



27/01/ 2016

Company Announcement Office
Australian Securities Exchange

QUARTERLY EXPLORATION AND ACTIVITIES REPORT

(For the period 1st October 2015 to 31st December 2015)

High Grade Gold Results Continue in Sorpresa RC Drilling

Includes 9m @ 18.15g/t Au & 100g/t Ag from 18m at Trench31

Highlights – Sorpresa Gold and Silver area

- RC drilling at Sorpresa in the known mineralised zone at Trench 31 area has revealed gold with consistent high grade results at shallow depths (typically 0~40m).
 - A strong north-south zone, not previously understood, with high grades Au/Ag (Figure 3)
- A best intersection occurred in Hole Fi 0689 with 9m @ 18.15g/t Au & 100g/t Ag from 18m
 - This represents the 3rd best hole ever returned at Sorpresa
- Best individual 1m or 2m intervals (>20g/t Au) in the oxide zone returned (at Sorpresa, Trench 31 area, reported in the period, include: (note: Tables 1 a,b,c this report show intersection details)
 - Fi 0548 with 1m @ 53.30g/t Au & 74g/t Ag; Fi 0658 with 1m @ 50g/t Au & 55g/t Ag
 - Fi 0662 with 1m @ 39.6g/t Au & 58g/t Ag; Fi 0659 with 1m @ 33.7g/t Au & 31g/t Ag
 - Fi 0680 with 2m @ 31.35g/t Au; Fi 0685 with 1m @ 54.20g/t Au & 121g/t Ag
 - Fi 0672 with 1m @ 36.10g/t Au; Fi 0684 with 1m @ 21.50g/t Au
 - Fi 0687 with 2m @ 14.85g/t Au; Fi 0690 with 1m @ 24.1g/t Au
 - Fi 0689 with 1m @ 69.0g/t Au, Plus 1m @ 38.6g/t Au also returned **1m @ 448g/t Ag**, the highest assay for silver at Trench 31 to date
- Further metallurgy at Sorpresa in the oxide and primary zones provided promising gravity, floatation and leaching recoveries. Conceptual plant and process options are being reviewed.
- Additional RC drilling assay results are expected shortly from Trench 31 and Roadside locations.

(This RC drilling was part of an ongoing assessment of the structural controls and orientation of high grade gold and silver lens areas within Sorpresa. The positive results provide further encouragement for an economic feasibility appraisal. Additional RC drilling is planned at Roadside area within the 1st Quarter 2016 and is underway.)

Highlights – Fifield Regional Activities (within 6km radius of Sorpresa)

- Detailed geological mapping has been conducted and continues in the Eclipse Trend - Yoes areas (4km²), to assist interpretation and targeting for the copper-gold signature now established
- Broader deployment (km scale) geophysics programs (EM and 3DIP) will be considered to assist discovery of potential large scale copper-gold mineralisation at Eclipse Trend - Yoes areas
- Regional soil programs and mapping were conducted north of Eclipse Trend & Yoes Trend, with encouraging mineralized float identified and providing a positive context for potential copper-gold porphyry systems
- New regional creek and auger geochemical sampling programs are underway for copper and gold
- Further refinement of the geological model concepts has occurred and additional targets have also been identified, based on geochemistry, mapped geology and geophysics

Highlights – Corporate and other activities

- The AusIndustry R & D submission was successfully concluded and provided the Company with \$1.046m in additional non-dilutive funds in early November.
- Numerous presentations were made including at the international resources conference, IMARC.
- Discussions for potential partnership opportunities were continued, including site visits.
- 1 for 7 rights issue at 2.0 cents (plus free option) raised \$1.043m before costs in December
- The Company was awarded a new exploration license EL8401 (288km²) located east of Yoes. The area is deemed to extend the prospective opportunity for gold and copper discovery. Review of target areas is underway (see map Figure 4) and doubles the Company's exploration area.
- A major upgrade to the Company website was implemented (www.rimfire.com.au)

CEO and Managing Director, John Kaminsky commented:



“The Company had another positive quarter both in developing a better understanding of the gold distribution in the Sorpresa Trench 31 area and the pursuit of discovery growth in its regional activities.

“The Trench 31 area results demonstrate good continuity within the higher grade gold (and silver) lenses in the oxide zone (0~60m) and we have gained important further insights.

“This assists both delineation and extension discovery strategies for Sorpresa, so further testing will be undertaken. There is a priority to focus our efforts on increasing the gold resource that is suited to shallow open-cut mining, with ideas emerging from the recent work for new shallow extensions. Outcomes include:

- ✓ The RC drilling continues to improve the knowledge of the orientation and controls operating on the higher grade gold and silver, with new results reinforcing the robustness of these zones.
- ✓ The Company will keep assessing the Sorpresa mineralisation in the oxide zone aiming to increase grades, ounces and the commercial context.
- ✓ This recent drilling (and subsequent work to follow) will contribute to parts of the resource at Sorpresa moving to measured status in due course with model upgrades. Pitshells will be modelled as appropriate.

“Our third best drill hole at Fifield, in Fi 0689, with **9m @ 18.15g/t Au & 100g/t Ag from 18m** shows Sorpresa still has many positive surprises in waiting. We have now hit high grades across a wide spatial setting on the 1.5km strike length of the Sorpresa system.

“This recent drilling, indicates to us to search for higher grades in other locations using a similar strategy of close spaced drilling. The frequency of the higher grade results (>10g/t Au) including results above 30g/t Au in numerous places, and provides more encouragement to the commercial assessment for potential development at Sorpresa.

“More locations are planned for drilling at Trench 31 and Roadside accordingly. The shapes and corridors are starting to emerge for a potential mining operation (**Figure 3**), at Trench 31.

Regional Exploration RC Drilling

“The Company strategy continues to focus on building its regional discovery inventory within a 6km radius of Sorpresa over the next 12 months. Priorities continue to emerge from a combination of ongoing geochemical sampling, as extensions to current anomalous trends, as well as promising geophysical targets.

“The work in the last two quarters at Eclipse Trend-CO2-Yoes confirms that we have important copper-gold anomalism on an extensive (km) scale (**Figure 2**), with potential for ore grades as shown with hole Fi 588 4m @ 6.5% Cu.

“Further work is required to better understand the geology and context, whilst recognising that there appears to be a large mineralising system operating at a district scale. Accordingly, additional creek sampling, geological mapping and



Further planned drilling

auger drilling programs are being used to advance the knowledge and improve targeting for copper and gold mineralisation.

“The Sorpresa resource is a possible peripheral mineralisation event to a much larger mineralising system operating at Fifield. With this in mind, we will be pursuing a number of key concepts over the coming months, to seek the best areas containing the strongest mineralisation potential within the copper-gold footprint currently identified. This also brings the new EL8401 into play, with a range of targets being reviewed over the next 6 months.

Annual General Meeting, Rights Issue and New Website

“The Company conducted its Annual General Meeting (AGM) 27th November in Melbourne, providing shareholders an opportunity to further understand the Company, its project areas, exploration strategies and engage with guest presenters on key trends within the industry. The Company, Board and management were favourably benchmarked within the industry and received strong endorsement from shareholders with all resolutions comfortably passed.

Rights Issue

“The [non renounceable rights issue \(NRR\)](#) of 1 new share at 2.0 cents, plus a free option at 3.5 cents (expiry May 2017), for every 7 existing shares held, was completed during the week raising \$1.043M in the first instance. In the context of the existing difficult global market conditions, this has been an extremely successful capital raising.

