**RIMFIRE PACIFIC MINING LTD** 

ASX: RIM

"Critical Minerals Explorer"

#### MANAGEMENT

David Hutton MANAGING DIRECTOR / CEO

Dr Peter Crowhurst EXPLORATION MANAGER

Michael Love GEOLOGICAL CONSULTANT

Paul Wright GEOLOGICAL CONSULTANT

Greg Keane CHIEF FINANCIAL OFFICER and ALTERNATE DIRECTOR for Ian McCubbing

#### BOARD

lan McCubbing CHAIRMAN

Andrew Knox NON-EXECUTIVE DIRECTOR

Misha Collins NON-EXECUTIVE DIRECTOR

Stefan Ross COMPANY SECRETARY

#### OFFICE

Suite 142, Level 1 1 Queens Road MELBOURNE VIC 3004

### CONTACT DETAILS

David Hutton + 61 417 974 843

Greg Keane + 61 497 805 918

rimfire@rimfire.com.au www.rimfire.com.au



3 November 2022

# High - grade cobalt targets identified at Broken Hill

### Highlights

- Rimfire has identified high-grade cobalt (Co) drill intercepts in historical drilling at Rimfire's wholly owned Broken Hill Cobalt Project including drilling results at Bald Hill & Staurolite Ridge with no follow up such as;
  - 61m @ 0.18% Co from 94.5 metres including 15.25m @ 0.29% Co from 125.05 metres,
  - 58m @ 0.10% Co from 48 metres including 7m @ 0.17% Co from 63 metres, 6m @ 0.15% Co from 81 metres, and 6m @ 0.15% Co from 95 metres, and
  - 15m @ 0.05% Co from 42 metres
- A third target (Railway Extension) lies directly along strike from Cobalt Blue's Railway Deposit (COB.ASX) within the same host rocks

Rimfire Pacific Mining (**ASX: RIM**, "Rimfire" or the "Company") is pleased to advise that several high-grade cobalt targets have been identified on its 100% - owned Broken Hill Cobalt Project following a review of historic exploration activities. Rimfire recently regained full control of the project (EL5958 – 75 km<sup>2</sup>) following the withdrawal of Perilya Limited from the Windy Ridge Joint Venture which covered two sub-blocks of EL5958 (*Figure 1*).

**Commenting on the announcement, Rimfire's Managing Director Mr David Hutton said**: "Exploration for high-grade cobalt at Broken Hill is a continuation of our strategy to focus on exploring for critical minerals within highly prospective areas of NSW. The new targets represent a significant commercial opportunity for Rimfire, and the Company has started discussions with local landowners to enable commencement of field work. Rimfire looks forward to providing further updates as latest information comes to hand".





The Broken Hill Cobalt 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 (COB.ASX) 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 (*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 300m. 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). As recently announced, Cobalt Blue has completed trial mining of the Pyrite Hill deposit and is currently processing the ore through their Broken Hill demonstration processing plant (*Cobalt Blue ASX Announcement dated 6 October 2022*).

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.

### **Rimfire exploration review**

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 (*Figure 1*).

### Bald Hill

Cobalt mineralisation at Bald Hill occurs within a folded and outcropping gossanous quartz - albite +/- pyrite psammopelitic composite gneiss unit. Induced Polarisation (IP) geophysical surveying



undertaken by North Broken Hill Pty Ltd in 1980/1981 defined multiple chargeability anomalies associated with the quartz - albite +/- pyrite unit, drilling of which (BHR1 to BHR 5 – 651 metres) returned multiple high-grade drill intercepts – *Table 1*;

- 58m @ 0.10% Co from 48 metres in BHR1/1A including;
  - o 7m @ 0.17% Co from 63 metres,
  - o 6m @ 0.15% Co from 81 metres, and
  - o 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 quartz - albite +/- pyrite gneiss. 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 (*Figures 2 and 3*).

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

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 – *Table 2*;

### • 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 (*Figure 4*).

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 (*Figure 4*).

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**

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 mineralisation at the Deposit is also associated with the quartz - albite +/- pyrite host 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.

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The quartz - albite +/- pyrite unit is interpreted to have approximately 800 metres of strike length 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 (*Figure 5*).

### **Next Steps**

In addition to ongoing data review and target generation activities, Rimfire has started access discussions with local landowners to enable commencement of field work on the targets and will provide further market updates as new information comes to hand.

### Why Critical Minerals?

Critical minerals are required for the manufacture of solar PV plants, wind farms, electric vehicles, and battery storage. Additionally advanced manufacturing, defence, renewable energy, and medical devices has increased demand for critical minerals as building blocks for new products.

