

8 March 2023

Melrose nickel cobalt scandium aircore drilling underway

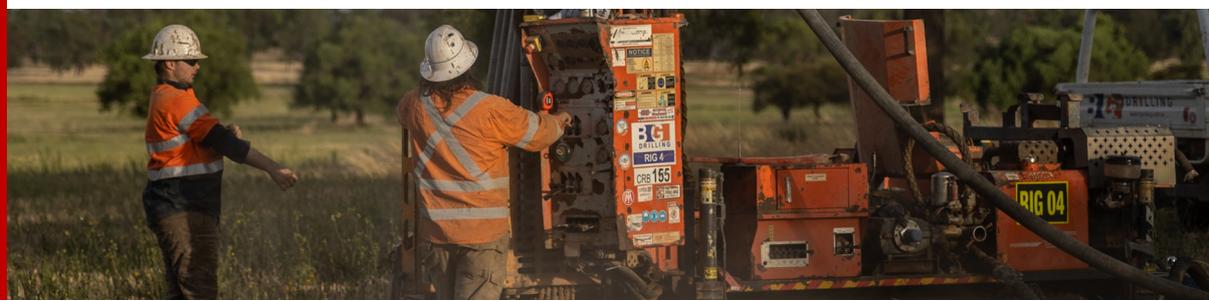
Highlights

- **2,000m aircore drilling program to determine extent of Melrose mineralisation & test several new targets now underway**
- **Melrose hosts shallow high-grade critical minerals mineralisation evidenced from historical drill intercepts such as;**
 - **21m @ 0.11% Ni, 0.07% Co, and 529 Sc, from 3 metres including 9m @ 0.17% Ni, 0.15% Co and 688ppm Sc from 14 metres**
 - **10.0m @ 0.14% Ni, 0.10% Co and 456ppm Sc from 1 metre including 5m @ 0.17% Ni, 0.17% Co and 568ppm Sc from 5 metres**

Rimfire Pacific Mining (**ASX: RIM**, “Rimfire” or “the Company”) is pleased to advise that an aircore drilling program of ~2,000 metres designed to determine the extent of nickel – cobalt – scandium mineralisation at the Melrose prospect and to test the geological significance of several new targets is underway on its Avondale and Fifield Earn In Projects which are located 70 kilometres northwest of Parkes within the highly prospective Lachlan Orogen of central New South Wales (*Figure 1*).

Parkes is the site of the New South Wales Government’s proposed Critical Minerals Hub which will be central point for mining and value added processing of critical minerals within the state (source - [NSW Government - critical minerals and high tech metals](#) website).

Commenting on the announcement, Rimfire’s Managing Director Mr David Hutton said: “Rimfire remains focussed on exploring for and developing critical minerals opportunities within NSW’s Lachlan Orogen. The latest phase of drilling builds on our previous success at Melrose and assists with building a strong pipeline of priority drill targets which will underpin future work programs”.



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

Ian 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

ABN: 59 006 911 744

Drilling program details

Rimfire is undertaking aircore drilling (~2,000 metre program) to determine the extent of the known nickel – cobalt – scandium mineralisation at the Melrose prospect as well as testing the significance of several new targets on the Avondale and Fifield Earn In Projects.

At Melrose, nickel – cobalt – scandium (Ni – Co – Sc) mineralisation occurs at shallow depths within a flat – lying manganese and iron rich (laterite) zone, which is developed over an east-dipping sequence of interlayered ultramafic rocks (pyroxenite, wehrlite, and serpentinised dunite) that is fault bounded against a gabbro to east and volcanoclastic sediments to the west (*Figures 2 and 3*).

