
Quarterly Report

For the quarter ended March 2021

Highlights

- ✓ Hole Fi2072 (RC) at Transit produced a down hole intercept of 55m at an average grade of 0.94g/t Au from 6m to End of Hole depth of 61m. **Final 1m, 60m to 61m assayed 9.98g/t Au (open at depth).**
- ✓ A diamond drill hole (DDH) to twin the original RC hole and test extent of downdip (deeper) mineralisation is complete and sampling is in progress with assay results expected by end of May.
- ✓ Environmental Impact Assessment (EIA) for Sorpresa was started with drilling undertaken at Sorpresa to obtain geotechnical informaton for pit wall design and metallurgical samples to refine process plant design options.
- ✓ Next Stage of Drilling for Transit anticipated to commence in June 2021
- ✓ First Stage RC and Diamond Drill Program completed at The Valley

Rimfire Pacific Mining NL (ASX: RIM) (“the Company” or “Rimfire”) is pleased to provide the March 2021 Quarterly Activity Report for activities undertaken at their Lachlan Fold Belt projects around Fifield NSW.

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. Queensland State Government movement restrictions for people from the Greater Brisbane Area led to a delay in recommencement of operations in January. 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 in early 2021 that has kept all dams at the Fifield project site at capacity and fully saturated the surface soils. The ongoing rainfall has caused a short delays to the drilling activities as access tracks to drill hole locations were too wet to support heavy vehicle movements. There has been additional environmental rehabilitation costs due to high rainfall saturating soil profiles resulting in abnormal wear and tear damage to road surface on some farming properties. 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.

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Operations

Transit - GPR Earn-in Area

The focus of Company activities that are solely funded by the GPR Earn-in during the last quarter have been on the drilling program at Transit where there have been some significant results. Transit is 4km to the east of Sorpresa and the recent drilling program consisted of 3 RC holes totaling 231m with an average depth of 77m (Figures 1 and 2). These holes were designed to obtain a better understanding of the geological controls on previously intercepted mineralisation and test for further extensions of mineralisation ([ASX Announcement: Drilling Intersects Transit 19Sep2017](#)).

Hole Fi2072 at Transit using 2m composite samples had an intercept of 55m at average grade of 0.94g/t Au from 6m hole depth with two significant intercepts:

- 14m @ 1.76g/t Au from 6m, and
- 1m @ 9.98g/t Au from 60m.

The 40m interval from 20m to 60m between these 2 intercepts averaged 0.43g/t Au. The gold assaying was undertaken by ALS with standard internal QA/QC controls. The 123 assay samples (Table 1) assayed from Transit included 3 standards, 2 blanks and 1 duplicate with acceptable QA/QC results. There were no assays for other elements ([ASX Announcement: Initial Transit Assays 25Feb2021](#)). Rimfire on receipt of 2m composite results also submitted 1m interval samples for hole Fi2072 to reconfirm tenor of gold mineralisation.

