

27 April 2018

ASX Release

Rimfire Pacific Mining NL
ABN 59 006 911 744

Corporate Details:
ASX Code: RIM

Issued capital:
943,477,555 Ordinary Shares
2,300,000 Unlisted Options

Cash Status (31-03-2018):
\$1.482m

Mineral Focus:
Gold, Silver, Copper, Platinum
Cobalt

Established Resource:
Sorpresa
125k oz Au, 7.9m oz Ag
(inferred and indicated)

Directors:
Non-Executive Chairman:
Ian McCubbing
Managing Director & CEO:
John Kaminsky
Non-Executive Directors:
Ramona Enconniere
Andrew Greville

Company Secretary:
Melanie Leydin

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Aircore Steeton Area

Quarterly Report – March 2018

Gold and Copper Signature Shows Significant Expansion Cobalt potential also pursued with additional drilling

Rimfire Pacific Mining NL (ASX: RIM) (“the Company” or “Rimfire”) is pleased to provide the March Quarterly Report for activities undertaken at Fifield NSW.

Key highlights, activities and milestones

- **New Gold and Copper target areas were identified in assays from aircore drilling**
 - **Steeton Prospect** has a large ~ 4km x 1km NE trend of anomalous gold and copper
 - An anomalous gold zone is seen to extend for ~3km NNE beyond **Transit prospect**
 - The major focus for the drill program was gold and copper mineralisation including the examination of potential for North Parkes style gold-copper porphyry
- **Cobalt and Nickel mineralisation potential seen at Avondale prospect**
 - Historic results include 5m @ 0.12% Co from 12m and 11m @ 1.46% Ni from 13m
 - 11 Aircore holes were drilled for approximately 400~500m, results are pending
 - Historic drill pulps were resubmitted for Cobalt & Nickel assays, results are pending
- **Drilling completed at Tout East and Northern View Cobalt results reported**
 - Northern View Area best results from 7 RC holes, were holes Fi0820: 10m @ 332 ppm Cobalt from 14m, and anomalous gold in hole Fi0821
 - Aircore holes completed at Tout East (including Area 2) with assay results pending
- **New soil and auger geochemistry programs were deployed at West Steeton**
 - Looking to extend the gold trends seen in the vicinity with promising geological context
- **Geological mapping and sampling in southern tenement area was completed**
 - ~140km² area was mapped, the overall program aims to assess the area for Cowal NSW style gold potential. ~ 250 samples were taken.

CEO John Kaminsky commented on the positive progress during the March Quarter:



“The work programs have continued to provide encouragement for furthering the potential of the next series of discoveries at Fifield.

“The Steeton and Transit prospects benefited from the completed geochemistry program (Aircore Phase 2, 343 holes) and continue to show promise for gold & copper.

“The previous intersections (Sept-2017) at Transit gold prospect, justifies additional reconnaissance drilling here. Similarly, the growth in the Steeton gold-copper anomaly with important contextual geology makes this a compelling area for additional work as a priority. Accordingly, planning for follow up RC and Aircore programs at Steeton and Transit areas is underway.

“The sampling programs to the South across such a large area (~140km²), and auger extensions at West Steeton further enhance the targeting process for subsequent rounds of drilling in 2018.

“With respect to Cobalt potential, we were also encouraged by the results at Northern View, and the historic archive assembled now at Avondale. We look forward to finalising aircore drilling results at Avondale and Tout East, which will be reported shortly.”

Rimfire Corporate Summary

- The cash position at 31st March was \$1.482m
- Rimfire has retained 100% of the Fifield project area after New Gold Inc withdrew from the earn-in agreement
 - Expenditure was in excess of \$2.5m by New Gold Inc. during Year 1 of the their earn-in
- A Research Report on the Company was produced by Analyst Mark Gordon of Independent Investor Research
 - Available on the Company website www.rimfire.com.au



CEO and Managing Director, John Kaminsky reflected on the Company corporate position:



“Whilst it was disappointing to see the total withdrawal from Australia, by New Gold Inc., including the earn-in on the Fifield project with the Company, the earn-in represented a good outcome for Rimfire at the corporate and project level, with more than \$2.5m spent by New Gold Inc in the 12 month period, and the Company retaining 100% of the project.

“New Gold Inc. has stated their high regard for the Fifield project area and their withdrawal decision was based on broader strategic reasons alone, refocusing on their North American operations. It was previously noted that New Gold Inc. sold The Peak Mines (Cobar NSW), in November 2017, and they now have no Australian presence.

“The legacy of the New Gold Inc. earn-in is a strong technical foundation for the Fifield project, which the Company will be seeking to grow during 2018, towards additional discoveries.”

PROJECT ACTIVITY DETAIL (also refer Figures 1 to 5)

Total Drilling and Sampling work for the March Quarter

The Fifield project undertook a range of drilling and sampling programs in the period. In addition, large scale geologic mapping occurred, particularly focused to the Southern tenement areas around the Avondale prospect.

<i>Drilling Summary</i>			
Drilling Type	Holes	Metres	Prospect Areas
Auger	114	285	Area2, West Steeton
Aircore	72	1932	Tout East (Area2) & Avondale
Reverse Circulation	1	35	Avondale
Totals	187	2252	
<i>Other Field programs</i>			
Program Type	Number	Prospect Areas	
Soil samples	252	West Steeton	
Rock Samples	255	Southern Area (plus Westella)	
Geological mapping	170 km ²	Southern Area (plus Westella)	

Regional Aircore programs focused on gold and copper mineralisation were completed (refer Figure 2)

The regional aircore drill programs increased the regional geology and geochemistry knowledge, looking for gold and copper targeting with potential to lead to subsequent discovery outcomes, which includes the potential for North Parkes deposit style gold-copper porphyry systems.

