

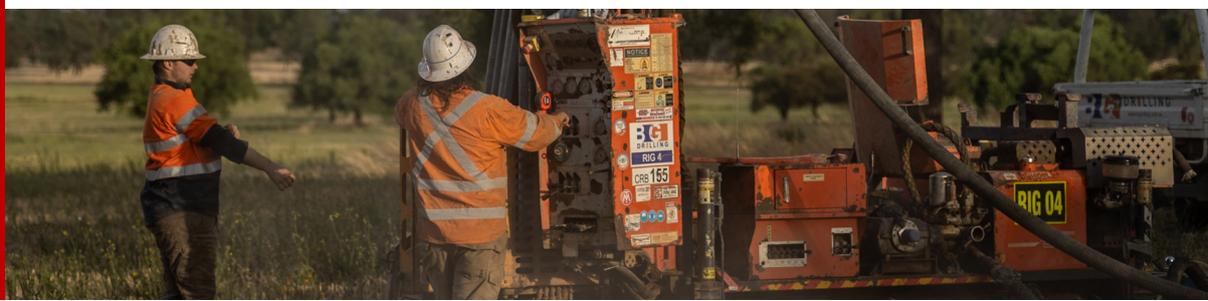
December 2022 Quarter - Activities Report

Highlights

- Multiple work programs focused on high-value critical minerals – nickel, cobalt, scandium, gold, and PGE's on Rimfire's NSW exploration projects
- Drill targets defined at Broken Hill Cobalt (Green View) Project – modern exploration techniques to follow up cobalt occurrences discovered in 1960's to 1980's
- Drill target identified at East Cowl Copper Gold Project – within similar host rocks to Evolution Mining's nearby 9.6Moz Cowl Deposit
- Rimfire investigating atmospheric pressure acid leaching of nickel – cobalt – scandium mineralised material from Melrose and Currajong
- Drilling at the Valley (copper), Avondale (nickel – cobalt – scandium and PGE's) and Fifield (gold, PGE's) commencing during the March 2023 Quarter

Rimfire Pacific Mining (**ASX: RIM**, "Rimfire" or the "**Company**") is an ASX-listed Critical Minerals exploration company which is advancing a portfolio of projects within the highly prospective Lachlan Orogen and Broken Hill districts of New South Wales (*Figures 1 and 2*).

Commenting on the Quarterly Activities report, Rimfire's Managing Director Mr David Hutton said: "Rimfire is employing innovative strategies to explore for and discover the critical minerals that are associated with global decarbonisation technologies. Rimfire is looking forward to drilling commencing in the March Quarter on several high priority targets. We will also continue to assess new exploration opportunities across a range of commodities including copper, gold, lithium, and critical minerals".



RIMFIRE PACIFIC MINING LTD

ASX: RIM

"Critical Minerals Explorer"

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During the December 2022 Quarter (the “Quarter”), Rimfire announced new high-grade cobalt targets at its 100% - owned Broken Hill Cobalt (Green View) Project, a new copper drill target at its 100% - owned East Cowal Project, new gold drill intercepts at Jacks Lookout (Fifield Earn In Project), and the commencement of nickel – cobalt – scandium leaching trials for mineralised material from the Melrose and Currajong prospects (Avondale Earn In Project).

Operational Review – 100% owned projects

High – grade cobalt targets identified at Broken Hill

During the Quarter, Rimfire identified three high-grade cobalt targets (Bald Hill, Staurolite Ridge, and Railway Extension) **on its 100% - owned Broken Hill Cobalt (Green View) Project** following a review of historic exploration activities (*see Figure 2 and Rimfire’s ASX Announcement dated 3 November 2022*).

The Project is prospective for the discovery of economic critical minerals such as cobalt and copper, and covers a sequence of metamorphosed sediments, gneisses, and amphibolite of the Proterozoic – age Willyama Supergroup.

Given the project’s location (20 kilometres west of Broken Hill) and the similarities between the project’s underlying geology and the Broken Hill silver lead zinc deposits (owned separately by CBH Resources Ltd and Perilya Limited), Rimfire’s project area has had a long history of mineral exploration but primarily for silver, lead, and zinc.

Modern cobalt exploration has been largely restricted to the area of Cobalt Blue’s (ASX: COB) Broken Hill Cobalt Project which hosts the Pyrite Hill, Big Hill, and Railway Deposits (with a global Mineral Resource estimate comprising 118 Mt at 859 ppm (0.08%) cobalt equivalent (CoEq) [i.e., 687 ppm (0.07%) cobalt, 7.6% sulphur & 133 ppm nickel] for 81.1Kt contained cobalt using a 275 ppm CoEq cut-off (*see Cobalt Blue website*).

Cobalt Blue’s deposits are characterised by moderate to steep dipping stratabound zones of disseminated to semi-massive cobalt – bearing pyrite mineralisation. The deposits extend over some 5 km of strike and vary in thickness from 10 to 300 metres. The cobalt occurs exclusively as a substitute within the pyrite crystal lattice, and consequently, there is a strong correlation between pyrite content and cobalt grade. Cobalt Blue has developed a patented minerals processing technology for treating pyrite feedstocks targeting 85-90% recovery of cobalt from ore to product (as Mixed Hydroxide Precipitate or Cobalt Sulphate).

