



30th April 2012

Company Announcement Office
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QUARTERLY EXPLORATION AND ACTIVITIES REPORT

(For the period 1st January 2012 to 31st March 2012)

Significant progress achieved at Sorpresa and Yoes Lookout Gold Areas

The exploration focus in the period continued to be the pursuit of the gold mineralisation within Fifield NSW. Particular attention was given to the Sorpresa Main Strike area (EA1), the Sorpresa SW extension (EA3) and the Yoes Lookout Area (EA11). Appendices (1 to 6) attached provide Locations, Context and Results relevant to this report.

Highlights for the March Quarter

- **Reconnaissance Drilling has focused on a range of gold targets in the SSW corridor at Sorpresa**
 - 11 holes (approx. 720m) with depths of 40m to 70m have been completed in March and await assays
 - Field XRF Chemistry on the drill cuttings seem consistent with prior successful drilling in 2011
 - **The drilling appears to intersect mineralised zones in a number of holes** based on field XRF chemistry
- **New Permits were issued for delineation drilling for sections of Sorpresa already drilled in 2011**
 - **It is expected that this drilling will commence within the June quarter**
- **IP Survey Results at the Main Sorpresa Project indicate a deeper geological context is present**
 - A strong empirical spatial relationship to the Sorpresa known Au position is seen in the IP chargeability
 - Important geological targets are interpreted in the depth range 100m to 350m below Sorpresa Main Project
- **Additional new targets for gold have been identified within the Sorpresa central corridor area**
 - Auger lines at 5~20m hole spacings were drilled into shallow bedrock (<5m)
 - Detailed Geological Mapping and pH zoning interpretation is ongoing
 - Gossanous zones have been identified for additional deeper drilling
- **The newly defined Yoes Lookout Gold Prospect, is large, open and significant**
 - At a 20ppb contour the Au anomaly is **450m length x 200m width and open in many directions**
 - **The underlying rock gives rise to the Au in soil anomalism at Yoes Lookout**
 - Drilling is planned within May in a series of reconnaissance traverses (40~80m)
 - **Additional adjacent exploration blocks have been sought**, which shows geology consistent with North Parkes
- **Senior geological field staff was added to the Fifield site to accelerate exploration work programs**

In late January 2012, the Company produced an inhouse field video review of the Sorpresa Gold Mineralisation area, with a particular focus around the Trench 31 gold lens at the south end of Sorpresa.

The video can be seen by activating the hyperlink: [Sorpresa Gold Project –Tr31 Area Review Video - January 2012](#)

The Executive Chairman, John Kaminsky, commented on March Quarter:

“With the addition of extra senior field staff during the last period we have made important progress at both the Sorpresa gold project and Yoes Lookout areas.

Our plan is to continue to increase our field activities in subsequent quarters demonstrating our optimistic view of the project areas at Fifield.

In March the weather conditions cleared, so approximately 720 metres of “scout drilling” to 40m~70m depths was done with holes positioned to explore SSW extension of the Sorpresa Trench 31 area. Initial indications are positive, but we await definitive assays.

The strategy is to build existing and new discoveries into resource estimates. We are finely balancing the need for exploration activities seeking new discoveries, such as the work at Yoes Lookout, with the market expectation for advancing delineation programs on known discoveries like the Main Strike area at Sorpresa.



“Scout Drilling” searching for Au mineralisation South West of Trench 31 Sorpresa Gold Area.

To this extent the drilling conducted in the March Quarter takes an important step down the road on both these objectives and consistent regular drilling will be pursued in the coming quarters. **We are on track to deliver approx. an additional 3,000m of drilling over the next quarter, mainly at Sorpresa and a further 10,000m in the second half of 2012 across the projects.**

Sorpresa is only a small section of the extensive gold story unfolding at Fifield and we are expecting to have continued exploration success throughout this year.”

The Head of Exploration, Colin Plumridge, stated:



Inspecting Yoes Lookout

“The Company has produced a great quarter of exploration, building on all the previous hard work at Fifield. With the addition of more senior field expertise, we are expecting to deliver a solid series of work programs going forward in 2012.

The prospective nature seen of the extensional SW scout drilling is a promising start, and we keenly await results. Similarly, the IP Survey gives an exciting new third dimension to the gold mineralization potential at depth within the Sorpresa area.

Yoes Lookout, also continues to deliver interesting gold results in soil and bedrock geochemistry. After an additional round of rock chipping within the identified gold anomaly zone, we intend to conduct a series of drill traverses 40~80m to determine the underlying geology and likely basis for the gold mineralization seen at surface.

Drill programs are ongoing and being continually refined as fresh information comes to hand. We remain very responsive to the results. **Having the flexibility of a permanent drill rig on site, is proving to be a great operational initiative, I am not sure this has been fully recognized in the market yet.**

Things are definitely beginning to fall into place and we expect to report a consistent newsflow over the coming Quarters.”

March 2012 Quarter Summary of Exploration Undertaken

The Company received environmental permits for the Sorpresa Main Au prospect area (EA 1) allowing intense delineation drilling to proceed commencing in May.

The weather continued to be a negative factor at the commencement of the quarter with rain delays affecting heavy drill access in particular. Nevertheless, significant exploration programs were conducted over a range of prospects as follows.

Exploration Sampling Undertaken at Fifield in March Quarter

| Fifield Area Reference | Prospect Name | Sample Type | No of Samples or metres | Brief Comments |
|------------------------|---------------------------------------|------------------------|-------------------------|---|
| EA 11 | Yoes Lookout & Glen Iris | Soil | 69 | Infill results were encouraging, with a high soil value of 270ppb Au; Best rockchip result 1.62g/t Au |
| | | Auger Bedrock | 286 | |
| | | Mapping & Magnetics | Extensive | Further enhances geological context |
| EA1 & EA3 | Sorpresa Main Strike and SW extension | Soil (pH) | 300 | Significant work programs were undertaken at Sorpresa and the adjacent SW strike. Reconnaissance airdrilling has given positive indications of further mineralization, as reflected in XRF chemistry in the field |
| | | Auger Bedrock | 99 | |
| | | Air Drilling (OHH) | 716m | |
| | | XRF Chemistry | 640 | |
| | | Mapping | 11.25km ² | |
| | | Geophysics (IP Survey) | 12km of lines | Deeper geological context important spatial relationship to known Au mineralization at the surface |

- Reconnaissance Air Drilling SW of the Sorpresa Main Strike was well advanced
- XRF bedrock chemistry on drill cuttings indicates likely mineralised intersections within a number of these holes
- Sorpresa Main Strike drill delineation has permits approved, and drilling starts in May
- The IP Survey conducted across Sorpresa shows important deeper targets for the gold mineralisation
- Yoes Lookout was confirmed as a significant surface gold anomaly with considerable potential and soon to be drilled



Field XRF profiling of Drill cuttings

Important work continued at the Sorpresa Gold project area. Air Drilling with OHH (Open Hole Hammer) to depths of 40m to 70m in Scout Drilling was used along strike from the SSW tip of the known gold mineralization at the Trench 31 location within Sorpresa.

