



ASX Announcement

23 July 2024

Quarterly Activities Report For the Quarter ending 30 June 2024

Earths Energy Limited (ASX: EE1) (EE1, Earths Energy or the Company) is pleased to present its Quarterly Activities Report for the 3 months ending 30 June 2024 (Period or Quarter).

HIGHLIGHTS

- **Strategic appointment of CEO to drive commercialisation of Australia's most advanced geothermal projects**
 - Mr Josh Puckridge, with significant Australian geothermal industry experience, joined the Company as CEO in early June
 - Under Mr Puckridge's leadership, EE1's commercial and technical development has already seen significant acceleration
- **New management initiated and conducted a review of the Company's South Australian projects during the Period¹. Key findings included:**
 - South Australian Projects confirmed as Australia's Most Advanced Geothermal Projects
 - **Paralana Project** already drilled and tested to a depth of 3,685m with a significantly high thermal gradient of >46°C per km of depth (1.84x Australian average)
 - **Flinders West Project** already drilled and tested to a depth of 1,934m with significantly high thermal gradient of >43°C per km of depth (1.72x Australian average)
 - All projects have the potential to be developed as Enhanced Geothermal (EGS), Advanced Geothermal (AGS) and other Next Generation Project (NGP) systems
 - Identified Carbon Capture, Utilisation and Storage (CCUS) potential in the Flinders West project areas
- **GLJ Ltd (GLJ) appointed as technical adviser to carry out techno economic assessment in the coming quarter**
 - GLJ is a global leader in geothermal project development
 - Made significant contributions to the development of Vulcan Energy's Zero Carbon Lithium™ project, showing their ability to drive innovation and commercial outcomes
 - GLJ has significant expertise in developing CCUS projects

¹ See ASX Announcement 10 July 2024, "Australia's Most Advanced Geothermal Projects".

RESTRUCTURE OF MANAGEMENT TEAM TO DRIVE COMMERCIALISATION

The restructure of the management team, implemented in early June, included the appointment of Josh Puckridge as CEO who has been instrumental in advancing the Company's goals. Matt Kay stepped down as Managing Director, and Trey Meckel stepped down as Head of Subsurface.

Mr. Puckridge is a corporate finance executive and experienced company director of ASX listed companies, including formerly serving as the CEO and Executive Director of Discovery Resources Limited, a Namibian REE exploration company. Mr. Puckridge previously worked for a global funds manager (Fleming Asset Management), managing in excess of \$US1.4bn.

Mr Puckridge has spent the last two years working at the forefront of the Australian geothermal industry as a founder and managing director of Steam Resources Limited (Steam Resources), assembling one of the largest geothermal exploration and development portfolios in the world.

At Steam Resources, Mr Puckridge focused specifically on identifying engineering solutions and technologies, such as Enhanced Geothermal Systems and Supercritical CO₂ plant designs, which are optimally suited to commercialising Australia's extensive geothermal resources.

INDEPENDENT TECHNICAL ADVISER CONFIRMS QUALITY OF SOUTH AUSTRALIAN PROJECTS

The Company's South Australian assets have been defined into two new project areas:

1. Paralana: Located 300 km to the northeast of Port Augusta.
2. Flinders West: Extending from 45 km northwest of Port Augusta to Olympic Dam.

Recent work completed by JRG Energy¹ confirms the Company's projects in South Australia are not just significant by Australian geothermal project standards but are also projects that maintain global development potential.

Recent work completed by US groups in Nevada shows that by incorporating recent developments in both Enhanced and Advanced Geothermal Systems, the Company's South Australian projects have significant development potential.

Based on a relatively conservative group of analogous projects operating in the US (see Figure 1 and Figure 2), the Company could readily begin assessing the feasibility of 40MWe to 80MWe installed capacity projects at multiple sites within South Australia.

Initial work completed also indicates the potential for CCUS project development. This is an enticing opportunity for the Company as South Australia is one of few Australian jurisdictions with legislation in place to support the development of projects such as Paralana and Flinders West.

