RIMFIRE PACIFIC MINING LTD

ASX: RIM

"Critical Minerals Explorer"

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18 March 2024

Scandium Exploration Update

Highlights

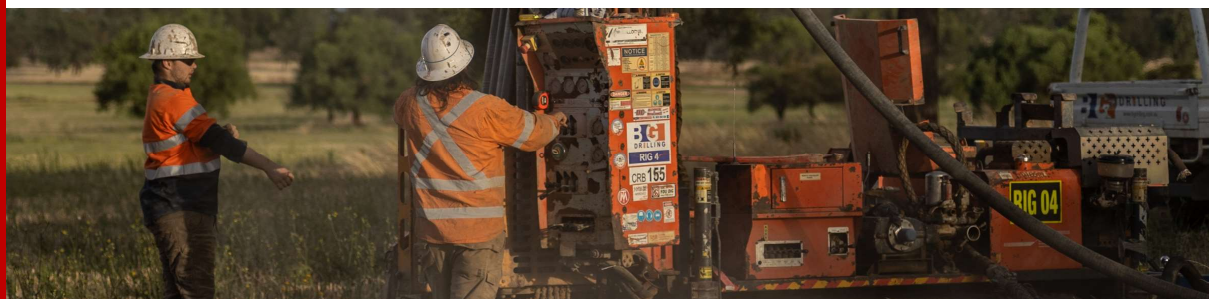
- **Aircore drill program (100 holes / 2,664 metres) completed at the Murga Scandium Prospect across 20km² area to determine extent and continuity of scandium mineralisation**
- **2,185 drill samples from Murga aircore drilling submitted for multi element analysis with results expected by late April 2024**
- **JORC Resource drilling (~ 2,000 metres RC / Diamond) at the Melrose Scandium-Cobalt Prospect to commence late this week with Resource Estimate expected by mid-June 2024**
- **Further leach test work focussed on maximising scandium recoveries along with XRD and petrological studies to commence shortly**
- **All activities fully funded by Rimfire's exploration partner - GPR**

Rimfire Pacific Mining (**ASX: RIM**, "**Rimfire**" or "**the Company**") is pleased to provide an update on multiple scandium exploration activities currently underway on the Murga and Melrose Scandium Prospects which are located approximately 70 kilometres northwest of Parkes within central NSW on the Company's Fifield and Avondale Projects (*Figures 3 and 4*).

Commenting on the announcement, Rimfire's Managing Director Mr David Hutton said: *"Rimfire is focused on exploring for critical minerals that are associated with global decarbonisation strategies and provides investors with unique exposure to scandium – an extremely valuable metal.*

Globally, western governments and advanced manufacturers are looking to secure long term supplies of critical minerals such as scandium from stable political jurisdictions, at quantities many times the current annual global production. Rimfire believes its Murga and Melrose Prospects offer significant opportunities in terms of deposit size and grade.

We are building strong momentum across our scandium prospects with the completion of the Murga aircore drill program and imminent commencement of the Melrose JORC Resource drilling. With ongoing metallurgical test work and other geological studies, 2024 is shaping up as a pivotal year for Rimfire and its shareholders".



Murga Scandium Prospect

The Company has completed an air core drilling program (100 holes / 2,664 metres – *Figure 1* and *Table 1*) at Murga to determine the extent and continuity of scandium mineralisation and 2,185 drill samples have now been submitted to ALS Pty Ltd for multi element analysis with results expected by late April 2024.

The new drilling program follows reconnaissance aircore drilling undertaken in 2023 by Rimfire which successfully intersected strongly anomalous scandium in multiple drillholes (*See Figure 1 and Rimfire ASX Announcement dated 3 October 2023*);

- 3m @ 132ppm Sc from 3 metres in FI2425
- 18m @ 164ppm Sc from surface in FI2426 *including 6m @ 208ppm Sc from 3 metres*
- 15m @ 125ppm Sc from 3 metres in FI2427
- 6m @ 131ppm Sc from 15 metres in FI2429
- 27m @ 188ppm Sc from 0 metres in FI2434 *including 12m @ 224ppm Sc from 3 metres,* and
- 6m @ 173ppm Sc from 3 metres in FI2435

Throughout the Murga prospect, scandium occurs within a strongly weathered horizon overlying magnetic ultramafic (pyroxenite) intrusive rocks of the Ordovician-age **Murga Intrusive Complex,** which have been demonstrated from previous drilling at both Murga and the adjacent Melrose Prospect to be intimately associated with scandium mineralisation (*See Rimfire ASX Announcement dated 6 December 2023*).

While geological logging is continuing, an initial review of rock types intersected in the latest Murga drilling indicates that approximately 80% of the holes intersected ultramafic / mafic rock types (including pyroxenite). The significance of this observation will be confirmed once assay results are received however it's worth noting that the **FI2429 intercept quoted above occurred wholly within fresh pyroxenite rock types** not the overlying weathered horizon.

