



QUARTERLY EXPLORATION AND ACTIVITIES REPORT

(For the period 1st October 2013 to 31st December 2013)

Sorpresa Project Delivers Extensions of Gold and Silver Mineralisation **- Excellent Preliminary Oxide Zone Metallurgy at Fifield NSW**

Highlights

- **Step-out RC drilling at the Roadside area confirmed significant gold and silver extensions down dip which remain open**
 - Current dimensions at Roadside are 400m strike x 350m down dip at the southern end, and more than 200m down dip at the northern end
 - Updated 3D modelling of Roadside area reveals continuous mineralization from surface
- **Excellent preliminary metallurgical results were received from the Sorpresa Project oxide zone**
 - A best gold recovery at Trench 31 location was 96.8%
 - Roadside location achieved a recovery high of 84.3% for gold and 68.9% for silver, which upgraded further with finer grind and longer leach time to 89.1% and 72.3% respectively
- **RC Drilling late in the quarter intersected visible gold in the vicinity of previous high grade Diamond core intersections**
 - Screen fire gold assays are pending to incorporate any coarse gold recovery
- **Reprocessed Geophysics indicate strong correlations to mineralization at Sorpresa**
 - Detailed Gravity trends in particular provide additional targeting opportunities
 - An important target is now identified to the south based on I.P.
- **Many new gold and silver target areas are being developed through extensive work in the period, providing additional discovery growth potential at Sorpresa.**
 - This includes various locations within the 8km² wider Sorpresa area plus regional targets
 - **Rock chip sampling results above 1g/t were achieved at 4 regional locations**
- **The design and permitting was completed for bulk sampling of the "Platina Lead"**
 - Excavation is scheduled to commence **February 2014** (60m long x 18m deep x 1m wide)
 - The objective is twofold, firstly to assess Sorpresa style geology and secondly to gain a commercial assessment of residual **Platinum and Gold** in this shallow paleo-channel

Table 1: Significant Intersections at the Sorpresa Project "Roadside Area" in the Quarter

Hole	Intersection	Including section	Result reporting dates
Fi 394	26m @ 90g/t Ag from 150m and 26m @ 0.37g/t Au from 150m	1m @ 2.80g/t Au from 157m and 1m @ 439g/t Ag from 157m, and 3m @ 327g/t Ag from 164m	Dec 2013
Fi 389	8m @ 177g/t Ag from 121m and 8m @ 0.64g/t Au from 121m	2m @ 514g/t Ag open at E.O.H	Dec 2013
Fi 390	34m @ 55g/t Ag from 104m and 34m @ 0.17g/t Au from 104m	1m @ 387g/t Ag from 105m and 1m @ 1.65g/t Au from 105m and 5m @ 118g/t Ag from 129m	Dec 2013

Hole	Intersection	Including section	Result reporting dates
Fi 395	10m @ 84g/t Ag from 158m and 10m @ 0.47g/t Au from 158m and 5m @ 105g/t Ag from 171m and	2m @ 272g/t Ag from 159m and 2m @ 1.28g/t Au from 159m and 1m @ 267g/t Ag from 174m	Dec 2013
Fi 392	6m @ 94g/t Ag from 120m and 6m @ 0.25g/t Au from 120m	3m @ 127g/t Ag from 120m	Dec 2013
Fi 366	21m @ 1.11g/t Au from 103m and 12m @ 22g/t Ag from 104m and 10m @ 0.30g/t Au from 128m	12m @ 1.80g/t Au, 0.17% Pb and 0.38% Zn from 104m 1m @ 4.57g/t Au, 311g/t Ag, and 0.81% Zn from 107m 2m @ 0.64g/t Au, 0.12% Pb, 0.31% Zn from 130m	Oct 2013
Fi 338	18m @ 82.6g/t Ag from 18m and 18m @ 0.22g/t Au from 12m and 2m @ 59.8g/t Ag from 42m	6m @ 169.3g/t Ag from 20m	Oct 2013
Fi 369	18m @ 0.50g/t Au from 117m and 18m @ 36g/t Ag from 117m and 1m @ 0.14g/t Au, 0.49% Pb, 2.13% Zn from 153m	3m @ 1.72g/t Au and 139.7g/t Ag from 126m 2m @ 0.72% Pb from 144m	Oct 2013
Fi 342	8m @ 90.2g/t Ag from 16m and 8m @ 0.53g/t Au from 12m	2m @ 206g/t Ag from 20m	Oct 2013

Rimfire Pacific Mining NL (ASX:RIM) ("Rimfire" or "The Company") is pleased to provide details from a very active Quarter of exploration and discovery growth activities at Fifield, NSW.

The Executive Chairman, John Kaminsky said:



"We have made further solid advances in the December quarter on a number of important fronts including further assessment of regional targets and continuing discovery growth. The Fifield site continues to be very active with multiple work programs being pursued.

The focus on down dip extensions at Roadside has grown quickly and efficiently the scale, continuity and potential of the emerging gold and silver system at this location within the Sorpresa project. The Roadside area is quite remarkable in its predictable shape and geometry, still producing high grades at depth. Hole Fi394 with **26m @ 90g/t Ag** was a very good result and is consistent with the type of the intersections we see at Roadside.

The Company has made useful progress in other areas also, with particular interest east of Boundary Gate. New RC drilling occurred in late December around the previously reported (July 2013) bonanza grade (**1m @ 114g/t Au**) result in diamond hole Fi 329 DDH and **1m @ 24.9g/t Au** in Fi 327 DDH.

Whilst screen fire gold assay results are pending, the Company is encouraged by the sighting of visible gold in this new drilling (Fi 399). We maintain the view that this area shows promising signs for growth of the Sorpresa gold mineralized system.

Regional exploration has undergone further examination in the period. We are aiming to utilize the knowledge gained at Sorpresa further afield, to make new discoveries within the highly prospective 20km² area at Fifield. It was pleasing to see positive rock chip results across such a large array of gold prospects.

The 'Platina Lead' paleo-channel, Australia's largest dedicated historic Platinum producing structure (1890's) will be bulk sampled and mapped in the March quarter, offering potential insights into its interaction with the Sorpresa mineralized geology. We plan to examine the historic workings to understand the basis for the reported recovered grade of 15g/t platinum (as a mixed platinum and gold equivalent).

This is a shallow paleo-channel at a depth below surface of only 10m to 24m across a known strike length of approximately 4km, and forms an intriguing part of the wider Sorpresa project area. It needs to be better understood geologically and commercially, so this sampling exercise is an important first step.