“We thank new and existing shareholders who have participated in the capital raising as the Company looks to continue with the following:

- ✓ Sorpresa resource, further definition, discovery growth and economic assessment towards feasibility
 - Continue the definition and understanding of the high grade lens areas with further drilling
 - Seek to extend the discovery growth into new adjacent areas, as only 10% of the known geology is tested
- ✓ Continue discussions with potential commercial partners for the Company’s project areas, aiming to:
 - Assist accelerated outcomes in discovery growth through additional committed expenditure
 - Look at development opportunities for the Sorpresa resource
- ✓ Maintain a discovery growth focus on the regional opportunities for gold, silver, copper and platinum. In particular, make further advances in the regional prospects where an emerging gold and copper signature is being established.

“In total, the Directors subscribed to approx. \$200,000 in combined entitlements and underwriting.

New Website

“The Company has launched its new website, providing more information for shareholders and stakeholders. Over time the site will be further streamlined for its presentation and content. We encourage shareholders to sign-up to receive future distributions of ASX news bulletins.

Programs commenced, or due shortly in 1st Quarter 2016 include:

“A range of programs (**Figure 1**) have been planned and are being implemented within first quarter 2016, continuing to take advantage of lower industry costs, and the opportunities presented to the Company in its project areas. These include:

- ✓ **RC drilling continues within Roadside area at Sorpresa** –4 new traverses started, shallow oxide focus
 - Interim results are due for reporting shortly
- ✓ **Interpretation and modelling of recent RC drilling** in Au/Ag zones at Sorpresa to build pitshell models and assess selective mining feasibility
- ✓ **A ground Gravity Geophysical survey** commences shortly, looking for repeat style structures similar to Sorpresa
 - A strong correlation is already noted between Gravity and the Sorpresa mineralisation
- ✓ **Geological mapping is underway in the Eclipse-CO₂-Yoes copper/gold area**
 - This will integrate the understanding and assist planning for the next stages of work
- ✓ **Creek and soil sampling within 6km radius of Sorpresa**
 - Infill programs to assist the targeting the better prospective areas for gold and copper

“The Company strategy continues to pursue the Sorpresa resource definition, discovery growth and economic potential in parallel with the regional discovery advancement primarily within a 6km radius of Sorpresa.

“Regular newsflow will be generated in the ensuing period, where we look forward to reporting further results and milestones as they occur. The Company remains active with its work programs, despite the difficult market conditions, looking to enhance its project areas, to the benefit of shareholders.”

Sorpresa RC Drill program comments – assessing high grade lenses

Currently the Sorpresa Deposit comprises 6.4Mt for 7.9Moz of silver and 125kOz of gold (at 0.5g/t Au & 25g/t Ag cutoff) as an Inferred and Indicated Mineral Resource, equating to approximately 250,000oz gold equivalent.

The Company believes that potential upside exists at Sorpresa by defining additional resources in under explored areas along strike to the south and at depth, down dip to the east and also in gap areas between mineralised domains.

During the quarter a program of 54 holes for 2,227m of shallow RC drilling was completed over high grade gold and silver areas within Trench 31 of the Sorpresa Resource (Figure 1 & 3). Tables of significant results below (Table 1 a, b & c) highlight a number of shallow and highly mineralised intersections indicating broad zones of gold and silver mineralisation.



Trench 31 recent drilling area

Previous Recent Drilling Highlights at Sorpresa Trench 31 (Reported December 2015)

Continued RC drilling (6 holes for 252m) at the Trench 31 area [previously reported 4th December 2015](#) with greater than 10 gramme-metres summarized as follows:

Table 1 (a)

Hole (location)	Main Intersection(s)	Including Intersection(s)
Fi 0689 (Trench31)	9m @ 18.15g/t Au & 100g/t Ag from 18m <u>and</u> 1m @ 0.78 g/t Au from 35m	1m @ 16.75g/t Au & 140g/t Ag from 18m 1m @ 6.45g/t Au & 448g/t Ag from 19m 1m @ 69.00g/t Au & 254g/t Ag from 20m 1m @ 15.35g/t Au & 23g/t Ag from 21m 1m @ 38.60g/t Au & 10g/t Ag from 24m 1m @ 11.40g/t Au & 5g/t Ag from 25m
Fi 0687 (Trench31)	7m @ 6.80g/t Au & 9g/t Ag from 20m	2m @ 14.85g/t Au & 16g/t Ag from 20m
Fi 0690 (Trench31)	8m @ 4.62g/t Au & 4g/t Ag from 18m	1m @ 6.69g/t Au & 9g/t Ag from 23m <u>and</u> 1m @ 24.10g/t Au & 9g/t Ag from 24m
Fi 0686 (Trench31)	2m @ 2.05g/t Au & 138g/t Ag from 16m <u>and</u> 5m @ 3.64g/t Au & 6g/t Ag from 24m	1m @ 1.53g/t Au & 226g/t Ag from 16m <u>and</u> 1m @ 4.35g/t Au & 4g/t Ag from 24m <u>and</u> 1m @ 8.79g/t Au & 4g/t Ag from 25m
Fi 0688 (Trench31)	1m @ 1.62g/t Au from 19m <u>and</u> 4m @ 3.64g/t Au & 4g/t Ag from 22m	1m @ 7.45g/t Au & 9g/t Ag from 22m

Previous Recent Drilling Highlights at Sorpresa Trench 31 (Reported November 2015)

RC drilling program (20 holes for 833m) at the Trench 31 area [previously reported 20th November 2015](#) with greater than 10 gramme-metres summarized as follows:

Table 1(b)

Hole (location)	Main Intersection(s)	Including Intersection(s)
Fi 0680 (Trench31)	3m @ 0.58g/t Au from 13m <u>and</u> 13m @ 8.46g/t Au from 17m	1m @ 9.06g/t Au from 20m <u>and</u> 2m @ 31.35g/t Au from 21m <u>and</u> 2m @ 9.69g/t Au from 25m
Fi 0685 (Trench31)	2m @ 0.59g/t Au from 4m <u>and</u> 3m @ 18.93g/t Au & 47g/t Ag from 13m	1m @ 54.20g/t Au & 121g/t Ag from 14m
Fi 0675 (Trench31)	1m @ 0.67g/t Au from 16m <u>and</u> 4m @ 0.62g/t Au from 22m <u>and</u> 8m @ 5.36g/t Au from 26m	1m @ 11.75g/t Au from 28m <u>and</u> 2m @ 9.20g/t Au & 17g/t Ag from 30m
Fi 0672 (Trench31)	4m @ 9.73g/t Au from 6m <u>and</u> 1m @ 0.66g/t Au from 26m	1m @ 36.10g/t Au from 8m
Fi 0684 (Trench31)	4m @ 6.18g/t Au from 10m	1m @ 21.50g/t Au from 11m
Fi 0679 (Trench31)	8m @ 2.49g/t Au from 16m <u>and</u> 3m @ 2.47g/t Au from 26m	2m @ 6.53g/t Au from 18m
Fi 0676 (Trench31)	2m @ 0.58g/t Au from 6m <u>and</u> 3m @ 1.83g/t Au & 16g/t Ag from 30m <u>and</u> 3m @ 4.44g/t Au from 37m	1m @ 4.12g/t Au & 32g/t Ag from 30m <u>and</u> 2m @ 6.08g/t Au & 10g/t Ag from 38m
Fi 0677 (Trench31)	2m @ 0.48g/t Au & 9g/t Ag from 45m <u>and</u> 1m @ 8.93g/t Au & 14g/t Ag from 47m	

Previous Recent Drilling Highlights at Sorpresa Trench 31 (Reported October 2015)

