



QUARTERLY EXPLORATION AND ACTIVITIES REPORT

(For the period 1st April 2012 to 30th June 2012)

Sorpresa Gold Project Provides High Grade Gold Intersections in the Period

The gold mineralisation at the Sorpresa Area was the predominant focus for exploration within Fifield NSW in the June Quarter. Major attention was given to the Sorpresa Trench 31 and Boundary Gate Areas, the Sorpresa SW extension and the Yoes Lookout Area with ongoing percussion drilling.

Highlights for the June Quarter

- **Percussion OHH Drilling produced excellent high grade Gold results at Sorpresa**
 - 22 holes were completed at Tr31 and SW extension Areas, and 6 holes at Boundary Gate Area
 - **Highest Grade was Fi 160, 14m @ 21.9g/t Au from 34m, including 2m @ 87.5g/t Au, AND 6m @ 93.8g/t Ag**
 - During the quarter assay results added many of the best holes seen for Au at Sorpresa to date
- **The next 50 hole drill program has commenced and will include the following:**
 - Ongoing delineation at Tr31, Boundary Gate and Roadside Areas of Sorpresa
 - Additional scout drilling in various locations
- **Yoes Lookout Gold Prospect completed 8 percussion OHH scout drill holes**
 - Assays were received on two holes to date, indicating minor Au, which is seen as encouraging
 - An additional adjacent 7 exploration units in a new licence is due to be granted shortly to the Company
- **The IP Survey Results were represented and modelled at Sorpresa indicating important targets at depth**
 - Correlation to known geology and structure in the 0 to 60m zone gives credence to the IP survey
 - Drilling to greater depths of 150m to 350m will be required to test the IP response adequately
- **The “Greater Sorpresa Area” prospective for Au is now revised upwards from 4km² to 8km²**
 - Detailed geological mapping interprets a larger “Rift Basin Setting”, with Sorpresa just at the margin
 - **A model has been developed suggesting that in this area, multi-million ounce Au potential exist (Appendix 5)**
- **Further detailed regional exploration reconnaissance at greater Sorpresa has been undertaken**
 - Includes soil sampling, rock chips, structure mapping and auger drilling
 - This work will provide guidance for additional drilling of scout percussion holes

Appendices (1 to 8) attached provide Locations, Context and Results relevant to this report.

In May 2012, the Company produced an inhouse field video review of the IP geophysical survey with respect to the Sorpresa Gold Mineralisation area. **The video can be seen by activating the hyperlink: [3D model of the IP Anomaly at Sorpresa.](#)**

The Executive Chairman, John Kaminsky, reflected on the June Quarter:

“We have had an outstanding June Quarter, with delineation drilling in three areas at Sorpresa producing some of the best gold intersections yet seen at Fifield.



With a high grade in Fi 160 of **14m @ 21.9g/t Au, including 2m @ 87.5g/t**, it confirms what we had believed originally, back in the discovery days of the original Trench 31 in 2010. Namely, that this system has a capacity to produce very high grade.

What's more, I believe we have not yet seen the best grades this area will show us. The more work we do, the better the Au mineralizing potential continues to look.

The drilling conducted in the June Quarter is part of the regular drilling now occurring at Fifield. The weather conditions were difficult, but we still managed creditable progress.

The establishment of the size of the greater Sorpresa area, at 8 km², is more than double the previous estimated size. Coupled with the geological context of the multi-million ounce potential the developed Rift Basin model could offer, the Company is extremely well placed in its outlook over the coming Quarters.

This is very significant progress and should be understood by those following the Company.”

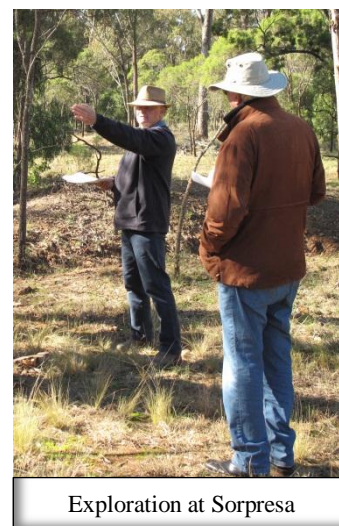
The Head of Exploration, Colin Plumridge, explained:

“I concur with John’s appraisal, this was an exceptional period for the Company. The results continue to demonstrate what untapped potential exists at Sorpresa and the wider surrounds, within the newly defined 8km².

The delineation drilling work at Sorpresa in the 0 to 60m zone will move towards defining gold resources in this zone. In parallel, I have focused on the bigger gold mineralizing picture.

The geological mapping and discovery reconnaissance field work I have been doing looks at the interpreted Rift Basin geology, including the black silica gold receptive horizon from this multi-million ounce perspective. It is this larger scale potential that really excites me.

I would suggest keen followers of our discovery work take the Rift Basin model development seriously, as it represents a geological framework that is reflective of a much greater underlying system of which Sorpresa is just at the margin. It is extremely pleasing to see the development of the potential of the area grow at such a pace and scale”



We expect to report a steady flow of news over the coming Quarters as the work programs gain momentum.”

June 2012 Quarter Summary of Exploration Undertaken

Weather conditions in the quarter remained difficult on occasions for heavy equipment movement, nevertheless, significant exploration work continued.

Significant Au mineralisation continues to be confirmed at Sorpresa

- There is now a demonstrated capacity to host very high grade Au at Fifield
- The Trench 31 and its SW extension location in particular, currently has an open strike length of approx. 300m
- Many additional locations at greater Sorpresa are well placed for further exploration (**Appendix 7**)
- The 0 to 60m zone of the Au and Ag seen to date, is particularly attractive as a commercial target

The geological context at the wider Sorpresa area continues to grow, with the recent exploration re-inforcing the view that Sorpresa is part of a much larger mineralised gold system at Fifield. The Company interprets a **Rift Basin setting with a capacity for the geology to provide extremely large ore deposits at the greater Sorpresa area.**

Important Results for the Percussion OHH drilling at Sorpresa conducted in the June Quarter

The percussion drilling in the June Quarter at Sorpresa produced some excellent Au intersections at Trench 31 area, its SW extension and at Boundary Gate, placing **many holes amongst the best holes drilled to date at Sorpresa** (based on ranking measure of “linear gram-metres of Au”).