Aircore and diamond drilling undertaken last year by Rimfire returned multiple strongly anomalous drill intercepts, e.g.;

- 21m @ 0.11% Ni, 0.07% Co, and 529 Sc, from 3 metres in FI2397 including 9m @ 0.17% Ni, 0.15% Co and 688ppm Sc from 14 metres,
- 2.3m @ 0.15% Ni, 0.08% Co and 461ppm Sc from 3 metres and 5.0m @ 0.68% Ni, 0.07% Co and 302ppm Sc from 16 metres in FI2398,
- 4.9m @ 0.36% Ni, 0.11% Co and 349ppm Sc from 5 metres, and 4.3m @ 0.42% Ni, 0.09% Co and 296ppm Sc from 10.1 metres in FI2399,
- 10.0m @ 0.14% Ni, 0.10% Co and 456ppm Sc from 1 metre in FI2400 including 5m @ 0.17% Ni, 0.17% Co and 568ppm Sc from 5 metres,

Melrose remains open along strike both to the north and south and the current drilling will be undertaken on a north – south and separate south east – north west orientated traverse to determine the extent of the mineralisation (*Figure 2*).

As well as the Melrose drilling, Rimfire has recently engaged Perth specialist metallurgical services group - Independent Metallurgical Operations Pty Ltd (IMO) to develop a conceptual processing flowsheet with the aim of optimising atmospheric leach recoveries and production of a nickel – cobalt – scandium product from high-grade mineralised material from Melrose.

Subject to a favourable outcome from both the current aircore drilling and the metallurgical test work, Rimfire will undertake a detailed drill out of the Melrose prospect with a view to estimating a maiden 2012 JORC Code compliant Mineral Resource Estimate (MRE) for the location.

In addition to testing the extent of Melrose mineralisation, the aircore drilling will test the significance of several new targets (Glen Avon, Murga North, Murga South, Carlisle, and Forest View) which lie within a regional scale 50-kilometre-long belt of underexplored intermediate volcanoclastics, sediments and ultramafic intrusive units that make up a geologically significant regional – scale structure at Avondale called the “Steeton Ultramafic Suture Zone” (*Figure 4. Also refer to Rimfire’s ASX Announcement dated 28 March 2022*).

The targets are characterised by discrete magnetic features and / or anomalous surface geochemistry potentially indicative of buried nickel – cobalt – scandium mineralised mafic / ultramafic intrusive. The drilling will specifically determine depth to basement, the nature of any regolith (laterite) profile, underlying rock type, and source of the magnetic responses.

The drilling program including receipt of assay results will take approximately two months to complete with Rimfire to provide further updates as and when new information comes to hand.

JORC Statement.

Rimfire confirms that all Exploration Results included in this ASX Announcement have been previously released to the market in the following ASX Announcements and that no new Exploration Results are included in this ASX Announcements.

- Critical Minerals Discovery Opportunity at Avondale Project – dated 28 March 2022.
- Strong nickel, cobalt and scandium drill results reinforce critical minerals exploration strategy – dated 4 April 2022
- High-grade scandium at Melrose – dated 19 September 2022
- Significant nickel cobalt scandium drilled from surface at Melrose – dated 20 October 2022

For JORC information relating to the Exploration Results please refer to the ASX Announcements listed above.

