

30 January 2024

## **ACTIVITIES REPORT**

### **QUARTER ENDED 31 DECEMBER 2023**

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#### **Lady Grey Lithium-Tantalum Project Acquisition**

- Farm-in agreement to earn up to 70% of the Lady Grey Lithium-Tantalum Project, at Mount Holland ~365km east of Perth
- Granted tenure across approximately 77km<sup>2</sup> with ~18km of strike in the proven world class Forrestania Greenstone Belt, host to Covalent Lithium's (SQM & Wesfarmers) Earl Grey Mine, 189Mt @1.53% Li<sub>2</sub>O<sup>1</sup>
- Highly prospective LCT pegmatite project 400m west of Earl Grey Lithium Mine
- Successful site visit confirmed outcropping quartz core pegmatite potentially related to the Earl Grey pegmatite mineralised system
- Appointment of Mr Anees Sabet as Non-Executive Director

#### **Lyons Project**

- Maiden Inferred Resource of 1Mt @ 0.32% TREO from the Mineralised Ironstones at Lyons 11, 12 & 13
- Niobium grade at Lyons 12 & 13 of 0.23% Nb<sub>2</sub>O<sub>5</sub>

#### **Murraydium Project**

- New Exploration Licence Application (2023/00045) lodged with South Australian Department of Energy and Mines has progressed and EL 6969 has now been granted.
- ELA immediately adjacent to two reconnaissance roadside Air Core drill holes which returned significant REE assays in the shallow Loxton Parilla Sands
  - SBT199 : 2m @ 1,560ppm TREO including 1m @ 2,420 ppm TREO
  - SBT190 : 1m @ 1,264ppm TREO
- Drill samples sent for metallurgical test work on Desorption and Leach responses on significant intersections carried out at ANSTO

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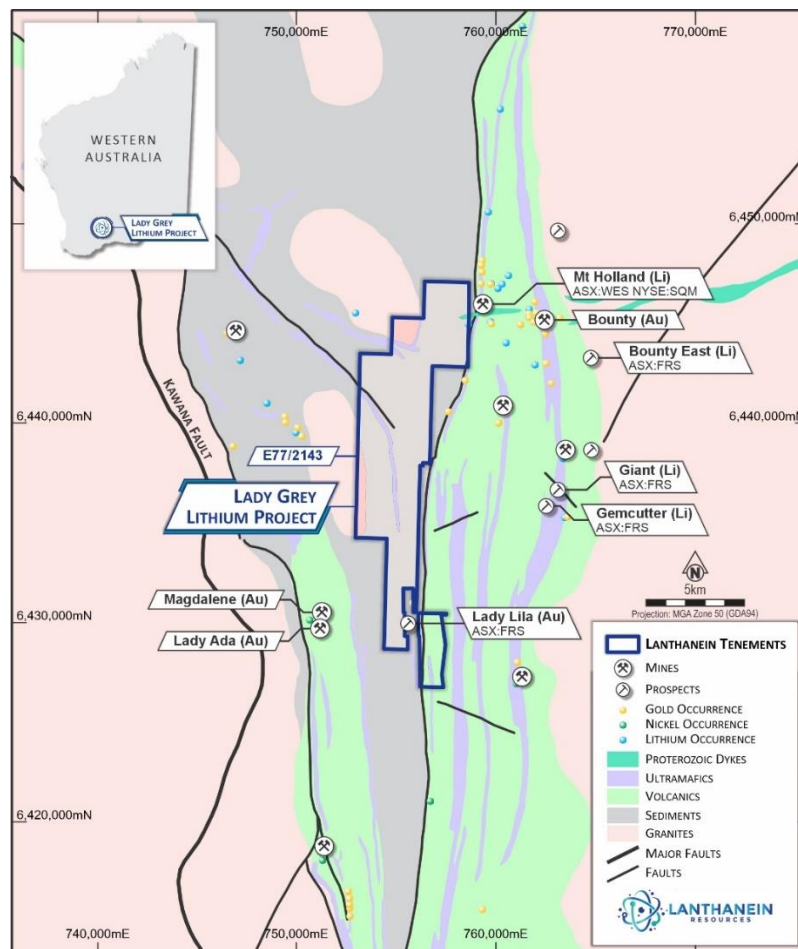
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Lanthanein Resources Limited (**Lanthanein** or the **Company**) is pleased to provide its quarterly report for the three-month period ending 31 December 2023.

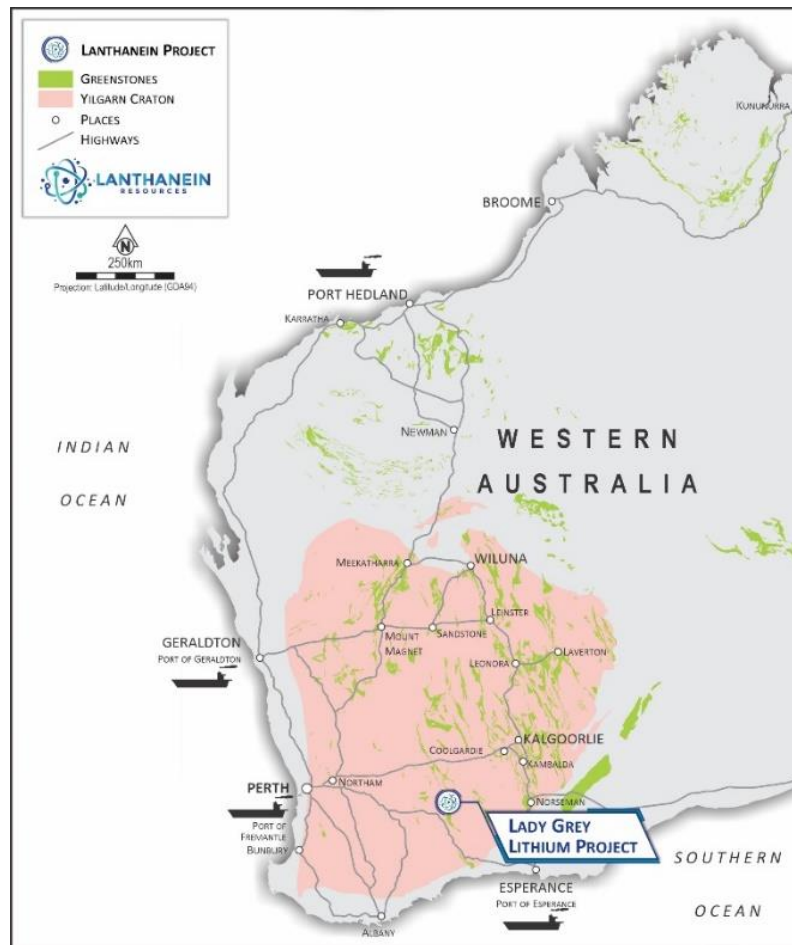
## Lady Grey Lithium-Tantalum Project, Western Australia