In addition, scout drilling (14 holes) was conducted at distances approx. 50m to 150m from the previous known Au intersection at SW Sorpresa. This was to assist in locating further prospective Au areas within the black silica geology, deemed to be the surface based gold receptive horizon.

Drilling depths were generally between 40m to 70m, with deeper targets at Sorpresa are yet to be drilled.

Quarter Results at Location - Trench 31 Area and SW extension Sorpresa

- The highest Au grade was an intersection of **14m @ 21.9g/t in Hole Fi 160 including 2m @ 87.5g/t Au.**
- The Au mineralization remains open in many directions

Hole	Intersection details ¹	Including section
Fi 160	14m @ 21.9g/t Au from 34m and 12m @ 0.61g/t Au from 48m and 6m @ 93.8g/t Ag from 34m	2m @ 87.5g/t Au from 36m and 2m @ 46.5g/t Au from 34m and 2m @ 7.63g/t Au from 44m 2m @ 158g/t Ag from 36m
Fi 161	16m @ 4.57g/t Au from 36m and 4m @ 31.4g/t Ag from 36m and 4m @ 27.4g/t Ag from 46m	2m @ 8.32g/t Au from 46m and 2m @ 21.3g/t Au from 48m
Fi 156	6m @ 1.53g/t Au from 36m and 6m @ 12.3g/t Au from 44m	2m @ 2.81g/t Au from 38m and 4m @ 18.3g/t Au from 44m
Fi 153	14m @ 3.41g/t Au from 22m	2m @ 3.14g/t Au from 22m and 2m @ 18.35g/t Au from 24m
Fi 141	14m @ 1.27g/t Au from 2m	4m @ 2.21g/t Au from 2m and 4m @ 1.74g/t Au from 8m
Fi 143	14m @ 0.96g/t Au from 2m	2m @ 4.69g/t Au from 14m
Fi 154	10m @ 1.23g/t Au from 18m	4m @ 2.64g/t Au from 18m
Fi 163	16m @ 0.65g/t Au from 6m	

The previous best intersection (July 2011) was Fi 72 with 4m @ 17.52g/t Au. (ASX Release hyperlink : [Assays Confirm Significant Gold and Silver at Sorpresa Project 6th July 2011](#))

Quarter Results at Location - Boundary Gate Area Sorpresa

Boundary Gate Area (located 600m NE from Trench 31 area) recommenced drilling (last drilled in October 2011), 8 holes were drilled, and assays received on 4 holes. **Each hole intersected Au.**

Hole Fi 165 produced a 43m interval of Au greater than 0.1g/t, including a best Boundary Gate result of 20m @ 2.14g/t Au. This result places Fi 165 in the top 10 holes drilled anywhere at Sorpresa to date.

Hole	Intersection details	Including section
Fi 165	20m @ 2.14g/t Au from 22m	10m @ 3.82g/t Au from 24m
Fi 168	8m @ 1.81g/t Au from 32m	
Fi 170	10m @ 1.03g/t Au from 44m	2m @ 2.99g/t Au from 50m

A diagrammatic representation showing the hole locations is provided in **Appendix 1, 2 and 3.**

Appendix 3 has a Summary Table of the key assays achieved in the various areas at Sorpresa since drilling in 2011.

A brief summary of the overall exploration undertaken at Fifield is provided in the following Table.

¹ Au was determined by fire assay method AA22 & AA26 on 50g subsample charge with AAS finish at ALS Laboratories

Exploration Sampling Undertaken at Fifield in June Quarter

Fifield Area Reference	Prospect Name	Sample Type	No of Samples or metres	Brief Comments
EA 11	Yoes Lookout & Glen Iris	Mapping & Magnetics	Extensive	Further enhances geological context
		Percussion Drilling OHH	455m	First scout traverse of 8 holes with two holes assayed
		XRF	450	
		Rock Chips	63	
EA1, EA3, EA4	Sorpresa Main Strike and SW extension Areas - incorporating Trench31 and Boundary Gate and southern area of the Basin	Auger Bedrock	38	Significant work programs were undertaken at Sorpresa and the adjacent SW strike and beyond to the south and west. Important observations constructed into new geological model of the "Syncline Rift Basin"
		Percussion Drilling (OHH)	1435m	
		XRF Chemistry	1740	
		Mapping	8km ²	
		Selective Soil Sampling	223	These samples cover the available parts of the rift basin where geochemistry is suited
		Selective Rock Chipping	125	

Apart from the known Sorpresa Area, the Rift Basin is largely covered by shallow unrelated scree or alluvium. This means much of the basin is unsuited to surface geochemistry.

Those remaining areas where surface geochemistry is applicable have now been covered with soil and rock sampling. To achieve this coverage, 223 geologically selected soil samples and 125 geologically selected rock samples were taken. Geochemical anomalies will need sampling in addition to this.

The Sorpresa style of mineralization is subtle in appearance even at high grades. Hence the rock sampling must cover many different possibilities with the inevitable result that many samples may not reflect mineralisation.

Soil Sampling

Each sample was designed to test specific parts of the geology. The soil reliability was logged and will be used in the anomaly selection process. Each sample has been sent for a low detection level gold assay. Base metals, as gold pathfinders, have been read by field XRF machine.

The grasslands provided an unexpected grass botanical anomaly. It is possible that the chemistry of the receptive horizon is unfavourable for grass growth. These areas are noted on the soil logs.

Rock Sampling

Each sample has been geologically selected after extensive ground searching. The black silica of the receptive horizon was the prime objective of the sampling. This was often sampled via a muster of numerous rock chips rather than individual prospective pieces of the rock float. The black silica often proved reluctant to display its presence through the soil cover, hence detailed work was required in black silica areas.

A great diversity of breccia types were located and sampled. Sheared rocks were generally unable to form robust rock float and have as a consequence, been under sampled.