RC drilling program (28 holes for 1,142m) at the Trench 31 area [previously reported 20th October 2015](#) with greater than 10 gramme-metres summarized as follows:

Table 1 (c)

Hole (location)	Main Intersection(s)	Including Intersection(s)
Fi 0662 (Trench31)	3m @ 20.42g/t Au & 26g/t Ag from 20m <u>and</u> 1m @ 5.47g/t Au & 53g/t Ag from 36m <u>and</u> 7m @ 0.50g/t Au & 5g/t Ag from 38m <u>and</u> 4m @ 5.34g/t Au & 18g/t Ag from 45m	1m @ 39.6g/t Au & 58g/t Ag from 21m <u>and</u> - 1m @ 1.55g/t Au & 4g/t Ag from 40m <u>and</u> 1m @ 16.75g/t Au & 27g/t Ag from 46m
Fi 0548 (Trench31)	2m @ 28.65g/t Au & 53g/t Ag from 39m	1m @ 53.30g/t Au & 74g/t Ag from 39m
Fi 0658 (Trench31)	2m @ 26.94g/t Au & 36g/t Ag from 37m	1m @ 50.00g/t Au & 55g/t Ag from 37m
Fi 0663 (Trench31)	10m @ 2.29g/t Au & 12g/t Ag from 21m <u>and</u> 7m @ 3.37g/t Au & 14g/t Ag from 35m	1m @ 7.96g/t Au & 66g/t Ag from 21m <u>and</u> 1m @ 11.55g/t Au & 24g/t Ag from 36m
Fi 0659 (Trench31)	5m @ 8.73g/t Au & 22g/t Ag from 47m <u>and</u> 1m @ 0.85g/t Au & 17g/t Ag from 53m	1m @ 33.70g/t Au & 31g/t Ag from 47m
Fi 0547 (Trench31)	3m @ 8.08g/t Au & 11g/t Ag from 15m	2m @ 11.25g/t Au & 14g/t Ag from 15m
Fi 0660 (Trench31)	3m @ 3.92g/t Au & 47g/t Ag from 54m	1m @ 5.52g/t Au & 73g/t Ag from 54m

Geological interpretation for the RC drilling at Sorpresa

The RC drilling indicates that the gold (with silver) is following a variety of structures, not just a select set of structures that were active in the mineralising era.

This implies a strong gold pulse at this location, with gold using whatever structural plumbing that was available. The geological reasons behind such a centred gold pulse are important in both peripheral and more distant area selection going forward. The footwall topography looks to be an important factor.



The gold wraps around a central high in the footwall topography. This central high could have an important but indirect connection to the gold distribution. This high is also a surface topographic high and could reflect silicification or slight metamorphism from a cupola below, with abnormal hardness areas possibly focusing structures. An alternative is that the rising hot water fluids may have moved towards the highs in the structural plumbing system.

A prominent east-west fault, referred to as the **magnetic step**, features within the Trench 31 area and **extends 6km**. The gold in this fault appears to penetrate into the footwall occasionally. This characteristic is seen along strike where gold follows the **magnetic step**, but is not in the Sorpresa carbonaceous receptive horizon.

This all implies that the **magnetic step** was part of the conduit for rising hot, gold bearing water. This east-west fault orientation is likely to have parallel faults. This will influence the search for additional gold. The **magnetic step** is obvious on the footwall topography so can be tracked reasonably. Some of the gold areas seen at Trench 31 sit on the actual footwall contact.

Additional Summary comments on drilling at Trench 31

The Trench 31 area (within the overall Sorpresa resource) is yielding impressive intersections and coherent gold rich zones which are helping better define the resource geometry at this location. This is important in the establishment of potential commercial implications for parts of Sorpresa.

The drilling programs are successfully achieving a number of outcomes:

- ✓ Providing a better understanding of the 3D gold lens shapes. This has required drilling at 5 to 10m spacing along lines that are 10 to 20m apart in the potentially higher grade parts of the resource and more accurate 3D shapes are now emerging.
- ✓ These new sections will be modelled for potential mining shapes and feasibility assessment.
- ✓ The drill delineation of high grade gold has the potential to increase the resource size, if that high grade was under represented in the original wider spaced drilling.
- ✓ The new high grade gold shapes allow more precision in projecting the gold into any surrounding un-drilled ground. This is important for potential discovery growth, particularly to the west, south and east of Trench31 area.

Sorpresa additional metallurgy

The delineation of high grade gold and silver is focused to advance the Sorpresa resource into a feasible mining operation. In this regard, positive results were received to date on the preliminary laboratory scale metallurgy test work recoveries for gravity, flotation and coarse bottle roll tests, the equivalent of heap leach, indicate the potential for more than one processing option for oxide and sulphide samples tested.

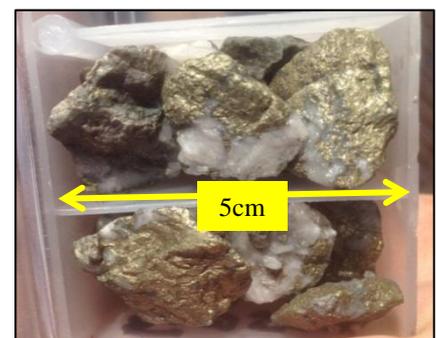
Regional RC Drilling and Exploration programs

Work continues within the 6km radius of Sorpresa pursuing regional discovery opportunities.

Eclipse Trend Recent history

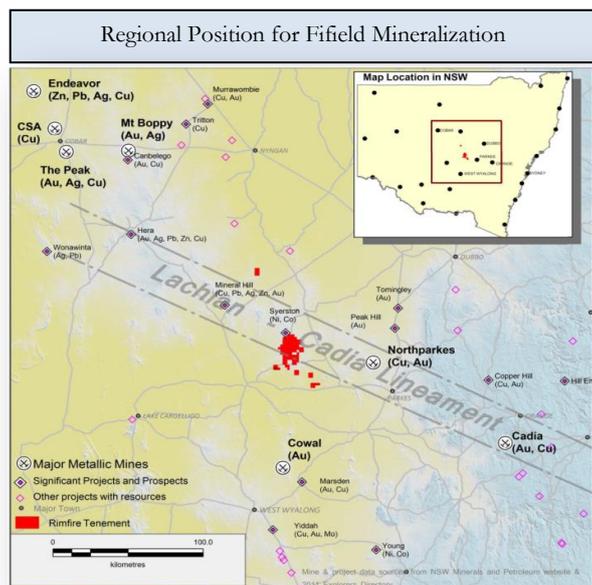
Previous RC drilling along the Eclipse Trend gave the high grade intersection reported (July 2015) from the Eclipse South area which returned significant copper and gold values of 4m @ 2.3 g/t Au & 6.5% Cu from 119m in Fi0588.

This intersection demonstrated the potential for ore grade Cu/Au intersections away from the Sorpresa Resource and was also recognised as a new style of mineralisation, part epithermal quartz sulphide vein, and/or part massive sulphide or a type of variant style.



*Eclipse South – Chalcopyrite in Hole Fi 0588
Assay 4m @ 6.5% Cu & 2.3g/t Au from 119m*

Summary Comments – Eclipse Trend



The Eclipse Trend extends over 3 kms along a major NNE trending structure which is host to a variety of mineralisation styles associated with strongly silicified chlorite, sericite, pyrite altered sediments and volcanics.

The entire length of the Trend is outlined by significant Au, Cu and base metal geochemical anomalies along with epithermal alteration and veining at surface, giving rise to rock chips with high grade Au and Cu values.