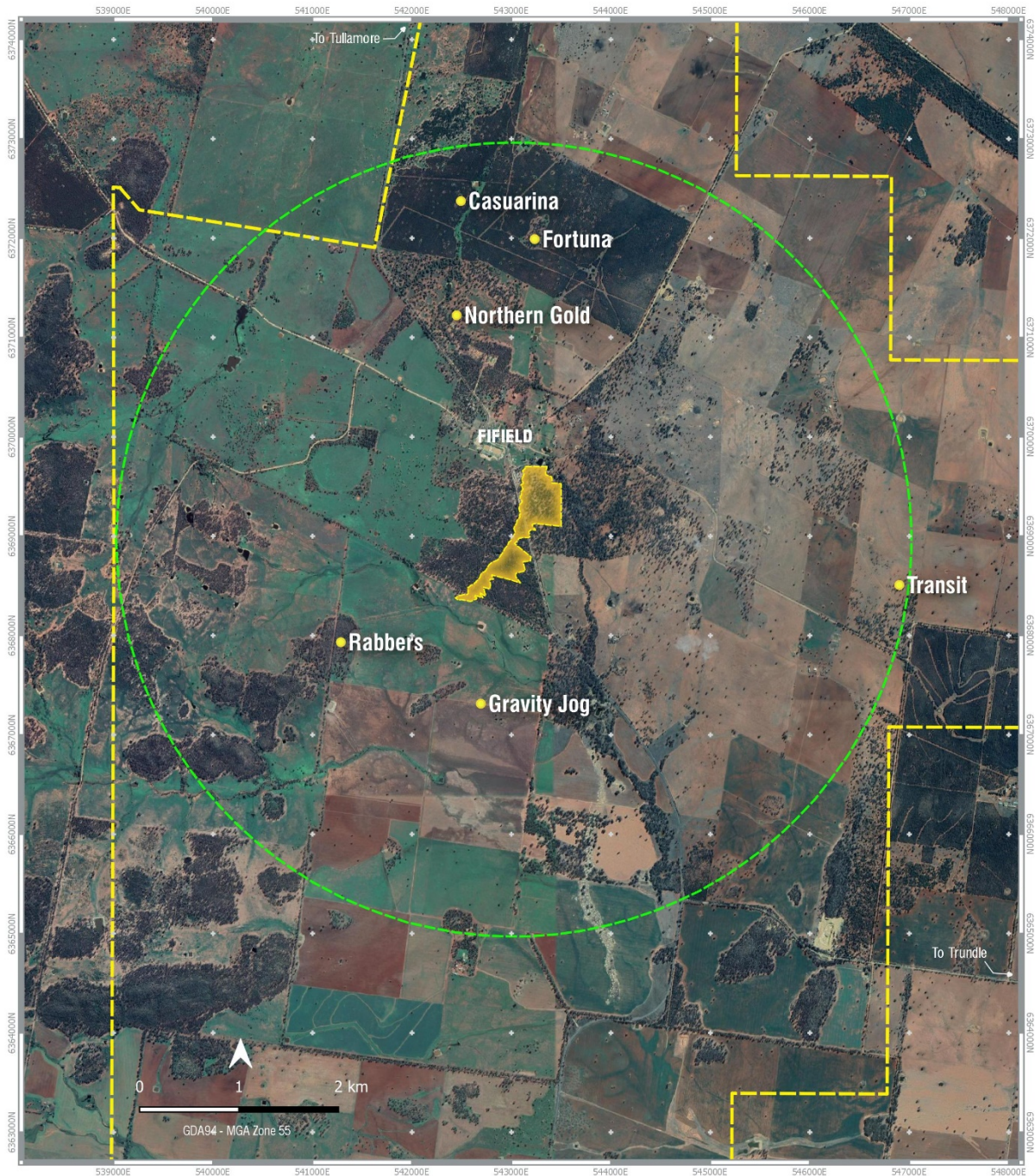
Table 1: Hole Fi2072 Initial Key Assay Intercepts versus Reassays





Sample Type	From (m)	To (m)	Length (m)	Au g/t	Comment
2m composite	6	61	55	0.94	last sample 1m
1m interval	6	42	36	0.85	
1m interval	43	61	18	1.06	
1m interval	6	61	54	0.92	Excludes 42m to 43m
2m composite	6	20	14	1.76	
1m interval	6	20	14	1.52	
1m interval	60	61	1	9.98	
1m interval	60	61	1	10.95	Repeat Assay


NB: Unable to assay 42m to 43m 1m interval as unable to provide a sample

Following the Reverse Circulation (RC) hole that returned 10g/t Au from 60m to End of Hole at 61m ([ASX Announcement: Assay of 10g/t Au at Transit RC drillhole 16March2021](#)) a diamond core drillhole was drilled adjacent to the original RC hole to test for mineralisation down to a depth of approximately 150m. The diamond core provides a significantly better sample for geological technical and assay analysis than small rock chip fragments obtained from RC drilling. This hole has been successfully completed and assay samples are being prepared with assay results expected to be available around late May.

