31 JAN 2022

## **ASX ANNOUNCEMENT**

**ASX: TMG** 

# Quarterly Activities Report for the Period ended 31 December 2021

Pivotal Quarter puts Trigg Mining on a strong growth trajectory

## **Highlights**

#### Lake Throssell Sulphate of Potash (SOP) Project

- Positive Scoping Study completed, with key highlights including:
  - Large-scale SOP operation with initial mine life of 21 years, low operating costs and robust financials.
  - Strong Environment, Social and Governance (ESG) credentials Project to produce low greenhouse gas emission, natural sulphate of potash for food production and carbon farming.
  - Low risk and commercially proven flowsheet incorporating a network of trenches and bores, solar evaporation and a process plant using proven technology.
  - Total Mineral Resource increased to 14.4Mt at 4,665mg/L potassium (or 10.4kg/m³ K<sub>2</sub>SO<sub>4</sub>).
- Pre-Feasibility Study (**PFS**) work commenced including in-fill gravity survey to refine test bore locations for pump trials.
- Subsequent to Quarter-end the remaining Exploration Tenement applications were granted, increasing the Lake Throssell SOP Project granted tenement area by 235% to 1,085km<sup>2</sup>.

#### Lake Yeo SOP Project

- Two Exploration Tenements were granted covering the eastern half of the Lake Yeo Project area.
- ~65km south-east of Lake Throssell, Lake Yeo lies within in the same interpreted palaeovalley and is considered to potentially be a Lake Throssell repeat.
- Field work for the maiden gravity survey was carried out to define the palaeovalley and identify drilling targets with interpretation results due next Quarter.

#### **SOP Market**

The benchmark price of SOP increased 30% during the Quarter and 66% during calendar 2021.

#### Corporate

 Appointment to the Board of experienced Non-Executive Director Maree Arnason and key senior appointments further strengthens Trigg's senior leadership team including, CFO and Company Secretary Salina Michels, External Relations Advisor and former FMG Executive Tim Langmead, and Exploration Manager Damien Fletcher.



**Trigg Mining's Managing Director, Keren Paterson, commented:** "The December Quarter has been another busy period for Trigg Mining, as we continue to put the foundations in place to build a world-class Sulphate of Potash operation at our flagship Lake Throssell Project in WA's Laverton region.

"The Scoping Study was a defining moment for Trigg, providing investors with a clear picture of Lake Throssell's economic potential as a long-life, low-cost sulphate of potash operation. The scale of this project, together with Lake Throssell's Tier-1 location and its strong ESG credentials, make this an attractive development opportunity.

Following the success of the Scoping Study, work has commenced on the programs to support a Pre-Feasibility Study including an infill gravity survey to refine water-bore locations for pump testing scheduled for the 2022 field season.

We are also delighted to be on the ground at Lake Yeo, with the execution of a Heritage Protection and Land Access Deed with the Traditional Owners, the Nangaanya-ku People, clearing the way for ground-based exploration activities to commence.

"Lake Yeo represents a hugely compelling growth target. It is located immediately to the south and along the same interpreted palaeovalley as Lake Throssell and shows similar signatures for potassium and sulphate, suggesting it could be a Lake Throssell repeat. If correct, this could deliver a dramatic expansion of our growth pipeline in the district."

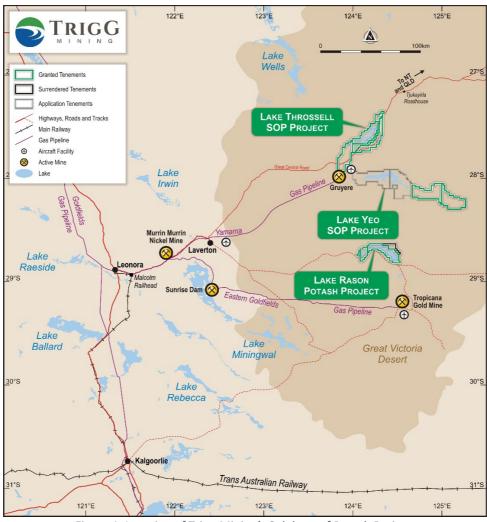


Figure 1. Location of Trigg Mining's Sulphate of Potash Projects showing established infrastructure and Project locations

## **Lake Throssell Sulphate of Potash Project**

(E38/3065, E38/3458, E38/3483, E38/3537 & E38/3544) 100% Trigg Mining

The Lake Throssell high-grade SOP Project is ~170km east of Laverton, Western Australia and is situated close to established transport infrastructure (Figure 1).