An initial program of 18 or so planned holes ¹ is focused on locating new areas of gold within the inferred black silica gold receptive horizon to the south and south west. Assays are pending, but a number of the holes have provided positive XRF geochemistry already. Given that the Sorpresa XRF chemistry signature is well known, it would indicate a probable extension in the Au mineralization in the new drilling locations in the Quarter.

Detailed Geological Mapping within the Main Sorpresa Strike Zone provides additional Au targets. The use of Soil sampling focused on pH zoning has been correlated to mineralized areas within Sorpresa, the Trench 31 area. In addition, gossanous zones have been identified, providing further new Au targets for drilling.

The IP Survey conducted at Sorpresa in the Quarter implies a spatial association for the gold mineralization already seen (i.e. the 0 to 50m depth) in drilling during 2011, with deeper chargeability targets now seen. The strong empirical correlation with known geological structure and mineralization appears compelling. **The Company is therefore looking forward to testing this geology at depths of 150m to 350m.**

¹ Appendix 1 and 3

The geological model developed at Fifield, incorporating the black silica gold receptive horizon, represents a breakthrough for the Company. The mapping of this important geological unit over an area in excess of 4km² demonstrates that it is a key component in parts of the gold system operating at Fifield within the Sorpresa precinct.

Not all black silica areas are expected to be gold bearing, but **the important cross cutting shear positions that heavily influence the gold position potential within this geology, are the key.**

The Company has learnt that the area within Sorpresa at Trench 31 represents a well-organized gold lens, visible only because it was partly eroded to surface, thus enabling geochemistry exploration to discover its position. Many more gold lenses are anticipated to be sitting within the gold receptive horizon, including gold mineralization that is poorly exposed, awaiting discovery in the ensuing periods.

The objective of the Company is to cover the many prospective areas as fast and as effectively as possible, thus leading to quality target establishment for further deeper drilling, where appropriate. The Company will continue to report specific exploration outcomes from each of the prospective areas, as data is processed and properly interpreted within its appropriate context. This will feed into the subsequent customized exploration programs.

Next Stage Exploration and Drilling at Fifield – Specific Plans and Progress

The strategy in the Company is to have a mixture of discovery scout drilling, which will include some of the new prospects such as the south west area at Sorpresa and Yoes Lookout, but also undertake resource definition drilling on the known Sorpresa gold mineralized areas, partly drilled in 2011.

The Company will continue to undertake Open Hole Hammer (OHH) drilling at the Sorpresa Gold project area at Fifield NSW. This will involve the first stage of scout drilling to seek gold mineralisation in the SSW strike extension from the Trench 31 Area.

Large scale drilling over the ensuing 12 to 18 months is required within the project areas commenced at Sorpresa and those new areas being prospected elsewhere at Fifield. It is the Company's goal to have the drilling as best sited as possible on the appropriate targets through proper customized precursor exploration, using soil sampling, auger drilling, geological mapping, geophysics and other techniques if appropriate. This is to ensure better orientation of the more expensive deeper drilling.

OHH (Open Hole Hammer) drilling commenced in the March Quarter 2012. The Company obtained additional equipment to assist with the required drilling and appointed geoscience personnel enabling an expansion of activities at Fifield, particularly regular drilling activities.

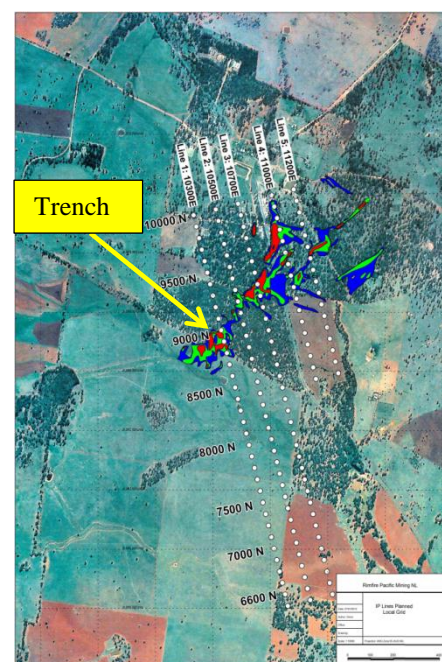
The next phase of drilling proposes to cover delineation drilling of the Main Sorpresa Area (EA 1). Reconnaissance drilling will continue at Sorpresa SW extension and Yoes Lookout. A range of other target areas at Fifield for Au mineralization (EA 2 to EA 11) are marked for drilling, at various future stages. A base load of approx. 5~6,000m of OHH drilling is forecast for the first half year, with capacity to increase this if deemed desirable, in the period. A drill plan by prospect was show shown in the previous quarterly report and will be the subject of updates as required.

The Trench 31 gold mineralization continues NE and SW along strike, but is intersected by cross cutting faults that distort the mineralization, **with the possibility of enhanced gold mineralization as a result.** The scout drilling attempts to anticipate the potential for any complex geometry in the distortions. The delineation drilling will subsequently close the mineralization gaps shown in the scout drilling.

Geophysical Survey – IP Pole to Dipole at Sorpresa Au Mineralised Area EA1 – Looking for Sulphides at Depth

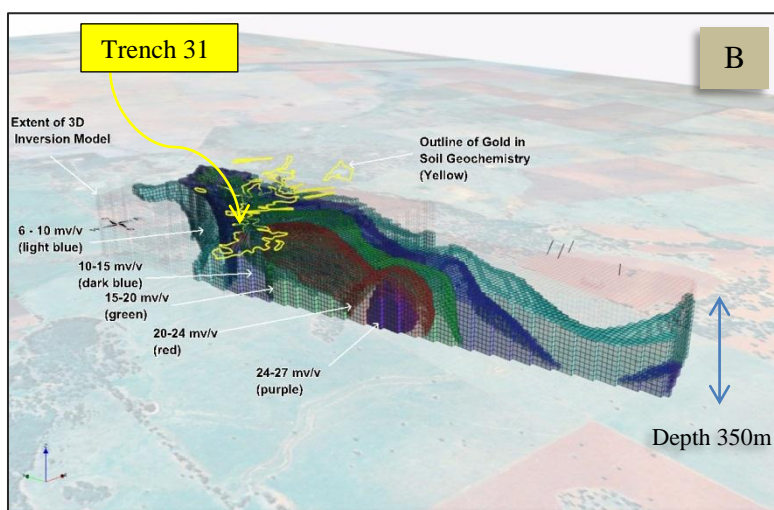
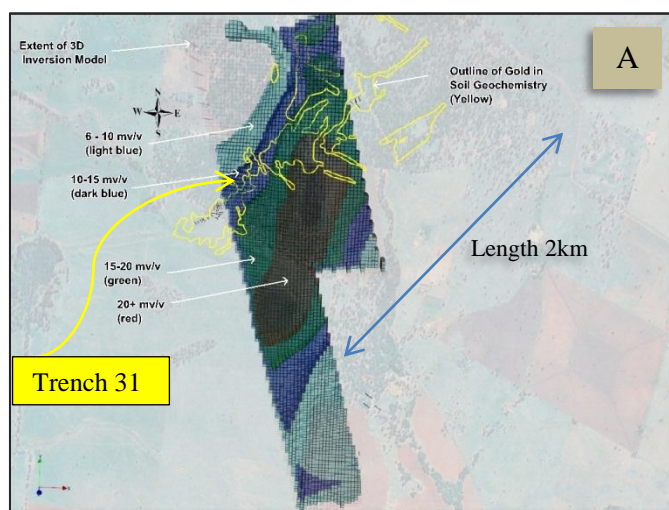
The positive mineralization results received at the Main Sorpresa Au Project area when combined with the geological knowledge gained at that location encouraged the Company to examine electrical geophysical techniques to help determine if the possibility exists for deeper conductive associated mineralization.