The most recent aircore holes were drilled on 100 x 100 metre centres at Murga North and on 400 x 400 metre centres over the remainder of the Murga Intrusive Complex. In total the drilling was carried out over an area of **approximately 20km²**. A size comparison between Murga and the Melrose Prospect is shown on *Figure 1*.

The closer-spaced drilling was undertaken at Murga North to specifically follow up the FI2426 to FI2429 intercepts drilled by Rimfire in 2023 (i.e., 18m @ 164ppm Sc from surface in FI2426 *including 6m @ 208ppm Sc)* which lie within a 1,000-metre x 300-metre east west striking auger anomaly that overlies a linear magnetic feature within the northern portion of the Murga Intrusive Complex ("**Murga North**").

To assist Rimfire's understanding of the basement rock types at Murga, several samples have been submitted for petrological analysis including two samples of the scandium – anomalous fresh pyroxenite from FI2429 (15 – 21 metres).

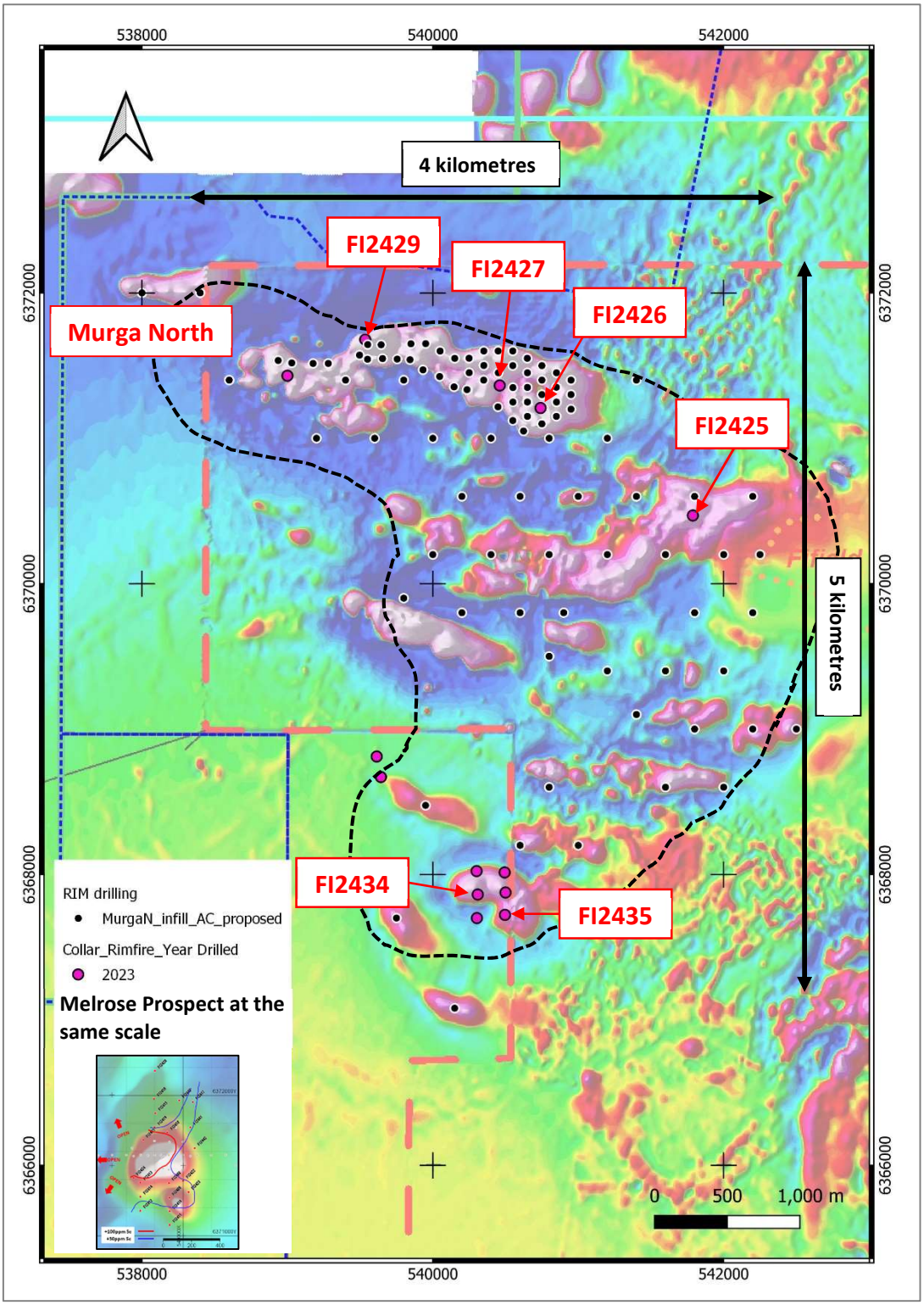


Figure 1: Locations of Rimfire 2024 and 2024 Aircore drilling referred to in this Announcement. Approximate boundaries of the Murga Intrusive Complex shown as black dashed line on TMI background image. The Melrose Prospect magnetic anomaly at same scale as this Murga magnetic image is also shown.