Cobalt Blue’s development of new processing technology for pyrite – hosted cobalt mineralisation is a significant development for Broken Hill and will potentially enable the development of other cobalt deposits throughout the district that were previously viewed as being non-commercial due to their metallurgy.

Cobalt exploration was last undertaken on Rimfire's project in the early 1980's when North Broken Hill Pty Ltd conducted a program of geological mapping, IP geophysics and drilling at the Bald Hill prospect. Prior to this Broken Hill South Limited undertook IP geophysical surveying and diamond drilling of the Staurolite Ridge prospect in the early 1960's. In both cases, the exploration work was undertaken as part of programs targeting silver lead zinc mineralisation within the broader Broken Hill district.

Bald Hill cobalt target

Cobalt (Co) mineralisation at Bald Hill occurs within a folded and outcropping gossanous quartz - albite +/- pyrite psammopelitic composite gneiss host rock unit. Induced Polarisation (IP) geophysical surveys undertaken by North Broken Hill Pty Ltd in 1980/1981 defined multiple IP chargeability anomalies associated with the quartz - albite +/- pyrite unit, drilling of which (BHR1 to BHR 5 – 651 metres) returned multiple high-grade drill intercepts.

- 58m @ 0.10% Co from 48 metres in BHR1/1A including *7m @ 0.17% Co from 63 metres, 6m @ 0.15% Co from 81 metres, and 6m @ 0.15% Co from 95 metres,*
- 15m @ 0.05% Co from 42 metres in BHR2
- 5m @ 0.05% Co from 12 metres in BHR3
- 7m @ 0.07% Co from 35 metres in BHR3
- 7m @ 0.03% Co from 27 metres in BHR4
- 8m @ 0.06% Co from 25 metres in BHR5.

BHR1/1A was drilled into a north plunging fold hinge which appears to have significantly "thickened" the host rock. BHR2 and 3 were drilled approximately 270 metres away on the western limb of the fold hinge. BHR4 and 5 were drilled 500 metres to the southeast of BHR1/1A on the eastern limb of the fold hinge and were reported as failing to reach target depth due to ground conditions.

At surface the prospective quartz - albite +/- pyrite unit has a surface area of approximately 500 x 500 metres with multiple prospecting pits and shallow workings along the fold hinge.

The cobalt mineralisation is described in historic geological logs as being associated with increased sulphide (pyrite) content, with the highest grades occurring within zones of semi massive to massive pyrite. Minor copper anomalism (i.e., 3m @ 0.12% copper from 36 metres in BHR2) is also associated with the sulphide unit in a few holes.

Bald Hill is a high priority target for further work as there appears to have been no follow up drilling of the area since the original holes were drilled.

Staurolite Ridge cobalt target

At Staurolite Ridge exploration undertaken by Broken Hill South Limited in the early 1960's identified multiple IP chargeability anomalies (over a strike length of 3,050 metres) associated

with gossanous outcrops and localised copper - staining. Given the presence of chalcopyrite (copper sulphide), Staurolite Ridge appears to have been explored primarily as a copper opportunity.

Four holes (SR1 to SR6 – 2,681 metres) were drilled in 1961/1962 to test the Staurolite Ridge IP chargeability anomaly with all holes intersecting varying degrees of sulphides (i.e., pyrrhotite, pyrite +/- chalcopyrite) ranging from disseminated to semi-massive sulphides within a distinctive siliceous garnet – staurolite “lode” horizon.

SR1 was drilled into the strongest part of the IP chargeability anomaly and intersected 88.4 metres (down hole width) of “strong” pyrite and pyrrhotite mineralisation, assaying of which returned.

- 61m @ 0.18% Co from 94.5 metres in SR1 including 15.25m @ 0.29% Co from 125.05 metres.

SR1 was the only hole analysed for cobalt despite the remaining five holes intersecting varying widths of disseminated sulphides.

SR2 (the closest other hole to SR1) was drilled approximately 400 metres to the south of SR1 on the same section, SR5 and SR6 were drilled approximately 700 metres east of SR1, and SR3 and SR4 were drilled 1,525 metres to the east of SR1.

There appears to have been no specific drill follow up of the SR1 cobalt intersection with the only other recorded drilling in the area being undertaken by A.S. Exploration Ventures (Seltrust Mining Corporation) in 1981/1982.

A.S. Exploration Ventures completed 5 percussion holes (NMH026 to NMH027, NMH029, and NMH030 to NMH031 – 393 metres) approximately 200 – 300 metres southwest of SR1, and 3 diamond holes (NMH028, NMH029A, and NMH032 – 1,055 metres) 400 – 500 metres north and northwest of SR1.

The A.S. Exploration Ventures holes were drilled to test magnetic anomalies separate from the original IP chargeability anomaly and except for two shallow percussion holes – NMH030 and 031, were never analysed for cobalt.

Both holes intersection moderate cobalt anomalism (up to 40m @ 0.1% Co) within weathered sediments.

As such the original SR1 drill intercept appears to have never been specifically followed up and is a high priority for further work by Rimfire.