The Project lies adjacent to the Great Central Road which connects Laverton through to the Northern Territory and Queensland and approximately 20km from Gold Road's Gruyere Gold Mine. The Project covers 1,085km² and encompasses the Lake Throssell playa lake and underlying palaeovalley for more than 70km in strike length.

#### **Scoping Study**

A positive Scoping Study was completed for the Lake Throssell SOP Project (**Project**), comprising the harvesting of brine water from subterranean aquifers, evaporation ponds, processing plant and supporting infrastructure to produce a naturally forming potassium-rich salt, potassium sulphate (or Sulphate of Potash) used globally as a fertiliser and in other industrial purposes.

Key highlights of the Scoping Study are:

## Strong life cycle sustainability credentials

- Substantial utilisation of solar energy using solar evaporation and 5MW solar power plant.
- Low greenhouse gas (**GHG**) emissions 0.17t CO<sub>2</sub> equiv/t SOP with pre-feasibility to investigate further reductions in GHG emissions.
- Natural sulphate of potash is a highly efficient mineral fertiliser providing two of the four macro nutrients for plant growth essential for food production and shown to increase root matter – necessary for carbon farming as a climate change mitigant.
- Can be a substitute for muriate of potash which contains almost 50% chloride which contributes to soil acidity and salinity improving agricultural sustainability.

#### Large scale, long mine life

- Annual nameplate Production Target of 245ktpa SOP over an initial Life-of-Mine (LOM) of 21 years.
- LOM Production Target is 41% of the Total Drainable Mineral Resource of 14.4Mt at 4,665mg/L potassium (or 10.4 kg/m³ K<sub>2</sub>SO<sub>4</sub>).
- Approximately 82% of the payback period is from Indicated Mineral Resources and 70% over the LOM Indicated.

#### Low operating costs, robust financials

- A LOM average cash operating cost of \$341/t SOP and an all-in sustaining cost of \$372/t SOP.
- An initial capital cost of \$378M, including a \$70M contingency with an accuracy of ±25-35%.
- Lake Throssell will generate an average EBITDA of \$97 million per annum at a US\$550/t SOP price.
- Robust financials confirm Lake Throssell as a potential Top 10 global SOP Project.

## **Next Steps**

- Work has commenced on a Pre-Feasibility Study.
- Continuation of environmental baseline surveys and Project Referral to the EPA planned for 2022.

Table 2: Key assumptions, production target and financial model outputs

Key Assumptions & Financial Metrics	Units	Value
Key Financial Assumptions		
Average LOM exchange rate	AUD/USD	0.73
SOP price	(US\$/t, FOB)	550
	(A\$/t, FOB)	753
Discount rate	%	8
Key Physical Assumptions		
LOM Production Target	Mt	5.9Mt @ 10.4kg/m³ SOP
Life of Mine (LOM)	Years	21
Brine abstraction		
Trench network	km	110
Bores	number	22-112
Overall recovery	%	82
Annual Production Target	ktpa SOP	245
Capital Cost		
Total direct costs	\$M	269
Total indirect costs	\$M	40
Contingency and growth	\$M	70
Total Capital Cost	\$M	378
Pre-production working capital	\$M	34
Total Funding Requirement	\$M	412
Operating Cost		
C1 Cash Operating Cost	\$/t SOP	341
Sustaining Capital, royalties, Native Title compensation and closure costs	\$/t SOP	31
All-in Sustaining Cost (AISC)	\$/t SOP	372
Financial Metrics		
Average Annual LOM Revenue	\$Mpa	180
Average Annual EBITDA (including royalty and NT compensation)	\$Mpa	97
NPV <sub>8</sub> (pre-tax)	\$M	364
IRR (pre-tax)	%	18
Payback from first SOP production	years	4.5

Full details of the Lake Throssell Scoping Study were provided in the Company's ASX Announcement dated 5 October 2021.

