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31st January 2011

Company Announcement Office
Australian Securities Exchange

QUARTERLY EXPLORATION AND ACTIVITIES REPORT

(For the period October 1st to December 31st 2010)

The important discovery of fine gold (Au) mineralisation during the quarter represents a major milestone for the Company. Accordingly, considerable effort has been placed on advancing this project area, including gaining a more detailed understanding of the context of the Au mineralisation. Weather conditions remained disruptive in the period, slowing certain activities.

HIGHLIGHTS in the DECEMBER QUARTER at FIFIELD NSW include the following:

- **The Sorpresa fine gold area was announced as a new discovery of considerable promise and size (1.7km x 0.4km and open in many directions)**
  - **Numerous auger drill traverses into bedrock obtained significant elevated Au in widths of 20m to 40m**
  - **A 13m trench (31) located over one auger traverse intersected highly significant Au Mineralisation**
    - **A 9m true width section of this trench gave average grade of 4.9g/t Au**
    - **High values for 3 x 1m sections were seen at 10g/t Au and above, within this 9m zone**
  - **Post Quarter, the floor of this trench (31) was subsequently mapped in detail demonstrating dynamic mineralised geology**
    - **Two geological units contained Au grades in excess of 74g/t and 86g/t respectively**
- **The Au mineralisation is amenable to convential exploration and assay techniques with repeatable results**
- **There are "no historic workings" on the majority of this newly discovered mineralisation. Essentially this area appears "missed" by others due to subdued topography, no outcrop and no visible coarse Au in the soil**
- **Further detailed mapping of soil types and structural interpretation is almost complete**
- **An additional large scale soil sampling program has been completed and is undergoing interpretation**
- **More auger drilling traverses and trenches have been planned into bedrock for Sorpresa for immediate deployment**
- **Focused targets are being established for RC drilling**

Bedrock breccia zone in a 13m trench (31) located on Auger traverse section FiAug 822~824 with good Au assay

Results at the Sorpresa fine gold area are considered highly significant. Please refer to the detailed announcements made to the ASX on the Company website which can be accessed by the 4 links shown as follows:

ASX Announcement – 13th October 2010 Bedrock Assays Confirm Sorpresa Fine Gold Potential at Fifield
ASX Announcement – 28th October 2010 Sorpresa Fine Gold Prospect Trench Produces Excellent Assay Results

ASX Announcement – 15th December 2010 Sorpresa Fine Gold Prospect Further Examined at Fifield NSW
ASX Announcement - 25th January 2011 Gold Mineralisation Examined in more detail at Sorpresa Prospect

See Appendix 1 and 2 for maps of Sorpresa area Au anomaly and the wider Fifield area Au observations.

Whilst it is still at an early stage, in the Company's opinion, the larger Sorpresa area is already established as a disseminated fine gold area of considerable promise. The mineralisation is amenable to both surface based geochemical prospecting and RC drill evaluation. This straightforward technical pathway greatly enhances the chance of economic success of this project area.

It is clear to the Company that the area in and around Fifield continues to show that it is an under recognised complex mineralised area of strong potential.

Additional details of the Exploration Program at the Sorpresa Gold Area in the Quarter

It should be noted that the Company experience at Sorpresa to date demonstrates that soil chemistry results and auger bedrock results have been a successful proxy for greater values encountered in either RC drilling or trenching.

Where comparisons are available, the surface soil geochemistry and auger drill bedrock chemistry have understated the bedrock grade for Au quite significantly. This was evident in the RC drilling in 2008 and trench 31. When viewing soil and auger drill results, this is an important point that needs to be recognised.

- ***Gold mineralisation is likely extended south west by approx. 200m along strike from trench 31[1] into previously untested ground. The mineralisation remains open in this direction.***
  - The likely extension is confirmed in two separate auger traverses south of trench 31
  - Elevated Au in auger traverses show widths of approx 20~30m, with higher values ranging from 0.1g/t to 0.5g/t Au
  - Trenching on these new auger results and additional auger traverses will follow

- Within the previously defined Sorpresa Au anomaly[2] ***an auger traverse line has confirmed Au mineralisation in bedrock approx. 600m north east along strike from trench 31***
  - An elevated zone of Au across 30m occurs on this traverse, including a value of 1.2g/t

- In addition, elevated values of Au (30~50ppb) in auger traverse zones in bedrock are also noted as potentially important

- ***Sub-crop bedrock was tested within the known Sorpresa anomaly, in limited available exposures approx. 850m north east from trench 31, with values obtained including 3.0g/t and1.4g/t***

- ***An additional soil geochemistry grid (approx.1.8km x 1km) conducted on east-west lines, overlapping and infilling the previous soil grid at Sorpresa has been completed***
  - This was designed to provide infill data on the previous grid - 470 samples submitted to the laboratory for assay

- Permits were granted at Sorpresa allowing greater access and probing of the near surface environment within the native vegetation areas

Rare Sub crop of Breccia Assayed 3.0g/t and 1.4g/t

- Further detailed mapping of soil types, available geology and botany has been completed
  - Understanding these soils is important for correct interpretation of soil geochemistry
  - Interpretation is being undertaken currently

[1] Trench 31 is actually **the first trench** located at the Sorpresa Area Wall section and Assay Results in Appendix 3
[2] Refer **Appendix 1** for details of locations

Details of assay results and the methods used are included in previous ASX releases.

