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Rimfire Pacific Mining NL (ASX: RIM)

April 2018

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Rimfire Pacific Mining NL (ASX: RIM)

Initiation - April 2018

Note: This report is based on information provided by the company as at April 16, 2018

Investment Profile

Share Price - April 16, 2018	A\$0.018
Issued Capital:	
Ordinary Shares	943.5m
Options (Total)	0.00m
Fully Diluted	943.5m
Market Capitalisation	\$17.0m
12 month L/H	A\$0.017/\$0.037
Cash (December 31, 2017)	A\$1.981m

Board and Management

Mr Ian McCubbing: Non-Executive Chairman

Mr John Kaminsky: Managing Director and CEO

Ms Ramona Enconniere: Non-Executive Director

Mr Andrew Greville: Non-Executive Director

Ms Melanie Leydin: Company Secretary

Mr Greg Keane: CFO

Mr Colin Plumridge: Senior Exploration Geologist

Major Shareholders

Mr John Kaminsky	3.54%
Mr Peng Wang	3.10%
Top 20	37.04%
Board/Management	4.88%

Price Chart



Senior Analyst – Mark Gordon

The investment opinion in this report is current as at the date of publication. Investors and advisers should be aware that over time the circumstances of the issuer and/or product may change which may affect our investment opinion.

HIGHLY PROSPECTIVE MACQUARIE ARC LANDHOLDING

Rimfire Pacific Mining (ASX: RIM, "Rimfire" or "the Company") is a New South Wales mineral explorer, with activities focussed on the 100% held Fifield Project ("Fifield" or "the Project").

A key advantage of Fifield is that it is prospective for a number of styles of mineralisation, and hence in effect could be considered a portfolio of projects located in one contiguous tenement package. The Project is located at the western margin of the Macquarie Arc (a part of the broader Lachlan Orogen), a globally significant mineralised province hosting, amongst other styles of mineralisation, major porphyry and porphyry related Au and Cu-Au deposits including Cadia (Newcrest, ASX:NCM), Northparkes (CMOC/Sumitomo) and Lake Cowal (Evolution, ASX:EVO)

The project is also adjacent to (and is interpreted to contain similar host rocks to) the laterite Co-Ni-Sc-Pt projects of CleanTeq (ASX: CLQ, market capitalisation of A\$670 million), Australian Mines (ASX: AUZ, A\$250 million) and Platina Resources (ASX: PGM, A\$30 million), and includes the historic Fifield deep lead platinum mines which produced ~20,000oz of platinum and 6,200oz of gold from the 1880's until 1938.

By virtue of a recent earn-in agreement with New Gold Inc. (TSX, NYSE: NGD, "New Gold"), the past twelve months has seen an intensive, A\$2.6 million regional exploration programme that has resulted in a comprehensive geological, geophysical and geochemical database with a number of new, highly prospective targets being generated. Unfortunately, due to strategic reasons, New Gold withdrew from the Project in February 2018 as part of an overall withdrawal from Australia, with 100% of Fifield reverting back to Rimfire.

The potential of this under explored (largely due to the presence of shallow younger cover) Project has been demonstrated with the discovery of the 125koz Au and 7.9Moz Ag Sorpresa deposit and the identification of the numerous prospects that require further follow up; this quality and potential was confirmed during our December 2017 site visit.

KEY POINTS

Diversified exploration portfolio within the one package: Given the geological setting, we consider Fifield prospective for a number of styles of mineralisation, thus presenting a "portfolio" of projects within the one contiguous tenement package.

Results confirm prospectivity: The results of work to date, including the discovery of Sorpresa, confirm the quality of this under explored tenement package; the Project also contains the right rocks of the right age to support the porphyry and associated mineralisation potential.

Shallow cover: Large areas of Fifield are masked by a thin veneer of younger cover, with the result that previous prospectors may have missed what may turn out to be major mineralised systems; one example of this is Sorpresa.

Infrastructure: New South Wales has a long history of mining and exploration with a well developed mining law and ready access to skilled personnel and services; in addition the Fifield district is well served by infrastructure, including roads, communications and towns.

Experienced personnel: Company personnel have extensive industry experience in junior resources and New South Wales, and also hold ~5% of the shares in Rimfire thus aligning their interests with those of other share holders.

Steady news flow: Given ongoing exploration activities we would expect steady news flow. This will include exploration over the gold-copper prospects and evaluation of the potential for laterite hosted Co-Ni-Sc-Pt mineralisation, of which little work has been completed to date in the Project despite the presence of highly prospective rocks.

SWOT ANALYSIS

Strengths

- ◆ **Highly prospective holdings:** Fifield is highly prospective for a number of mineralisation styles, including porphyry and porphyry-related Cu-Au, structurally hosted gold, laterite Sc-Ni-Co-Pt and primary Pt mineralisation.
- ◆ **The right rocks:** The Project has the right geology (with regards to both lithology and structure) and is interpreted to be of the right ages to host a number of styles of mineralisation.
- ◆ **Experienced people with skin in the game:** Company personnel have extensive experience in junior resources, including in exploring the Lachlan Orogen of NSW; personnel also hold ~5% of the Company, thus aligning their interests with those of other shareholders.
- ◆ **New Gold Farm-in:** Although New Gold has recently pulled out of the farm-in with Rimfire due to a strategic re-think resulting in withdrawing from Australia (which also saw them selling the Peak Gold Mine to Aurelia), the initial entry was a vote of confidence in both the Company and the Project, and has resulted in comprehensive and effective exploration being completed over the Project during the year in that it the agreement active, with the results identifying a number of additional priority areas that require follow up.
- ◆ **Comprehensive data sets:** The work by New Gold has resulted in extensive and detailed datasets being collected, augmenting the results of previous work; these include:
 - Project wide detailed airborne geophysics,
 - Expanded geological, alteration and structural interpretations, and,
 - Expanded multi-element geochemical data.

Weaknesses

- ◆ **Tough exploration:** Exploration for the styles of mineralisation sought can be tough, especially so for porphyry copper deposits of the style typically found in NSW, particularly Northparkes - they generally have small mineralisation and alteration footprints, do not "stick out of the ground", with this exacerbated by the cover at Fifield.
- ◆ **New South Wales:** Although New South Wales has a well developed minerals industry, the state is getting harder to operate in with more restrictive regulation and time consuming red tape - this has seen the state rank at 46/91 in the "Investment Attractiveness Index" of the 2017 Fraser Institute Survey of Mining Companies. However, on the other hand, Rimfire has operated in the Fifield region for a number of years without any issues and continues to have good relationships with the relevant NSW Government departments.

Opportunities

- ◆ **Exploration Success:** Given the quality of the exploration ground, there is a good opportunity for exploration success at a number of the prospects.
- ◆ **Other acquisitions:** Although activities are focussed on Fifield, there is also the potential, as a listed company, to look at other opportunities when and if they arise.
- ◆ The Company has a 10% interest in tenements in the Broken Hill Block, along strike from Cobalt Blue's (ASX: COB) Thackeringa Cobalt Project.