An IP Pole-Dipole survey was conducted, consisting of 5 lines (total approx.12km) at Sorpresa, with 100m electrode spacing separations.



The diagram above highlights the IP Survey lines at Sorpresa on an airphoto of the location. The Sorpresa Au in soil contours are also shown as a backdrop, with the red areas representing >25ppb Au in soil

A preliminary 3D pole-dipole IP chargeability model was developed at Sorpresa and shows that there is a **definite deeper geological significance underlying the Sorpresa Au mineralization** seen in drilling during 2011 (see below). A drilling program designed to test targets at 150~300m depths will be required and is being designed.



(A) IP Survey Chargeability Contours shown in Plan View overlaid on Sorpresa Au in Soil Geochemistry. Surface IP response in general has spatial relationship to known structure and mineralised positions.

(B) The same image as in (A), but shown in Oblique 3D view. The curved shape of IP chargeability matches known Au in Soil geochemistry. Chargeability increases at depth (150m to 350m), appears discrete and dips to the east from the known surface gold position.

It is anticipated, that the Company will release more details on the IP Survey model representation shortly.

Recent Sorpresa Information Thread

The Company provides a hyperlink thread of the Sorpresa Gold Mineralisation area of recent ASX and video materials as follows:

1. ASX 12th April 2012 [Drilling Progress at Sorpresa Gold Project – Fifield NSW](#)
2. ASX January 31st 2012 ([Quarterly Exploration Activities December 2011](#))
3. ASX [January 2012 Sorpresa Gold Project – Trench 31 Area Review Video](#)
4. ASX 28th November 2011 [AGM Exploration Presentation – Including Summary results of Sorpresa](#)
5. Rimfire Website Summary [Brief history of Sorpresa Mineralisation discovery and style \(to September 2011\)](#)

Details of Yoes Lookout Exploration in the March Quarter

Additional exploration at Yoes Lookout prospect (EA 11), located 5km due east of the Sorpresa Gold project area at Fifield NSW, provides further advancement in the prospective nature of this area for gold mineralization.

The results in the March Quarter confirm that a greenfields coherent Au anomaly in the soil is now well established, considerable in size and open in many directions.

The soil geochemistry² and preliminary auger drill chemistry also demonstrate **the likely in situ character of the Gold anomalism** seen to date at Yoes Lookout. At a 20ppb contour the Au anomaly is **450m length x 200m width and open in many directions**. Tighter Au contouring provides a lens like character to the results with centres of > 100ppb Au. A single rock chip sample was taken within the soil anomalism area and **assayed 1.54g/t Au**.

Ground magnetic surveying has identified drill targets spatially associated with the Au in soil anomaly. **Auger drilling (286 holes)** was completed within the central corridor of the Au in Soil anomaly consisting of 12 auger lines at with 5m hole spacings were drilled into shallow bedrock (<2.5m). The underlying rock is hard to penetrate with the auger drill and is considered to have been “undersampled”.

² Appendix 4 – Yoes Lookout Au in Soil updated results in plan view and contours

The auger drill Au assays do, however, provide consistency with the overlying Au in soil anomaly, with a **high value of 1.62g/t Au**. The auger traverses were conducted “prior” to soil geochemistry results being seen and have in many cases, not sampled the best soil geochemistry.

The key conclusion is that the underlying rock gives rise to the Au in soil anomalism at Yoes Lookout. Deeper drilling is now planned due to commence in May in a series of traverse lines, as “first pass scout drilling” to 40~80m depths.

Wider geological mapping and interpretation of the area has provided an encouraging context to the Au anomalism. The geology at Yoes Lookout is Upper Ordovician volcanics and appear to be the dominant underlying host rock style, which differs to that of Sorpresa.

The setting is closer to the porphyry copper-gold style geology that includes North Parkes³. The level of gold anomalism at plus 20ppb/t Au is significant, particularly when we see this area is located within the important mineralized Lachlan-Cadia corridor, a world class Au-Cu producing geological feature.



At Yoes Lookout, magnetite veining in altered andesite has been identified. A shear zone also appears to be present, along the strike of the main corridor of the Au in soil anomaly.

Yoes Lookout discussion Thread

The Company provides a thread of the Yoes Lookout Gold Mineralisation area ASX Announcements as follows:

1. January 31st 2012 ([Quarterly Exploration Activities December 2011](#))
2. February 21st 2012 ([Significant Gold Anomalism Observed at Yoes Lookout – Fifield NSW](#))
3. March 30th 2012 ([Coherent Gold Geochemistry Anomalism Confirmed at Yoes Lookout – Fifield NSW](#))

Summary Comments on Recent Gold Mineralisation Observations

Prior to Rimfire’s work at Fifield, there has been no prior recognition by other modern day explorers of the disseminated gold potential at Fifield. In each instance, both Sorpresa and Yoes Lookout, the Company has made a greenfields gold mineralization discovery. These gold anomalies have remained undiscovered, masked by soil and look deceptively subdued. It is expected that numerous additional new disseminated gold anomalies will be found using the Company’s successfully applied exploration techniques on an ongoing basis.

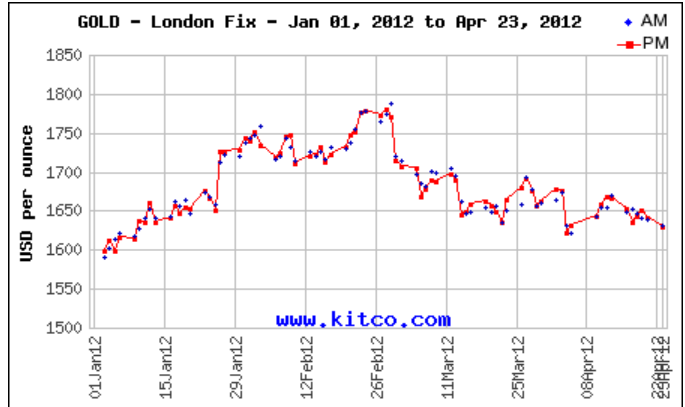
It therefore needs to be re-inforced that while the delineation of the Sorpresa mineralization is very important, this should be balanced against the weighted probability of new discoveries being made in the Fifield area. Whilst it is still at the early exploration stage Yoes Lookout vindicates this approach adopted.

A larger scale geological model for Fifield incorporating these new observations gained at Yoes Lookout is being developed.

³ North Parkes mine is operated by Riotinto and located approx. 50km SE of Yoes Lookout – Refer Appendix 7

COMMODITY PRICING FOR THE MARCH 2012 QUARTER

The price of Platinum increased in the quarter, but was still trading at an historic discount to Gold (www.kitco.com).