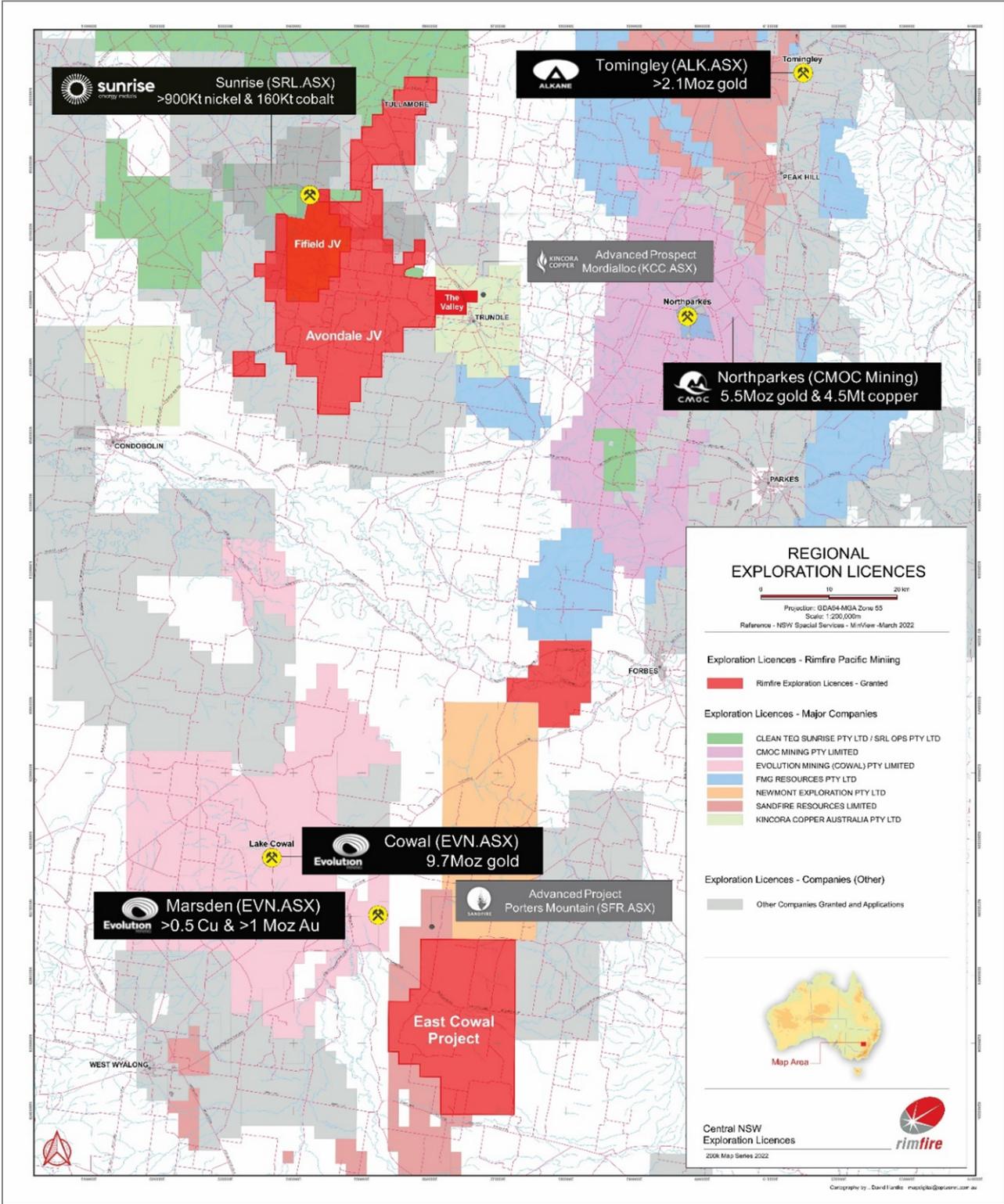


Figure 1: Rimfire Project Locations (in red) showing major competitors' active mines and key prospects.