On 6 December, the Company advised that it had entered into a transaction to earn up to a 70% interest in the Lady Grey Lithium Project ("Lady Grey") directly adjacent to Covalent Lithium's (SQM 50% & Wesfarmers 50%) Earl Grey Mine, 189Mt @1.53% Li<sub>2</sub>O<sup>1</sup> at Mount Holland in the Forrestania Greenstone Belt.

The project is located on the Southern Cross - Forrestania Greenstone Belt a proven Tier 1 lithium mining district (Figure 1 and 2). Neighbours are major miners / developers including Covalent Lithium (Wesfarmers-SQM 50/50 JV) – 189Mt @ 1.5% Li<sub>2</sub>O at the Earl Grey Mine (Earl Grey pegmatite). IGO acquired WSA's high grade nickel mines at Flying Fox & Spotted Quoll, and are exploring for lithium, and the historic Bounty gold mine that produced ~1Moz gold.



**Figure 1: Location of the Lady Grey Project relative to infrastructure of Earl Grey Lithium Mine in the Forrestania Greenstone Belt of Western Australia.**



**Figure 2: Location of the Lady Grey Project relative to infrastructure of Earl Grey Lithium Mine in the Forrestania Greenstone Belt of Western Australia.**

The Earl Grey pegmatite sill is exposed only in the south-western corner of the Earl Grey deposit. The sill dips gently northward, sub-horizontally under the historic Earl Grey gold mine with Covalent Lithium's pegmatite being thickest against the western fault, thinning to stringer mineralisation along the eastern side of the deposit, indicating that the direction of injected pegmatite intrusion is most likely west to east. Rock samples from sampling program in March 2022 returned elevated Li (up to 298 ppm), Cs (up to 46 ppm), Rb (up to 1463 ppm) and Ta (up to 783 ppm), see Tables 1, 2 and Figures 3, 4.

Quartz sub-crop and float in the general area of the elevated soil and rock geochemistry may represent 'quartz cores' commonly present in complex zoned rare-element pegmatites, Figure 4. In conjunction to the anomalous soil geochemistry a large coherent >2km long high >0.3%K radiometric signal is present that may be structurally related to the outcropping Earl Grey pegmatite. Mapped continuation into Lanthanein tenure of the Split Rocks Unit host to the Earl Grey pegmatite with the potential for shallow flat-lying LCT pegmatites.

Interpretation and planning underway to target zones of potential pegmatite accumulation and associated lithium mineralisation.

Following a recent site visit to perform on site due diligence, the Directors were pleased to confirm the exploration potential of the highly prospective Lady Grey Project. Following confirmation of heritage clearance, plans for evaluation and field work will commence immediately to assess potential for lithium pegmatites. There is excellent access to the project with existing tracks and grid lines allowing for expedited exploration programs to occur throughout the next few months.

The current priorities for the new acquisition include:

- Drilling early 2024 (February - March);
- POW approved for 193 Aircore and 50 RC drillholes;
- Heritage Approvals for expanded drill programs;
- Extensive soil geochemistry program across other targets.