- Equipment additions and modifications were also undertaken to the gravity plant in preparation for the Platina Lead bulk sampling. Progress was slow due to poor weather, permit delays and re-weighted priorities at Sorpresa.

(The project locations and summary of the major work performed in the period is shown in Appendix 4)

Exploration Work Program Planned at the Larger Sorpresa Gold Area

The Company will continue to accelerate the exploration program at Sorpresa over the coming quarters:

- More detailed mapping of Sorpresa and surrounding areas
- Define the Au mineralisation extent and orientation at surface using more soil geochemistry assays, both on focused areas and on an overall larger scale. A new soil sampling grid was completed and awaits interpretation.
- Refine the Au in bedrock positions with additional lines of bedrock assays using rapid pass auger drill traverses. Trenching of some locations for greater understanding and orientation of Au mineralisation.
- Proceed to use RC drilling to delineate the Au mineralisation as appropriate to the preceding results
- Diamond drill a typical section of the Au mineralisation at depth to better understand the geological setting

Additional Fine Gold Areas at Fifield

The Au discovery at Sorpresa when taken within the context of historic Au workings elsewhere and the Company's own observations on fine gold at various prospects in the Fifield area, gives encouragement to undertaking further work in these areas, namely, Goldengreen, Ladera, Eclipse North and adjacent to the Platina Lead as referenced previously, Appendix 2 provides a map of the Au observations, relative to the Sorpresa area.

Background Explanation on Exploration Approach and Work to Follow at Sorpresa

An exploration program of soil geochemistry and bedrock geochemistry using auger traverses, followed by more detailed assessment using limited trenching and RC drilling with conventional fire assays has enabled the discovery at Sorpresa to take place to date.

The exploration methodology going forward will continue to focus on the following approach:

- **In general, soil geochemistry will be used as a broad scale and sensitive scoping tool for elevated Au (>5ppb)**
  - This low cost method works well in the residual soils at Sorpresa and can be deployed rapidly
  - Detailed mapping of soil types is an important part of this work
- **Auger traverses will test bedrock geochemistry associated with surface based Au anomalism in the soils**
  - This assists the understanding of geological association and 2-Dimensional spatial definition of the Au mineralisation
- **Trenching will be applied to selected auger traverses and other areas as appropriate**
  - This provides continuous sections of geology to establish Au association to rock type and structure
  - The auger drill traverses can miss higher grade Au mineralised areas due to this discrete sampling method
  - Au grade can be established in large continuous sections, if present
  - Dip and orientation on Au mineralisation can be assessed to assist deeper RC drilling
- **Deeper RC drilling will be conducted once sufficient 2-D data and orientation is established on the Au mineralisation**

Trench 31 at Sorpresa

- This is necessary to be cost efficient, optimise intersections and minimise environmental impact
- Some holes will be needed to gain greater geological insight and structural orientation
- The goal is to intersect the higher grade Au mineralised zones and provide 3-D orientation at depth

The Company will be trying to establish the correlation variability between auger traverse Au grades in bedrock and the true bedrock Au grades. However, it is already clear that in general, soil samples and bedrock auger chemistry understates the strength on the Au mineralisation, as evidenced in the results within Trench 31. Therefore, some trial and error will be a feature of this work, testing both high and low grade Au results in the augered bedrock, to help determine better defined bedrock targets for deeper RC drilling.

The approach being adopted represents conventional exploration. It should enable rapid exploration of Sorpresa over a large area, with focussed subsurface targets that are identified and tested quickly, in a fairly continuous manner.

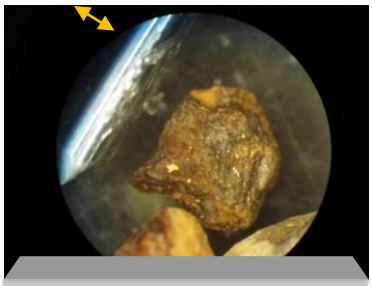
Sorpresa Au and Base Metal Area – Background Summary

The project area is located immediately south of the **Township of Fifield NSW** and sits within the well established**, highly mineralised regional corridor, the Lachlan-Cadia Lineament**[3]**.** This corridor includes the **Riotinto owned North Parkes Copper-Au mine and the Newcrest owned Cadia Valley Au-Copper mines amongst others.**

The larger Sorpresa area was covered with broad spaced lines of soil geochemistry earlier in 2010 (100m line spacings and 25m sample interval). This coverage was based on the early concept that the originally discovered Sorpresa style of mineralisation could be extensive, but unrecognised.

The assay data on the soil geochemistry combined with the October/December 2010 auger traverses and Trench 31 placed over selected Au anomalies within these soil results confirms that the larger Sorpresa area represents Au anomalism that is large and significant.

Mineralisation



Trench 31 rock with Au pieces

As indicated by the soil geochemistry, the mineralisation as at December 2010 seems to occur in three parallel lines dominated by breccia zones with associated disseminated sulphide gossan and alteration, but very low in vein quartz.

The mineralisation decomposes to soil, leaving little or no trace of its presence on the surface. The Au being both very fine and disseminated did not suit the miners of past eras even if it had been located. Modern exploration and processing techniques make this mineralisation an ideal style to pursue.

The Au is very fine and disseminated through the breccia and surrounding geology as confirmed with the Trench 31 sampling (October 2010 and January 2011) undertaken producing repeatable Au assays, even within the very high zones, which exceeded 70g/t.

Interpreting Trench 31 within the Sorpresa area as at January 2011

It is the Company's firm view, that the Trench results are highly significant.

