



ASX Announcement

25 October 2024

Quarterly Activities Report For the Quarter ending 30 September 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 September 2024 (Period or Quarter).

HIGHLIGHTS

- **Earths Energy conducted an extensive review of its South Australian projects**
 - JRG Energy Consultants Ltd was engaged to work with the Company to conduct a technical review of its South Australian projects
 - Paralana represents one of Australia's most advanced geothermal projects, having been drilled and piloted to 3,685m depth with a bottom hole temperature of 171°C
- **The Company commissioned GLJ Ltd (GLJ) to conduct a Techno-Economic Feasibility Study (TEFS) of its South Australian projects, to be delivered during 4Q CY24**
 - GLJ, a globally recognised energy leader, specialising in geothermal, carbon capture, utilisation, and storage (CCUS) assurance and advisory were appointed during the Quarter
 - The TEFS includes a detailed analysis of various geothermal extraction technologies, reservoir simulations, cost estimation for well design and surface facilities, and economic models
 - Evaluation of potential synergies between geothermal energy production and carbon capture utilisation and storage technologies will also form part of the TEFS
- **EE1 completed an independent appraisal of its South Australian electricity grid interests**
 - The report by specialist energy consultancy Resources WA confirms the Company can expect prices of at least \$150 per MWh sold from its Flinders West and Paralana projects, through a combination of power purchase agreements, wholesale power sales and ancillary services revenues
 - SA network connection process confirmed as being low cost and supportive of speedy development timeframes for baseload geothermal projects
- **The Company commenced a study of its Queensland projects' suitability for the development of geothermally powered data centres**
 - Geothermal powered data centres are currently being developed by Google, Microsoft and Meta
 - Location of EE1's Queensland tenure near population centres such as Ipswich, Brisbane and Gold Coast enhances the commercial attractiveness for data centre operations
- **The Company began discussions with potential US joint venture partners regarding its Paralana and Flinders West projects**
- **Cash at bank as at 30 September 2024 was \$4.2m**

"This is the first full Quarter I have served as CEO of EE1. In this short period, we have made significant achievements towards the Company realising the full value of its world class projects in South Australia and commercialising its strategic Queensland portfolio.

"The ongoing work being completed with GLJ will position the Company as a significant developer of green baseload power into 2025 and beyond.

"EE1's flagship Paralana project is not just significant for the Australian geothermal industry but is also of global relevance as a mature Enhanced Geothermal System target – these are the types of projects in the USA that are driving investment and innovation in the global geothermal industry."

Commenting on the Quarter, CEO Josh Puckridge

EXTENSIVE REVIEW OF SOUTH AUSTRALIAN PROJECTS

In its announcement dated 10 July 2024, the Company detailed work completed that 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.

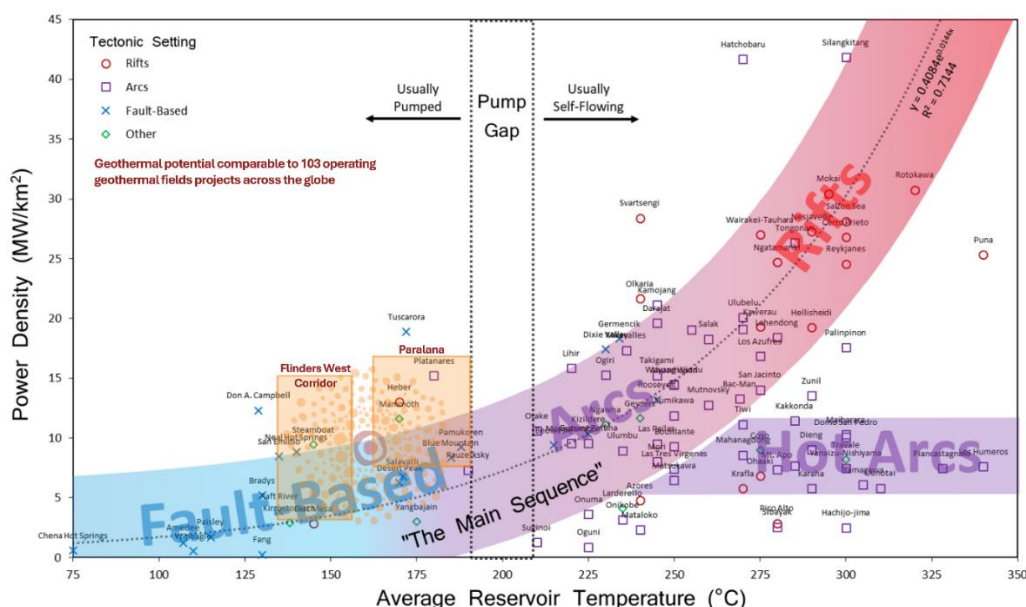


Figure 1: Potential Power Density Range of EE1 Projects in South Australian projects

Recent work completed by next-generation geothermal developers in Nevada and Utah shows that the Company's South Australian projects contain significant development potential by incorporating recent advancements in both Enhanced Geothermal Systems and Advanced Geothermal Systems.

