

29th October 2021

Quarterly Activities Report

For the Quarter ended 30 September 2021

HIGHLIGHTS

- Rimfire continue to explore for high value copper, gold and cobalt discoveries within the highly prospective Lachlan Fold Belt and Broken Hill districts of New South Wales.
- Rimfire's new 100%-owned Green View Cobalt Project at Broken Hill lies immediately along strike of Cobalt Blue's Railway Cobalt Deposit of 74Mt @ 704 ppm cobalt equivalent, for 43,700 tonnes of contained cobalt.
- Green View is an exciting opportunity to pursue a new cobalt project in an area of known geological potential. Cobalt is critical metal that will be required to support the world renewable energy transformation.
- Approvals received for upcoming aircore drilling programs at the 100% - owned Valley and Cowal projects targeting extensions to known copper and gold mineralisation.
- Rimfire's exploration partner - GPR continue to sole fund exploration work programs at Fifield and Avondale. Drilling at the Transit prospect (Fifield) during the June 2021 Quarter returned 86m @ 0.63g/t gold from Fi2080 including;
 - 9m @ 1.72g/t gold from 21 metres, and
 - 4m @ 1.48g/t gold from 98 metres
- Drilling programs to commence next Quarter as NSW cross border COVID travel restrictions ease.
- Appointment of Non-executive Director, David Hutton to the Board.

Introduction

Rimfire Pacific Mining (ASX:RIM) is an ASX - listed copper, gold, and cobalt - focused exploration company which is advancing a portfolio of projects in the highly prospective Lachlan Fold Belt and Broken Hill districts of New South Wales (Figure 1).

Two of the projects are subject to farm in agreements, with Rimfire's exploration partner GPR earning up to a 50.1% interest by spending \$4.5M at Fifield (which includes the Sorpresa Deposit) and up to a 75% interest by spending \$7.5M at Avondale.