Drilling - Sorpresa

The gold assays will decide what areas are important. Whilst many areas look promising, visual inspection is not a reliable guide to the potential contained gold levels. The base metals, as possible pathfinders to gold will be analysed on the rock chip pulps with handheld XRF.

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, detectable 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.

The Syncline Rift Basin Concept

Sorpresa style mineralization is hosted by a carbonaceous receptive horizon in the sediment pile. Faulting, shearing and brecciation provide the deep plumbing that allows the gold bearing hydrothermal fluids to gain access to this receptive horizon.

It is inferred that the receptive horizon has an overall syncline basin shape. In detail any one part of the basin has a buckled or complex shape. This is to be expected as the basin is criss-crossed by many faults.

The known mineralization at Sorpresa is only a small part of the prospective mineralisation likely contained within Rift Basin. As mentioned, Sorpresa was covered by residual soil and hence its discovery was greatly aided by soil geochemistry. By contrast much of the remaining Rift Basin is not suitable for soil geochemistry and will require drill based exploration.

The Company is learning to use the drill results to help refine the structural model and the basin wide work interpretations looking for repetitions and variations on the gold system geology, initially in the 0-60m zone.

The receptive horizon plan area has been ascribed various dimensions as the knowledge of the area increased. Initially, 4 km² was thought a reasonable estimate, but at this point in time, the best estimate is double, at 8km². This is a large area by any standards and represents significant potential for large scale mineralization. The gold receptive horizon described by the Company, is a thick layer in the basin stratigraphy. The basin itself goes above and below the receptive horizon.

The delineation drilling at Sorpresa is showing that the Sorpresa gold mineralization style has good rewards for persistent drilling. It is entirely probable that **thicker blocks of the receptive horizon exist in the basin centre.** The basin is fault controlled and prone to isolated deep patches where an accumulation of organic carbon is likely to have historically occurred.

The Sorpresa area is on the edge of the basin, which in turn appears orientated with the known shear zone positions for Platina-Gillenbine.

The project area at Sorpresa represents a large gold exploration target that requires drilling from the near surface to hundreds of metres in depth. To date, the Company has undertaken drilling within the 40-60m depth range, where results provide significant encouragement to justify a far greater drilling density and also depth extension.

IP (Induced Polarisation) is an electrical geophysical method that demonstrates a strong capacity to direct the deeper drilling into the better mineralized areas. The IP chargeability can highlight minerals that can be electrically excited, producing a 3D image of the target areas to be tested.

At Fifield, the strong IP anomaly appears located at the centre of the syncline basin. This gives rise to the possibility of a huge mineralising system being present, and focused on the basin centre. The additional geological mapping undertaken in the June Quarter has provided greater interpretation of the geological model for the greater Sorpresa area and is shown in **Appendix 4.**

The IP anomaly is likely to be due to graphite and pyrite developed on structurally deformed and compact organic carbon. This is likely the gold precipitation trigger that operates at the greater Sorpresa area in general.

The Rift Basin concept provides a broader context for the known area of gold mineralisation at Sorpresa, which is at the periphery of the Rift basin system. The Company must therefore undertake both delineation drilling at Sorpresa, as well as explore for the much larger scale mineralization, and its multi-million ounce potential likely to exist as part of the Rift Basin centre.

Continued Work Programs at Fifield

The Company strategy is to continue to have a mixture of discovery scout drilling, but also undertake resource definition drilling on the known Sorpresa gold mineralized areas, partly drilled in 2011 and 2012.

The next phase of drilling continues to cover delineation drilling of the Main Sorpresa Area (EA 1), looking at Trench 31 area, Boundary Gate and Roadside. Reconnaissance drilling will continue at Sorpresa SW extension, South of Sorpresa and Yoes Lookout. A range of other target areas at Fifield for Au mineralization (EA 2 to EA 11) are still marked for drilling, at various future stages.

The Trench 31 gold mineralization continues NE (Boundary Gate is 600m NE of Trench 31 Area) 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.



Fi 168 Boundary Gate – Au Intersection

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 26th July 2012 [Successful Intersections at Sorpresa Gold Project, Fifield NSW](#)
2. ASX June 13th 2012 [High Grade Gold Intersection Sorpresa Project – Fifield NSW](#)
3. ASX May 28th 2012 [Sorpresa Gold Project has Increased Potential at Depth](#)
4. Video May 2012 [3D model of the IP Anomaly at Sorpresa Video](#)
5. ASX April 30th 2012 [Quarterly Exploration Activities March 2012](#)
6. ASX January 31st 2012 ([Quarterly Exploration Activities December 2011](#))
7. Video [January 2012 Sorpresa Gold Project – Trench 31 Area Review Video](#)
8. ASX 28th November 2011 [AGM Exploration Presentation – Including Key Summary Assay results of Sorpresa](#)
9. Rimfire Website Summary [Brief history of Sorpresa Mineralisation discovery and style \(to September 2011\)](#)
10. ASX [Assays Confirm Significant Gold and Silver at Sorpresa Project 6th July 2011](#)

Yoes Lookout

Yoes Lookout prospect (EA 11), located 5km due east of the Sorpresa Gold project area at Fifield NSW, had a traverse of 8 scout percussion (OHH) holes drilled looking for the gold mineralization seen in prior soil sampling and auger drilling. Two of the eight holes have been assayed and both have confirmed encouraging shows of Au at levels 0.2g/t Au.

Further holes are planned as part of an initial program to scope the area in the first drilling ever conducted in this area, by Rimfire, or any other explorer in the past.

The results in the March Quarter confirmed that a greenfields coherent Au anomaly in the soil was established, of considerable in size and open in many directions. The geology at Yoes Lookout is Upper Ordovician volcanics and appears to be the dominant underlying host rock style, which differs to that of Sorpresa.