For further information, refer to the Australian Government's Australian Critical Minerals Prospectus 2021. <u>Australian Critical Minerals Prospectus 2021</u>

The Australian and United States Governments identify critical minerals as metals, non-metals and minerals that are considered vital for the economic well-being of the world's major and emerging economies, yet whose supply may be at risk due to geological scarcity, geopolitical issues, trade policy or other factors.

The critical minerals include Antimony, Beryllium, Bismuth, Chromium, Cobalt, Graphite, Lithium, Magnesium, Manganese, Nickel Niobium, Platinum Group Elements, Rare Earth Elements, Rhenium, Scandium, Titanium/Zirconium, Tungsten, Vanadium and Zirconium

The Platinum Group Elements (PGE's) comprise iridium, osmium, palladium, platinum, rhodium, and ruthenium.



Hole ID	Easting	Northing	Depth	Azi°	Dip°	Туре	From	Width	Cobalt-%
BHR001/1A	513,290	6,459,580	106	0	90	PER	48	58	0.10
	including							7	0.17
	and							6	0.15
	and						95	6	0.15
BHR002	513,020	6,459,580	127	0	90	PER	42	15	0.05
BHR003	512,660	6,459,310	137	0	90	PER	12	5	0.05
and						35	7	0.07	
BHR004	513,494	6,459,453	80	0	90	PER	27	7	0.03
BHR005	513,494	6,459,473	154	0	90	PER	25	8	0.06

#### Table 1 – Bald Hill historic drill hole specifications and intercepts (AGD66 / AMG zone 54).

### Table 2 – Staurolite Ridge drill hole specifications and intercepts (GDA94/MGA zone 54).

Hole ID	Easting	Northing	Depth	Azi°	Dip°	Туре	From	Width	Cobalt-%
SR001	529,527	6,450,656	196	178	-50	DD	94.5	61	0.18
		including	7				125.05	15.25	0.29
SR002	529,510	6,450,273	612	312	-50	DD	N	o Cobalt An	alysis
SR003	531,035	6,450,467	306	178	-50	DD	Ν	o Cobalt An	alysis
SR004	531,040	6,450,527	455	178	-60	DD	Ν	o Cobalt An	alysis
SR005	530,325	6,450,892	506	178	-75	DD	No Cobalt Analysis		
SR006	530,325	6,451,120	611	178	-75	DD	No Cobalt Analysis		
NMH026	529,390	6,450,510	80	151	-60	PER	No Cobalt Analysis		
NMH027	529,310	6,450,375	74	151	-60	PER	Ν	o Cobalt An	alysis
NMH028	529,735	6,450,655	188	185	-55	DD	No Cobalt Analysis		
NMH029	529,335	6,450,720	127	151	-60	PER	No Cobalt Analysis		
NMH029A	529,330	6,450,730	342	160	-57	DD	No Cobalt Analysis		
NMH030	529,375	6,450,450	82	151	-60	PER	40	42	0.010%
NMH031	529,375	6,450,470	30	151	-60	PER	8	30	0.011%
NMH032	529,560	6,450,890	525	135	-60	DD	No Cobalt Analysis		

#### **Information Sources**

The following historic exploration reports have been reviewed in compiling this ASX Announcement.

- Progress Report on Exploration Licence No. 1395 Bald Hill Area, New South Wales for the six-month period ended 30th July 1981. (July 1981) North Broken Hill Limited. NSW Open File Report GS1981/034.
- Three monthly Report The Authorities to Prospect Nos. 2349, 2355, 2356, and 2359. Broken Hill South Limited. (7 June 1962) NSW Open File Report GS1962/120.
- 3. Exploration of the "Southern Area" Broken Hill (previously Authority to Prospect 3673) BH South Limited. October 1974. NSW Open File Report GS1974/482.
- 4. Magnetic Hill EL1277. Six Monthly Report for the period 16th June to 17th December 1982. A.S Exploration Pty Limited. December 1982. NSW Open File Report GS1983/303.