Figure 1: Rimfire Project Locations

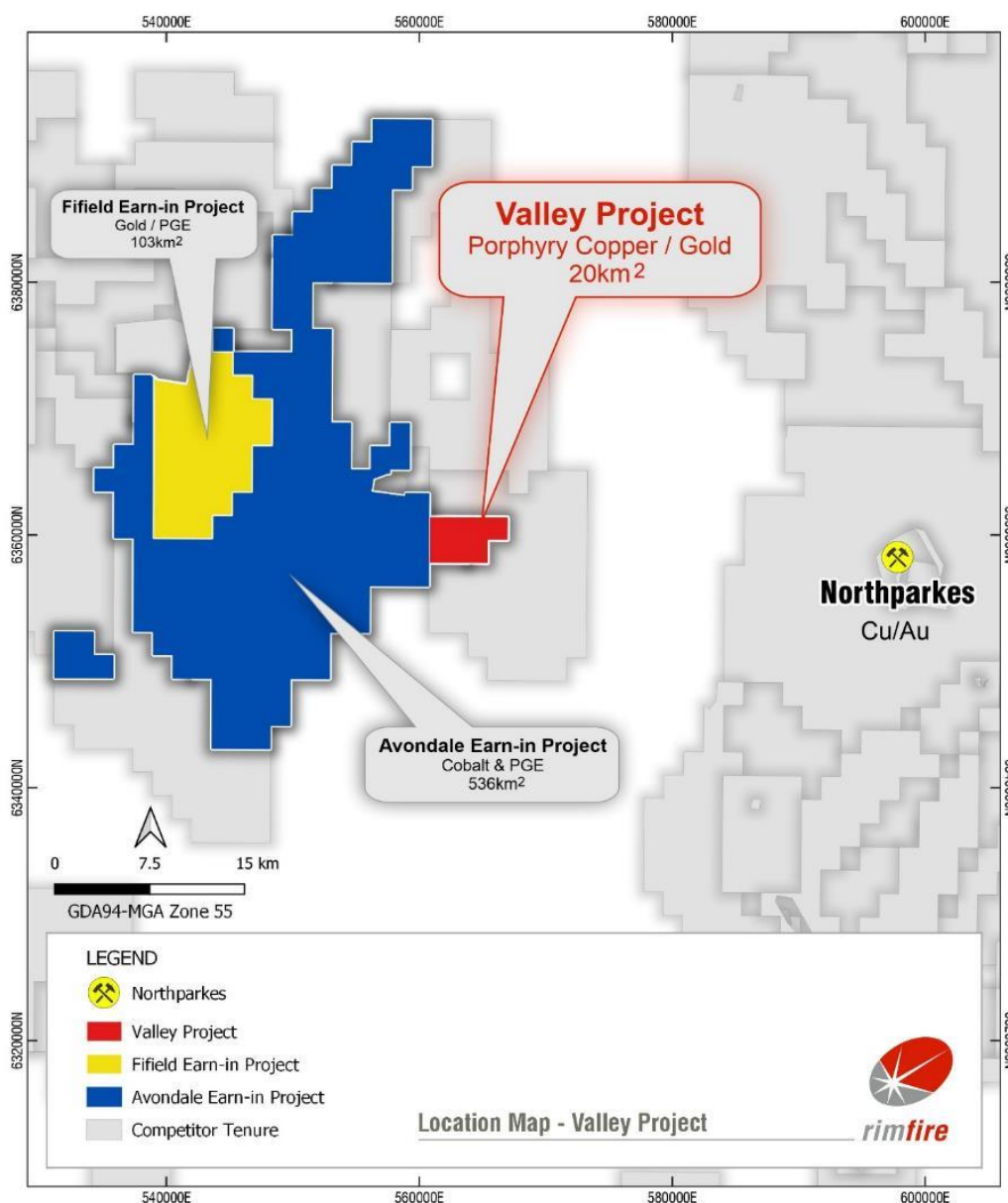
Operations

The Valley Project: RIM 100%

Rimfire continues to focus on the discovery of a large-scale copper - gold ore body in the highly prospective Lachlan Fold Belt at the Valley Project (Figure 2). The Lachlan Fold Belt Ordovician Volcanics regionally host the nearby Cowal gold (Evolution Mining), Northparkes copper / gold (China Molybdenum) and Cadia Valley Operations copper / gold (Newcrest) mines (Figure 3).

A deep diamond drill hole ([ASX Announcement: Valley Results Nearby Porphyry System 27 July 2021](#)) FI2079 of 463m total downhole depth tested a deeper magnetic target interpreted as Ordovician volcanics that are related to porphyry style mineralisation in the region which occurs beneath younger