As at 23rd April 2012, the prices for metals in New York based on closing Ask in USD were as follows:

| | |
|----------|------------|
| Gold | \$1,639/oz |
| Platinum | \$1,565/oz |
| Silver | \$31/oz |

CORPORATE ACTIVITIES

Tenement Position

The Company applied for **7 additional units surrounding the Yoes Lookout area** at Fifield NSW. These units complement the existing exploration for gold-copper porphyry style mineralisation being pursued at that location.

Cash, Facilities and Investments

As at 31st March 2012 the Company had approximately \$1.911million in cash.

Issued Capital – Exercise of Options

The issued capital at the close of business at 31st March 2012 was 525,846,643 ordinary shares.

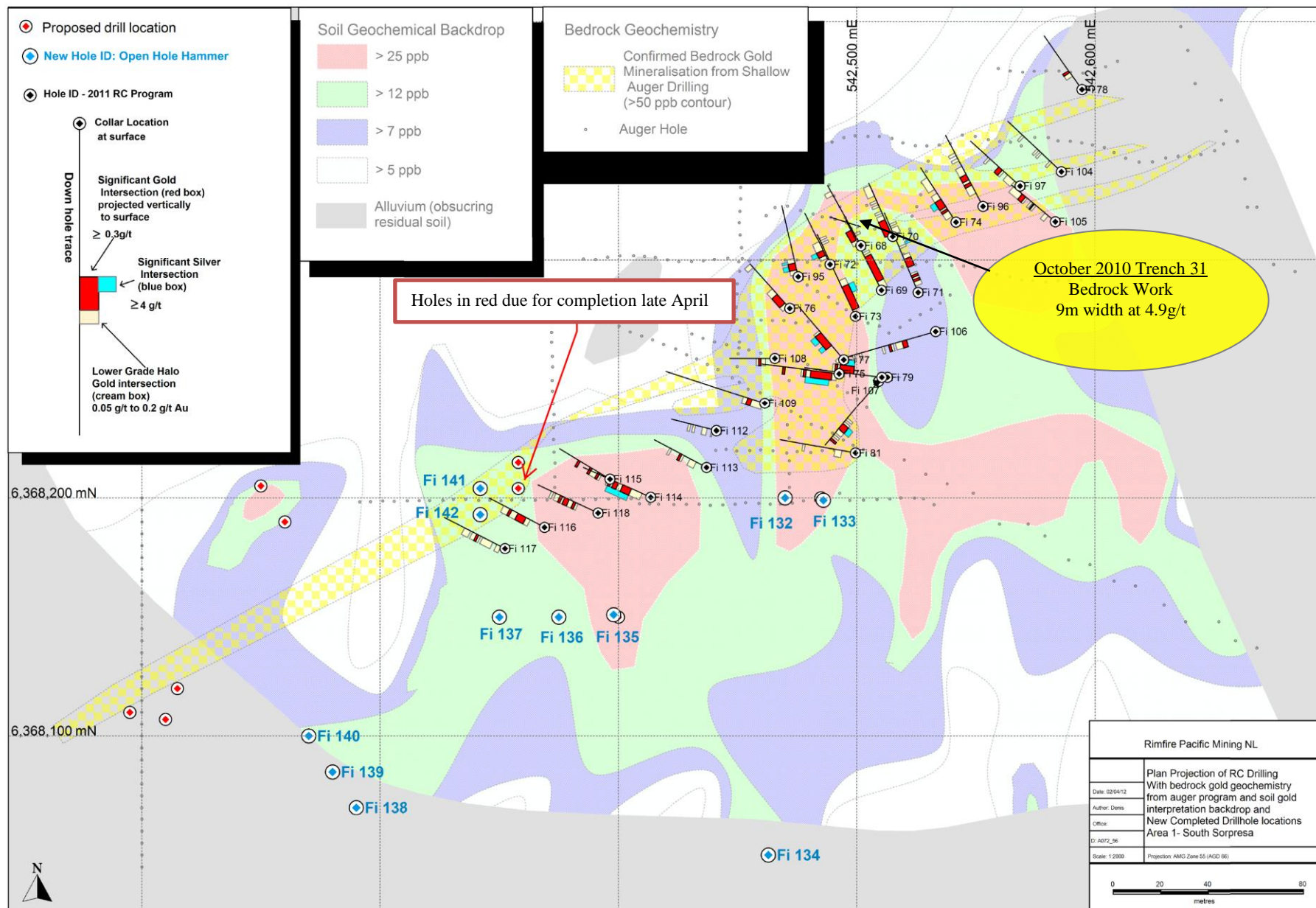
JOHN KAMINSKY
Executive Chairman

The information in the report to which this statement is attached that relates to Exploration Results is compiled by Mr Colin Plumridge, who is a Member of The Australian Institute of Mining and Metallurgy, with over 40 years experience in the mineral exploration and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. and is a consulting geologist to the Company. He has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which is being undertaken to qualify as a Competent Person as defined in the 2004 edition of the “Australian Code for Reporting of Mineral Resources and Ore reserves”. Mr Plumridge consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

APPENDIX 1

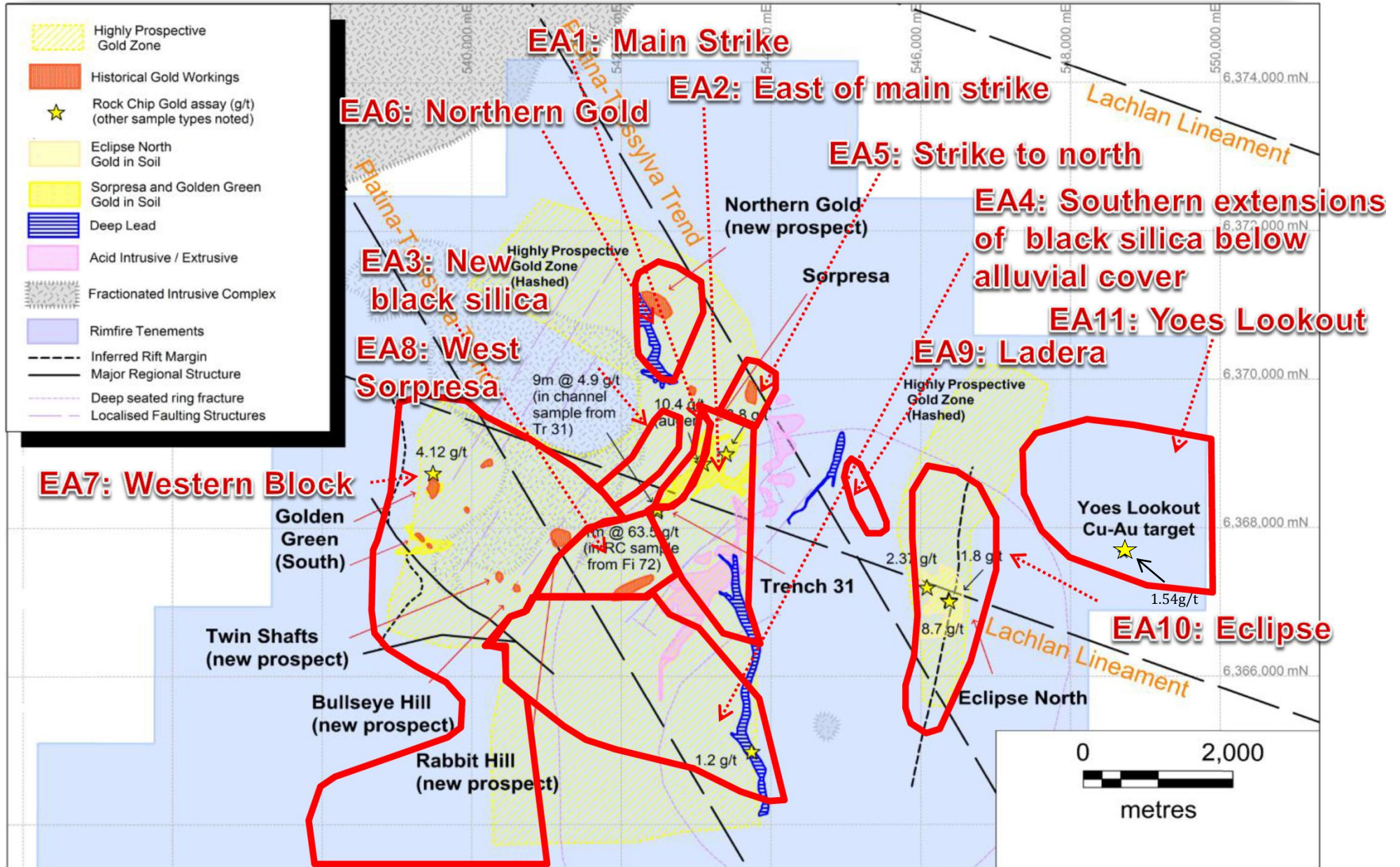
OHH Drill Hole Locations (completed and soon to be completed) South West Sorpresa Gold Project – Plan View