The Company has established a comfortable financial position currently. With the additional geological expertise now assembled and the further investment made in light infrastructure, we are anticipating a productive 2014, with exciting upside potential."

December Quarter Drilling

Multiple drill programs were conducted across the December quarter utilizing RAB, OHH percussion, Auger and RC drill methods. Total drilled meters for the quarter equate to 6,980m including 26 RC holes for 4,269m.

Interpretation of this work suggests mineralization at Sorpresa is structurally controlled and selective to predictable and continuous stratigraphic host sequences which provide excellent rheological and chemical trap sites for migrating hydrothermal fluids.

Multiple pulses of mineralization at Sorpresa are being interpreted, some being Silver dominant +/- Au (e.g. Roadside), others Gold dominant +/- Ag, and high grade gold only phases (including visible gold) as part of a dynamic telescoping mineral system. The recent RC drilling has targeted these different parts of the greater Sorpresa system with encouraging results returned.

Sorpresa RC Drilling

Reverse Circulation drilling this quarter has targeted extensions and repeats of previously defined oxide and primary mineralisation at the Join-Up, Roadside and Roadside North, Boundary Gate, and Boundary Gate East target areas within Sorpresa (**Figure 1**).

Results, particularly at Roadside North, in the silver dominant part of the system, demonstrated that the mineralized zones display predictable down dip continuity and importantly maintain grade at depth (**Figure 2**). Results received this quarter, from a 9 hole for 1.335m RC drilling program, conducted in the previous quarter targeting the gold rich mineralization at Roadside (reported in Oct 2013) also confirm the continuous and predictable down dip continuity of gold +/- silver mineralization (**Figure 3**).

Roadside South Area - Gold

Gold +/- silver and base metal mineralization at Roadside was extended by a further 100m, to 350m, down dip to the east (Figure 3) and remains open. The mineralization consists of quartz, carbonate, sulphide (pyrite, arsenopyrite, sphalerite, galena) veining and crackle breccia infill associated with intense pervasive silicification. Multiple lodes were intersected at depth returning different metal associations in Gold, Silver, Lead, Zinc, and key pathfinders Antimony and Arsenic. The higher levels of Zinc (Zn) were of particular note in a number of holes.

The interpretation is seen as involving multiple phases of mineralization which represent exciting exploration targets and provide potential vectors to higher grades of gold and silver. The consistent widths of the mineralized envelope, albeit containing variable in grade at times, is considered highly encouraging for future targeting of gold and silver, within the mineralized envelope.

The best intersections were holes Fi 366 and Fi 369, results are shown in the summary Table 1, page 1 of this report.

Roadside North - Silver and Gold

Confidence in continuity gained from recent 3D modelling of silver dominant mineralization at Roadside North enabled targeting of 8 step out RC holes at 40m x 40m and 40m x 60m spacing. Five of these holes returned significant width and grade mineralization.

This is highly encouraging as the lode appears to be broadening at depth, still contains high grade intervals and remains open (**Figure 2**). A potential high grade plunge control is currently being interpreted to the east south-east and needs further drilling. Unfortunately drill hole Fi 389 was abandoned in high grade mineralization (**2m @ 514g/t Ag open at E.O.H.**) at 129m down-hole, due to difficult drilling conditions.

The best intersections were holes Fi 389, Fi 390, Fi 392, Fi 394 and Fi 395. Results are shown in the summary Table 1, page 1 of this report.

Boundary Gate East - Gold

RC Drilling targeting extensions to previously reported Bonanza gold grade intersection of **1m @ 114g/t Au** from 159m (Fi 329 DDH), and **1m @ 24.9g/t Au** from 142m (Fi 327 DDH) were completed.

Screen fire assay results are pending however, **visible gold** has been observed in an RC Chip in a quartz, carbonate, arsenopyrite, pyrite, sulfosalt vein associated with significant sericite wallrock alteration.

The recognition of visible gold in an RC Chip, 70m from the diamond drill intersection of 1m @ 114g/t Au, located some



800m south of the Roadside area (**Figure 1**) offers significant encouragement, and has **implications for new and enhanced gold potential at Sorpresa including the possibility of multiple, stacked lenses.**

Join-Up and Boundary Gate

Gold targets in the Join-Up and Boundary Gate areas within the greater Sorpresa trend were RC drilled in the period with step out reconnaissance style holes examining Gravity, I.P. and Geochemical targets down dip of shallow oxide mineralization (**Figure 4**).

The Join-Up area produced **1m @ 2.03g/t Au** from 84m in Fi 375, **2m @ 1.42g/t Au** from 84m and **3m @ 1.09g/t Au** from 88m in Fi 379. A south-south east plunge was recognized at Join-Up which requires further drill testing.

Results from multiple target areas at Boundary Gate also produced some encouraging results, summarized as:

- Fi 383: **2m @ 1.34g/t Au** from 52m,
- Fi 384: **4m @ 1.05g/t Au** from 58m*,
- Fi 386: **2m @ 1.50g/t Au** from 18m, and
2m @ 1.49g/t Au from 70m,
- Fi 387: **2m @ 1.23g/t Au** from 56m.

These intersections confirm the broader mineralizing system contains significant gold endowment, further drilling is proposed to target high grade controls and shoots in these areas early in 2014.

Rotary Air Blast (RAB) and Auger Drilling at Sorpresa

Concurrent Auger and RAB drilling was conducted in the quarter to further define geochemical targets and trends in and around the Sorpresa mineralized system, particularly in those areas masked by shallow alluvium cover.

This work aims at discovering and defining strike extensions to Sorpresa and potential structural repetitions. This type of drilling is ongoing with the Company's in house rigs. The RAB drilling provides the foundation for additional tighter spaced and deeper RC drilling at a later stage, focusing on the best target areas identified. Results are currently being interpreted.

Metallurgical Test Work at Sorpresa

A series of preliminary metallurgical tests were conducted on an extensive and diverse spread of mineralized oxide material sampled at Sorpresa. The test work was conducted at an external laboratory, under experienced contract metallurgist supervision. The high recovery figures achieved are most encouraging as the samples are representative of all the important oxide zones seen to date at Sorpresa.

Samples were selected to give a wide representation of the mineralization in the 0 – 45 metre oxide zone from 3 locations and comprised a total of 130 metres of mineralization from 30 drill holes within the 1.6km strike line of the Sorpresa project area.