Figure 1: Transit Locality Map

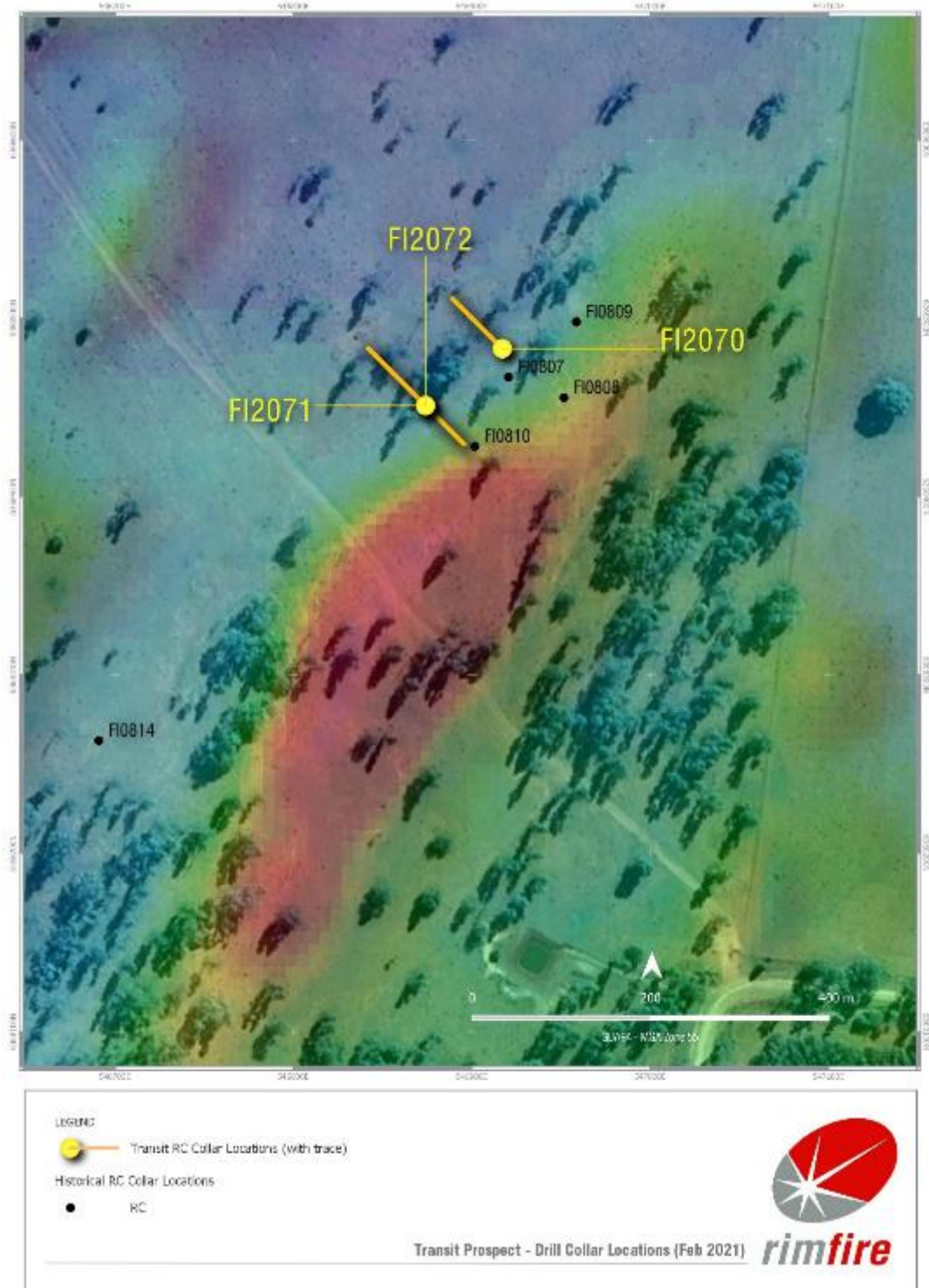


LEGEND		 4km Radius from Sorpresa zone
 Prospects	 Boundary of GPR Earn-in Area	
 Sorpresa Zone of 0.1 g/t Au Mineralisation Projected to surface (JORC Estimate 2019)		

Sorpresa Area Prospect Location Map 

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Figure 2: Transit Drilling Locations



NB: Drillhole locations draped on transparent Landsat image with magnetics underlay GDA 94 MGA Zone 55 (Map Grid 2020 plots same location on above Figure)

Hole ID	Mag_Azimuth (deg)	Dip (deg)	End of Hole (m)	GDA_East	GDA_North	RL
Fi2070	315	-60	79	546917	6368483	286
Fi2071	315	-60	91	546874	6368451	289
Fi2072	135	-60	61	546874	6368451	289

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The preliminary design of a 6 hole RC program covering a strike length of 300m (50m spacing) to test for mineralization along strike from the recent successful RC hole is in progress. It will be finalised when the assay results from the diamond drillhole twin are available and can be incorporated into the geological interpretation of mineralisation controls.