Melrose Scandium Cobalt Prospect

As recently reported, first pass sighter leach test work undertaken by Perth specialist metallurgical services group - Independent Metallurgical Operations Pty Ltd (IMO) and focused on producing a combined product from Melrose laterite-hosted mineralisation, returned recoveries up to 40% scandium, 90% cobalt, and 58% nickel at atmospheric pressures (*see Rimfire ASX Announcement dated 4 March 2024*).

At the time, Rimfire accepted IMO's recommendation to undertake two further leach tests with a particular emphasis on maximising scandium recovery, optimising energy requirements and reagent consumption.

IMO still holds sufficient amounts of the bulk sample originally supplied by Rimfire and will shortly commence the additional leach tests.

Rimfire has also submitted 58 samples from historic Rimfire Melrose drillholes to ALS Pty Ltd for qualitative X-ray Diffraction (XRD) analysis. XRD is a technique used to study the structure, composition, and physical properties of materials and will be used to accurately define what specific minerals (e.g. kaolinite, goethite, manganese, limonite etc.) host each of the scandium, cobalt, and nickel at Melrose.

Information received from the XRD work will assist ongoing metallurgical studies at Melrose.

Following the encouraging metallurgical results Rimfire will now undertake a combined program of Reverse Circulation and Diamond drilling (approximately 2,000 metres) at Melrose to underpin the estimate of a maiden Mineral Resource Estimate (MRE) in accordance with the 2012 JORC Code.

Rimfire has received regulatory approval and permission from affected landowners to undertake the drilling with work to commence on the 20th of March 2024.

Scandium Market Significance

For further information (and a downloadable Scandium Fact Sheet), readers are encouraged to visit Rimfire's website https://www.rimfire.com.au/scandium-the-path-to-innovative-solutions-and-sustainable-technologies

The recent purchase of the Owendale Scandium Project (which lies 10 kilometres north of Murga and Melrose) by Rio Tinto Ltd.'s newly established scandium business unit Element North 21 (https://www.elementnorth21.com/) for up to $US14M highlights growing market interest in Australian scandium projects (*see Platina Resources' ASX Announcement dated 28 April 2023*).

Renamed the "Burra Project" the acquisition aligns with Rio Tinto's strategic goal to grow in materials essential for the low-carbon transition and as the demand for cleaner, lighter, and more durable materials continues to rise, Rio expect the use of scandium to continue to grow along

with this demand (*https://www.riotinto.com/en/news/releases/2023/rio-tinto-acquires-high-grade-scandium-project-in-australia*).

The location of Rio Tinto's Burra Project in relation to Rimfire's Fifield and Avondale Projects is shown in *Figures 3 and 4*.

The global demand for Scandium is increasing with its usage as one of the primary materials in Hydrogen electrolysis solid oxide fuel cell technology as well as being used in the manufacture of lightweight and high-strength scandium - aluminium alloys.

Scandium is included in both Australia's 2023 Critical Minerals List and the United States Geological Survey's (USGS) 2022 List of 50 mineral commodities critical to the economy and national security of both countries. (*https://www.industry.gov.au/publications/australias-critical-minerals-list* and *https://www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals*).

Incorporation of scandium in materials has environmental benefits across multiple industrial sectors, particularly in decarbonisation of energy. One pathway to mitigate greenhouse gas emissions is to generate electricity using hydrogen or synthetic liquid fuels, which are more efficient than combustion engines. This application currently represents the single largest use for scandium (*https://straitsresearch.com/report/scandium-market*).

A competing demand for scandium (that is increasing) is its usage in the manufacture of high-strength aluminium alloys. When applied as an addition to aluminium alloys, scandium can produce stronger, more corrosion resistant, and more heat tolerant, weldable and 3D printable aluminium products.

Aluminium alloys are used extensively in the global transportation industry. Aircraft manufacturers are particularly interested, with the two leading global aircraft manufacturers increasingly working to incorporate scandium aluminium alloys into their future designs and manufacturing processes. Aircraft designers believe use of these alloys can reduce aircraft weights by 15 to 20%. Additionally, the ability to employ weldable structures promises similar cost reduction potential.

It's also important to note that the United States is totally dependent on imports of scandium primarily from Europe, China, Japan, and Russia to meet its domestic needs (*USGS Scandium Fact Sheet 2022*) and as such **rising demand for scandium is supply constrained**.