RC drilling to date has been targeted across the best of the geochemical anomalies and has several returned several +1 g/t Au drill intercepts within a broader halo of lower grade Au and Cu values dipping steep to moderately to the east.

The highlight to date has been the **4m @ 6.5% Cu & 2.3g/t Au & 10 g/t Ag** from 119m in Fi0588 which indicates that within the extensive alteration and geochemical anomalies there is potential to find ore grade intersections relatively close to the surface.

The position of these potential zones of higher grade mineralisation appear to be related to the intersection of the main mineralised N-NE trending structures with WNW trending LTZ orientations. Regionally the LTZ is a major structural corridor which is host to several world class Cu/Au ore bodies including the Cadia Valley (Newcrest Mining NL) and the Company believes that interaction points within its tenement package have the potential to host significant mineralisation.

Further exploration incorporating geochemistry (creek, soil and auger drilling), petrology and geophysics is required to assist in vectoring into target areas that have the potential to host high grade Au/Cu mineralisation.

Regional Work programs in the next quarter

Looking at the period going forward a number of initiatives are under consideration or implementation as follows:

- Targeted creek, soil and auger geochemical sampling over the Eclipse Trend and other prospective regional targets
 - o extensions to Eclipse Trend (Transit and others) – **Transit prospect soil program underway**
 - o regional geological areas of interest including - **Yoes North prospect auger program underway**
- RC testing of selected regional geochemical targets reinforced by geophysics anomalies **planning**
- Ground Gravity survey south of Sorpresa looking for repeat geology and structures to host gold and silver – **commences early February 2016**
- Rehabilitation of previously drilled and disturbed areas in compliance with permitting - **ongoing**

COMMODITY PRICING FOR THE DECEMBER 2015 QUARTER

As at 21st January 2016, the metal prices were (www.kitco.com), in New York based on closing Ask in USD were as follows:

Gold	USD\$1102/oz
Silver	USD\$14.26/oz
Platinum	USD823/oz

CORPORATE ACTIVITIES

Tenement Position

An application for an additional tenement area to the east of the Yeos Cu Target was granted. The new tenement (EL8401, 288km²) is considered prospective for gold and base metal, including copper.

The total area now held by the Company has expanded to 6 Exploration Licenses covering 566 km². (**Appendix 4**)

Cash, Funding, Facilities and Investments

The Company believes that its financial position continues to be well monitored and maintained in a challenging economic climate. As at 31st December 2015 the Company had \$1.703m in cash, which included \$1.046m (Ausindustry R & D funding) received in early November.

Rights Issue Completed

The Company issued 52,148,332 new shares and 52,148,332 attaching free new options, raising approximately \$1,042,967 before costs related to a partially underwritten non-renounceable rights issue (Rights Issue) which closed 30th November 2015.

The Rights Issue offered one (1) new share for every seven (7) shares held at an application price of 2.0 cents per share, with one free attached option (expiry 15 May 2017, exercise at 3.5 cents) for every new share and was partially underwritten to \$162,000 by two of Rimfire's Directors, Mr Kaminsky and Mr Gillett. The Directors were not entitled to any fees. Inclusive of the total amount raised was also \$400,000 from sophisticated investors.

The rights issue, if fully subscribed, would have raised \$2.126 million before costs. The balance of the shortfall is eligible to be placed with investors within 90 days, at the Company discretion.

New Capital structure

As at 31st December 2015 the capital structure of the Company was:

Fully Paid Ordinary Shares	796,169,607
Options, expiry May 15 th 2017, exercisable at 3.5 cents	52,148,332

IMARC Resources conference, exhibition and presentation

The Company successfully participated in a 3 day international resources conference and exhibition during November 2015 enabling a positive interaction with investors and industry participants.

Annual General Meeting (AGM) held 27th November 2015

The Company Annual General Meeting (AGM) of shareholders was well attended by approximately 50 people, indicating keen interest in the Company. A strong supportive vote was returned on all resolutions, which were passed comfortably.

Presentation Hyperlinks:

The following presentations were delivered at the 2015 AGM.

Title: **AGM 2015 CEO Presentation Corporate and Exploration:** [Click here](#) to view this announcement.

Title: **AGM 2015 H. Widdup Presentation Mining Market Snapshot:** [Click here](#) to view this announcement.

Title: **AGM 2015 Richard Schodde Presentation Exploration Trends:** [Click here](#) to view this announcement.

Title: **AGM 2015 Chairman Address:** [Click here](#) to view this announcement.

New Drilling Grant Application

In the next quarter the Company is expected to submit to NSW Department of Trade & Investment a new Co-operative Drilling Grant application. The program is expected to be a "dollar for dollar" matching program, where the Company would undertake the equivalent drilling expenditure to the grant value received. In 2014, the Company was awarded \$175,000 grant.



JOHN KAMINSKY
CEO and Managing Director

Figure 1: Fifield Prospect and Concept Map with location of the Sorpresa Resource and New RC Drilling reported in 4th Quarter 2015 and Regional program