Railway Extension cobalt target

The Railway Extension target directly lies north northeast and along strike from Cobalt Blue's Railway Cobalt Deposit which has a JORC Indicated and Inferred Resource of 68Mt @ 755 CoEq ppm for 40.9Kt of contained cobalt (*Cobalt Blue website*).

Cobalt mineralisation at the Deposit is also associated with the quartz - albite +/- pyrite unit seen elsewhere on Rimfire's project, and geophysical (aeromagnetic and airborne EM) data plus geological data suggests that the host unit continues across the tenement boundary onto Rimfire's ground.

The quartz - albite +/- pyrite unit is interpreted to have approximately 800 metres of strike length within Rimfire's tenure at Railway Extension although drilling is needed to confirm if the extension contains the same grade and extent as the Railway Deposit to the west.

Priority copper drill target defined at East Cowal Copper Gold Project

During the Quarter the Company defined a new priority copper drill target ("LFB022") **on its 100% - owned East Cowal Copper Gold Project** which lies immediately 60 kilometres southwest of Parkes within the highly prospective Lachlan Orogen of New South Wales (*see Figure 1 and Rimfire's ASX Announcement dated 7 December 2022*).

Rimfire's East Cowal Copper Gold Project (500km²) covers the northern end of the 35 km long x 20 km wide Ordovician Currumburra Volcanic Complex which is interpreted to be the eastern margin of a very large stratovolcano (centred on Lake Cowal) which hosts the Cowal Gold Deposit and adjacent Marsden Copper Gold Deposit.

Both Cowal and Marsden are owned by Evolution Mining (ASX: EVN) and host Total Mineral Resources of 305.3Mt @ 0.98g/t gold (9.6Moz gold), and 123Mt @ 0.27g/t gold, 0.46% copper (1.05Moz gold and 560Kt copper) respectively. (*see Evolution Mining's Resource and Reserve Statement as at December 2021*).

The Ordovician Currumburra volcanic complex comprises a north south trending zone of andesitic volcanics and associated sediments, intruded by plugs and dykes ranging in composition from diorite to monzonite. The Ordovician volcanics do not outcrop and are locally overlain by the thin flat lying late Ordovician to early Silurian Jingerangle Formation cherty siltstone.

While the prospective Ordovician units do not outcrop, they can be readily mapped using magnetic and gravity geophysical data as well as drillhole geological information. A prominent north-south trending gravity ridge within the East Cowal project clearly defines the location of the Currumburra volcanics as well as the northwest trending Marsden Lineament - a key structural control to localising copper gold mineralisation throughout the district.

Historic exploration throughout the project area has typically comprised reconnaissance air core drilling and diamond drilling from which multiple mineral occurrences have been defined along the north south trending gravity ridge.

Drilling by Goldminco Corporation in 2004 immediately south of Rimfire's tenure, intersected broad zones of porphyry – style copper and gold mineralisation at the Imola and Silverstone prospects. Diamond drilling returned 96m @ 0.7g/t gold in CBD01 at Imola, and 74m @ 0.15% copper from at Silverstone. Both prospects are reported to be Ordovician in age and are associated with small monzonite plugs and K feldspar alteration. The Silverstone intercept is described as associated specifically with haematite, biotite, magnetite, and K-feldspar altered intrusives and volcanics, chalcopyrite and bornite disseminations and veinlets.

Immediately north of Rimfire's tenure, drilling by Capital Mining in 2008 intersected 28m @ 0.47 g/t gold from 740 metres at the Porters Mount prospect. Porters Mount is described as a gold bearing diatreme breccia and potential high sulphidation epithermal-style alteration system overlying a deeper porphyry copper-gold deposit. (*Information sourced from Capital Mining Limited's Annual Report for the period ending 28 June 2008 on EL6591*).

Within Rimfire's tenure at the LFB022 target, reconnaissance aircore drilling by Clancy Exploration Limited in late 2008, has defined a 3 x 1.5 km copper in saprolite anomaly (using a +400ppm copper contour) with a maximum individual (2 metre composite) aircore sample value of 0.14% copper in CBAC044. The anomaly overlies the intersection of the north south gravity ridge and the southern boundary of the northwest trending Marsden Lineament. (*Information sourced from Clancy Exploration Limited's Annual Report for the period ending 21 May 2009 on EL6784 "Currumburrama"*).

While historic diamond drilling has failed to find the source of the copper anomaly, a large area to south remains untested due to thin veneer of post Ordovician cover (the early Silurian Jingerangle Formation).

Significantly the untested southern area coincides with a magnetic low feature which is interpreted by Rimfire to be an intrusive unit and possible source of the copper in saprolite anomaly.

Next Steps for Rimfire's 100% - owned projects

At Broken Hill, Rimfire is currently negotiating a Land Access agreement to enable ground truthing (geological mapping and geochemical sampling) of the Bald Hill and Staurolite Ridge cobalt targets during the March 2023 Quarter with follow up drilling potentially to commence during the June 2023 Quarter.

At East Cowal, Rimfire is currently pursuing regulatory approval for drill testing of the LFB022 target, with one to two Reverse Circulation (RC) holes (500 metres) planned as an initial test of the demagnetised zone immediately south of the copper in saprolite anomaly.