The broad scale systematic geochemical sampling programs (Aircore Phase 1 &2) have produced some very encouraging results and provides further confirmation of the highly prospective nature of the Fifield project area.

The Steeton area gold prospectivity has been extended to the north east, and now provides additional targeting opportunities. The coincident gold and copper anomaly is in close association with favourable geology and anomalous multi-element geochemistry has emerged on a large scale.

Details of Aircore Drilling Phase 2 Program (Figure 2)

A second phase of Aircore (AC) drilling was completed at the end of 2017, with the primary objective being to better define mineralisation potential and improve geological understanding in selected areas of the Fifield project area, building on the positive earlier Aircore drilling (Phase 1 program ([ASX 3rd July 2017](#))).

In Phase 2 Aircore, 343 holes were drilled over an area of ~150km² on a nominal 250m x 250m grid, with infill on closer spacing at certain locations.

The drilling produced encouraging outcomes in the following prospective areas:

- Fortuna-Quartzite Hill
- Moonrise to Glen Iris (around Transit)
- Eastern Ordovician (Steeton – Pluto)
- Central Ordovician (South of Steeton)



Aircore drilling results discussion:

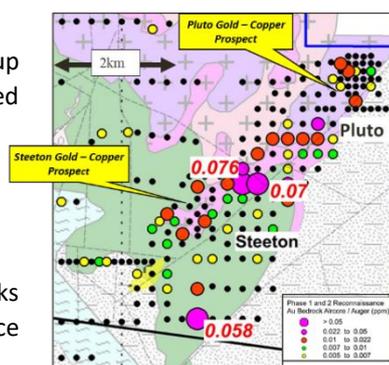
Fortuna-Quartzite Hill drilling delineated andesitic rocks in the NE part of the drill area and Sorpresa style sediments in other areas. The Gold anomalism generally supported the earlier lag sampling work, which focused on mineralisation potential around Quartzite Hill. (Limited reconnaissance RC drilling (2016) in this area previously delineated Sorpresa style sediments with best gold assay ~0.2 ppm). The gold anomaly is approx. 1km² in diameter.

Moonrise to Glen Iris (Northern View) drilling was infill along a N-S corridor containing positive results in earlier Aircore drilling (Phase 1) and in RC drilling, also completed. [The corridor contains the important new Transit mineralisation confirmed in the RC drilling program \(ASX September 2017\)](#). The Aircore gold in bedrock results now support an anomalous zone extending **NNE of Transit for ~3km**.

The area around **Moonrise** and extending north to **Twilight Dam** returned consistently elevated gold in soil, as well as more discretely defined gold in bedrock. The elevated gold in bedrock extends ~2 km along a previously interpreted northeast striking fault. This is a zone that is parallel to the Yoes gold mineralisation defined earlier in auger samples.

The **Eastern Ordovician** area is located across the Steeton prospect area, and extends NE over a prominent magnetic zone and encountered the Ordovician rocks that were believed to exist under cover.

The Steeton prospect has now extended significantly to the northeast. Soil gold shows a group of highly elevated samples at Pluto, where felsic to mafic volcanics along with altered porphyry was logged. In addition, a diffuse area of moderately elevated gold at Steeton, where a mix of sediments, mafic volcanics and granitic intrusives were also logged. *The bedrock sample data confirms gold mineralisation at the greater Steeton prospect area approx. 4km x 1km in size.*



The **Central Ordovician** area was identified as also holding potential for Ordovician aged rocks to exist under cover, with no previous work in this area. A program of field reconnaissance was first implemented with four holes (out of a designed 40 holes) completed.

Logging indicated that ‘basement’ likely Ordovician aged rocks had been intersected. *The bedrock assays show one highly anomalous gold result (56 ppb), along with anomalous copper with a neighboring (~700m west) hole returning low level anomalism for copper, manganese, and zinc.*

(Ordovician geology is seen as capable of hosting similar mineralisation styles to that of the neighbouring North Parkes copper-gold deposit, located 70km to the east of the Fifield area and the Cowal style gold mineralization, located 100km to the south).

Areas of Focus for Dedicated Cobalt Exploration – Drilling Locations and Status

The Company committed resources to further explore cobalt occurrences observed within its tenements at Fifield NSW (Figures 1, 4-5). The cobalt prospect areas at Fifield, are located to the East, North and South of the Sorpresa gold and silver resource. Reconnaissance drilling programs covered parts of the **Tout East and Northern View and Avondale prospects**.

Avondale Cobalt-Nickel-Platinum Prospect

Historic assay results (2004) were assembled from previous drilling archives, including unpublished assays with cobalt mineralisation, from the Avondale platinum prospect 13km south of Fifield.

This limited re-assaying done in 2004 of selected platinum bearing intervals from Rimfire drill programs conducted during 2002 and 2003, **confirms cobalt mineralisation (with nickel) at Avondale.**

In addition to these positive cobalt results from Rimfire, historic multi-element (ME) assays conducted by Black Range Minerals Ltd at Avondale demonstrated significant Nickel results.