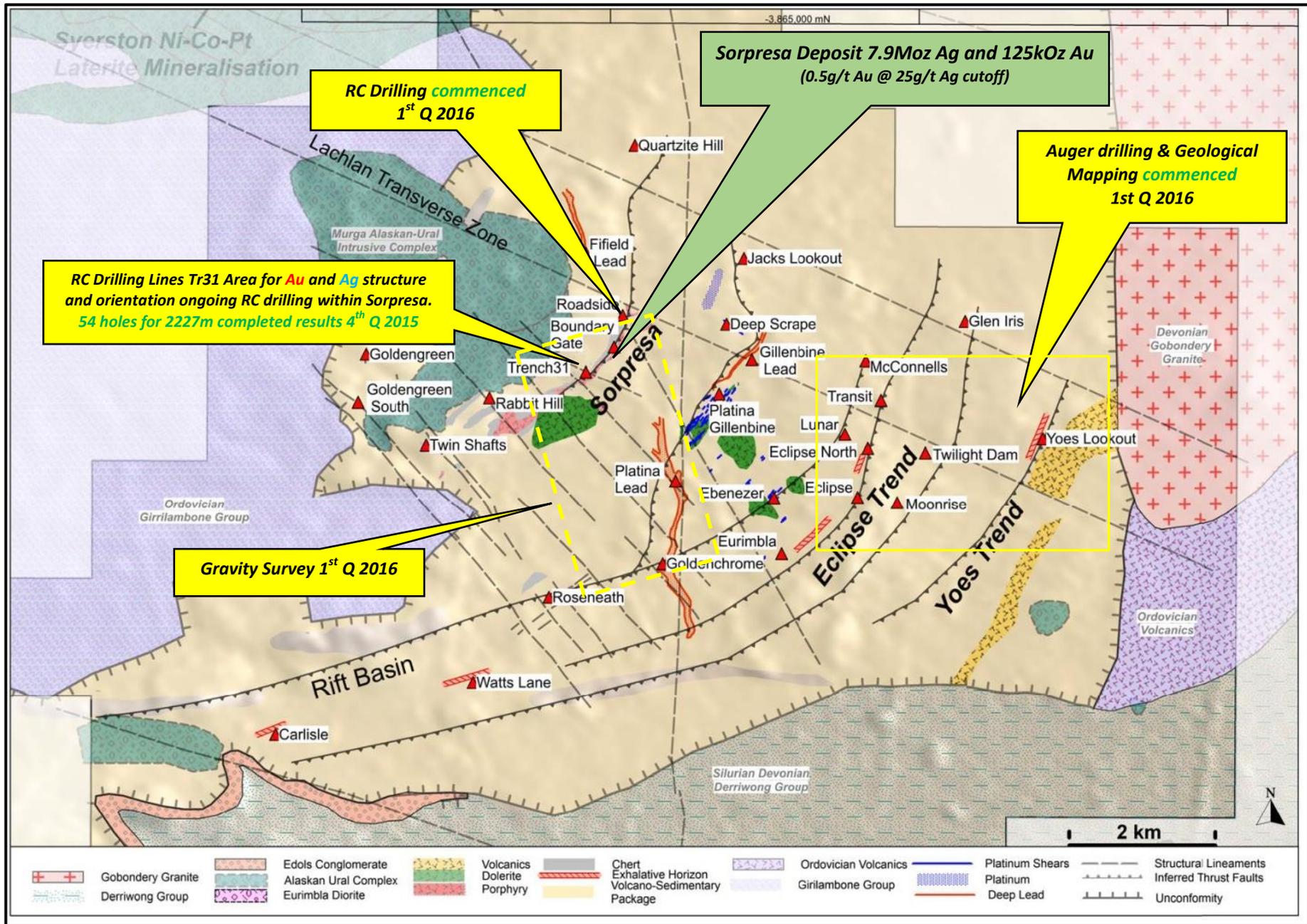
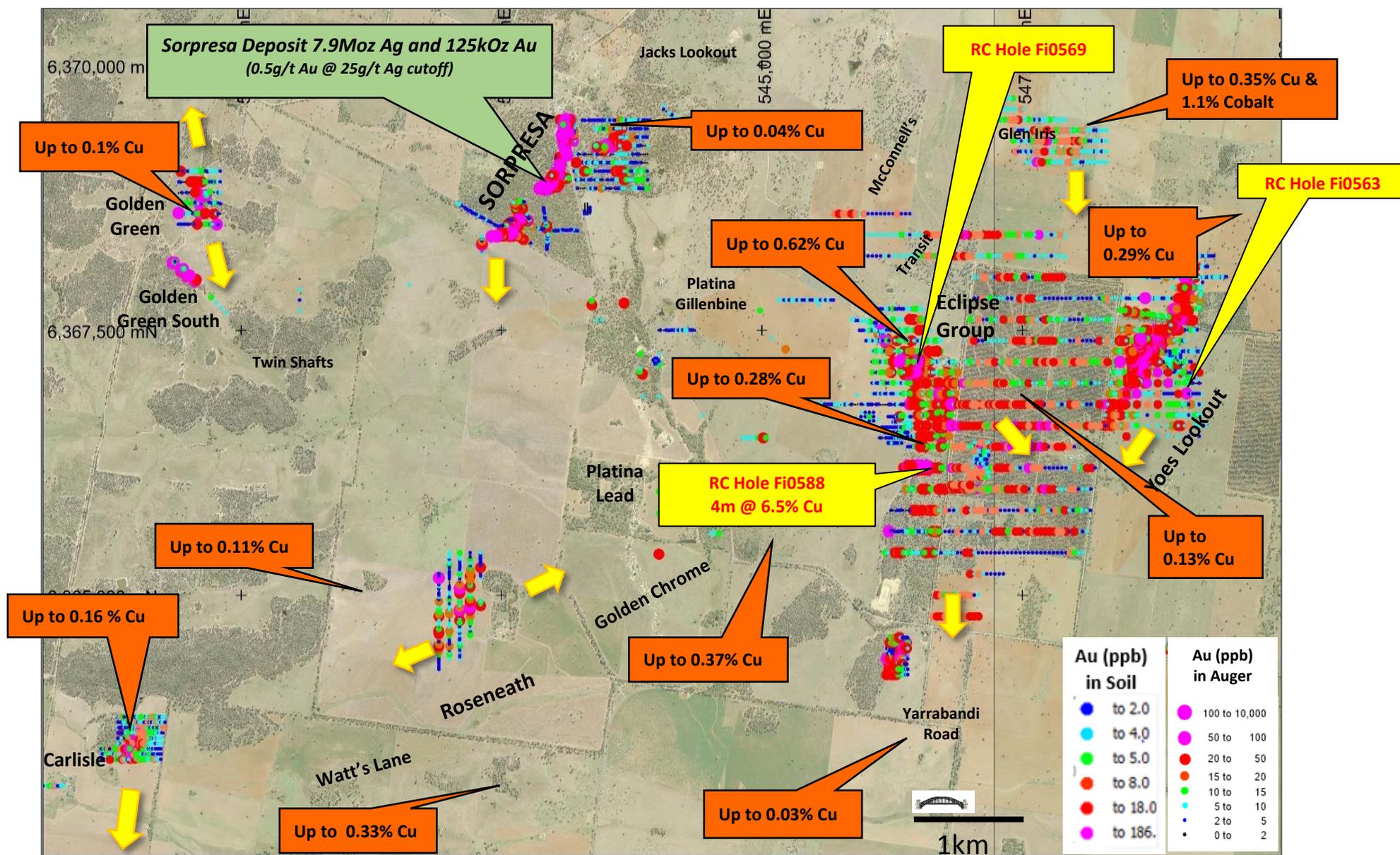


Figure 2: Wider Sorpresa area Map, shows the underlying gold signature, with best Copper Rock Chips overlaid. RC drilling (May~July 2015) has confirmed Copper (Chalcopyrite)



The Eclipse Trend is in a structurally complex area which is associated with a strong geochemical corridor which extends from the South for 3.0km through the Eclipse North drilling area and is open along strike to the north and south. Significant high grade Cu and Au drill intersections in both areas has indicated the potential for ore grade mineralisation relatively close to surface, open down dip and along strike.

Figure 3: RC drilling at Sorpresa – Trench 31 Area Oxide – Gold in Gram-Metre Representation with some recent highlights >50 gram-metre shown