Trench 31 (remediated) within Previous Auger Traverse FiAug 816 to 828

- The high Au grade of Trench 31 obtained in wall channel sampling gave
  - ***a true width of 9m @ 4.9g/t, and high grade sections (each 1m sections) included 9.8g/t, 12.8g/t and 11.1g/t***
- Specific geology in the floor of trench 31 contained in excess of 70g/t in two places and confirms that the Sorpresa-Trench 31 corridor has a strength of gold mineralisation that is encouraging to the Company's opinion that this area is an unexplored gold field.

[3] See Appendix 4 – Location maps

- Both tested areas of the currently known Sorpresa-Trench 31 corridor are centred on brecciated sediments, with fine gold contained in a strong mineralised zone with negligible vein quartz, 1.2km apart and open ended.

    - Soil results, auger drill traverses and subcrop to date within this corridor support the likely view, that the mineralisation is continuous, but this is yet to be determined with more detailed work programs

- The larger Sorpresa prospective gold area exceeds 1.7km x 0.4km and is essentially open ended (Appendix 1)

The Company has noted many fine disseminated gold occurrences focused on sediments in the Fifield district over a number of years, of which Sorpresa is only one such area (Appendix2).

Explanatory video is provided by the Company for the purpose of better understanding the Sorpresa Area and style of work conducted.

These videos *precede the trench assay results* and can be found on the Company website at www.rimfire.com.au in the **Presentations and Videos section.**

Title: New Gold Area Discovery - Sorpresa Prospect Fifield NSW Oct 2010
Title: Trench 31Discussion - Sorpresa Gold Prospect Fifield NSW Oct 2010

Earlier Background (2008) on Sorpresa Area[4]

The Sorpresa prospect originally consisted of a relatively small Au and base metals in soil anomaly located near an historic shaft, after a rock chip from the shaft returned a value of 8.8g/t Au[5]. The prospect was RC drilled by Rimfire in 2008 and a body of Au mineralization inferred. The host to mineralization was also a brecciated sediment with an uncertain size and orientation. The Company was of the view at that time that this mineralisation may not have occurred in isolation and this has proven to be correct.

Platina Lead Assessment Six Large Scale Trenches Planned

This program is designed to assess Pt and Au grade contained within the lead structure and to also gain an understanding of the bedrock and gravel systems in general. The rationale for the large work program proposed was presented in detail within the last quarterly report and should be considered as an ongoing reference for the work being conducted on the Platina Lead.

The combination of poor weather conditions, permits not yet issued, and the acceleration of activity associated with the Sorpresa gold prospect, has led the company to delay the trenching program on the Platina Lead. However, this project remains a very important component of the Company's exploration/assessment goals.

Certain components of the Platina Lead program involving RC drilling may be incorporated in the Sorpresa RC drill program.

An explanatory discussion on the six trench program has been produced in video form and is available on the Company website www.rimfire.com.au **within the Presentations and Video Section**, titled "Platina Lead Sampling Discussion Fifield NSW Sept 2010".

The locations for the trenches are shown in the previous quarterly report.

Other Exploration Planned at Fifield NSW for a later Period for Pt and Au

As stated, the Company has needed to re-weight its priorities going forward, based on the very encouraging work to come out of Sorpresa. A range of activities, whilst still important will need to be delayed accordingly:

The exploration activities at Fifield that the Company still intends to undertake are as follows:

- **Advance other fine Au potential previously identified as appropriate.**

[4] Rimfire Exploration Report June Quarter 2008 pages 5~7
[5] Rimfire Exploration Report March Quarter 2009, pages 4~5

- **Large trenches (6) across the Platina Lead for Au and Pt assessment.**
    - Determine the commercially recoverable grade(s) in large sectional tests
    - Test the adjacent bedrock geology for the source of Primary Pt and Au

- **Complete the delineation of the Pt bearing gravel (approx. 2km x 0.5km) and tributary areas prospective for mining on the Company freehold and bulk sample this system further.**

- **Apply for additional Bulk sampling locations not on the Company Freehold (4 sites) for determination of Pt grades in bedrock.**

Overall Project and Mineralisation Background – Fifield NSW

The systematic exploration by Rimfire within the immediate Fifield region has continued to develop a wide variety of mineralised prospects. Each prospect has a strong geochemical surface expression, a highly relevant geological context and favourable development criteria.

There is a significant variation in mineralisation styles at Fifield, which includes Au, Pt and Cu/Base Metal prospects, with these occurring across a zone of less than 10km width. This observation also provides further support to the interpretation of the region as being a complex volcanic rift setting, with evidence for multiple, polymetallic mineralisation events associated with sub-volcanic intrusives, shearing and brecciation at various scales.

Accordingly, the exploration shows that metal zoning remains an important feature of the regional geology at Fifield. The under explored Fifield area represents an excellent exploration setting for discovery of commercial mineralisation in the Company's view (Appendix 4).

The major mineralisation target for exploration by the Company at Fifield remains focused on gravity recoverable coarse grain Platinum. The Platina-Gillenbine area is of particular importance in understanding and delineating the bedrock mineralisation.

A key feature of the exploration landscape at Fifield NSW is the minimal outcrop available for examination. However, in many instances the depth to bedrock is less than two metres, so a combination of soil geochemistry assays, auger drilling and trenching to bedrock with complementary bulk sampling is rapid and effective way to explore for significant mineralisation. These activities are also relatively low cost to undertake.