The test work was conducted on a composite sample at each location and consisted of basic Carbon In Leach (CIL) tests with the standard industry conditions of 75 microns grind size and a 24 hour cyanide leach time. The gold and silver recoveries, together with the head grades for the composite samples are listed in the table, below.

Sample ID and Location	Number of 2m interval samples used for composite sample	Head Assays, g/t		Recovery, %	
		Au	Ag	Au	Ag
Met1 - Roadside *	24	1.22	73	84.3	68.9
Met2 - Trench 31	21	2.82	7.3	96.8	72.6
Met3 - Trench 31 SW	20	2.54	7.9	94.5	78.5

(* Additional test work on the Met1 composite, involving finer grinding and an extended leaching period, resulted in **improved recoveries to 89.1% for gold and 72.3% for silver**)

The Sorpresa project area has been enhanced with the successful completion of the preliminary screening criteria for an important part of its metallurgy in the oxide zone.

Regional Exploration (within a 6km radius of the Sorpresa project area)

Regional target generation and reconnaissance style grassroots exploration has recommenced outside of Sorpresa, at prospects including Yoe’s Lookout, Eclipse, Twin Shafts and Roseneath areas (**Figure 5**). Preliminary work involving geological and regolith mapping, rock chip sampling and multi-element geochemistry was undertaken. On-going exploration programs are being finalized continuing to expand the Company’s healthy prospect pipeline at Fifield.

Yoe’s Lookout

Rock chip sampling this quarter at Yoe’s Lookout returned highly encouraging gold results including **3.4g/t Au, & 2.1g/t Au**, enhancing previously reported rock chip gold anomalism which includes **2.3g/t Au, 2.0g/t Au, & 1.5g/t Au**. These results were obtained from outcrop and float samples within a significant **600m x 150m @ >20ppb Au** gold in auger anomaly.



The auger anomaly is open in every direction and contains peak gold values up to an impressive **1.6g/t Au**, and is spatially associated with quartz – limonite (after sulphide) veining and breccia infill in finely laminated iron rich cherts.

Of note is a gold and As, +/-Se, +/- Te pathfinder association, and chlorite, sericite, carbonate, hematite and sulphide (pyrite, arsenopyrite, chalcopyrite and pyrrhotite) alteration.

Yoe’s Lookout is approximately 6kms to the East of Sorpresa. A forward work program involving continuing rock chip, soil, and auger drilling is proposed to define RC drill targets.

Eclipse Trend, Roseneath and Twin Shafts Areas

Exploration targeting and rock chipping was completed at the Eclipse Trend of prospects, Roseneath area, Rabbit Hill and at Twin Shafts (**Figure 5**). Multi-element analysis was performed for litho-geochemical, alteration and rock type classification purposes to assist classification of the various mineralization styles and setting.

Results are being interpreted in IoGas geochemical software to assist future exploration and targeting. Encouraging gold grades were returned from each of the prospects including:

Sample	GDA_EAST	GDA_NORTH	Locality	Au (g/t)
FIR1010	548,766	6,367,435	Yeos Lookout	3.36
FIR1011	548,771	6,367,440	Yeos Lookout	2.14
FIR1012	548,761	6,367,430	Yeos Lookout	1.02
FIR1043	541,222	6,368,140	Rabbit Hill	2.52
FIR1045	540,471	6,367,498	Twin Shafts	1.51
FIR1069	542,058	6,365,178	Roseneath	1.70
FIR1070	542,149	6,365,162	Roseneath	3.74

Work Programs are currently being designed for more detailed exploration at these emerging target areas.

ABOUT RIMFIRE PACIFIC MINING ¹

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

In 2010 the Company delivered a greenfields gold and silver discovery, named "Sorpresa", in the Fifield district. Subsequent exploration has provided conclusive evidence that the 8km² wider Sorpresa area is now considered a significant gold mineralized system of some promise. The gold is predominantly native gold.

Best gold and silver intersections achieved from the period mid 2012 to the current date on the Sorpresa Project area with locations shown include*:

- | | |
|---|--------------------|
| <input type="checkbox"/> 14m @ 21.9g/t Au plus 6m @ 93g/t Ag | Trench 31 |
| <input type="checkbox"/> 14m @ 24.4g/t Au plus 26m @ 155g/t Ag | Roadside |
| <input type="checkbox"/> 10m @ 535g/t Ag plus 1.0g/t Au | Roadside |
| <input type="checkbox"/> 20m @ 230g/t Ag | Roadside North |
| <input type="checkbox"/> 1m @ 114g/t Au plus 1m @ 33g/t Ag | Boundary Gate East |
| <input type="checkbox"/> 16m @ 5.32g/t Au plus 20m @ 81g/t Ag | Roadside |
| <input type="checkbox"/> 4m @ 21.9g/t Au | Join Up |
| <input type="checkbox"/> 26m @ 90g/t Ag plus 26m @ 0.37g/t Au | Roadside |

The current main Sorpresa Strike line containing gold and silver mineralization is approximately 1.7km in length and is at various stages of further discovery extension drilling.

The Company has now established multiple project areas of importance involving hard rock Gold (Au), Silver (Ag), Platinum (Pt) and Base Metal within an extensive prospective 20km² area at Fifield, which is part of the contiguous 313km² tenement position held.

View the latest presentation on the Company main project area at hyperlink: [AGM Nov 2013 Presentation](#)

Competent Persons Declarations

For New Information in this report:

The information in the report to which this statement is attached that relates to Exploration Results is based on information compiled by Colin Plumridge and Darren Glover. Both gentlemen are deemed to be Competent Persons and are Members of The Australasian Institute of Mining and Metallurgy.