Rimfire believes that advanced manufacturers are looking to secure long-term supplies of scandium within favourable jurisdictions like Australia before committing to the greater use scandium-alloyed aluminium materials in their products.

Rimfire's Fifield and Avondale Projects are ideally positioned to take advantage of the growing demand for scandium and offer significant opportunities both in terms of deposit size and grade.

Next Steps

The Murga aircore drilling results and petrology results are expected within 4 – 6 weeks (i.e. late April 2024).

At Melrose, the results of the JORC Resource drilling are expected to be received approximately 4 – 6 weeks following completion of the drilling with the JORC Resource Estimate due shortly thereafter (i.e. mid-June 2024). The results of the next two leaching tests and XRD analysis are expected to be received by late-June 2024.

Rimfire will provide the market with further updates as further information comes to hand.

Figure 2: Murga Scandium Prospect with aircore drill rig – early March 2024

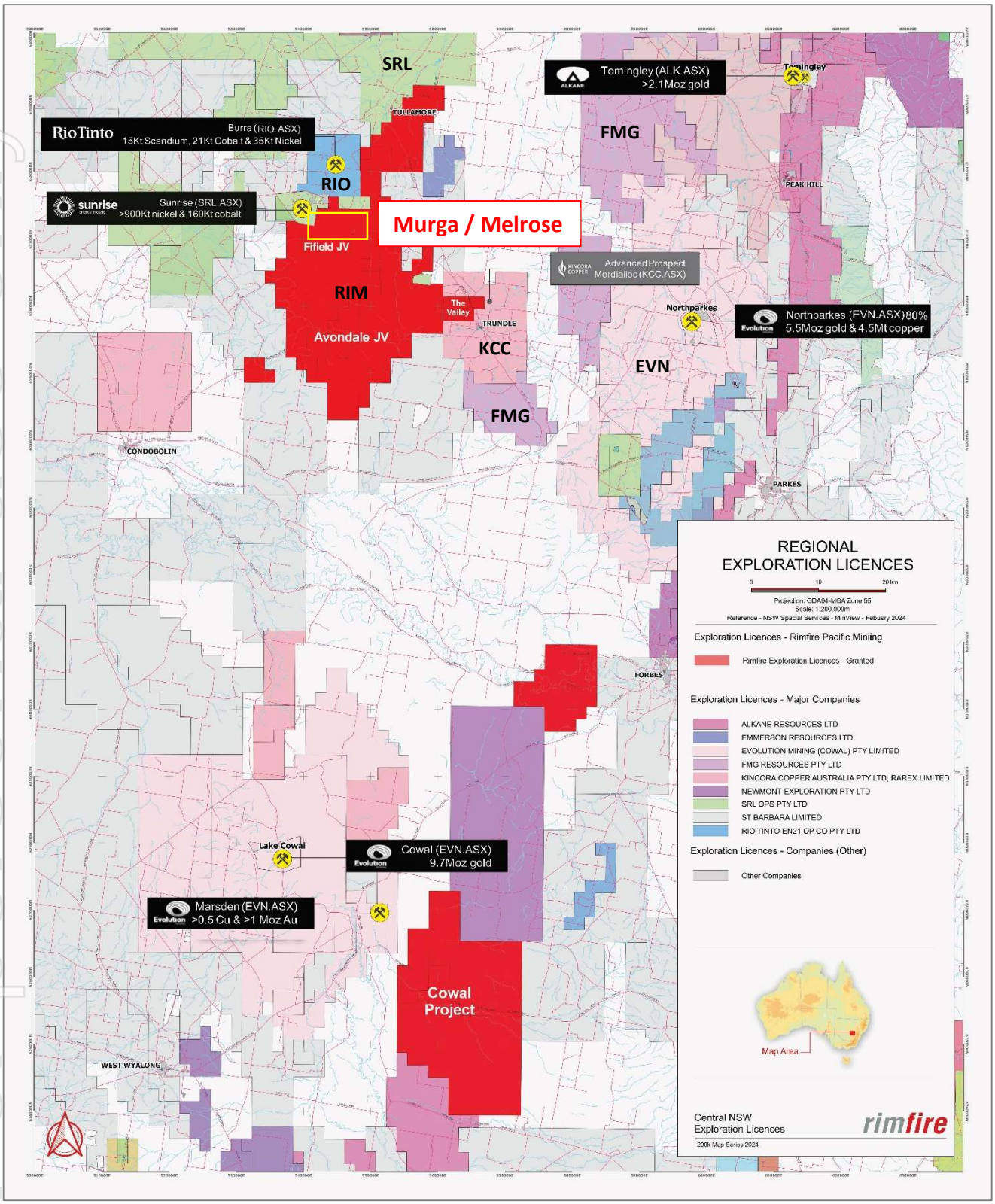


Figure 3: Rimfire Project Locations and key prospects.