Additionally, up to 5 RC/ diamond drill holes (2,500 metres) are planned as an initial test of a high priority porphyry copper gold target at the Valley Project.

Drilling is planned for the March 2023 Quarter with funds (\$185,675) previously awarded to the Company from the NSW New Frontiers Cooperative Drilling Grant to partially offset the drilling program costs (see *Rimfire's ASX Announcement dated 12 January 2022*)

Operational Review – Earn In projects

Broad gold zones drilled at Jack's Lookout, Fifield NSW

A diamond hole (FI2401) drilled at the Jacks Lookout target during the Quarter intersected broad zones of strong gold anomalism 1 kilometre east of the Sorpresa Gold Silver Deposit.

FI2401 was drilled as part of a larger 3,000 metre drill program targeting primary platinum + palladium (PGEs) mineralisation within ultramafics at the Company's Fifield and Avondale Earn In Projects in central New South Wales (see *Figure 1 and Rimfire's ASX Announcement dated 14 November 2022*).

Jack's Lookout lies adjacent to the Platina Lead which was previously mined for coarse alluvial platinum and gold in the 1880's through to the early 1900's and together with other Leads in the area (all of which are on Rimfire tenure) remains Australia's largest dedicated area for platinum production with an estimated 20,000 ounces of platinum and 6,200 ounces of gold produced during this period.

Of the leads, Platina Lead was the most important with an estimated 17,000 ounces of platinum produced at a grade of between 5 - 13g/t platinum and 4,400 ounces of gold produced at a grade of between 1.5 - 4.6g/t gold (refer to *Geology and Mineral Deposits of Australia and Papua New Guinea – AusIMM Monograph No. 14 published 1990*).

FI2401 was specifically drilled to test a prominent magnetic anomaly located immediately north of the Platina Lead workings that was originally interpreted to represent an ultramafic intrusive body potentially prospective for PGEs.

Instead of intersecting an ultramafic intrusive unit, FI2401 intersected a magnetic mafic intrusive (monzodiorite) before passing into a heavily veined and brecciated sequence of siliceous and sulphidic (pyrite – sphalerite – galena) carbonaceous shales. The hole was originally planned to be drilled to 250 metres was extended to a final depth of 450 metres due to the abundance of sulphides encountered in the drill core, particularly sphalerite and arsenopyrite both known to be closely related to Sorpresa gold silver mineralisation.

Assaying of the drillhole has returned broad zones of strong gold (+/- silver and zinc) anomalism within the siliceous and sulphidic carbonaceous sediments (Table 1).

- 5m @ 3.23g/t gold and 24g/t silver from 320 metres in FI2401, and
- 61m @ 0.14g/t gold from 355 metres in FI2401 *including 21m @ 0.18g/t gold, 0.21% zinc from 355 metres, 8m @ 0.23g/t gold, 0.17% zinc from 382 metres, and 17m @ 0.14g/t gold from 399 metres.*

The drill results are significant given that the siliceous and sulphidic carbonaceous shale unit that hosts the gold (+/- silver and zinc) anomalism at Jack's Lookout is the same rock unit (the "Sorpresa Beds") that hosts the Sorpresa Gold Silver Deposit, which lies 1 kilometre west of Jack's Lookout.

Sorpresa hosts a 2012 JORC Code compliant Total Combined Resource (1g/t gold and 85g/t silver cut off) of 1.519Mt @ 1.52g/t gold and 70g/t silver (74.3Koz gold and 3.44Moz silver) and remains open in all directions (*see Rimfire's ASX Announcement dated 6 November 2019*).

The mineralised Sorpresa Beds dip to the east and continue for another 600 metres east and down dip of Sorpresa to the Jack's Lookout drillhole FI2401. Apart from one shallow historic reverse circulation drillhole and surface auger drilling, the 600 metre "gap" between the two locations is effectively untested.

Recognition of the Sorpresa Beds at Jacks Lookout expands the known extent of gold and silver - prospective host rocks at Fifield and significantly increases the exploration search space for identification of extensions to the existing Sorpresa deposit and / or new gold silver discoveries within the area.

It is also possible that Sorpresa and Jacks Lookout are the source of the alluvial gold mineralisation previously mined at the Platina Lead given their proximity.

The intersection of a broad zone of strong gold (+/- silver and zinc) anomalism in an area of no previous drilling at Jack's Lookout has resulted in Rimfire's technical team developing a new geological model and targeting criteria for the formation of high-grade gold mineralisation throughout the Sorpresa area at Fifield.

Detailed geological logging of diamond drill core from FI2401 has confirmed that the highest-grade gold mineralisation (i.e., 5m @ 3.23g/t gold and 24g/t silver from 320 metres) in the hole occurs at the intersection of the shallowly dipping Sorpresa Beds and a cross-cutting steeply dipping fault breccia.

The fault breccia is interpreted to be a conduit for mineralising fluids to interact with the Sorpresa Beds (which represent a chemically favourable host rock) and form high grade gold + silver mineralisation.

As such the intersection of the two geological features represents a compelling exploration target and Rimfire's technical team is currently working to identify those areas where the target position might exist at shallow depths.