Mr Plumridge has over 40 years' experience in the mineral and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. And is a consulting geologist to the Company. Colin Plumridge has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Colin Plumridge consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr Glover is employed by Rimfire Pacific Mining and has 18 years experience in the mineral and mining industry. Mr Glover has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Glover consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Information previously published under 2004 JORC reporting standard and referenced in this report:

The information provided in "About Rimfire Pacific Mining" is extracted from the reports entitled and listed in the table below created on the dates shown and is available to view additionally on the Company Website at hyperlink: [ASX Announcements](#). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Exploration Results, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

¹ Historic information referenced in this section is accessible in the Competent Person's declaration

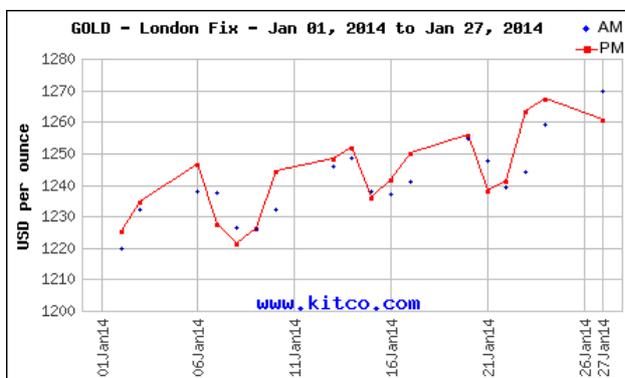
The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement which operated under the 2004 JORC reporting requirements. Mr Colin Plumridge as the Competent Persons consent to the inclusion in the report of the matters based on his information in the form and context in which it appears, please refer to the Competent Persons declaration for additional information.

* Dates of previously referred to results and Hyperlinks for "About Rimfire"
ASX June 13 th 2012 High Grade Gold Intersection Sorpresa Project – Fifield NSW
ASX July 26 th 2012 Successful Intersections at Sorpresa Gold Project
ASX October 10 th 2012 Highest Gold and Silver Grades seen to date at Sorpresa Project
ASX December 18 th 2012 Sorpresa Project Produces More Encouraging Results
ASX March 27 th 2013 Additional Assays at Sorpresa Gold Project
ASX June 13 th 2013 Further Positive RC Drilling Results at Sorpresa Project
ASX July 17 th 2013 Diamond Drilling Reveals Bonanza Grade of 1m @ 114g/t Au
ASX October 21 st 2013 Results Confirm Extensions of Gold and Silver at Sorpresa Project
ASX December 20 th 2013 High Grade Silver extensions continue at Roadside

COMMODITY PRICING FOR THE DECEMBER 2013 QUARTER

The trading prices (www.kitco.com) for precious metals had improved on low points and the overall downward trend in the previous quarters. Platinum maintained a sizable premium to gold.

Gold



Platinum



As at 27th January 2014, the prices for metals in New York based on closing Ask in USD were as follows:

Gold	\$1,258/oz
Platinum	\$1,417/oz
Silver	\$19.80/oz

CORPORATE ACTIVITIES

Tenement Position

The Company relinquished EL 5880 at Bingara in the previous period, no other changes were noted.

Cash, Facilities and Investments

As at 31st December 2013 the Company had approximately \$2.70M in cash.

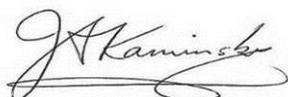
Issued Capital

There was no change in the quarter for the issued shares in the Company. At the close of business on 31st December 2013 there were 686,914,495 ordinary shares on issue.

November 2013 Annual General Meeting

The meeting was held on 22nd November in Melbourne, with a pleasing attendance of more than 30 people. The resolutions put to the shareholders were all carried on a show of hands, and met the required voting thresholds with strong proxy support for each resolution.

A presentation and company update was given and can be accessed at hyperlink:
ASX November 22nd 2013 [Exploration Presentation AGM 2013](#)



JOHN KAMINSKY
Executive Chairman

Figure 1: Plan view illustrating hole location from Oct-Dec quarter (red collars) and all previous reported drilling (black collars) on RTP 1VD Magnetic image. The Sorpresa Project mineralization is shown, with red outlines are Au > 0.5g/t, Yellow outlines are Au > 0.2g/t.