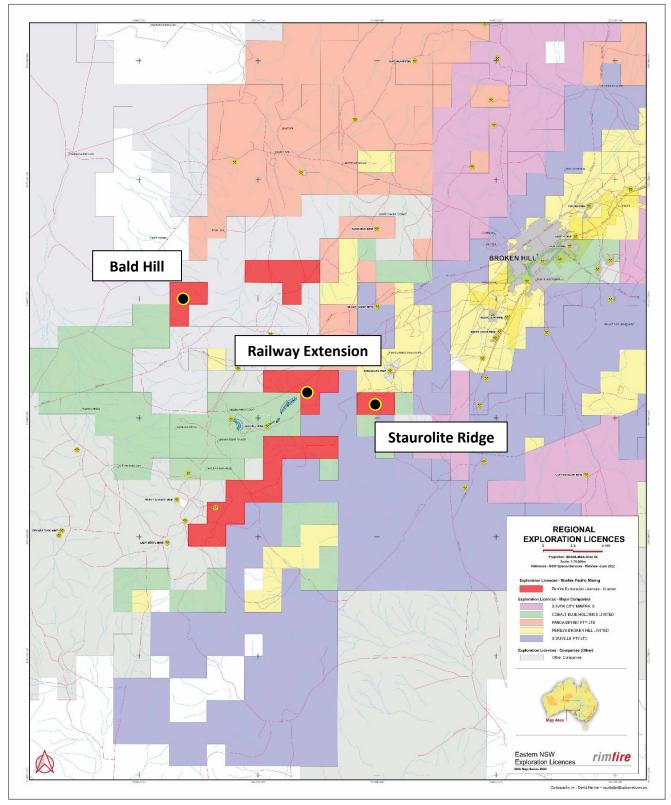


Figure 1: Broken Hill Cobalt Project (red blocks), regional tenement holders and location of cobalt targets referred to in this Announcement

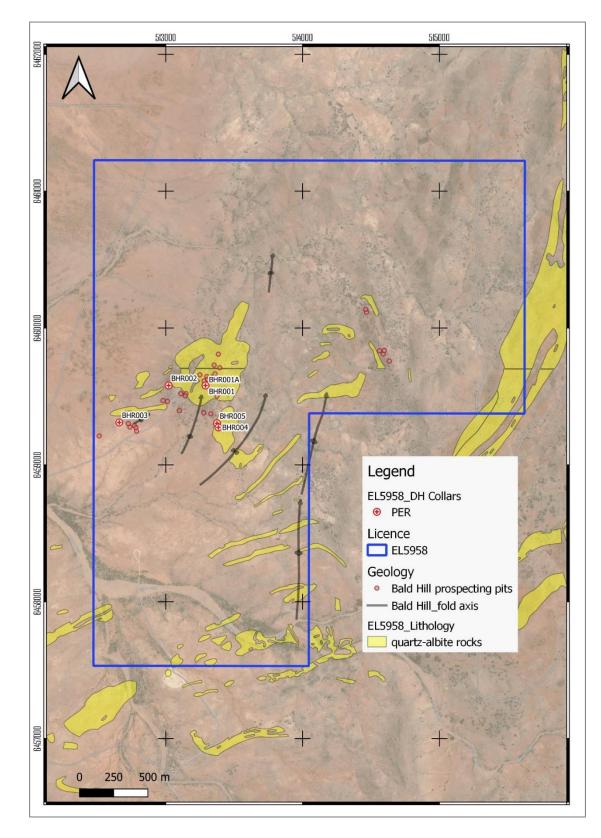


Figure 2: Bald Hill target area plan showing distribution of quartz – albite +/- pyrite unit, fold axes and drilling