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](#))

COMMODITY PRICING FOR THE JUNE 2012 QUARTER

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



As at 27th July 2012, the prices for metals in New York based on closing Ask in USD were as follows:

Gold	\$1,624/oz
Platinum	\$1,417/oz
Silver	\$28/oz

CORPORATE ACTIVITIES

Tenement Position

The Company awaits final grant (having been notified of approval) for **7 additional units surrounding the Yoes Lookout area** at Fifield NSW. The new units complement the existing exploration for gold-copper porphyry style mineralisation being pursued at that location.

Cash, Facilities and Investments

As at 30th June 2012 the Company had approximately \$1.40 million in cash.

Issued Capital

The issued capital remained unchanged and at the close of business on 30th June 2012 was 525,846,643 ordinary shares.

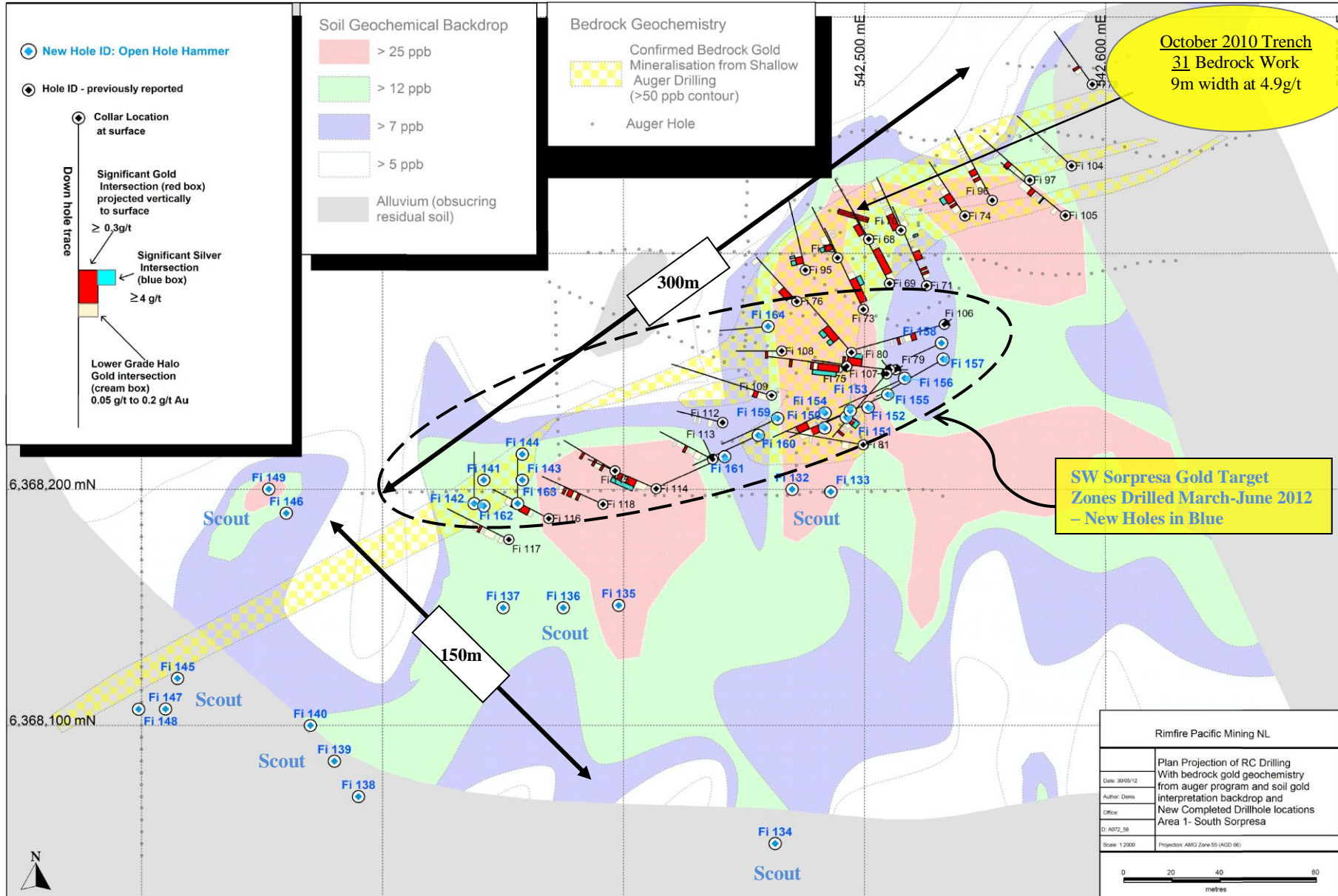
JOHN KAMINSKY
Executive Chairman

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

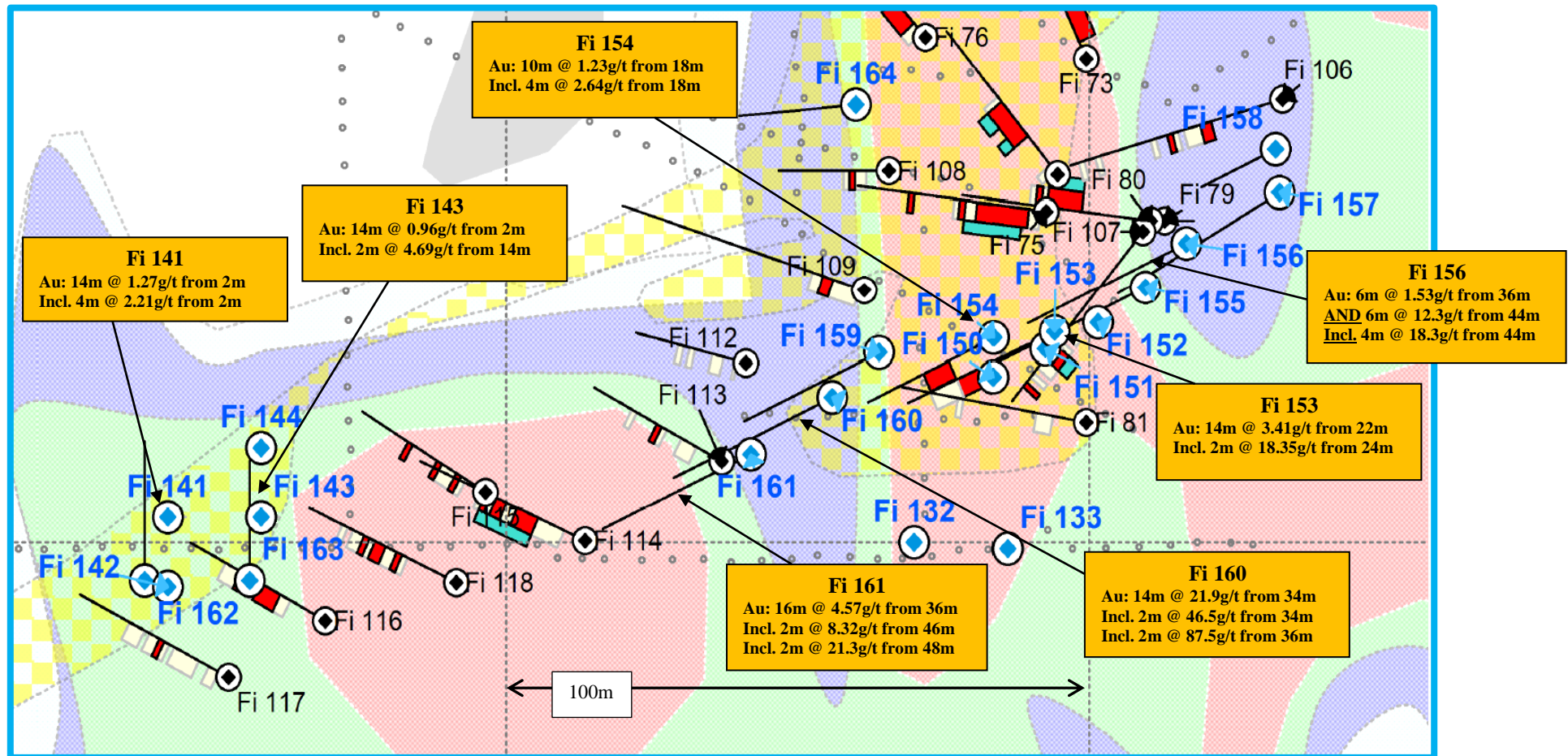
New (2012 - Blue Colour) Completed OHH Drilling Collar Hole Locations at Tr31 Area Sorpresa

(On background of 2011 RC Drilling on soil Au geochemistry)



Appendix 2

Close up of New (2012 - Blue Colour) Completed OHH Drilling Collar Hole Locations at “Tr31 Area” Sorpresa with Previous RC Drilling (2011 - Black)
(Shown against Gold in Bedrock Auger Zones and Soils previously established)



Note that only **new hole (2012) assays** of significance are shown, namely **Fi141, Fi143, Fi153, Fi154, Fi156, Fi160 & Fi161**. Assays are not yet received on a number of **new holes**. All key assay results from previous holes (2011) can be found in previous publications

Appendix 3

Summary Key Au and Ag Assays Percussion Drilling Sorpresa 2011 and 2012

Key Assays Trench 31 and SW Extension Area 2011/2012 (as at July 2012)				
Hole	Au (and Ag) Intersection details	Including Section	Drilling Period	Area of Drilling