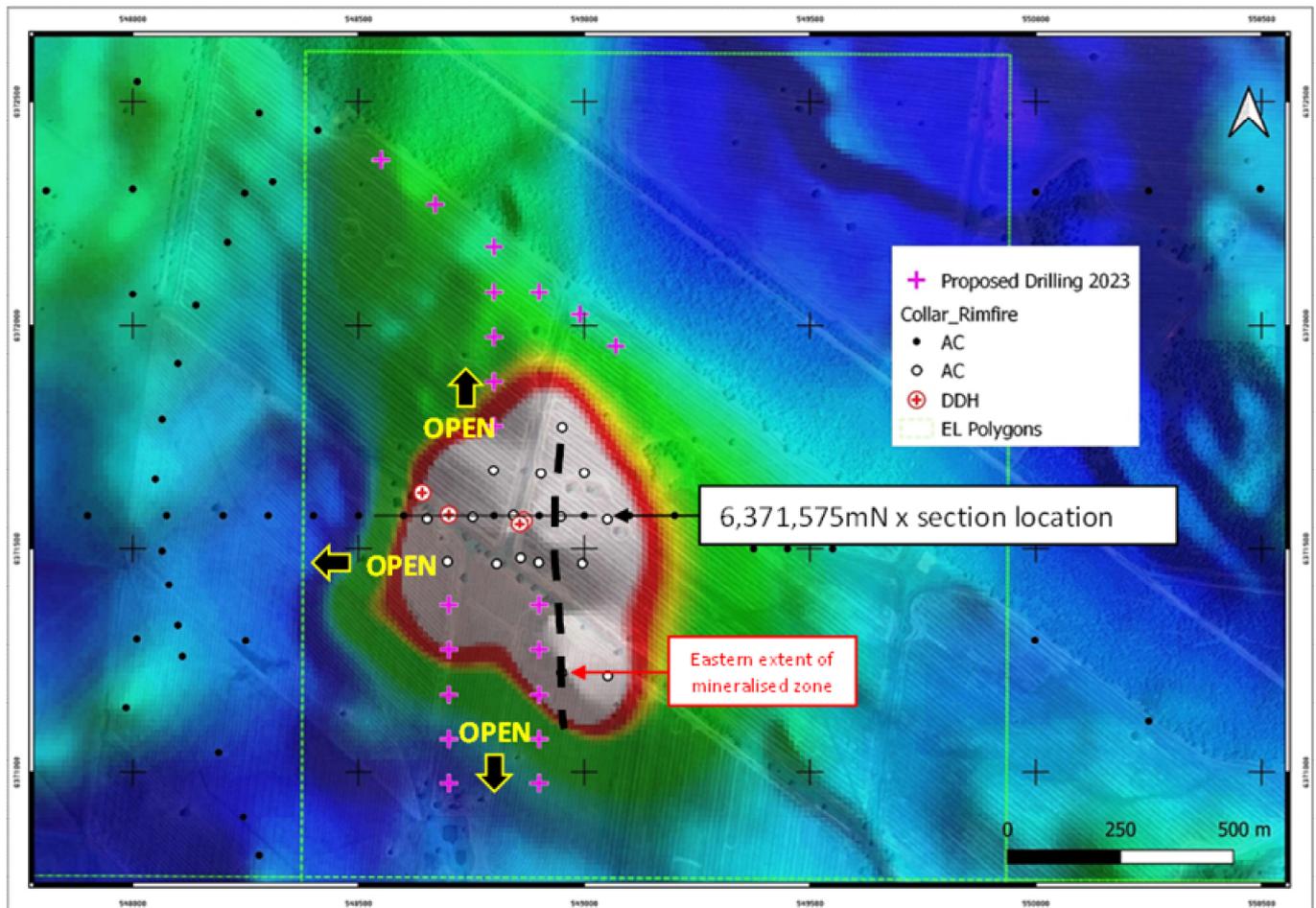


Figure 2: Melrose drill collar plan (TMI image) showing likely eastern extent of nickel – cobalt – scandium mineralised zone (as defined by a +100ppm Scandium contour) proposed aircore drill collars. Note - the mineralised zone remains open along strike and to the west.