(Shown against Gold in Bedrock Auger Zones and Soils previously established)



Appendix 2

Eleven Potential Gold Areas (EA 1 to EA 11) Identified at Wider Fifield District



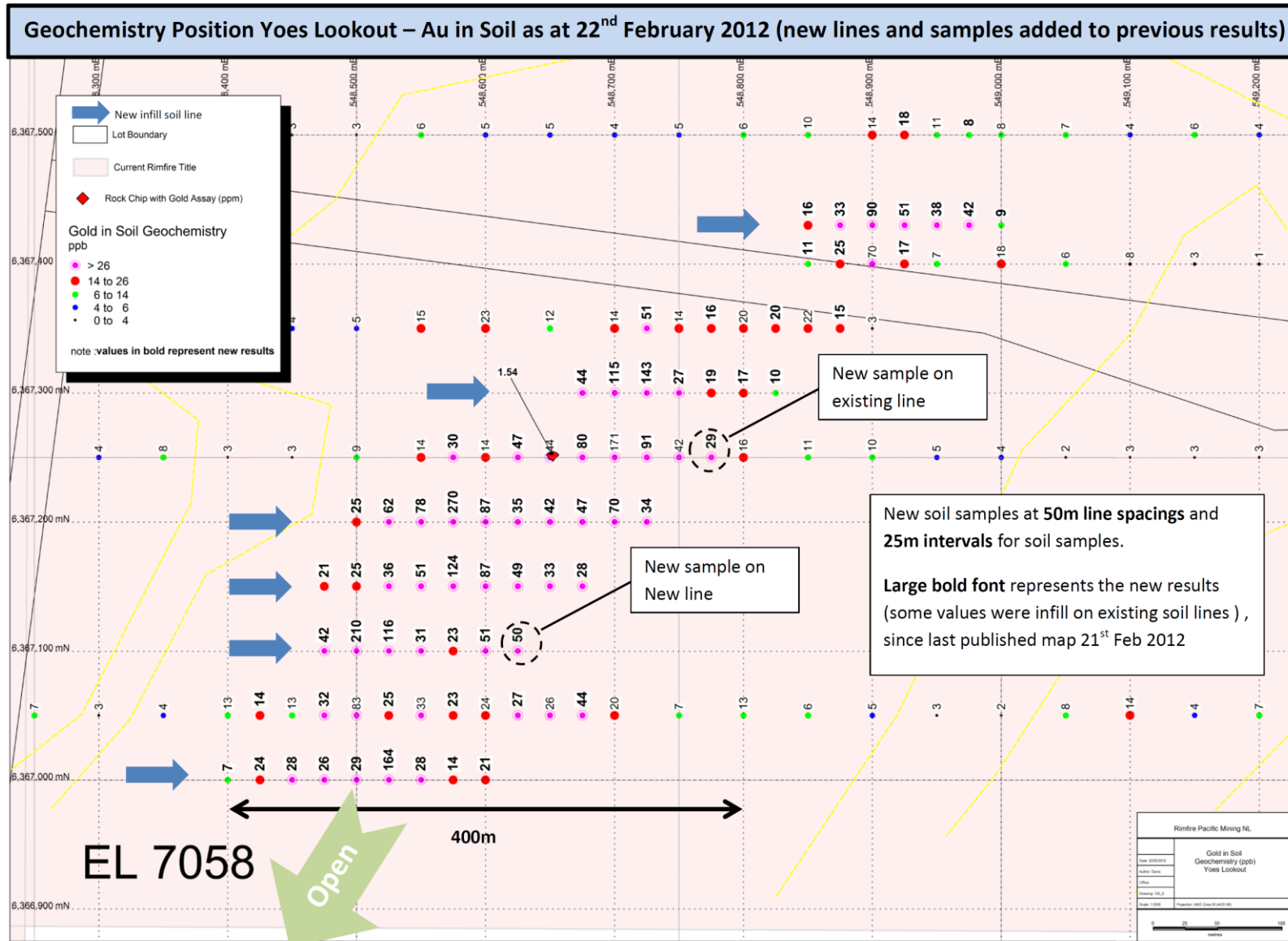
Appendix 3
March Quarter Completed OHH Drilling
with Hole Locations SSW Extension "Scout Drilling" from Trench 31 Area Sorpresa Gold Project

| Completed Drill Hole Summary Fifield | | | | | | | | | | |
|--------------------------------------|------------------|-----------------|---------|-----------------|-----------------|----------|------|-------------------------|------|--|
| Hole ID | Northing (AGD66) | Easting (AGD66) | Dip (°) | Mag Bearing (°) | Total Depth (m) | Prospect | Area | Location | Type | "Scout Drilling " Target |
| Fi 132 | 6368200 | 542470 | -90 | 0 | 45 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Auger Anomalism 20m south of Fi 81 |
| Fi 133 | 6368199 | 542486 | -90 | 0 | 64 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Auger Anomalism 20m south of Fi 81 |
| Fi 134 | 6368050 | 542463 | -90 | 0 | 45 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Soil anomalism 170 metres south of Fi 81 |
| Fi 135 | 6368151 | 542398 | -90 | 0 | 68 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Soil anomalism beside gravity feature intersection |
| Fi 136 | 6368150 | 542375 | -90 | 0 | 48 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Intersection of T31 gravity feature with other gravity feature 30m south of Fi 117 |
| Fi 137 | 6368150 | 542350 | -90 | 0 | 45 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Intersection of T31 gravity feature with other gravity feature 30m south of Fi 117 |
| Fi 138 | 6368070 | 542290 | -90 | 0 | 62 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Gravity 100 metres SW of Fi 117 |
| Fi 139 | 6368085 | 542280 | -90 | 0 | 48 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Gravity 100 metres SW of Fi 117 |
| Fi 140 | 6368100 | 542270 | -90 | 0 | 48 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Gravity 100 metres SW of Fi 117 |
| Fi 141 | 6368204 | 542342 | 90 | 0 | 52 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Good auger results not represented in RC Drilling near Fi 116 |
| Fi 142 | 6368193 | 542342 | 90 | 0 | 42 | Sorpresa | EA1 | T31-SW Strike extension | OHH | Good auger results not represented in RC Drilling near Fi 116 |
| Metres Drilled Total | | | | | 716 | | | | | |