### **Pre-Feasibility Study**

Based on the success of the Scoping Study outlined above, work commenced during the December Quarter to support the completion of a Pre-Feasibility Study for the Lake Throssell Project development.

An in-fill gravity survey (Figure 2) was undertaken during the Quarter for 220 line-kilometres with lines 1km apart and stations spaced at 200m, representing the first of the field activities to be undertaken as part of the PFS.

The survey is designed to refine the locations for the test-production bores to be drilled mid-2022 to support the establishment of an Ore Reserve estimate for the PFS.

Interpretation of the survey results is expected to be completed during the March Quarter.

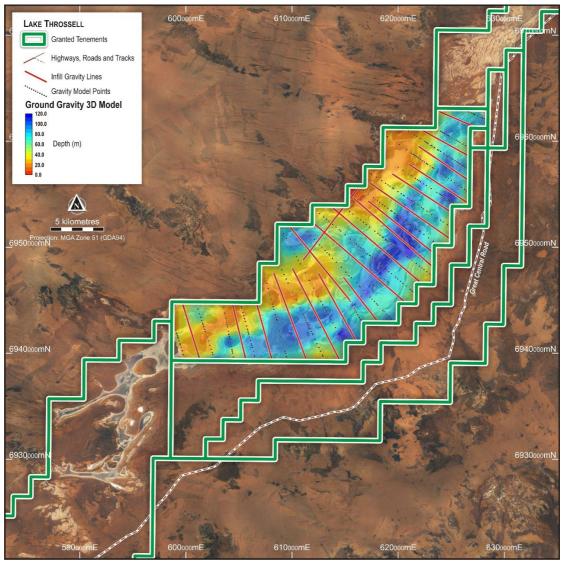


Figure 2: Lake Throssell current gravity interpretation and location of infill program

## **Lake Yeo Sulphate of Potash Project**

#### (E38/3607, E38/3608, E38/3610 and E69/3851)

The Lake Yeo SOP Project lies from 65km to the south of the Lake Throssell SOP Project (Figure 1) and covers an area of 1,915km<sup>2</sup>, with over 200km<sup>2</sup> of playa area and approximately 130km of interpreted palaeovalley.

Radiometric potassium (K) intensity<sup>1</sup> shows elevated potassium (K) at the lake surface compared to the surrounding regolith to a greater extent than Lake Throssell and the Aster Gypsum Index maps high levels of gypsum that indicates the presence of sulphate ( $SO_4$ ) at the surface (Figures 3 & 4). These signatures suggest that Lake Yeo may potentially contain brine of similar grade and composition as Lake Throssell.

Following the execution of a Heritage Protection and Land Access Agreement with the Nangaanya-ku, Traditional Owners of Lake Yeo, tenements E38/3610 and E69/3851 were granted during the December Quarter.

The field work for a maiden 170 line-kilometre gravity survey was completed to assist in defining the underlying palaeovalley and potential storage capacity of the aquifer. Interpretation of the results are expected to be released during the March Quarter.

Lake Yeo is an important strategic asset within Trigg's project portfolio and provides an important growth opportunity for the Lake Throssell SOP Project.

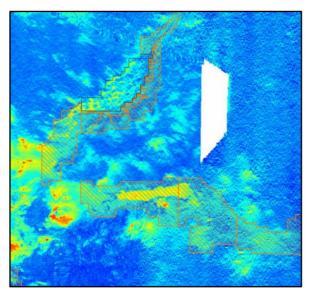


Figure 3: Potassium intensity of Lakes Throssell and Yeo

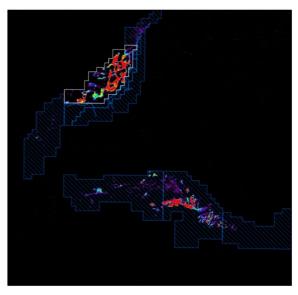


Figure 4: Gypsum intensity of Lakes Throssell and Yeo

<sup>&</sup>lt;sup>1</sup> Department of Mines, Industry Regulation and Safety Imagery Web Map Service, accessed 22/04/21

## **Lake Rason Sulphate of Potash Project**

## (E38/3089, E38/3437 and E38/3464)

The Lake Rason SOP Project is ~170km east of Laverton (Figure 1). The Project lies adjacent to the Rason Lake Road and is approximately 60km north of the Tropicana Gold Mine. The Project comprises three granted tenements covering an area of 425km² and encompassing the Lake Rason playa lake and underlying palaeochannel.