Threats

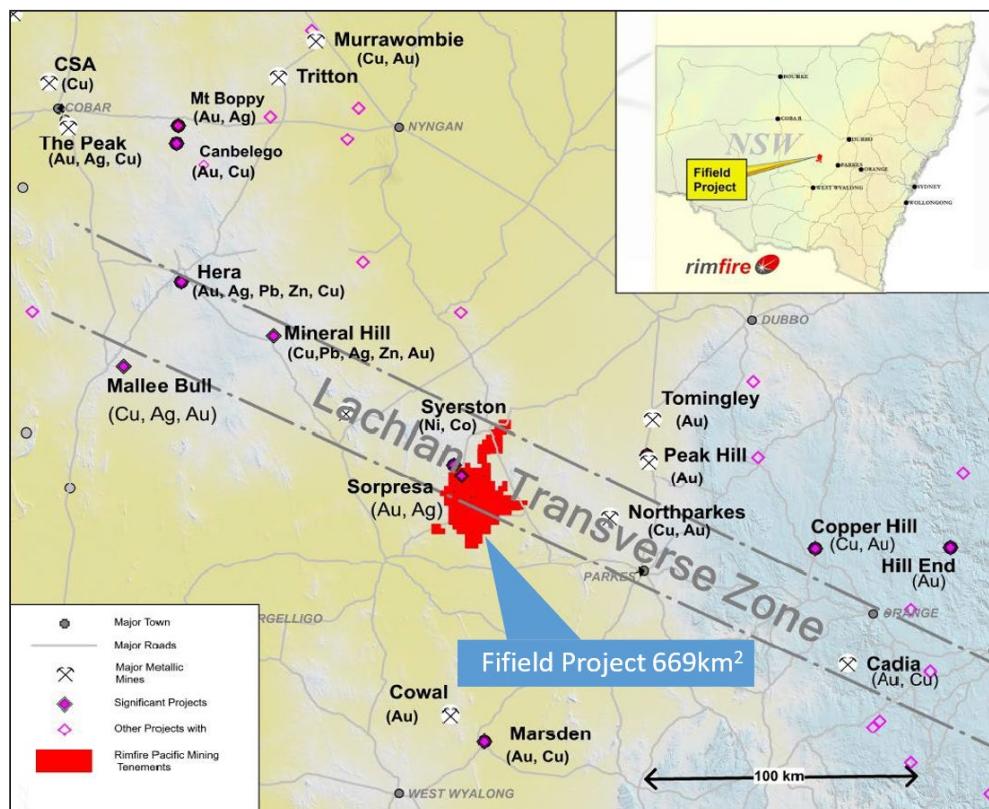
- ◆ **Lack of Exploration Success:** This is self explanatory and a constant threat for exploration companies.
- ◆ **Markets and Funding:** These are perennial threats for resource companies, and although the markets have turned, they can turn back on a dime – Rimfire was somewhat insulated from this with the funding provided by New Gold in 2017.

OVERVIEW

STRATEGY AND PROJECT OVERVIEW

- ◆ Rimfire is concentrating activities on the [Fifield Project](#)¹ (which includes the [Sorpresa](#) gold-silver deposit), located over units of the Paleozoic Lachlan Orogen in the Central West of New South Wales (Figure 1).
- ◆ The Project includes the historically mined [Fifield deep lead platinum deposits](#), however current activities are largely targeted at volcanic-arc related gold-copper and younger intrusive related base and precious metal mineralisation; significant exploration targeting primary platinum mineralisation was completed between 2000 and 2006.
- ◆ The Project abuts various laterite hosted scandium/cobalt/nickel/PGE projects held by CleanTeq (Sunrise) , Australian Mines (Flemington) and Platina Resources (Owendale, Figure 3); weathered ultramafic intrusives similar to those hosting the above deposits, including Avondale and the interpreted eastern extension of the Tout complex (that hosts Sunrise) occur within the Project area little work has been done to date on these.
- ◆ The potential for new discoveries is highlighted by the Company's discovery of the Sorpresa gold-silver deposit in 2011 through follow up of a subtle geochemical anomaly, and on which activities were concentrated until 2016.
- ◆ In early 2017 Rimfire finalised an earn-in agreement with Canadian New Gold Inc (TSX: NGD, NYSE: NGD), whereby New Gold could earn up to 70% of the Project through the expenditure of A\$12 million over five years; this was terminated in early 2018 due a change in strategy by New Gold, however the Project reverted 100% to Rimfire and work completed identified a number of new priority targets.
- ◆ A key component of the agreement was that Rimfire retained control of the expenditure of 15% of New Gold's first A\$7 million of funding, so that it could continue independent exploration work at Fifield in parallel with New Gold.

Figure 1: Fifield project location map



Source: Rimfire

1 This research report incorporates hyperlinks, which link either to pages on the Company's website or ASX releases.

FINANCIAL POSITION

- ◆ As of December 31, 2017 the Company had cash of A\$1.981 million.
 - ◆ Total expenditure during the earn-in (2017), for the Fifield project was in the order \$2.6 million and was fully funded by New Gold - this significantly exceeded New Gold's \$2.0 million minimum commitment.
 - ◆ Rimfire directed A\$0.57 million of this expenditure towards its own exploration priorities at Fifield (i.e. this expenditure was fully funded by New Gold).
 - ◆ Over the same period Rimfire spent A\$0.949 million on staff and administration costs.
-

FIFIELD PROJECT

LOCATION AND TENURE

- ◆ Fifield comprises nine granted exploration licences ("EL") for 750km² of which all are current; in addition two mining leases for 3.9ha are held over portions of the historically mined deep leads.
- ◆ The Project is located around the towns of Fifield and Trundle; Fifield is located 441km by sealed highway WNW of Sydney, and 85km from the regional centre of Parkes (population ~12,000).
- ◆ Given the major mines in the region, including Northparkes, Cadia and Lake Cowal there is ready access to skilled exploration personnel and services.