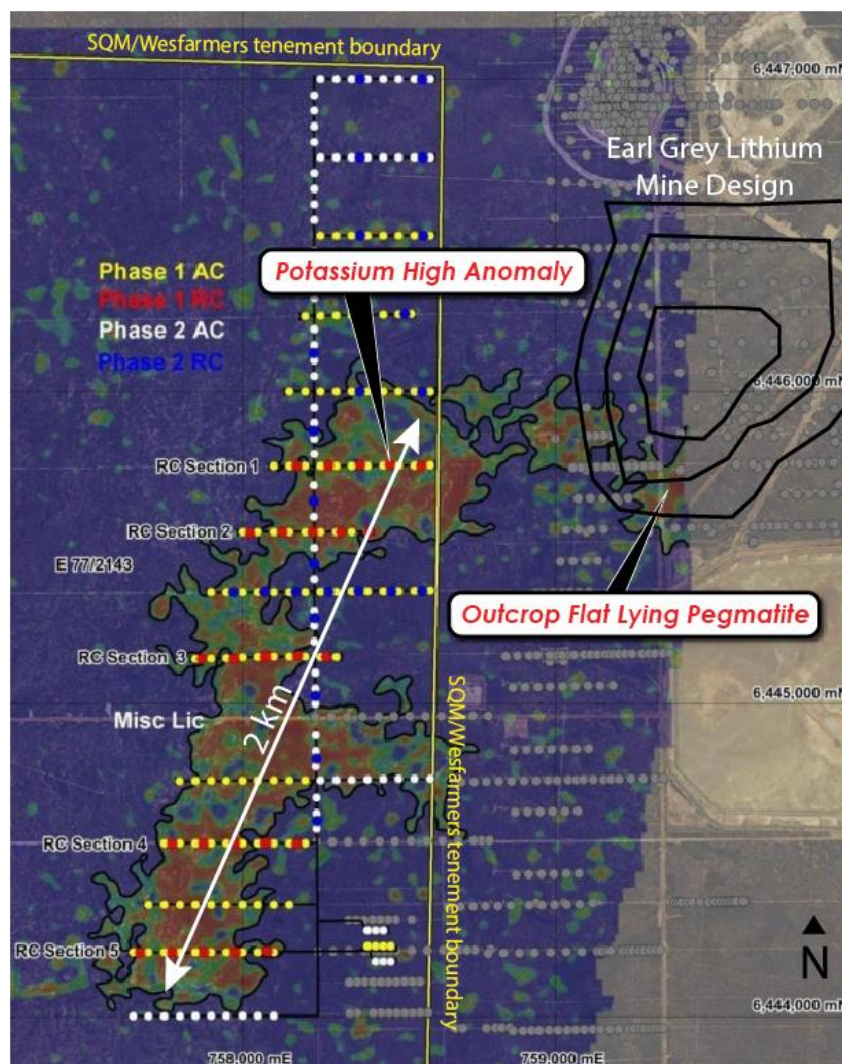


Figure 3: Map showing >2km strike extent of large coherent Potassium anomaly potentially structurally related to Earl Grey pegmatites and proposed drill programs drill collar locations.

**Table 1: Rock Chip Samples – Assay Results**

Sample ID's	Al %	Be ppm	Cs ppm	K %	Li ppm	Nb ppm	Rb ppm	Sn ppm	Ta ppm
BT301	8.04	6	30.1	3.19	105	56	933.1	109	210.2
BT302	8.87	9	16.3	3.74	176	33	975.0	66	78.0
BT303	8.35	4	1.7	0.12	193	BD	10.2	26	10.8
BT305	6.31	6	6.0	0.33	139	18	83.7	18	23.7
BT306	6.94	9	1.6	0.12	63	26	11.8	11	75.9
BT307	0.16	BD	0.1	0.06	BD	BD	1.9	BD	0.3
BT308	7.84	48	46.0	3.35	298	38	1463.0	123	208.7
BT309	9.59	35	37.9	4.10	277	70	1360.6	124	783.0
BT311	0.16	BD	0.4	0.09	207	BD	5.3	BD	3.7

**Table 2: Rock Chip Samples – Visual Descriptions (GDA94 MGAz50)**

Sample ID	MGA_East	MGA_North	Description
BT301	757806	6444417	Coarse grained quartz-muscovite float. Interpreted as pegmatoidal texture.
BT302	757777	6444200	Coarse grained quartz-muscovite float. Interpreted as pegmatoidal texture.
BT303	757809	6444135	Weathered outcrop/subcrop cream clay with quartz veinlets - possible weathered pegmatite i.e. K-feldspar-quartz
BT305	757789	6444118	Weathered quartz-clay-mica rock- possible pegmatite
BT306	757813	6444094	Weathered quartz-clay-mica rock- possible pegmatite
BT307	757790	6444472	Fine grained grey quartz - possible pegmatite quartz core
BT308	757850	6444550	Quartz-muscovite with slightly schistose fabric - interpreted as pegmatoidal texture
BT311	757800	6444150	Milky quartz massive texture



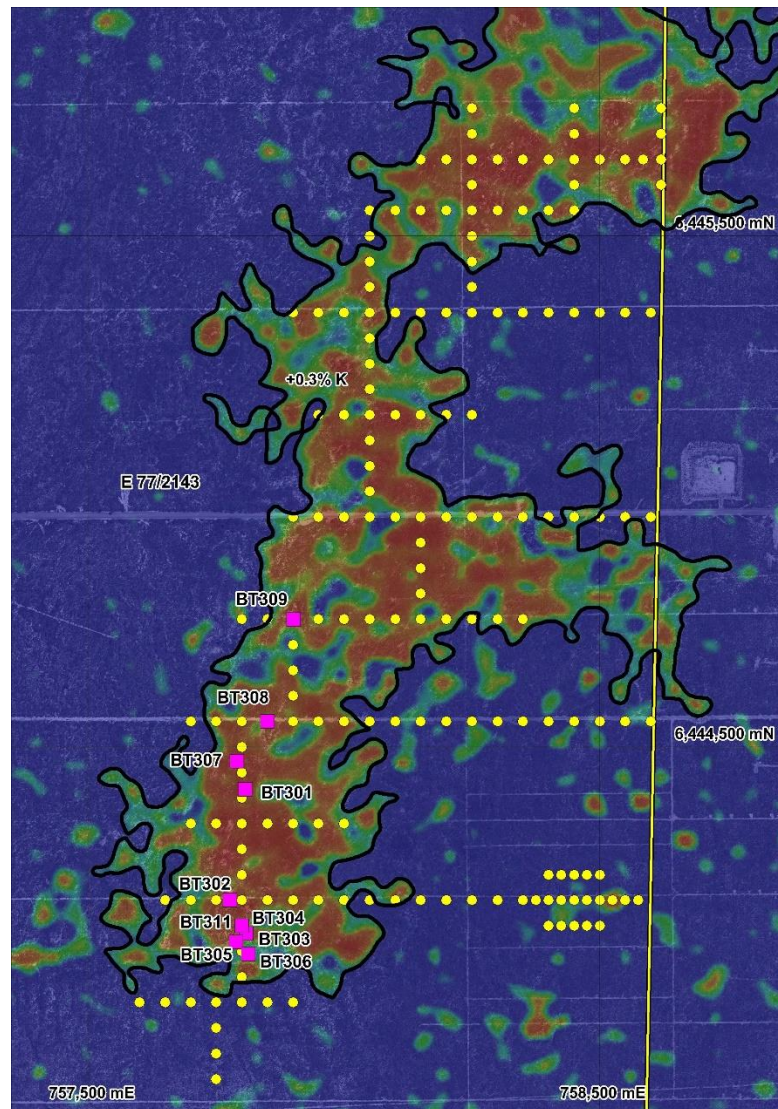


Figure 4: Locations of rock chip samples taken in November 2022 located within >2km strike extent of large coherent Potassium anomaly potentially structurally related to Earl Grey pegmatites