★ OHH = Open Hole Hammer Drilling with Assays pending

Appendix 4

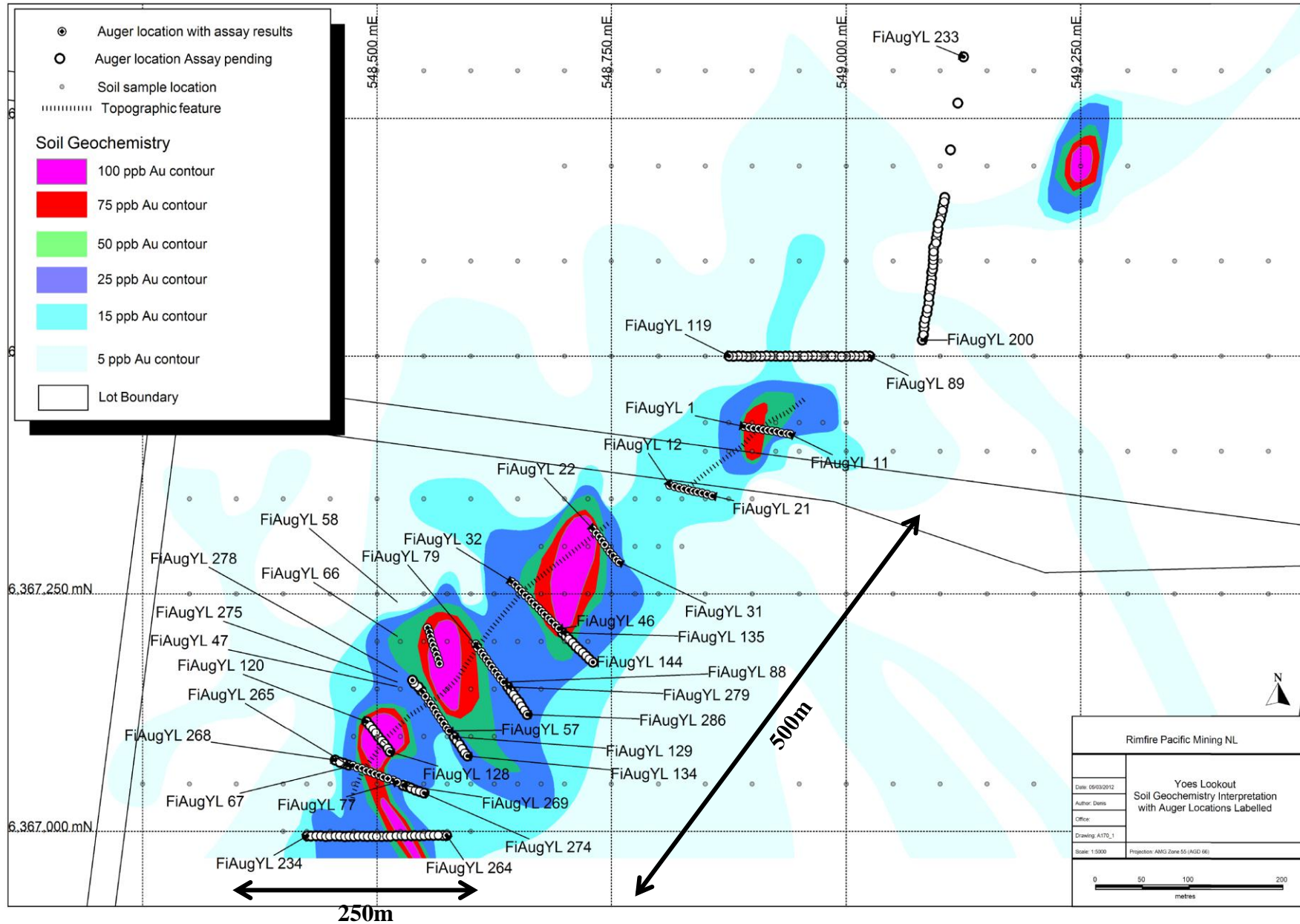
Yoes Lookout Gold in Soil Anomaly – Plan View of Values in ppb Au⁴



⁴ Au assays in parts per billion (ppb) using fire assay method Au-TL44, 50g charge size, ICP-MS finish, detection limit 1ppb Au. Soil samples were screened to 5mm, so coarse rock fragments were not well sampled

Appendix 4 (cont.)

Contours of Yoes Lookout Gold in Soil Anomaly – Plan View of Values in ppb Au (also showing auger drill locations - FiAugYL)



Appendix 5

Notes on the Unique Geological Position of the Fifield Project Area

The district wide exploration work continues to find mineralisation zoning of various styles at Fifield. The eastern areas, which includes Yoes Lookout, have overlying Silurian-Devonian aged rocks which have been eroded to expose the underlying Upper Ordovician porphyry copper-gold style rocks.

The western gold areas at Fifield have Girilambone age rocks below the Silurian-Devonian rocks. **Accordingly, it is postulated that somewhere below the Sorpresa Gold mineralised area, there is a massive fault contact between the Girilambone rocks and the Upper Ordovician porphyry copper-gold style rocks.**

This important geological contact below the Sorpresa gold mineralised area is also cut by the Lachlan Lineament structure and is intruded by many and varied intrusives. It is also the site of a deep rift with highly carbonaceous rocks being deposited simultaneously with rhyodacite and basic volcanics.

A conceptual geological model is being developed to reflect this interpretation.

The wider geological mapping and interpretation of the new Yoes Lookout area has provided an encouraging context to the Au anomalism. The geology at the Sorpresa Gold Project area differs to that of the Yoes Lookout area, where the Upper Ordovician volcanics appear to be the dominant underlying host rock style. **The Yoes Lookout setting is closer to the porphyry copper-gold style geology that includes North Parkes.**

Magnetite veining in altered andesite has been identified and a shear zone appears to be present, along the strike of the main corridor of the Au in soil anomaly at Yoes Lookout. A negative topographic expression of the main gold zone is evident.

Gold Potential is Growing

The Fifield area continues to develop its gold credentials. The turning point was the RC drilling that confirmed discovery of disseminated gold at Sorpresa in 2011, elevating the importance of the gold geochemistry and trench work done in 2010 at that location.