Initial work completed also indicates the potential for Captured Carbon Storage 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 like these under a strategic gas storage licence.

The Company also identified further strategic opportunities from its coverage of the power grid between Port Augusta and Olympic Dam, which enhances the projects development potential.

COMMISSIONED GLJ TO DELIVER TECHNO-ECONOMIC FEASIBILITY ASSESSMENT

Initial reviews by GLJ have demonstrated significant potential for both geothermal energy production and carbon capture capabilities at Paralana and Flinders West. Given these findings, the Company has engaged GLJ to undertake the TEFS.

The TEFS will not only delineate the geothermal resource potential but will also evaluate the viability of integrating next-generation technologies, including Advanced Geothermal Systems, Enhanced Geothermal Systems, and supercritical CO₂ geothermal plants. These technologies have the potential to significantly enhance both energy output and commercial viability by allowing for shallower drilling depths, thereby reducing capital expenditures and operating costs.

The TEFS will include the following key components:

Red Flag Assessment: Identifying and mitigating any critical issues that could impact project success, with recommendations for adjustments and alternative approaches as needed, was completed post quarter end with no red flags identified.

Geothermal Resource Evaluation and Audit: Verification and detailed delineation of existing subsurface data, creation of geothermal favourability maps, and audit of in-place geothermal resources for each exploration licence, given the most appropriate geothermal extraction technologies for each project area.

Comprehensive Techno-Economic Feasibility Study: Detailed analysis of various geothermal extraction technologies, development of potential scenarios, reservoir simulations, cost estimation for well design and surface facilities, and comprehensive economic modelling, including sensitivity analysis – to be completed by December 2024.

INDEPENDENT REPORT ON SA ELECTRICITY NETWORK SHOWS REVENUE POTENTIAL

The Company engaged specialist consultant, Resources WA, to prepare an initial assessment of offtake alternatives for electricity for the Company's South Australian projects.

The Report confirms the Company can expect prices of at least \$150 per MWh sold from its Flinders West and Paralana projects, achievable through a combination of Power Purchase Agreements, wholesale power sales and ancillary services revenues.

The report from Resources WA also confirms that Paralana and Flinders West are strategically located near key substations and high-voltage transmission networks. Current connections availability is up to 70MW at the Flinders West project, with the SA connection process confirmed in the report as being low cost and supportive of speedy development timeframes (12 to 18 months).