Strategic coverage of the power grid between Port Augusta and Olympic Dam enhances the development potential and attractiveness of these projects.

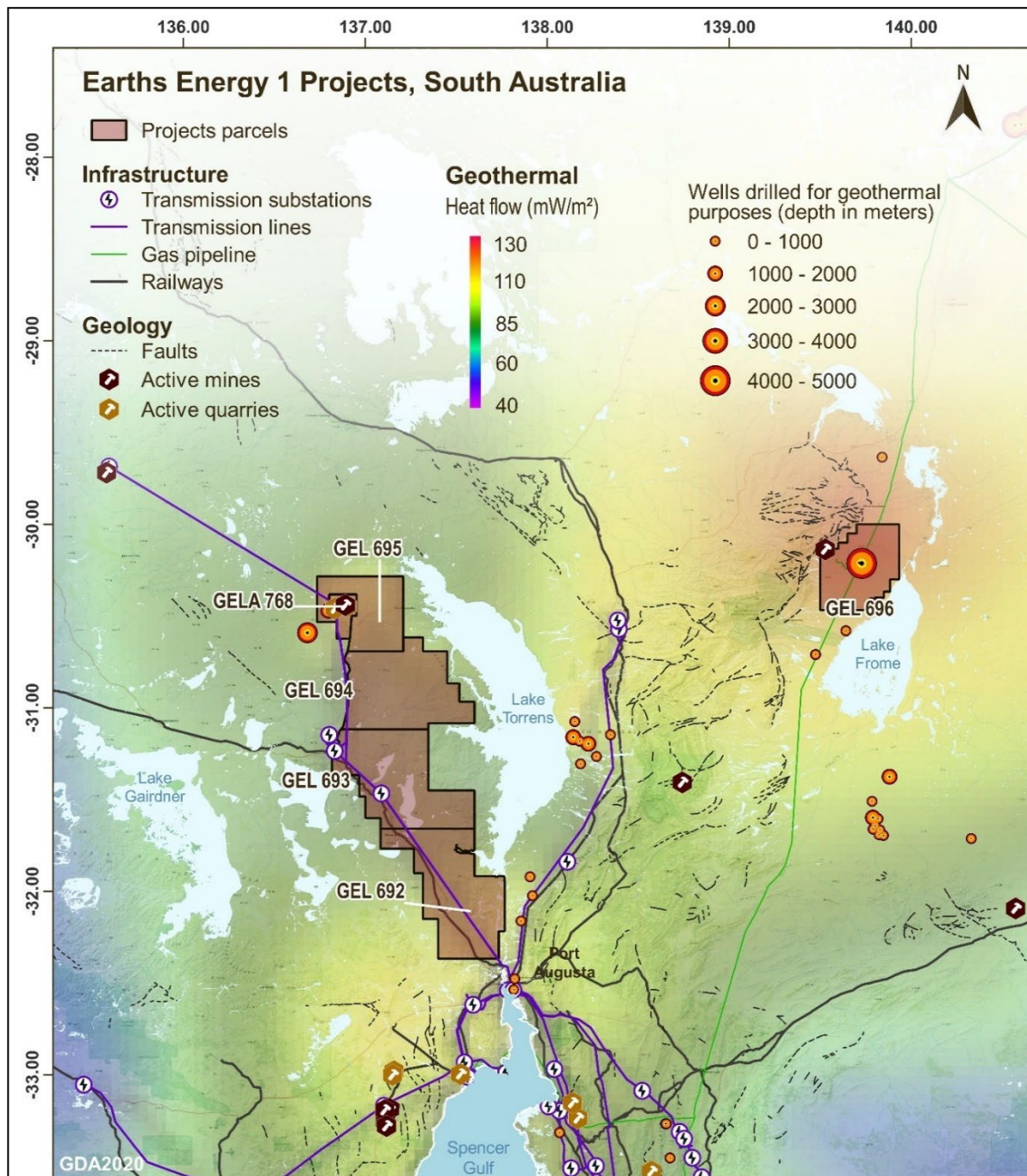


Figure 1: South Australian Projects with historical geothermal wells and heat map