Historical Avondale Cobalt and Nickel assay intersections (using 300ppm cut-off)

The Avondale mineralisation sits within the weathered profile of a fractionated intrusive complex which is the setting of the Sunrise cobalt deposit (CleanTeq ASX "CLQ") and associated Flemington deposit (Australian Mines ASX "AUZ") each of which are located within the Fifield district. (Figure 1)

Summary of Avondale Historic (2000~2004) Drilling Results

Hole ID	Main Cobalt Intersection(s)	Including Cobalt Interval
AC03-A025	5m @ 0.12% Co & 0.26% Ni from 12 m & 9m @ 0.09% Co & % 0.36% Ni from 18m	
AC03-A023	5 m @ 0.1% Co & 0.24% Ni from 8m	incl. 1m @ 0.18% Co & 0.18% Ni
AC03-A049	24m @ 0.07% Co & 0.15% Ni from 6m	incl. 4 m @ 0.1% Co & 0.06% Ni
AC03-A08	27m @ 0.057% Co & 0.26% Ni from 32m	
RC02-A03	10m @ 0.07% Co & 0.22% Ni from 24m	incl. 2m @0.13 % Co & 0.28 % Ni
ARC007	11m @ 1.46% Ni & 0.03% Co	



The Company was able to examine previously unpublished cobalt assays at Avondale. Some of the original archived drill cuttings and laboratory pulps were also located, not previously assayed for cobalt. These have now been submitted to the laboratory, assay results are pending.

New Drilling Program at Avondale Cobalt Prospect Completed

The Company looked to confirm and extend historic indications of significant lateritic Cobalt and Nickel mineralisation at the Avondale Prospect ([Hyperlink RIM:ASX announcement 5 March 2018](#)), by implementing a new drill program of 11 holes, which was completed in the quarter (results pending).

Drill holes were designed to both confirm indications of mineralisation in historic holes and to test the interpreted southern extension of the ultramafic body believed to be associated with Cobalt and Nickel mineralisation (Figure 4&5).

The historic results, when combined with the new holes and the re-submissions of some of the historic pulps for re-assay, will help advance the Avondale prospect for cobalt and nickel.

Once results are received, a review will be undertaken with a view to explore Avondale in more detail to understand the continuity, thickness and grade of the elevated cobalt and nickel. Positive results could provide a basis to undertake a more comprehensive program of work aimed at determining resource potential.



Drilling at Avondale

Northern View prospect RC drilling

Positive RC drilling results were received from Northern View prospect which confirmed cobalt and gold anomalism. The Northern View Area results for 7 RC holes drilled with best results were:

- Hole Fi0820: 10m @ 332 ppm Co from 14m and
- Anomalous gold in hole Fi0821: 4m @ 175 ppb Au from 38m

Drilling indicates presence of hydrothermally remobilised cobalt and gold associated with quartz rich red jasper containing manganese, magnetite and trace chromite

The Northern View drilling represents a test of a small area highlighted by surface geochemistry, within a broader ~1.5km diameter area of magnetite destruction and introduction. The drilling, while generating low tenor assays, supports the interpretation of hydrothermal alteration across this broader area, which remains prospective for gold and cobalt.

Tout East Area aircore drilling

A possible lateritic style of Nickel (Ni) and Cobalt (Co) mineralisation also exists in the Tout East area.

Drilling was completed (figure 1) in March where drilling confirmed the presence of lateritic weathering profiles above ultramafic bedrock. Additional holes were placed at the prospect to the south east (Area 2).

Tout East logging indicates variable basement lithologies, with weathering profiles above ultramafic geology ranging in depths from 3m to 53m. Assay data and interpretation is awaited to quantify mineralisation potential.

Samples have now been submitted to the laboratory for both Tout East and the Avondale prospect, with results and interpretation expected shortly.

Geological Mapping and Sampling in Southern Tenement Area



Consulting geologist Mr Mike Love was engaged to complete field investigations over the southern portion of the Company's tenement package. The overall program aims to assess the area for Cowal NSW style gold potential with geological mapping and sampling covering an area of ~140km². The fieldwork covered by Mr Love is the area shown in figure 3 and was completed in April with interpretation to follow.

Mr Love has significant historic experience working in the Cowal area in NSW located approximately 100km due south of Fifield and also at North Parkes, located 80km East of Fifield. At Fifield he has completed general geological reconnaissance, including looking for similarities to the setting of the significant copper gold mineral systems discovered around Cowal.

Rimfire's past work in the southern project area has generally been focused on the ultramafic bodies, such as Avondale ([Hyperlink: ASX Release 9th March 2018 Drilling Starts at Avondale](#)), Kars and Mount Derriwong.

Towards the end of 2017, based primarily on magnetics data and other knowledge gained during the year, this area was also identified by New Gold Inc., (the Central Ordovician area) as having potential to host Ordovician volcanics capable of hosting porphyry copper gold mineralisation. The New Gold Inc. proposed aircore field program designed for this area was not able to be implemented in 2017, with timing constraints due to weather. This work will be re-evaluated in 2018.

This is an opportunity to look for the applicability of gold mineralizing concepts in our district, that apply to the south of us, at Cowal, owned by Evolution Mining (ASX: EVN). The Company's view is that the north-south orientation of geological structures through this part of NSW has a likely bearing on the gold mineralizing positions occurring at Fifield also.

The Company's detailed magnetic survey indicates a north-south structure orientation over our tenements at the southern end. The new work in this area also takes in the Avondale cobalt prospect, so more light is likely to be shed generally on the context for the broader mineralising potential here.

CORPORATE ACTIVITIES

Cash, Funding, Facilities and Investments

The Company's cash at bank at 31 March 2018 was \$1.482m.

