.02	3.55	0.28	0.154	0.869	0.7843
GTA-08				0.188	1880	0.40	0.559	5.26	1.25	0.081	2.7	0.1121
AMIS0342				0.251	2510	0.54	0.328	10.32	0.281	0.119	2.06	0.1612
AMIS0342				0.164	1640	0.35	0.371	6.9	0.216	0.157	2.31	0.1612
OREAS752				1.06	10600	2.28	0.048	4.74	0.23	0.135	1.18	0.707
OREAS752				0.958	9580	2.06	0.046	4.62	0.209	0.144	1.36	0.707
GTA-08				0.164	1640	0.35	0.584	6.8	1.1	0.078	2.39	0.1121
GTA-08				0.198	1980	0.43	0.69	23.78	0.892	0.08	4.14	0.1121
OREAS751				0.828	8280	1.78	0.259	11.12	0.552	0.142	1.93	0.468
OREAS751				0.704	7040	1.52	0.213	14	0	0.13	3.17	0.468

CRM/QAQC samples were inserted approx. every 40 tests to ensure accuracy and correct calibration. LIBS tests were conducted in the 'Lithium Pegmatite' function<sup>10</sup>



<sup>&</sup>lt;sup>9</sup> LIBs readings are not a replacement for comprehensive laboratory analysis and only reflect lithium concentration at specific points, rather than the entire rock. While they assist in geological interpretation and verifying lithium presence, they offer only an approximate concentration Each sample underwent testing between 4 and 8 times, with only the significant peak reading being presented in the document. <sup>10</sup> Regarding this announcement, significant peak values are defined as any readings resulting in a Li ppm value exceeding 700ppm. Readings or values below this threshold are not included in the announcement.



## Appendix 2: LIBS Analysed Sample Description and Rock Descriptions<sup>11</sup>

Sample ID	Rock Description
LIBS023	Pegmatite with Fsp/Alb, Mc (Lpd?) – Blue-ish colouration (Amblygonite?). Within underground Artisanal Mine
LIBS026	Pegmatite with Fsp/Alb, Mc (Lpd?), Green mineral (Spodumene?) & Tourmaline. Within underground Artisanal Mine.
LIBS011	Pegmatite with Fsp/Alb, Mc, Tourmaline (undefined white minerals: Amblygonite? /Petalite?). Natural exposed outcrop.
LIBS013	Pegmatite with Fsp/Alb, Mc, Tourmaline (undefined white minerals: Amblygonite? /Petalite?). Natural exposed outcrop.
LIBS116	Pegmatite with Fsp/Alb, Mc (undefined white minerals: Amblygonite? /Petalite?). Creek exposed outcrop
LIBS116	Pegmatite with Fsp/Alb, Mc, (undefined white minerals: Amblygonite? /Petalite?). Creek exposed outcrop
LIBS018	Pegmatite with Fsp/Alb, Mc, Tourmaline (undefined white minerals: Amblygonite? /Petalite?). Natural exposed outcrop.
LIBS021	Pegmatite with Fsp/Alb, Mc, Tourmaline (undefined white minerals: Amblygonite? /Petalite?). Natural exposed outcrop.

Figure	Rock Description
3	Historical Artisanal Mine & Potential Ornamental Quarry Pegmatite (drill hole evident) mineralogy – Qtz (<20%), Fsp/Alb (50%), Mc/Bt (15%), remaining colourless minerals with some blue-ish tinge (amblygonite?).
4	Historical Artisanal Mine (continues 50m underground). Pegmatite mineralogy – Qtz (<20%), Fsp/Alb (50%), Mc/Bt (15%), remaining colourless minerals with some blue- ish tinge (amblygonite?).
5	Pegmatite outcrop from license 832503/2003. Qtz (<20%), Fsp/Alb (50%), Mc/Bt (15%), remaining colourless minerals with some blue-ish tinge (amblygonite?).
6	ScipAps LIBS Interface – Peak reading from Sample LIBS023. Sample Directly below reading: Fsp (50%), Mc (20%), pale green mineral? (15%), Qtz (~15%).
7	ScipAps LIBS Interface – Peak reading from Sample LIBS026. Sample Directly below reading: Fsp (40%), MC (20%), undefined white minerals: Amblygonite? /Petalite? (20%), Qtz (10%).