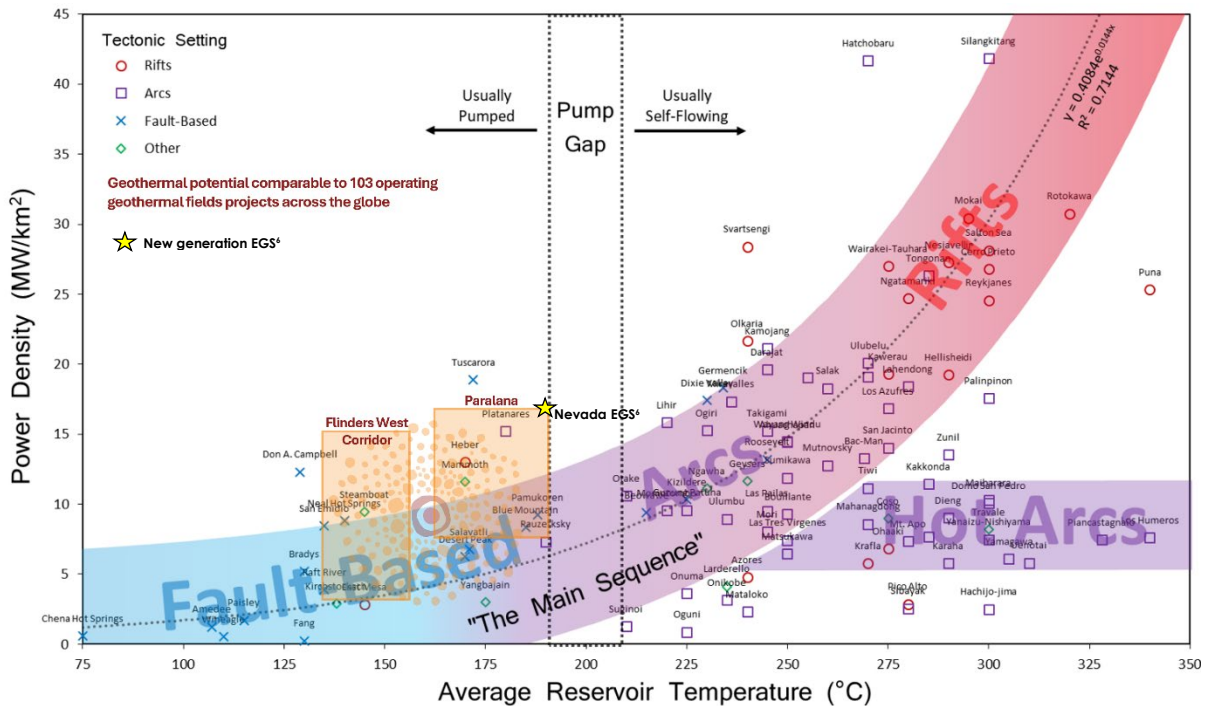


Figure 2: Potential Power Density Range of EE1 Projects² compared to other global geothermal projects³ – orange boxes are current indicative bands of the power density range for EE1’s South Australian projects

These two project areas are represented in Figure 2 above, which shows the Company’s South Australian projects in the context of global geothermal operations, clearly demonstrating their world-class power density.

Favourable CCUS Legislation: work completed by the Company has confirmed that the process and legislation is in place in South Australia to commercially develop a CCUS project under a strategic gas storage licence.

Favourable Logistics to Grid Access in South Australia and the East Coast of Australia: recent reports by the Australian Energy Market Operator (AEMO)⁴ confirms that regulatory approvals are underway that would see the Flinders West Corridor project also be connected to Australia’s East Coast power network which greatly increases the potential for the project beyond just selling power in South Australia. This greatly improves the viability of any project considered at Flinders West.

The **Parolana Project** has already been drilled to a depth of 3,685m with a bottom hole temperature of 171°C, a significantly high gradient of >46°C per km of depth (1.84x Australian average)⁵.