NEW GOLD EARN-IN & JOINT VENTURE

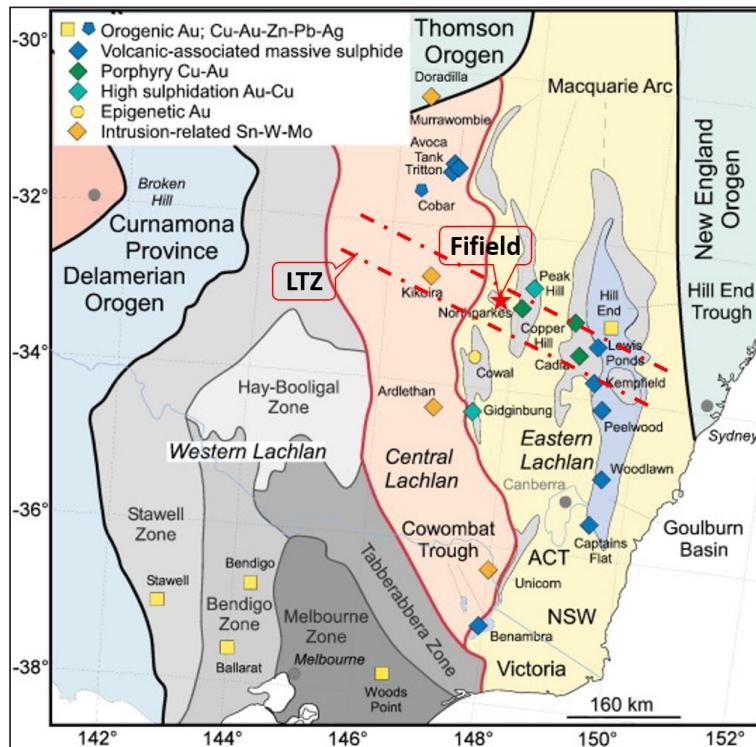
- ◆ In October 2016, the Company announced that an [agreement had been entered into](#) with New Gold (TSX, NYSE: NGD), a major North American listed gold, silver and copper producer with a current market capitalisation of ~C\$2.25 billion.
- ◆ As mentioned previously New Gold has now [withdrawn from the agreement](#), with this following exceeding the minimum A\$2 million expenditure commitment; this has left Rimfire in good stead to progress Fifield.
- ◆ New Gold has operations in Canada, the US and Mexico, and produced some 276koz of gold in the nine months ended September 30, 2017.
- ◆ At the time of entering into the agreement, New Gold owned the Peak Gold Mine in Cobar; New Gold has subsequently entered into a binding agreement to sell the asset to Aurelia Metals (ASX: AMI, "Aurelia") for US\$58 million.
- ◆ Completed terms of the deal between Rimfire and New Gold included:
 - Immediate A\$0.5 million equity investment in Rimfire shares at 2.1 cents (the 2016 SPP price), and,
 - Subject to New Gold securing FIRB approval and Ministerial consents (completed), minimum spend on the Fifield tenements by New Gold of A\$2 million within the first year, with no withdrawal right - this expenditure commitment was exceeded, with New Gold withdrawing before advancing to the next stages.
- ◆ Milestones not completed included:
 - New Gold could have elected to spend a further A\$5 million within the first three years, to earn a 51% interest in the Fifield tenements (New Gold total expenditure at Fifield A\$7 million),
 - Spending an additional A\$5 million within the first five years, would have earned New Gold an additional 19% interest and form an unincorporated exploration, development and mining joint venture (Rimfire 30%: New Gold 70%), (New Gold total expenditure at Fifield A\$12 million). If this further funding of A\$5 million was not completed by New Gold within the first five years, an unincorporated exploration, development and mining joint venture would have been formed (Rimfire 49%: New Gold 51%),
 - Should the current Sorpresa gold and silver mineral resource ultimately have been mined and processed under the agreement, New Gold would have paid Rimfire additional monies up to A\$5 million,

- In recognition of Rimfire's strong technical work, Rimfire would have had direct spending control of 15% of the first A\$7 million funded by New Gold, to continue its exploration work at Fifield contemporaneously with New Gold's exploration activities at Fifield; as it stood Rimfire had control of 15% of the A\$2 million spent.
- ◆ The last point is key, in that it gave Rimfire flexibility to carry out their own exploration over the Project, and was a vote of confidence in Rimfire's personnel, and,
- ◆ New Gold's strategy was to discover 4Moz of gold, that would support at least a 10 year operation.

REGIONAL GEOLOGY AND MINERALISATION

- ◆ Fifield is located over units of the western side of the Lachlan Orogen, one of a number of orogens in Eastern Australia (Figure 2).
- ◆ The Lachlan Orogen is host to a number of mineralisation styles and ages (Figure 2); an important group includes porphyry Cu-Au and related mineralisation associated with Ordovician to Early Silurian magmatic arc units of the Macquarie Arc (Figure 2).
- ◆ The Macquarie Arc ("the Arc") is interpreted as an intraoceanic arc (similar to the present day Marianas Arc), which formed above a subduction zone in the proto-Pacific Ocean in the early Ordovician, to the east of the then continent, represented by the Curnamona Province/Delamerian Orogen (Figure 2).

Figure 2: Lachlan Fold Belt tectonics and metallogeny



Source: Adapted from Glen, Geoscience Australia 2003.

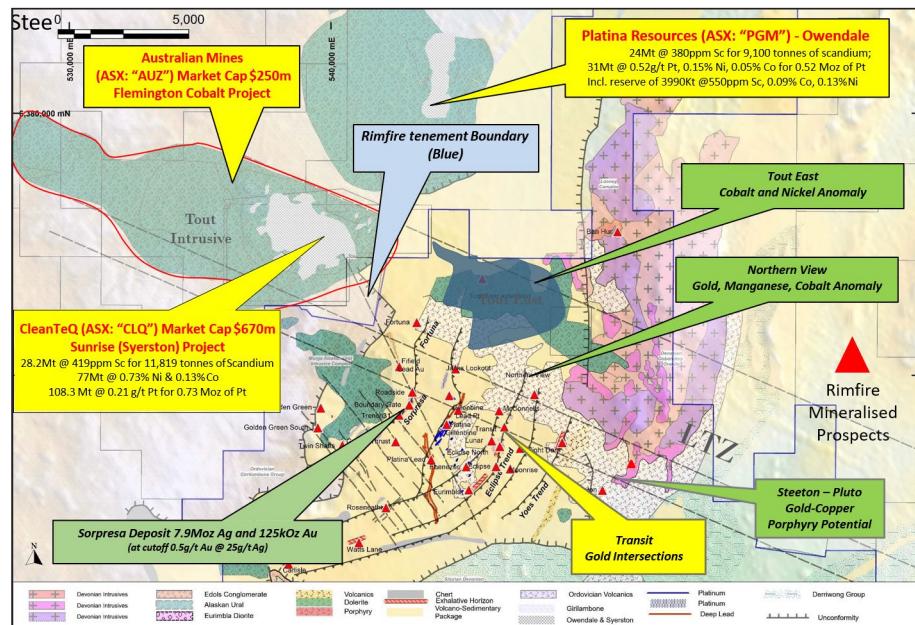
- ◆ The eastern edge of the continent was marked by thick sequences of turbiditic sediments, with an example being the Giralambone Group which occurs at the western side of the Project, and is faulted against the Arc units.
- ◆ Four phases of magmatic activity have been recognised in the Arc, with the early Ordovician Phase 1 activity being followed by a hiatus of ~9 million years, and then with Phases 2 to 4 being largely continuous.
- ◆ Phases 1, 2 and 3 represent island arc volcanism, whereas Phase 4 is interpreted as being late or post orogenic, following on from the collision of the Arc with the mainland; mafic to ultramafic Alaskan-Ural type intrusives in the Fifield area are interpreted as being related to the Phase 4 intrusive activity - these have been dated at 439.6 +- 8 Ma.
- ◆ The Late Ordovician/Early Silurian (~440Ma) Phase 4 intrusives are also interpreted as being the mineralising event at the world class Cadia (Newcrest) and Northparkes (CMOC/Sumitomo) porphyry Cu-Au operations, where they intrude younger arc rocks and sediments, whereas mineralisation at Lake Cowal and Copper Hill is interpreted as being related to the Phase 3 activity, at around 455Ma to 450Ma.