There was no change in the Company share structure in the period.

TENEMENT POSITION

The total area held by the Company remained unchanged at Fifield is 669km². The Company maintained its tenement interest in the Broken Hill area of 78km² held with Perilya as operator. Tenement details are contained in Appendix A.

COMMODITY PRICING FOR THE MARCH 2018 QUARTER

During the quarter the gold price continued with a minor increase of 1.7%, finishing at USD 1,325 per ounce. In a period of record prices, cobalt increased by 24.3% for the quarter (31 March 2018) finishing at USD 93,250 per ounce.

Gold and Silver Prices quoted www.kitco.com in New York in USD and Copper and Cobalt Prices quoted LME.com in USD.

Commodity	Price USD 3 January 2017	Price USD 29 December 2017	2017 Calendar Year % change	Price USD 20 April 2018
Gold (oz)	1,159	1,302	12.3%	1,335
Silver (oz)	16.35	16.91	3.4%	17.08
Platinum (oz)	928	928	Nil	925
Copper (t)	5,574	7,157	28.4%	6,939
Cobalt (t)	32,500	75,000	130.8%	91,500



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Figures, Appendices ,tables provided for reporting under JORC 2012 compliance

Additional Figures, includes location maps	Pages 7~10
Company Background and Competent Authority Declaration	Pages 11~12
Schedule of Tenements	Page 13

Figure 1: Fifield District Map – with Northern Neighbour activity - on geology background highlight Cobalt occurrence and observations

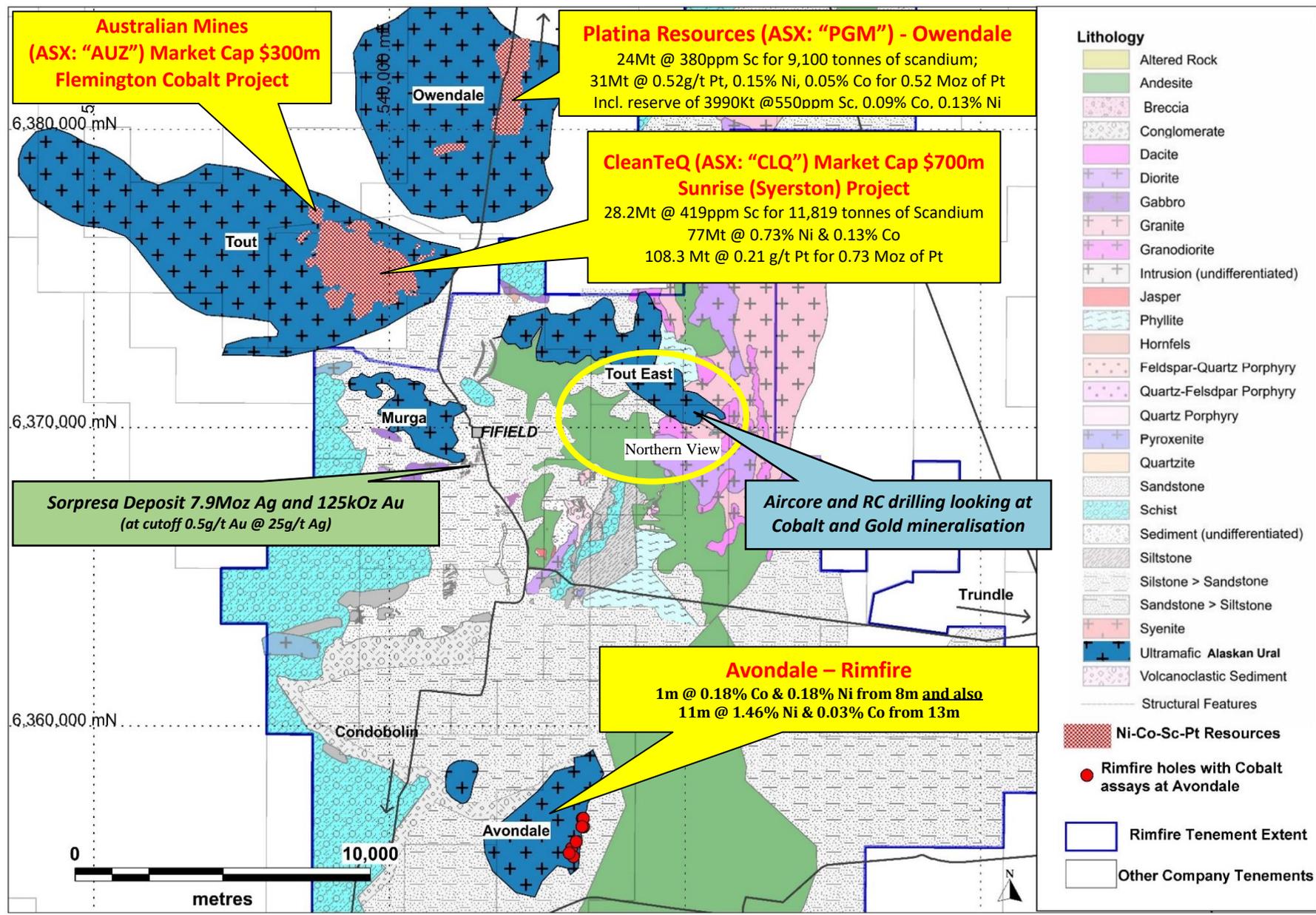
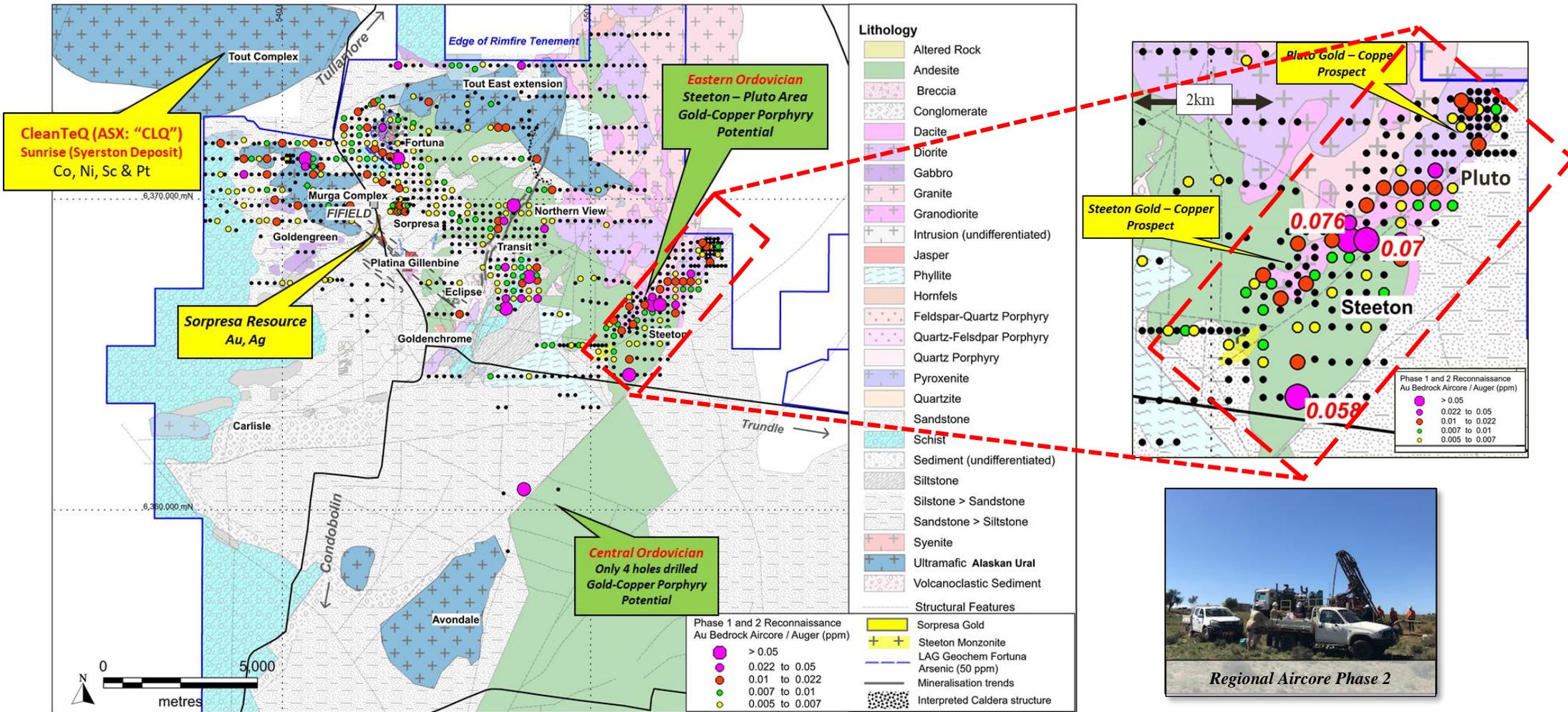