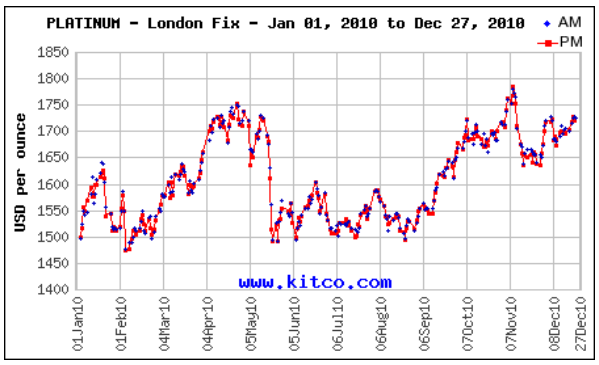
Historic Pt mining at Fifield yielded in excess of a reported 20,000 oz of Pt from the deep leads and surface soil mining (circa. 1890~1930). The major deep lead was the Platina Lead, worked at a depth from 12m to 25m over a length of 2.8km with a reported grade of approx. 15g/t gravity recovered Pt equivalent.

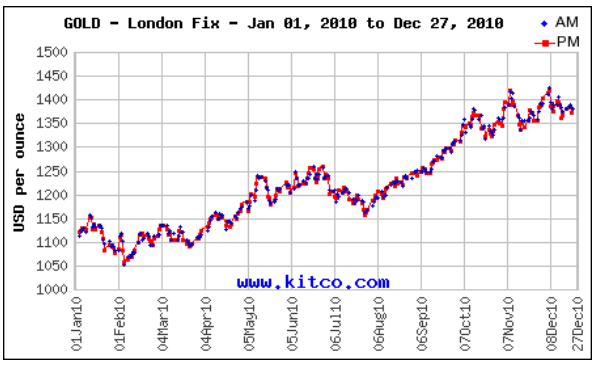
The northern extent of the Platina Lead was not able to be defined historically. This northern section represents an important component of the Pt bearing alluvial system, both with respect to its commercial potential and the exploration knowledge base the lead provides, in relation to the source area(s) for Pt entering the alluvial system along the full extent of the Platina Lead. ***A further 500m of the Platina Lead has now been demonstrated to be present (2009), but this un-mined section has not yet been tested by the Company.***

The Company's key overall objective remains, "to establish a potential open cut minable resource(s) within the various project areas including the Sorpresa Gold area and also the 6km^2 zone of currently identified Pt mineralisation noted within the Platina-Gillenbine and Ebenezer project areas", which includes both alluvial targets and the greater bedrock system.

COMMODITY PRICING FOR THE DECEMBER 2010 QUARTER

The price of Platinum has fluctuated in the period, and was trading above the level of USD$1,750 per ounce during the quarter (Kitco.com). Gold traded above USD$1,400 in the quarter.





CORPORATE ACTIVITIES

Tenement Position

The Company tenement position remains unchanged

Cash, Facilities and Investments

As at 31st December 2010 the Company had approximately $952,000 in cash.

Issued Capital

The issued capital at the close of business at 31st December 2010 was:

439,016,550 ordinary shares
124,790,443 Listed Options "RIMO" exercise @ 4 cents expiry 31st August 2011