- ◆ The Silurian to Early Devonian saw the rifting of the volcanic arc with the formation of a number of basins, including the Hill End Trough which hosts the numerous VMS deposits in New South Wales; this was also marked by the intrusion of the large granite batholiths as seen in the LFB; Devonian aged porphyry mineralisation has also been recognised, including at Yeoval.
- ◆ This rifting was followed by the Tabberabberan Orogeny in the Middle Devonian, which inverted the basins and led to deformation of granitoids, and re-deformation of older, already deformed rocks.
- ◆ A key structural feature is the Lachlan Transverse Zone ("LTZ"), an Ordovician arc-normal structure that is interpreted as controlling some of the major mineral systems, including Cadia and Northparkes (Figure 2); although not shown on the map, the Nyngan and Hunter River Transverse Zones to the north have a similar orientation.
- ◆ Another of the Siluro-Devonian Basins is the Cobar Trough, however the "Cobar-style" mineralisation found along the margins of the basin is structurally controlled, and related to basin inversion; other systems related to the orogenic activity include orogenic gold mineralisation such as at Hill End.
- ◆ Another style of mineralisation that has been getting attention lately are Co-Ni-Sc-PGE bearing laterites, formed by the Tertiary weathering of the ultramafic/mafic Alsaskan-Ural type intrusives - as mentioned previously notable examples are those held by CleanTeQ, Australian Mines and Platina (ASX: PGE) in the Fifield district (Figure 3).
- ◆ As indicated above, the Lachlan Orogen is host to significant mineralisation, with a selection of gold-copper and other deposits presented in Appendix 1.

PROJECT GEOLOGY AND MINERALISATION

- ◆ The Project geology is presented in Figures 3 and 4, and is in a structurally complex setting at the western margin of the recognised Ordovician/Early Silurian Macquarie Arc where it abuts deformed Ordovician flysch sediments of the Girilambone Group.
- ◆ Figure 3 largely shows the gold-copper targets in Rimfire's tenements and nearby Co-Ni-Sc-Pt laterite projects; Figure 4 highlights the Fifield Igneous Province Alaskan-Ural intrusives over which laterites are developed.
- ◆ The Project is covered by appreciable areas of shallow younger cover (aged from Jurassic to Recent), which masks much of the underlying geology and hampers exploration; however should it have not been there any mineralisation that is present and now ready for discovery may have been discovered historically.

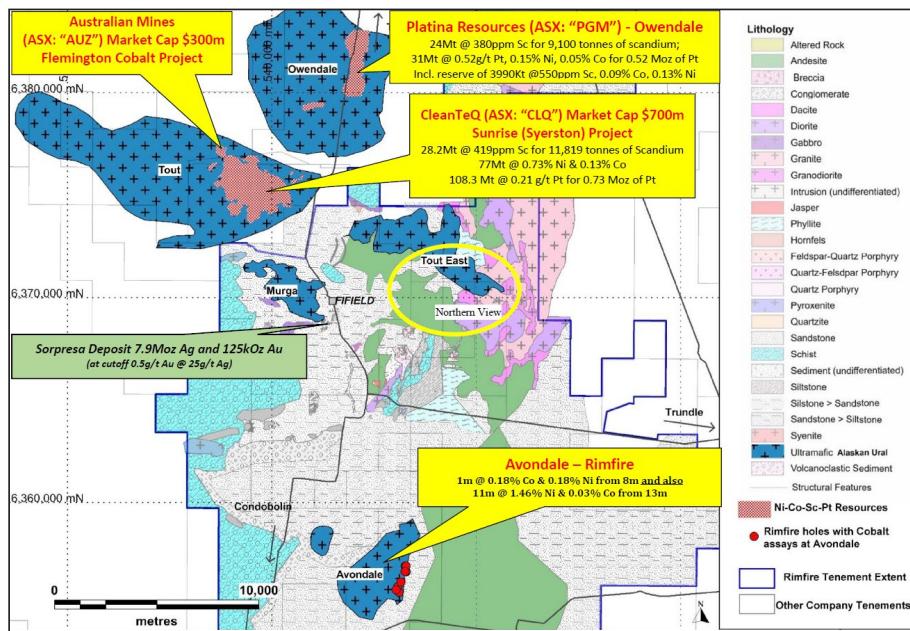
Figure 3: Fifield geology, prospects and adjacent projects



Source: Adapted from Rimfire

- ◆ Major geological units include:
 - Deformed Ordovician sediments of the Girilambone Group, largely on the western side of the tenement package,

- Ordovician volcanics and volcaniclastics, including the Ragged Andesite, to the east of the Girilambone Group,
- Ordovician to Early Silurian (possibly Phase 4) monzonitic intrusions,
- Ultramafic/mafic intrusions related to the Fifield Igneous Province, which underlies, and,
- The N-S trending Devonian Gobandery Granite in the east of the Project.

Figure 4: Fifield Igneous Province intrusives

Source: Rimfire

- ◆ A number of structural orientations are recognised, including the LTZ (Figure 3) and two sets of stacked thrust faults; an arcuate set generally dipping to the SE and an orthogonal set dipping to the NE - these, and there intersections, are interpreted as being important controls to mineralisation.
- ◆ A major interpreted structural feature (discussed later) is the "Sorpresa Rift Zone" (or Corridor), a N-S trending zone marked by a low gravity signature, possibly reflecting an intrusive complex at depth that may be driving mineralising systems - this is also coincident with the Tullamore Suture, and forms the boundary between the arc rocks to the east and Girilambone Group to the west.
- ◆ Mineralisation styles either discovered, or for which the Project is considered prospective for include:
 - Thrust hosted, shallow low temperature epithermal or base metal carbonate gold-silver mineralisation, possibly associated with Early Silurian magmatism, as exemplified by the [Sorpresa deposit](#), with other prospects, including Transit and Fortuna, being considered prospective for this style of mineralisation,
 - Porphyry copper gold - monzonitic intrusives and proximal volcanics have been found at Steeton-Pluto, highlighting the potential for porphyry style mineralisation; in addition there is the potential for porphyry mineralisation at depth related to the identified gold mineralisation with zoned geochemical anomalism and induced polarised ("IP") geophysical anomalies being recognised,
 - Epithermal gold, with float of epithermal quartz being identified at Steeton (epithermal; mineralisation is commonly associated with underlying porphyry mineralisation),
 - Structurally hosted coarse gold - work has identified "Colin's Corridor" parallel to the LTZ trend which hosts coarse gold (~0.7mm), as opposed to Sorpresa and similar prospects where the gold is very fine, typically in the range of 10 to 50 microns,
 - Laterite-hosted cobalt, nickel, PGE, scandium - Tout East and Avondale, which have largely remained unexplored are considered prospective for this style of mineralisation,
 - Structurally controlled polymetallic (including the Northern View prospect, where up to 1% cobalt has been assayed in rock chips,

