



## ASX Announcement

29 January 2025

## QUARTERLY ACTIVITIES REPORT FOR THE QUARTER ENDED 31 DECEMBER 2024

Lightning Minerals (L1M or the Company) is pleased to report its Quarterly Activities Report for the quarter ending 31 December 2024.

### HIGHLIGHTS

ASX: L1M

Shares on Issue  
103,328,319

Performance Rights  
46,049,999

Unlisted Options Outstanding  
10,450,000 (exercisable at A\$0.25)  
6,000,000 (exercisable at A\$0.105)  
80,000 (exercisable at A\$0.30)  
110,000 (exercisable at A\$0.40)  
140,000 (exercisable at A\$0.50)

Listed Options Outstanding  
40,389,258 (exercisable at A\$0.25)

Cash Position  
A\$1.91 Million  
(at 31 December 2024)

- Spodumene discovery up to 4.04% Li<sub>2</sub>O at the Esperança project in the Lithium Valley in Minas Gerais, Brazil
- Multiple lithium drill targets identified across all three project areas in Brazil: Esperança, Caraíbas and Canabrava projects
- Drilling to begin at Esperança project in Q1 2025
- Lithium in Soil anomalism up to 239ppm Li and extending ~2km at the Caraíbas project. Lithium in Soil anomalism up to 113ppm Li identified at the Canabrava. All projects demonstrate multiple pegmatite outcrops
- Infill soil sampling completed with results pending subsequent to end of Quarter
- Multiple geophysical targets identified across all Brazilian projects which correlate with identified lithium in soil anomalism
- Execution of MoU with Invest Minas and Brazilian Government to fast-track project exploration and development
- Appointment of Jamie Day as Non-Executive Director - highly experienced lithium industry executive
- Managing Director, Alex Biggs completed site visit to Brazil including engagement with key stakeholders in November and December

Lightning Minerals Managing Director Alex Biggs said, "The final Quarter of the 2024 calendar year has been a busy and successful one for the Company. Phase 1 exploration has been completed across all of the Company's assets in Brazil which has yielded highly positive results, including our first spodumene discovery on our Esperança project. Other significant results include identification of lithium in soil anomalism across the Canabrava and Caraíbas projects up to 239ppm Li and extending over 2km. The work that the Company has completed during the second half of 2024 in Brazil has set up multiple lithium drill targets which we will begin drilling in Q1 of 2025. The Company is funded for its initial drilling campaign in one of the most prolific and prospective lithium regions globally and we look forward to what is shaping up to be a transformative year for Lightning Minerals in 2025".



## OPERATIONAL ACTIVITIES

### CARAÍBAS, SIDRÔNIO AND ESPERANÇA PROJECT OVERVIEW (100% L1M)

Exploration has focused on phase 1 soil sampling and ground reconnaissance works across all three project areas: Esperança, Caraíbas and Canabrava projects. Ground reconnaissance works identified spodumene grading up to 4.04% in artisanal workings on the Esperança project (18 November 2024) with plans to begin drilling the target area in Q1 2025.

Multiple areas of lithium in soil anomalism have also been identified including a 2km lithium in soil anomaly up to 239ppm Li at the Caraíbas project (ASX Announcement 02 December 2024) and lithium in soil anomalism up to 113ppm Li at the Canabrava project (ASX Announcement 03 October 2024). Infill soil sampling across these key areas of interest has also been completed with results pending subsequent to end of Quarter. Works have also identified multiple geophysical targets which correlate with some of the identified areas of lithium in soil anomalism (ASX Announcement 21 November 2024).

Ground reconnaissance works, drill planning and phase 2 exploration works are currently underway across all project areas in Brazil.

### DUNDAS PROJECT OVERVIEW (100% L1M)

Infill soil sampling has been completed on the Company's Dundas North project area (ASX Announcement 07 October 2024). A number of areas of interest were identified in the previously completed regional soil sampling program on Dundas North tenements E28/3027 and E28/3028 where broad lithium in soil anomalism was identified across an area of 35km<sup>2</sup> and up to 147ppm Li (ASX Announcement 01 May 2023). A detailed infill program has been designed within the initial program which was spaced at 400m x 400m. Infill sampling is planned on 100m x 200m spacing with results pending subsequent to end of Quarter.

### DALMAS AND HIVER PROJECT OVERVIEW (100% L1M)

Data review has begun in the period through engagement of specialist Canadian consultants to complete a historic data review and compile all relevant, regional geological datasets including data collected during the Company's field program in 2023. Works are ongoing subsequent to end of Quarter.

### MAILMAN HILL PROJECT OVERVIEW (100% L1M)

An internal review of the auger program completed in July 2024 which yielded anomalous gold results (ASX Announcement 21 August 2024) is underway with discussions underway regarding further exploration potential which would be completed via Aircore drilling. Evaluation is ongoing subsequent to end of Quarter.

### MT BARTLE PROJECT (100% L1M)

Application for the Mt Bartle tenements is still pending based on execution of heritage agreements. Data review and analysis is ongoing and continues subsequent to the end of Quarter. Discussions regarding execution of heritage agreements are continuing.



## SUMMARY OF ANNOUNCEMENTS IN THE QUARTER

(ending 31 December 2024)

### LITHIUM TARGETS DEFINED IN BRAZIL

(ASX ANNOUNCEMENT 03 October 2024)

- Analytical results returned with up to 113ppm lithium occurring within schists of the Salinas Formation
- Phase 1 soil sampling program complete at the Canabrava project with 129 samples collected
- Multiple pegmatite occurrences and pegmatite float material identified across the project area via the coincident geological mapping campaign

### Positive Initial Soil Sampling Assays at Canabrava

Field soil sampling activities began during June at the Canabrava project in Minas Gerais, Brazil. The program is now complete with the collection 129 samples (Figure 1). Samples were submitted to 'SGS Geosol Laboratórios Ltd' of Belo Horizonte and the results are now available. Lithium values are considered positive with two areas of elevated lithium returned along the 400m spaced sample line traverses. Results in these two areas are broadly coincident with the orientation of a nearby sub cropping pegmatite recorded as part of the first pass geological mapping program that was conducted in parallel to the soil sampling exploration program (Figure 2). The orientation of the target trend area correlates with a linear topographic high that has an undifferentiated cover sequence obscuring the underlying schists of the Salinas Formation to the east. This is the reason that the samples in the traverse to the east of the identified trend zone were not collected during the Phase 1 program. The area will now be revisited to sample on 100m traverses to determine if the anomalism continues until the cover unit presents to the east.

A thesis regarding the structural setting local to the lithium in soil anomalism is being developed and will be aided by the finalisation of geophysics interpretation works which are due imminently. Thesis development will focus on identifying structural corridors that may present a dilational strain regime suitable for pegmatite emplacement similar to those seen at other known deposits in the region. If similar elevations in lithium are returned from the planned infill soil sampling campaign to the east this will also be considered as a high priority drill target area.

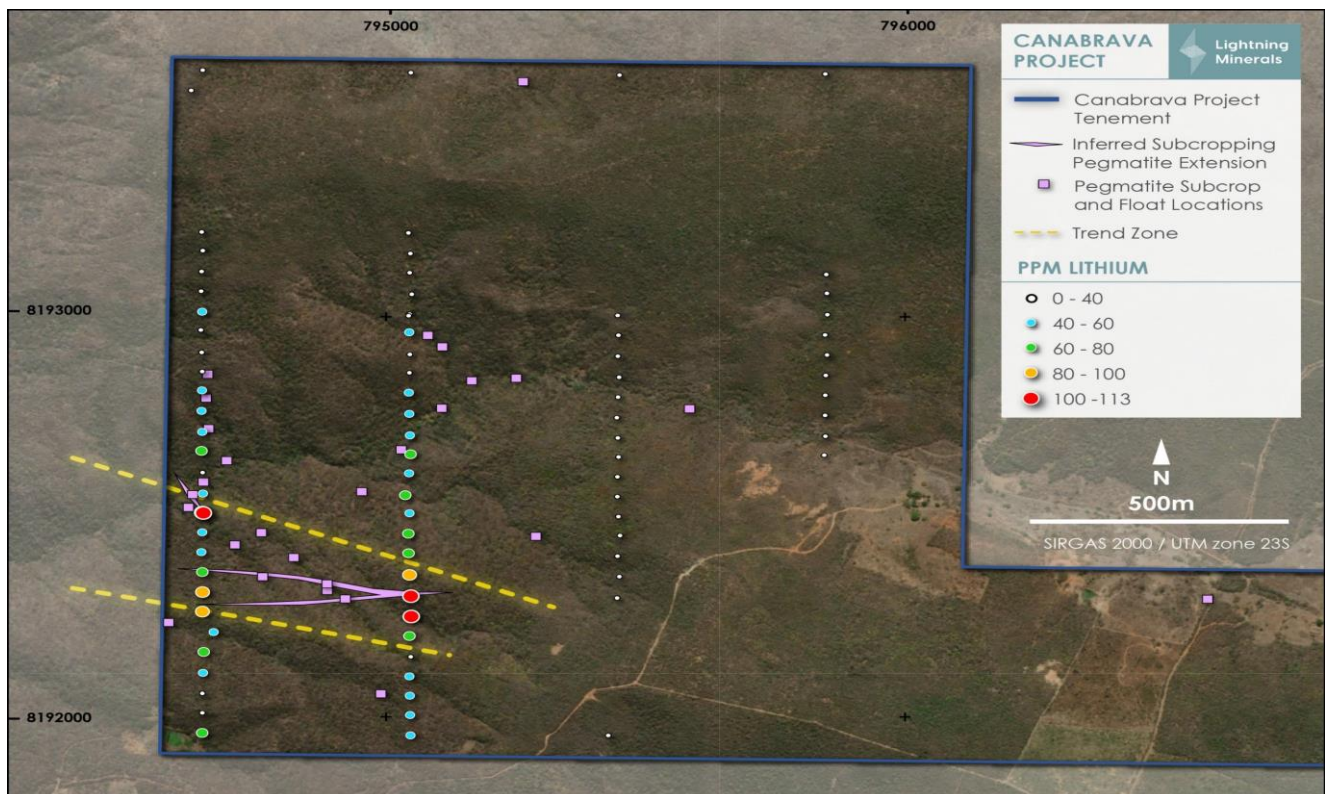




**Figure 1: Soil sampling results (lithium) for 129 samples taken from Canabrava project area. The interpreted trend zone for immediate follow up field works is shown in yellow. (SIRGAS 2000/UTM Z23S)**



**Figure 2: Zoomed view of Figure 1 target area showing soil sampling results (lithium), interpreted subcropping pegmatite locations, and point mapped pegmatite data (SIRGAS 2000/UTM Z23S)**







## Pegmatite Occurrences Demonstrate Potential Prospectivity

Beyond the areas of elevated lithium, a considerable number of pegmatite sub crops and float has been recorded during the mapping campaign with more than 25 pegmatite occurrences mapped within the local area (Figure 2). The mapping program continues to uncover what might be a broad pegmatite system hosted within Salinas Formation Schists, which is significant in a regional context as these add to the prospectivity of the project areas.

Typical examples of the pegmatite outcrops are shown in Figure 3 (A) and Figure 3 (B) below.

A full list of field descriptions for the pegmatite locations is included in Appendix 2 Table 2, and the analytical results for the rock chip samples included in Appendix 1 Table 2 of the original announcement.

**Figure 3: Photography of sites VLM081 (A) and VLM080 (B) of outcropping pegmatites within the Canabrava Project area. (SIRGAS 2000/UTM Z23S)**



## Next Stages of Work at Canabrava

A follow up infill soil sampling program consisting of approximately 100 samples on a 100m line spacing, and 50m sample spacing is currently being arranged and will begin within the next week.

Local specialist lithium geologists will revisit the area and undertake further mapping to better constrain the pegmatite outcrops and orientations with a view to generate drill targets ready for an inaugural drilling campaign.



## LITHIUM TARGETING CONTINUES AT DUNDAS

(ASX ANNOUNCEMENT 07 October 2024)

- Infill soil sampling program of ~500 samples to further test previously identified lithium in soil anomalism of up to 147ppm Li
- Dundas North tenements to be tested across three large lithium targets up to 35km<sup>2</sup>, as identified in March 2023. Sampling to be completed down to a spacing of 200m x 100m in some areas

### Dundas North Infill Soil Sampling

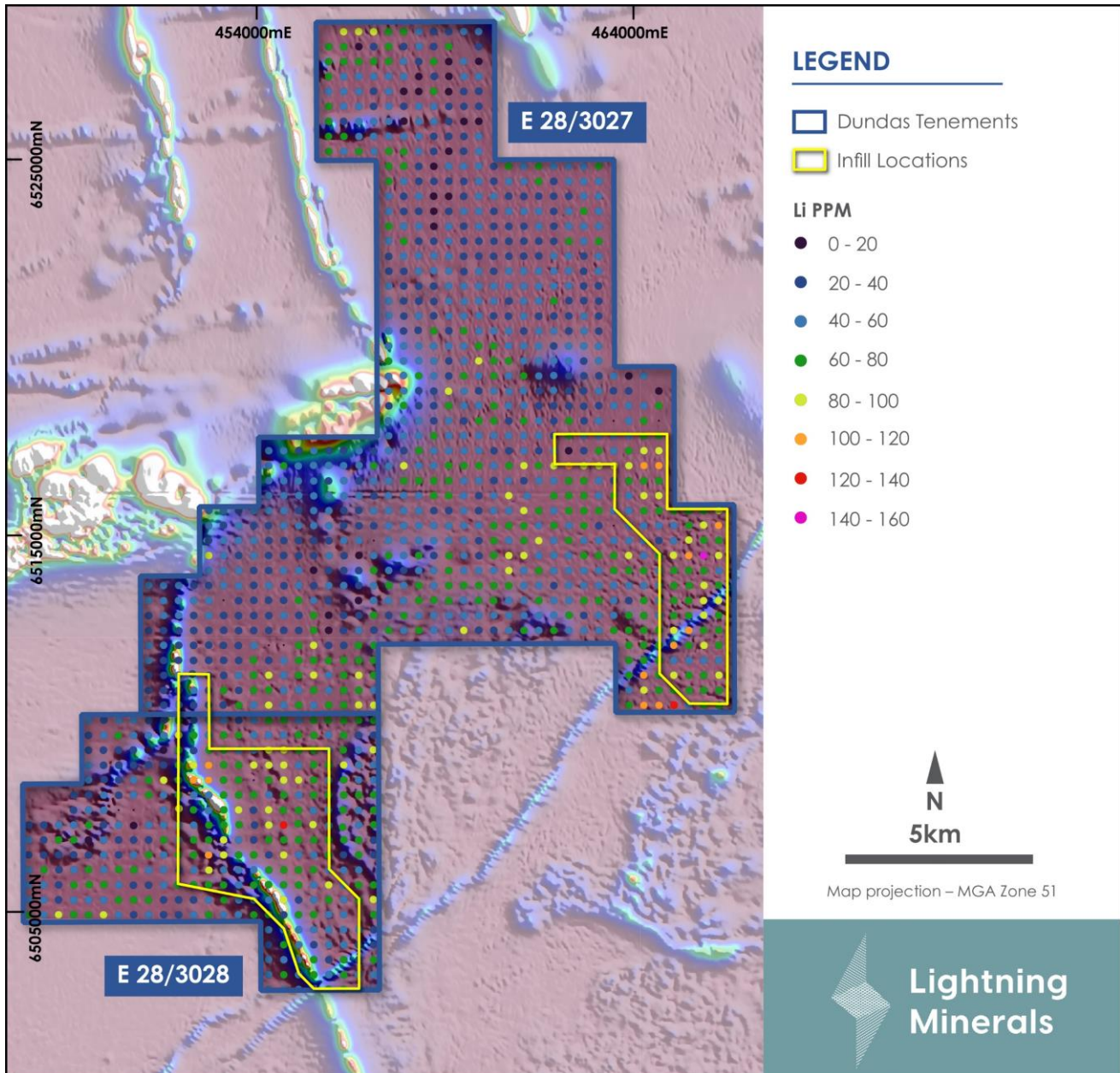
Phase 1 soil sampling was completed during Q1 and Q2 of CY2023 with samples collected on a nominal 400m x 400m grid across the tenements, with analysis completed by LabWest Minerals Analysis (LabWest). Analysis utilised the Ultrafine + (UFF+) method with chemical analysis for a suite of 62 elements including lithium and associated pathfinders typically used for identification of lithium-caesium-tantalum (LCT) mineralisation.