<sup>&</sup>lt;sup>11</sup> 'Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.'



# JORC Code, 2012 Edition – Table 1 report template

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary			
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Rock chips were gathered from shallow artisanal pits and naturally exposed weathered pegmatites. The sample sizes ranged from 50g to 2kg, and all were categorized as either 'fresh' or 'lightly weathered'.</li> <li>A Sci Aps 903 LIBS scanner was utilized for additional lithium analysis. This scanner is calibrated at the factory and offers semi-quantitative mineral analysis specifically for lithium.</li> <li>The analyses are focused on individual minerals rather than entire rock compositions.</li> <li>This data pertains to geochemical anomalies suggesting further investigation is needed; however, confirmation of economical lithium mineralization through mineralogy has not been established.</li> <li>Rock chips exhibiting anomalous high lithium values will undergo further conformation at a commercial laboratory.</li> <li>Peak LIBS results and QAQC data provide in Appendix 1.</li> </ul>			
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).	Surface sampling only.			
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>	Surface sampling only.			
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,</li> </ul>	<ul> <li>Sample locations and descriptions are recorded in written ledgers/sample books and transferred to electronic copies.</li> </ul>			



Criteria	JORC Code explanation	Commentary
	<ul> <li>channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul><li>Descriptions are qualitative</li><li>Surface sampling only.</li></ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <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> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Only surface sampling was conducted in this study.</li> <li>Samples were adequately dried with no further sample preparation conducted.</li> <li>Rock chip samples were collected from areas with historic excavations and are deemed representative of the in-situ material, although their weathering varies. Whole rock analysis is deemed suitable for preliminary reconnaissance exploration.</li> <li>During LIBS analysis, certified reference materials (CRMs) and standard samples were periodically inserted, approximately every 40 tests, to ensure accuracy and calibration.</li> <li>No field duplicates were included in this sampling program, given its early stage in exploration.</li> <li>The sample size chosen is appropriate for early-stage exploration, especially before the type of mineralization has been identified.</li> <li>A selection of samples will be chosen to be pulverized into a 'pill' for enhanced accuracy and replicability.</li> </ul>
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>	<ul> <li>All LIBS results were generated by Rodrigo Mello (FAusIMM) who provides exploration services to Perpetual Resource from Belo Horizonte, Brazil. Rodrigo is AusIMM delegate for Brazil and has sound experience of working the LIBS, including with other ASX listed companies, to be considered a competent user of the device.</li> <li>A Sci Aps LIBS (Z-903) analyzer was utilized to identify potential lithium mineralization within the Itinga Pegmatite Field. This portable laser-induced breakdown spectroscopy (LIBS) scanner offers semi-quantitative analysis of light elements such as Li, Cs, Be, and Rb in the field. The Z-903 model incorporates three spectrometers covering a range from 190nm to 950nm. It operates by emitting pulsed laser energy at 5-6mJ/pulse with a repetition rate of 50Hz. The laser beam has a diameter of 100 microns and a pulse duration of 1-2 nanoseconds. An onboard spectrometer analyzes the emitted light, measuring wavelength</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>and intensity at specific points, and matches spectral lines with known wavelengths to identify present elements (e.g., lithium at 460nm, 610nm, and 670nm). Utilizing onboard calibration (Geochem set of 15-20 elements), it quantifies the concentration of the element. Results are electronically displayed and stored. The detection limit for lithium is reported to be 2-5ppm (referenced from https://sciaps.com/libs-handheld-laser-analyzers/z-903-libs/). It's worth noting that surface irregularities and sample inhomogeneity may contribute to variability in readings.</li> <li>All reading was conducted in 'Lithium Pegmatite' calibration.</li> <li>QAQC CRMS and Blanks were used ~40 tests to ensure accuracy and identify errors. Table provided in Appendix 1</li> <li>Tests were conducted on the sample with no preparation aside from drying.</li> <li>The LIBS data is exploratory in nature and is used to assist in target prioritisation through an exploration program. Results from laboratory assays are expected to differ.</li> <li>Rock samples will be sent to SGS GeoSol, located in Belo Horizonte, for analysis of lithium and other elements using multi-acid digestion and ICP-MS. While this method is effective for detecting lithium mineralization in exploration programs, it may not completely dissolve the most resistant minerals.</li> <li>Standard QAQC measures will be installed to ensure assay precision and bias.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No significant intersections to report.</li> <li>Sample locations &amp; sample descriptions were compiled in written ledgers from which information has been imported electronically.</li> <li>No adjustments to assay/results data were undertaken.</li> <li>LIBS readings have been downloaded directly from the device.</li> <li>LIBS results do not represent assay data.</li> </ul>
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.	All sample locations were measured using a handheld Garmin GPS using WGS84 and UTM coordinates - Coordinates provided in SIRGUS 2000