The FI2401 high-grade drill intercept occurs within an area of no previous drilling so follow-up drilling is required to better understand the original intercept and to test the new targeting criteria.

Nickel, cobalt & scandium leaching trials

Aircore and diamond drilling undertaken by Rimfire during the First Half of 2022 has identified significant nickel, cobalt, and scandium mineralisation within laterised (weathered) ultramafic rock types at the Melrose and Currajong targets (both on Avondale Project; (see *Rimfire's ASX Announcements dated 4th April 2022, 8th June 2022, and 19 December 2022*).

Of particular interest are the high scandium grades (e.g., 21m @ 0.11% nickel, 0.07% cobalt, and 529 ppm scandium, from 3 metres in FI2397 including 9m @ 0.17% nickel, 0.15% cobalt and 688 ppm scandium from 14 metres) at Melrose and the high cobalt grades at Currajong (e.g., FI2285 – 34m @ 0.29% nickel, 0.15% cobalt, and 101ppm scandium from 6 metres including 16m @ 0.27% nickel, 0.22% cobalt, and 120ppm scandium from 8 metres.

To better understand the potential commercial significance of the material and to assist in determining next steps for both locations, Rimfire has submitted two samples from each locality to ALS Metallurgy in Perth for preliminary test work and analysis.

Specifically, the test work will investigate the feasibility of recovering cobalt and scandium from the laterite host rock using **acid leaching at atmospheric pressure**. A 10 kg sample of PQ diamond drill core from FI2398 (9-20m) at Melrose was submitted and a 10 kg sample of aircore chips from FI2285 (8-24m) at Currajong was submitted.

Next Steps for Rimfire's Earn In projects

In addition to ongoing target generation work at Avondale, the leaching and recovery trials at Melrose and Currajong are planned take place during the March 2023 Quarter, with drilling to commence at Melrose (nickel-cobalt-scandium) during the June 2023 Quarter following completion of drilling at the Valley.

Further drilling is also planned for the Platina Lead and Jacks Lookout area (gold and PGEs - June 2023 Quarter), and Currajong (nickel-cobalt-PGEs - September 2023 Quarter), the Company is planning to commence drilling activities at the Melrose (nickel-cobalt-scandium), Currajong (PGEs), and Platina Lead (PGEs) prospects in the March 2023 Quarter.

A seismic geophysical traverse to assist in developing a greater understanding of the Sorpressa – Jacks Lookout geological setting is also planned for the March 2023 Quarter

Drilling was previously suspended late in the September 2022 Quarter due to wet weather and localised flooding throughout the Avondale and Fifield project area.

The targets are prospective for the discovery of ultramafic - hosted PGE's, nickel, cobalt, scandium, and copper mineralisation and are characterised variously as having historic surface anomalism and / or historic drill intercepts.

Corporate Activities

During the Quarter, the Company held its Annual General Meeting on 24 November 2022, where all Resolutions were passed with strong shareholder support.

Cash, Capital Structure, and Funding

As at the 31st of December 2022, Rimfire had access to \$0.14M of funding (excluding an additional \$0.275M referred to below), with the Company putting in place cost deferral measures during the Quarter including ceasing payments being made to Directors and reduced salaries being paid to Senior Management.

All exploration activities at Fifield and Avondale are funded by Rimfire's exploration partner – Golden Plains Resources Pty Ltd (GPR).

While GPR continues to make payments (during the December 2022 Quarter \$0.5M was received - \$200K exploration payment and \$295K Corporate payment incl GST) under the terms of the Fifield Earn In Agreement as varied (see *Rimfire ASX Announcement dated 4th August 2022*), the full amount is yet to be received.

Of the \$3.5M in total due under the varied Fifield Earn In Agreement, (comprising \$1.5M of remaining exploration payments due under the original agreement, plus an additional \$0.5M exploration expenditure and \$1.5M Corporate payment due under the variation to the original agreement), \$1.1M has been received to date with \$2.4M currently due and outstanding (comprising \$0.9M remaining exploration payments, \$0.5M additional exploration payment and \$1.0M Corporate payment). Rimfire has reserved its rights under the Fifield Earn In agreement and the unpaid amount is accruing interest at the penalty rate stipulated in the Fifield Earn In Agreement (now 7.089% per annum).

During the March Quarter Rimfire will either receive the full amount outstanding under the Fifield Earn In Agreement or it will issue a Default Notice. If a Default Notice is issued, a default and termination process is triggered. If that process results in termination of the Fifield Earn In Agreement, then no funds are repayable by Rimfire and GPR will have no interest in the Fifield Earn In Project.

At Avondale, GPR continues to meet its payment obligations. All cash calls issued to date have been met with a further \$275K received subsequent to the end of the Quarter. With weather conditions improving and the site team back from leave, further cash call notices are expected to be issued shortly to enable work programs to continue in an orderly fashion at Avondale.

Related party transactions of \$56K (section 6.1 and 6.2 of the December 2022 Quarter Appendix 5B) are payments for salary (including statutory superannuation) to David Hutton (MD and CEO) and Non-Executive Director fees for the December 2022 Quarter.

Rimfire Tenement Schedule

Below is a listing of the exploration licenses held by Rimfire at the 31st of December 2022.