Devonian sediments. The magnetic target was intersected at ~350m vertical depth. This unit is a strongly epidote-chlorite altered volcanoclastic, polymictic conglomerate and is interpreted as representing the Raggatt volcanics (Ordovician).

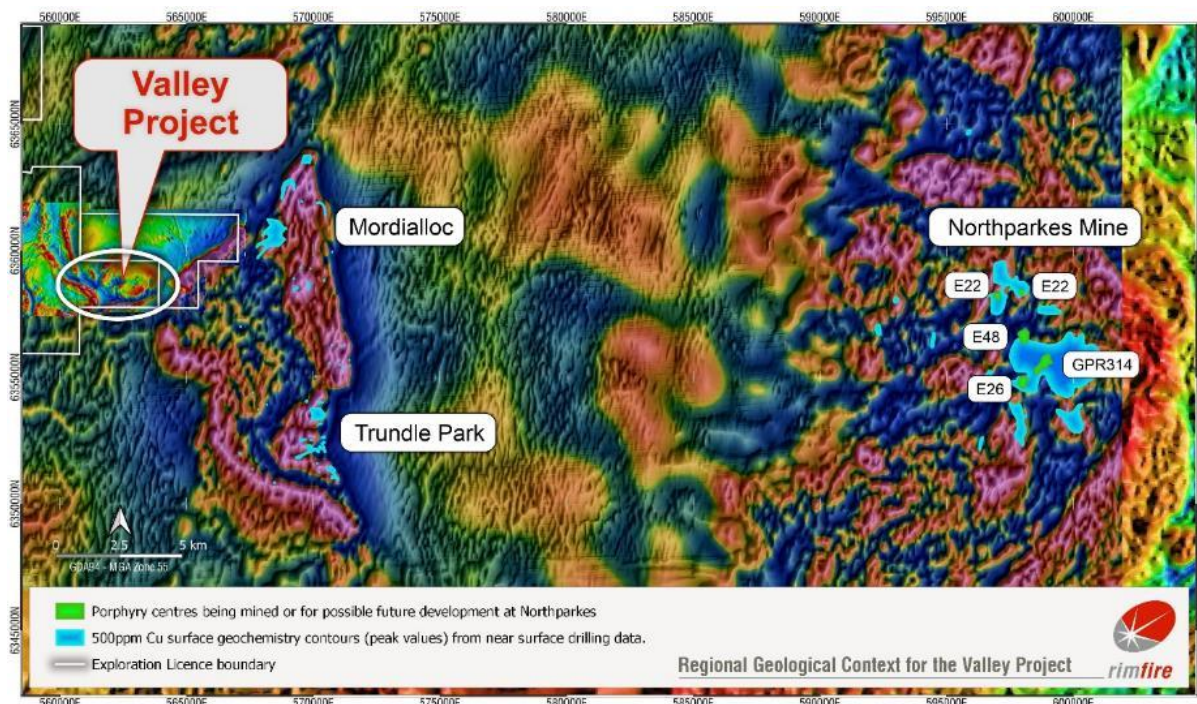
Figure 2: Location Plan of Valley Project



As the Valley Prospect had been largely unexplored beyond surface mapping and sampling by Rimfire or past explorers until last year, these results are very encouraging and bode well for the next phase of the program to vector into the source of a mineralised system.

Primary activity during the Quarter involved work program planning and obtaining approvals for an aircore drilling program that is planned to be undertaken in final Quarter of 2021 calendar year.