Figure 2: Gold Geochemistry Aircore Drill Plan (Phase 1&2) shown on Geology (Oct 2017 Interp)



Many new target concepts continue to emerge from the combined work programs, including the Phase 1&2 Aircore drilling.

In particular, logging of Aircore holes in **the Steeton area** has identified some altered porphyry within mafic and felsic volcanics in the north-east. These lithologies fit the initial interpretation of Ordovician Volcanics under cover. The presence of sericite +/- epidote +/- chlorite +/- actinolite altered porphyry, within this volcanic sequence was also noted and considered important.

The goal at Steeton is for a potential discovery of a gold-copper porphyry system, similar to the North Parkes style of deposit 70km to the east.

Figure 3: Geological Mapping in the Southern Tenement Area – Looking at Cowal Style Gold Potential (area also covers Avondale Prospect)

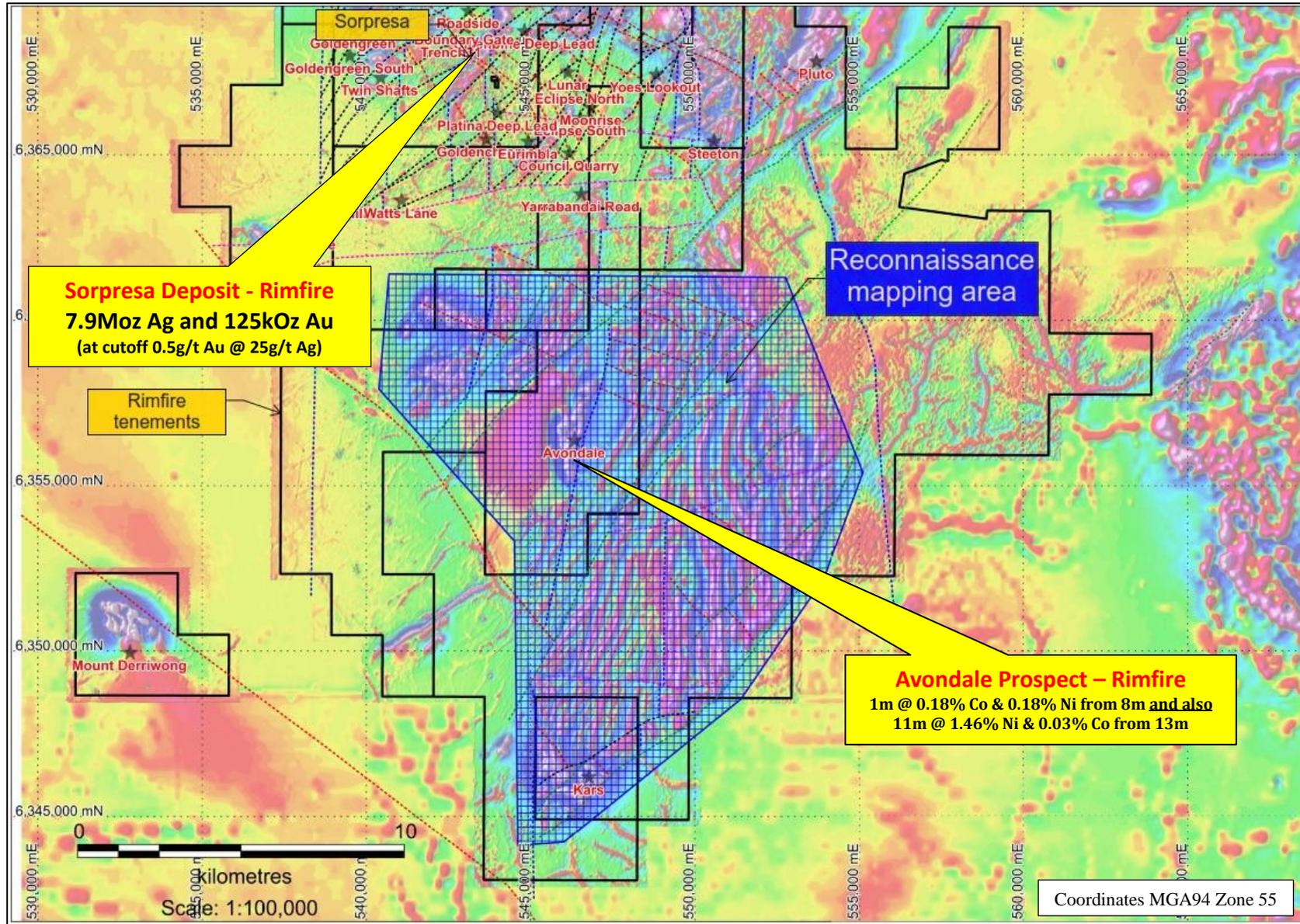


Figure 4: Avondale Prospect New drill collars on geology and some historic holes