The tenor of background lithium level within the project area and the Mt Belches lithological unit appears to be approximately 40-60ppm lithium. The elevated zones returning multiple samples with values above 80ppm lithium and up to a peak result of 147ppm lithium. Results are thought to provide sound vectors toward potential mineralisation as the elevations are clustered and are proximal to suitable granitic protoliths within the 'goldilocks zone' for LCT pegmatite mineralisation. The 'goldilocks zone' is typically estimated to be between 2km and 10km from the source granitic body.

This geological setting therefore requires follow up exploration works to ascertain the source of the anomalies and forms the basis of the infill soil sampling program as shown in Figure 4. Infill sampling will be completed down to a granularity of 200m x 100m.



**Figure 4: Lightning Minerals - Dundas North tenure showing UFF+ lithium soil geochemistry results (as reported 01 May 2023) and planned areas of infill soil sampling as highlighted in yellow polygons on geophysical aeromagnetic analytic signal image**



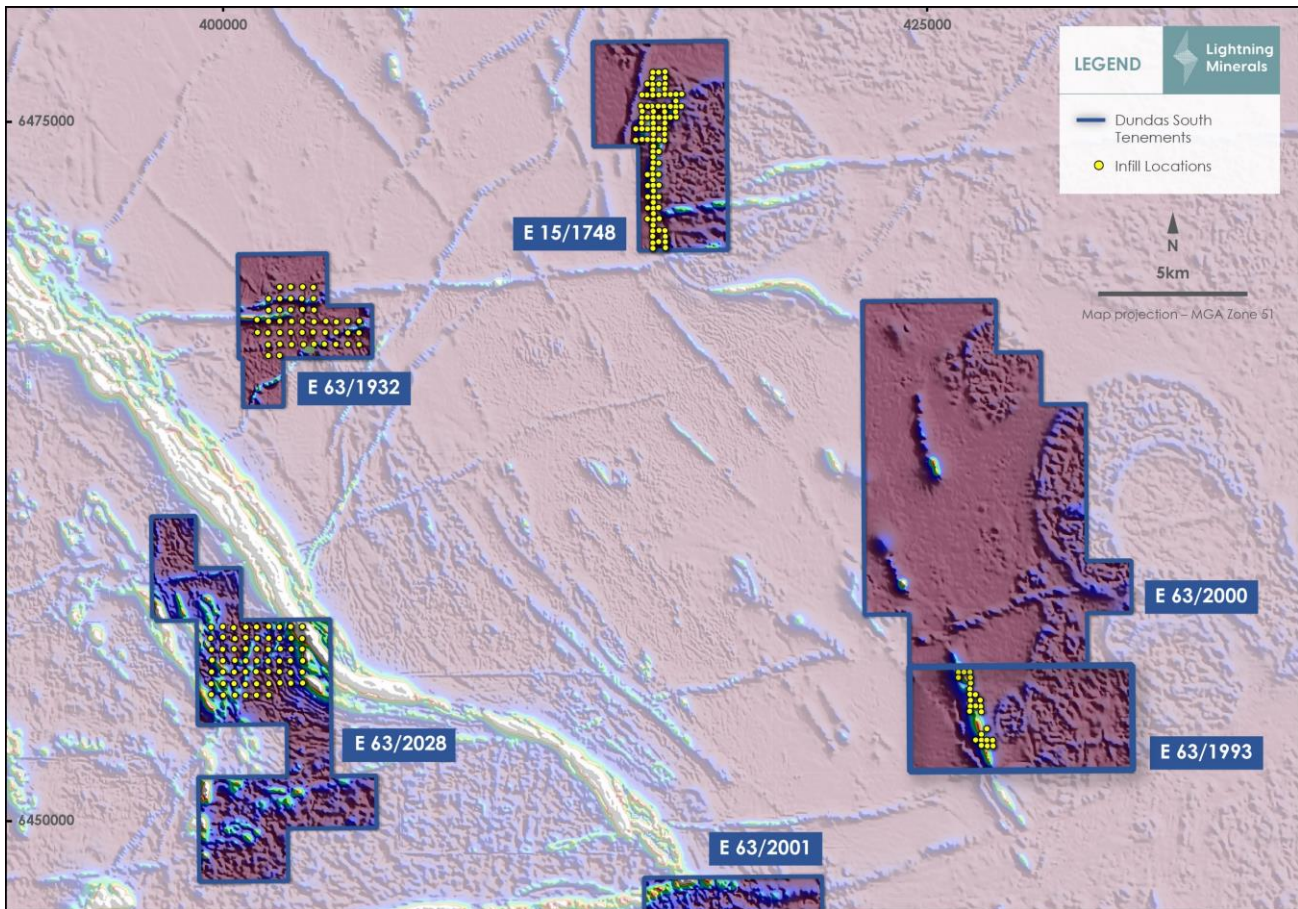
## Dundas South Infill Soil Sampling

Soil sampling will also be undertaken at the Dundas South project area following up zones of interest identified by the regional soil program. Grids of differing resolutions will be completed across tenements E63/2028, E63/1932, E15/1748 and E63/1993 down to a minimum of 200m x 200m. Targeting criteria in these areas focus mainly on existing results for lithium and its pathfinder elements identified during the regional program (as reported in ASX Announcement 23 March 2023), but also aim to assess gold/nickel potential as the genetic models can share attributes regarding lithologies, geochemistry and rheology. The planned sites are shown in Figure 5.





**Figure 5: Lightning Minerals - Dundas South tenure showing planned UFF+ lithium infill soil locations on geophysical**



## START OF WORKS AT ESPERANÇA PROJECT IN LITHIUM VALLEY BRAZIL

(ASX ANNOUNCEMENT 09 October 2024)

- Additional local exploration teams secured to expedite soil campaign across highly prospective Esperança tenement
- Extensive soil program consisting of ~500 samples to begin imminently testing Salinas Formation rocks proximal to granites
- Securing additional field team accelerates Lightning Minerals' aggressive exploration strategy in Brazil

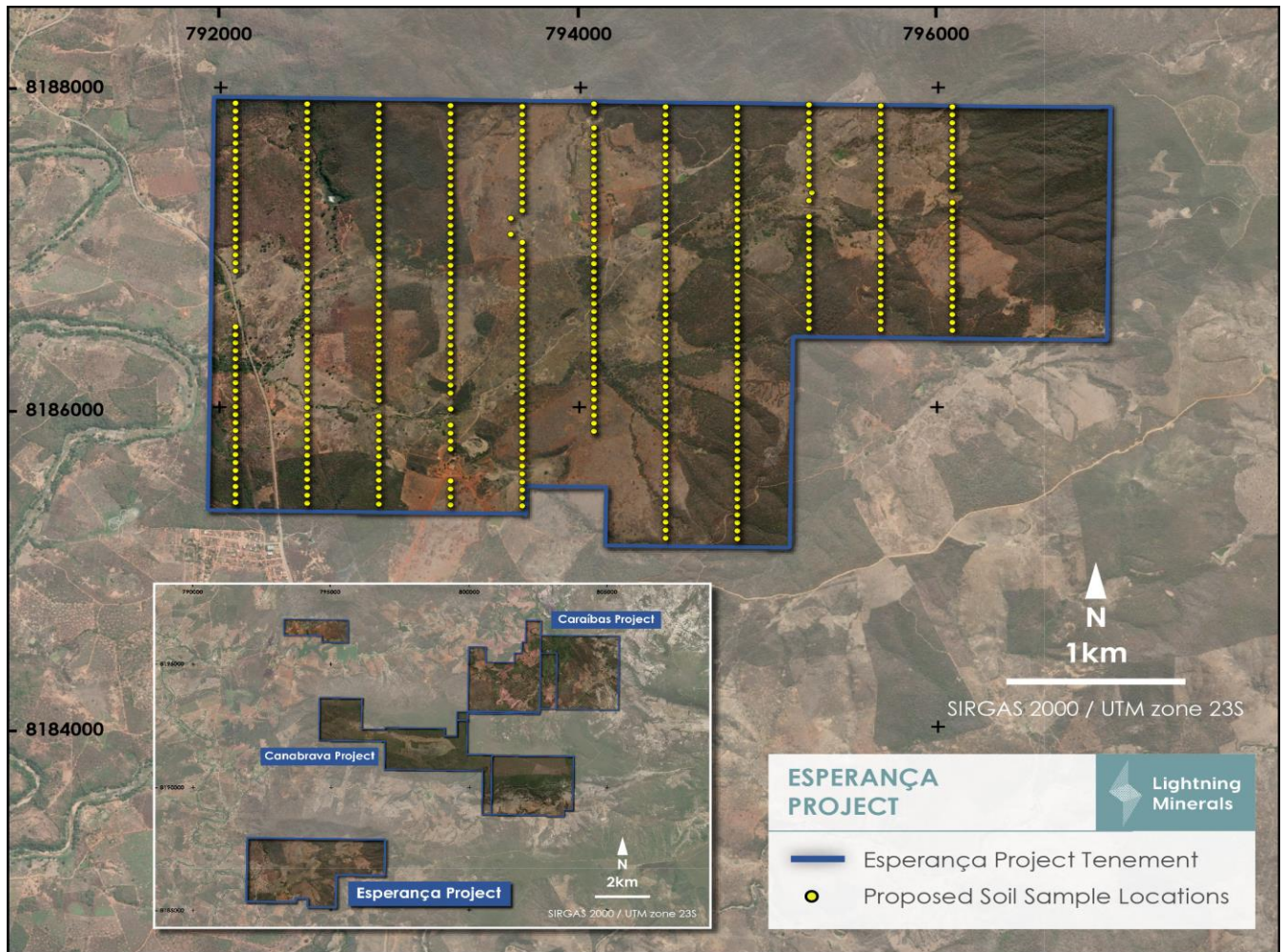
### Esperança Phase 1 Soil Sampling

The planned soil sampling program at Esperança consists of approximately 500 samples, to be taken at 50m spacings along N-S orientated sample lines. The sample lines will be spaced at 400m (Figure 6). The soil grid has been designed to cover much of the tenement during the first pass, this approach is aided by relatively low-moderate topographic relief and a low vegetation density which supports an aggressive sampling campaign that may be executed quickly and at a low cost.





**Figure 6: Esperança project showing planned north-south orientated soil traverse and proposed soil sample locations**



## Esperança Ground Reconnaissance Works

During June 2024 the Company aided by highly experienced local lithium geologists visited the Esperança project area. Leveraging the knowledge of local geologists, the field team multiple sites of interest that may represent lithium potential.





**Figure 7: Esperança Project reconnaissance site trip during June 2024**



The proposed soil program now aims to identify regions within the tenement which may have the right geochemistry to support further exploration for lithium deposits. A geological mapping program will be undertaken in parallel to the soil program to collect data from outcropping geology within the project area.

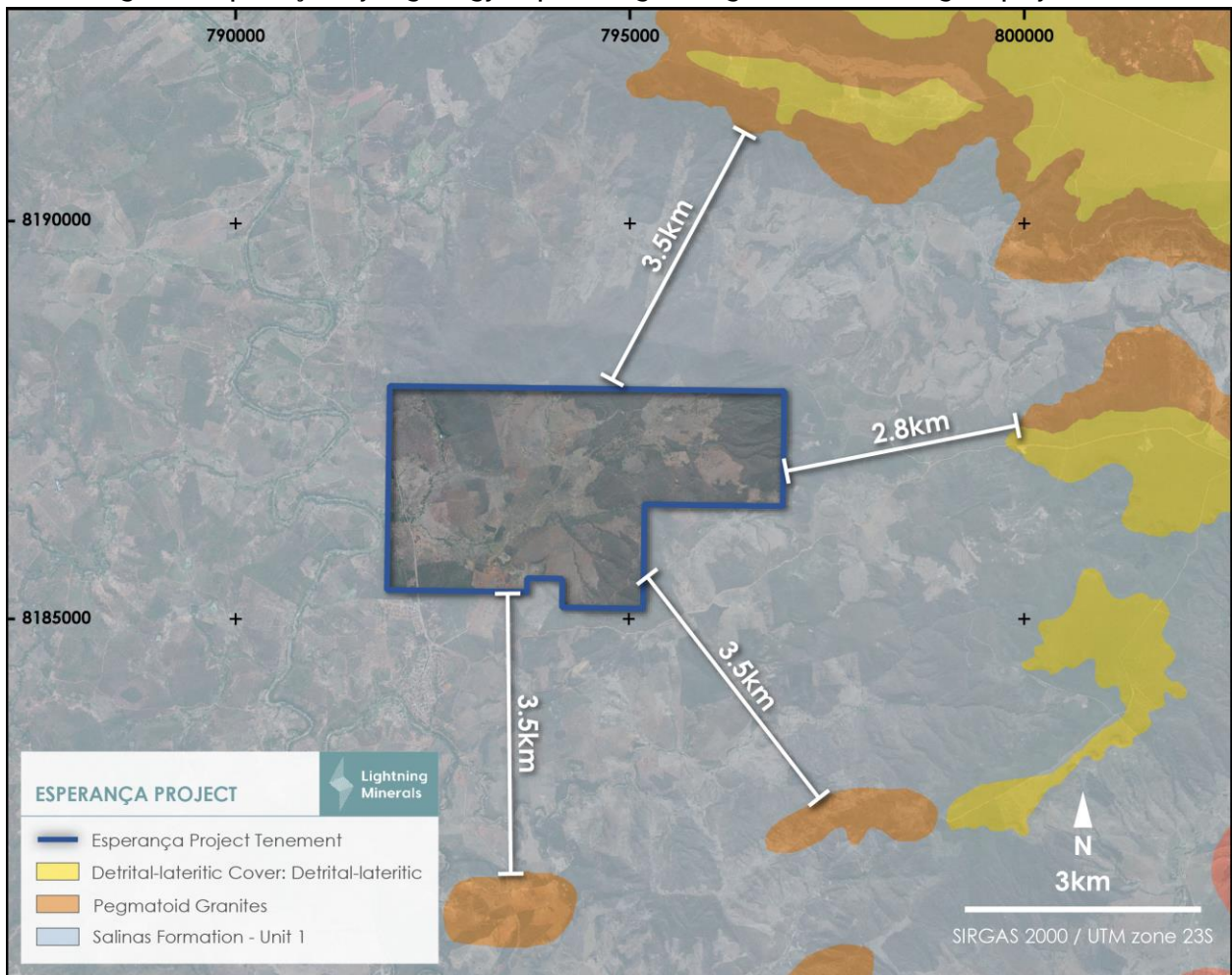
## Esperança Exploration Thesis

The Esperança project is considered of excellent prospectivity given its position proximal to fertile S-type granites within the region. The project has Palaeozoic S-type granites as mapped by the Brazilian Geological Survey to the north, east and west of the project area (Figure 8). Lithium deposits are often associated with these S-type granite batholiths as they are theorised to be the fundamental source for the lithium in hardrock deposits. The granites surrounding the project are documented with 'rich black tourmaline and, more rarely, garnet, pink and green tourmaline and lepidolite', the thesis is that these granites could represent a potential source for primary hydrothermal fluids that have the correct geochemistry for lithium formation.