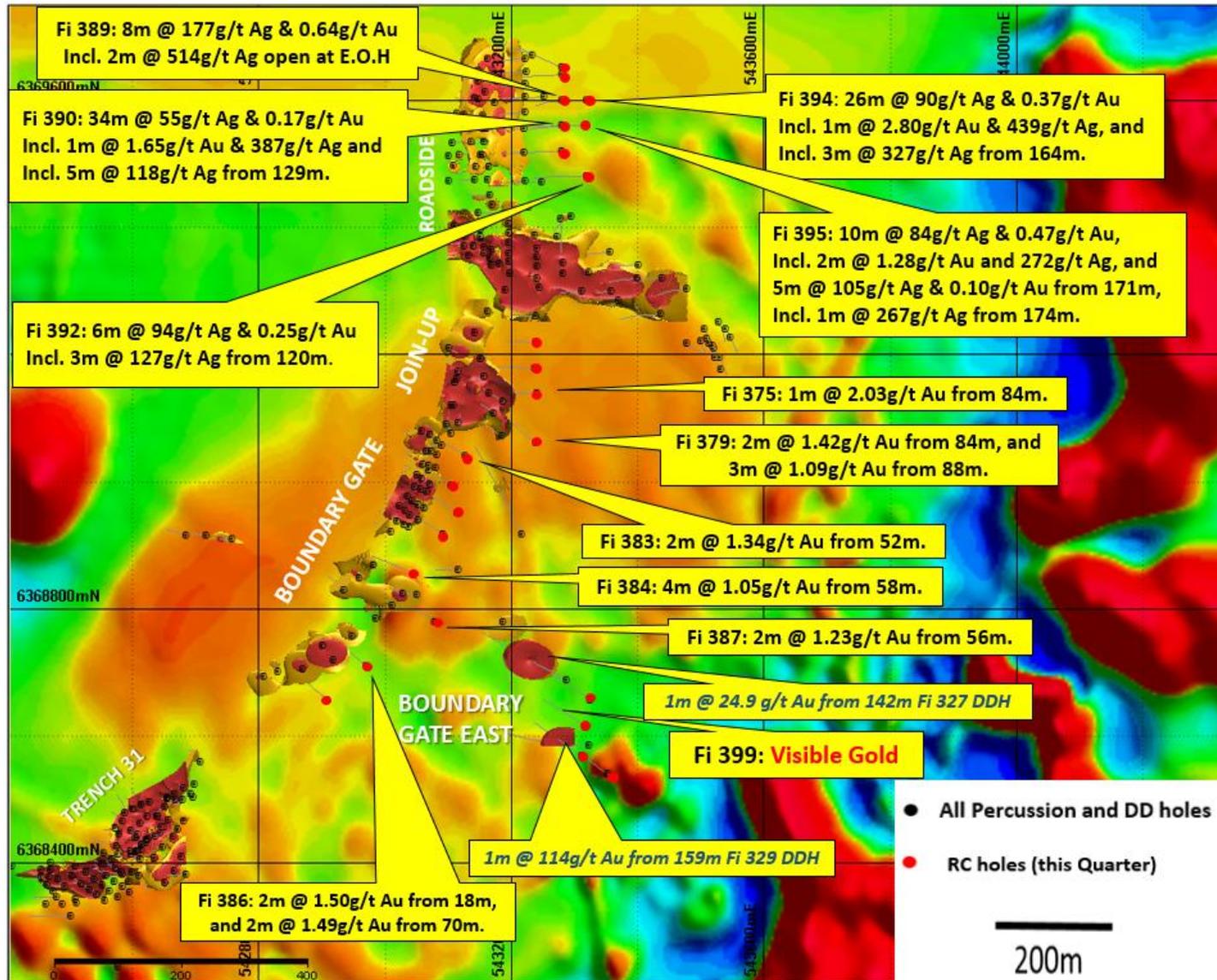


Figure 2: Roadside North silver (Ag) implicit 3D model looking west illustrating location of RC Drilling intersections (this quarter). (Implicit Model is an interpretive exploration model imaging Ag > 31 g/t. Model dips -40 degrees to the East, strikes north-south)

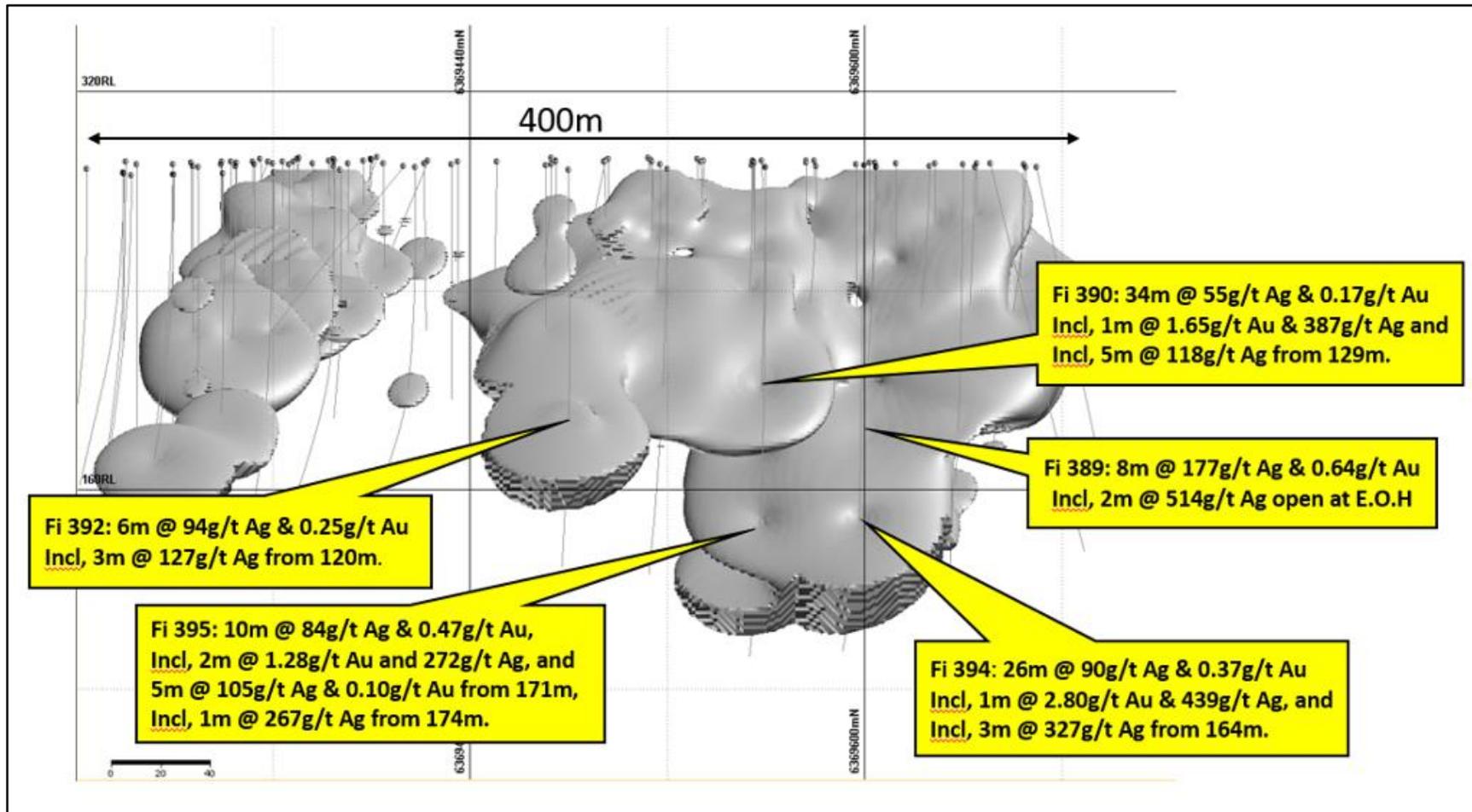


Figure 3: Interpreted Gold at Roadside Location

Orthogonal 3D Section looking north-west illustrating interpreted Gold >0.2g/t Au (yellow) and >0.5g/t Au (red) outlines and the down dip continuity of the mineralized horizon. Refer to Appendix 3 for location of the section