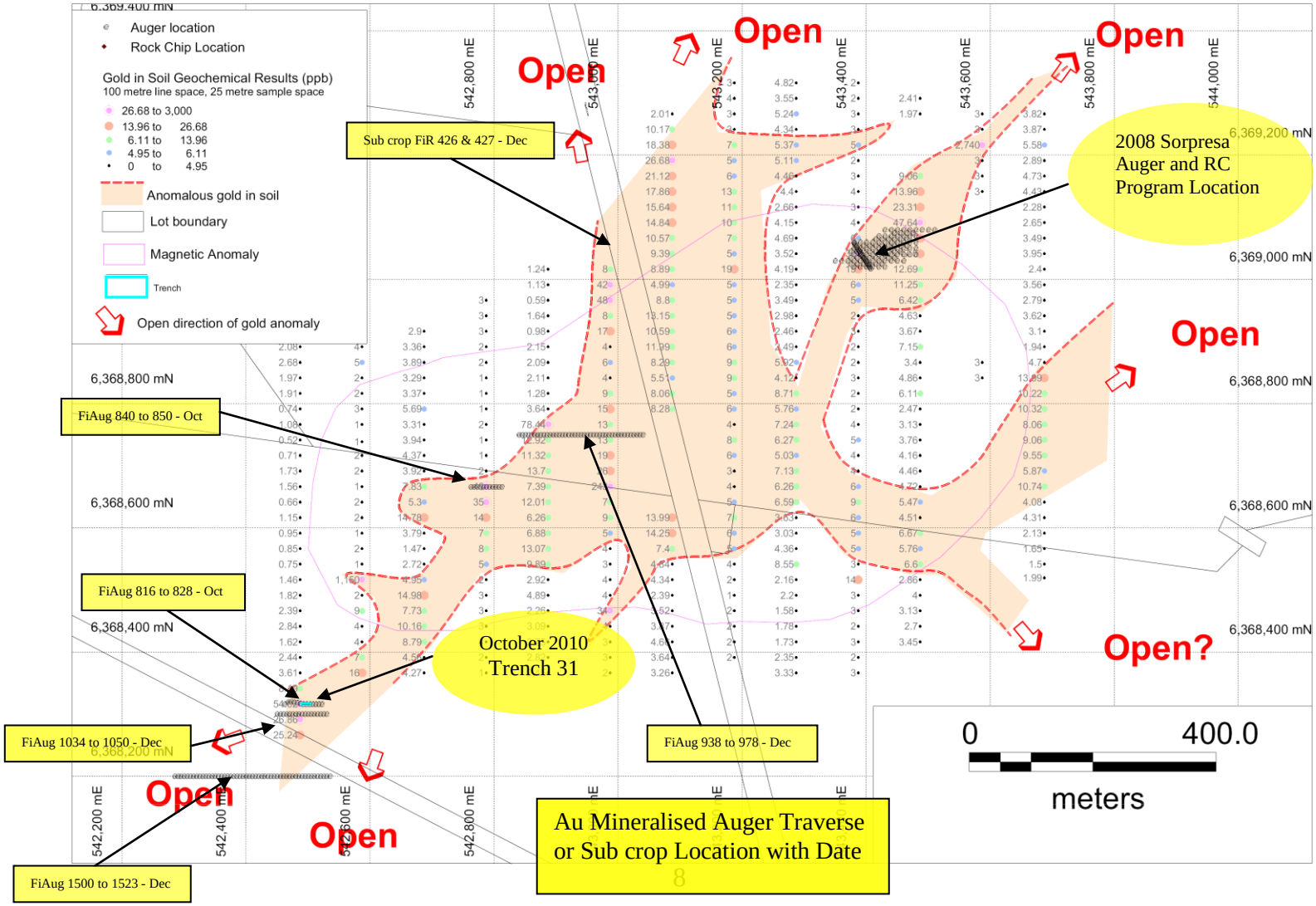
JOHN KAMINSKY
Executive Chairman

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 their information in the form and context in which it appears.

Appendix 1

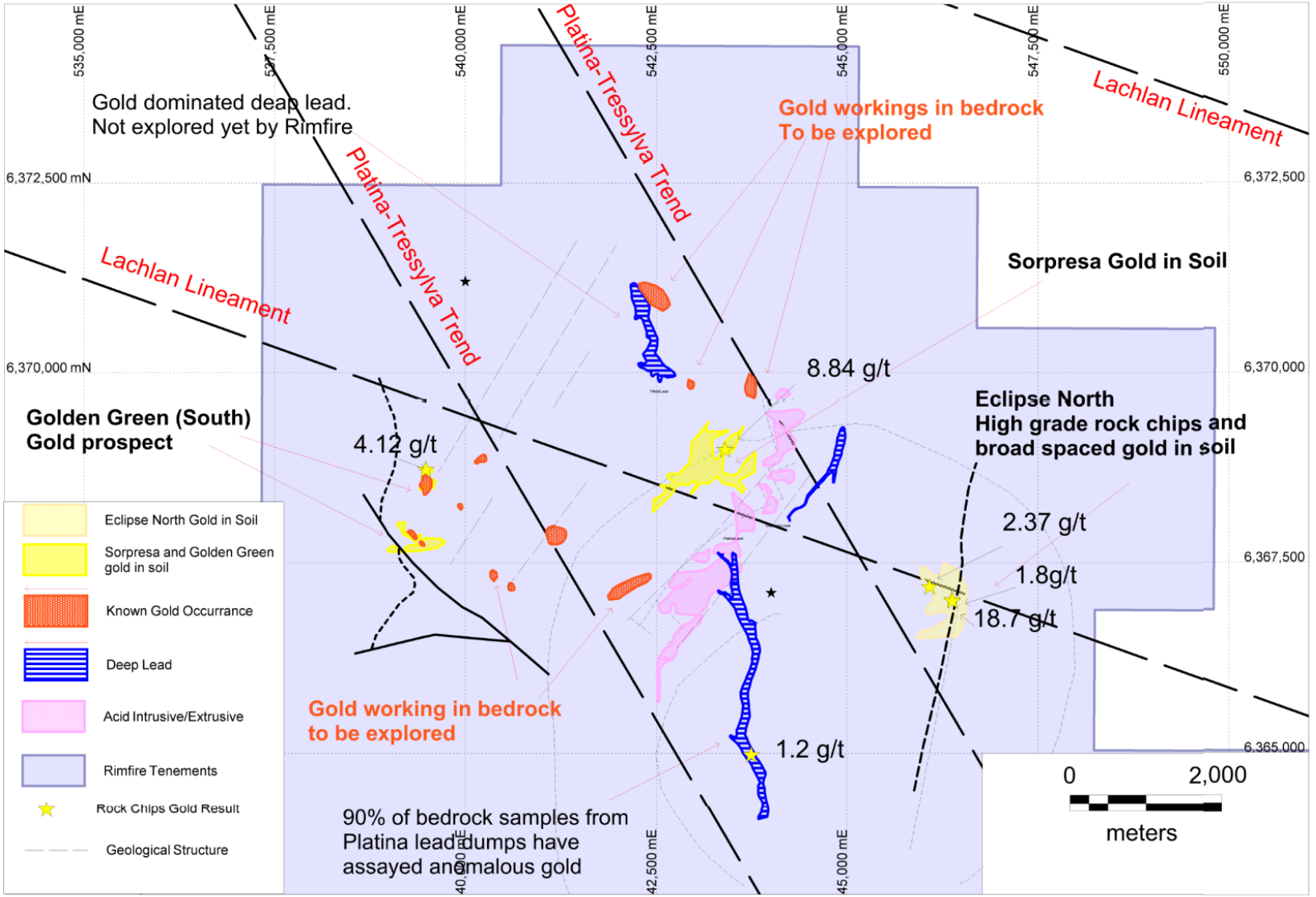
The Larger Sorpresa Area Anomalous Gold Zone in Soils with Gold Mineralised Auger Drill Traverses