In global context lithium deposits are usually not found within the granite themselves, but rather at a critical distance of 1 to 12 kilometres away from the source granitic rocks. The Esperança project is located between 3-4 kilometres away from S-type granitoids which is well situated based on this thesis. The ground observations during the reconnaissance visit in June 2024 are considered a positive indicator.



Figure 8: Esperança Project geology map showing fertile granites surrounding the project area.



## LIGHTNING MINERALS SIGNS MOU WITH BRAZILIAN GOVERNMENT

(ASX ANNOUNCEMENT 28 October 2024)

- Signing of MOU with Invest Minas to support the development of the Company's lithium projects in Brazil and develop the battery materials sector in the state of Minas Gerais
- Invest Minas to support project development through licensing, environmental approvals and other licensing requirements where applicable
- The Company is aggressively exploring its Caraíbas, Canabrava (Sidrônio) and Esperança lithium projects in the prolific Lithium Valley region of Minas Gerais during Phase 1 exploration stage which includes soil sampling, geophysics and ground reconnaissance

### About Invest Minas

Invest Minas is a government organisation in the state of Minas Gerais, Brazil. Its purpose is to promote, attract and regulate economic activity in the state of Minas Gerais including the facilitation of foreign trade and exports. This includes developing cooperation between companies, investors and the government to promote the development of the State.





## About the MOU

The MOU is applicable for a term of three (3) years and is non-binding in nature but outlines both the Company's and Invest Minas' collaboration opportunities as follows:

Invest Minas undertakes to provide support to Lightning Minerals during research, development and operational stages of the Caraíbas, Sidrônio and Esperança Projects, with ability to:

- Support the company in contacting government agencies and assist in the application for approval and licensing of projects.
- Introduce and facilitate interaction with suppliers to assist the company's activities.
- Promote Lightning Minerals' activities through investment announcements once prior authorisation has been granted, through press advisory services.

Invest Minas and Lightning Minerals will work together to support a battery feedstock and materials sector and supply chain investment for the State of Minas Gerais, which may include:

- Two-way introductions and partnerships.
- Investment partnerships into the local lithium supply chain.
- Consider and facilitate supply contracts to assist companies wanting to set up in Minas Gerais.

Lightning Minerals undertakes to provide support to Invest Minas with building a battery feedstock and materials sector in Minas Gerais as follows:

- Lightning Minerals will attempt to use local suppliers and employ local talent wherever possible and commercially viable
- As part of development planning, understand the local infrastructure needs and provide support through local investment that contributes to a robust battery feedstock and materials sector



**Figure 9: Signing ceremony of MOU with Invest Minas in Perth. From L-R: João Paulo Braga (Chief Executive Officer - Invest Minas), Alex Biggs (Managing Director - Lightning Minerals), Fernando Passalio (Secretary of State for Economic Development of Minas Gerais)**



## SPODUMENE DISCOVERY YIELDS LIBS RESULTS UP TO 4.04% $\text{Li}_2\text{O}$

(ASX ANNOUNCEMENT 18 November 2024)

- Artisanal excavations reveal lithium bearing pegmatite
- LIBS (Laser Induced Breakdown Spectroscopy) results of spodumene crystals return up to 18,800 ppm Lithium, or 4.04%  $\text{Li}_2\text{O}$
- Discovery provides walk up drill target for fully funded drilling campaign to begin Q1 2025

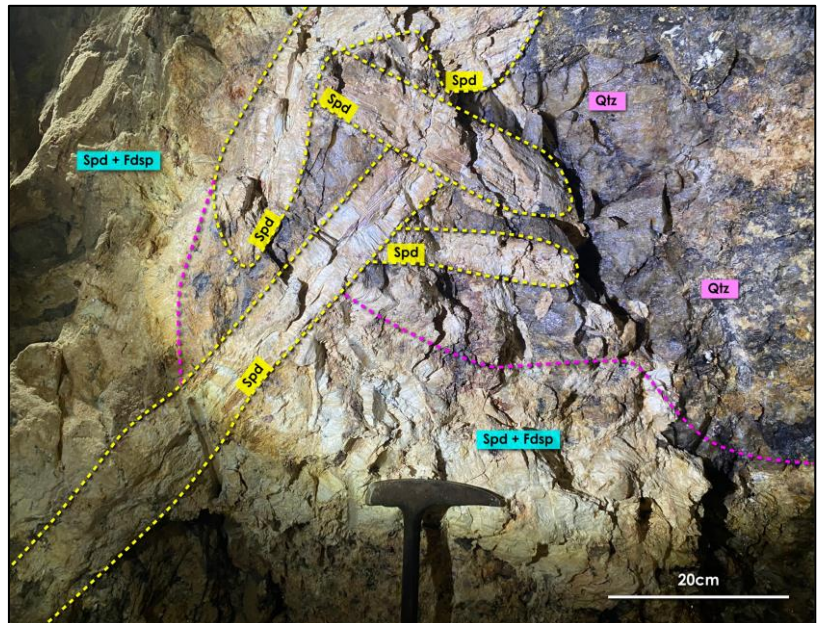
### Lithium Discovery at Esperança Project

During geological mapping fieldwork conducted in mid-November 2024 field geologists encountered a previously unknown historical artisanal mine within the Esperança project area. The site presented with a small access which opened into a set of sub vertical shafts sunk several meters into schists of the Salinas formation. Upon investigation the geology team has discovered pegmatitic lithologies in the walls of the



excavations, of which the suite of minerals indicates inclusion of macro crystalline (up to 50cm) elongate crystals of spodumene as shown in Figure 10(a) and Figure 10(b).

**Figure 10(a) (left): Spodumene rich portion of the zoned pegmatite discovered at the Esperança Property.**  
**Figure 10(b) (right): Large elongate spodumene crystals (Spd) up to 50cm in length showing homogeneous growth patterns amongst a quartz (Qtz) and Feldspar (Fdsp) rich matrix**



The Company's geologists have collected selective mineral specimen grab samples in sample VLM207 (Figure 11). Six separate minerals have been analysed via a SciAps Z-903 hand-held LIBS (Laser-Induced Breakdown Spectroscopy) device which has returned lithium endowment of up to 18,800 ppm lithium, which equates to a lithium oxide percentage of 4.04%  $\text{Li}_2\text{O}$ .

The SciAps Z-903 handheld LIBS device is considered a qualitative analysis technique only and is used as an in-field preliminary check to establish if a mineral is lithium-bearing. Certified laboratory assays are required to provide accurate, quantitative analysis. A table of the six SciAps Z-903 handheld LIBS results testing the spodumene crystals is shown in Table 1. A full table of results are presented in Appendix 2, Table 2 of the original announcement.

While the current field observations indicate that the mineral identified is a lithium-bearing mineral, the percentage of lithium produced from the LIBS analyser does not correlate to an accurate quantitative measurement of the lithium concentration of the mineral itself, or to the overall grade of the pegmatite.

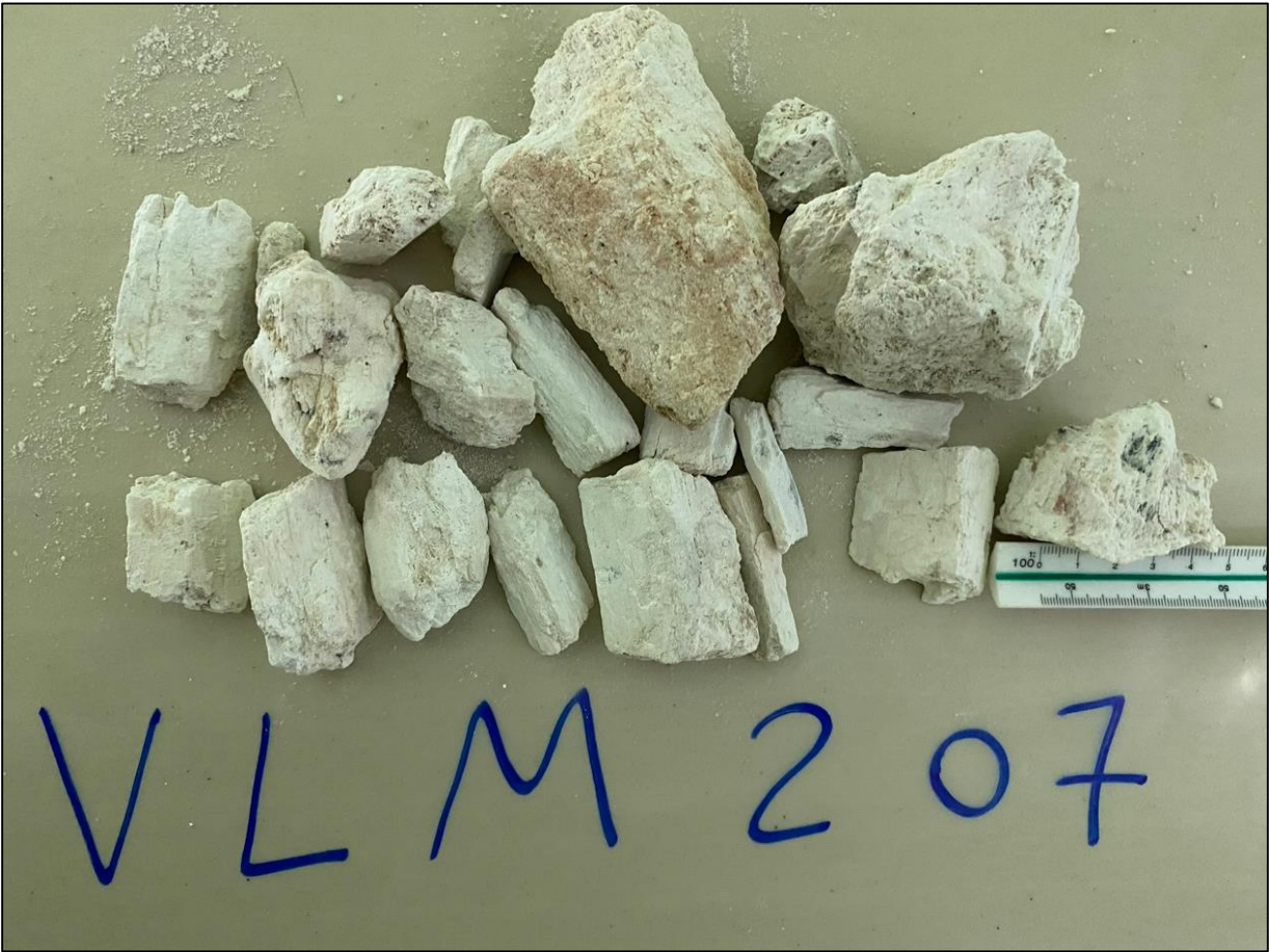




Table 1: Results for SciAps Z-903 handheld LIBS testing of selective mineral sampling from sample VLM207

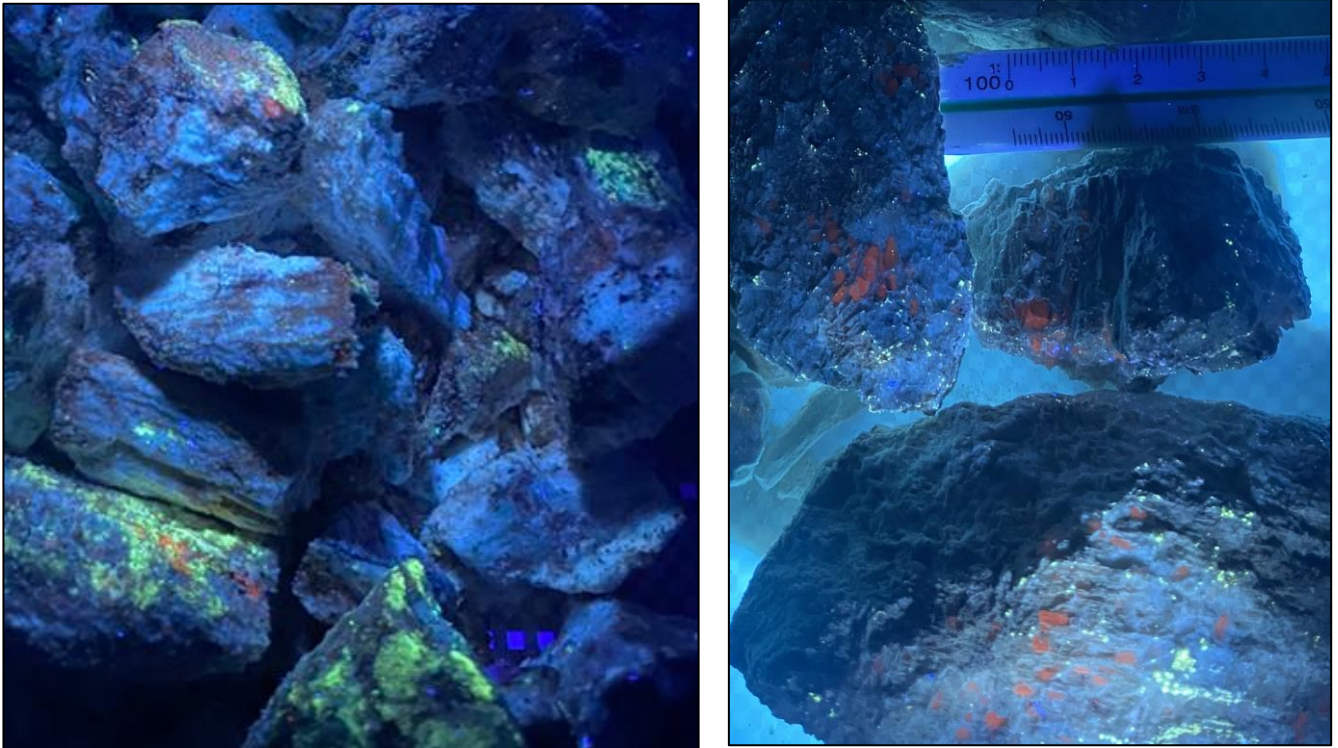
Sample ID	Sample Type	Lithology	Mineral % Estimate in Rock	LIBS ppm Results	LIBS Li <sub>2</sub> O Conversions	Lab Assay Result
VLM207	Selective Mineral Grab	Pegmatite Host rock consists of coarse-grained spodumene, quartz, feldspar and muscovite. Crystals spodumene are elongate and are moderately to highly weathered, exhibit a whitish colour.	Quartz - 55%, Spodumene 35% Feldspar - 5% Muscovite - 5%	1.88% Li	4.04% Li <sub>2</sub> O	Delivered subsequent to end of Quarter (ASX Announcement 17 January 2025)
				1.16% Li	2.49% Li <sub>2</sub> O	
				7072 ppm Li	1.52% Li <sub>2</sub> O	
				1878 ppm Li	0.40% Li <sub>2</sub> O	
				1.63% Li	3.50% Li <sub>2</sub> O	
				2452 ppm Li	0.52% Li <sub>2</sub> O	

Figure 11: Weathered Spodumene crystals collected from artisanal workings within the Esperança project (sample VLM207). The crystals are taken within the saprolite zone and are friable, the weathering estimate is moderate to highly weathered





**Figures 12(a) (left) and 12(b) (right): Blacklight (UV 365nm) analysis of VLM207 weathered Spodumene crystals**



Under UV light the mineral samples from VLM207 fluoresce in the orange spectrum when activated by 365nm wavelength UV light which is common for spodumene crystals in the region. The weathered spodumene crystals show a light orange fluorescence as shown in Figure 12(a) some less weathered portions of the spodumene crystal remain and exhibit a stronger fluorescent response with deeper orange colours as those shown in Figure 12(b). The accessory green highly fluorescent mineral is yet to be confirmed.