- Deep lead platinum mineralisation as mined in the historic Fifield alluvial deposits from the 1880's, and,
- Hard rock platinum - the source of the alluvial platinum is thought to be the roof zone of platinum bearing microdykes, which, given the untravelled nature of the platinum from the deep leads is proximal to these leads; the Company is of the view however that it is not related to the main Tout Intrusive Complex, given geochemical signatures.
- These microdykes are interpreted as being above an underlying intrusive, with this being intersected in hole DDH Fi-329.
- ◆ There may also be the potential for mineralisation associated with Silurian to Devonian igneous activity.
- ◆ These styles of mineralisation typical of those found in the Lachlan Orogen and/or the Macquarie Arc, and in effect provides a portfolio of different projects within the one contiguous area; Appendix 2 is a schematic diagram of the various types of porphyry and arc associated mineralisation.

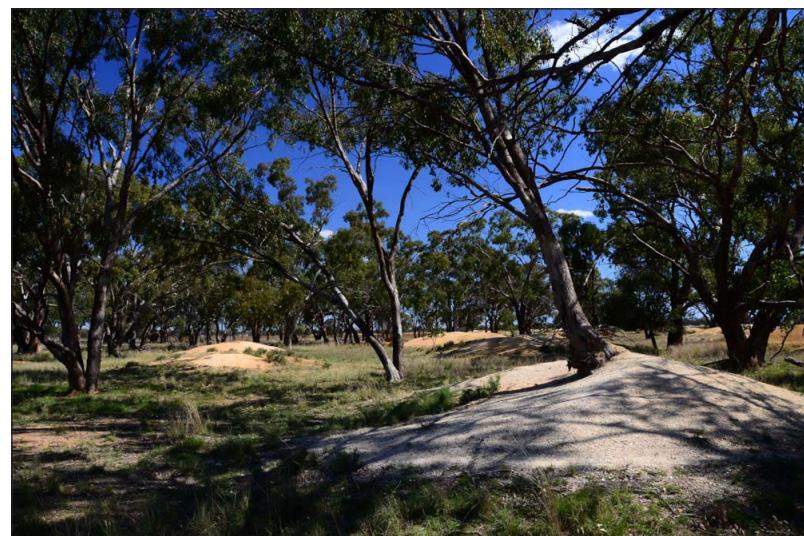
PAST EXPLORATION AND MINING

- ◆ This section presents a brief overview of activities over the region from the 1980's until the JV with New Gold - the significant amount of work completed by Rimfire since originally operating in the area in 2001 precludes a detailed discussion of all historical activities; more detailed information is available on the [Company's website](#).

Platinum Mining

- ◆ The earliest activities in the region were related to the [Fifield alluvial platinum + gold](#) deep lead operations, which commenced in the 1880's and continued up to 1938 - one of the original drivers of mining was the depression that started in ~1880, with the mining providing a work opportunity, which led to up to 7,500 people living in the town of Platina, which still remains a gazetted town site.
- ◆ There was also some hard rock platinum mining, with a number of ~1910 to 1930's bedrock scrapes evident ~2km to the east of the Platina Lead.
- ◆ Reportedly 20,000oz of platinum and 6,200oz of gold was produced both from shallow pits and underground workings in three leads (paleochannels), including Gillenbine, Fifield and Platina, with Platina being the largest with a strike of ~3km.
- ◆ To this day Fifield remains Australia's largest dedicated platinum operation, and Figure 5 shows mullock heaps along the Platina lead within Rimfire's tenements.

Figure 5: Mullock heaps, Platina lead



Source: IIR December 2017 site visit

Work by Rimfire until the New Gold JV

- ◆ The initial target for Rimfire at Fifield, (in which a JV was undertaken with Black Range Minerals from 2001 to 2004, and operated solely by Rimfire thereafter), was for platinum, with this including both the known alluvials and interpreted hard rock sources.

- ◆ Work was focussed on platinum (including small scale mining and bulk sampling of the leads and exploration for hard rock sources until the mid-2000's, when the focus largely changed to the current one of gold, silver and copper through regional reconnaissance.
- ◆ A significant event was the discovery of Sorpresa in 2011, with a rock chip from reconnaissance exploration following up a subtle soil geochemical anomaly returning 8.8g/t Au leading to an initial trenching programme; subsequent drilling, [including infill and metallurgical drilling continued into 2017](#), with the initial (and current) [JORC 2012 compliant MRE declared in December 2014](#).
- ◆ Other activities, including regional geochemical sampling and geological mapping and prospect scale work, including drilling continued through to the signing of the New Gold JV, with this work identifying the majority of the prospects that are currently being worked on; [significant results from RC drilling](#) included intersecting 4m @ 6.5% Cu and 2.3g/t Au at Eclipse, 4km east of Sorpresa in 2015.

New Gold JV

- ◆ Since commencing field activities in early 2017, New Gold carried out comprehensive exploration in tandem with Rimfire (Figure 6) until their early 2018 withdrawal, including data reviews, reconnaissance exploration activities and drilling, including auger, aircore, reverse circulation ("RC") and diamond drilling.