During the Quarter E38/3463 was granted and E38/3298 was surrendered.

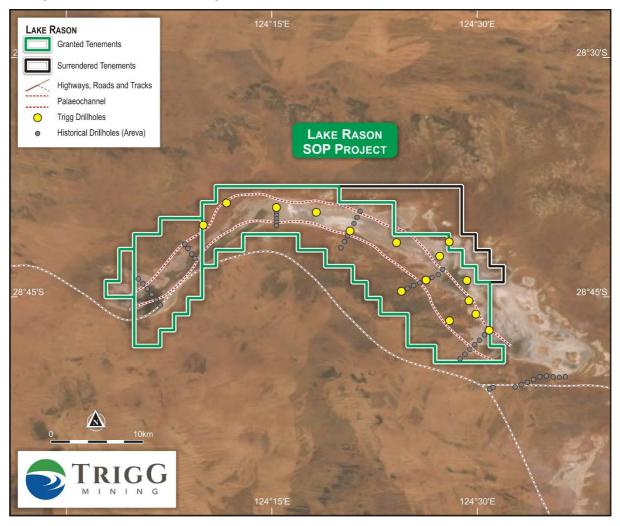


Figure 5: The Lake Rason Project

## **Corporate**

#### **Finance**

The Company held \$2.3 million in cash and cash equivalents as at 31 December 2021 (FY22 Q1: \$3.37 million) following payments for exploration and evaluation expenditure of \$0.6 million (FY22 Q1: \$0.5 million) and payments to related parties and their associates of \$0.1 million (FY22 Q1: \$0.1 million) during the Quarter.

Subsequent to Quarter end, the Company received a \$1.0 million Research and Development tax rebate.

#### **Exercise of Options**

During the Quarter, the Company issued 50,000 fully paid ordinary shares (**shares**) upon the exercise of quoted options exercisable at \$0.18 per option on or before 31 October 2021 raising \$9,000 before costs.

#### Capital raising

Subsequent to the end of the Quarter, the Company announced a Renounceable Rights Issue to raise up to \$3.3 million (before costs) to underpin the next stage of the Pre-Feasibility Study at Lake Throssell following the successful completion of the Scoping Study.

The rights issue is being offered on the basis on three (3) New Shares for every eight (8) shares held at \$0.075 per share, together with one (1) free attaching option exercisable at \$0.15 with an expiry date of 16 February 2024 (New Options) for every two (2) New Shares subscribed for and issued. The Company will apply for the New Options to be quoted on ASX.

Mahe Capital Pty Ltd (ACN 634 087 84) (AFSL 517246) has been appointed as Lead Manager and Underwriter, having agreed to partially underwrite the Rights Issue to \$1.5 million. All eligible Directors of the Company intend to participate in the Rights Issue.

#### **Appointments**

Maree Arnason, highly experienced director and senior executive in the natural resources, energy and manufacturing sectors, appointed as an Independent Non-Executive Director. She is currently Chair of the Risk and Sustainability Committee at Gold Road Resources, an ASX 200 company.

Salina Michels, an experienced senior finance leader with multi-sector experience in Australia was appointed Chief Financial Officer and Company Secretary. She has held senior roles in a variety of junior and major mining and oil and gas companies in Australia.

Tim Langmead, a well-regarded external relations professional was appointed as External Relations Advisor. Mr Langmead has held senior roles in the resources sector and most recently was a member of the executive team at Fortescue Metals Group Limited where he was responsible for Community, Environment and Government.

Damian Fletcher, an experienced exploration geologist was appointed Exploration Manager to oversee the expanding exploration and field activities at the Company's projects. Damian has 15 years' experience in greenfields exploration throughout Australia and was involved in the discovery and development of the Tropicana gold mine.

#### Payments to related parties of the entity

During the quarter the Company paid salaries, fees and superannuation of \$0.1 million to its Directors.