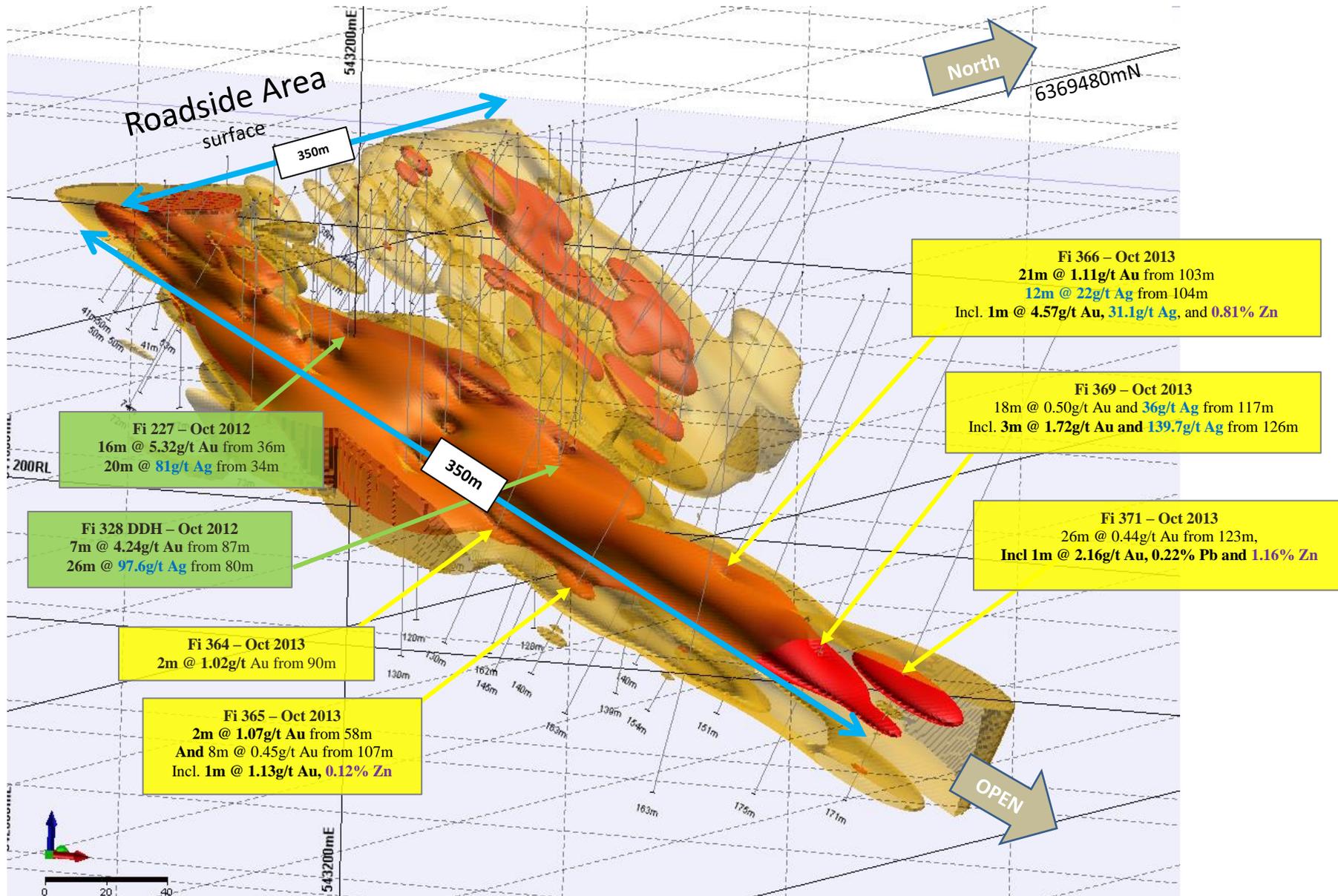


Figure 4: Plan view illustrating hole location from Oct-Dec quarter (red collars) in the Boundary Gate and Join-Up areas with previously reported drilling (black collars) on RTP 1VD Magnetic image. Red outlines are Au > 0.5g/t, Yellow outlines are Au > 0.2g/t.

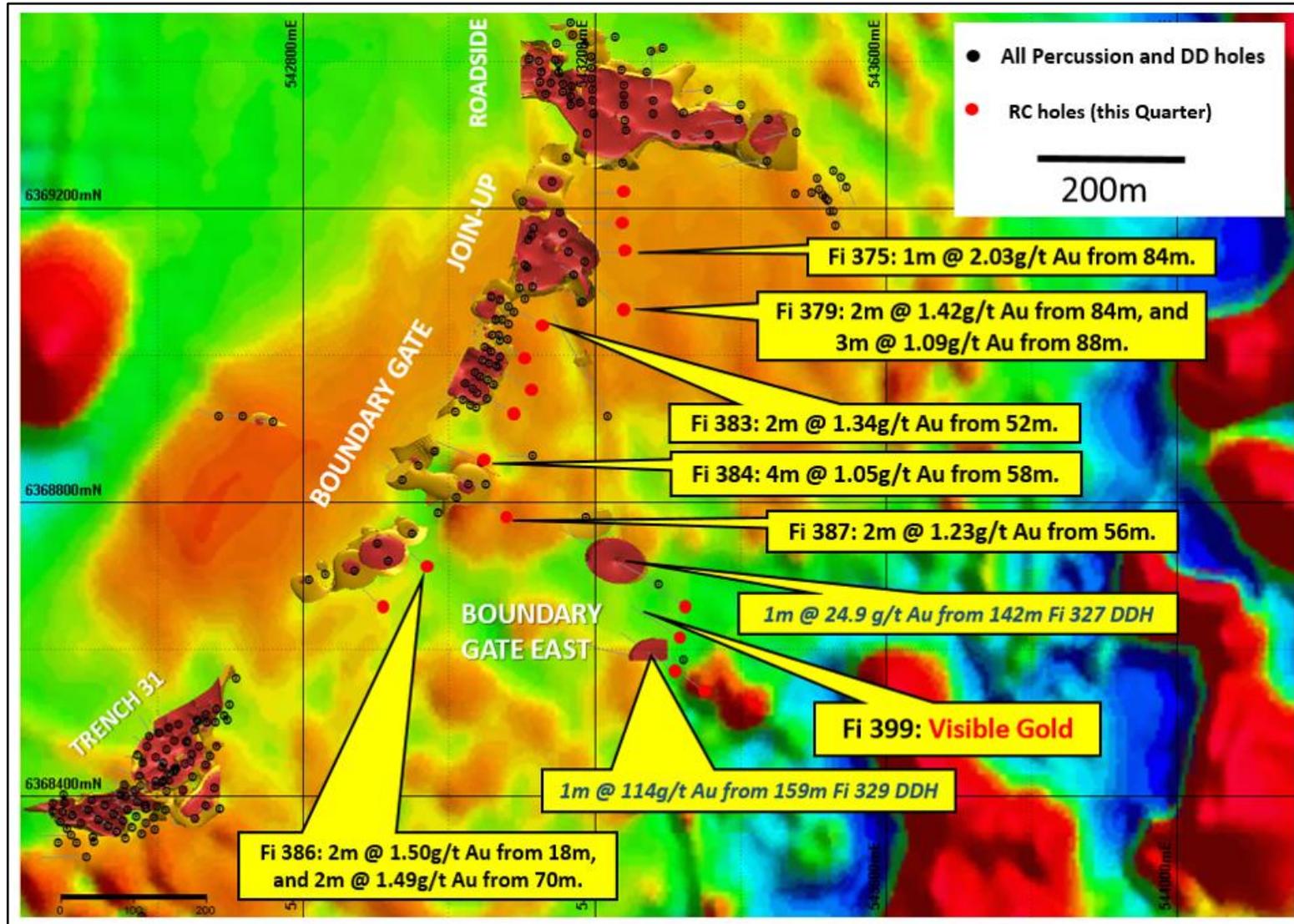


Figure 5: Plan view illustrating the location of Regional Prospects sampled during the Oct-Dec quarter on RTP Magnetic image