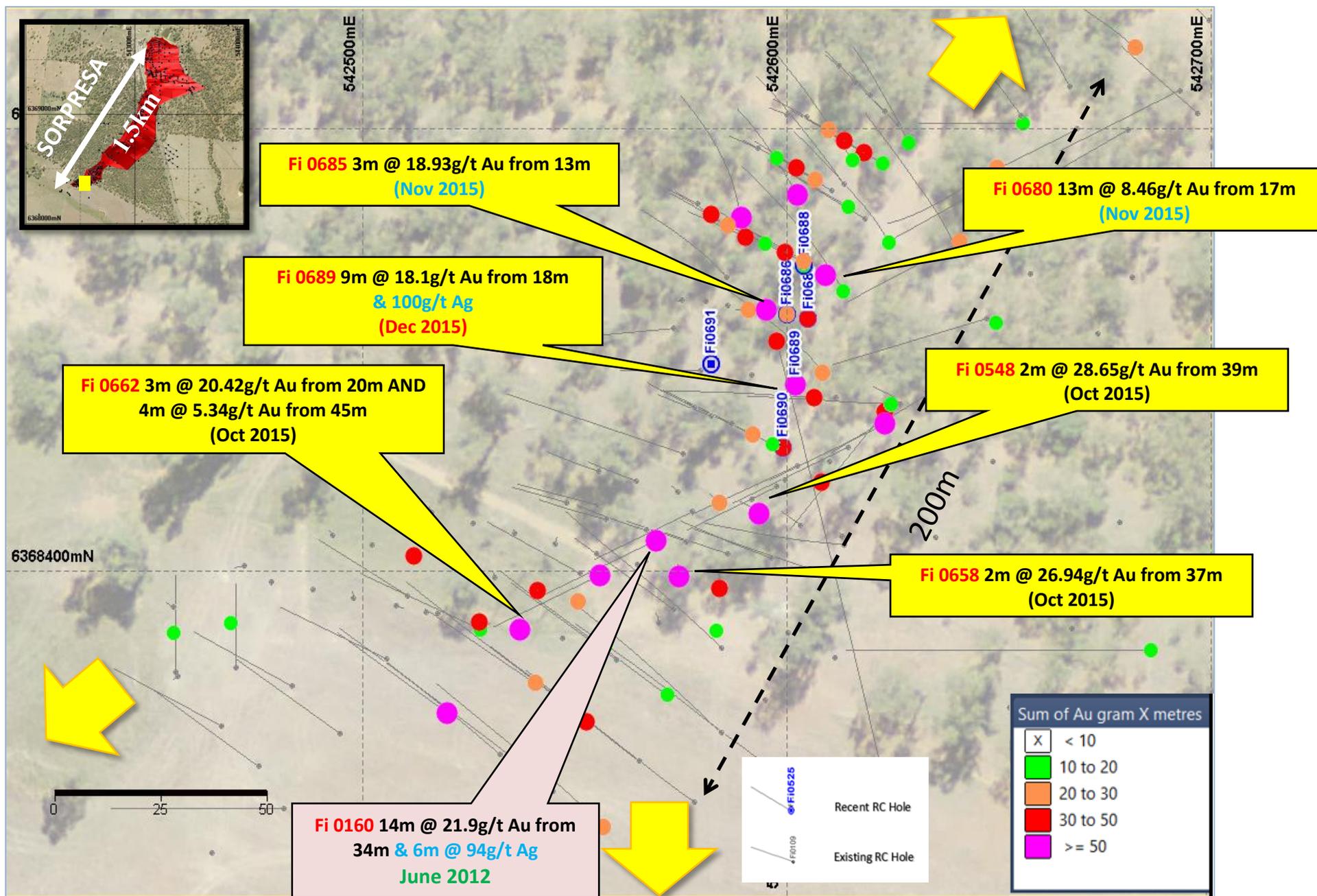
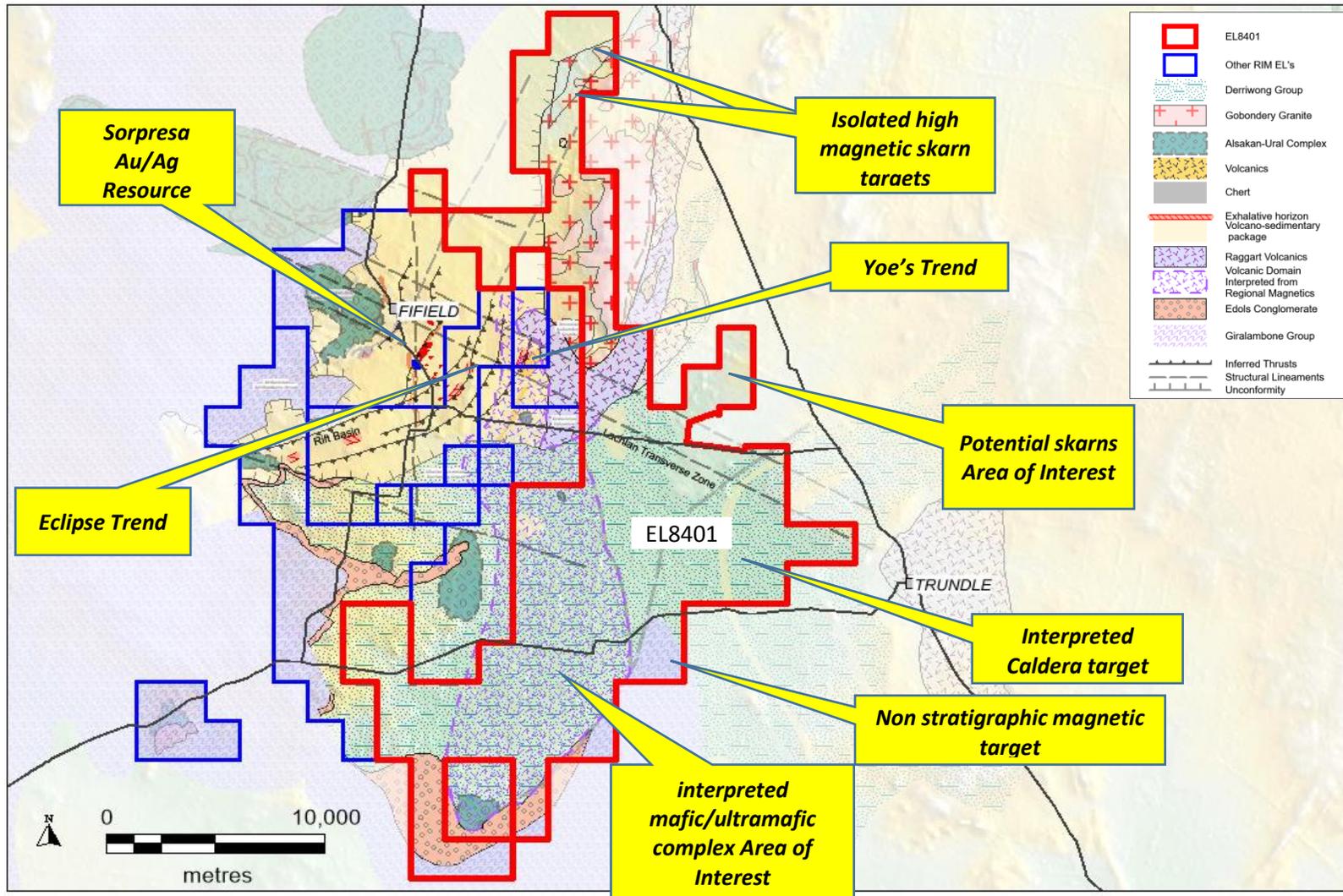


Figure 4: Tenement Position at Fifield NSW – New EL 8401 (in red outline) showing target areas of immediate interest