Fi 160	14m @ 21.9g/t Au from 34m	2m @ 87.5g/t Au from 36m and	May-12	Tr31-SW
		2m @ 46.5g/t Au from 34m and		
		2m @ 7.63g/t Au from 44m		
	6m @ 93.8g/t Ag from 34m	2m @ 158g/t Ag from 36m		
Fi 156	6m @ 1.53g/t Au from 36m and	2m @ 2.81g/t Au from 38m	Jun-12	Tr31
	6m @ 12.3g/t Au from 46m	4m @ 18.3g/t Au from 44m		
Fi 161	16m @ 4.57g/t Au from 36m	2m @ 8.32g/t Au from 46m and	May-12	Tr31-SW
		2m @ 21.3g/t Au from 48m		
	4m @ 31.4g/t Ag from 34m and 4m @ 27.4g/t Ag from 44m			
Fi 72	4m @ 17.52g/t Au from 10m	1m @ 63.5g/t Au	Jun-11	Tr31
Fi 95	6m @ 8.59g/t Au from 6m	2m @ 24.4g/t Au	Jun-11	Tr31
Fi 153	14m @ 3.41g/t Au from 22m	2m @ 3.14g/t Au from 22m and	May-12	Tr31
		2m @ 18.35g/t Au from 24m		
Trench 31	9m @ 4.9g/t Au channel at 2m	2m @ 11.3g/t Au channel at 2m	Oct-10	Tr31
Fi 107	6m @ 6.51g/t Au from 48m	2m @ 14.4g/t Au	Oct-11	Tr31
Fi 75	18m @ 2.08g/t Au from 6m	4m @ 6.31g/t Au	Jun-11	Tr31
	4m @ 19.0g/t Ag from 12m			
Fi 77	14m @ 2.12g/t Au from 16m	4m @ 3.11g/t Au, 6m @ 2.84g/t Au	Jun-11	Tr31
	4m @ 46.8g/t Ag from 16m and			
	6m @ 13.0g/t Ag from 24m			
Fi 97	4m @ 5.82g/t Au from 20m		Jun-11	Tr31
Fi 73	20m @ 1.05g/t Au from 8m	6m @ 2.11g/t Au	Jun-11	Tr31
Fi 114	20m @ 1.01g/t Au from 18m	2m @ 2.79g/t Au, 2m @ 3.65g/t Au	Oct-11	Tr31-SW
	2m @ 19.7g/t Ag from 30m			
Fi 80	12m @ 1.67g/t Au from 24m		Jun-11	Tr31
Fi 68	10m @ 1.92g/t Au from 6m	6m @ 2.92g/t Au	Jun-11	Tr31
Fi 141	14m @ 1.27g/t Au from 2m	4m @ 2.21g/t Au from 2m and	May-12	Tr31-SW
		4m @ 1.74g/t Au from 8m		
Fi 70	12m @ 1.42g/t Au from 4m		Jun-11	Tr31
Fi 143	14m @ 0.96g/t Au from 2m	2m @ 4.69g/t Au from 14m	May-12	Tr31-SW
Fi 154	10m @ 1.23g/t Au from 18m	4m @ 2.64g/t Au from 18m	May-12	Tr31
Fi 116	8m @ 1.08g/t Au from 18m	2m @ 3.2g/t Au	Oct-11	Tr31-SW

The table is a summary of best results at Locations shown. Criteria for inclusion is approx. 10 gram-metres Au, or 100 gram-metres Ag or a combination of both.