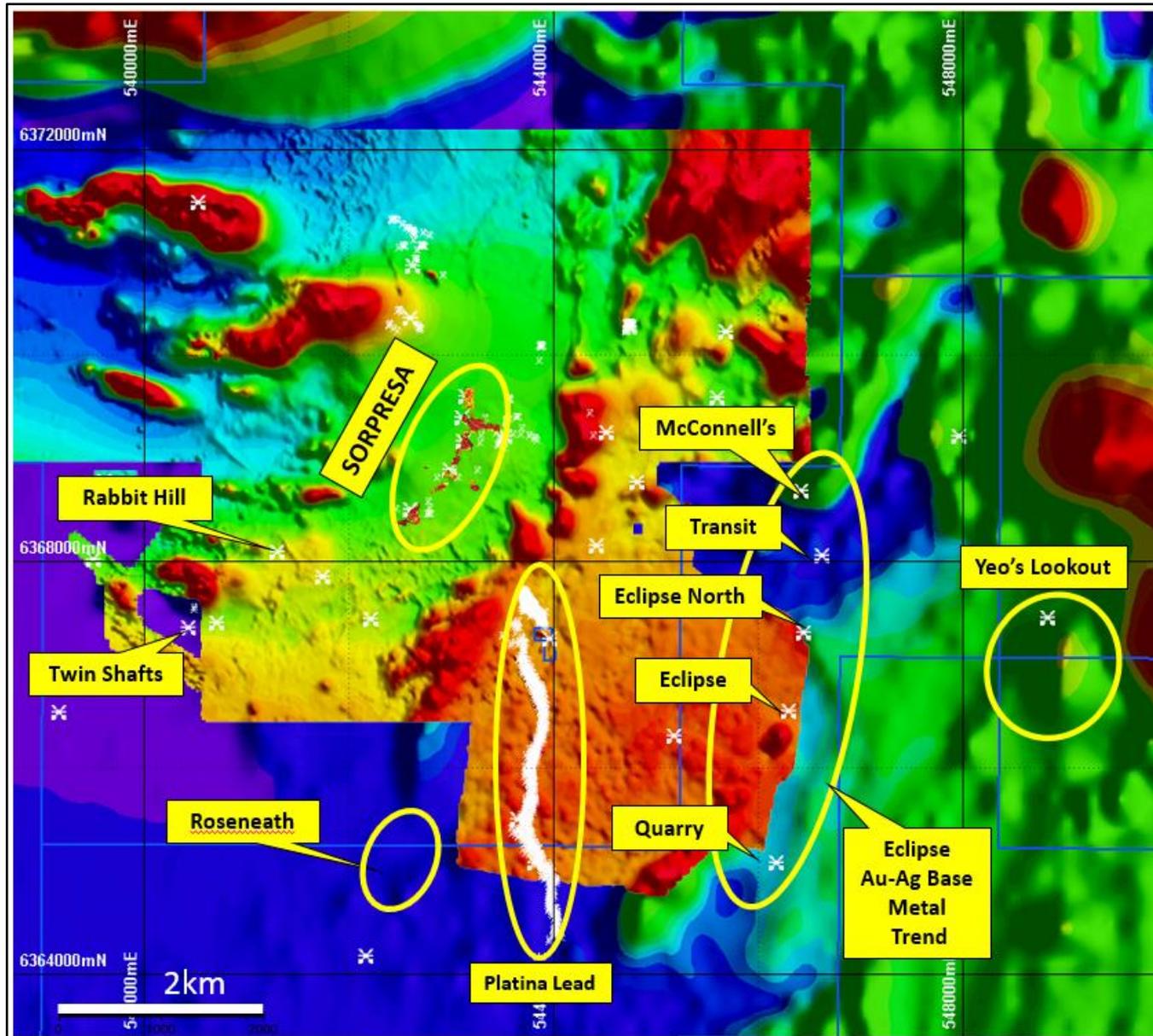


Table 2: JORC Code Reporting Criteria

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. 	RC Samples are collected at 1m intervals from the cyclone in plastic bags.
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	Industry standard QAQC protocols with insertion of certified reference samples, blank samples and field duplicates are included every 50, 51 and 52nd sample respectively.
	<ul style="list-style-type: none"> Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	Hole collars are surveyed using a Garmin GPS, and Omnistar DGPS. Downhole surveying is conducted every 20m open hole, and where required every 50m in-rod using stainless steel rods
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	Reverse Circulation conducted using face sampling hammer (Fi373 to Fi387: 125mm diameter, Fi388 onwards: 144mm diameter).