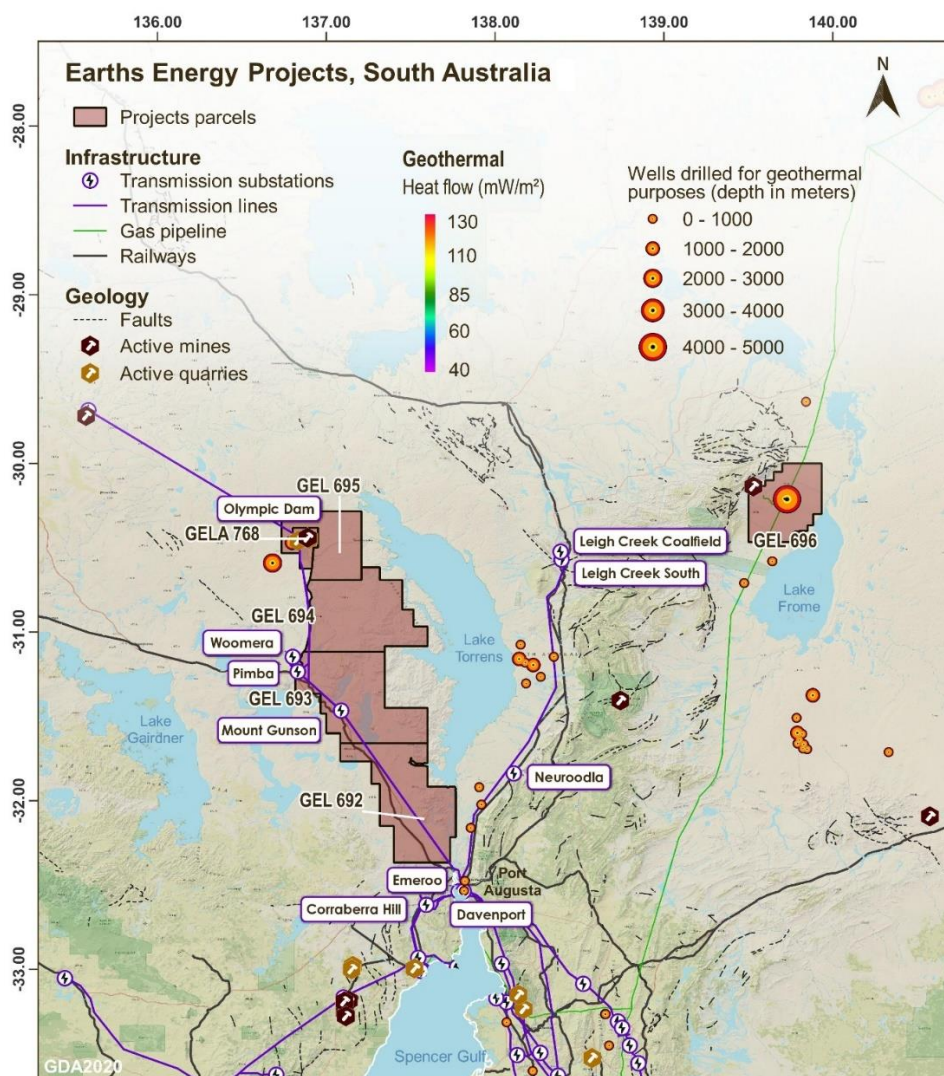


Figure 2: Substations in proximity to EE1's South Australian projects

Proximity to substations such as Mount Gunson and Davenport reduces the distance electricity must travel to reach the grid, thereby lowering connection costs and improving the economic feasibility of the projects. This strategic positioning not only minimises logistical and financial barriers but also ensures that EE1's geothermal projects are well-placed to become leading providers of green baseload power in South Australia's energy market.

Following the findings of the report, the Company is addressing power storage solutions. These options include geopressed storage, thermal battery systems, mechanical battery systems and lithium-ion systems.

QUEENSLAND GEOTHERMAL DATA CENTRE STUDY INITIATED

The data centre industry is experiencing rapid growth, driven by increasing global data demands and the proliferation of digital services. However, traditional data centres face significant challenges, particularly in managing operational expenses associated with cooling systems, which account for a substantial portion of energy consumption.

Leading global IT companies Google¹, Microsoft² and Meta³ are each developing new data centres that incorporate geothermal power, leveraging the benefits of geothermal energy as a renewable energy source that can provide 24/7 baseload power.

The Company has embarked on completing an internal scoping study to assess the viability of constructing geothermally powered data centres at its strategically located Queensland projects (**Study**). The Study aims to capitalise on the unique geothermal resources available at these sites, combined with proximity to major population centres, to support the growing demand for sustainable and cost-effective data centre infrastructure.