Subject to rig availability and completion of NSW Government regulatory approval process it is expected that this program will commence in June.

Northern Gold

The Northern Gold prospect is 2km north of Sorpresa and current aircore drilling is designed to further test the bedrock beneath a +400m long x 80m wide zone of historical mine pits (Figure 4) ([ASX Announcement: Fifield Exploration Update 5Nov2019](#)). The objective of the aircore drilling was to obtain bedrock samples to provide a better understanding of gold abundance below near surface rock oxidation and cementation. The program consisted of 21 holes totaling 559m at an average depth of 27m with composite samples collected over each 3m for the last 9m of the hole. The most significant assay result was from hole Fi2038 where the 6m from 15m intercepted low levels of anomalous gold (Table 2). The holes from the program have not resolved the source of gold in this area of historical mining. Additional analysis will be undertaken to define the next phase of work on this prospect.

Table 2: Northern Gold Hole Fi2038

From (m)	To (m)	Au (g/t)
15	18	0.351
18	21	0.195
21	23	0.035

Gravity Jog Prospect

The Gravity Jog prospect is located 500m to the south southeast of Sorpresa and is a magnetic high with gravity low features on the flanks which is predominantly covered by relatively shallow alluvium (Figure 5). Gravity low features occur adjacent to zones of Sorpresa mineralisation and the geology of the area is interpreted to be a southern extension of the same lithological units. A total of 19 aircore holes totaling 532m at an average depth of 28m were completed. There were no significant results and no further work is currently planned at this prospect.

Sorpresa Development Project

A total of 14 aircore holes totaling 399m at an average depth of 29m were drilled in areas peripheral to Sorpresa mineralisation where mine infrastructure may be located. The drilling, as expected, identified no significant geochemical anomalism so proposed infrastructure locations are unlikely to sterilise additional zones of gold mineralisation.

A diamond core drilling program was completed at the Sorpresa Development Project. Data from this drilling program will assist in the development of the geotechnical and metallurgical design parameters for the project. The core drilling will provide geotechnical engineering data that will allow the determination of the optimal pit wall slope design parameters for the mine plans. The metallurgical drilling will provide samples for further testing to refine ore processing options. The metallurgical samples will also provide various types of ore and waste samples for geochemical analysis which will form part of the Environmental Impact Assessment (EIA) that is required to obtain the Development Consent from the NSW Government Authorities for the Sorpresa project. The assay results from this work program are not yet available.