Project	Location	Licence	Interest	Interest Acquired / Farmed in during Qtr	Interest Reduced / Farmed out during Qtr
The Valley	Fifield	EL8542	100%	-	-
		EL8401	100%	-	-
Cowal	Cowal	EL8804	100%	-	-
		EL8805	100%	-	-
		EL9397	100%	-	-
Fifield**	Fifield	EL8935	100%	-	-
		M(C)L305	100%	-	-
		EL6241	100%	-	-
Avondale***	Fifield	EL5565	100%	-	-
		EL7058	100%	-	-
		EL7959	100%	-	-
		EL8401	100%	-	-
		EL8542	100%	-	-
		EL8543	100%	-	-
		EL8935	100%	-	-
Broken Hill / Green View	Broken Hill	EL5958	100%	-	-

**Subject to Fifield Project Earn-in entered into during the June 2020 Quarter, however no interest in tenements to be ceded until earn-in conditions met in full, during Q4FY22, FPEI Binding HoA entered into to cede additional 9.9% to GPR for \$1.5m direct payment to RIM and \$0.5m additional exploration expenditure - interest is not earned until all payments made

***Subject to Avondale Project Earn-in entered into during the June 2021 Quarter, however no interest in tenements to be ceded until earn-in conditions met in full

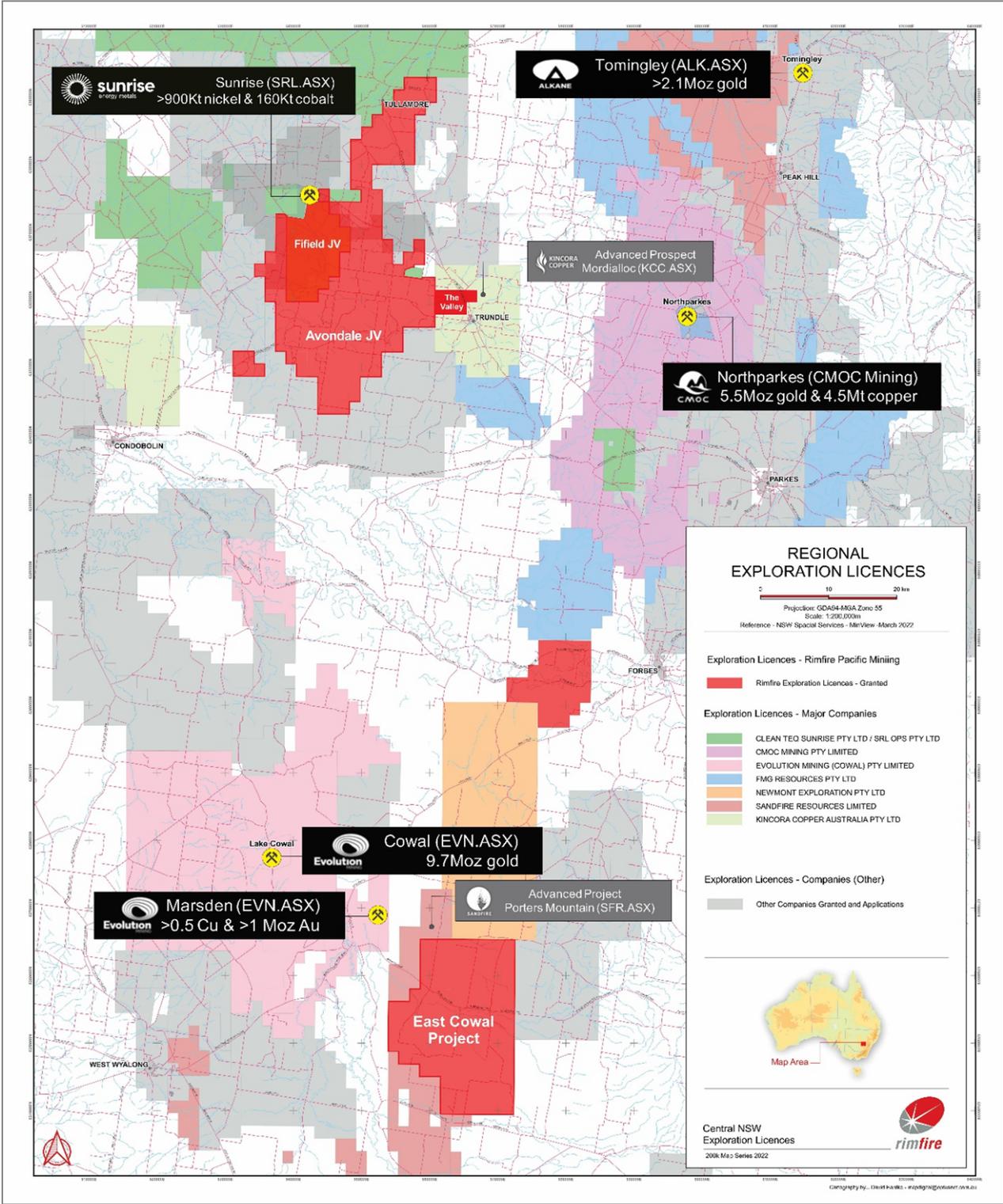


Figure 1: Rimfire Project Locations (in red) showing major competitors' active mines and key prospects.