The Company takes seriously the reporting of lithium bearing minerals and in this instance is confident to report the presence of spodumene given the presentation of crystal habit at the excavation wall, the elevated LIBS lithium content, UV light fluorescence consistent with spodumene colouration in the region. This is combined with the confidence of identification of weathered spodumene from the local highly experienced geology team.

Follow up work to confirm the whole rock lithium content is underway, as is sample collection for Bruker Bravo Raman Spectroscopic analysis to confirm the mineral species. This is the first instance where spodumene, a globally significant source of lithium, has been identified within the Lightning Minerals Brazilian Projects.

## Surface Expression of Pegmatites

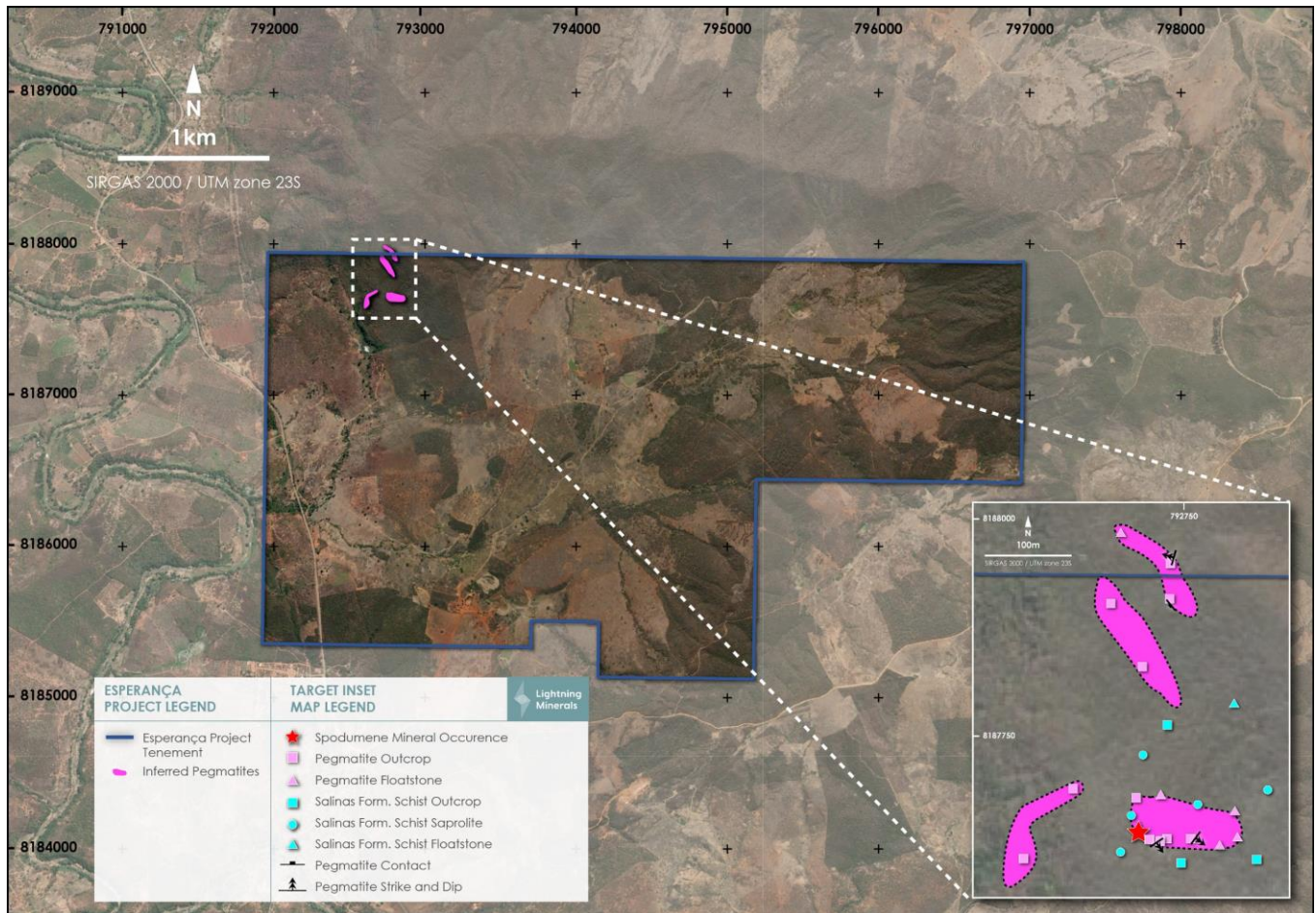
Following the identification of the lithium minerals at the site, the geology team has mapped the surrounding area to understand the orientation of any outcropping lithologies. The early first pass mapping surrounding the site is shown in Figure 13. First rock samples collected from the site are shown in Appendix 3 Table 2 of the original announcement. Early indicators are positive with the mineralised





pegmatite outcrop displaying a shallow dip to the south-east. Samples are being collected and the area will continue as a focus for the Company to understand the outcrop presentation, orientation, and structural setting for drill testing scheduled for Q1 2025. At this stage the scale and orientation of the discovery beyond the artisanal mine site is under evaluation and remains unknown.

**Figure 13: Preliminary outcrop mapping at the Esperança Project**



## GEOPHYSICAL TARGETS IDENTIFIED AT BRAZILIAN LITHIUM PROJECTS

(ASX ANNOUNCEMENT 21 November 2024)

- REVO Geoscience has completed its geophysical interpretation of regional aeromagnetic data obtained from the from Geological Service of Brazil
- Six priority one targets identified within project tenure, supporting the ongoing exploration across the projects
- Follow up works to assess targets on ground will be completed shortly in conjunction with soil sampling and drilling scheduled for Q1 2025

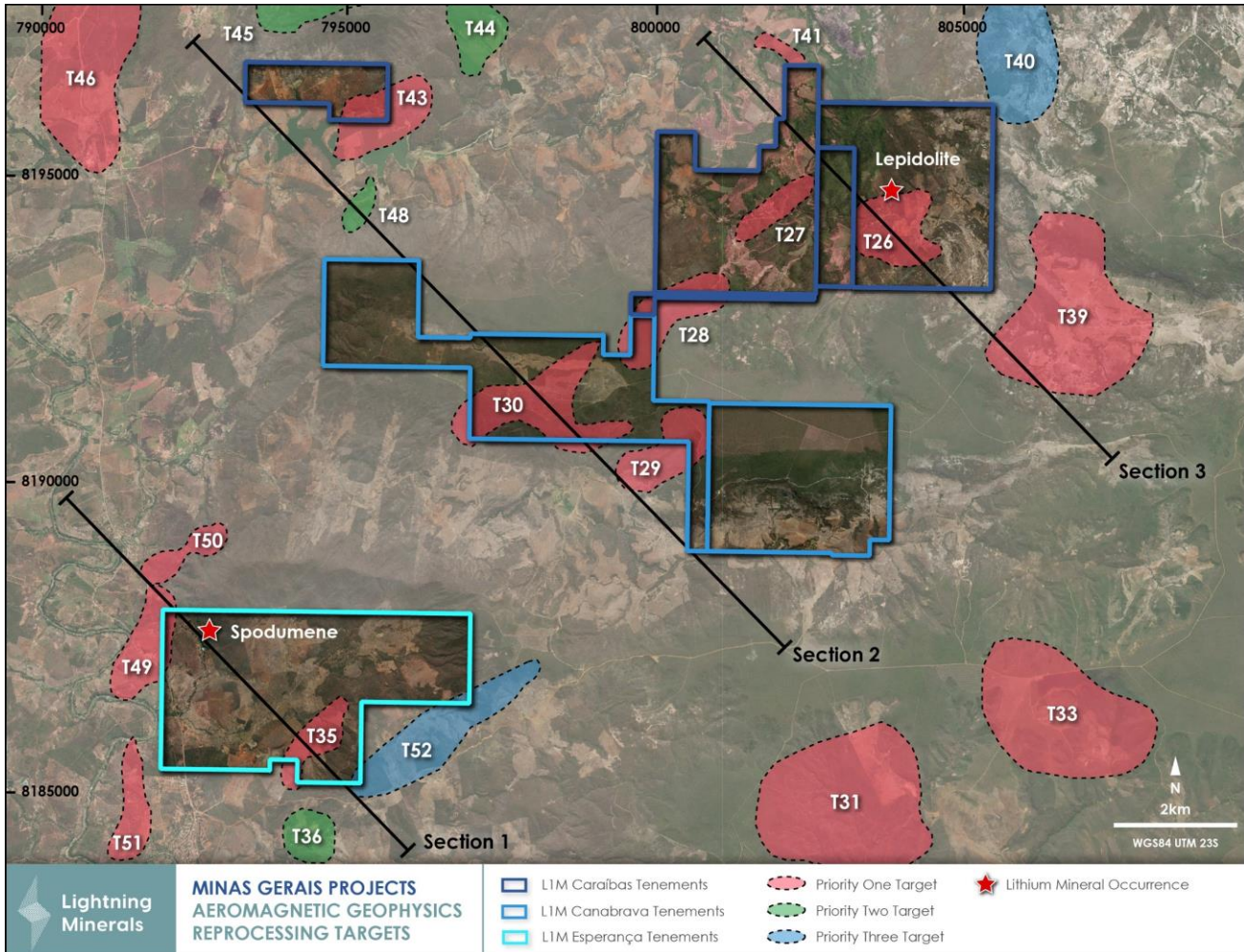




## Regional Geophysics Reprocessing Generates Multiple Targets in Brazil

The geophysical reprocessing undertaken by leading Brazilian geophysical consultants has identified six priority one targets across the Company's three project areas: Canabrava, Caraíbas and Esperança. (Figure 14 and Figure 15). Brazilian geophysical consultancy REVO geoscience has used the latest data processing techniques to develop 2D and 3D models, utilising both Magnetization Vector Inversions (MVI) and two-dimensional Magnetic Vector Amplitude (MVA) analysis.

**Figure 14: Geophysical target areas generated during REVO Geoscience regional aeromagnetic inversion**



The scope and objectives of the program included:

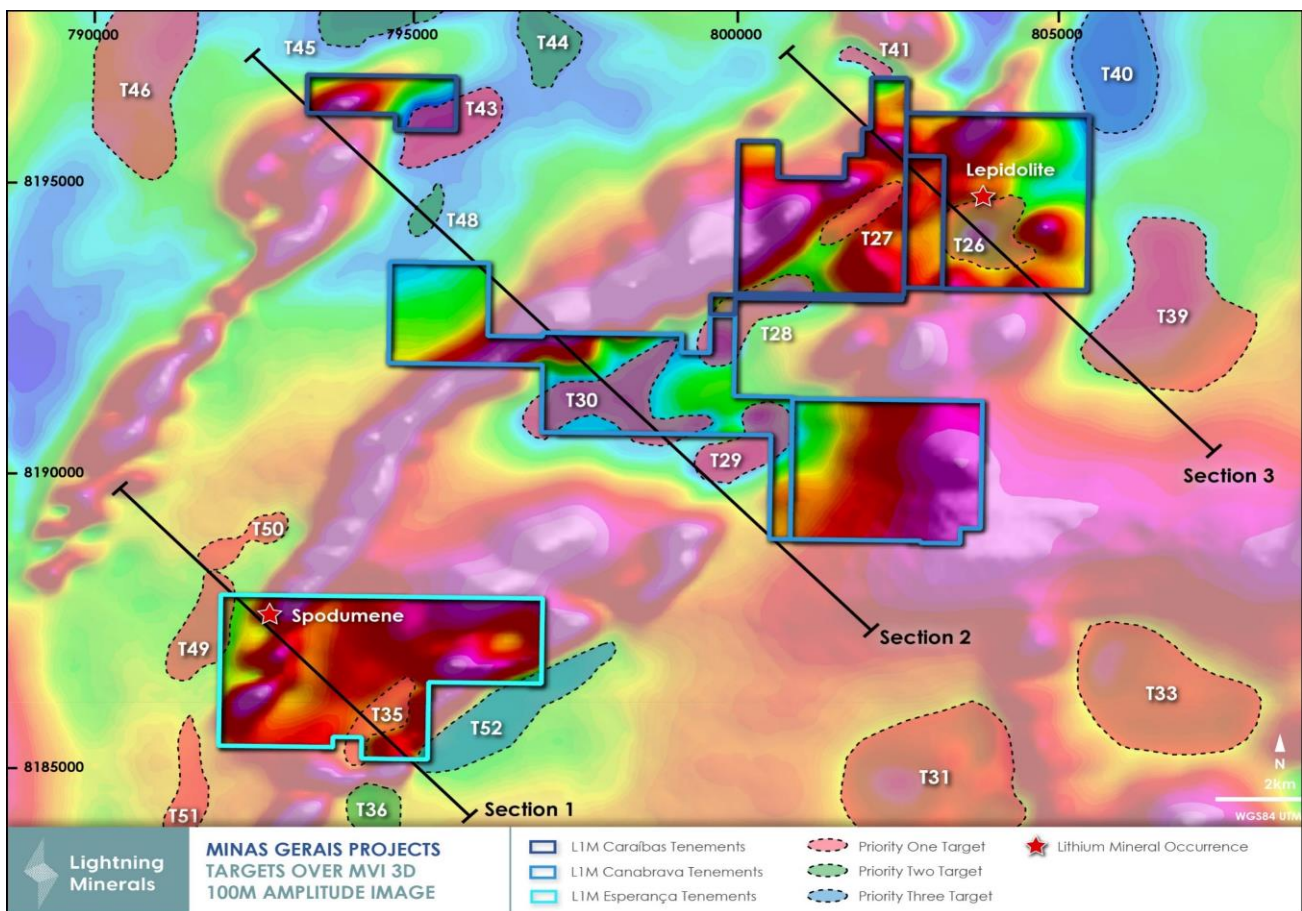
- A reinterpretation of the regional structural magnetic framework focusing on the NE orientated lineaments, which are known to host mineralised pegmatites in the region, as well as assessing the interaction of NW, NS, and EW lineaments with the NE lineament sets, which are theorised to be important features for potential mineral systems.
- To identify zones of unusually low magnetic amplitude as silicification may be associated with the pegmatite veins which can generate negative suscept contrasts with the host metasediments.
- Define potential zones (targets) for hosting potential lithium mineralisation.



To achieve the objectives REVO geoscience have completed Magnetization Vector Inversions (MVI), this technique inverts magnetic field data to recover both magnetization direction and amplitude providing accurate and robust analysis of the magnetic properties of rock (Figure 15). Two-dimensional Magnetic Vector Amplitude (MVA) analysis has also been completed; the resultant imagery is considered one of the most representative products for pursuing the target mineralisation style in this regional geophysical dataset.