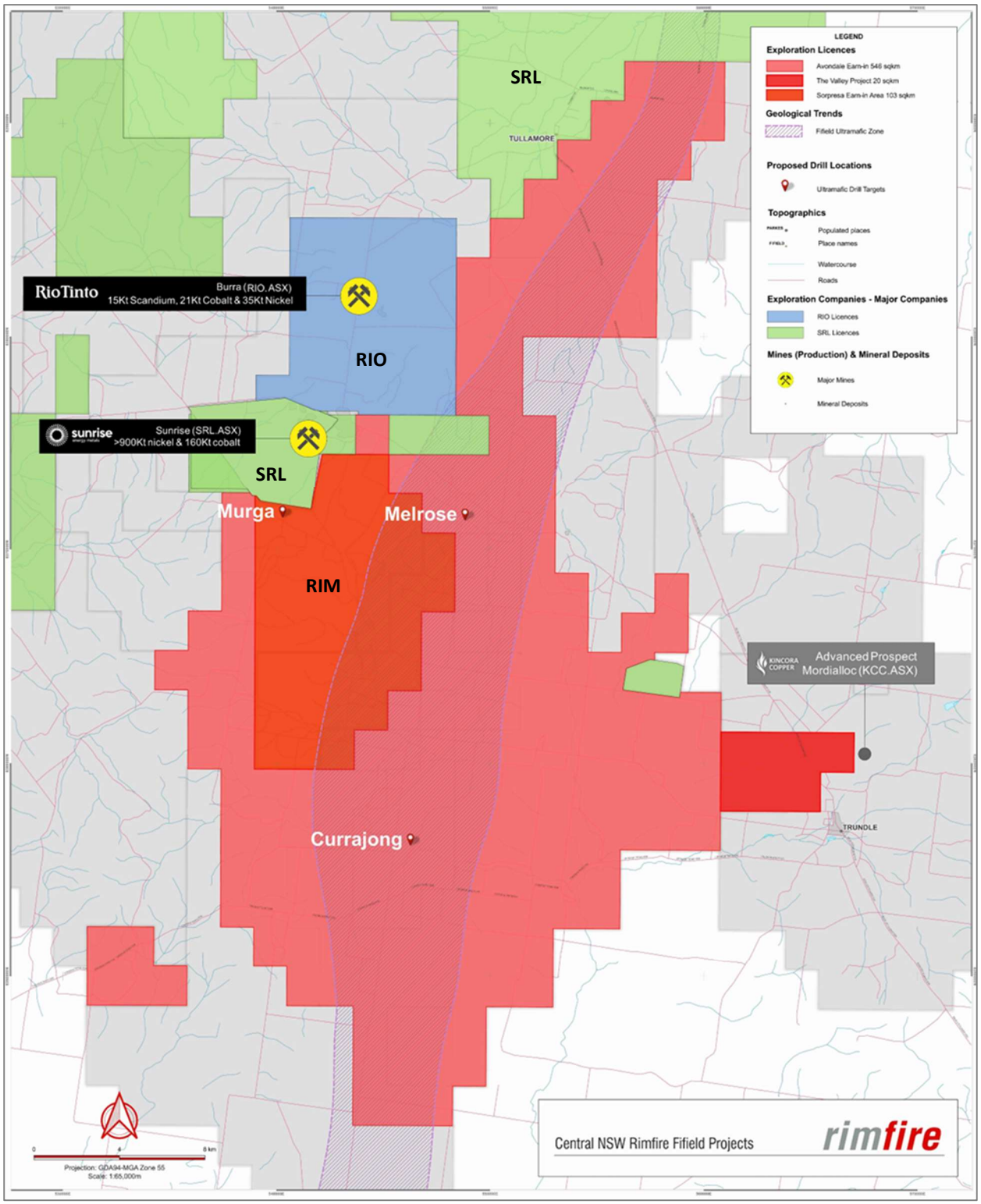


Figure 4: Rimfire Fifield and Avondale Project Locations and competitors (Rio Tinto – blue and Sunrise Energy Metals – green).

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

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JORC Statement

All previous exploration and metallurgical results included in this ASX Announcement have been previously released along with relevant JORC Information by Rimfire in ASX Announcements *dated 3 October 2023, 6 December 2023, and 4 March 2024*.

JORC details pertaining to the 2024 Murga Aircore drilling program are given below.