Appendix 3 (cont.)
Summary Key Au and Ag Assays Percussion Drilling Sorpresa 2011 and 2012

Key Assays Boundary Gate and Roadside Areas at Sorpresa 2011/2012 (as at July 2012)				
Hole	Au (and Ag) Intersection details	Including section	Drilling Period	Area of Drilling
Fi 165	20m @ 2.14g/t Au from 22m	10m @ 3.82g/t Au from 24m	Jun-12	Area 2 - Boundary Gate
Fi 64	20m @ 1.06g/t Au from 12m 2m @ 16g/t Ag from 18m	6m @ 2.02g/t Au	May-11	Area 2 - Boundary Gate
Fi 168	8m @ 1.81g/t Au from 32m		Jun-12	Area 2 - Boundary Gate
Fi 170	10m @ 1.03g/t Au from 44m	2m @ 2.99g/t Au from 50m	Jun-12	Area 2 - Boundary Gate
Fi 119	10m @ 0.60g/t Au from 10m		Oct-11	Area 2 - Boundary Gate
Fi 82	12m @ 1.19g/t Au from 2m and 4m @ 1.80g/t Au from 18m 8m @ 27.5gt Ag from 2m and 4m @ 71.9g/t Ag from 10m	4m @ 1.64g/t Au, 2m @ 3.09g/t Au	May-11	Area 3 - Roadside
Fi 83	2m @ 0.86g/t Au from 14m and 2m @ 1.49g/t Au from 16m 6m @ 49g/t Ag from 10m and 10m @ 73.8g/t Ag from 16m	2m @ 150g/t Ag, 2m @ 124g/t Ag	May-11	Area 3 - Roadside
Fi 84	10m @ 1.38g/t Au from 2m 12m @ 16.4g/t Ag from 4m	2m @ 3.31g/t Au	May-11	Area 3 - Roadside
Fi 85	21m @ 15.8g/t Ag from 1m	8m @ 27.9g/t Ag	May-11	Area 3 - Roadside
Fi 87	10m @ 0.87g/t Au from 2m 8m @ 37.8g/t Ag from 2m	2m @ 2.23g/t Au 4m @ 60.3g/t Ag	May-11	Area 3 - Roadside
Fi 88	12m @ 1.71g/t Au from 10m 12m @ 38.6g/t Ag from 10m	2m @ 3.29g/t Au 2m @ 58.8g/t Ag	May-11	Area 3 - Roadside
Fi 89	6m @ 2.13g/t Au from 18m 6m @ 63.4g/t Ag from 18m	2m @ 155g/t Ag	May-11	Area 3 - Roadside
Fi 123	26m @ 13.2g/t Ag from 2m	2m @ 38.7g/t Ag	Oct-11	Area 3 - Roadside
Fi 124	6m @ 1.13g/t Au from 28m 32m @ 16g/t Ag from 2m	2m @ 51.6g/t Ag, AND 2m @ 51.6g/t Ag	Oct-11	Area 3 - Roadside
Fi 47	13m @ 1.59g/t from 2m 13m @ 8.7g/t Ag from 2m		May-08	Area 4 - Original Sorpresa
Fi 91	8m @ 10.6g/t Ag from 2m		Jun-11	Area 4 – Original Sorpresa

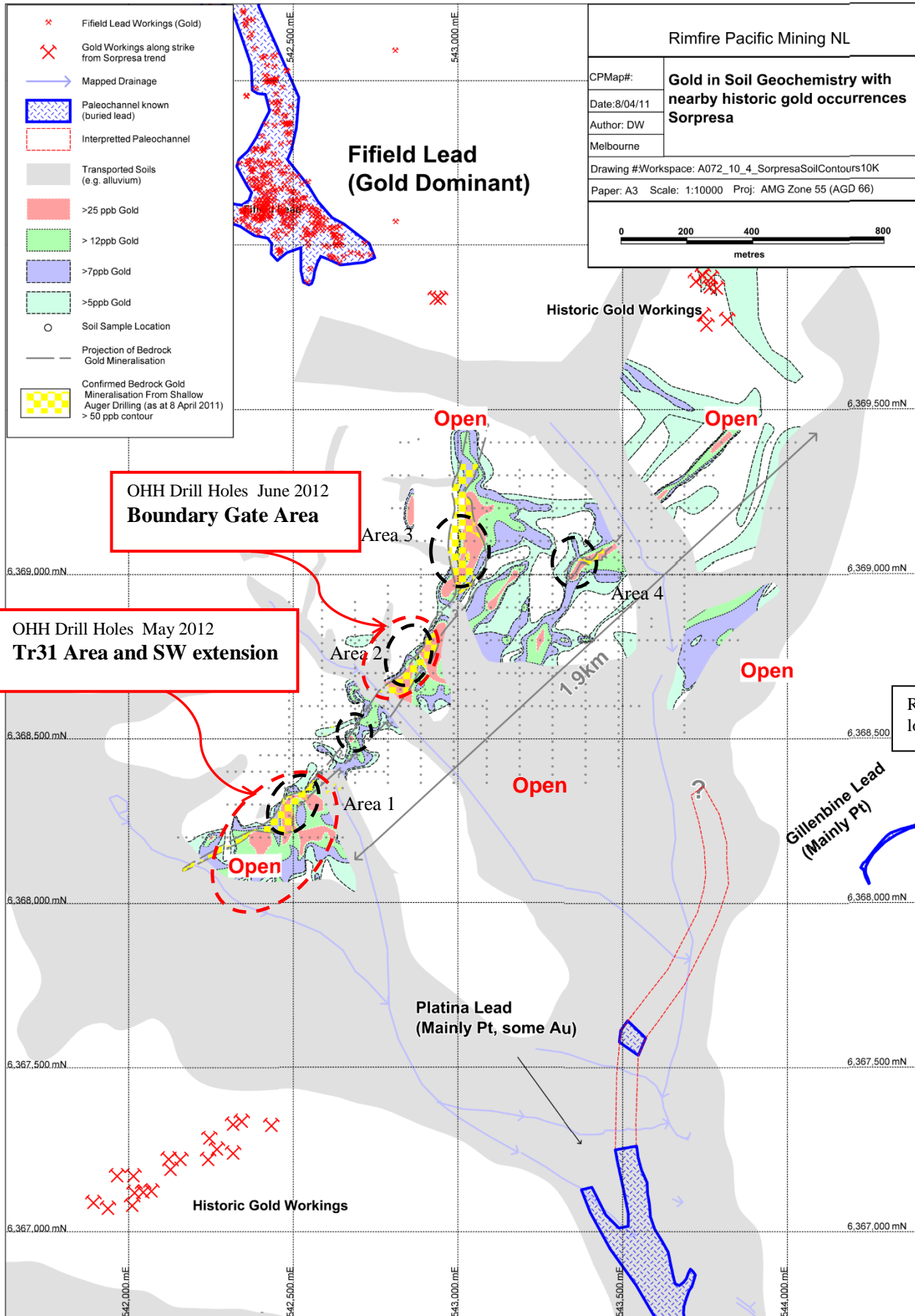
The table is a summary of best results at Locations shown. Criteria for inclusion is approx. 10 gram-metres Au, or 100 gram-metres Ag or a combination of both.