The application of these techniques has resulted in the identification of four main structural directions in the data. The main predominant corridor has a NE striking orientation from 035° to 040° coincident with the limits of the Salinas Basin. A later NW deformation event often displaces these structures and appears to radiate from the centre of the exposed S-type granitic intrusive suites. This regional NW structural orientation may form part of the genetic makeup required for pegmatite emplacement from the S Type granites. Regionally significant pegmatite deposits such as Latin Resources' (ASX: LRS) Colina project (and Sigma Lithium's (NASDAQ: SGML) Grotta do Cirilo project display similar signatures in their respective regions, with an associated interaction of NE and NW structures. The reprocessing exercise was conducted over a large area surrounding the Canabrava, Caraibas and Esperança projects to thoroughly examine the entire project portfolio, ensuring comprehensive results and to provide a high degree of confidence in the findings.

**Figure 15: Geophysical target areas generated during REVO Geoscience regional aeromagnetic inversion, underlying image is MVI 3D Amplitude at 100m depth slice**







## Specific Target Area Analysis of Geophysics Results

Of particular interest are priority one targets T26, T30, and T49. Within the Esperança project T49 is within 400m of the identified pegmatite spodumene occurrence as the Company's ASX announcement 18 November 2024. The connection between target T49 and the recent discovery of spodumene at the Esperança project will be closely mapped and investigated. A greater understanding will aid drill design for the company's inaugural drill campaign scheduled to begin Q1 2025.

Target T26 is located with the Caraíbas project area and is directly adjacent to a previously reported artisanal excavation and rock chip samples that were identified during project acquisition reviews (ASX Announcement 22 April 2024). The rock chip samples taken by the project vendor at the location returned up to 0.53%  $\text{Li}_2\text{O}$  (Lepidolite), 1,245ppm Tantalum, and exhibit excellent low Potassium to Rubidium ratios (K/Rb). A full investigation south of the artisanal mine area will be completed to ascertain if any relationship between the outcrop and the geophysics target can be confirmed.

Target T30 is located central to the Canabrava project and broadly correlates with a zone of interest that sits under tertiary alluvial cover. Exploration through the remnant tertiary alluvium is challenging as traditional soil sampling will be less effective at indicating the underlying lithium potential. With the new geophysical information, the area will receive further review to confirm target prioritisation in this area.

## Regional Setting and Relevance of Geophysics Results

The REVO Geoscience analysis of the MVI and MVA suggests a low-amplitude response of the magnetisation vector for the S-Type Granites, which is naturally expected because these intrusions originate from the melting of metasediments and volcanic rocks, with little to no magnetite content and very little amphibole. The mapped boundaries of the S-Type batholiths are consistent with the Low-Susceptibility anomalies identified in 2D and 3D by the MVI3D Amplitude products.

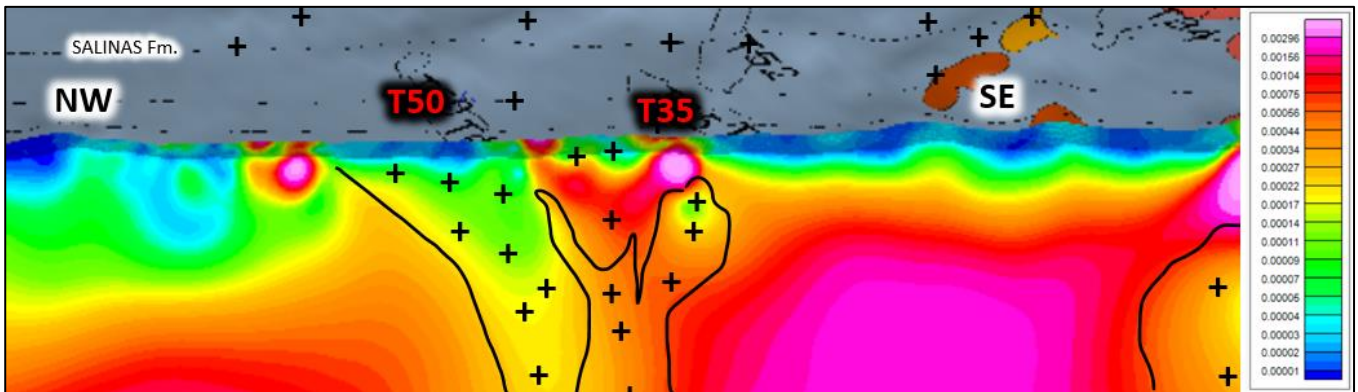
The data integration of the MVI3D Inversion with the approximate locations of the known lithium deposits and lithium pegmatites occurrences within the Lithium Valley suggests that, in most cases, magnetic characteristics like the low amplitude of the magnetisation vector, with varied dimensions, are more extensive in the southern region (Grota do Cirilo) than in the northern region (Colina).

A multitude of cross sections along the project's tenure have been created and show the interpreted geophysical modelled position of S-Type granitic intrusives that can aid exploration target ranking. Three examples of the sections are shown in Figures 16 to 18 below, the full suite of sectional information is under review for target generation and prioritisation purposes.

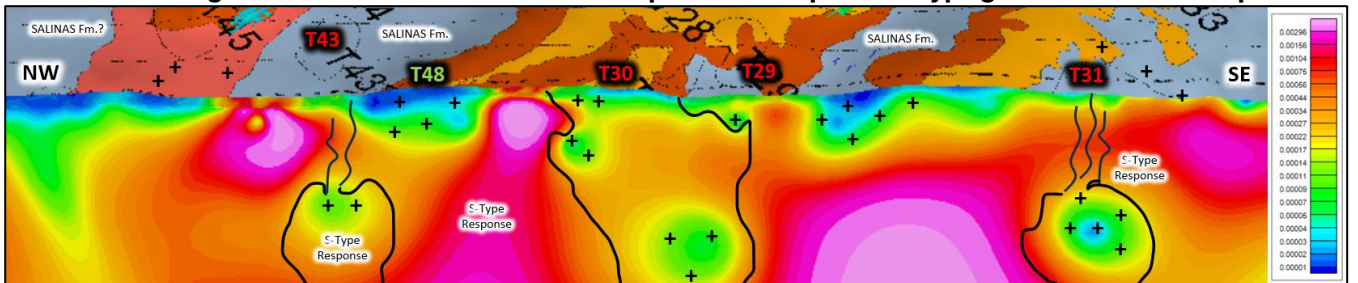




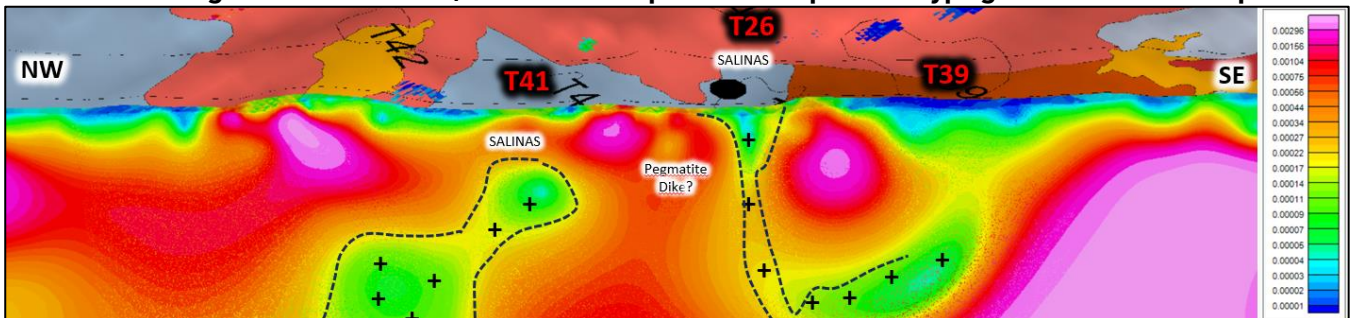
**Figure 16: MVI3D Inversion Section 1 - Legend colour spectrum represents Magnetic Susceptibility (SI units) from vector magnetization inversion, hatched area represents interpreted S-Type granitoid bodies at depth**



**Figure 17: MVI3D Inversion Section 2 - Legend colour spectrum represents Magnetic Susceptibility (SI units) from vector magnetization inversion, hatched area represents interpreted S-Type granitoid bodies at depth**



**Figure 18: MVI3D Inversion Section 3 - Legend colour spectrum represents Magnetic Susceptibility (SI units) from vector magnetization inversion, hatched area represents interpreted S-Type granitoid bodies at depth**



## Utilisation of Results

The results of the geophysical reprocessing and targeting will be utilised in conjunction with early exploration data collected during field reconnaissance and soil sampling, influencing the ranking of prospectivity, and identifying areas which may require further works. The soil sampling results are eagerly anticipated as these are considered a powerful exploration tool when used in conjunction with the geophysical targeting. Partial geochemical results from the western portion of the Caraiabas project have been fast tracked and are due imminently.



Having concluded the highly encouraging geophysics program, the company intends to continue with the step of integrating all exploration data, including historical data that can be validated, to define future drilling targets.

## SOIL ASSAYS IN BRAZIL UP TO 239PPM LITHIUM

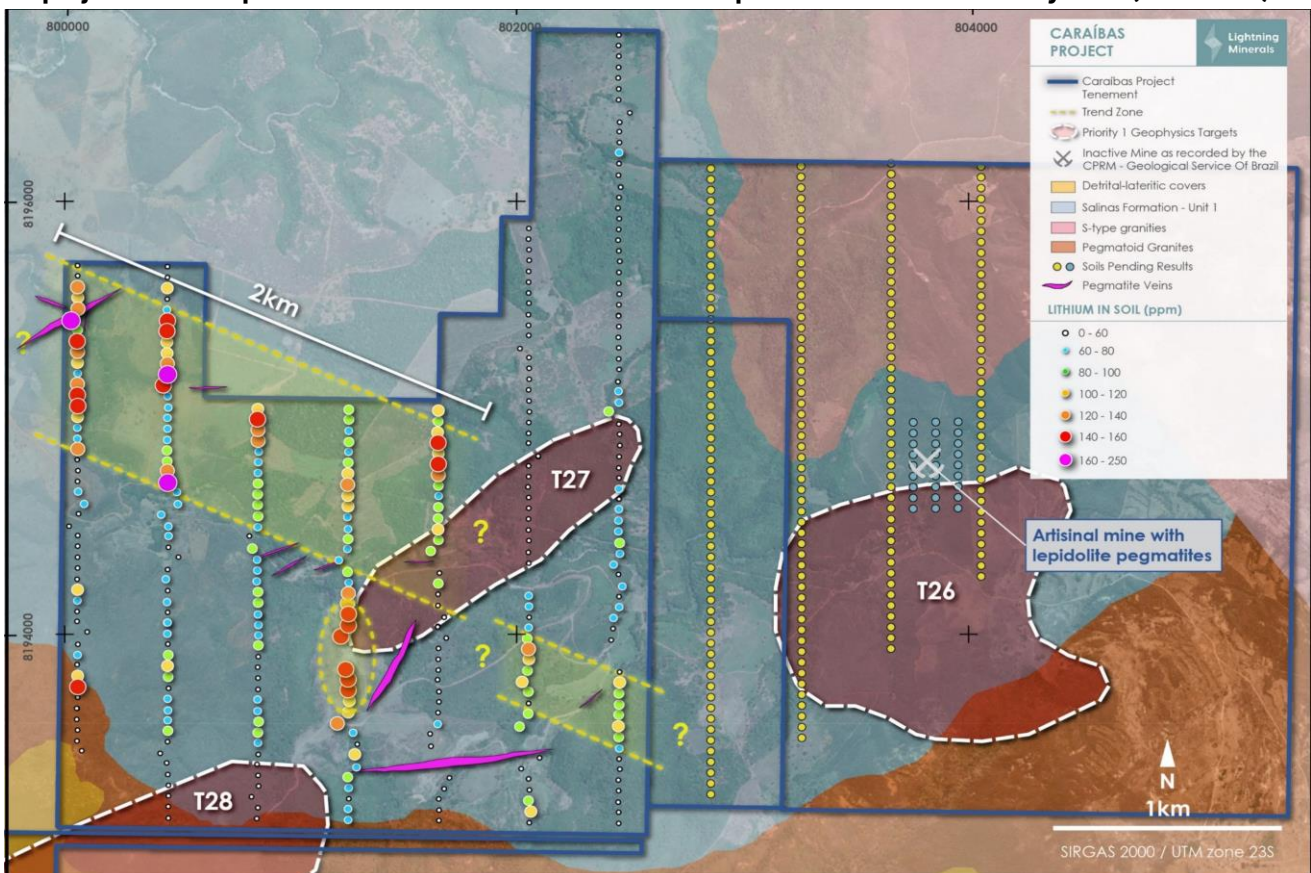
(ASX ANNOUNCEMENT 02 December 2024)

- Peak assay result of 239ppm lithium signifies strong response within schists of the Salinas Formation geological unit
- Large ~2km x 700m soil anomalism trend identified from phase 1 soil sampling campaign, a smaller 800m x 300m anomaly lies adjacent to the south east
- Results provide anticipated additional drill targets for early 2025 drilling program starting at recently identified lithium bearing spodumene grading 4.04% Li<sub>2</sub>O

## Elevated Lithium Results Continue at the Caraíbas Project

Analytical results from the first 343 soil samples taken from the Caraíbas project demonstrate significant lithium in soil anomalism as shown in Figure 19. Full results for results identified >80ppm Li are presented in Appendix 2 Table 2 of the original announcement.

**Figure 19: Soil sampling (Li) and mapping results for 343 samples taken from tenement 831424/2013 Caraíbas project. The interpreted trend zones for immediate follow up field works are shown in yellow (UTM Z23S)**







The samples at Caraíbas have been collected along 400m spaced sample lines orientated in a north south direction, the sample spacing along these sample lines is 50m. The lithium values returned from analyses are considered exceptional, with three areas highlighting contiguous elevated responses. Both the scale and consistency of the elevated zones provide the company with targets for immediate follow up works which will focus on further ground reconnaissance to map all outcrops and structures along the trend.

Three main areas have returned elevated lithium; the largest of these is where results highlight a zone approximately 2km long and 700m wide that sits in the north-western quadrant of tenement 831424/2013. The underlying geology at this location comprises schists of the Salinas Formation where background

lithium values are expected to be at or below 60ppm. The peak result of up to 239ppm lithium is therefore considered very strong for the region and increases confidence in drill targeting at the Caraíbas project.

The second of the three priority targets is approximately 800m x 300m and remains open to the south-east as shown in Figure 19. The pending results of the remainder of the soil program will inform the company about a potential continuation of this anomaly, it is considered important as this target displays a similar north-west strike (115°) and has noteworthy lithium elevations.

The third zone of interest includes a ~450m long zone where eight contiguous samples along the north-south orientated sample line have returned results over 120ppm lithium.

The correlation between the lithium anomalism, previously mapped outcropping pegmatites, and the recently developed priority one geophysics target (T27) is now under review. The recently completed geophysics targeting exercise identified the T27 target zone central to the Caraíbas tenement, where a combination of low amplitude magnetic features, Salinas Formation lithologies, various intersecting aeromagnetic interpreted structures, and the presence of an outcropping pegmatite. This lies adjacent to considerable lithium elevations within the soil profile.

The T27 target has been generated via Magnetization Vector 3D Inversions (MVI) and the outline of the target in Figure 19 represents a horizontal depth slice of the above conditions at 100m below surface. A nearby mapped pegmatite that intersects the T27 target (VLR1362 and VLR1363) has a similar N-W trend to the T27 target where the outcrop strikes at 035°.