(Soil Geochemistry Lines (North-South) with Trench 31 Location and RC Program (2008) Context)



APPENDIX 2

The Sorpresa Area Anomalous Gold Zone – within the wider Fifield Area Gold Observations



Gold Features

Appendix 3 (part 1)

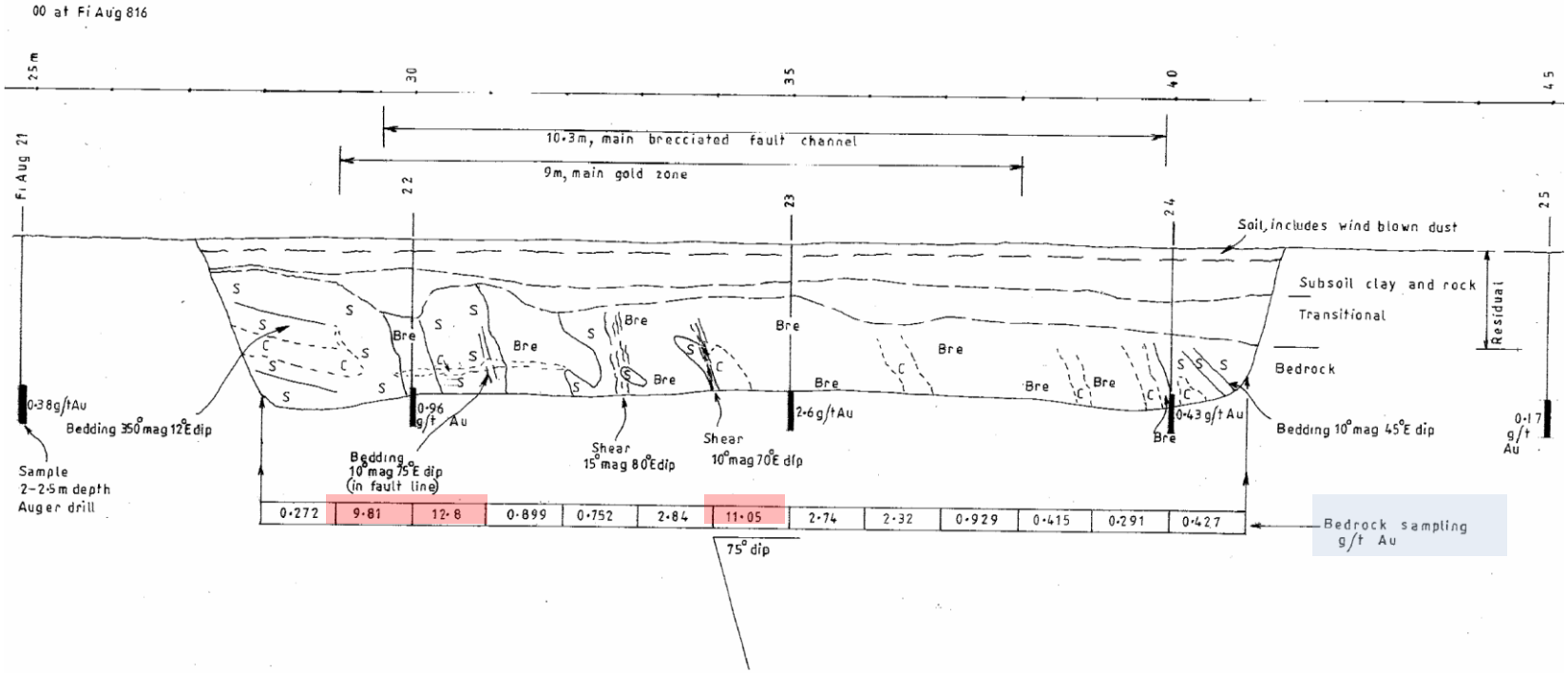
October 2010 - Sorpresa Trench 31 Mapped Cross-section of Wall with Gold Assays taken in Channel samples (1m each)

(Auger Traverse Location also shown)

Trench 31. Follow up of auger line Fi Aug 816-828

E-W section looking north. Scale 0 1 m

Main part of a 45m wide bedrock Gold Anomaly found by soil sampling and auger drilling.



Trench sampling has been carried out with an accurate jack hammer cut slot from 28 to 41m. Samples are divided into 1m horizontal intervals. These samples are collected on a canvas tarp on the trench floor. Samples are crushed, rolled and sub sampled prior to dispatch to the laboratory. The sample slot is 100mm off the trench floor. These are reliable samples.

The gold is mostly less than 50 microns but coarse gold has also been seen in sample duplicates processed at Rimfires own plant.