### Gascoyne Rare Earth Elements (REE) Project, Western Australia

Following the completion of an extensive infill drilling programme in Q2 and Q3 last year at the Company's Lyons Rare Earth Elements (REE) Project in the Gascoyne Region of Western Australia (**Lyons Project**), the Company announced a Maiden Mineral Resource Estimate (**MRE**) for the Lyons 11, 12 & 13 Prospects during the quarter. The drill program targeted high-grade rare earth mineralisation previously discovered at the outcropping ironstones at Lyons 11, 12 and 13 by high grade rock chips sampling and RC drilling carried out in 2022. This year's programme generated sufficient additional data points to complete this initial Inferred MRE.

### Mineral Resource Estimate

The Mineral Resource Estimate (MRE) for the Lyons REE Project stands at 0.99 million tonnes at 0.32%TREO (Total Rare Earth Oxides) as detailed in Table 3.

**Table 3: Inferred Mineral Resources at Lyons above 0.2% TREO**

Area	Tonnes (Mt)	TREO (%)	NdPr (%)	Nb <sub>2</sub> O <sub>5</sub> (%)	TREO (t)
Lyons 12&13	0.69	0.33	0.15	0.23	2,266
Lyons 11	0.30	0.32	0.10		670
<b>Total</b>	<b>0.99</b>	<b>0.32</b>	<b>0.13</b>		<b>3,221</b>

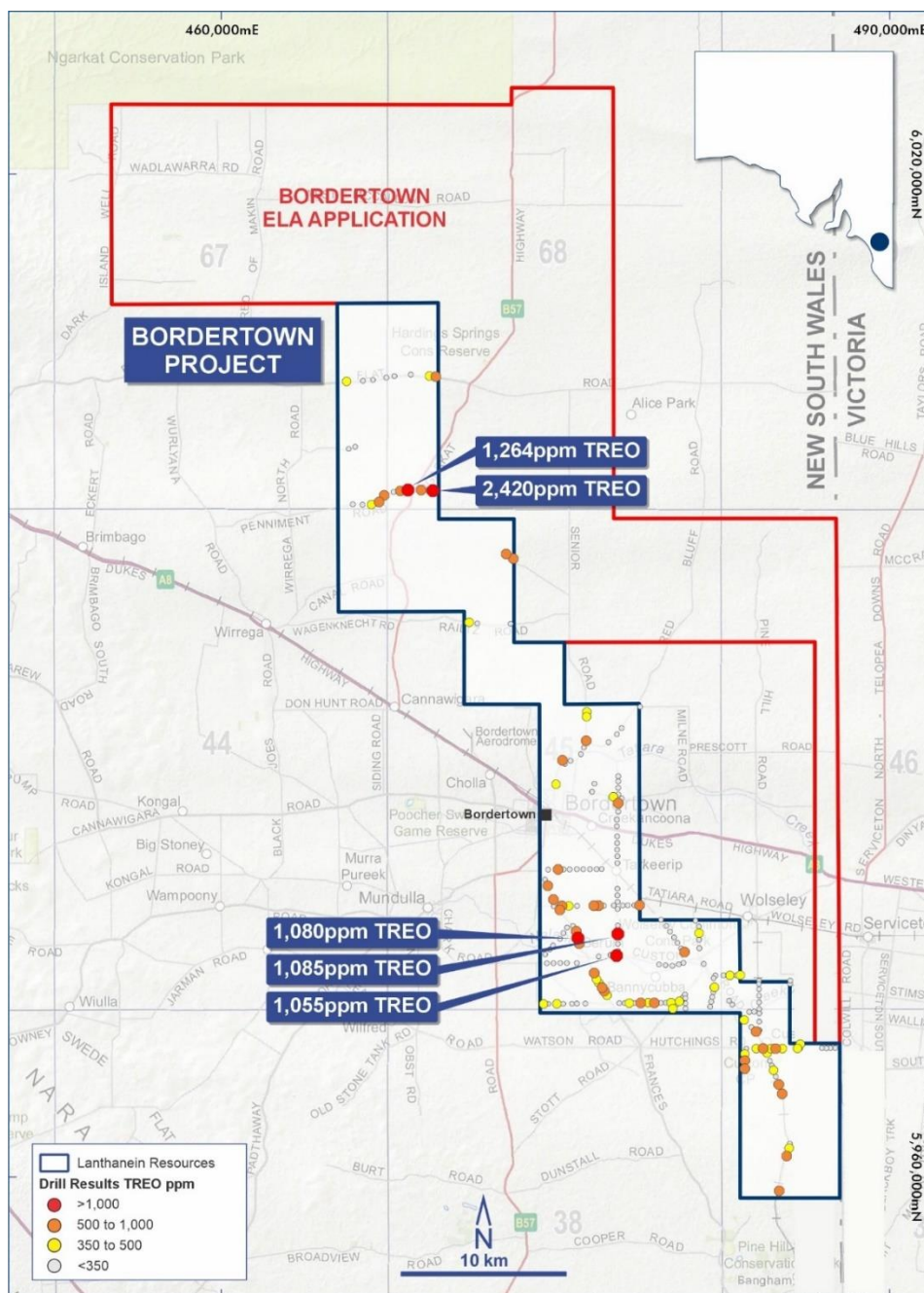
Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding.