Disseminated gold deposits appear evidenced to occur in this dynamic geological setting within the Fifield district, and this has gone largely unrecognised by all other explorers prior to Rimfire's Sorpresa gold discovery.

The RC drill programs completed on the Sorpresa gold (Au) prospect during 2011 and additional knowledge gained in the adjacent locations within the 20km² prospective area identified at Fifield NSW for gold mineralisation have formed the basis for geological model development using the important interpretation of the **gold receptive horizon of black silica** now identified.

Inclusive of the main Sorpresa prospect (EA 1), **a 4km² area has been identified as having a target potential of 0.5 million to 1.5 million ounces of Au.**⁵ Details of the basis for the assessment can be seen in the 2011 AGM Presentation⁶.

The Company intends to continue its assessment and delineation of the Main Sorpresa Prospect, whilst advancing the development of additional areas for new Au discoveries. It is the Company's firm view that the district is likely to host a range of gold discoveries, some similar in character to the Sorpresa area, so ensuring a suitable balance between new exploration and delineation is important. The overall geological setting and Au mineralised potential both continue to show impressive scale and promise in the wider Fifield district of 20km².

Background on the 2011 RC Drilling Results at Sorpresa Main Strike EA 1 and Geological Model Development

The Company has considered the broader implications of the exploration to date at the Sorpresa area and its surrounds. This also included important observations from both the May and September 2011 RC Drilling programs.

⁵ **Disclaimer** - "That the potential quantity and grade is conceptual in nature, that there has been insufficient exploration to define a Mineral Resource, and that it is uncertain if further exploration will result in the determination of a Mineral Resource."

⁶ AGM 2011 Presentation at link <http://www.rimfire.com.au/PDF/1051660-AGM-2011-Presentation.pdf>

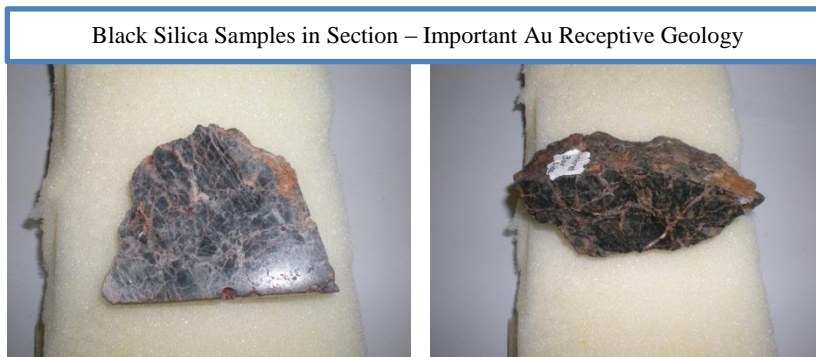
On 23rd August 2011 the Company reported its highly encouraging final assay results for the first pass RC drill program conducted in April/May 2011 at the Sorpresa area, in 4 locations over a distance of approx. 1.3km focused on gold mineralisation.

The full results can be accessed at the **hyperlink** to the ASX release on 23rd August 2011: [RC Drill Program Starts within 14 days At Sorpresa Gold Project](#)

Sorpresa consists of disseminated gold and silver mineralisation with associated traces of arsenic (As), lead (Pb) and antimony (Sb) as reliable pathfinders. This was again consistently and clearly reflected in the round of RC drilling in September 2011.

The mineralisation is largely hosted by special parts of a **30m thick black, carbonaceous shale horizon**. This horizon becomes replaced by pervasive silica during mineralisation to finally yield the distinct “black silica horizon”.

The extent of the black silica horizon is not yet fully defined, however, **an area of 2km x 2km is already indicated and growing as mapping continues to the south of Sorpresa**. The gold mineralization appears disseminated, coherent and amenable to reliable assays **with capacity for high grade**.



Additions to this mineralized area are likely as exploration continues. It should be noted that the gold mineralization encountered continues to be located well outside of this indicated area, and not necessarily always within the proximal black silica. The mineralization has entered the black shale, black silica horizon via multiple, interacting shear zones. Hence, it is now concluded that the Sorpresa position is a large area of black shale that is receptive to mineralization and pervasive silica replacement. The multiple interacting shear zones provide numerous locations where mineralization hydrothermal fluids can access the receptive horizon.

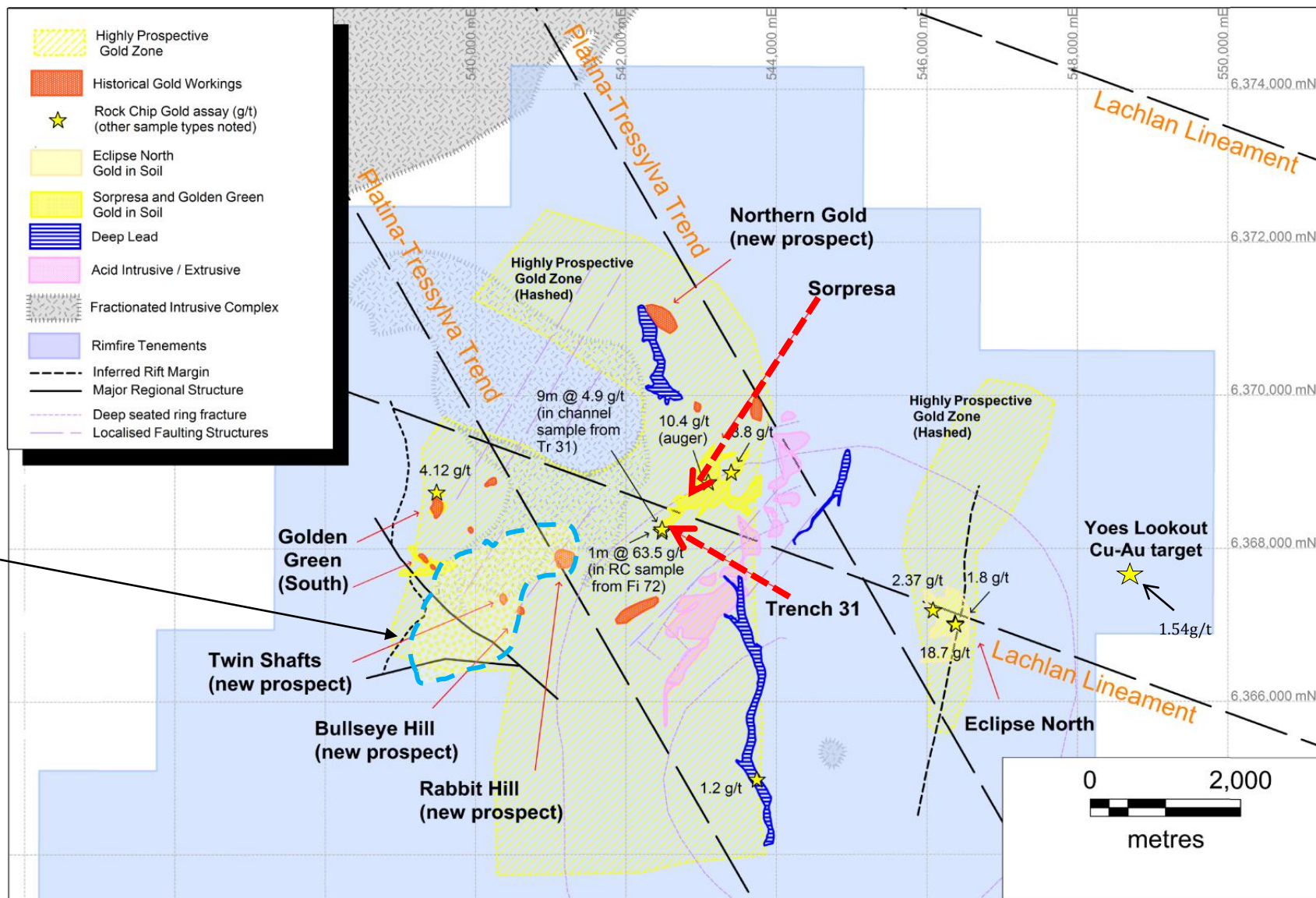
This represents a highly promising geological context for large scale discoveries and confirms the Company’s earlier views that “Company Making” Au mineralization is likely to occur in this setting.