Geology

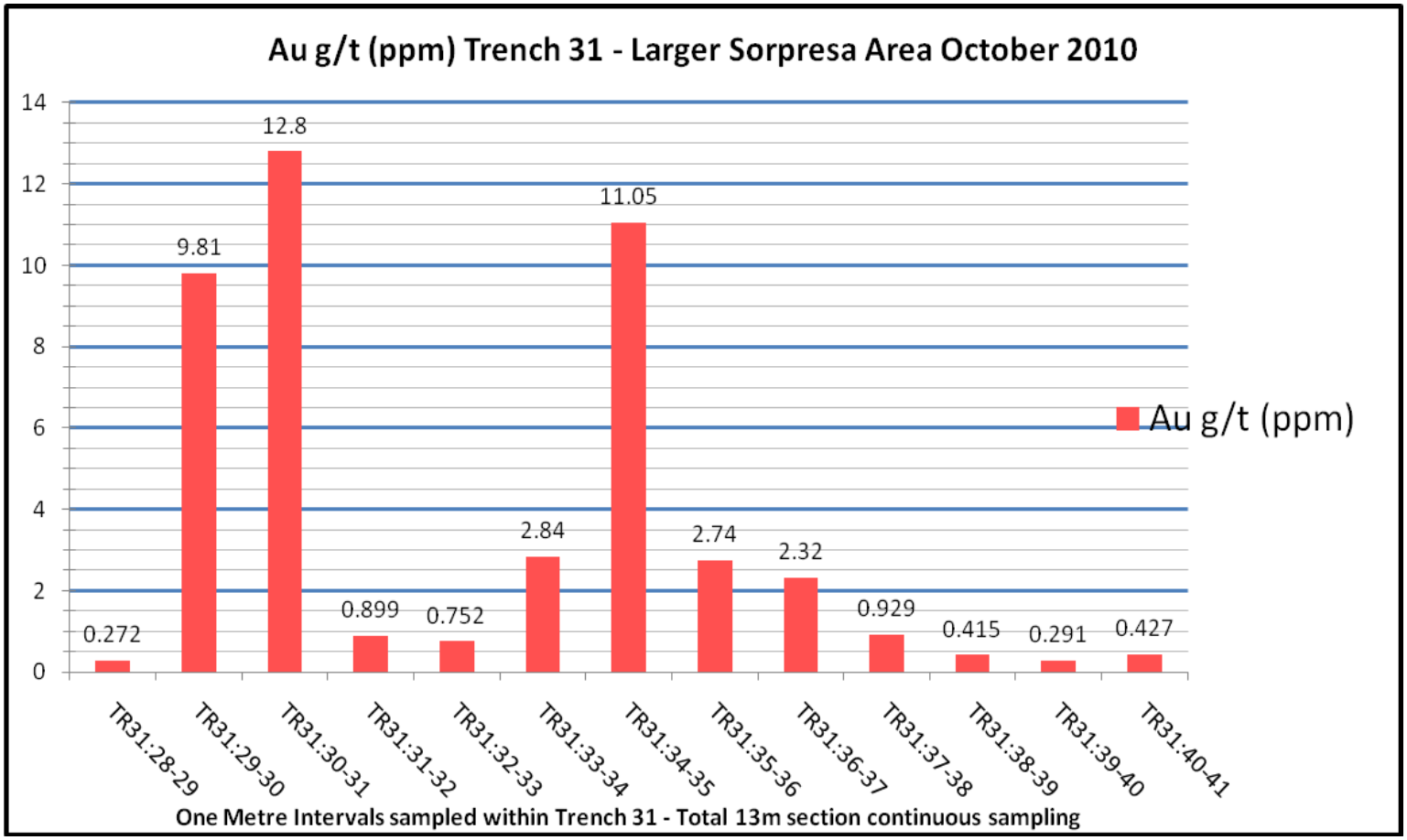
Bre = Weathered breccia including pervasive silica clasts. The breccia is mostly soft and porous.

C = Clay. Often a deeply weathered fault gouge. Horizontal clay can be weathering only. Sub horizontal clay can be from unstable sediments.

S = Fine sediments. Can include some pervasive silica. Reworked tuff can also be present in the sediments.

Appendix 3 (part 2)