Figure 6: Fifiield exploration activities - 2017

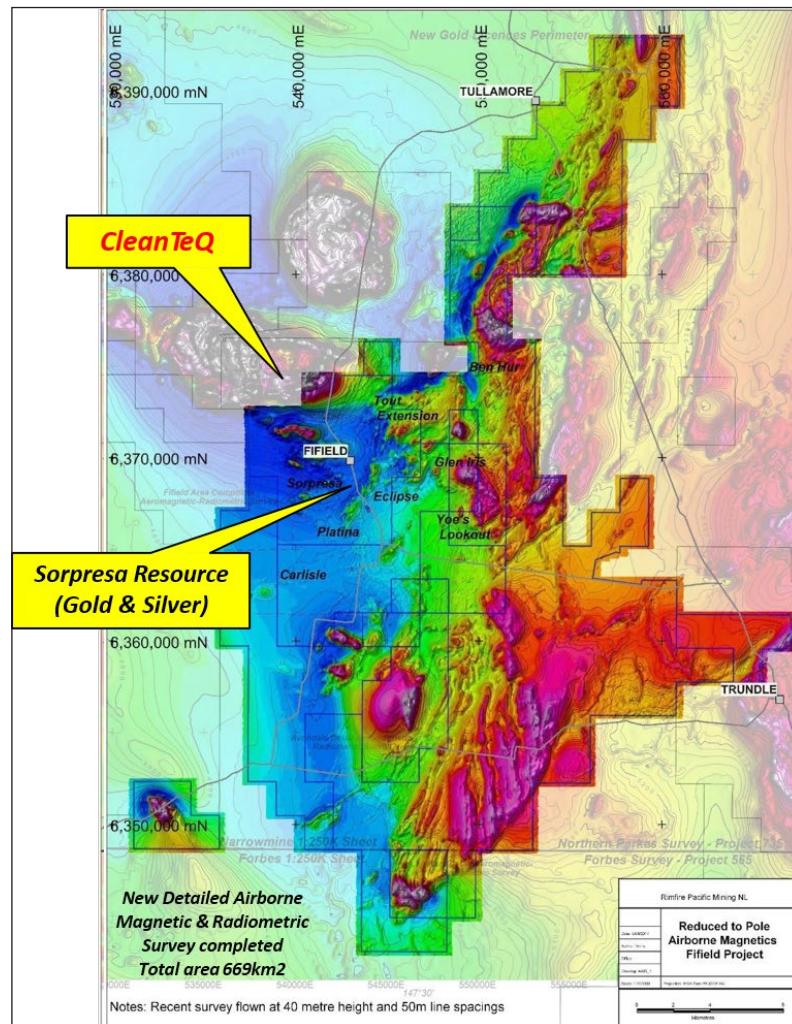
Activity	Date	New Gold	Rimfire	Comment
Magnetics & Radiometrics	Jan-Feb	✓✓	✓	Detailed Covers 669km ²
Data Review, Gap Analysis	Jan-May	✓		Programs to fill gaps
Historic Re-assays	Mar-June	✓		Complete data set
Spectral Studies	Mar-May	✓		Large scale signatures sought
Regional Aircore Phase 1	Apr-July	✓		Geochem 150km ² covered to date
Focused prospecting	ongoing		✓✓	13 priority areas
New target generation	ongoing	✓	✓	Integration of data & concepts
RC Drilling 1 st phase	July-Aug	✓	✓	5 locations, first pass
DD Drilling 1 st phase	Aug-Sept	✓		3 locations, first pass
Surface Mapping, Rock Chips	ongoing	✓	✓✓	Regolith, structure, samples
Geophysics Interpretation	ongoing	✓	✓	Key knowledge domain
Aircore Phase 2 - Infill & extend	Oct-Dec	✓✓	✓	Next Target generation

Source: Rimfire

- ◆ One of the first activities completed by New Gold was the [flying of a detailed aeromagnetics and radiometrics survey](#), covering the entire Project in February 2017, with key uses of the data being for geological interpretation and exploration targeting - a magnetics image is shown in Figure 7.
- ◆ Drilling included a 15 hole, 3,061m RC drilling programme over five targets, but largely at Transit; [this returned up to 44m @ 0.63g/t Au](#), the thickest gold intersection to date at Fifiield - these results were reported to the market on September 19, 2017.
- ◆ This programme also intersected 8m @ 0.13% Cu and 65ppm Mo, highlighting geochemical zonation and the porphyry potential at Transit.
- ◆ The regional geochemical drilling has included two programmes; [an initial programme of 288 wide spaced holes over the central third of the Project](#) - (Figure 8), and a [second programme of 343 holes for 8,290m](#) that was largely based on a 250m x 250m grid spacing (Figure 9) - this second programme concentrated on four key prospects, Fortuna, Greater Transit, Northern View and Steeton.
- ◆ The combined programmes tested an area of ~150km² at a nominal 250m x 250m hole spacing.
- ◆ Both programmes returned very encouraging results; the top 12.5% of assays from the first programme ranged from 7ppb to 80ppb Au, with these anomalous results generally occurring along the contacts of newly interpreted intrusives and structural trends.
- ◆ A key outcome of the second programme was the highlighting of the potential of the Steeton-Pluto area for porphyry Au-Cu style mineralisation - this resulted in a NE trending 4km x 1km zone of Au-Cu anomalism, with the Steeton prospect at the SW end and Pluto to the NW (Figure 9); this is coincident with a prominent magnetic ridge, and confirms a major expansion of the potential for arc-style rocks.

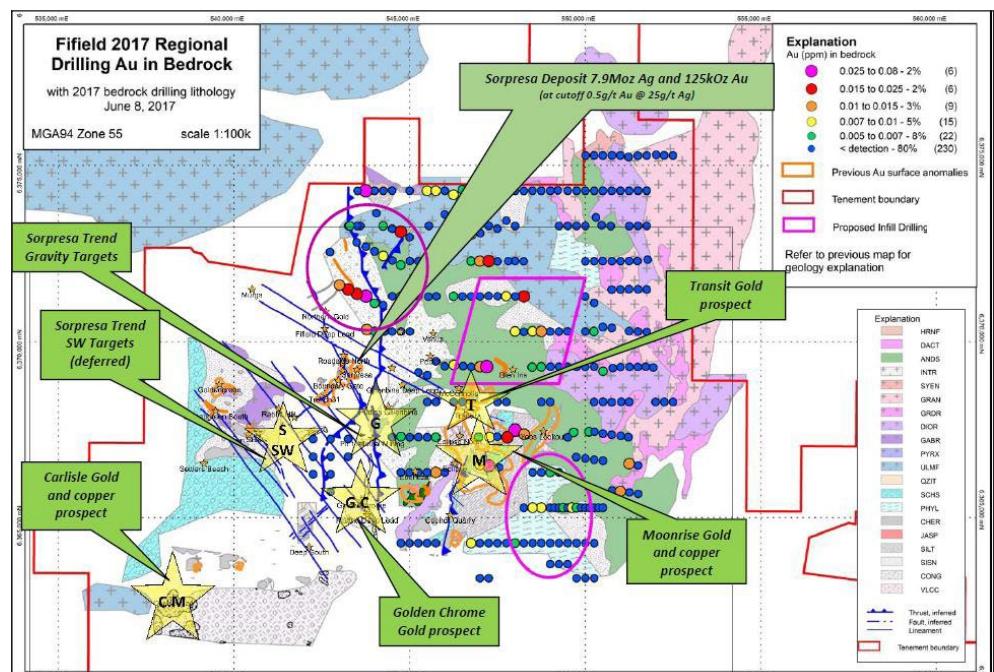
- ◆ Geology at the Pluto prospect, coincident with strongly anomalous gold geochemistry, includes felsic to mafic volcanics and altered porphyries, whereas at Steeton the geology includes sediments, mafic volcanics and granitic intrusives.