² Company Prospectus dated 8 November 2023.

³ Wilmarth, M. and Stimac, J. (2020). “Power Density in Geothermal Fields, Update 2020”.

⁴ AEMO’s 2024 Integrated System Plan released June 26, 2024.

⁵ Based on an average Australian thermal gradient of 25°C per km (G R Beardsmore & Cull, 2001).

Paralana is a well-developed geothermal project with significant drilled and proven heat and pressure. Paralana 2 (in 2011) was drilled vertically and stimulated conventionally to achieve self-flow of 6 l/s and up to 20 l/s during injection. Using a horizontal well pair development concept similar to that pioneered in Nevada at an Enhanced Geothermal System (EGS) project in Nevada more recently, there is potential to increase these rates significantly.

Paralana 2 has between 97 and 233 GWh⁶ per annum potential based on conservative conventional analogous US projects.

The **Flinders West Project** is already drilled to a depth of 1,934m with a significantly high gradient of >43°C per km of depth (1.72x Australian average)², with electricity grid running along the entire tenement footprint.

The exploratory surveys and drilling completed to date suggest the potential for an EGS project. The extrapolated depth to 150°C (necessary for power generation) is ~3.5 km suggesting some potential for an engineered geothermal system project using stimulated horizontal well pairs as pioneered by US operations in Nevada. However, these Nevada wells are ~2.5 km and ~175°C, as a result, additional work will be needed to demonstrate viable economics for an EGS project in the Flinders West Corridor.

Flinders West shows early signs of suitability for other next generation geothermal power production innovations beyond EGS and AGS. The Company is also assessing the suitability of new plant and systems designs such as supercritical carbon dioxide (sCO₂) systems that utilise liquid CO₂ instead of H₂O as the fluid circulating in the geothermal reservoir to excavate heat.

Furthermore, Flinders west shows potential for CCUS.

THE COMPANY APPOINTED GLJ AS TECHNICAL ADVISER

Post quarter end, EE1 appointed GLJ as a technical advisor to conduct a technology review and initial techno-economic assessment of the Company's two South Australian projects, Paralana and Flinders West.

This review and techno-economic assessment will focus on evaluating both the geothermal and CCUS project potential at Paralana and Flinders West. The Company expects to receive the initial findings of this work during Q32024.

GLJ is a global leader in energy consulting, specialising in geothermal project development and CCUS. With over 50 years of experience, GLJ has an extensive track record in market assessments, geothermal exploration, geological studies, risk analysis, reservoir modelling, field development planning, and facility design review.

GLJ's role in Vulcan Energy's Zero Carbon Lithium™ project further demonstrates their ability to drive innovation and commercial outcomes in the renewable energy sector which aligns with the Company's objectives. This strategic appointment will provide the Company with important expertise to advance its projects.

⁶ Based on analogous groups of operating power plants with similar power densities and temperatures.

CORPORATE

Cash balance

The Company's cash balance at 30 June 2024 was \$4.9m.

Use of Funds

For the Quarter, the Company provides a comparison of expenditure against the Use of Funds as set out in the Company's Prospectus dated 8 November 2023 pursuant to Listing Rule 4.7C.2.

Evaluation and exploration expenditure during the Quarter amounted to \$0.02 million. During the Quarter, there were no mining production and development activities.

Table 1- Use of Funds

Use of Funds	Prospectus \$	Actual spend \$
Corporate costs ⁷	1,816,486	548,389
Joint Venture technical services allocation	232,138	61,913
Accounting and support services	158,340	40,438
Geological services	480,000	133,460
Technical subsurface exploration activities	283,000	1,540
HSE adviser	320,000	-
Native title and land access	91,500	-
Consultants – drilling	360,000	-
Civil and exploration drilling	640,000	-
Engineering	80,000	-
HSEQ compliance requirements	72,000	-
Title rent and fees	300,000	10,572
Transaction costs	340,000	399,781
Broker fees	300,000	267,800
Working capital ⁸	526,536	-
TOTAL	6,000,000	1,463,893

The Company notes that expenditure is generally in line with the use of funds from the Company's Prospectus dated 8 November 2023 with no material deviations.