Criteria	JORC Code explanation	Commentary			
	Specification of the grid system used.	/UTM 23S			
	Quality and adequacy of topographic control.	• The accuracy is considered sufficient for a first pass sampling program.			
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>No Drilling Conducted</li> <li>No Sample Compositing has been applied.</li> <li>Only surface sampling obtained.</li> </ul>			
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>No Drilling Conducted</li> </ul>			
Sample security	The measures taken to ensure sample security.	• Samples have been securely packed in poly-weave backs and sealed with cable ties to mitigate contaminants or un-approved handling.			
		• Samples will be couriered to Belo Horizonte through PEC personnel and approved commercial couriers.			
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No reviews or audit completed to date.			

## 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	• Type, reference name/number, location and ownership including agreemer or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or	• PEC own's 100% exploration rights to 7 tenements located in Minas Gerais, Brazil, through its wholly owned subsidiary Perpetual Resources Do Brasil LTDA.
status	national park and environmental settings.	• Itinga Project: 830489/2023 & 830490/2023, 832837/2023 & 830226/2021.
	• The security of the tenure held at the time of reporting along with any known	<ul> <li>Padre Paraiso: 830491/2023 &amp; 830492/2023</li> </ul>



Criteria	JORC Code explanation	Commentary		
	impediments to obtaining a licence to operate in the area.	• Ponte Nova: 832017/2023, 832018/2023 & 832019/2023		
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• No prior formal exploration is known on any of the tenements however there has been some informal exploration and production by artisanal miners in and adjacent to Itinga, Ponte Nova & Padre Paraiso Projects.		
Geology	• Deposit type, geological setting and style of mineralisation.	• The geological features of the areas consist of granite & sedimentary rocks from the Neoproterozoic era within the Araçuaí Orogen. These rocks have been intruded by fertile pegmatites rich in lithium, which have formed through the separation of magmatic fluids from peraluminous S-type granitoids and leucogranites associated with the Araçuaí Orogen.		
Drill hole Information	<ul> <li>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: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>Not applicable, surface sampling only, summary statistics of selected elements provided in Appendix 1.</li> </ul>		
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No drilling results are included in the report.</li> <li>No data aggregation has been applied to the data in this release.</li> <li>No metal equivalents have been used in this data.</li> </ul>		



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	No drilling activities are being reported.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>A plan showing reported sample locations and newly optioned license is included in the announcement.</li> </ul>
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.	<ul> <li>Images, figures and tables provided are visual depictions covering the full range of LIBS results. It's important to emphasize in the main text that the anomalies highlighted are not meant to represent lithium ore grade. Rather, they indicate the potential existence of lithium-bearing rocks beneath the surface cover.</li> <li>Regarding this announcement, significant peak values are defined as any readings resulting in a Li ppm value exceeding 700ppm. Readings or values below this threshold are not included in the announcement.</li> </ul>
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.	• All relevant material exploration data for the target areas discussed, has been reported or referenced.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Expanded sampling programs are planned within and adjacent to high-priority zones.</li> <li>Implementation of broad-scale soil sampling initiatives.</li> <li>Utilization of hyperspectral targeting techniques.</li> <li>Implementation of trenching and channel sampling methodologies to enhance sampling of the pegmatite structures.</li> </ul>