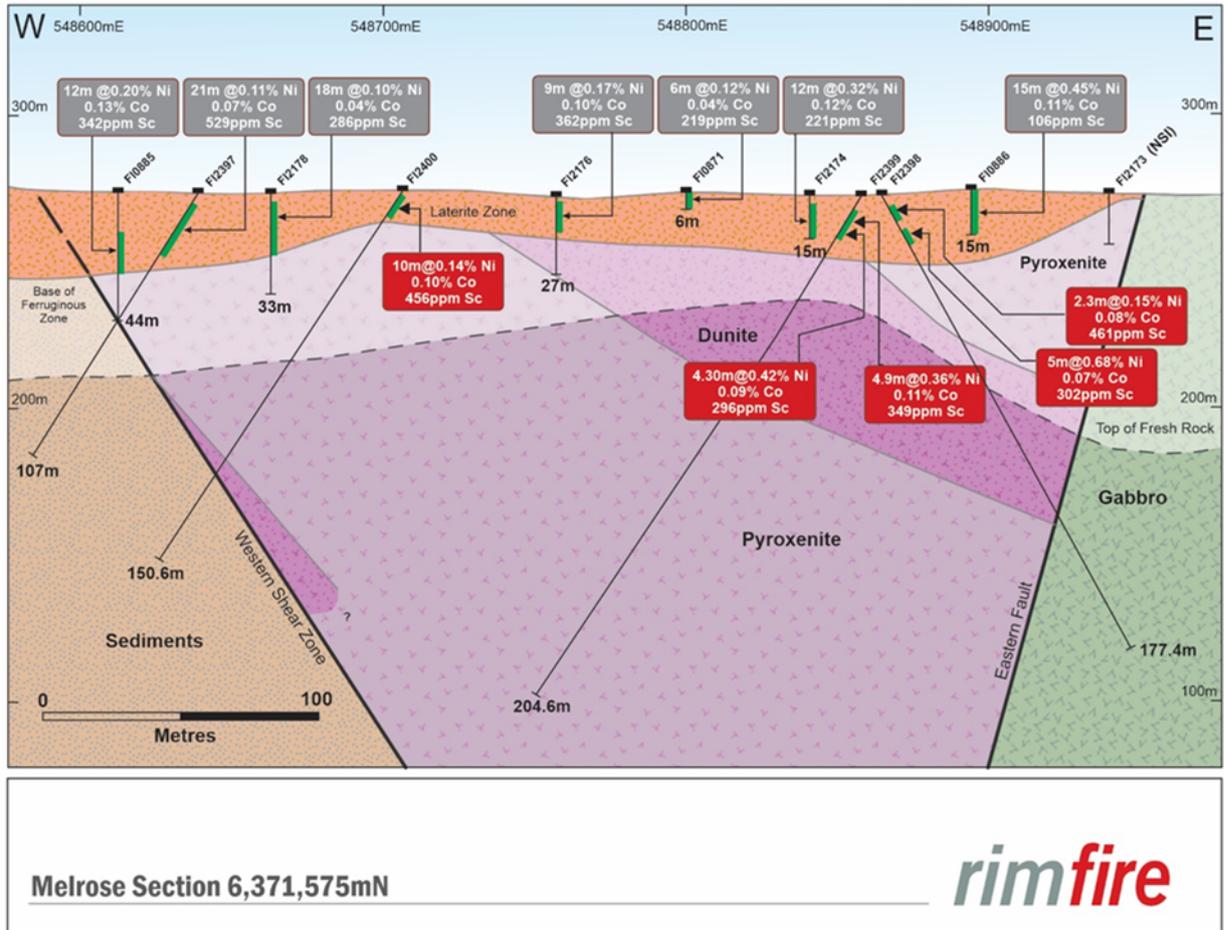


Figure 3: Melrose schematic cross section (6,371,575mN) showing drillhole traces, geology, and geological interpretation. Cross section location shown in Figure 2.