The Lyons Project is located adjacent to the Yangibana REE deposit, owned by Hastings Technology Metals Ltd (ASX.HAS). This is an advanced project which has completed a Definitive Feasibility Study and is advancing to construction. Mineralisation at Yangibana is hosted in the same Yangibana Ironstones which hosts mineralisation at Lyons.

A total of 89 drillholes for 6,373 metres of drilling informed the model. Of these 66 holes for 4,639 metres were drilled at Lyons 12-13 and 23 holes for 1,734 metres were drilled at Lyons 11. All drilling was carried out in 2022 and 2023 using standard RC drilling.

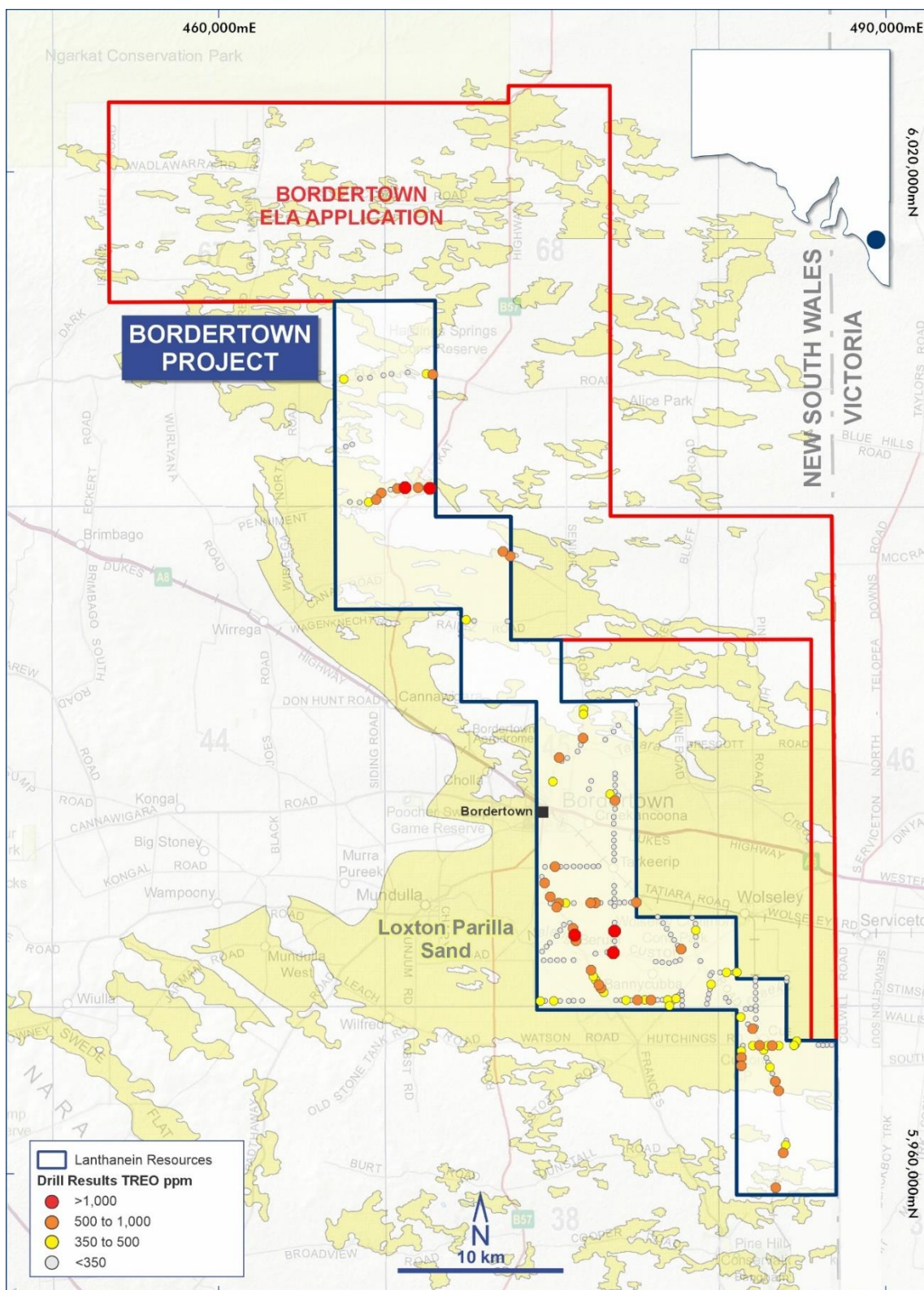
### Murraydium Rare Earths Project, South Australia

During the quarter the Company was pleased to announce that following receipt of the significant assay results from the roadside drilling programme at the Murraydium Project in the Southeast of South Australia (ASX 14/9/2023), it had applied for additional tenure to the east and north (Figure 5). The drill program targeted ionic clay hosted rare earths within the Loxton-Parilla Sands unit which is present throughout the Murray Basin in South Australia and Victoria (Figure 6).



**Figure 5: New Exploration Licence Application Adjacent to Reconnaissance Air Core Drill Holes with Significant Assays**





**Figure 6: New Exploration Licence Application Overlay on Projected Loxton Parilla Sands Locations**



The two drill holes immediately adjacent to the eastern boundary of the Bordertown Block of E6717 returned the following significant assay results:

- SBT199: 2m @ 1,560ppm TREO including 1m @ 2,420 ppm TREO from 19m depth, with combined 23% Neodymium/Praseodymium (Nd/Pr) and 1.8% Dysprosium (Dy)
- SBT190: 2m @ 808 ppm TREO including 1m @ 1264 ppm TREO from 14m depth, with combined 21% Nd/Pr and 2.5% Dy

Neodymium  $\text{Nd}_2\text{O}_3$  from the mineralised intersection also range from 11% to 23% of TREO.