Figure 7: Fifield detailed aeromagnetics survey image



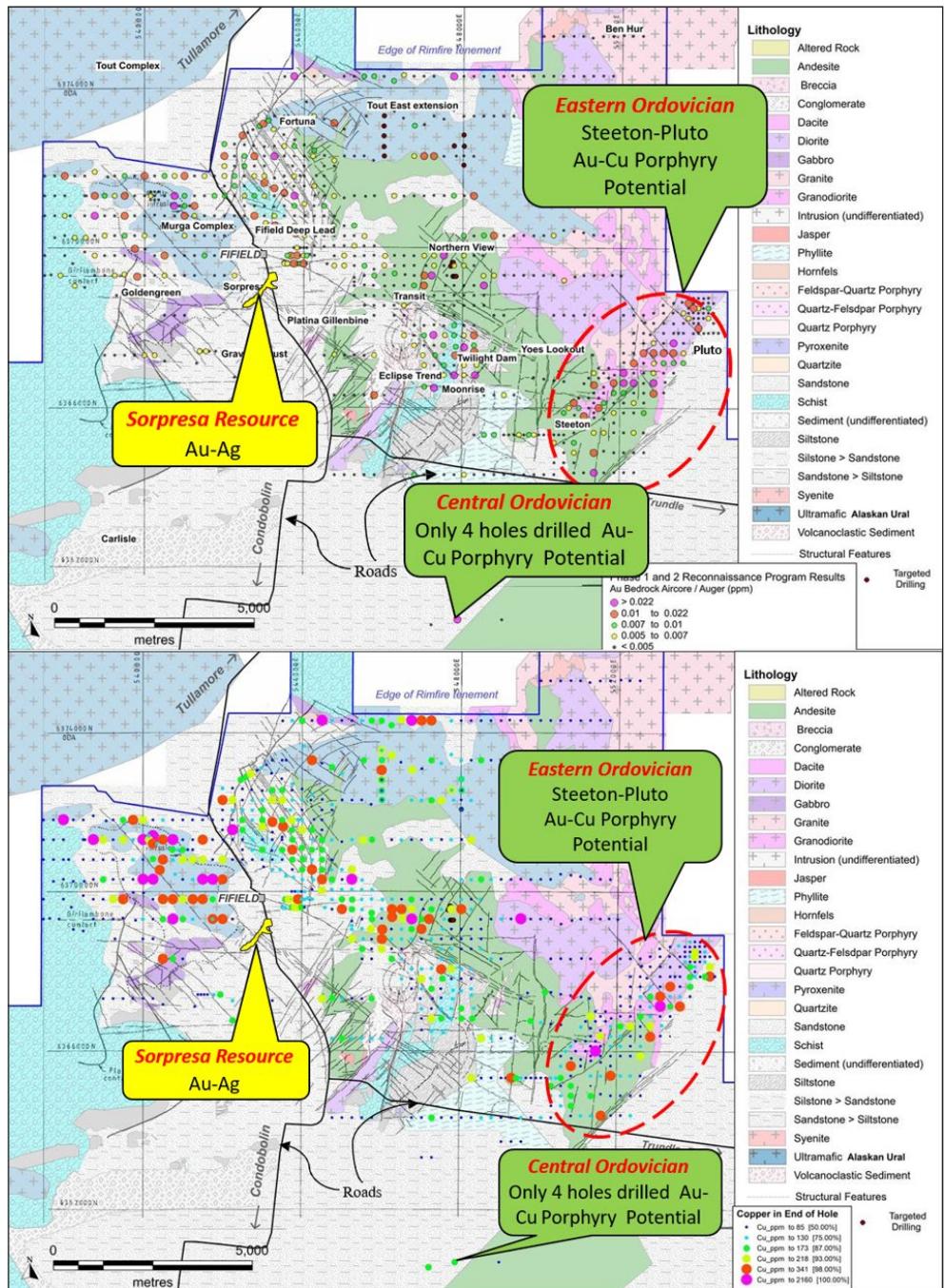
Source: Rimfire

Figure 8: Phase 1 regional scout drilling programme results



Source: Rimfire

- ◆ Also of interest is the Central Ordovician - only four holes were drilled here in the second programme (Figure 9) however these confirmed the presence of Ordovician units under cover.
- ◆ The drilling also returned positive gold results from various prospects, largely along a NW trend, including Fortuna, Quartzite Hill, Moonrise and Transit.

Figure 9: Phase 2 regional scout drilling programme results - Au top, Cu bottom

Source: Rimfire

- ◆ At Tout East, 31 aircore holes have been completed testing for laterites developed above ultramafic intrusives - this returned various basement lithologies, with, where developed, weathering profiles above ultramafic units ranging from 3m to 53m thick - assay results are awaited for this programme.
- ◆ [Seven RC holes for 343 were also drilled in the Northern View area](#) testing the Co, Au and Mn anomalism; this returned up to 10m @ 332ppm cobalt, and is discussed further below.

PROSPECT DESCRIPTIONS - GOLD & COPPER

- ◆ Work completed by Rimfire has identified a number of priority prospects, including the Sorpresa deposit - this section gives a brief rundown of the main ones.

Sorpresa

- ◆ **Sorpresa** is a [virgin discovery](#) by Rimfire, and has a combined resource of 6.4Mt @ 0.61g/t Au and 38g/t Ag (Table 1), and with the gold predominantly being free milling native gold.
- ◆ The area is marked by very limited outcrop, for instance the Roadside area is identified on surface by a single 0.5m diameter outcrop of altered rock near the township of Fifield.
- ◆ Mineralisation is interpreted as being hosted in thrusts within carbonaceous beds of the Giralambone Group, and forms a number of plunging shoots (Figures 8 and 9) - five have been identified to date, being (from south to north) Trench 31, Boundary Gate East (BGE), Boundary Gate, Join-Up and Roadside.

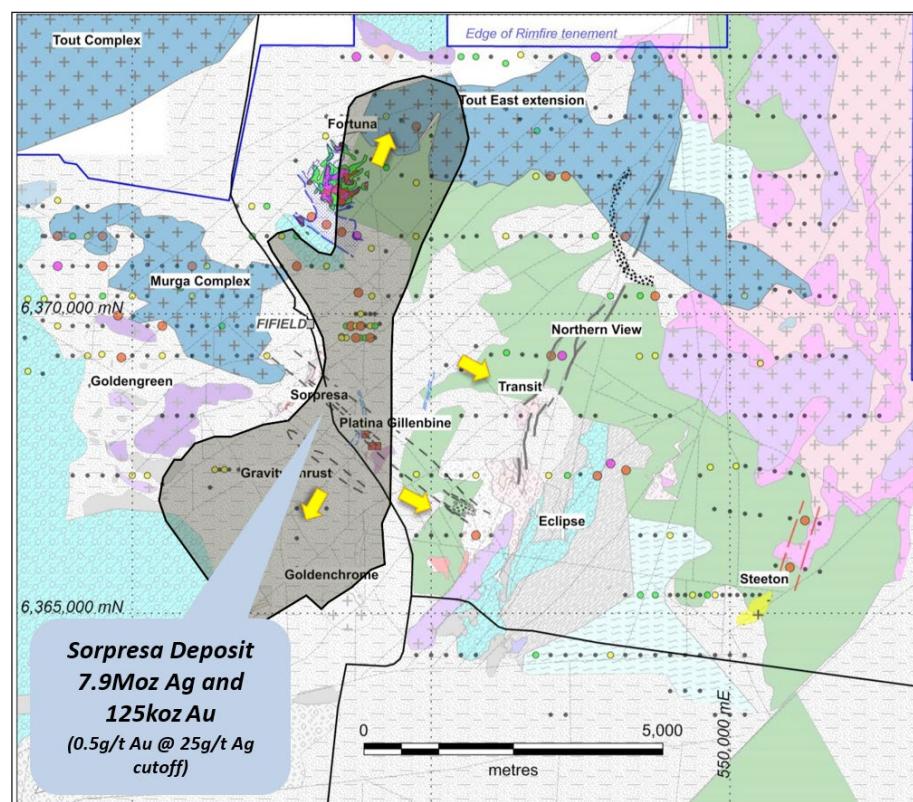
Table 1: Sorpresa JORC 2012 compliant MRE