Figure 3: Regional Geological Context for The Valley project



NB: Geochemical footprints of Northparkes Cu-Au porphyry and local porphyry prospects Trundle Park and Mordialloc are compiled from multiple open file sources. *Background image is aeromagnetic.*

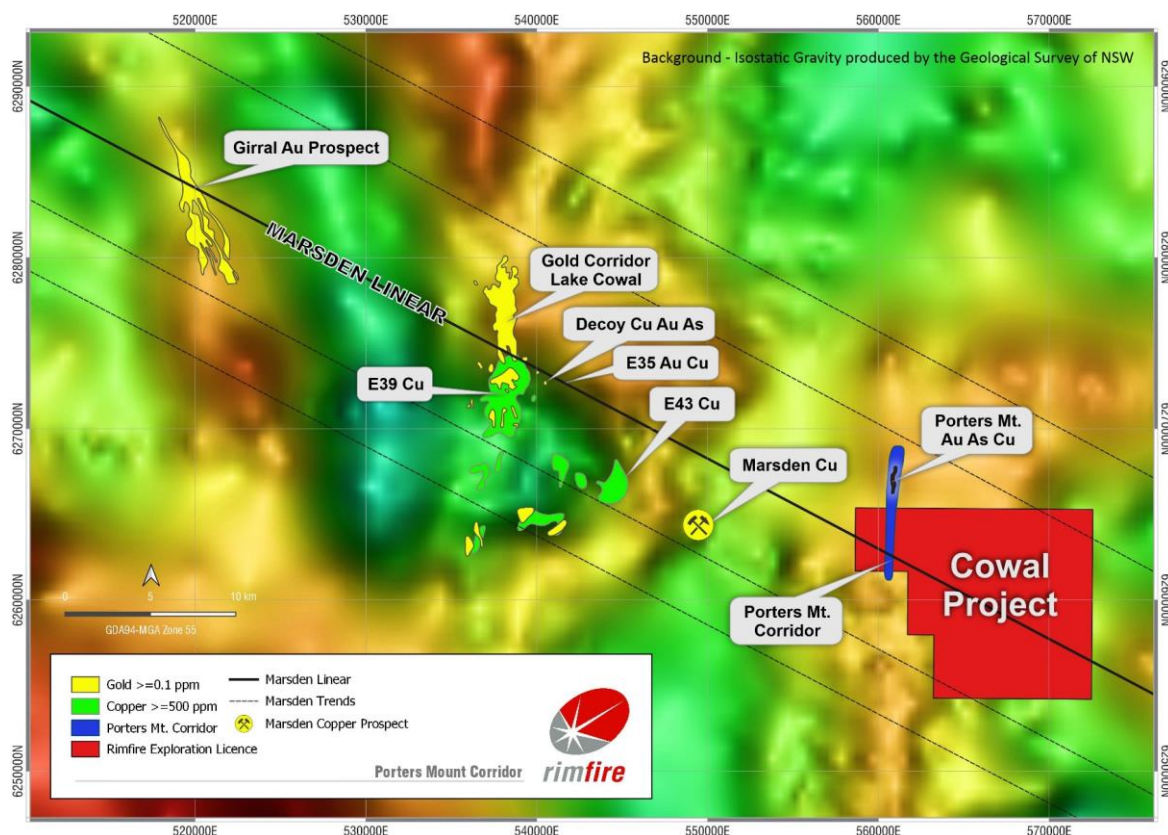
Cowal Project: RIM 100%

The Cowal Project consists of two Exploration Licences located ~25 to 50 kilometres east of the Evolution Cowal gold mine (Figure 4).

A key area of interest is directly south of Porters Mount which is a historical (late 1900's) discovery of a large scale zone of uneconomic copper mineralisation. Data analysis over past 12 months confirms the concept that the north – south structural trend on the Exploration Licence is crosscut by a major regional north-west – south-east Marsden Linear structural corridor that extends south of Porters Mount and could host mineralisation under cover.

Primary activity during the Quarter involved work program planning and obtaining approvals for an aircore drilling program that is planned to be undertaken in final Quarter of 2021 calendar year.

Figure 4: Location Plan of Cowal Project

**Green View Project: RIM 100%**

Rimfire reached agreement with Perilya for the return of 25 out of 27 blocks from the Windy Ridge Joint Venture over Rimfire's EL 5958 at Broken Hill ([ASX Announcement: Green View Cobalt Project Secured - 9 Sept 2021](#)). The returned blocks are referred to as the Green View Project (Figure 5).

The return of these blocks provides an exciting addition to Rimfire's portfolio as a multi commodity explorer with a focus on metals that will support the future green economy. Broken Hill is a globally recognised area for metal mining and production with mature power and transport infrastructure. The region is attracting interest as a potential source of renewable energy metals such as cobalt for batteries.