As was the case with the existing tenement, EL 6717, the initial exploration on the new tenement will consist of reconnaissance air core drilling on the roadside verges controlled by the local government authorities in locations that are not covered by exempt land provisions such as being 400m from a residence or 150m from a dam, spring or reservoir. Prior to drilling the Company will once again conduct an extensive community, stakeholder and landholder consultation process on the proposed exploration activities. Should the reconnaissance roadside drilling encounter significant REE occurrences the Company will then commence negotiations with the adjacent private land holder to gain access to their paddocks to enable the conduct of a more systematic exploration programme plus an agreed rehabilitation of the land post the exploration.

Post the end of the quarter the Company was notified by the South Australian Department of Energy and Mines that Exploration Licence Application 2023/00045 has progressed and EL 6969 has now been granted.

### **Metallurgical Test Work**

Mineralogical test work was conducted on drill samples from the roadside drilling campaign by the highly regarded Minerals Group at the Australian Nuclear Science and Technology Organisation (ANSTO) to confirm that, as is the case at Koppamurra, the REE mineralisation in the Loxton Parilla Sands at Murraydium display the same characteristics as the ionic clay deposits (IADs) which are commercially leached in China and Myanmar as a major source of rare earth elements.

A feature of the IADs is that the REEs are present as physically adsorbed ions which can be readily solubilised by displacing the REE ions with an appropriate cation. Typical desorption conditions are contact with 0.3-0.5 M ammonium sulphate (AS) at pH 4-5 for ~ 30 minutes at ambient temperature, 20-30 wt% solids. Under these conditions up to 70% extraction (typically 40-60%) of TRE+Y can be obtained, with very little dissolution of gangue elements, which makes for simple downstream processing to produce a mixed RE carbonate.

Over the last few years, there have been numerous reports of elevated concentrations of REEs associated with clays (clay-hosted REE deposits), but in many cases the deposits have not

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proven to be classic ionic clay deposits, and a lower pH has been found to be necessary to dissolve the REEs. Under these circumstances, the economics of the process will depend on REE extraction, acid consumption and the concentrations of dissolved gangue elements. An initial indication of potential economic viability of any such deposit can be obtained by leaching over a range of acidities to determine REE extraction versus gangue dissolution.

Work to date suggests that the source of the REE at Koppamurra is most likely basalt associated alkali volcanics of the Newer Volcanics Province in south-eastern Australia, with the wider Koppamurra project area being considered prospective for rare earth mineralisation.

However, whilst the Koppamurra clays display ionic character, and the deposit shares a number of similarities with both ion adsorption clay deposits and volcanic ash fall placer deposits, there are also a number of differences, with further work required before a genetic model for REE mineralisation at Koppamurra and the broader Murray Basin including Murraydium can be conclusively defined. Further work is also required to better define metallurgical recoveries of the desorbable fraction of the REE's over a range of pH's and the rejection of the gangue elements such as aluminium, calcium, iron and sodium.

## Corporate

### Key Terms of Earl Grey Mine Farm-in Agreement

On 6 December 2023 the Company entered into a binding farm-in agreement ("Agreement") to acquire the right to earn up to a 70% legal and beneficial interest in EL77/2143 (and any other tenement that may be acquired/applied for by the parties) ("Tenement") from Gondwana Resources Ltd (ACN 008 915 311) ("Gondwana") in consideration for \$1,500,000 ("Initial Payment") payable within 4 business days of execution of the Agreement (payment was made on 6 December 2023).

- **Stage 1 Earn-In:** The Company may earn a 50% interest in the Tenement by:
  - Incurring expenditure of not less than \$7,000,000 on exploration within three years of the date on which the Initial Payment is made ("Stage 1 Start Date"), including:
    - Not less than \$1,000,000 within the first year after the Stage 1 Start Date the Initial Payment is made; and
    - Not less than a cumulative \$3,500,000 within the first two years after the Stage 1 Start Date;
  - Paying to Gondwana:
    - First milestone payment of \$500,000 cash on the earlier to occur of:
      - the first anniversary of the Stage 1 Start Date; and

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- the date on which the aggregate of exploration expenditure incurred by the Company reaches \$1,000,000;
  - Second milestone payment of \$500,000 cash on the earlier to occur of:
    - the second anniversary of the Stage 1 Start Date; and
    - the date on which the aggregate of exploration expenditure incurred by the Company reaches \$3,500,000; and
  - In the event the Company withdraws from the Agreement prior to the first anniversary of the Stage 1 Start Date (which the Company may do, in its discretion) paying to Gondwana a cash payment of \$1,000,000 less any exploration expenditure up to the date of withdrawal, (together, the “Stage 1 Commitments”).
- **Stage 2 Earn-In:** the Company may earn a further 20% interest (for a total 70% interest) in the Tenement by:
  - Sole funding exploration expenditure on the Tenement until a decision to mine is made, within 7 years of the Stage 1 Start Date; and
  - Paying to Gondwana: Third milestone payment of \$2,500,000 cash upon electing to proceed with the Stage 2 Earn-In, (together, the “Stage 2 Commitments”).
- **Election to proceed**  
At any time during the Stage 1 Earn-in period, the Company may give Gondwana written notice:
  - that it has completed its Stage 1 Commitments; and
  - stating whether or not it elects to proceed with the Stage 2 Earn In, (“First Completion Notice”).

Within 7 days from the date on which the First Completion Notice is received by the Tenement Holder, a 50% legal and beneficial interest in the Tenement will be transferred to the Company.