Note: A 3 year gap occurred between Fi 47 and the first major drill program at Sorpresa as it is now defined

Appendix 4

Percussion Drill Locations Sorpresa 2011 and 2012

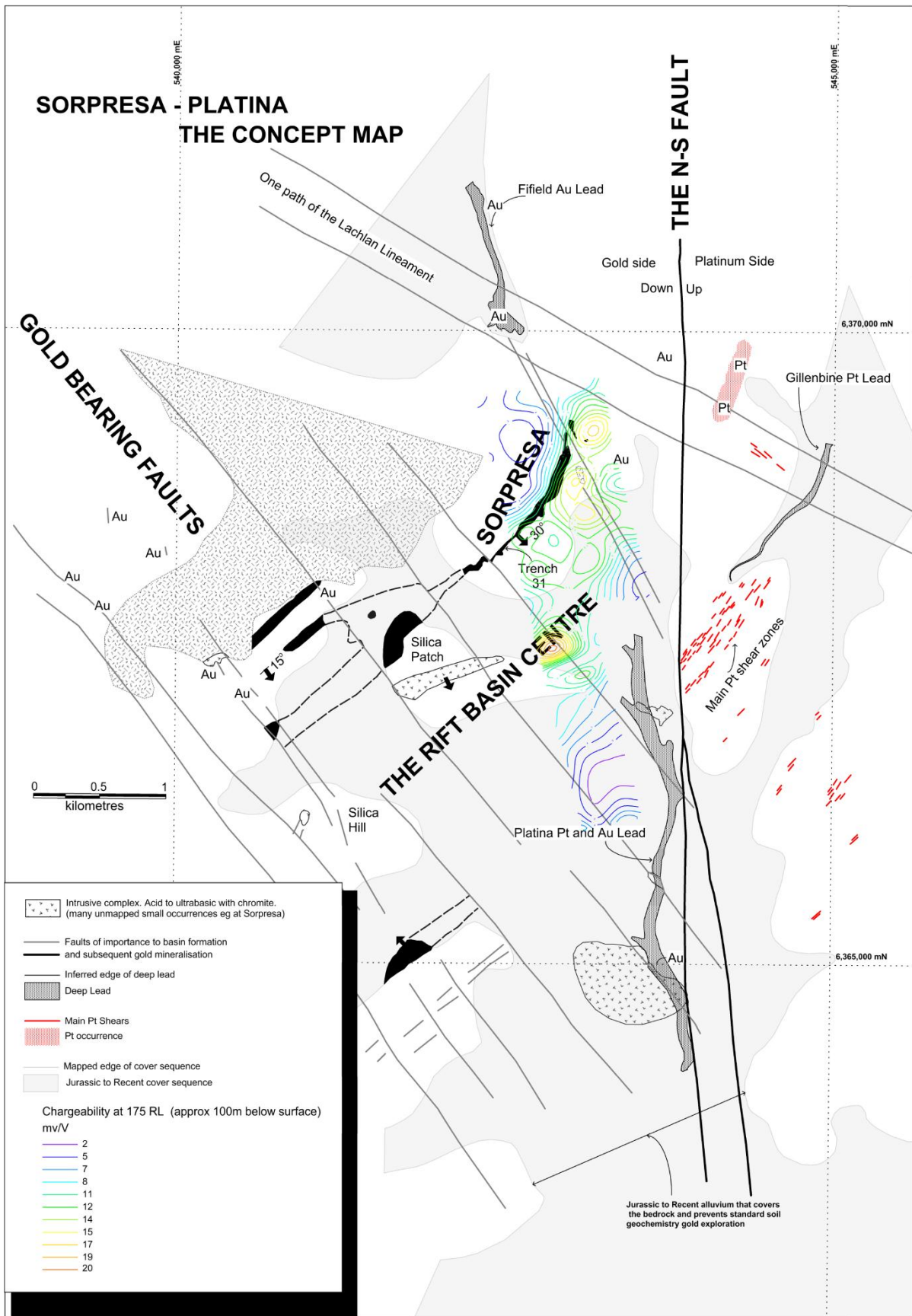
Sorpresa Gold in Soil Anomaly Context – Untested Areas and Adjacent Historic Au Workings



Appendix 5

The Geological Concept Model – Syncline Rift Basin in Plan View

(Note that the IP survey response at approx. 100m depth is overlaid)



Appendix 6

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, which is seen as a **Syncline Rift Basin setting**.