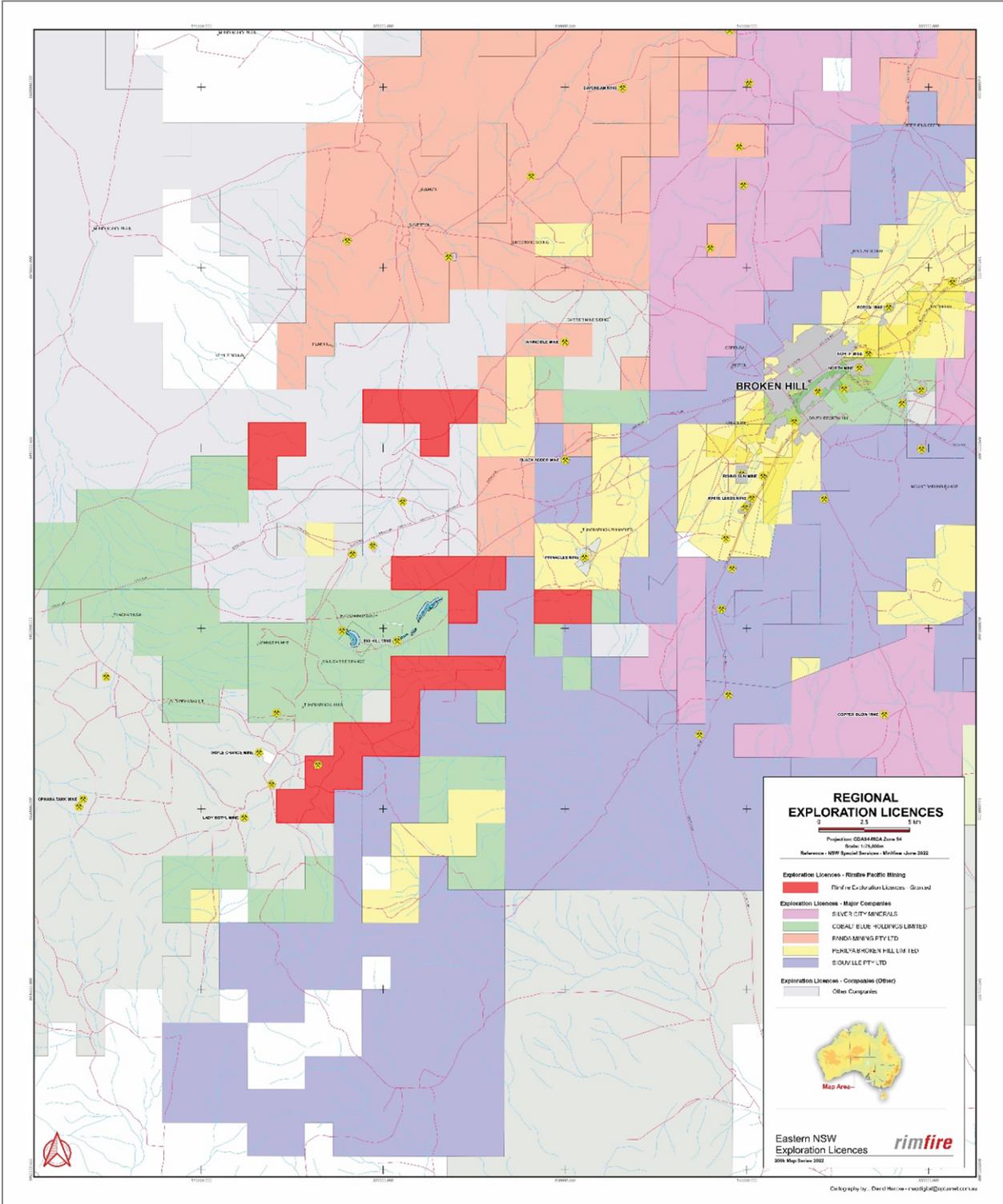


Figure 2: Broken Hill Cobalt Project (red blocks) Location (Cobalt Blue - green blocks).

ENDS

This announcement is authorised for release to the market by the Board of Directors of Rimfire Pacific Mining Limited.

For further information please contact:

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About Rimfire

Rimfire Pacific Mining (**ASX: RIM**, “Rimfire” or the “Company”) is an ASX-listed Critical Minerals exploration company which is advancing a portfolio of projects within the highly prospective Lachlan Orogen and Broken Hill districts of New South Wales.

The Company has two 100% - owned copper – gold prospective projects that are located west of Parkes and Orange in central New South Wales:

- The Valley Project - located 5km west of Kincora Copper’s Mordialloc porphyry copper gold discovery (KCC.ASX), and
- The Cowal Project - located to the east of Evolution’s Lake Cowal Copper / Gold mine (EVN: ASX).

Rimfire also has the 100% - owned Broken Hill Cobalt (Green View) Project which is located immediately west and northwest of Broken Hill and covers several targets including the interpreted along strike extension to Cobalt Blue Holdings’ Railway Cobalt Deposit (COB: ASX).