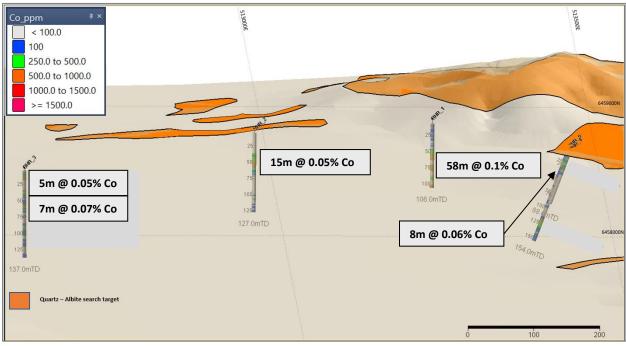


Figure 3: Bald Hill drilling schematic long section showing SR1 to SR5

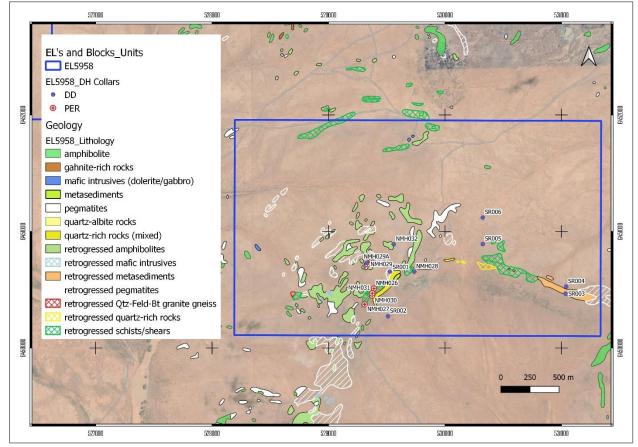


Figure 4: Staurolite Ridge target area geology plan and drilling

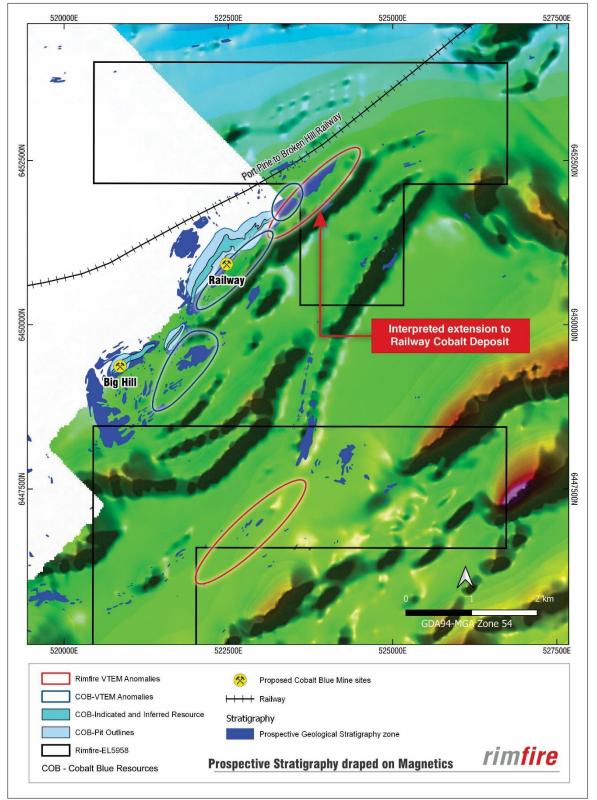


Figure 5: Location of the Railway Extension Target in relation to Cobalt Blue's Railway Cobalt Deposit. TMI magnetics background image.



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

### For further information please contact:

David Hutton Executive Director Ph: +61 417 974 843 Greg Keane CFO / Investor Relations, Ph: +61 497 805 918

### **JORC Reporting**

### Table 2: JORC Code Reporting Criteria

Section 1 Sampling Techniques and Data – Diamond Drilling

Criteria	JORC Code explanation	Commentary		
	Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	This ASX Announcement details the results of historic diamond and percussion drilling undertaken on EL5958 (the Broken Hill Cobalt Project) which is 100% - owned by Rimfire Pacific Mining Limited A list of source documents used in the preparation of this ASX Announcement are included in the body of the report. Note that the drill intercepts quoted in this ASX Announcement are not JORC Code compliant due to their historic nature and as such, little is known about the methods of geological logging, sampling and / or analysis.		
Sampling techniques	Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.	Due to the historic nature of the drilling these details are not known.		
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.	Due to the historic nature of the drilling these details are not known.		
Drilling techniques	Drill type (e.g., core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka,	As detailed in Table 1 and Table 2 of this ASX Announcement, drilling was undertaken using		

Criteria	JORC Code explanation	Commentary		
	sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).	wither the percussion method or diamond drilling method.		
	Method of recording and assessing core and chip sample recoveries and results assessed.	Due to the historic nature of the drilling these details are not known.		
Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Due to the historic nature of the drilling these details are not known.		
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Due to the historic nature of the drilling these details are not known.		
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Core samples were geologically and geochemically logged but not to a level of detail sufficient to support appropriate Mineral Resource estimation.		
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging of diamond drill core is largely qualitative by nature.		
	The total length and percentage of the relevant intersections logged.	Relevant intersections have been geologically logged.		
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Due to the historic nature of the drilling these details are not known.		
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Due to the historic nature of the drilling these details are not known.		
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Due to the historic nature of the drilling these details are not known.		
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Due to the historic nature of the drilling these details are not known.		
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	Due to the historic nature of the drilling these details are not known.		
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Due to the historic nature of the drilling these details are not known.		
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Due to the historic nature of the drilling these details are not known.		
Quality of assay data and laboratory tests	For geophysical tools, spectrometers, handheld XRF instruments (pXRF), etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable as no results of using geophysical tools were included in this ASX Announcement.		
	Nature of quality control procedures adopted	Due to the historic nature of the drilling these		