If the Company has elected not to proceed with the Stage 2 Earn In, the parties will execute an exploration joint venture agreement.
- **Final Completion Notice**  
At any time during the Stage 2 Earn-in period but not earlier than:
  - 30 days after the final feasibility study, development proposal and all material information supporting a decision to mine in respect of a designated mining area have been presented to Gondwana; and
  - a reasonable opportunity having been afforded Gondwana to consider the final feasibility study and development proposal,

the Company may give Gondwana written notice stating that it has completed the Stage 2 Commitments (“Final Completion Notice”).

Within 14 days after the Final Completion Notice is received by the Tenement Holder, a 20% legal and beneficial interest in the Tenement will be transferred to the Company.



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If, by the expiry of the Stage 2 Earn-in period, the Company has not delivered a Final Completion Notice to the Tenement Holder, the parties will execute an exploration joint venture agreement.

### **Vendor Option Agreement**

Syndicate Minerals Pty Ltd ("Syndicate") entered into a term sheet with Gondwana whereby it was granted an effective option to negotiate and introduce, on Gondwana's behalf, the farm-in agreement in relation to the Tenement ("Gondwana Option"). Syndicate holds this Gondwana Option in its capacity as trustee for Jack Capital WA Pty Ltd, Mark Jonathan Sandford, David James Wall, Ashburton Resources Pty Ltd and Sunrise Australia Pte Ltd ("Option Vendors").

In consideration for assigning the Gondwana Option to the Company, the Company has agreed, subject to Shareholder approval, to pay the following consideration to the Option Vendors:

- 100,000,000 fully paid ordinary shares in the capital of the Company ("Shares") within three days of Shareholder approval being received;
- if the Company has not withdrawn from the Agreement, 100,000,000 Shares on the first anniversary of the execution date of the Agreement ("Commencement Date");
- if the Company has not withdrawn from the Agreement, 166,666,666 Shares on the second anniversary of the Commencement Date; and
- if the Company has not withdrawn from the Agreement, 166,666,666 Shares on the third anniversary of the Commencement Date.

In addition to the above:

- all of the Deferred Consideration Shares will immediately become issuable in the event of a change in control of the Company;
- if Shareholder approval is not obtained within 3 months from the date of the relevant tranche of Shares, the Company has agreed to pay cash consideration equal to the value of the relevant tranche of Shares at a deemed issue price equal to the 5 trading day volume weighted average of Shares immediately prior to the date of the Shareholders' meeting convened to seek Shareholder approval (or, if no meeting is convened to seek the relevant Shareholder Approval, the 5 trading days after the date the relevant milestone was achieved); and
- the number of Shares will be adjusted for any subdivision, consolidation etc of the Company's ordinary shares in the same ratio.

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## **Director Appointment**

In conjunction with the Company's announcement regarding the Lady Grey Lithium Project, the Company also advised that Mr Anees Sabet has been appointed Non-Executive Director of the Company (as the nominee director of Syndicate).

Mr Sabet is an established businessman with a track record of identifying and developing resource projects. He is the founder and CEO of Syndicate Minerals Pty Ltd a globally diversified private exploration company focused on exploring large mineral systems for metals crucial to the energy transition.

Prior to his involvement in the resources sector, Mr Sabet was founding member and Executive General Manager at Catch.com.au from its start-up in 2007 until in 2015, where annual revenues grew to over \$200m from zero.

## **Capital Raising in relation to Lady Grey Lithium Project**

The Company advised in December that it had received firm commitments from sophisticated investors to raise \$2 million (before costs) via a two-tranche placement ("Placement") of approximately 666,666,667 million shares at an issue price of \$0.003 per Share ("Placement Shares"). Mr Anees Sabet has committed to subscribing for \$200,000 of Placement Shares on the same terms as the Placement, subject to shareholder approval.

Allotment of the Placement Shares is expected to occur in two tranches with the first tranche of 168,236,335 Placement Shares issued on 6 December 2023, pursuant to ASX Listing Rule 7.1. The Company will seek Shareholder approval to issue 498,430,332 Shares in the second tranche of the Placement at a shareholder meeting anticipated to be held in February 2024. The funds raised from the Placement will be used primarily to fund the acquisition costs under the Agreement and exploration of the Tenement.

In addition, the Company intends to seek Shareholder approval to issue the Directors a combined total of 33,333,334 unlisted options exercisable at \$0.01, 33,333,334 unlisted options exercisable at \$0.02 and 33,333,334 unlisted options exercisable at \$0.03 on or before the date that is three years from issue.

## **Tolukuma Project**

During November, the Company advised that the conditions relating to the 100% sale of the Company's subsidiary Frontier Copper PNG Ltd, the holder of the Tolukuma exploration licence EL2531 have been met by Tolu Minerals Limited (Tolu Minerals) (refer ASX

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announcement (18 March 2022) (Agreement). The Company noted that Tolu Minerals commenced trading on ASX on 10 November 2023 under ticker code (ASX : TOK).

Pursuant to the Agreement the Company received consideration of A\$2 million comprising A\$500,000 equivalent cash and A\$1.5 million by way of issue of 3 million fully paid ordinary shares in Tolu Minerals escrowed for 12 months.

### ASX Additional Information

- ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure during the quarter was \$109,000. Full details of exploration activity during the December quarter are set out in this report.
- ASX Listing Rule 5.3.2: There was no substantive mining production and development activities during the quarter.
- ASX Listing Rule 5.3.5: Payment to related parties of the Company and their associates during the quarter: \$64,166. The Company advises that this relates to non-executive directors' remuneration and additional technical consulting fees. Please see the Remuneration Report in the Annual Report for further details on Directors' Remuneration.