Table 1: 2024 Murga Aircore drill hole specifications

Hole_ID	Hole_Type	Max_Depth	NAT_Grid_ID	Easting	Northing
FI2472	AC	51	MGA94_55	540,949	6,371,393
FI2473	AC	55	MGA94_55	540,949	6,371,302
FI2474	AC	42	MGA94_55	540,882	6,371,167
FI2475	AC	22	MGA94_55	540,863	6,371,159
FI2476	AC	34	MGA94_55	540,763	6,371,120
FI2477	AC	23	MGA94_55	540,672	6,371,183
FI2478	AC	15	MGA94_55	540,657	6,371,244
FI2479	AC	39	MGA94_55	540,856	6,371,251
FI2480	AC	24	MGA94_55	540,751	6,371,297
FI2481	AC	27	MGA94_55	540,559	6,371,346
FI2482	AC	32	MGA94_55	540,655	6,371,345
FI2483	AC	36	MGA94_55	540,653	6,371,451
FI2484	AC	36	MGA94_55	540,744	6,371,405
FI2485	AC	27	MGA94_55	540,855	6,371,451
FI2486	AC	39	MGA94_55	540,848	6,371,358
FI2487	AC	27	MGA94_55	540,748	6,371,500
FI2488	AC	39	MGA94_55	540,644	6,371,556
FI2489	AC	46	MGA94_55	540,558	6,371,598
FI2490	AC	27	MGA94_55	540,549	6,371,502
FI2491	AC	24	MGA94_55	540,555	6,371,252

FI2492	AC	21	MGA94_55	540,615	6,371,052
FI2493	AC	14	MGA94_55	540,551	6,371,124
FI2494	AC	15	MGA94_55	540,442	6,371,217
FI2495	AC	35	MGA94_55	540,231	6,371,314
FI2496	AC	30	MGA94_55	540,154	6,371,343
FI2497	AC	24	MGA94_55	540,047	6,371,414
FI2498	AC	36	MGA94_55	540,044	6,371,414
FI2499	AC	25	MGA94_55	539,849	6,371,549
FI2500	AC	11	MGA94_55	539,857	6,371,662
FI2501	AC	24	MGA94_55	539,957	6,371,652
FI2502	AC	39	MGA94_55	540,358	6,372,097
FI2503	AC	28	MGA94_55	540,040	6,371,594
FI2504	AC	33	MGA94_55	540,155	6,371,545
FI2505	AC	21	MGA94_55	540,245	6,371,553
FI2506	AC	24	MGA94_55	540,255	6,371,452
FI2507	AC	48	MGA94_55	540,347	6,371,404
FI2508	AC	40	MGA94_55	540,345	6,371,600
FI2509	AC	44	MGA94_55	540,434	6,371,591
FI2510	AC	37	MGA94_55	540,353	6,371,493
FI2511	AC	18	MGA94_55	540,457	6,371,440
FI2512	AC	17	MGA94_55	538,613	6,271,395
FI2513	AC	55	MGA94_55	538,398	6,371,999
FI2514	AC	16	MGA94_55	538,008	6,371,999
FI2515	AC	28	MGA94_55	539,196	6,370,995
FI2516	AC	6	MGA94_55	539,401	6,371,400
FI2517	AC	10	MGA94_55	539,804	6,371,401
FI2518	AC	36	MGA94_55	540,000	6,370,997
FI2519	AC	21	MGA94_55	539,602	6,371,003
FI2520	AC	10	MGA94_55	540,404	6,370,995
FI2521	AC	44	MGA94_55	540,791	6,370,975
FI2522	AC	54	MGA94_55	541,199	6,370,996
FI2523	AC	40	MGA94_55	541,398	6,371,396
FI2524	AC	22	MGA94_55	541,805	6,370,626
FI2525	AC	22	MGA94_55	542,193	6,370,603
FI2526	AC	27	MGA94_55	539,990	6,368,462
FI2527	AC	43	MGA94_55	539,748	6,367,697
FI2528	AC	26	MGA94_55	540,148	6,367,083
FI2529	AC	9	MGA94_55	540,596	6,368,209
FI2530	AC	42	MGA94_55	540,995	6,368,198
FI2531	AC	25	MGA94_55	541,598	6,368,611
FI2532	AC	58	MGA94_55	542,006	6,368,671
FI2533	AC	22	MGA94_55	540,803	6,368,600
FI2534	AC	26	MGA94_55	540,800	6,369,492
FI2535	AC	14	MGA94_55	541,204	6,369,399
FI2536	AC	24	MGA94_55	541,396	6,369,098
FI2537	AC	13	MGA94_55	541,793	6,369,000
FI2538	AC	33	MGA94_55	542,195	6,369,010