Payments to related parties of the entity and their associates

During the Quarter, payments to related parties for directors' fees and key management personnel salaries totalled \$200,761.

Mr Grant Davey, who is a Director of the Company, is a director and shareholder of Matador Capital Pty Ltd (**Matador Capital**). The Company makes payments to Matador Capital under Shared Services and Office Use Agreements in which Matador Capital provides office space, office administration services, bookkeeping and accounting services and IT hardware and infrastructure to the Company. The services provided by Matador Capital are recovered from the Company on a cost-plus basis and totalled \$ 68,457.

⁷ Comprises of general administration expenses, including director fees, audit fees, insurance, legal, ASX fees, investor relations costs, share registry costs, occupancy costs, accounting and book-keeping costs.

⁸ General working capital including, but not limited to, expenditure in respect to the Company undertaking due diligence investigations on potential additional complementary project opportunities.

Tenements held

Table 2 - Geothermal Tenements

Tenement	Status	EE1 Ownership	Area km ²	Registered Holder	Location
GELA692	Granted	84%	2,964	Volt Geothermal Pty Ltd	South Australia
GEL 693	Granted	84%	2,968	Volt Geothermal Pty Ltd	South Australia
GEL 694	Granted	84%	2,789	Volt Geothermal Pty Ltd	South Australia
GEL 695	Granted	84%	1,538	Volt Geothermal Pty Ltd	South Australia
GEL 696	Granted	84%	1,776	Volt Geothermal Pty Ltd	South Australia
GELA 768	Application	84%	288	Volt Geothermal Pty Ltd	South Australia
EPG 2026	Granted	84%	3,129	Within Energy Pty Ltd	Queensland
EPG 2031	Application	84%	3,642	Within Energy Pty Ltd	Queensland
EPG 2034	Application	84%	3,669	Within Energy Pty Ltd	Queensland
EPG 2036	Application	84%	2,589	Within Energy Pty Ltd	Queensland

Authorised for release by Earths Energy's Board of Directors.

END

For more information contact:

JOSH PUCKRIDGE

Chief Executive Officer

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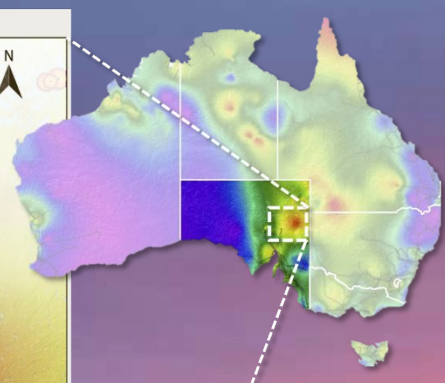
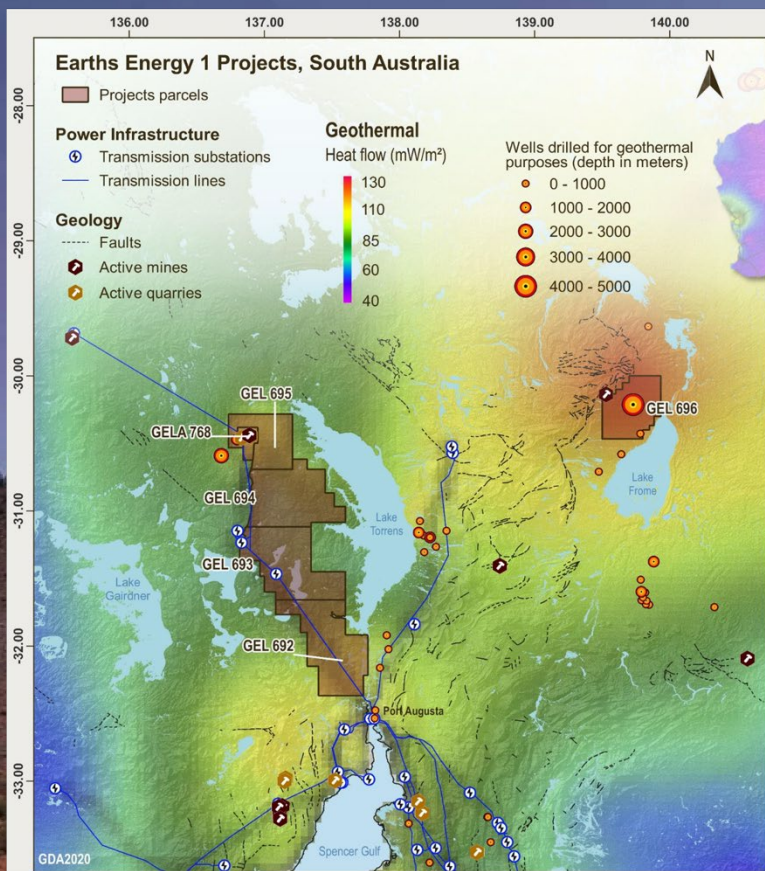
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About Geothermal