This activities report has been authorised for release by the Directors of the Company. For additional information please visit our website at [www.lanthanein.com](http://www.lanthanein.com)

### Releases submitted to the ASX during the Quarter included:

15/12/2023	Lady Grey Lithium Project Site Visit
08/12/2023	Investor Presentation
06/12/2023	Cleansing Notice
06/12/2023	Initial Director's Interest Notice
06/12/2023	Application for quotation of securities - LNR
06/12/2023	Proposed issue of securities - LNR
06/12/2023	Lithium Project West of Earl Grey Mine Farm-in Agreement
04/12/2023	Trading Halt
10/11/2023	Tolukuma Project Sale Completion
10/11/2023	Results of Meeting
30/10/2023	Initial Director's Interest Notice
26/10/2023	Director Appointment
25/10/2023	Maiden Mineral Resource Estimate at Lyons Project
18/10/2023	Quarterly Activities/Appendix 5B Cash Flow Report
12/10/2023	Letter to Shareholders - Notice of Annual General Meeting
12/10/2023	Notice of Annual General Meeting/Proxy Form
10/10/2023	New REE Mineralised Ironstones & Carbonatites at Lyons
05/10/2023	Tenement Application Adjacent to Significant Drill Results

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**Reference**

<sup>1</sup> David Chapman, Geoscience Australia, Australia Resource Reviews, Lithium 2018.

**LANTHANEIN RESOURCES LTD****Western Australian Projects**

The information in this announcement that relates to Exploration Results and other geological information has been compiled under the supervision of Mr Thomas Langley. Mr Langley is a member of the Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy and is a consultant to the Company. Mr Langley has sufficient experience which is relevant to the style of mineralisation and type 23 of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code')". Mr Langley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.

The information in this press release relating to Mineral Resources is based on information compiled, reviewed and assessed by Mr. Bill Oliver, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr. Oliver is a consultant to the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr. Oliver consents to the inclusion of the information in the form and context in which it appears.

The Company confirms that all material assumptions and technical parameters underpinning the mineral resource estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the mineral resource estimates are presented have not been materially modified.



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**Schedule 1 – Lanthanein Resources Limited Tenement Information as at 31 December 2023**

**Australia**

Tenement Number and Name	Ownership	Sub-blocks	Area (sq.km)	Application /Grant Date	Expiry Date
E 09/2515 - Gascoyne (WA)	100% LNR via Dalkeith Capital Pty Ltd	47	147.02	17-Dec-21	16-Dec-26
E 09/2516 - Gascoyne (WA)	100% LNR via Dalkeith Capital Pty Ltd	25	78.35	17-Dec-21	16-Dec-26
E 77/2796 - Koolya (WA)	100% LNR via Dalkeith Capital Pty Ltd	47	138.78	05-Nov-21	04-Nov-26
E 77/2797 - Koolya (WA)	100% LNR via Dalkeith Capital Pty Ltd	28	82.68	05-Nov-21	04-Nov-26
E 52/4012 - Mt Clere (WA)	100% LNR via Dalkeith Capital Pty Ltd	191	591.63	23-Mar-22	22-Mar-27
EL6717 - Murraydium (SA)	100% LNR via Southern Rare Earths Pty Ltd	78	876.00	06-Apr-22	05-Apr-28
E77/2143 – Lady Grey Project (WA)	Earning up to a 70% interest  Current interest in Stage 1: 0%				

No changes in tenements occurred during the quarter.

**Papua New Guinea**

Exploration Licence Number and Name	Ownership at the beginning of the quarter	Ownership at the end of the quarter	Sub-blocks	Area (sq.km)	Grant Date	Expiry Date
EL2531 - Tolukuma	100% Frontier Copper PNG Ltd	0%	65	223.00	25-Feb-19	24-Feb-23
ELA2529 - Gazelle	100% Frontier Copper PNG Ltd	0%	211	719.51	N/A	N/A
	Total of Granted EL's		65	223.00		
Notes:	The PNG Mining Act-1992 stipulates that EL's are granted for a renewable 2 year term (subject to satisfying work and expenditure commitments).					
	The PNG Government maintains the right to purchase up to 30% project equity at "Sunk Cost" if/when a Mining Lease is granted.					

## Appendix 5B

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

Name of entity

LANTHANEIN RESOURCES LTD

ABN

96 095 684 389

Quarter ended ("current quarter")

31 December 2023

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)	(8)	(13)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	-	-
	(e) administration and corporate costs	(112)	(279)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	7	22
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	(13)	108
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(126)</b>	<b>(162)</b>

<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	(1,500)	(1,500)
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation (if capitalised)	(101)	(1,329)
	(e) investments	-	-
	(f) other non-current assets	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
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 (drilling co-funding payment)	114	114
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(1,487)</b>	<b>(2,715)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	549	549
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	(35)	(35)
3.5	Proceeds from borrowings	250	250
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>764</b>	<b>764</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	1,628	2,892
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(126)	(162)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,487)	(2,715)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	764	764

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

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	-	-
4.6	<b>Cash and cash equivalents at end of period</b>	<b>779</b>	<b>779</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	279	1,128
5.2	Call deposits	500	500
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>779</b>	<b>1,628</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**

64

-

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

Consulting fees and directors' fees      \$64,166



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

7. <b>Financing facilities</b>		<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<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. <b>Estimated cash available for future operating activities</b>		<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (Item 1.9)	(126)
8.2	Capitalised exploration & evaluation (Item 2.1(d))	(101)
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(227)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	779
8.5	Unused finance facilities available at quarter end (Item 7.5)	-
8.6	Total available funding (Item 8.4 + Item 8.5)	779
8.7	<b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	3.43
8.8	If Item 8.7 is less than 2 quarters, please provide answers to the following questions:	
1.	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	
2.	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	
3.	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: 30 January 2024

Authorised by: (lodged electronically)  
Matthew Foy – Company Secretary

**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.