FI2539	AC	52	MGA94_55	542,509	6,368,985
FI2540	AC	14	MGA94_55	542,011	6,369,384
FI2541	AC	23	MGA94_55	541,601	6,369,400
FI2542	AC	16	MGA94_55	541,819	6,369,792
FI2543	AC	23	MGA94_55	542,240	6,369,787
FI2544	AC	15	MGA94_55	542,200	6,369,785
FI2545	AC	18	MGA94_55	542,003	6,370,211
FI2546	AC	30	MGA94_55	542,246	6,370,201
FI2547	AC	39	MGA94_55	541,396	6,370,597
FI2548	AC	27	MGA94_55	540,990	6,370,588
FI2549	AC	16	MGA94_55	541,200	6,370,196
FI2550	AC	41	MGA94_55	540,805	6,370,210
FI2551	AC	28	MGA94_55	540,895	6,369,800
FI2552	AC	41	MGA94_55	540,599	6,369,802
FI2553	AC	3	MGA94_55	540,614	6,370,599
FI2554	AC	37	MGA94_55	539,798	6,369,901
FI2555	AC	22	MGA94_55	539,989	6,370,200
FI2556	AC	52	MGA94_55	540,207	6,369,798
FI2557	AC	19	MGA94_55	540,398	6,370,196
FI2558	AC	6	MGA94_55	540,201	6,370,598
FI2559	AC	41	MGA94_55	540,266	6,368,102
FI2560	AC	28	MGA94_55	540,167	6,367,979
FI2561	AC	19	MGA94_55	540,262	6,367,852
FI2562	AC	2	MGA94_55	538,942	6,371,525
FI2563	AC	6	MGA94_55	539,031	6,371,514
FI2564	AC	10	MGA94_55	539,174	6,371,520
FI2565	AC	4	MGA94_55	539,281	6,371,500
FI2566	AC	5	MGA94_55	539,497	6,371,537
FI2567	AC	12	MGA94_55	539,548	6,371,431
FI2568	AC	20	MGA94_55	539,649	6,371,547
FI2569	AC	5	MGA94_55	539,759	6,371,552
FI2570	AC	6	MGA94_55	539,630	6,371,675
FI2571	AC	9	MGA94_55	539,546	6,371,630

JORC Reporting

Table 2: JORC Code Reporting Criteria

Section 1 Sampling Techniques and Data – Aircore Drilling and Head Assay

Criteria	JORC Code explanation	Commentary
Sampling techniques	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 aircore drilling undertaken during February - March 2024 at the Murga Scandium Prospect which lies within the Company's Fifield Project in NSW. At the time of this Announcement geological logging was continuing and assay results are awaited. Aircore drillhole sampling. Each sample represents a scooped sample of cuttings generated via aircore drilling. Each sample is representative of either 1 metre or 3m composite samples. The nature of the sample generation and collection process means the samples should be considered as indicative of grade rather than representative of a precise grade. Each aircore drillhole will be geologically logged and submitted to ALS Orange for analysis for base metals (Ni, Co, Sc) using ALS methods ME- ME-ICP61.
	Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.	The nature of aircore sampling means samples should be considered as an indictive rather than precise measure, aimed at defining areas of anomalism. Blank samples and reference standards will be inserted into the sample sequence for QA/QC.
	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.	The field collected samples were typically 1.0 to 2.0kg individual 1 metre samples or 3 metre composite samples from a 3m interval from aircore drilling. Industry standard preparation and assay will be conducted at ALS Pty Ltd in Orange, NSW, including sample crushing and pulverising prior to subsampling for an assay sample.
Drilling techniques	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple	All holes were drilled using aircore drill rig. All holes were vertical, the specifications of which are included in Table 1.

Criteria	JORC Code explanation	Commentary
	or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	An approximate estimate of total sample quantity was recorded with each 1m interval by comparing volumes within each bucket of sample yielded from the cyclone. A visual estimate of 0, 25, 50, 75, 100, 125% was recorded for each metre.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The drillers adjusted penetration and air pressure rates according to ground conditions to optimise recoveries. The cyclone was cleaned regularly, and holes were reamed in between rod changes to reduce contamination.
	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 reconnaissance nature of the aircore drilling it cannot be determined 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.
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.	Sub-samples were collected for the purpose of geological logging, aimed primarily at assessing the lithological type and confirming sample represents insitu material.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging of is largely qualitative by nature.
	The total length and percentage of the relevant intersections logged.	Relevant intersections have been geologically logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A as no core samples were collected.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Aircore drilling samples were scooped with PVC pipe from the total output of cuttings that passed through the cyclone on the rig.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Given the indicative nature of the sample medium (refer to sampling techniques section above) this process is considered appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All sampling equipment was cleaned between samples.
	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.	Blanks and standards will be inserted in the sample stream before being submitted to the commercial laboratory. No issues have been identified.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size (typically ~ 2kg) of aircore material is considered appropriate to the grainsize of material being sampled.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	N/A as no assay results are being reported in this Announcement.