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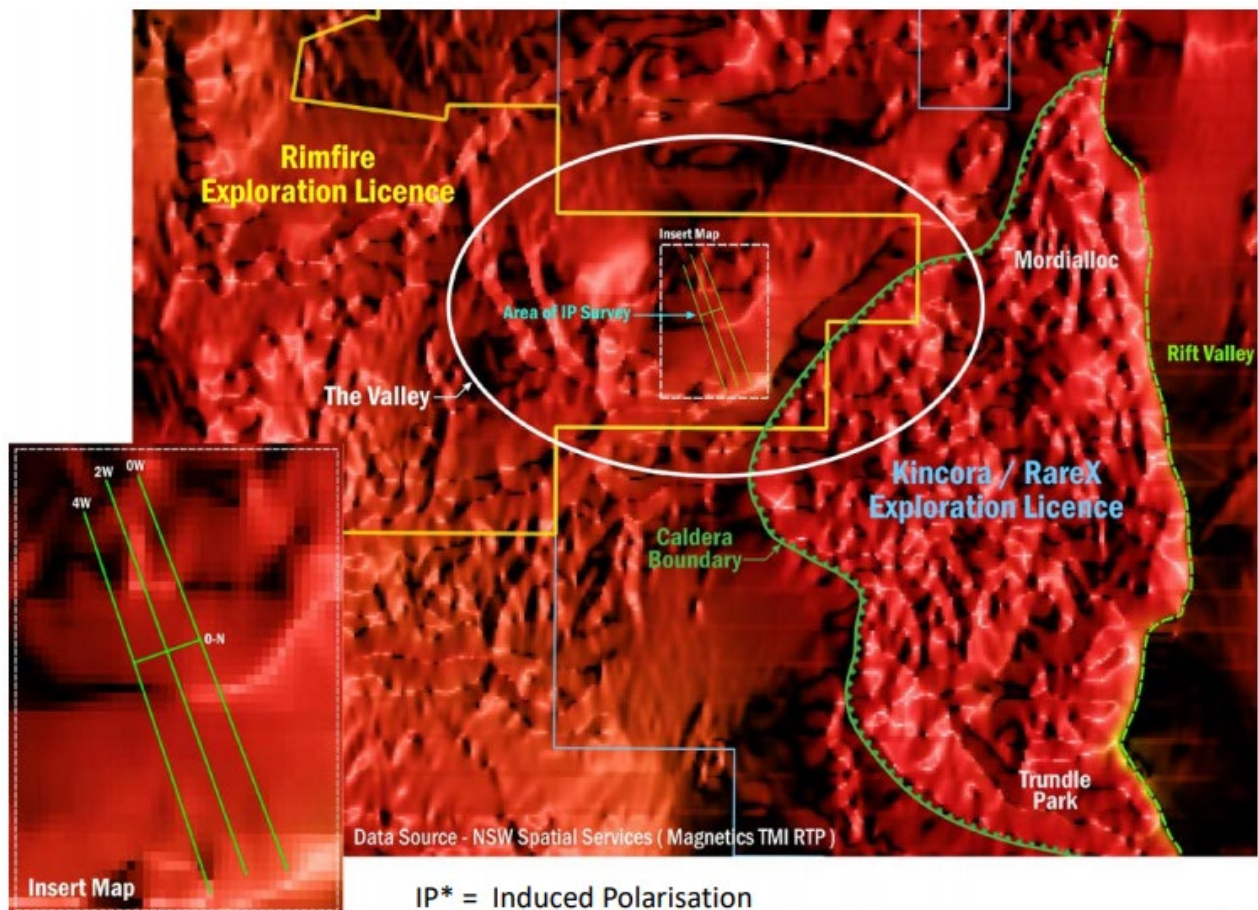
Lachlan Fold Belt Projects – Outside GPR Earn-in Area

Rimfire continues to focus on the discovery of a large scale ore body in the broader Fifield area that is prospective for porphyry style gold or copper / gold systems in interpreted Ordovician Volcanics as Ordovician age rocks also host the nearby Cowal gold (Evolution Mining), Northparkes copper / gold (China Molybdenum) and Cadia Valley Operations copper / gold (Newcrest) mines within circa 150km.

“The Valley” drilling program consists of a program to test Induced Polarisation (IP) features (zones of anomalous chargeability and resistivity responses in the bedrock substrate) and a deeper hole to confirm depth to interpreted Ordovician Volcanic basement rocks. The Valley target is approximately 5km west of the Kincora Copper / RareX Mordialloc porphyry copper / gold target (Figure 3).

During the Quarter cropping activities were completed by the landholder with drilling resuming from the program started last Quarter. The drillhole to test the interpreted Ordovician Volcanic basement rocks at 350m vertical depth and another drillhole testing the shallow IP anomaly were completed. The deep drillhole to test basement was an extension of a shallower hole testing an IP feature. The process of geological logging and sampling is in progress however results from these activities are not expected until June.

Figure 3: Location Plan of Valley Target



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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 and M(C)L305.

The Company continues to maintain its tenements in the Fifield area covering an area of 915km². The Company also maintained its tenement interest in an Exploration Licence in the Broken Hill area of 78km² with Perilya as operator.

CORPORATE ACTIVITY

Cash, Capital Structure, Funding, Facilities and Investments

The Company’s cash at bank at 31 March 2021 was \$1.73m. During the March Quarter the Company also received \$300k for payment of the third quarterly cash call for the Earn-in with GPR which is held in trust in the Earn-in account and drawn down as expenditure is made in the Earn-in Area. The balance of the Earn-in account at 31 March 2021 was \$0.3m, which is not included in the Company’s cash balance of \$1.73m.

There was no change in the Company’s capital structure during the Quarter.

Related party transactions of \$97k (section 6.1 and 6.2 of the March 2021 Quarter Appendix 5B) are payments for salary (including statutory superannuation) to Craig Riley (MD and CEO) and Director fees for the March 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”. The Company has a significant land tenure position in this region and as previously advised to the market we will continue to evaluate opportunities that may support the growth and funding activity of the Company.