Green View is immediately adjacent to significant resources, including Cobalt Blue Holdings' (COB) Railway Deposit, which has an Indicated and Inferred resource of 74Mt @ 704 ppm cobalt equivalent, for 43,700 tonnes of contained cobalt ([COB ASX Announcement: Investor Presentation - June 2021](#)). Cobalt Blue Holding's Broken Hill Cobalt project has been described as "Australia's largest cobalt sulphide deposit – a top 10 global cobalt mine".

The geological units that contain the Railway Resource are believed to extend onto Rimfire's Green View blocks. The underlying magnetic signature suggests that the prospective stratigraphy extends into EL5958 before curving to the south-east (Figure 6). Outcrop extends at least 800m into EL5958 before dipping deeper and becoming covered by younger rocks although small areas of the prospective stratigraphy outcrop indicating the unit is likely to continue.

The Company is now completing planning the work program to be conducted at the Green View Project, located 25 kilometres west of Broken Hill.

Figure 5: Green View Project, Broken Hill, NSW

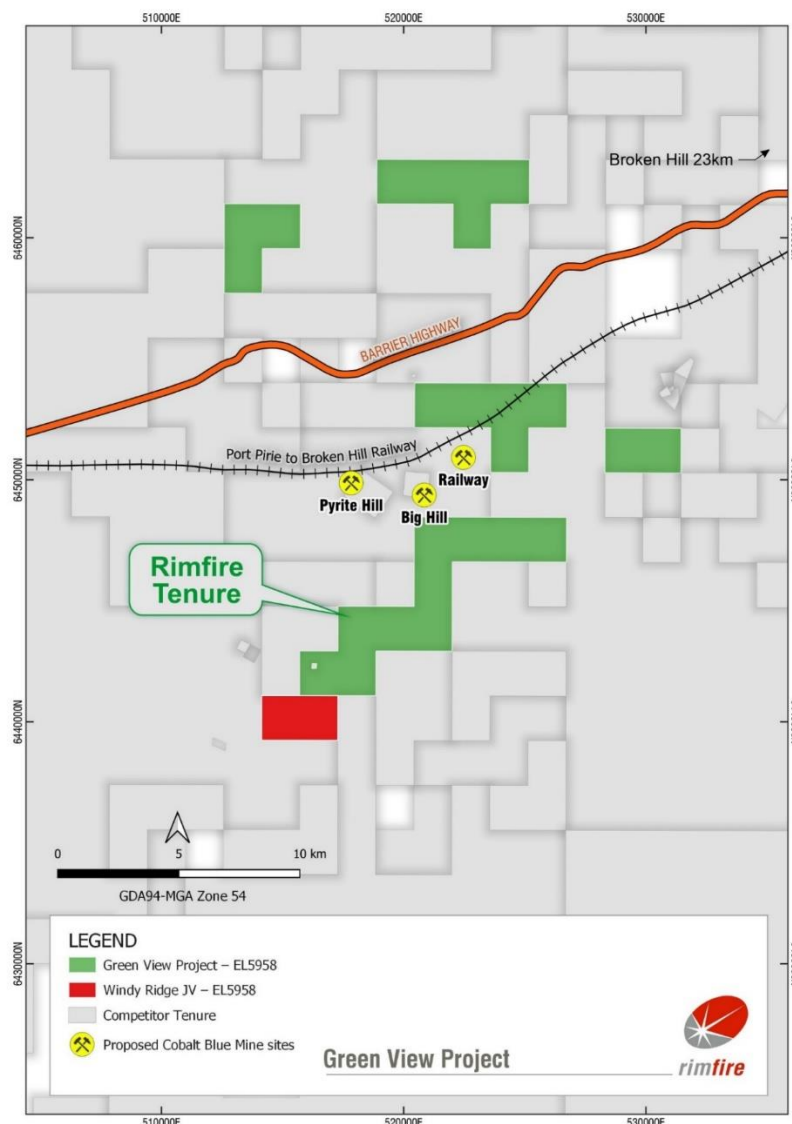
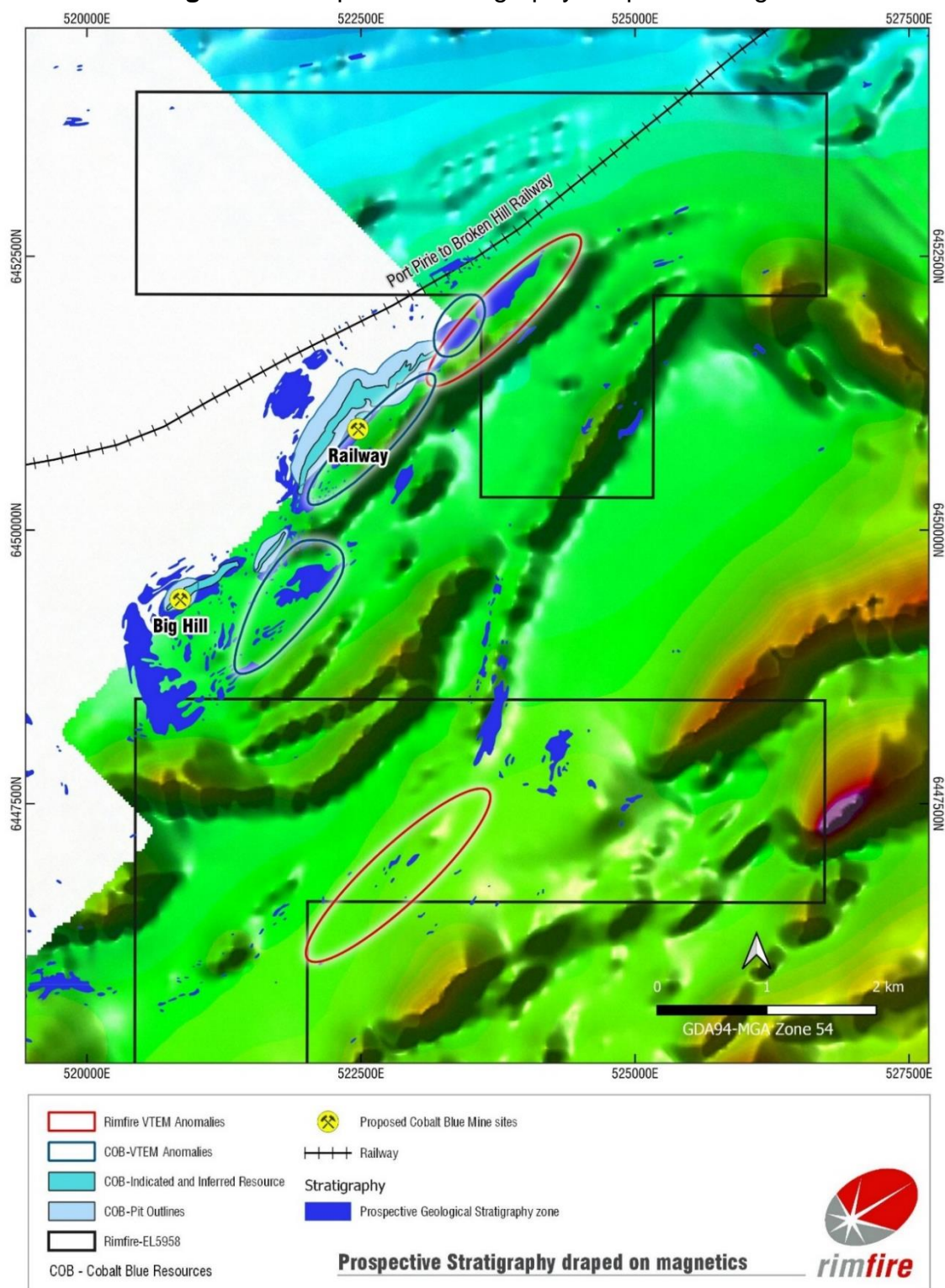