Whilst the full geological context at Sorpresa is still under examination, it now seems highly probable that **an area of much larger gold potential exists at Fifield.**

APPENDIX 6

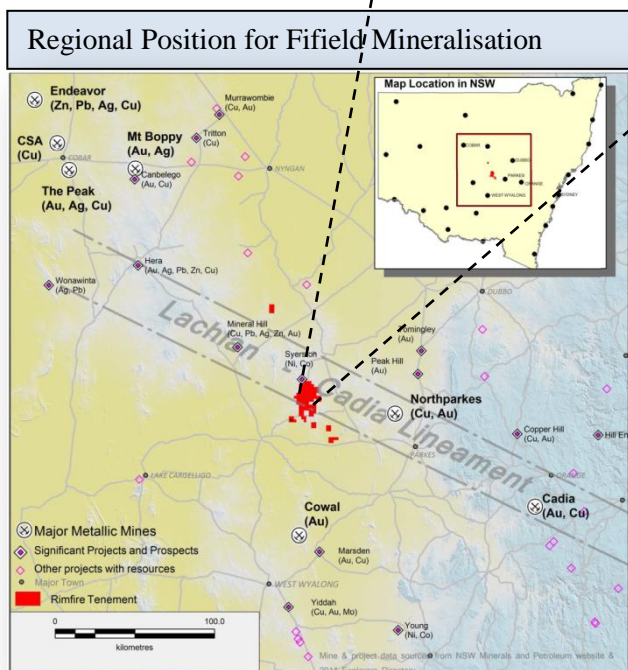
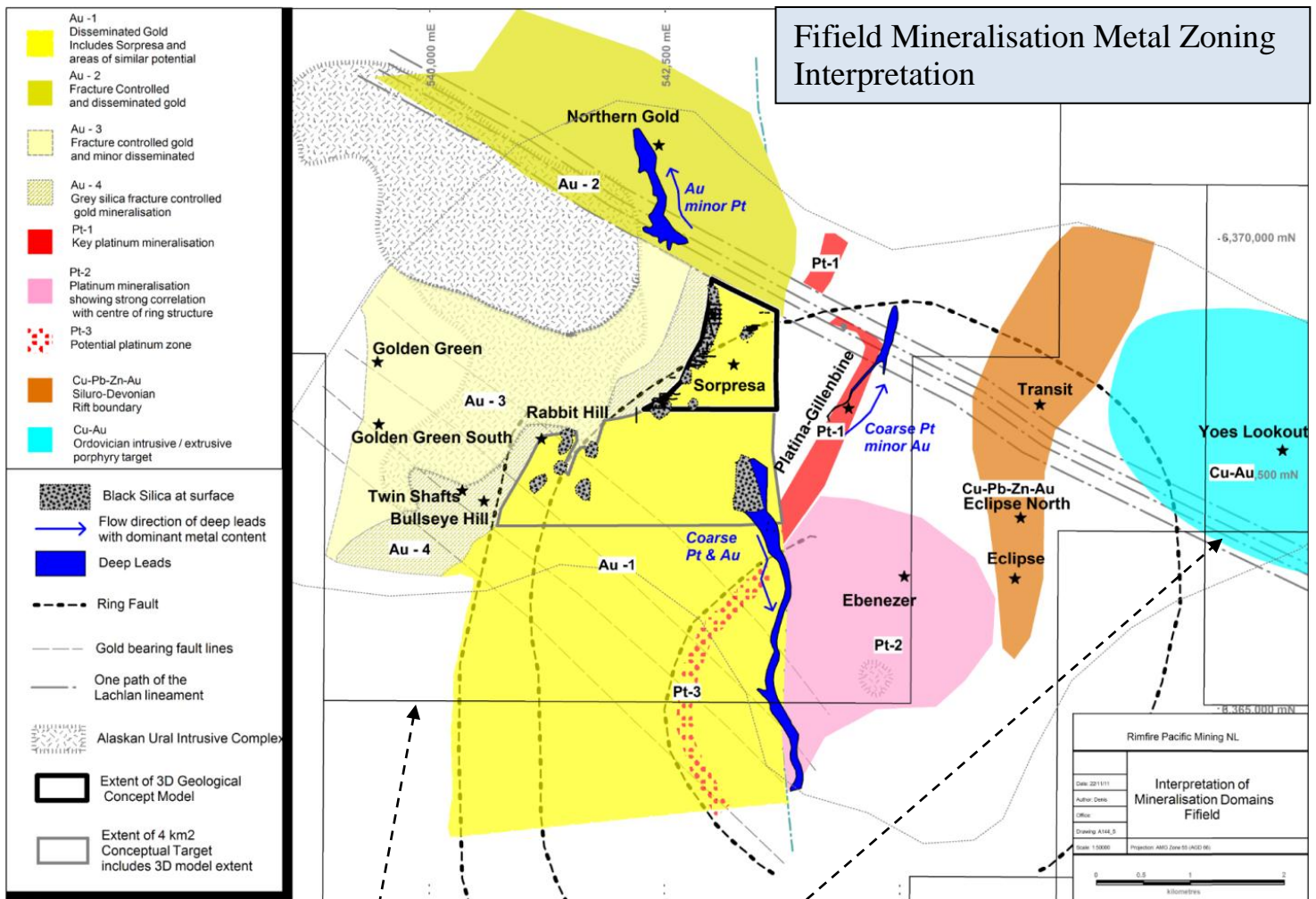
The Main Strike Sorpresa Area EA 1 Anomalous Gold Zone and Yoes Lookout EA11

– within the wider Fifield Gold Observations “Some” New Prospects Highlighted



Appendix 7

Project Locations at Fifield NSW within Lachlan-Cadia Lineament and Metal Zoning Interpretations at Rimfire Fifield Project Areas



Rimfire tenements shown in red (at left) within the Lachlan-Cadia Lineament.

Metal zoning interpreted (above) within key Rimfire Tenements at Fifield, making this an exciting location for discoveries.

Note the Black Silica areas (above) mapped as part of the Au receptive horizon inferred