Commodity Pricing for the Quarter

During the March Quarter 2021 the gold price slightly eased in value, finishing the quarter with a 9.7% decrease in value to USD 1,713/AUD 2,254 per ounce (using an exchange rate USD:AUD of 0.76), since the quarter ended Gold has regained value, appreciating back to USD 1,795 per ounce (22 April 2021). Silver also eased by 7% with Copper appreciating strongly in value during the March Quarter with an increase of 15%. Gold and Silver Prices from www.kitco.com in New York in USD and Copper and Cobalt Prices from LME.com in USD.

Table 3 – Commodity Pricing

Commodity	USD		%’age Change	AUD		%’age Change
	31/12/2020	31/03/2021		31/12/2020	31/03/2021	
Gold (oz)	1,898.00	1,713.30	-9.73%	2,464.94	2,254.34	-8.54%
Silver (oz)	26.37	24.31	-7.83%	34.25	31.98	-6.62%
Copper (t)	7,742	8,850	14.31%	10,054.55	11,644.74	15.82%

*Note: Using an exchange rate of AUD:USD 0.77 at 31 December 2021 and 0.76 at 31 March 2021

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Appendix A - Rimfire Exploration Licences

Below is a listing of the exploration licences held by Rimfire Pacific Mining NL as at 31 March 2021.

No.	Licence	Location	Interest	Interest Acquired / Farmed In During Quarter	Interest Reduced / Farmed Out During Quarter
1	EL7959	Fifield	100%	-	-
3	EL7058	Fifield	100%	-	-
4	M(c)L305**	Fifield	100%	-	-
6	EL8401	Fifield	100%	-	-
7	EL5565	Fifield	100%	-	-
8	EL8543	Fifield	100%	-	-
9	EL8542	Fifield	100%	-	-
10	EL6241**	Fifield	100%	-	-
11	EL8804	Greater Lake Cowal Area	100%	-	-
12	EL8805	Greater Lake Cowal Area	100%	-	-
13	EL8935**	Fifield	100%	-	-
14	EL5958*	Broken Hill	10%	-	-

*Perilya manages the tenement with Rimfire being free carried

** Subject to earn-in entered into during the June 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.

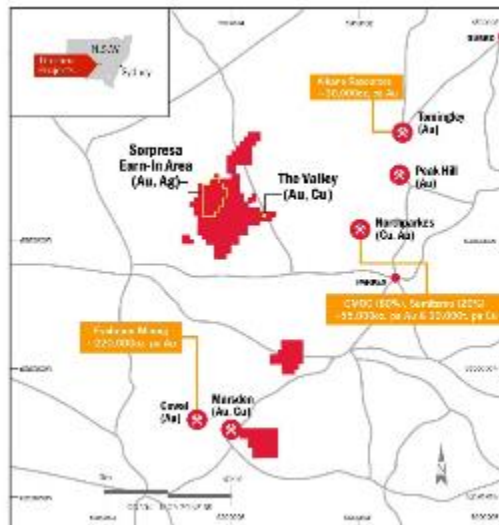
For further information please contact:

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ABOUT RIMFIRE

Rimfire Pacific Mining (RIM) is an ASX listed resources exploration company with its major focus at Fifield in central NSW, located within the Lachlan Transverse Zone (LTZ). In 2011 the Company made a greenfields discovery, named “Sorpresa”, announcing a JORC Inferred and Indicated maiden resource in 2014. The information provided in “About Rimfire” is available to view on the company’s website: [ASX Announcements](#). In May 2020, Rimfire signed an Earn-in Agreement with Golden Plains Resources (GPR) covering an area of 103km² covering Sorpresa and surrounding area.



Rimfire is exploring for a major copper / gold or gold mineralised system such as at Northparkes (Cu/Au) or Cavel (Au) on 915km² of Exploration Licences 100km west of Parkes in central NSW. It includes multiple prospects with potential for further gold discoveries in the 103km² area within the GPR Earn-in area around Sorpresa with all work in this area funded by GPR. Rimfire retains responsibility for funding exploration programs over the rest of its Exploration Licences that also includes two licences covering 234km² located about 50kms south of the Fifield Project in a prospective area that is now part of the MinEx Cooperative Research Centre program (minexcrc.com.au).

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”, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

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