Figure 6: Prospective Stratigraphy Draped on Magnetics



Pit Outlines: COB ASX Announcement AGM Presentation 25 Nov 2019

Resource Outlines: COB ASX Announcement Thackaringa Feasibility Study 1 Nov 2018

Fifield Project: GPR Earning up to 50.1%

Sorpresa Development Update

Metallurgical samples for the Sorpresa Development Project are undergoing testing to assist in confirming gold and silver recoveries for various ore types and process plant design configurations. Once this data is available the company will be able to confirm proposed mine design layout and process plant configuration which will form part of the Environmental Impact Assessment (EIA) that is required to obtain the Development Consent from NSW Government Authorities for the Sorpresa Project.

Fifield Project Exploration

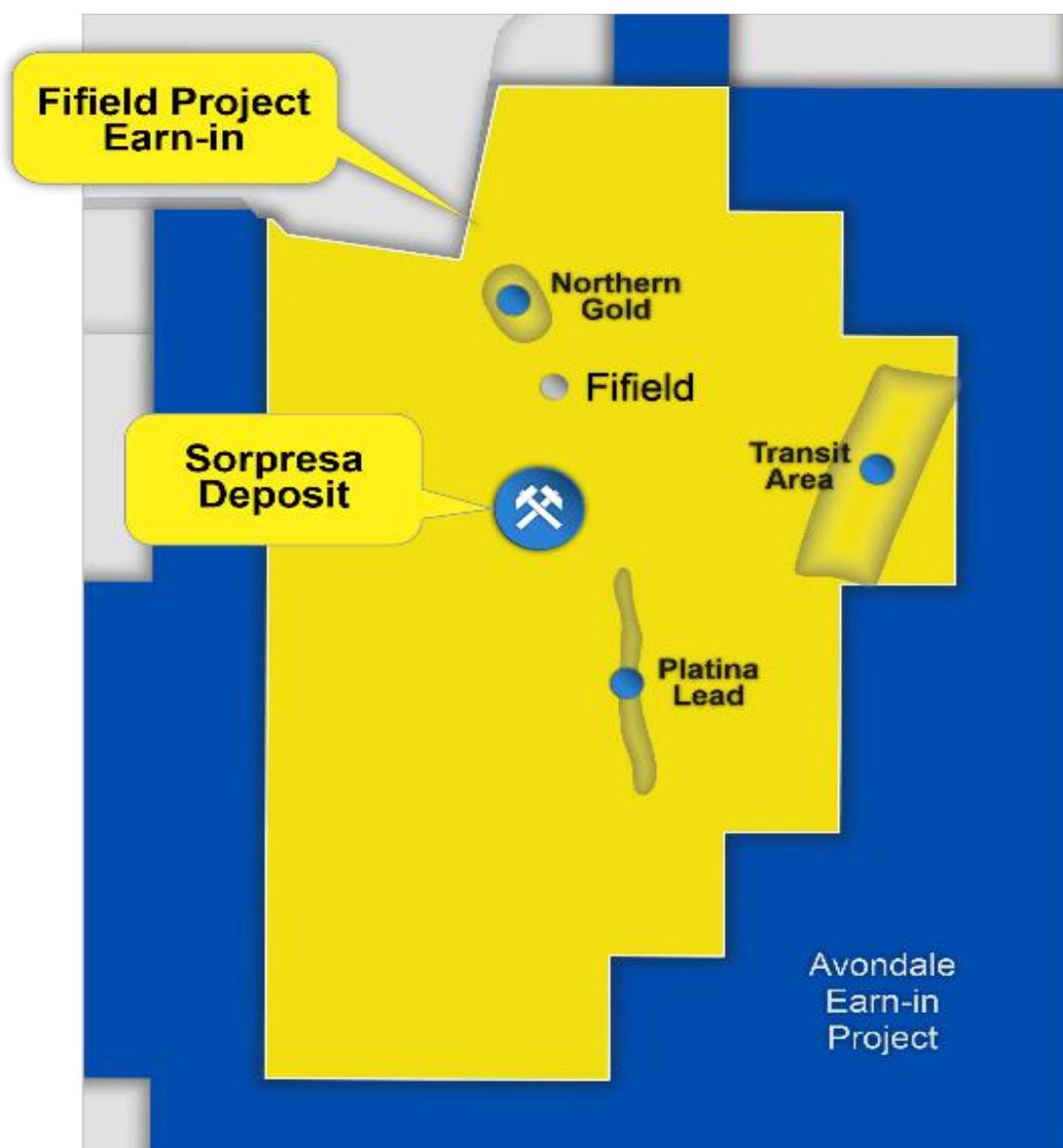
Transit

The focus of Company activities that are solely funded by the GPR Earn-in ([ASX Announcement: \\$4.5M Earn-in Agreement 4May2020](#)) during the last Quarter has been recommencement of the drilling program at Transit where there have been some significant results (Figure 7). The Transit prospect is part of the Fifield Project, within the GPR Earn-in Area and is located 4km to the east of Sorpresa where the most recent drillhole tested for deeper extensions of gold mineralisation to a downhole depth of 156.6m ([ASX Announcement: Fifield Project Intercept, 8 July 2021](#)). This hole (Fi2080) returned an intercept of 86m at average grade of 0.63g/t Au from 21m downhole depth including:

- 9m @ 1.72g/t Au from 21m
- 4m @ 1.48g/t Au from 98m

The next stage is to step out and test the proximal surface anomalies and the interpreted structural trend. NSW Government regulatory directives regarding management of the Delta COVID in conjunction with unseasonal significant rainfall in central NSW impacted ability to undertake further drilling at Transit during the Quarter. The significant increase in population that have completed full COVID vaccination and warmer summer weather is expected to allow drilling activities to resume in final Quarter of 2021 calendar year.