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. Recent higher grades seen in 2012 continue to enhance the gold potential in the 0-60m zone.

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 2011/2012 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 was identified as having a target potential of 0.5 million to 1.5 million ounces of Au.² Details of the basis for the assessment can be seen in the 2011 AGM Presentation³. The prospective area is now revised to be 8km² and growing.

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.

² **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."

³ AGM 2011 Presentation at link <http://www.rimfire.com.au/PDF/1051660-AGM-2011-Presentation.pdf>

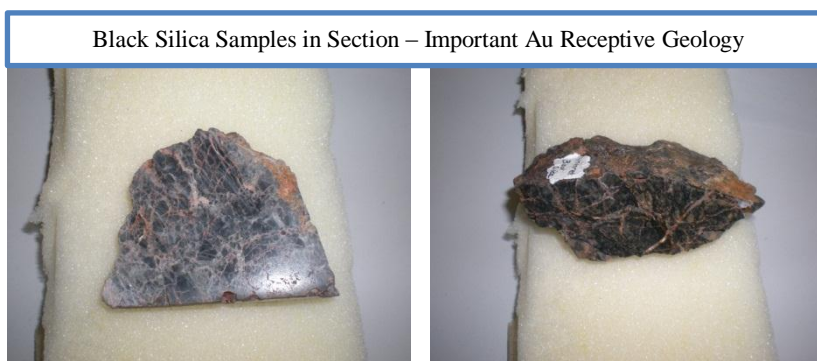
On 23rd August 2011 the Company reported its highly encouraging final assay results for the first pass RC drill program conducted in April/May 2011 at the Sorpresa area, in 4 locations over a distance of approx. 1.3km focused on gold mineralisation.

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 8km² is now 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.

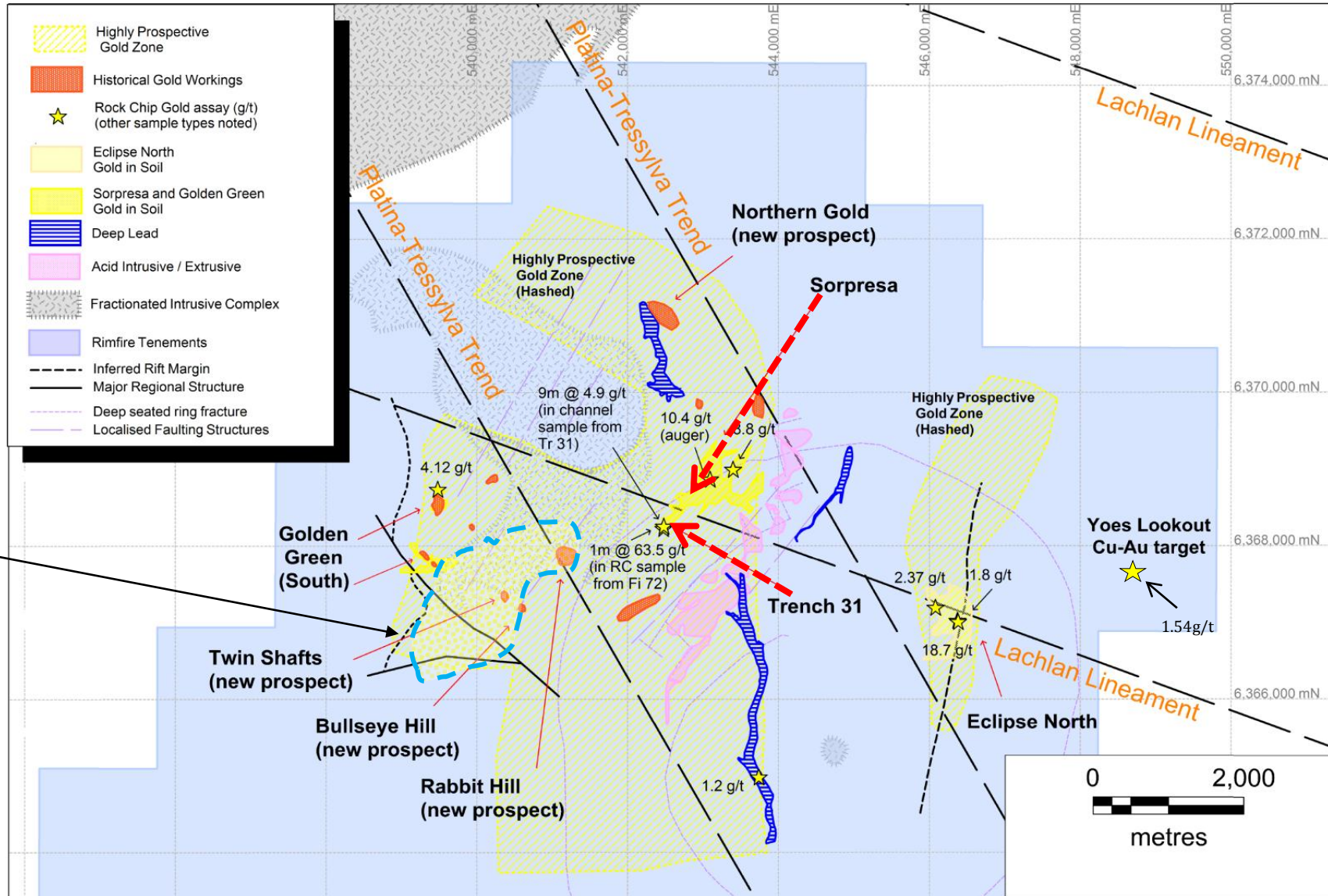
This represents a highly promising geological context for large scale discoveries and confirms the Company’s earlier views that “Company Making” Au mineralization is likely to occur in this setting.

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 and is within a Syncline Rift Basin setting.**

APPENDIX 7

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

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



Western Block
Au in Creek Sampling
Area 4km²