Criteria	JORC Code explanation	Commentary
Drill sample recovery	· Method of recording and assessing core and chip sample recoveries and results assessed.	Poor sample recoveries are noted during logging with percentage estimates. These are compared to results.
	· Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC samples are visually checked for recovery, moisture and contamination. A cyclone and riffle splitter are used to provide a uniform sample and these are routinely cleaned. The hole is blown out at the beginning of each rod to remove excess water, plus auto-blow downs, to maintain dry sample.
	· Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Occasional poor sample recovery and also wet samples occur however close examination and comparison to results showed that there is no identifiable bias in the results associated with these samples.
Logging	· Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Geological logging of RC chips records colour, grainsize, lithology, alteration, mineralisation and veining including percentage estimates along with moisture content. RC samples are sieved, logged and placed into chip trays.
	· Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging of RC chips is qualitative by nature, RC chip trays are retained for future reference.
	· The total length and percentage of the relevant intersections logged.	All metres drilled are logged
Sub-sampling techniques and sample preparation	· If core, whether cut or sawn and whether quarter, half or all core taken.	No core reported in this release
	· If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Reported RC results have been riffle split unless indicated. Lower priority RC intervals are speared samples and if found to be anomalous will be subsequently riffle split and re-assayed. Wet samples are not put through riffle splitter but homogenized and <u>subsampled using small spear</u> .
	· For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sub-samples obtained from riffle splitting are submitted as 1m intervals or composited to 2m (equal weights) to produce a bulk 2kg sample, subsamples of occasional wet metres are composited similarly. Lower priority zones are speared and composited on 4m intervals. QAQC results identify that the methods used are appropriate to the style of mineralisation.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation continued...	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Industry standard QAQC protocols with insertion of certified reference samples, blank samples and field duplicates are included every 50, 51 and 52nd sample respectively. No wet samples are put through the riffle splitter which is checked between samples and cleaned (when necessary) between samples. Equal weights (estimated from equal volumes) are collected for composited intervals.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	QAQC results of field duplicate analysis identify that the methods used are appropriate to the style of mineralisation.
	· Whether sample sizes are appropriate to the grain size of the material being sampled.	QAQC results of field duplicate analysis identify that the methods used are appropriate to the style of mineralisation.
Quality of assay data and laboratory tests	· The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	RC and samples are dispatched to ALS Laboratories with Au determined by fire assay method Au_AA26 (50g charge) to 0.01 ppm. Full suite multi-element analysis are via Aqua Regia Digest methods ME-ICP41 (<100g/t Ag, <1% Pb and <1% Zn) and Ag-OG46 (>100g/t Ag), Pb-OG46 (>1%Pb), Zn-OG46 (>1%Zn). Fire Assay for gold is considered appropriate total method for assessing the gold tenor. Aqua Regia digest for multielement analysis has the potential to understate sulphide and silica bound mineralisation (Ag, Pb, Zn).
	· For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	All significant results reported from NATA accredited laboratory. Handheld XRF (Olympus Delta50) is used to determine sample type i.e. 1m riffle split or composite. All data is collected using a 30 seconds reading time for each of the 3 beams in soil mode.
	· Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Reviews of internal QAQC results has shown that the field sampling, riffle splitting compositing methods used are appropriate to the mineralisation being tested. External laboratory analysis of "umpire" samples is currently being arranged.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	· The verification of significant intersections by either independent or alternative company personnel.	All reported intersections are independently reviewed by 2 company personnel
	· The use of twinned holes.	No holes have been twinned at this stage.
	· Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary field data is captured electronically using established templates. Assay data from laboratory is merged and loaded into Access based database after passing QAQC checks. Database audit of loaded batches is conducted on a monthly basis.
	· Discuss any adjustment to assay data.	"<" values are converted into "- " values
Location of data points	· Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Drill collars are located using handheld Garmin GPS and are routinely be picked up by an Omnistar Differential GPS. Downhole digital multi-shot surveys are conducted every 20m, open hole where practical, or in stainless steel rods every 50m.
	· Specification of the grid system used.	GDA94 zone55
	· Quality and adequacy of topographic control.	Collar elevation data from digital terrain model derived from detailed ground gravity survey DGPS data used as an interim measure prior to DGPS pick up of collar location.
Data spacing and distribution	· Data spacing for reporting of Exploration Results.	Exploration currently on a nominal 80 X 40m to grids
	· Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The nominal exploration grid is deemed adequate to identify mineralisation envelopes which will require infill to 40 X 40 m grid (completed in places). This is adequate to establish continuity in this environment however closer spaced drilling may be warranted in certain locations for further definition.
	· Whether sample compositing has been applied.	Compositing conducted at 2 and 4 meter intervals. Equal weights from each 1 meter interval are used to ensure that the composite adequately represents the intervals sampled. The equal weights are estimated from equal volume measure used when subsampling.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	· Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Current observations do not suggest a bias in sampling from the drilling orientation.
	· If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The drilling orientation is designed to intercept the mineralisation orthogonally where known.
Sample security	· The measures taken to ensure sample security.	Sample identification is independent of hole identification. Samples are stored in a secure on- site location, under supervision and transported to ALS Orange NSW via Rimfire personnel or licensed couriers.
Audits or reviews	· The results of any audits or reviews of sampling techniques and data.	Internal reviews of QAQC data has shown that the field sampling, riffle splitting and compositing methods used are appropriate to the mineralisation being tested.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 	Reported intersections all from EL5534, 100% Rimfire Pacific Mining NL tenement at Fifield NSW. Holes Fi375 to 395 occurred on Common Land prescribed for mining purposes. Holes Fi373 to 374 and Fi396 to 399 occurred on private freehold. No native title exists. The land is used primarily for grazing.
	<ul style="list-style-type: none"> The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	The tenement is in good standing, and all work is conducted under specific approvals from NSW Trade and Investment, Mineral Resources.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	Recent systematic exploration (1980 onwards) has been conducted by Ausplat Minerals NL in JV with Golden Shamrock Mines Ltd and Mount Gipps Ltd, Titan Resources and also Helix Resources and Black Range Minerals NL. Prior to this Exploration for various metals in the Fifield area has been conducted by a number of companies since the late 1960's including Anaconda, CRA Exploration Pty Ltd, Platina Developments NL, Mines Search Pty Ltd, Broken Hill Proprietary Company Ltd, Mt Hope Minerals and Shell.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	The mineralisation currently being pursued appears to have many similarities with typical carbonate base metal epithermal gold style, in a Siluro Devonian back arc basin setting.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: 	This information is provided in Table 1
	<ul style="list-style-type: none"> easting and northing of the drill hole collar 	
	<ul style="list-style-type: none"> elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar 	
	<ul style="list-style-type: none"> dip and azimuth of the hole 	
	<ul style="list-style-type: none"> down hole length and interception depth 	

Criteria	JORC Code explanation	Commentary
Drill hole Information Continued.	<ul style="list-style-type: none"> If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	This information is provided in Table 1
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 	Thickness weighted averages are reported for all intervals. Reported intervals are calculated using $\geq 0.1\text{g/t Au}$ and or $\geq 10\text{g/t Ag}$ cut off and $\leq 2\text{m}$ Internal Dilution.
	<ul style="list-style-type: none"> Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. 	High grade intervals within in larger intersections are reported as included intervals and noted in results table. Aggregation utilises thickness weighted mean calculations.
	<ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	Metal equivalents are not reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. 	Drill holes are designed to intersect the plane of mineralisation (where this is known) at 90° so that reported intersections represent true thickness.
	<ul style="list-style-type: none"> If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known 	All intersections are subsequently presented as downhole lengths. If down hole length varies significantly from known true width then appropriate notes are provided.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	Refer to Figures
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	This information is provided in Table 1

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	There is currently no other substantive exploration data that is meaningful and material to report.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	Step out drilling is currently planned 40m 60m and 80m down dip and along strike from significant intersections.
	<ul style="list-style-type: none"> Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Refer to Figures