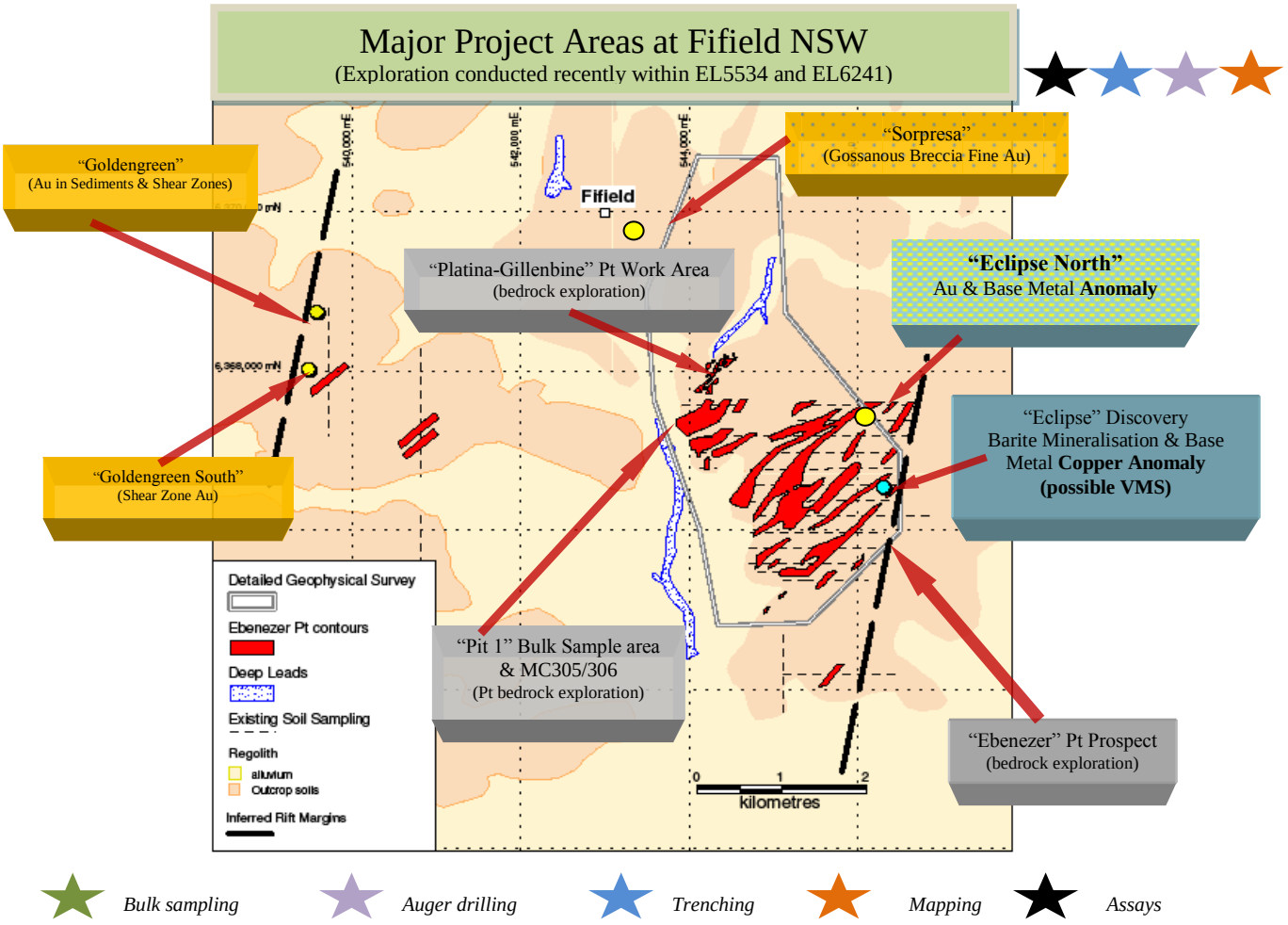
Assays were carried out by independent laboratory, ALS Laboratories Orange, using standard Fire Assay Methods for Gold, namely Au-AA22 (for Au values below 1ppm) and Au-AA26 (for Au values above 1ppm). Multi-element method ME-ICP41 was used for other elements. The sample charge size for assay was 50g. Duplicate results were done on all samples for gold and showed concordance with the results in the table.



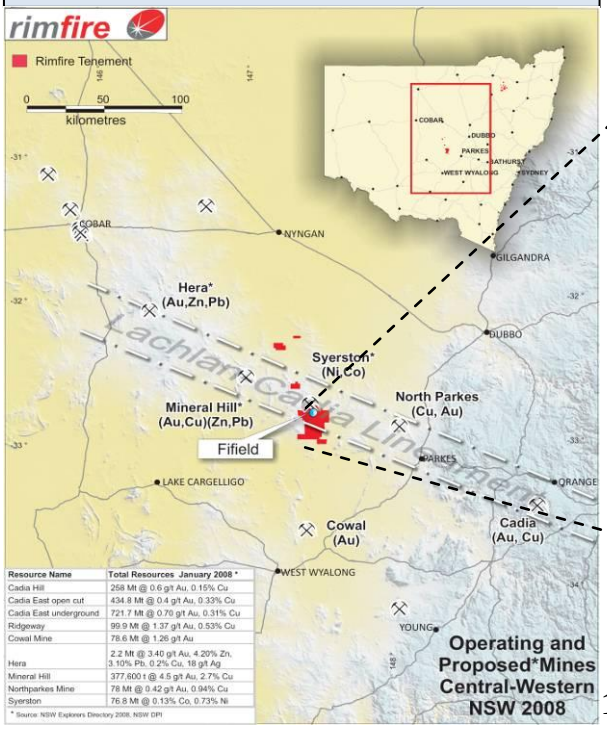
It should be noted that a continuous slot was taken for sampling (i.e. no gaps between individual 1 metre samples), so the entire 13m bedrock section was sampled, but broken into its individual 1m intervals

Appendix 4

Project Areas Fifield NSW and Metal Zoning Interpretations



Regional Position for Fifield Mineralisation



Resource Name	Total Resources January 2008 *
Cadia Hill	258 Mt @ 0.6 g/t Au, 0.15% Cu
Cadia East open cut	434.8 Mt @ 0.4 g/t Au, 0.33% Cu
Cadia East underground	721.7 Mt @ 0.70 g/t Au, 0.31% Cu
Ridgeway	99.9 Mt @ 1.37 g/t Au, 0.53% Cu
Cowal Mine	78.6 Mt @ 1.26 g/t Au
Hera	2.2 Mt @ 3.40 g/t Au, 4.20% Zn, 3.10% Pb, 0.2% Cu, 18 g/t Ag
Mineral Hill	377,800 t @ 4.5 g/t Au, 2.7% Cu
Northparkes Mine	78 Mt @ 0.42 g/t Au, 0.94% Cu
Syerston	76.8 Mt @ 0.13% Co, 0.73% Ni

* Source: NSW Explorers Directory 2008, NSW DPI

Fifield Mineralisation Metal Zoning Interpretation