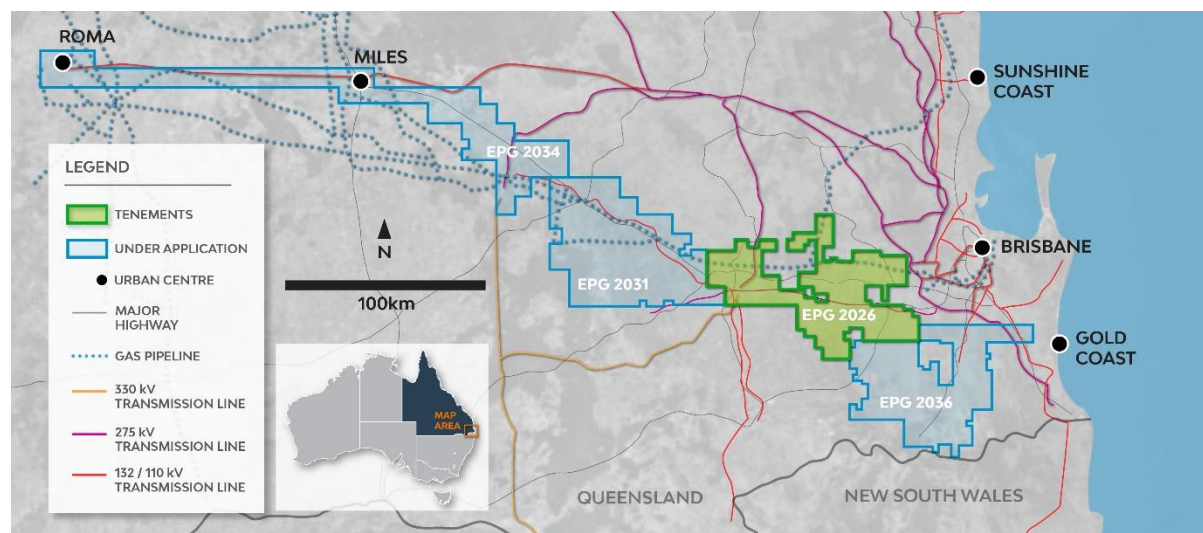


Figure 3: Queensland tenements

Incorporating geothermal power into data centres may include data centres powered directly (and primarily) from geothermal electricity production, and direct use geothermal applications to supplement a data centre's reliance on an electricity grid. Direct use geothermal can lower carbon emissions, reduce reliance on external electricity sources, and improve overall feasibility.

The Company has identified areas of interest within its Queensland project and will develop and trial its own multi factor model for assessing the feasibility of geothermal powered data centre development. Industry experts in both geothermal development and data centre development will assist the Company in the Study. Deliverables will include a comprehensive report detailing the viability, benefits, and strategic value of integrating geothermal cooling into data centre operations.

JOINT VENTURE DISCUSSIONS

During the Quarter the Company commenced early-stage discussions with potential joint venture partners regarding the Company's Paralana and Flinders West projects. These potential partners are US based and have the capacity to offer the Company access to significant project-level capital and expertise.

¹ <https://www.thinkgeoenergy.com/fervo-and-google-geothermal-power-facility-starts-grid-supply/>.

² <https://www.thinkgeoenergy.com/microsoft-g42-to-invest-on-geothermal-powered-data-centre-in-kenya/>.

³ <https://about.fb.com/news/2024/08/new-geothermal-energy-project-to-support-our-data-centers/>.

CORPORATE

Cash balance

The Company's cash balance at 30 September 2024 was \$4.2m.

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.

Table 1 - Use of Funds

Use of Funds	Prospectus \$	Actual spend \$
Corporate costs ⁴	1,816,486	937,199
Joint Venture technical services allocation	232,138	75,962
Accounting and support services	158,340	52,536
Geological services	480,000	181,521
Technical subsurface exploration activities	283,000	1,540
HSE adviser	320,000	-
Native title and land access	91,500	6,280
Consultants – drilling	360,000	-
Civil and exploration drilling	640,000	-
Engineering	80,000	-
HSEQ compliance requirements	72,000	-
Title rent and fees	300,000	15,928
Transaction costs	340,000	433,781
Broker fees	300,000	267,800
Working capital ⁵	526,536	-
TOTAL	6,000,000	1,972,547

Expenditure is generally in line with the use of funds from the Prospectus. Transaction costs were greater than expected due to the extended time required to complete the capital raise detailed in the Prospectus.

Evaluation and exploration expenditure during the Quarter amounted to \$0.01 million. During the Quarter, there was no mining production or development activities.

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 \$172,268.

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 \$163,375.

⁴ 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.

⁵ 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:

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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.

**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.

EEI'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.

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

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%

Company Website

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Contact

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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 September 2024

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 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	(152)	(152)
	(e) administration and corporate costs	(391)	(391)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	52	52
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)	-	-
1.9	Net cash from / (used in) operating activities	(491)	(491)

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	(95)	(95)
	(e) investments	-	-
	(f) other non-current assets	(74)	(74)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 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	(169)	(169)

3.	Cash flows from financing activities		
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	-	-
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)	-	-
3.10	Net cash from / (used in) financing activities	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,903	4,903
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(491)	(491)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(169)	(169)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

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 (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	4,243	4,243

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	243	903
5.2	Call deposits	4,000	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)	4,243	4,903

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	336
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>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.</i>		

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		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(491)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(95)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(586)
8.4 Cash and cash equivalents at quarter end (item 4.6)	4,243
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	4,243
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	7.2
<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: 25 October 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.