Criteria	JORC Code explanation	Commentary		
	(e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	details are not known.		
Verification of	The verification of significant intersections by either independent or alternative company personnel.	The significant intersections included in this ASX Announcement have been verified by both Rimfire's Exploration Manager and Managing Director.		
sampling and assaying	The use of twinned holes.	Not applicable as no twinned holes drilled.		
assaying	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Due to the historic nature of the drilling these details are not known. Rimfire has copies of the original geological logs from the source documents detailed in the body of this report.		
	Discuss any adjustment to assay data.	There has been no adjustment to assay data.		
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Due to the historic nature of the drilling these details are not known.		
	Specification of the grid system used.	As stated in Table 1 and Table 2 of this ASX Announcement.		
	Quality and adequacy of	Due to the historic nature of the drilling these		
	topographic control.	details are not known.		
	Data spacing for reporting of Exploration Results.	The location and spacing of historic drillholes discussed in this ASX Announcement are given in Tables 1 and 2, and various figures of this report		
Data spacing and distribution	Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The data spacing and distribution of diamond drilling referred to in this Report is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s).		
	Whether sample compositing has been applied.	Due to the historic nature of the drilling these details are not known.		
Orientation of data in relation to	·Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Due to the historic nature of the drilling these details are not known.		
geological structure	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Due to the historic nature of the drilling these details are not known.		
Sample security	The measures taken to ensure sample security.	Due to the historic nature of the drilling these details are not known.		
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The assay results included in the historic source documents have been reviewed by senior company personnel including the Exploration Manager and Managing Director with no issues identified.		

### Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	This ASX Announcement details the results of historic diamond and percussion drilling undertaken on EL5958 (the Broken Hill Cobalt Project) which is 100% - owned by Rimfire Pacific Mining Limited All work was undertaken on Private Freehold Land. No Native Title exists. The land is used primarily for grazing and cropping.
land tenure status	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	The tenement is in good standing, and all fieldwork is conducted under specific approvals from NSW Department of Planning and Energy, Resources and Geoscience. In addition, Rimfire is required to enter into land access agreements with each landowner. At the time of this ASX Announcement, Rimfire had commenced discussions with relevant landowners.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Broken Hill Cobalt Project has a long history of base metal exploration given its proximity to the Broken Hill mining centre and the geological similarities between Rimfire's project area and the mines. Further details are provided in the body of this report.
Geology	Deposit type, geological setting and style of mineralisation.	As discussed in the body of this report, Rimfire is targeting sulphide (pyrite) – hosted cobalt mineralisation within metamorphosed and structurally deformed metasediments of the Willyama Supergroup.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth.</li> </ul>	All drillhole specifications are included within Tables 1 and 2 of this ASX Announcement. All collar locations are shown on the figures included with this ASX Announcement.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the Report, the Competent Person should clearly explain why this is the case.	Not applicable as no drill hole information has been excluded.

Criteria	JORC Code explanation	Commentary		
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.	<ul> <li>The following low cut off grades have been used in determining the reported intercepts. No top cuts have been used.</li> <li>Cobalt (250 ppm – 0.025%)</li> </ul>		
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	No length weighting has been applied given all historic sample intervals were of equal length.		
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been reported.		
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the Reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').	The geometry of the mineralisation with respect to the drill hole angle is not known therefore all drill intercepts are quoted as "downhole widths".		
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Included within this ASX Announcement.		
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	All results are included within this ASX Announcement.		
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	There is currently no other substantive exploration data that is meaningful and material to report.		
Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).	Planned further work is discussed in the report in relation to the exploration results.		
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable at this stage		

### About Rimfire

Rimfire Pacific Mining Ltd (ASX: RIM) is an ASX-listed exploration company focused on exploring for critical minerals (nickel, cobalt, scandium, copper, gold, and PGEs) within the Lachlan Orogen and Broken Hill districts of NSW.

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 / RareX's Mordialloc porphyry coppergold discovery (KCC.ASX and REE.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 Project which is located immediately west and northwest of Broken Hill and covers a number of 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 50.1%)
  - ✓ Both projects are prospective for Critical Materials (PGEs, Nickel, Copper & Cobalt) which are essential for renewable energy, electrification, and green technologies.
  - ✓ The development ready Sunrise Energy Metals Ni-Co-Sc 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

### 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:

David Hutton Managing Director / CEO Ph: +61 417 974 843 Greg Keane CFO / Investor Relations, Ph: +61 497 805 918

### **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".