Geothermal Projects provide green baseload power to electricity grids around the world. The USA produces 17.2 TWh of geothermal power per annum, equivalent to Western Australia's entire annual electricity demand.

The USA, Indonesia and Philippines combined produce enough geothermal power to meet over 17% of Australia's annual electricity demand.

About Earths Energy (ASX: EE1)

Australia's Most Advanced Geothermal Explorer and Developer

Committed to the production of green baseload power in Australia

EE1 holds 84% of the Paralana and Flinders West geothermal projects located in South Australia, which stand as Australia's most advanced geothermal projects and have outstanding development potential.

EE1 also holds an 84% interest in geothermal projects located in Queensland.

EE1's landholdings comprise prospective geothermal exploration licences, surrounded by key existing infrastructure including powerlines and power substations.

The Company is focused on assessing the feasibility of commercial scale geothermal power generation capacity at multiple sites, including the suitability of its projects for carbon capture.

Shares on Issue

Total Shares on Issue	750.3m
Escrowed until 7 Feb 2026	220.4m
Escrowed until 7 Feb 2025	73.8m
Tradeable Shares	456.1m

Top 5 shareholders

- Mimo Strategies** 10.7% (fully escrowed until Feb 2026)
- Stephen Biggins** 10.2% (fully escrowed until Feb 2026)
- Grant Davey** 6.7% (partially escrowed until Feb 2025)
- Jadematt Investments** 5.9% (fully escrowed until Feb 2026)
- Sunset Capital** 5.7%

For more information see

Company Website

www.ee1.com.au

LinkedIn

www.linkedin.com/company/earths-energy/

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Contact

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Martin Stulpner, Corporate Development

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Appendix 5B

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

Name of entity

Earths Energy Limited

ABN

60 149 637 016

Quarter ended ("current quarter")

30 June 2024

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(306)	(437)
(e) administration and corporate costs	(28)	(1,029)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	6	9
1.5 Interest and other costs of finance paid	-	(1)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (reclassification of corporate costs to exploration & evaluation)	180	180
1.9 Net cash from / (used in) operating activities	(148)	(1,278)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) exploration & evaluation	(240)	(382)
(e) investments	-	-
(f) other non-current assets	-	-

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 (12 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)	-	-
2.6	Net cash from / (used in) investing activities	(240)	(382)
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	6,850
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	-	(274)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(2)	(18)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (receipts from share subscriptions)	-	-
3.10	Net cash from / (used in) financing activities	(2)	6,558
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	5,293	5
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(148)	(1,278)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(240)	(382)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(2)	6,558

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 (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	4,903	4,903

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	903	5,293
5.2	Call deposits	4,000	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	4,903	5,293

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	269
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

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.

7.	Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		-
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.		
	N/A		

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

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(148)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(240)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(388)
8.4 Cash and cash equivalents at quarter end (item 4.6)	4,903
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	4,903
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	12.6
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 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	
8.8.2 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	
8.8.3 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	
<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

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: 23 July 2024

Authorised by: **the Board**
(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.