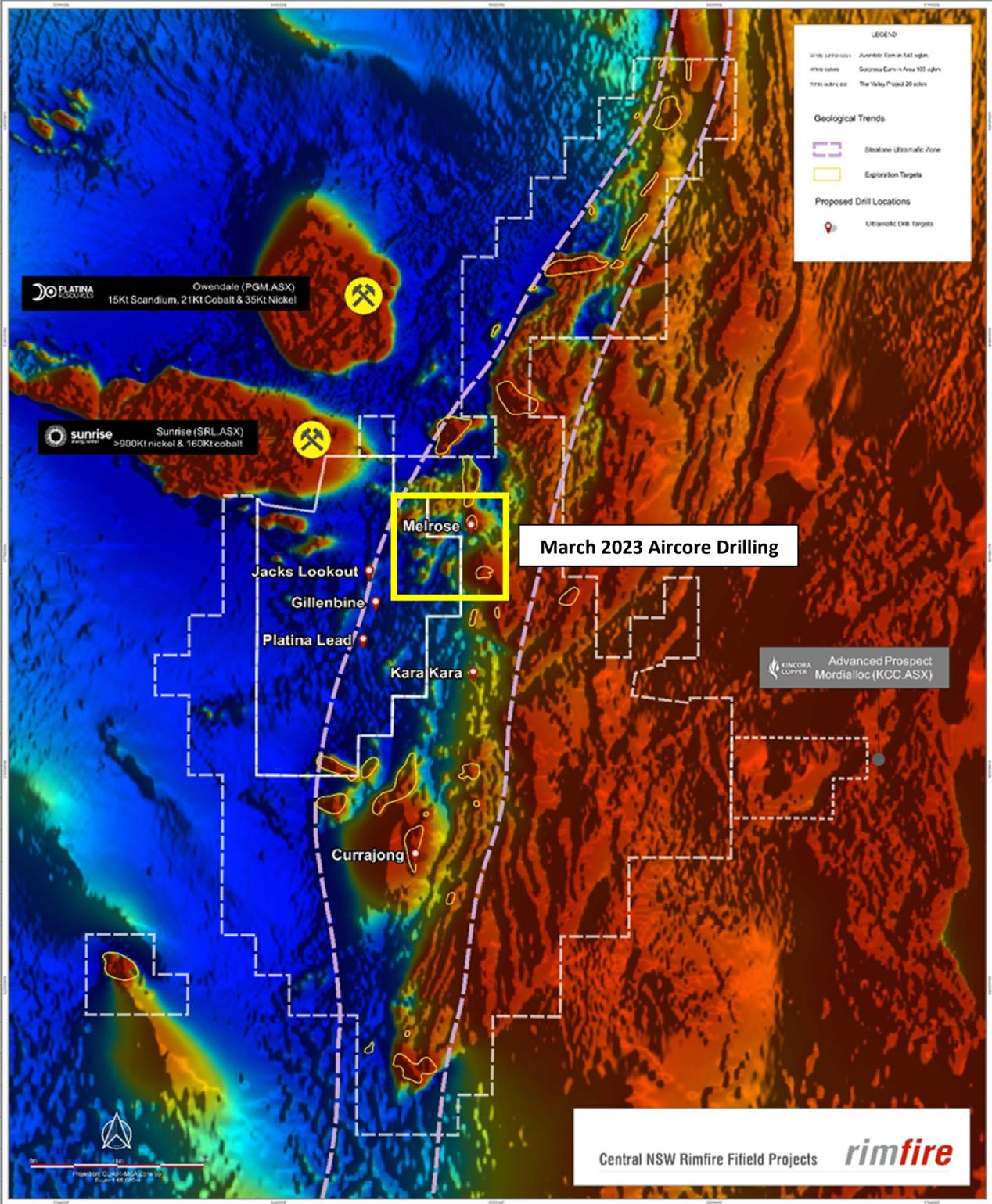


Figure 4: Rimfire’s Avondale and Fifield Projects on RTP TMI background image showing the Steeton Ultramafic Suture Zone (white dashed lines), and area of aircore targets.

This announcement is authorised for release to the market by the Managing Director and Chairman 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/
Alternate Director for Ian McCubbing
Ph: +61 497 805 918

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](#)

ENDS

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".