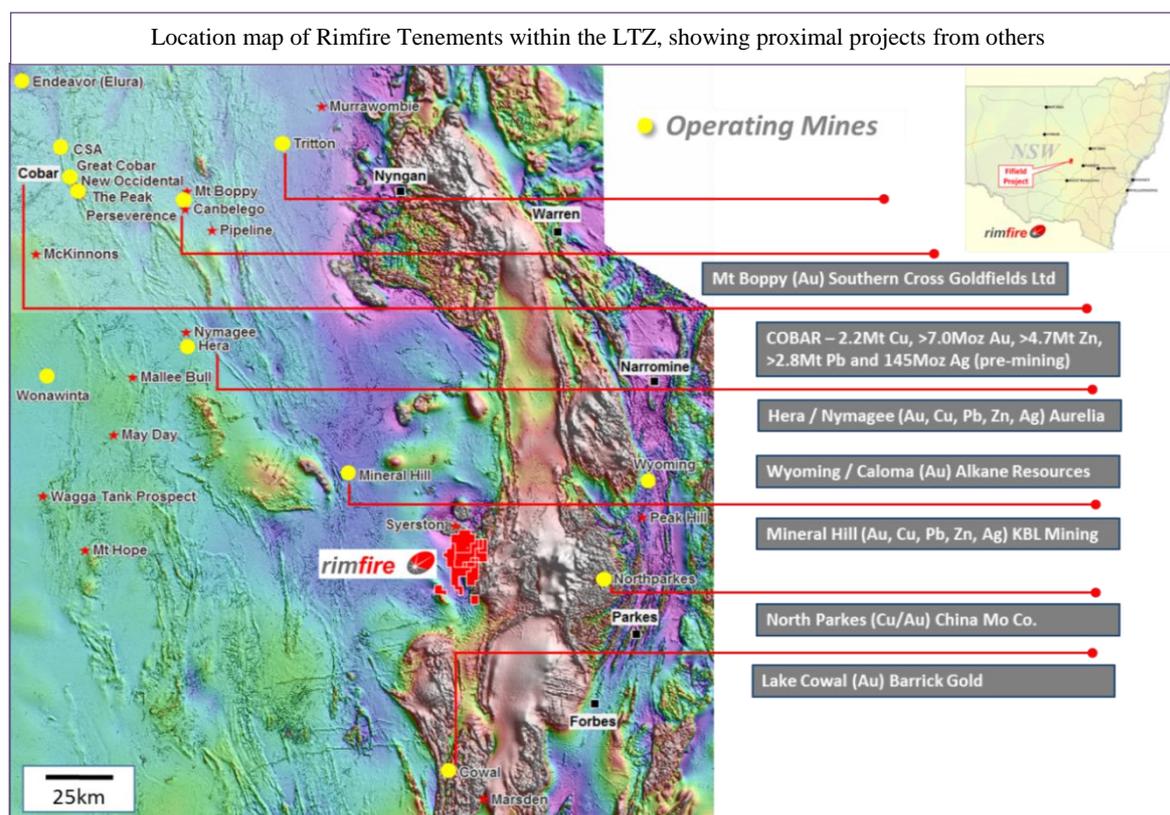


- New EL8401 doubles LTZ Exposure
- Strategic Holding
- Cu/Au/PGE Potential
- Hidden Major Ore Body Potential (under cover)
- Diverse Style Mineralisation likely
 - Mt Leyshon, Kidston
 - Tritton (Besshi)
 - Magmatic Cu/PGE
 - Porphyry Cu/Au

ABOUT RIMFIRE PACIFIC MINING AND COMPETENT PERSON DECLARATION

Rimfire Pacific Mining is an ASX listed (code: RIM) resources exploration company that has its major emphasis focused at Fifield in central NSW, located within the Lachlan Transverse Zone (LTZ).

In 2010 the Company delivered a greenfields gold and silver discovery, named “Sorpresa”, in the Fifield district. Subsequent exploration has provided evidence that the “Wider Sorpresa Area” is now considered a significant gold mineralised system of some promise. More recently a copper signature has been established to the East. The gold is predominantly native gold at Sorpresa.



The best gold and silver intersections achieved from the period mid-2012 to the current date on the **Sorpresa** Project area with locations shown include (note Table 4: *Dates and Hyperlinks for previously referred to results in this report*):

14m @ 21.9g/t Au plus 6m @ 93g/t Ag	Trench 31
13m @ 8.46g/t Au	Trench 31
9m @ 18.1g/t Au plus 3m @ 280g/t Ag	Trench 31
14m @ 24.4g/t Au plus 26m @ 155g/t Ag	Roadside
10m @ 535g/t Ag plus 1.0g/t Au	Roadside
20m @ 230g/t Ag	Roadside North
1m @ 114g/t Au plus 1m @ 33g/t Ag	Boundary Gate East (BGE)
16m @ 5.32g/t Au plus 20m @ 81g/t Ag	Roadside
4m @ 21.9g/t Au	Join Up
26m @ 90g/t Ag plus 26m @ 0.37g/t Au	Roadside

The current main Sorpresa Strike line containing gold and silver mineralisation is approximately 1.5km in length and is at various stages of further discovery extension drilling.

The Company announced a JORC 2012 Compliant Inferred & Indicated Maiden resource for Sorpresa in December 2014, which comprises 6.4Mt for 7.9Moz of silver and 125kOz of gold (at 0.5g/t Au & 25g/t Ag cutoff).

The Company has now established multiple project areas of importance involving hard rock Gold (Au), Silver (Ag), Copper (Cu) and Platinum (Pt) within a 6km radius of the Sorpresa discovery covering an extensive prospective 35km² area at Fifield, which is part of the contiguous 566km² tenement position held.

The latest presentations on the Company are at hyperlinks:

[Rimfire CEO Presentation - AGM 27 November 2015 – John Kaminsky](#)

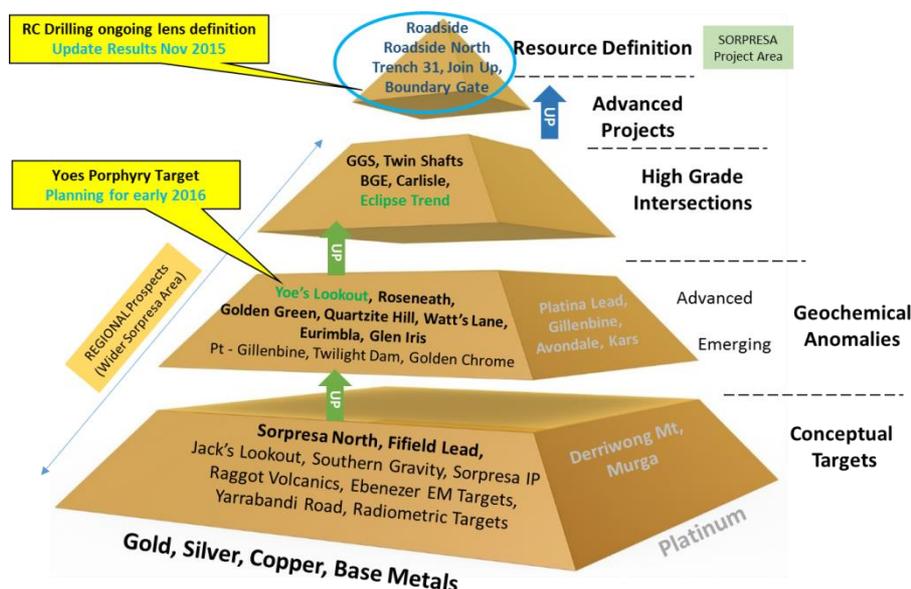
[Benchmarking - AGM 27 November 2015 – Richard Schodde](#)

[Resources Industry Presentation trends in Investment – AGM 27 November 2015 – Hedley Widdup](#)

A 3D Exploration Model, as at May 2014, depicting gold mineralisation at Sorpresa with a description of the RC drill program goals at that time is available as a [video by hyperlink: Click Here](#).

Regional Prospects within 6km Radius of Sorpresa Project Area at Fifield

Prioritized current prospects and targets within 6kms of Sorpresa are being systematically assessed. Rimfire interprets a rift basin setting at Fifield, Back Arc to the World Class Macquarie Arc, and traversed by the crustal scale Lachlan Transverse Zone (LTZ) and cross cut by other major crustal structures, which is host to multiple styles of significant mineralisation, with combined multimillion ounce gold equivalent potential. To date more than **30 targets** are revealed at Fifield.



The prospect pyramid below ranks these prospects which are grouped into 7 manageable “Target Domains”, for gold and base metals, in terms of their logistical, spatial, deposit style and exploration stage;

Rimfire Prospect Pyramid illustrated at increasing stages of advancement from Conceptual targets, Emerging and Advanced Geochemical Anomalies, Prospects with High Grade intersections, and Advanced Targets, and a Resource at Sorpresa.