Criteria	JORC Code explanation	Commentary
	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 geophysical tools were used or results of using geophysical tools were included in this Report.
	Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	N/A as no assay results are being reported in this Announcement.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	N/A as no assay results are being reported in this Announcement.
	The use of twinned holes.	Not applicable as no twinned holes drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Sampling data was recorded on field sheets at the sample site. Field data was entered into an excel spreadsheet and saved on Cloud server. Geological logging was recorded directly in LogChief program during drilling and backed up on Cloud server. Assay results are typically reported in a digital format suitable for direct loading into a Datashed database with a 3rd party expert consulting group.
	Discuss any adjustment to assay data.	N/A as no assay results are being reported in this Announcement.
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.	Sample locations are recorded using handheld Garmin GPS with a nominal accuracy +/- 3m.
	Specification of the grid system used.	GDA94 Zone 55.
	Quality and adequacy of topographic control.	Handheld GPS, which is suitable for the early stage and broad spacing of this exploration.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The location and spacing of drillholes discussed in this Report are given in Table 1 and various figures of this Report
	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 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.	Sample compositing has been applied in some circumstances.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Given the early stage of exploration it is not yet known if sample spacing, and orientation achieves unbiased results.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have	Due to the reconnaissance (early stage) nature of the aircore drilling it cannot be determined whether relationship between the drilling

Criteria	JORC Code explanation	Commentary
	introduced a sampling bias, this should be assessed and reported if material.	orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias
Sample security	The measures taken to ensure sample security.	Samples double bagged and delivered directly to the laboratory by company personnel.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The sampling techniques and data has 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 land tenure status	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.	Reported results all from Exploration Licence EL EL8935 at Fifield NSW which is wholly - owned by Rimfire Pacific Mining Limited. The tenement forms part of the Company's Fifield Project which is subject to an Earn In and Joint Venture Agreement with Golden Plains Resources Pty Ltd (GPR) whereby GPR can earn up to a 50.1% interest by completing expenditure of $4.5M over 3 years and committing to fund the development of a mining project on the project, including Rimfire's portion. Rimfire will repay its share of the development costs from operating cash flows All samples were taken on Private Freehold Land. No Native Title exists. The land is used primarily for grazing and cropping.
	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 work is conducted under specific approvals from NSW Department of Planning and Energy, Resources and Geoscience.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Murga Intrusive Complex where the air core drilling was conducted has been largely explored historically for gold and platinum with most focus on the Sorpresa deposit which lies to the east of Murga.
Geology	Deposit type, geological setting and style of mineralisation.	The target area lacks geological exposure, available information indicates the bedrock geology across the project is a dominated by a central body of ultramafic intrusive and stepping out to more felsic units on the margins. The deposit type/style of mineralisation is a flat lying weathered zone developed on top of ultramafic hosting anomalous Sc.

Criteria	JORC Code explanation	Commentary
Drill hole Information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth.	All drillhole specifications are included within 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.
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.	N/A as no assay results are being reported in this Announcement.
	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.	N/A as no assay results are being reported in this Announcement.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A as no assay results are being reported in this Announcement.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the Reporting of Exploration Results.	N/A as no assay results are being reported in this Announcement.
	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').	
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 the 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.	N/A as no assay results are being reported in this Announcement.

Criteria	JORC Code explanation	Commentary
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 is discussed in the document 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 (**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, comprising;

The 100% - owned Broken Hill Cobalt Project located immediately west of Broken Hill, NSW and includes;

- Bald Hill, where Rimfire's recent drilling successfully intersected high-grade cobalt (Co) in sulphide mineralisation - *see Rimfire ASX Announcement dated 18 September 2023* *Broad zones of high-grade cobalt at Bald Hill*, and
- Railway Extension, which is the interpreted along strike extension to Cobalt Blue Holdings' Railway Cobalt Deposit (COB: ASX).

The 100% - owned Valley and Cowal Projects located west of Parkes and Orange in central NSW:

- The Valley Project - located 35km west of the Northparkes Copper Gold Mine where Evolution Mining (EVN: ASX) has just acquired an 80% interest in the mining operation for up to US$475M – *see Evolution Mining ASX Announcement dated 5 December 2023* *Acquisition of an 80% interest in Northparkes Copper Gold Mine*, and
- The Cowal Project - located to the east of Evolution's Lake Cowal Copper / Gold mine (EVN: ASX), which includes the newly acquired Porters Mount Project - *see Rimfire ASX Announcement dated 11 September 2023* *Acquisition of Porters Mount Project*

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 high-value critical minerals – scandium, cobalt, nickel, gold, and PGEs - which are essential for renewable energy, electrification, and green technologies.
- ✓ Adjacent to both projects are the;
    - development ready Sunrise Energy Metals Nickel Cobalt Scandium Project (ASX:SRL), and
    - Platina Scandium Project (Owendale Scandium Deposit), which was acquired by Rio Tinto (ASX:RIO) – *see RIO News Release dated 28 April 2023* *Rio Tinto acquires high-grade scandium project in Australia*
- ✓ The Fifield Project hosts the historic Platina Lead mine, the largest historic 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 $4.5m Earn-in Agreement
ASX Announcement: 25 June 2021 - RIM Secures $7.5m Avondale Farm Out

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, 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".