Figure 7: Transit Locality Map

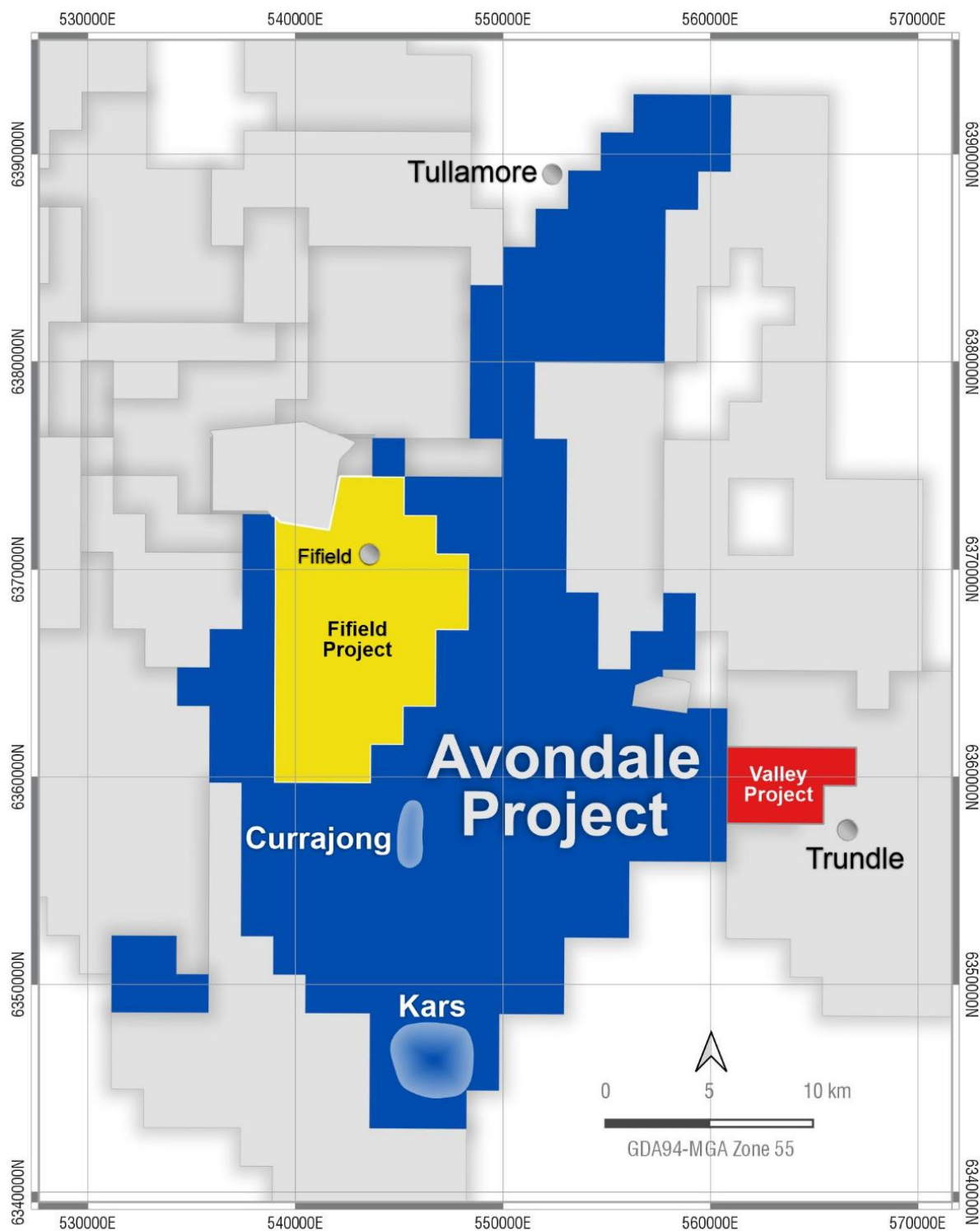


Avondale Project: GPR Earning up to 75%

In June 2021 the Company entered Earn-in and Joint Venture agreements with Golden Plains Resources Pty. Ltd. (GPR) covering its 100% owned Avondale Project in central NSW ([ASX Announcement: RIM Secures \\$7.5m Avondale Farm Out - 25 June 2021](#)). The project area for the Earn-in Agreement covers 536km² of highly prospective ground (Figure 8).

Rimfire are currently planning the program of activity to be undertaken at the Currajong (cobalt) and Kars (platinum group elements) targets within the Avondale Project area.

Figure 8: Location Plan of Avondale Project



Tenement Position

There has been ongoing routine submittal of various compliance reports including Annual Technical Reports to NSW Department of Planning, Industry and Environment – Resources and Geoscience to meet government compliance requirements for Rimfire's Exploration Licences.

The Company continues to maintain its tenements in the Fifield area covering an area of 915km².

The Company also had 25 units of the total 27 units that make up EL5958 returned back to its full control with the remaining 2 units still being held with Perilya as manager and operator.

Health, Safety, Environment and Community

Health and Safety

There were no Health or Safety related incidents during the last Quarter. The Total Year to Date performance for Minor Injuries, Medical Treatment Injuries and Lost Time Injuries remains zero.

The Company continues to monitor the required Covid-19 preventive measures when undertaking office or field activities. The company continues to monitor NSW Government COVID directives and modify site safety management plans as appropriate. Recent changes to Queensland and Victorian State Government COVID border movement control requirements for people travelling out of NSW is expected to significantly improve ability of personnel and contractors to support field operations in the next Quarter. The company appreciates the ongoing support of the local community, employees and contractors during this period of abnormal business conditions.

Environment

There has been further rainfall during the past Quarter that has kept all dams at the Fifield project site at capacity and fully saturated the surface soils. The ongoing rainfall has caused some delays to field program activities as access tracks to many sites including drill hole locations are too wet to support vehicle movements. The Company continues to collaborate with farmers to ensure drilling operations have minimal impact on farming activities and rehabilitation is completed to a high standard.

Community

There have been no significant community events during the past Quarter.

CORPORATE ACTIVITY

Board Composition

Subsequent to the end of the Quarter, David Hutton joined the Board of the Company as a Non-Executive Director, bringing 30 years of experience in resources as a mining executive, geologist and company director (ASX Announcement 15 October 2021: [Appointment and Retirement of Non-Executive Director](#)). Andrew Greville also advised the Company that he intends to retire at the conclusion of the Annual General Meeting to be held on Thursday, 18 November 2021.