## STRONG LITHIUM DRILL TARGETS DEFINED FOR Q1 2025 IN BRAZIL

(ASX ANNOUNCEMENT 17 December 2024)

- DRILL TARGET 1: Up to 2,000m Diamond Drilling at the Esperança project testing lithium bearing spodumene pegmatites grading up to 4.04% Li<sub>2</sub>O (LIBS)
- DRILL TARGET 2: Up to 1,500m Diamond Drilling at the Caraíbas project targeting ~2km x 700m lithium soil anomalism, and a smaller 800m x 300m anomaly with peak assay result of 239ppm lithium



- DRILL TARGET 3: Canabrava project targeting lithium in soil anomalism up to 113ppm. Infill soil sampling results pending to define north-west to south-east trend and potential starting point for drilling

## Drill Target 1: Esperança Project - Lithium Pegmatite Discovery up to 4.04% Li<sub>2</sub>O

(Up to an Initial 2,000m)

The Esperança project is the Company's priority drill target after spodumene was discovered in shallowly dipping pegmatites in the northwest corner of the tenement (Figure 20 and ASX Announcement 18 November 2024). The drill strategy at Esperança includes up to 2,000m of diamond drilling. Diamond drilling is the most effective drilling technique in the region and will return the highest quality samples for laboratory testing. The program will utilise small 'man portable' diamond drilling rigs from local drilling contractors. This strategy facilitates easier access and optionality around initial drill targeting.

Approximately 1,500m of the drilling allocation will be designed to intersect and extend the spodumene discovery at the site of the historical artisanal workings. The remaining allocation of 500m drill metres will be used to test beneath the outcropping spodumene zone to ascertain if the pegmatite is part of a larger swarm of stacked pegmatites with similar shallowly dipping orientations and geochemistry. If the phase 1 drill program intersects mineralised pegmatites, an extended program expanding the drill footprint will be initiated to continue exploration works.

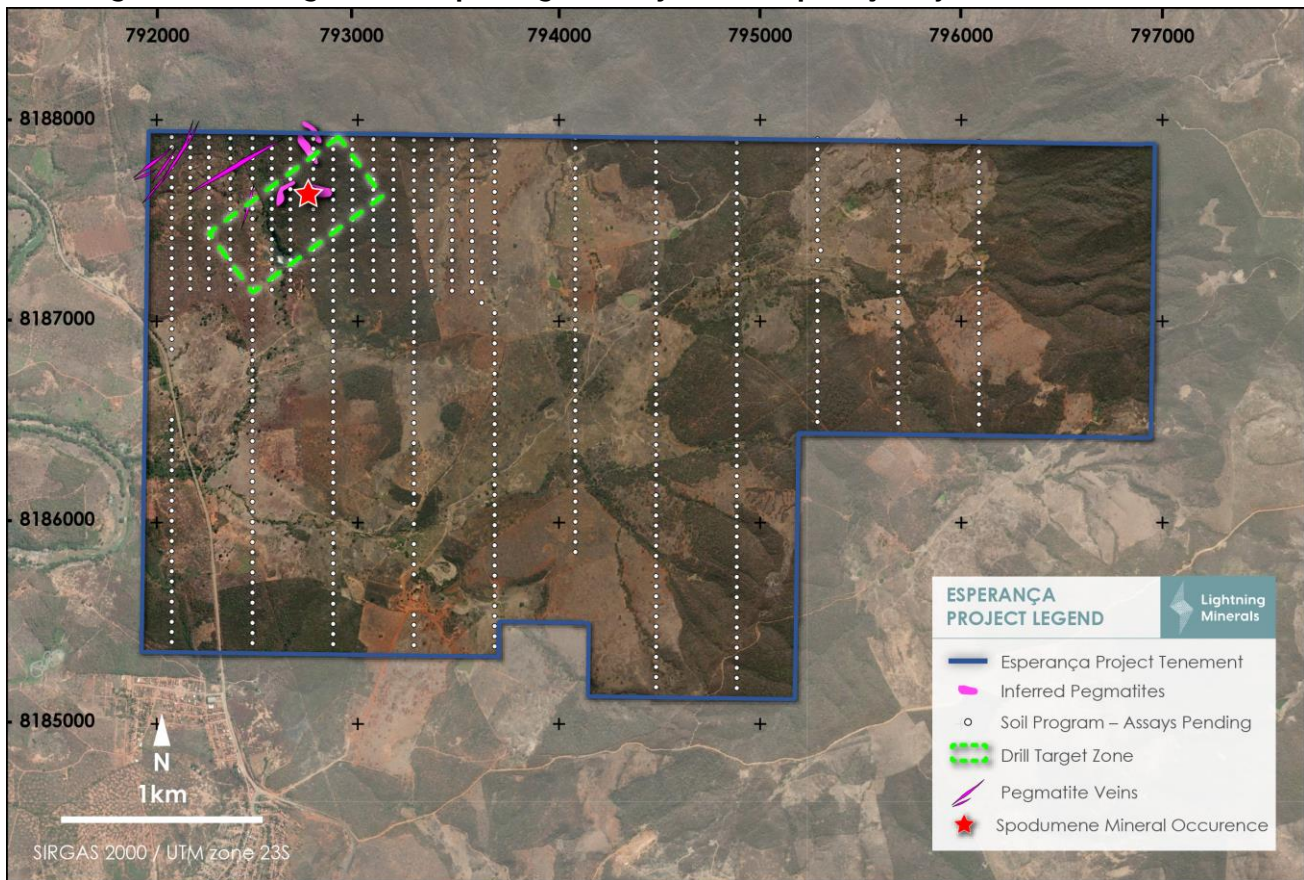
An infill soil sampling program was conducted around the site of the spodumene discovery to support further drill targeting which is now complete.

The approximate location of the phase 1 drill program, and the pending soil assays are shown in Figure 20. A ground reconnaissance campaign is also underway directly around the spodumene discovery site to identify further pegmatites, gain an understanding of possible orientation of outcropping lithologies and develop a strategy for further drilling beyond the initial planned 2,000m.





**Figure 20: Drill target area and pending soil assays for the Esperança Project, Minas Gerais, Brazil**



## Drill Target 2: ~2km Lithium Trend at Caraíbas Project with up to 239ppm Lithium

(Up to Initial 1,500m)

The Caraíbas project represents the Company's second priority drill target in Brazil. After recent field investigations, four target drilling areas are being considered for phase 1 drill testing as shown in Figure 21. Field teams remain active and continue to refine the targets by mapping pegmatite outcrops in the region and recording geological orientations to confirm final collar locations in these target zones.

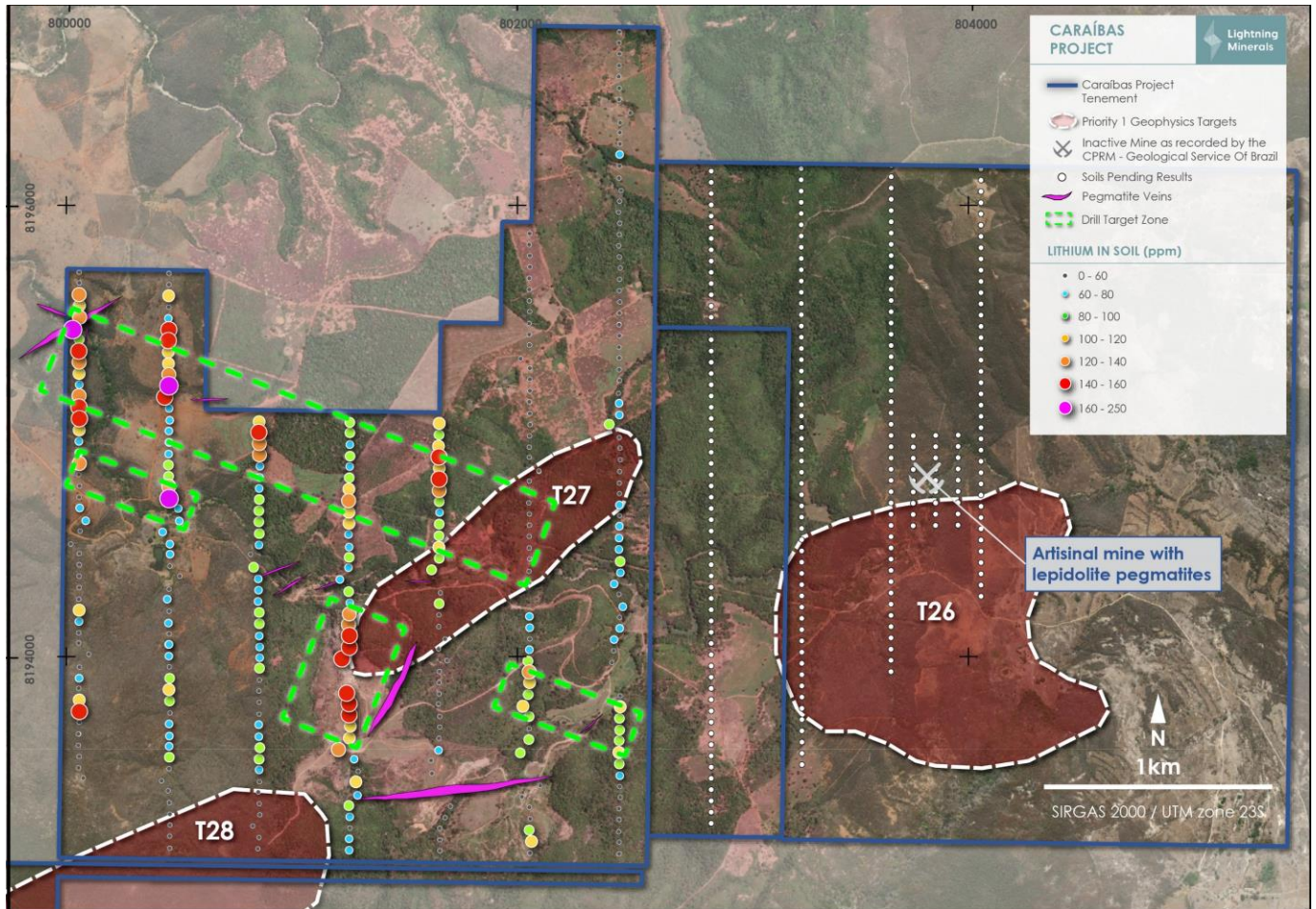
The main target zone has returned elevated lithium in soil anomalism with results highlighting a zone approximately 2km long and 700m wide. The peak result of up to 239ppm lithium is considered a strong response for the region and increases confidence in drill targeting at this location. Several diamond drill holes will be completed along the 2km anomaly to determine both trend extent and test the thesis of potential stacked lithium bearing pegmatites at depth.

The remaining three priority targets include an ~800m x 300m lithium in soil anomaly which remains open to the south-east, a ~450m long zone of elevated results over 120ppm lithium, and a ~600m anomaly parallel to the main target zone.





**Figure 21: Drill target areas, soil results, and pending soil assays for the Caraibas Project, Minas Gerais, Brazil**



The recently completed soil program that covers the eastern portion of the tenement and the previously identified historical artisanal workings (ASX Announcement 22 April 2024) have laboratory assays pending. Additional drill targets may materialise from these results should they show similar geochemical markers for hard rock lithium targets.

### Drill Target 3: Canabrava Lithium in Soil Anomaly up to 113ppm Lithium (Drill Meters TBC)

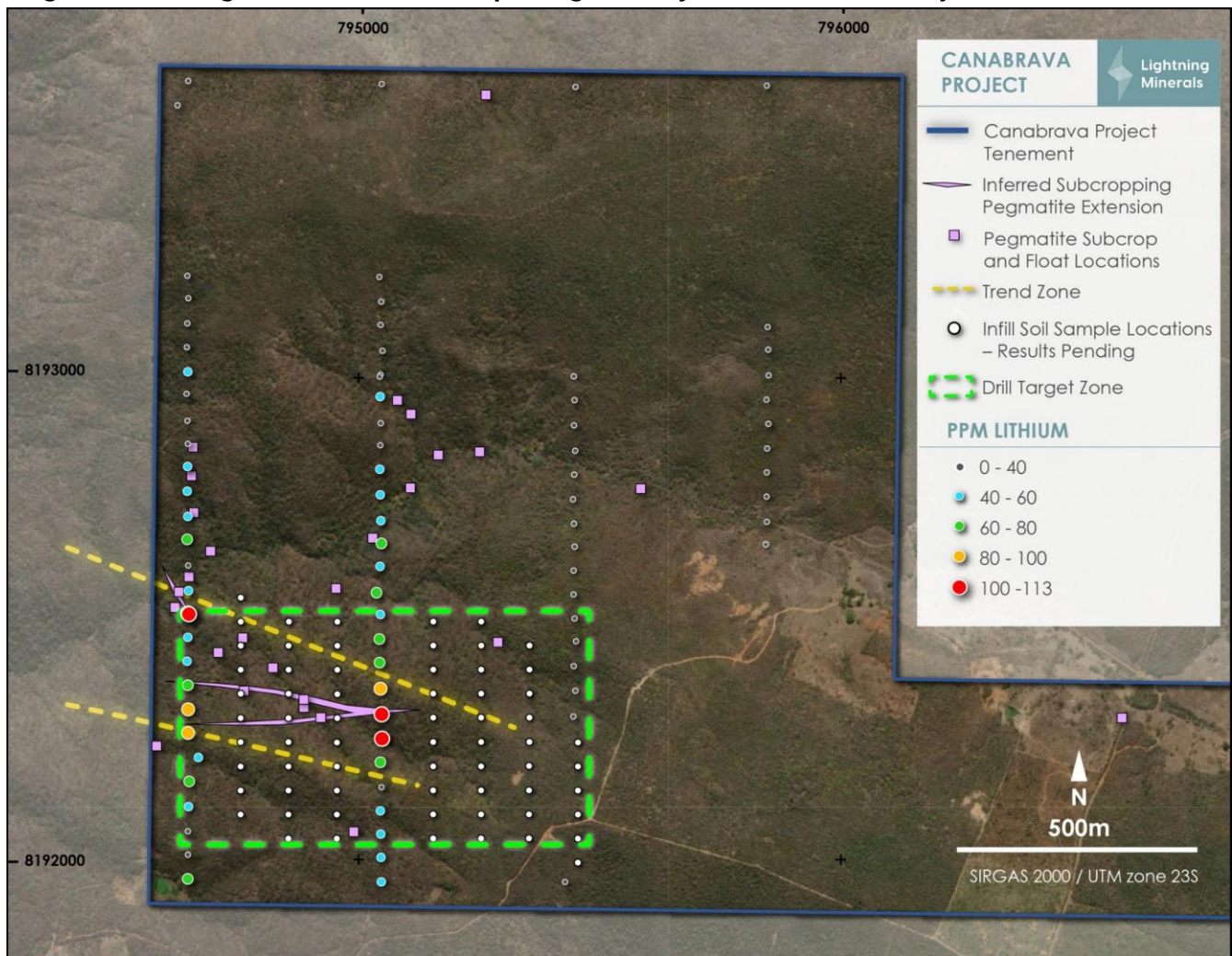
Drill targeting is ongoing at the Canabrava project with infill soil sampling now complete across the previously identified lithium in soil anomaly that returned assays up to 113ppm lithium (ASX Announcement 03 October 2024). Laboratory assay results for the infill sampling works are pending. While no drill meterage has yet been committed to the project it remains as a priority for the Company and will be further evaluated in early 2025.

Of particular interest here is whether the already identified anomalism continues to the east of that shown in Figure 22. The area is now part of a range of target areas being revisited during the December/January period to confirm potential collar locations for drilling.