Rimfire has two additional projects in the Lachlan Orogen which are being funded by Rimfire’s exploration partner - Golden Plains Resources (GPR):

- Avondale Project (GPR earning up to 75%) & Fifield Project (GPR earning up to 60%)
- ✓ Both projects are prospective for high-value critical minerals – nickel, cobalt, scandium, gold and PGEs - which are essential for renewable energy, electrification, and green technologies.
- ✓ The development ready Sunrise Energy Metals Nickel Cobalt Scandium Project (ASX: SRL) is adjacent to both projects.
- ✓ The Fifield Project hosts the historical Platina Lead mine, the largest producer of Platinum in Australia.

For more information on the Avondale and Fifield Earn In and Joint Venture Agreements see:

[ASX Announcement: 4 May 2020 - Rimfire enters into \\$4.5m Earn-in Agreement](#)

[ASX Announcement: 25 June 2021 - RIM Secures \\$7.5m Avondale Farm Out](#)

[ASX Announcement: 30 June 2022 - Rimfire to receive \\$1.5M cash to vary Fifield Project Earn In](#)

[ASX Announcement: 4 August 2022 – Exploration Partner funding update](#)

Competent Persons Declaration

The information in the report to which this statement is attached that relates to Exploration and Resource Results is based on information reviewed and/or compiled by David Hutton who is deemed to be a Competent Person and is a Fellow of The Australasian Institute of Mining and Metallurgy.

Mr Hutton has over 30 years' experience in the minerals industry and is the Managing Director and CEO of Rimfire Pacific Mining. Mr Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken 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'.

Mr Hutton consents to the inclusion of the matters based on the information in the form and context in which it appears.

Forward looking statements Disclaimer

This document contains "forward looking statements" as defined or implied in common law and within the meaning of the Corporations Law. Such forward looking statements may include, without limitation, (1) estimates of future capital expenditure; (2) estimates of future cash costs; (3) statements regarding future exploration results and goals.

Where the Company or any of its officers or Directors or representatives expresses an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and the Company or its officers or Directors or representatives as the case may be, believe to have a reasonable basis for implying such an expectation or belief.

However, forward looking statements are subject to risks, uncertainties, and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward looking statements. Such risks include, but are not limited to, commodity price fluctuation, currency fluctuation, political and operational risks, governmental regulations and judicial outcomes, financial markets, and availability of key personnel. The Company does not undertake any obligation to publicly release revisions to any "forward looking statement".

Appendix 5B

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

Name of entity

Rimfire Pacific Mining Limited

ABN

59 006 911 744

Quarter ended ("current quarter")

31 December 2022

Consolidated 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	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(56)	(144)
(e) administration and corporate costs	(202)	(380)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	1
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (GST Received)	(36)	(63)
Other (Earn-In Administration Fee, transfer of funds from Earn-in Account for payment of Earn-in area expenditure)	729	1,975
1.9 Net cash from / (used in) operating activities	436	1,389
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	(563)	(1,520)
(e) investments	-	-

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
	(f) other non-current assets	-	-
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	(563)	(1,520)

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 (Lease Liabilities)	-	-
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	266	270
4.2	Net cash from / (used in) operating activities (item 1.9 above)	436	1,389
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(563)	(1,520)
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 (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*	139	139

*Note in addition to the cash balance above, \$275k was received in January 2023 for the Avondale Earn-in Account.

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	139	266
5.2	Call deposits	-	-
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)*	139	266

*Note in addition to the cash balance above, \$275k was received in January 2023 for the Avondale Earn-in Account.

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	51
6.2	Aggregate amount of payments to related parties and their associates included in item 2	5

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

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

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. 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 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.		
Not Applicable		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	436
8.2 (Payments for exploration & evaluation (classified as investing activities) (item 2.1(d))	(563)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(127)
8.4 Cash and cash equivalents at quarter end (item 4.6)	139
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	139
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.09
<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?

Yes, the Company expects that it will have negative cashflows for the time being. The company has endeavoured to reduce / defer operating costs where possible and is continuing to seek reductions / deferral in payments to directors and staff, suppliers, and contractors.

During January 2023 the Company has received an additional \$275k from GPR into the Avondale Earn-in account and cash call notices for the Fifield and Avondale earn-ins will be issued shortly.

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?

The Company has a number of external funding alternatives available such as a farm-out of exploration commitments or raising additional equity funds and as part of the Company's responsibility and normal course of business to ensure avenues of funding, the Company maintains ongoing discussions and relationships with potential parties.

The Company has a history of successfully undertaking capital raisings during the last 15 years and has entered into significant partnerships in the past. A number of cost reduction measures have been undertaken during the Quarter and are continuing to be undertaken such as the rationalisation of external contractors, deferral of payment of directors fees, and reducing staff salaries.

Given the Company's historical ability to raise capital and a supportive shareholder base, we consider it likely that the Company will be successful in raising further funds if and when required.

The Company has also increased its placement capacity under ASX Listing Rule 7.1A at its AGM held in November 2022.

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?

The Company expects to be able to continue its operations and meet its business objectives on the basis that it expects to be able to secure funding as described in answer to Question 2 above.

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

- 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: 27 January 2023.....

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.

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

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.