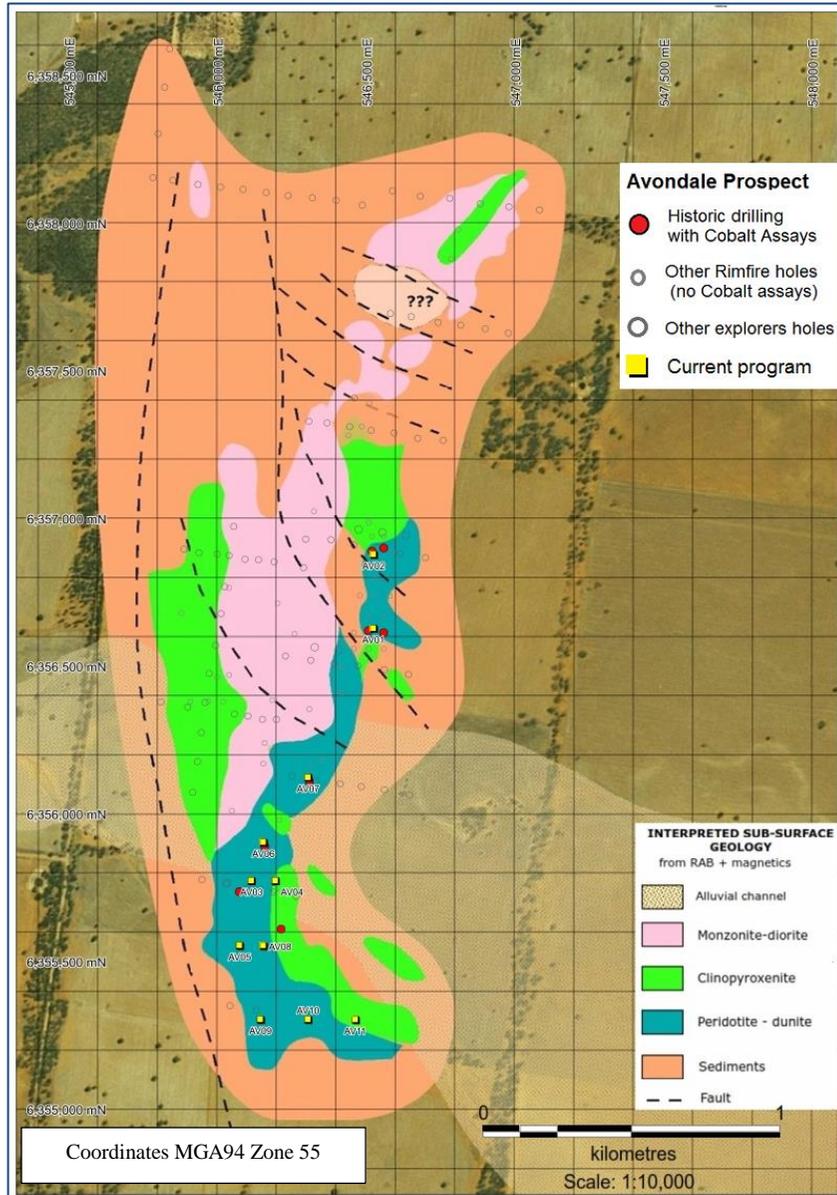
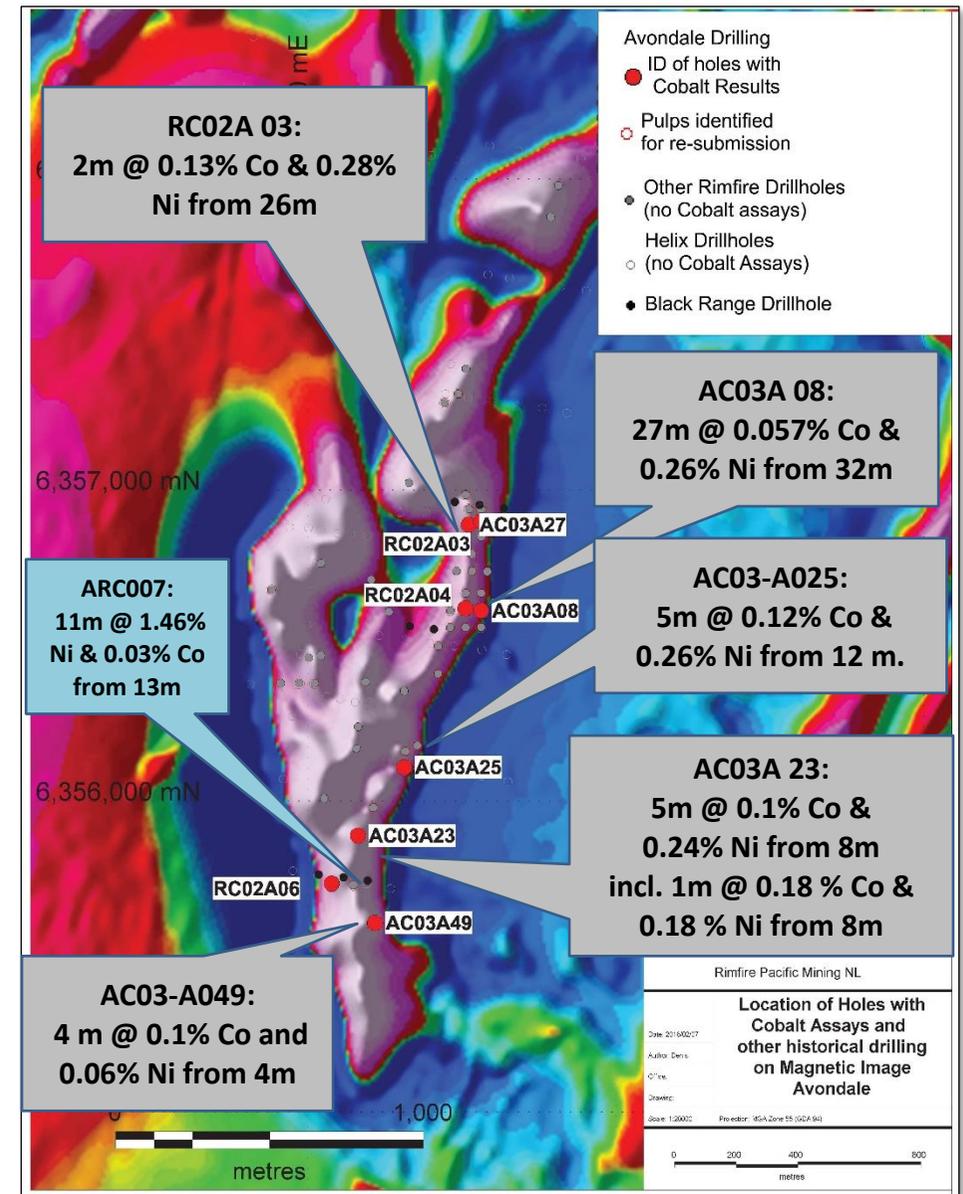


Figure 5: Location of Historic Drillholes with Cobalt assays on Magnetic Image



The recent drilling was designed to help understand continuity, thickness and grade of cobalt already identified in historic drilling between limited sample points that traverse a 1.3km extent.

ABOUT RIMFIRE

Rimfire Pacific Mining is an ASX listed (code: RIM) resources exploration company that has its major focus at Fifield in central NSW, located within the Lachlan Transverse Zone (LTZ). In 2010~11 the Company made a greenfields gold and silver discovery, named “Sorpresa”, announcing a JORC Compliant Inferred & Indicated Maiden resource in 2014.

The current main Sorpresa trend containing gold and silver mineralisation is approximately 1.5km in length and is at various stages of further discovery growth assessment, including the larger 7km x 2km Sorpresa corridor.