1. **Sorpresa (Carbonate Base Metal Epithermal Au/Ag)** – Roadside North, Roadside, Original Sorpresa
2. **Sorpresa (Carbonate Base Metal Epithermal Au)** – Join-Up, Boundary Gate, Boundary Gate East, Trench 31
3. **Eclipse Trend (Au-Copper, VMS / Epithermal)** – McConnell’s, Transit, Eclipse North, Eclipse, Eurimbla, Golden Chrome, Roseneath, Watt’s Lane, Carlisle.
4. **Yoes Lookout (Skarn style and Structurally controlled Greenstone and Sediment hosted Au, possible Porphyry Cu-Au target style)**
5. **Orogenics (Structurally controlled Greenstone and Sediment hosted Au)**- Golden Green, Golden Green South, Twin Shafts, Rabbit Hill, Golden Green East.
6. **Sorpresa Extensions** – Sorpresa North, Quartzite Hill, Fifield Lead, Southern Gravity, Red Mist
7. **Conceptual** – Jack’s Lookout, Gravity Gradient, Raggatt Volcanics, Glen Iris,

Work programs are at various stages of development on the prospects.

Table 2: Ranked Prospect Portfolio at Fifield NSW

Table of Comparison of more Advanced Prospects within 6km Radius of Sorpresa Projects								
Location	Rock Chip g/t Au	Typical Soil ppb Au	Typical Auger ppb Au	Anomaly Length	RC Drill	Open	Other	Historic Workings
Sorpresa Resource	8.8	10~50	20~1,000	1.5km	14 @ 24.4 g/t Au 26m @ 155g/t Ag	yes	IP/Gravity	Minor
Yoes Lookout	3.4	10~300	20~1,000	1.7km	Au, Cu anomalous	yes	Magnetic Radiometric	No
Eclipse Trend	18.7	N/A	20~700	2.7km	4m @ 6.5% Cu 4m @ 2.3g/t Au	yes	Ag, Cu	Minor
Golden Green Group	8.1	N/A	10~100	0.5km	2m @ 9.11g/t Au	yes	Mafic host?	Yes
Roseneath	3.7	8~300	15~80	0.8km	N/A	yes	Sorpresa Style?	No
Carlisle	23.0	9~50	N/A	0.35km	7m @ 1.47g/t Au	yes	Magnetic Feature	Minor

Company Strategy

The Company has committed to pursue a **prospect portfolio strategy** of developing the regional prospects at Fifield to suitable stages, in parallel with the Sorpresa project area to achieve outcomes as follows:

- Enhance and highlight the Fifield district's appeal to deliver more discoveries within 6km radius of Sorpresa
- Metals being pursued include Gold, Silver, Copper and Platinum
- Ensure the Company has the opportunity to make the best discoveries possible in its prospect portfolio
- Continue discovery growth at Sorpresa, looking for important contributions in the next phases of drilling
- Grow the maiden resource at Sorpresa (23 Dec 2014), currently published as inferred and indicated comprising **6.4Mt for 7.9Moz of silver and 125kOz of gold (at 0.5g/t Au & 25g/t Ag cutoff)**
- Examine economic potential, as appropriate to the stage of the project area

Competent Persons Declarations

The information in the report to which this statement is attached that relates to Exploration and Resource Results is based on information reviewed and compiled by Colin Plumridge who is deemed to be a Competent Person and is a Member of The Australasian Institute of Mining and Metallurgy.

Mr Plumridge has over 45 years' experience in the mineral and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. and is a consulting geologist to the Company. Colin Plumridge has sufficient experience that is relevant to the style of mineralisation and type of deposit 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'. Colin Plumridge has previously consented to the inclusion of the matters based on the information in the form and context in which it appears.

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

The information provided in "About Rimfire Pacific Mining" is extracted from the reports entitled and listed in the table below created on the dates shown and is available to view additionally 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. Mr Colin Plumridge as a Competent Person consented to the inclusion in the original reports in the form and context in which each appeared, please refer to the Competent Persons declaration above for additional information.

Table 3 Dates and Hyperlinks for previously referred to results in this report

ASX November 9 th 2007 Golden Green Gold Prospect Returns Encouraging Assay
ASX July 25 th 2008 Quarterly Report For the period April 1st to June 30th 2008
ASX March 30 th 2012 Coherent Gold geochemistry at Yoes Lookout Confirmed – Fifield NSW
ASX September 17 th 2012 First Gold Sections Created at Sorpresa Project, Fifield NSW
ASX June 13 th 2012 High Grade Gold Intersection Sorpresa Project – Fifield NSW
ASX July 26 th 2012 Successful Intersections at Sorpresa Gold Project
ASX October 10 th 2012 Highest Gold and Silver Grades seen to date at Sorpresa Project
ASX December 18 th 2012 Sorpresa Project Produces More Encouraging Results
ASX March 27 th 2013 Additional Assays at Sorpresa Gold Project
ASX June 13 th 2013 Further Positive RC Drilling Results at Sorpresa Project
ASX July 17 th 2013 Diamond Drilling Reveals Bonanza Grade of 1m @ 114g/t Au
ASX October 21 st 2013 Results Confirm Extensions of Gold and Silver at Sorpresa Project
ASX December 20 th 2013 High Grade Silver extensions continue at Roadside
ASX February 14 th 2014 Gold Intersections Confirm New Intersections at Sorpresa
ASX May 16 th May 2014 4,000m RC Drilling Program at Sorpresa Project – Regional Intersection 2m @ 9.11g/t Gold
ASX May 30 th May 2014 Drilling Update and 3D Exploration Model for Sorpresa Project – 2m @ 7.49g/t Gold intersected
ASX July 23 rd 2014 Encouraging Regional Rock Chip Results up to 13.7g/t Gold, Fifield NSW
ASX August 18 th 2014 New High Grade Rock Chip Results up to 23g/t Au at Fifield NSW
ASX August 26 th 2014 Sorpresa Gold and Silver Mineralisation Extended at Fifield, NSW
ASX November 28 th 2014 Encouraging Gold Results Intersected in New Shallow Oxide Position at Sorpresa
ASX December 8 th 2014 High Grades Intersected in Sorpresa Resource Definition Drilling
ASX December 23 rd 2014 Sorpresa Maiden Resource Fifield NSW – 6.4Mt for 125kOz of gold and 7.9Moz of silver
ASX January 30 th 2015 December Quarter Exploration Report
ASX February 20 th 2015 Sorpresa RC Drilling Assays Finalised, New RC Drilling underway to extend mineralisation
ASX February 23 rd 2015 Gold Intersections confirmed from Surface at Carlisle, Fifield NSW
ASX 23 rd March 2015 Encouraging Results including 2m @ 10.09g/t Gold Intersected at Sorpresa
ASX 13 th April 2015 Skarn style mineralisation intersected with Copper Anomalism at Yoes Lookout Prospect
ASX 20 th May 2015 Yoes Area Assays confirm Copper Anomalism with Gold Present
ASX 16 th June 2015 RC Drill Assays Confirm Copper Anomalism and Gold at Eclipse Trend
ASX 23 rd July 2015 4m @ 6.5% Cu and 2.3g/t Au Massive Chalcopyrite at Eclipse
ASX 26 th August 2015 Sorpresa Drilling Continues best intersection of 14m @ 5.24g/t gold & 156g/t silver from 21m
ASX 20 th October 2015 Sorpresa Drilling - Best Intersection of 3m @ 20.42g/t Au AND 4m @ 5.34g/t Au
ASX 20 th November 2015 Sorpresa Drilling gives 13m @ 8.46g/t gold (incl. 2m @ 31.35g/t) at shallow depths
ASX 27 th November 2015 CEO Presentation Corporate and Exploration AGM 2015
ASX 4 th December 2015 New Drilling Results Include 9m @ 18.15g/t gold at Sorpresa, Fifield NSW