**Figure 22: Drill target area, soil results, and pending soil assays for the Canabrava Project, Minas Gerais, Brazil**



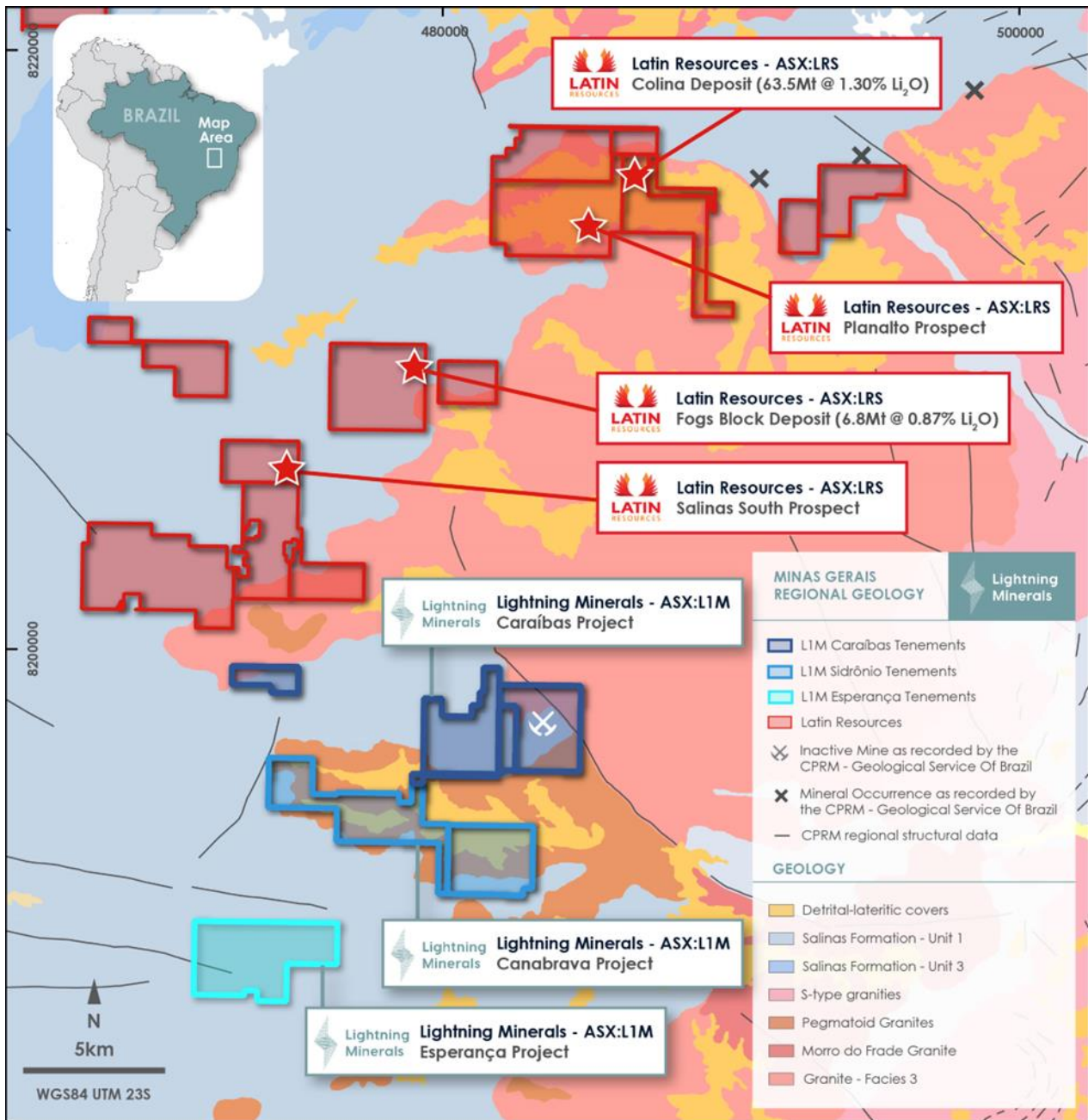
## PERMITTING, HERITAGE AGREEMENTS AND POW APPLICATIONS

All permitting and heritage agreements are in good standing with the exception being Mt Bartle where negotiations are ongoing.

## PROJECT GENERATION

The Company has continued to review project opportunities during the Quarter and now holds highly prospective lithium targets in Minas Gerais, Brazil, Western Australia and Quebec, Canada.

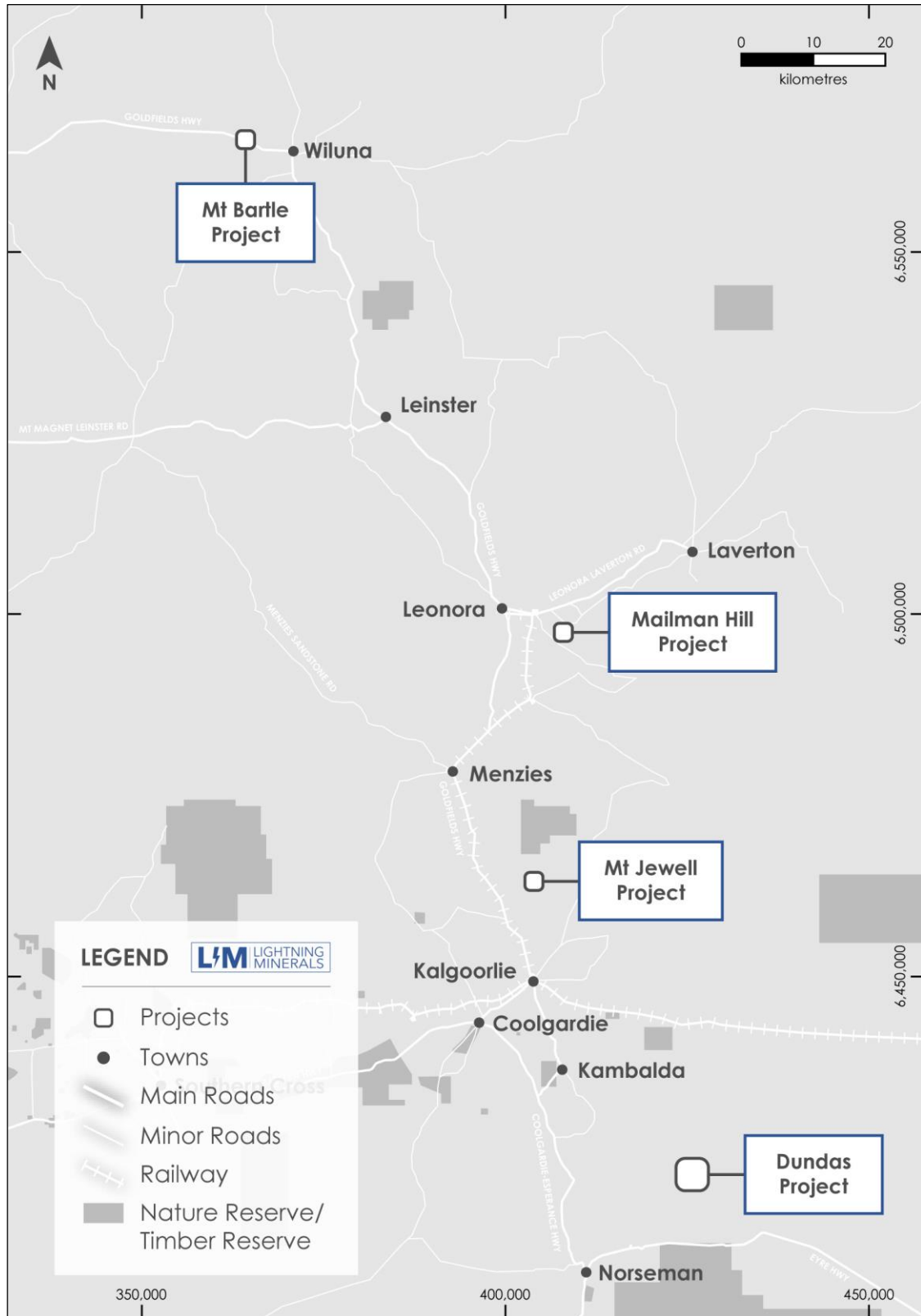
**Figure 23: Lightning Minerals' Brazilian tenements in the Lithium Valley region of Minas Gerais**





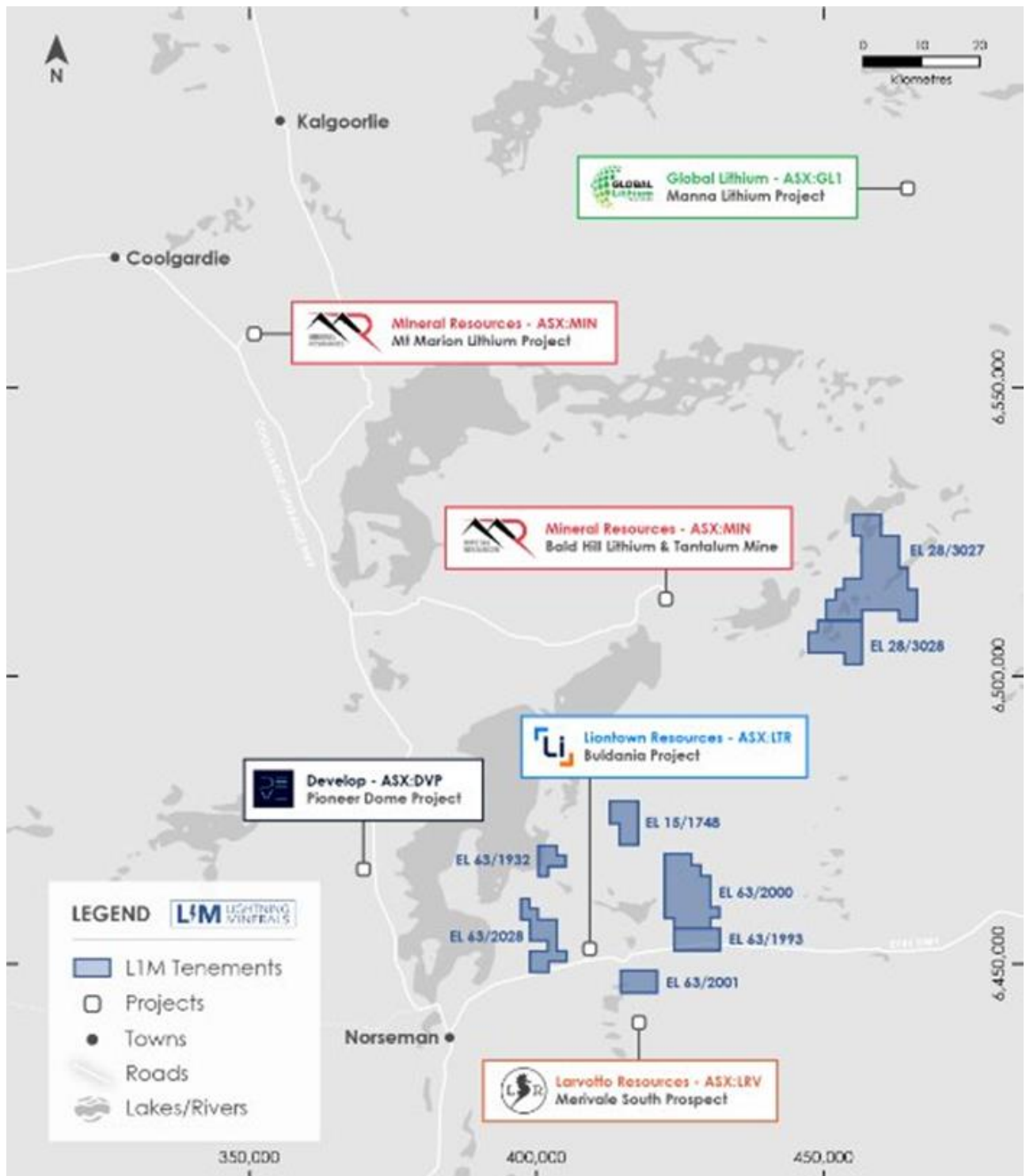


**Figure 24: Lightning Minerals' Australian project tenement summary**





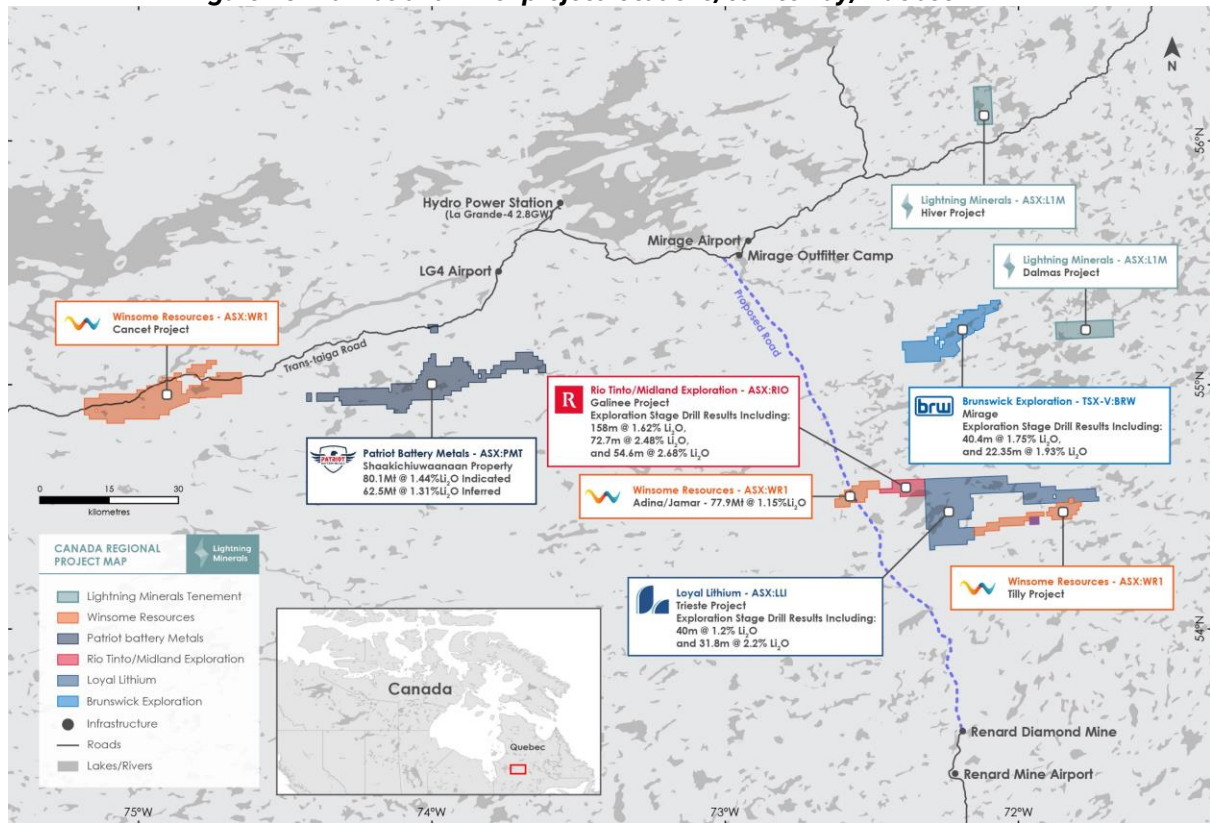
**Figure 25: Location of Dundas project tenements**







**Figure 26: Dalmas and Hiver project locations, James Bay, Quebec**





## FINANCE

### EXPLORATION EXPENDITURE

The Company spent A\$234K on direct exploration activities during the period, focused principally on exploration works in Brazil. The Company has cash and cash equivalents of A\$1.91 Million at 31 December 2024.