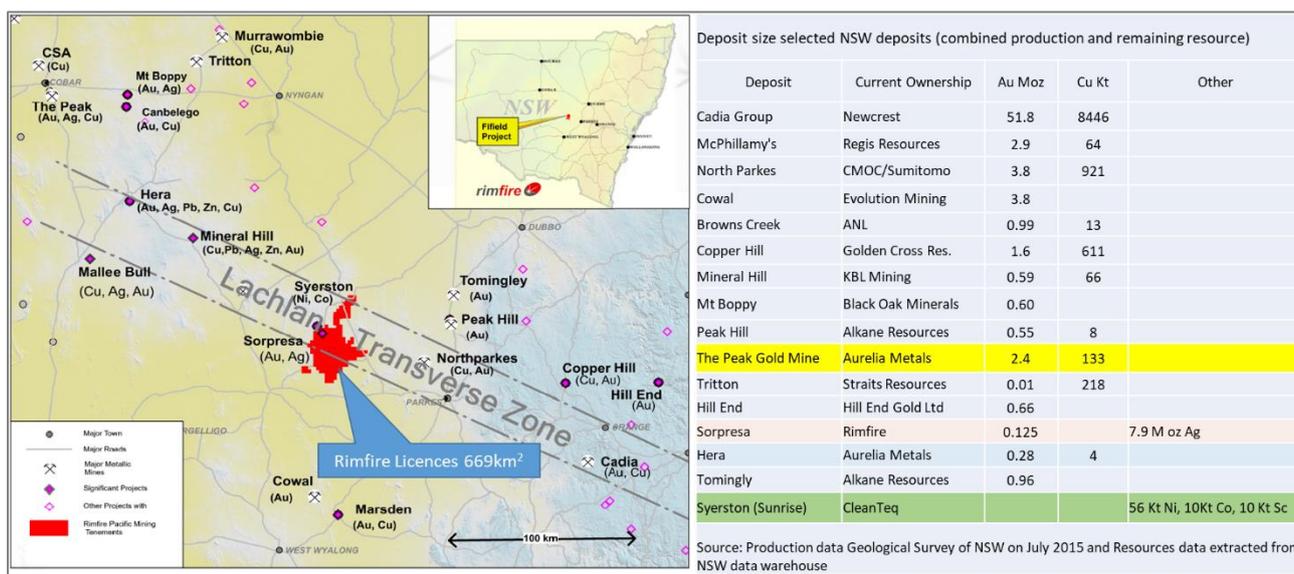
Multiple prospects involving hard rock potential for Gold, Silver, Copper and Platinum have been established within a 15km radius of the Sorpresa discovery at Fifield, which is part of the contiguous 669km² tenement position held.

More recently, Rimfire is also examining for cobalt potential within its tenements.

Aspiration target in the wider Fifield District

The discovery aspiration for the Fifield area is an aggregate discovery outcome in excess of 4 million ounces of gold equivalent metal, being capable of supporting a mine life in excess of 10 years, and within the lower third of industry costs of production.

Location Map of Rimfire Tenements within the LTZ Corridor showing district project context



Recent Presentation and ASX Activity Summary Reports and Analyst reports related to Rimfire

- The Company released its [Investor Forum Presentation on 31st January 2018](#)
- [An analyst update was provided on the Company](#), through Share Café, Gavin Wendt (of Minelife)
- [Initiation research report on the Company compiled by Independent Investment Research \(IIR\) April 2018 – Senior Analyst Mark Gordon](#)

Historic material previously published under 2004 JORC standard that is referenced in this report:

The information provided in “About Rimfire Pacific Mining section” is available to view on the Company Website at hyperlink: [ASX Announcements](#). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements.

In addition, the Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements which operated under the 2004 JORC reporting requirements.

Table 1: Sorpresa Mineral Resource estimate reported under JORC 2012 code

Resource	Cut off	Category	Mt	Grade		Contained Metal	
				(g/t) Au	(g/t) Ag	Koz Au	Moz Ag
Gold	0.5 g/t Au	Indicated	2.0	1.14	27	73	1.7
		Inferred	1.0	0.9	12	29	0.4
		Total	3.0	1.06	22	103	2.1
Silver	25 g/t Ag	Indicated	2.1	0.21	62	14	4.2
		Inferred	1.2	0.19	40	7	1.6
		Total	3.4	0.20	54	22	5.8
Combined	0.5 g/t Au & 25 g/t Ag	Indicated	4.1	0.67	45	88	5.9
		Inferred	2.2	0.51	27	37	2.0
		Total	6.4	0.61	38	125	7.9

Notes:

1. Sorpresa Mineral Resource reported to JORC 2012 standards, at 0.50 g/t Au and 25g/t Ag cut-off
2. The figures in this table are rounded to reflect the precision of the estimates and include rounding errors.

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.

RIMFIRE TENEMENTS – Appendix A

Below is a listing of the tenements held by Rimfire Pacific Mining NL as at 31 March 2018:

Tenement	Location	Beneficial Percentage Held	Units	Interest Acquired / Farmed in during Quarter	Interest Disposed / Farmed out during Quarter
EL7959	Fifield	100%	7	-	-
EL5534	Fifield	100%	40	-	-
EL5565	Fifield	100%	4	-	-
EL6241	Fifield	100%	15	-	-
EL7058	Fifield	100%	35	-	-
M(C)L305	Fifield	100%	1.9HA	-	-
M(C)L306	Fifield	100%	2HA	-	-
EL8401	Fifield	100%	100	-	-
EL8543	Fifield	100%	1	-	-
EL8542	Fifield	100%	32	-	-
EL5958	<i>Broken Hill</i>	*	27	-	-

* Rimfire retains a 10% free carried interest. Perilya is the operator, holding a 90% interest