This announcement was authorised to be given to ASX by the Board of Directors of Trigg Mining Limited.

**Keren Paterson** 

Managing Director & CEO Trigg Mining Limited

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For more information please contact:

Keren Paterson

Managing Director

Trigg Mining Limited (08) 6114 5685 info@triggmining.com.au

**Nicholas Read** 

**Investor and Media Relations** 

**Read Corporate** 

(08) 9388 1474

nicholas@readcorporate.com.au

#### **Forward Looking Statements**

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

#### **Competent Persons Statement**

For information referring to the exploration results in this document, refer to ASX announcements dated 5 October 2021 and 29 November 2021. 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, in the case of estimates of Mineral Resources, Exploration Target or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements; and that the information in the announcement relating to exploration results is based upon, and fairly represents the information and supporting documentation prepared by the named Competent Persons.





## **Schedule of Tenements**

## as at 31 December 2021

Tenement Number	Location	Registered Owner/Applicant	Status	Interest
E38/3065	Lake Throssell	K2O Minerals Pty Ltd	Granted	100%
E38/3458	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>1</sup>	100%
E38/3483	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>1</sup>	100%
E38/3537	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>1</sup>	100%
E38/3544	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>1</sup>	100%
L38/342	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>2</sup>	100%
L38/343	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>2</sup>	100%
L38/344	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>2</sup>	100%
L38/345	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>2</sup>	100%
L38/346	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>2</sup>	100%
L38/347	Lake Throssell	K2O Minerals Pty Ltd	Application <sup>2</sup>	100%
E38/3610	Lake Yeo	K2O Minerals Pty Ltd	Granted	100%
E69/3851	Lake Yeo	K2O Minerals Pty Ltd	Granted	100%
E38/3607	Lake Yeo	K2O Minerals Pty Ltd	Application	100%
E38/3608	Lake Yeo	K2O Minerals Pty Ltd	Application	100%
E38/3089	Lake Rason	K2O Minerals Pty Ltd	Granted	100%
E38/3437	Lake Rason	K2O Minerals Pty Ltd	Granted	100%
E38/3464	Lake Rason	K2O Minerals Pty Ltd	Granted	100%

- 1. Granted subsequent to the end of the Quarter
- 2. Surrendered subsequent to the end of the Quarter

## Interests in Mining Tenements Lapsed, Relinquished or Reduced

## for the Quarter ended 31 December 2021

-	Tenement Number	Location	Nature of Interest	Interest at beginning of Quarter	Interest at end of Quarter	Note
	E38/3298	Lake Rason	Granted	100%	0%	1

#### Note:

1. Surrender

## Appendix 5B

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

Name of entity

Trigg Mining Limited (ASX:TMG)				
ABN Quarter ended ("current quarter")				
26 168 269 752	31 December 2021			

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(601)	(1,064)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(145)	(252)
	(e) administration and corporate costs	(374)	(763)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	2
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	107
1.8	Other – GST Refund	50	144
1.9	Net cash from / (used in) operating activities	(1,069)	(1,826)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	
	(b) tenements	-	
	(c) property, plant and equipment	(6)	(17
	(d) exploration & evaluation	-	
	(e) investments	-	
	(f) other non-current assets	-	

ASX Listing Rules Appendix 5B (17/07/20)

Con	solidated 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	-	100
	(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	(6)	83

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	9	10
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(68)
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	9	(58)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,369	4,104
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,069)	(1,826)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(6)	83
4.4	Net cash from / (used in) financing activities (item 3.10 above)	9	(58)

Con	solidated 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	Cash and cash equivalents at end of period	2,303	2,303

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	2,283	3,369
5.2	Call deposits	20	20
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)	2,303	3,369

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	132
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
Note: i	if any amounts are shown in items 6.1 or 6.2. your quarterly activity report must include	le a description of and an

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  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.	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.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	1,069
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	1,069
8.4	Cash and cash equivalents at quarter end (item 4.6)	2,303
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	2,303
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	2.2

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.

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: Not applicable

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: Not applicable

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: Not applicable

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.

## **Compliance statement**

- 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: 31 January 2022

Authorised by: Board of Directors

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

#### **Notes**

- 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.
- 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.