### QUARTERLY USE OF FUNDS

Under ASX listing rule 5.3.4 the company presents its quarterly use of funds against its IPO Prospectus projections as shown in Table 2.

**Table 2: Use of funds against IPO prospectus projection**

Expenditure	Prospectus	Q2 23	Q3 23	Q4 23	Q1 24	Q2 24	Q3 24	Q4 24	Q1 25	Q2 25	TOTAL
Exploration (A\$) <sup>1</sup>	4,900,000	129,000	574,000	217,000	793,000	217,000	227,000	155,000	149,000	234,000	2,695,000
Working Capital (A\$) <sup>2</sup>	1,374,000	314,000	363,000	352,000	373,000	453,000	265,000	346,000	289,000	452,000	3,207,000
Costs of Offer (A\$) <sup>3</sup>	726,000	486,000	34,000	21,000	2	0	0	108,000	26,000	0	675,002

<sup>1</sup>includes items 1.2(a) and 2.1(d) from Appendix 5B, <sup>2</sup>includes items 1.2(d) and 1.2(e) from Appendix 5B, <sup>3</sup>includes item 3.4

### CHANGE IN BOARD OF DIRECTORS AND DIRECTOR'S INTERESTS

Mr Jamie Day was appointed as Non-Executive Director to the Company's Board of Directors on the 28<sup>th</sup> November 2024, Mr Francesco Cannavo resigned from the Company's Board of Directors on the same date.

Mr Day's contract is as follows:

- a) A\$48,000 per annum
- b) 500,000 Unlisted Options with an exercise price of 25 cents per option expiring 27 September 2027
- c) 436,364 Performance Rights which vest and become exercisable (convert to shares) on the Company's shares achieving a volume weighted average price per share of at least 25 cents over any 20 consecutive trading days on which the shares have actually traded on ASX. Performance Rights expire 23 November 2028.

Options and Performance Rights issued to Jamie Day are subject to shareholder approval.

There were no other changes of Director's interests during the period.

### FINANCING

No financing or capital raises occurred during the Quarter.

### OTHER DISCLOSURES

As disclosed under item 6.1 in the Appendix 5B and under ASX listing rule 5.3.5, the Company made payments for a total consideration of A\$92k relating to payments for Executive and Non-Executive Directors for Director's normal monthly fees and undertaking additional duties to support corporate and exploration activities.

### CAPITAL STRUCTURE

The capital structure at 31 December 2024 was:





## Ordinary Shares

103,328,319 Ordinary Shares

## Options

40,389,258 L1MO : Listed Options (each exercisable at A\$0.25 each expiring 13/03/28)

6,000,000 Options (each exercisable at A\$0.105 each expiring 18/06/27)

5,450,000 Options (each exercisable at A\$0.25 each expiring 27/09/27)

5,000,000 Options (each exercisable at A\$0.25 each expiring 14/11/26)

80,000 Options (each exercisable at A\$0.30 each expiring 06/04/27)

110,000 Options (each exercisable at A\$0.40 each expiring 06/04/27)

140,000 Options (each exercisable at A\$0.50 each expiring 06/04/27)

## Performance Shares

4,800,000 Class A Performance Rights Restricted (each vest upon 25 cent VWAP expiring 18/11/2027)

250,000 Class B Performance Rights (each vest upon 50 cent VWAP expiring 23/11/28)

500,000 Class C Performance Rights (each vest upon 75 cent VWAP expiring 23/11/28)

500,000 Class D Performance Rights (each vest upon \$1.00 VWAP expiring 23/11/28)

14,285,714 Class E Performance Rights (each vest upon Resource of at least 5Mt @ 1.00% Li<sub>2</sub>O for Caraíbas or Sidrônio (now named Canabrava) project expiring 18 June 2027)

14,285,714 Class F Performance Rights (each vest upon Resource of at least 10Mt @ 1.00% Li<sub>2</sub>O for Caraíbas or Sidrônio (now named Canabrava) project expiring 18 June 2028)

11,428,571 Class G Performance Rights each vest upon Resource of at least 30Mt @ 1.00% Li<sub>2</sub>O for Caraíbas or Sidrônio (now named Canabrava) project expiring 18 June 2029)

This announcement has been approved for release by the Board of Directors.

-ends



## ABOUT LIGHTNING MINERALS

Lightning Minerals is a mineral exploration company, listed on the Australian Securities Exchange (ASX:L1M) and focused on the exploration of lithium and critical minerals. The recent acquisition of the Caraíbas, Canabrava and Esperança lithium projects in Minas Gerais, Brazil are potentially transformational to the Company's success in the lithium sector. The Company also owns the Dundas lithium project in the prolific Dundas region of Western Australia and the Dalmas and Hiver lithium projects in Quebec, Canada, another significant and evolving lithium region globally. The Company also holds other projects in Western Australia which include Mt Bartle and Mailman Hill which are prospective for base metals and critical minerals.

## FORWARD LOOKING STATEMENTS

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

## COMPETENT PERSONS STATEMENT

The information contained herein that relates to exploration results is based on information compiled or reviewed by Mr Jarrod Woodland, who is a Competent Person and a member of the Australasian Institute of Mining and Metallurgy. Mr Woodland is a full-time employee of the Company. Mr Woodland has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Woodland consents to the inclusion of his name in the matters based on the information in the form and context in which it appears. Mr Woodland holds options in Lightning Minerals.

## REFERENCES TO PREVIOUS ANNOUNCEMENTS

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and that all material assumptions and technical parameters have not materially changed. The Company also confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.





## APPENDIX 1 - SCHEDULE OF TENEMENTS AS AT 31 DECEMBER 2024

### AUSTRALIAN TENEMENTS

Project	Tenement	Status	Area (km <sup>2</sup> )	Grant Date	Expiry Date	Annual Rent (A\$)	Annual Expenditure (A\$)	Royalty	Ownership
Dundas South	E15/1748	Granted	29.13	6/11/2020	05/11/2025	2,750	20,000	1% NSR	100%
	E63/1932	Granted	17.01	30/09/2019	19/09/2024	1,650	20,000	1% NSR	100%
	E63/1993	Granted	29.07	15/05/2020	14/05/2025	2,750	20,000	1% NSR	100%
	E63/2000	Granted	93.10	23/10/2020	22/10/2025	8,800	32,000	1% NSR	100%
	E63/2001	Granted	23.24	23/10/2020	22/10/2025	2,200	20,000	1% NSR	100%
	E63/2028	Granted	46.50	14/05/2021	13/05/2026	2,448	20,000	1% NSR	100%
Dundas North	E28/3027	Granted	160.84	17/05/2021	06/05/2026	8,415	55,000	1% NSR	100%
	E28/3028	Granted	55.51	17/05/2020	16/05/2026	2,907	20,000	1% NSR	100%
Mt Jewell	E27/566	Granted	8.89	8/11/2016	07/11/2026	2,133	30,000	1.5% NSR	100%
Mailman Hill	E37/1408	Granted	101.83	12/05/2021	11/05/2026	5,202	34,000	1% NSR	100%
Mt Bartle	E53/2151	Pending	193.62	(01/10/2020)	-	-	-	1% NSR	100%
	E53/2159	Pending	78.33	(08/09/2020)	-	-	-	1% NSR	100%
	E53/2147	Pending	124.98	(18/12/2020)	-	-	-	1% NSR	100%

\*Applications for Mt Bartle tenements pending

### CANADIAN TENEMENTS - DALMAS PROJECT

Project	Tenement	Status	Area (Ha)	Registration Date	Expiry Date	Annual Rent (C\$)	Annual Expenditure (C\$)	Royalty	Ownership
Dalmás	2699192	Granted	51,19	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699193	Granted	51,19	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699194	Granted	51,19	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699195	Granted	51,19	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699196	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699197	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699198	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699199	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699200	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699201	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699202	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699203	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699204	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699205	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699206	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699207	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699208	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699209	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699210	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699211	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699212	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%



# Lightning Minerals

Project	Tenement	Status	Area (Ha)	Registration Date	Expiry Date	Annual Rent (C\$)	Annual Expenditure (C\$)	Royalty	Ownership
	2699213	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699214	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699215	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699216	Granted	51,18	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699217	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699218	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699219	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699220	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699221	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699222	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699223	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
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	2699225	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699226	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699227	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699228	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699229	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699230	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699231	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699232	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699233	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699234	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699235	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699236	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699237	Granted	51,17	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699238	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699239	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699240	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699241	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699242	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699243	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699244	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699245	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699246	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699247	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699248	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699249	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699250	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699251	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699252	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699253	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699254	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699255	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699256	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699257	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699258	Granted	51,16	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699259	Granted	51,15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699260	Granted	51,15	12/12/2022	11/12/2025	\$170	\$135	2%	100%





Project	Tenement	Status	Area (Ha)	Registration Date	Expiry Date	Annual Rent (C\$)	Annual Expenditure (C\$)	Royalty	Ownership
	2699261	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699262	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699263	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699264	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699265	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699266	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699267	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699268	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699269	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699270	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699271	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699272	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699273	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699274	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699275	Granted	51.15	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2700192	Granted	51.15	13/12/2022	12/12/2025	\$170	\$135	2%	100%
	2700193	Granted	51.15	13/12/2022	12/12/2025	\$170	\$135	2%	100%
	2700194	Granted	51.15	13/12/2022	12/12/2025	\$170	\$135	2%	100%
	2700195	Granted	51.15	13/12/2022	12/12/2025	\$170	\$135	2%	100%
	2702316	Granted	51.15	19/12/2022	18/12/2025	\$170	\$135	2%	100%
	2702317	Granted	51.15	19/12/2022	18/12/2025	\$170	\$135	2%	100%
	2702318	Granted	51.15	19/12/2022	18/12/2025	\$170	\$135	2%	100%
	2702319	Granted	51.15	19/12/2022	18/12/2025	\$170	\$135	2%	100%

## CANADIAN TENEMENTS - HIVER PROJECT

Project	Tenement	Status	Area (Ha)	Registration Date	Expiry Date	Annual Rent (CAD)	Annual Expenditure (CAD)	Royalty	Ownership
Hiver	2699127	Granted	50.67	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699128	Granted	50.67	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699129	Granted	50.67	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699130	Granted	50.67	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699131	Granted	50.67	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699132	Granted	50.67	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699133	Granted	50.66	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699134	Granted	50.66	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699135	Granted	50.66	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699136	Granted	50.66	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699137	Granted	50.66	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699138	Granted	50.66	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699139	Granted	50.66	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699140	Granted	50.65	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699141	Granted	50.65	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699142	Granted	50.65	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699143	Granted	50.65	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699144	Granted	50.65	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699145	Granted	50.65	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699146	Granted	50.65	12/12/2022	11/12/2025	\$170	\$135	2%	100%



Project	Tenement	Status	Area (Ha)	Registration Date	Expiry Date	Annual Rent (CAD)	Annual Expenditure (CAD)	Royalty	Ownership
	2699147	Granted	50,64	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699148	Granted	50,64	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699149	Granted	50,64	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699150	Granted	50,64	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699151	Granted	50,64	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699152	Granted	50,64	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699153	Granted	50,64	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699154	Granted	50,63	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699155	Granted	50,63	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699156	Granted	50,63	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699157	Granted	50,63	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699158	Granted	50,63	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699159	Granted	50,63	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699160	Granted	50,63	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699161	Granted	50,62	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699162	Granted	50,62	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699163	Granted	50,62	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699164	Granted	50,62	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699165	Granted	50,62	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699166	Granted	50,62	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699167	Granted	50,62	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699168	Granted	50,61	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699169	Granted	50,61	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699170	Granted	50,61	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699171	Granted	50,61	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699172	Granted	50,61	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699173	Granted	50,61	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699174	Granted	50,61	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699175	Granted	50,6	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699176	Granted	50,6	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699177	Granted	50,6	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699178	Granted	50,6	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699179	Granted	50,6	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699180	Granted	50,6	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699181	Granted	50,6	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699182	Granted	50,59	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699183	Granted	50,59	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699184	Granted	50,59	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699185	Granted	50,59	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699186	Granted	50,59	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2699187	Granted	50,59	12/12/2022	11/12/2025	\$170	\$135	2%	100%
	2714299	Granted	49,51	2/02/2023	1/02/2026	\$170	\$135	2%	100%



## BRAZILIAN TENEMENTS

Project	Tenement	Status	Area (km <sup>2</sup> )	Grant Date	Notice of Beginning of Research Work	Annual Rent Per Ha (R\$)	Agreement	Royalty	Ownership
Caraibas	830.313/2014	Granted	28.34	13/08/2015	02/12/2015	6.13	Option	Nil	Caraibas Granito Mineracao Exportacao e Importacao Ltda
	831.514/2018	Granted	176.41	21/02/2022	22/02/2022	6.13	Option	Nil	Caraibas Granito Mineracao Exportacao e Importacao Ltda
	832.041/2011	Granted	716.85	18/07/2011	11/08/2011	6.13	Option	Nil	Caraibas Granito Mineracao Exportacao e Importacao Ltda
	831.424/2013	Granted	677.17	29/08/2013	05/09/2013	6.13	Option	Nil	Caraibas Granito Mineracao Exportacao e Importacao Ltda
	832.763/2014	Granted	134.56	20/04/2016	31/05/2016	6.13	Option	Nil	Caraibas Granite Mineracao Exportacao e Importacao Ltda
Sidrônio (now named Canabrava)	830.439/2015	Granted	705.76	17/02/2017	05/04/2017	6.13	Option	1%	Sidronio Teixeira Filho
	830.440/2015	Granted	932.63	17/02/2017	05/04/2017	6.13	Option	1%	Sidronio Teixeira Filho
Esperança	832.428/2014	Granted	998.75	26/10/2016	14/11/2016	6.13	Option	2%	Brs Hill Stones Mineração E Transportes Ltda



## APPENDIX 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

LIGHTNING MINERALS LTD

ABN

40 656 005 122

Quarter ended ("current quarter")

31 December 2024

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation (if expensed)	(151)	(178)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(158)	(322)
	(e) administration and corporate costs	(294)	(419)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	8	23
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (payments in relation to option agreements in Brazil)	(28)	(71)
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(623)</b>	<b>(967)</b>

<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(4)	(4)
	(d) exploration & evaluation (if capitalised)	(83)	(205)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(87)</b>	<b>(209)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(26)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>-</b>	<b>(26)</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>	<b>()</b>	<b>(492)</b>
4.1	Cash and cash equivalents at beginning of period	2,625	3,121
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(623)	(967)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(87)	(209)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	(26)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(3)	(7)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>1,912</b>	<b>1,912</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,912	2,623
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (Trust Account)	-	2
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>1,912</b>	<b>2,625</b>

**6. Payments to related parties of the entity and their associates**

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

**Current quarter  
\$A'000**

92

-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

*Payments in 6.1 relate to Director fees and salaries*



## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities		Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>			
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>			
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	<b>Total financing facilities</b>	-	-
7.5	<b>Unused financing facilities available at quarter end</b>		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (Item 1.9)	(623)
8.2	Capitalised exploration & evaluation (Item 2.1(d))	(83)
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(706)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	1,912
8.5	Unused finance facilities available at quarter end (Item 7.5)	-
8.6	Total available funding (Item 8.4 + Item 8.5)	1,912
8.7	<b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	2.7

8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:

- Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

- Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

- Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 January 2025

Authorised by: The Board of Directors

(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.