Cash, Capital Structure, Funding, Facilities, and Investments

The Company's cash at bank at 30 September 2021 was \$1.2M. The balance of the Fifield Project and Avondale Project Earn-in account at 30 June 2021 was \$0.5M and \$0.25M respectively, which is not included in the Company's cash balance of \$1.2M.

There was no change in the Company's capital structure during the Quarter except for the lapse of 15m unlisted options. Related party transactions of \$95K (section 6.1 and 6.2 of the September 2021 Quarter Appendix 5B) are payments for salary (including statutory superannuation) to Craig Riley (MD and CEO) and Director fees for the September 2021 Quarter.

The continuing strength of commodity prices has generated increased focus on exploration companies that hold ground positions in highly prospective areas such as the Lachlan Fold Belt in central NSW, which is being now being reported by media commentators as a "hotspot". As previously advised to the market the Company will continue to evaluate opportunities that may support the growth and funding activity of the Company.

Commodity Pricing for the Quarter

During the September Quarter 2021 the gold price remained steady finishing the Quarter at USD 1,753 per ounce, with a 4% increase in AUD terms to AUD 2,436 due to exchange rate movement.

Commodity	USD		%age Change	AUD		%age Change
	30/06/2021	30/09/2021		30/06/2021	30/09/2021	
Gold (oz)	1,775.60	1,753.70	-1.23%	2,336.32	2,435.69	4.25%
Silver (oz)	26.20	22.08	-15.73%	34.47	30.66	-11.05%
Copper (t)	9,385	9,041	-3.67%	12,348.68	12,556.94	1.69%

*NB: Using exchange rate of AUD:USD 0.76 at 30 June 2021 and 0.72 at 30 Sept 2021
Gold and Silver USD Prices from www.kitco.com in New York; Copper USD Prices from LME.com.



Appendix A - Rimfire Exploration Licenses

Below is a listing of the exploration licenses held by Rimfire Pacific Mining NL as at 30 September 2021.

Project	Lic No.	Units	RIM Int.	Interest Aquired During Qtr (units)	Interest Reduced During Qtr (units)
The Valley	EL8542	5	100%	-	-
	EL8401	2	100%	-	-
Cowal	EL8804	42	100%	-	-
	EL8805	39	100%	-	-
Fifield**	EL8935	21	100%	-	-
	M(C)L305	1.9ha	100%	-	-
	EL6241	15	100%	-	-
Avondale***	EL5565	4	100%	-	-
	EL7058	35	100%	-	-
	EL7959	7	100%	-	-
	EL8401	98	100%	-	-
	EL8542	27	100%	-	-
	EL8543	1	100%	-	-
	EL8935	19	100%	-	-
Green View	EL5958	25	100%	25	-
Windy Ridge	EL 5958*	2	10%	-	25

*Perilya manage the Windy Ridge JV, RIM free carried for 10%

**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

***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

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

For further information please contact:

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ABOUT RIMFIRE

Rimfire Pacific Mining (ASX:RIM) is an ASX listed exploration company focused on projects in the Lachlan Fold Belt in central NSW and Broken Hill NSW. The company has a track record of successful exploration and asset monetisation through partnership agreements.

Rimfire currently has four key project areas under management in the Lachlan Fold Belt:

1. The Valley – Porphyry Copper / Gold, RIM 100%
 - ✓ Located 5km west of Kincora Copper/RareX Mordialloc porphyry copper-gold target.
 - ✓ Recently completed a drilling program to test near surface IP targets and interpreted Ordovician basement that hosts regional major discoveries such as Northparkes, Cadia and Cowal.
2. Cowal Project - Copper / Gold, RIM 100%.
 - ✓ Located to the east of Evolution's Lake Cowal Copper / Gold mine
 - ✓ Little exploration has occurred on these tenements and prospective for Copper / Gold
3. Fifield Project - Gold / PGE's
 - ✓ GPR earning up to 50.1%, RIM free carried for development.
 - ✓ Maiden JORC 2012 resource of 125Koz gold + 7.9Moz silver.
 - ✓ Recent drilling at the Transit Prospect returned 55m @ 0.94g/t gold with the final 1m intersection increasing to 9.98g/t gold.
4. Avondale Project – Cobalt, PGEs and Gold
 - ✓ GPR earning up to 75%
 - ✓ Avondale and KARS prospects located in the southern area of the project area and prospective for Cobalt and PGE's respectively.

Rimfire also has a key project located at Broken Hill:

1. Green View – Cobalt, RIM 100%
 - ✓ Located 15km from Broken Hill
 - ✓ Adjacent to significant Cobalt Blue Holdings Railway Cobalt Resource



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 Craig Riley who is deemed to be a Competent Person and is a Member of The Australasian Institute of Mining and Metallurgy.

Mr Riley has over 25 years' experience in the mineral and mining industry. Mr Riley is employed by Rimfire Pacific Mining (RIM) and is an employee of the Company. Craig Riley 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'. Craig Riley 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",