Sorpresa JORC 2012 compliant MRE							
Resource	Cut off	Category	Mt	Grade		Contained Metal	
				g/t Au	g/t Ag	Koz Au	Moz Ag
Gold	0.5 g/t Au	Indicated	2.0	1.14	27	73	1.7
		Inferred	1.0	0.9	12	29	0.4
	Total	3.0	1.06	22	103	103	2.1
Silver	25 g/t Ag	Indicated	2.1	0.21	62	14	4.2
		Inferred	1.2	0.19	40	7	1.6
	Total	3.4	0.2	54	22	22	5.8
Combined	0.5 g/t	Indicated	4.1	0.67	45	88	5.9
	Au &	Indicated	2.2	0.51	27	37	2
	25 g/t Ag	Total	6.4	0.61	38	125	7.9

Source: Rimfire (note rounding errors may occur)

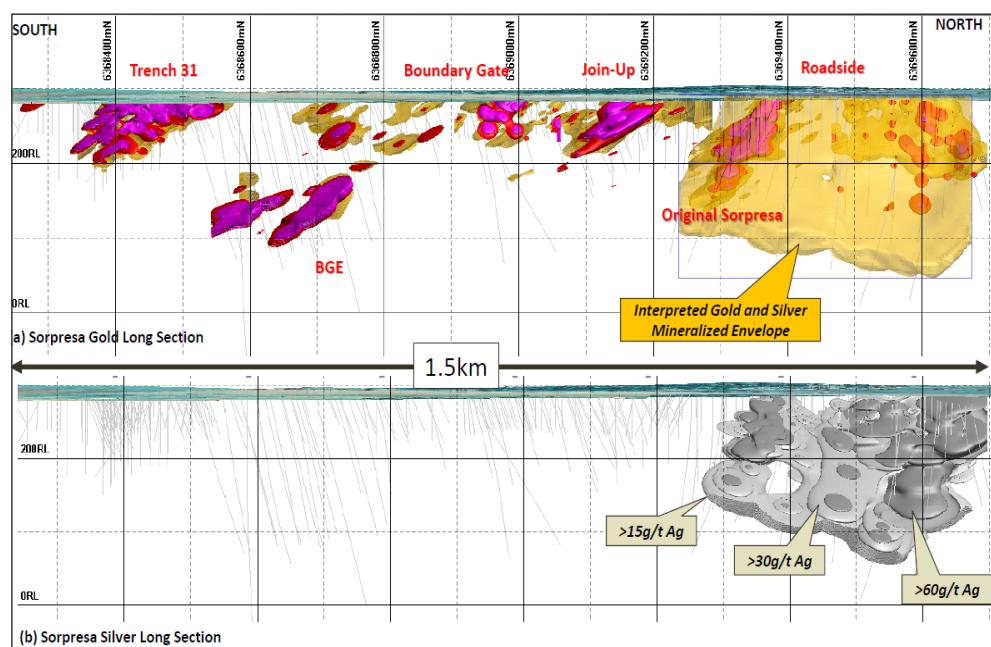
- ◆ Mineralisation occurs in what is termed as the Sorpresa Rift Zone (or Corridor), which is coincident with the Tullamore Suture that forms the structural contact between the Giralambone and magmatic arc units; it is also interpreted to control the location of a suite of post orogenic (Phase 4?) intrusives (including dykes), ranging from mafic/ultramafic Alaskan-Ural style intrusives to felsic porphyries, which are interpreted as driving the mineralising systems; mineralisation however is interpreted as being younger than the ultramafic/mafic intrusives - it has been suggested that it may be Siluro-Devonian in age, and related to the granites of that age.

Figure 10: Sorpresa Rift (grey) and prospect locations

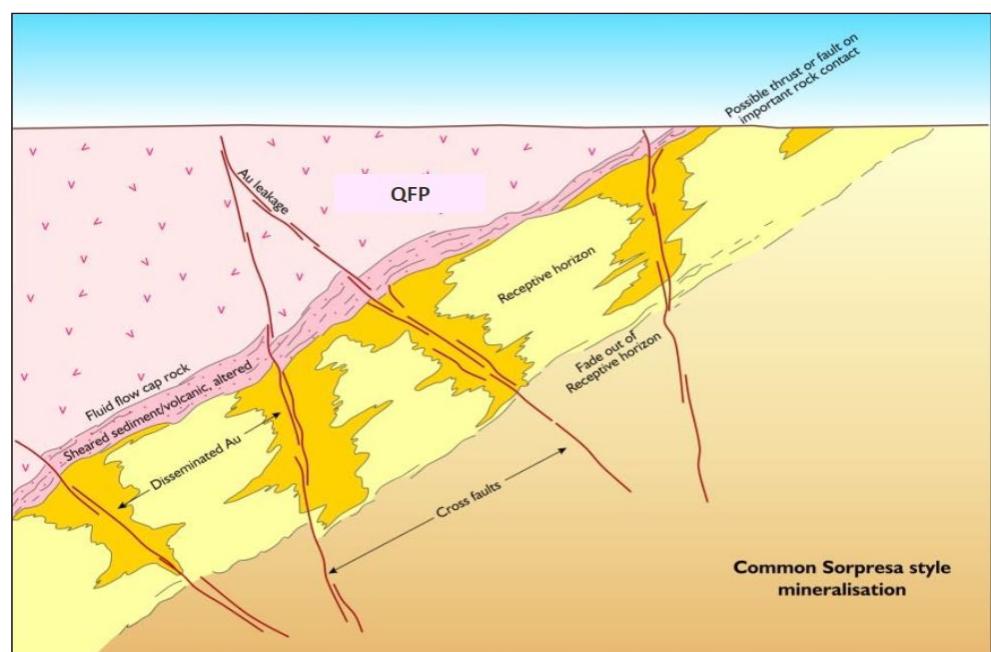


Source: Rimfire

- ◆ The interpreted felsic porphyries themselves are exploration targets for porphyry copper-gold mineralisation - IP surveying has identified a chargeable anomaly adjacent to Sorpresa (Figure 11) that may reflect disseminated sulphides associated with an intrusive, and alteration and zoned geochemistry has been identified at other sites over which IP is yet to be carried out.
- ◆ Gold is associated with silica flooding and sulphides (including pyrite, arsenopyrite and tennantite) in carbonaceous units, with reaction with the reactive carbonaceous material causing gold precipitation.

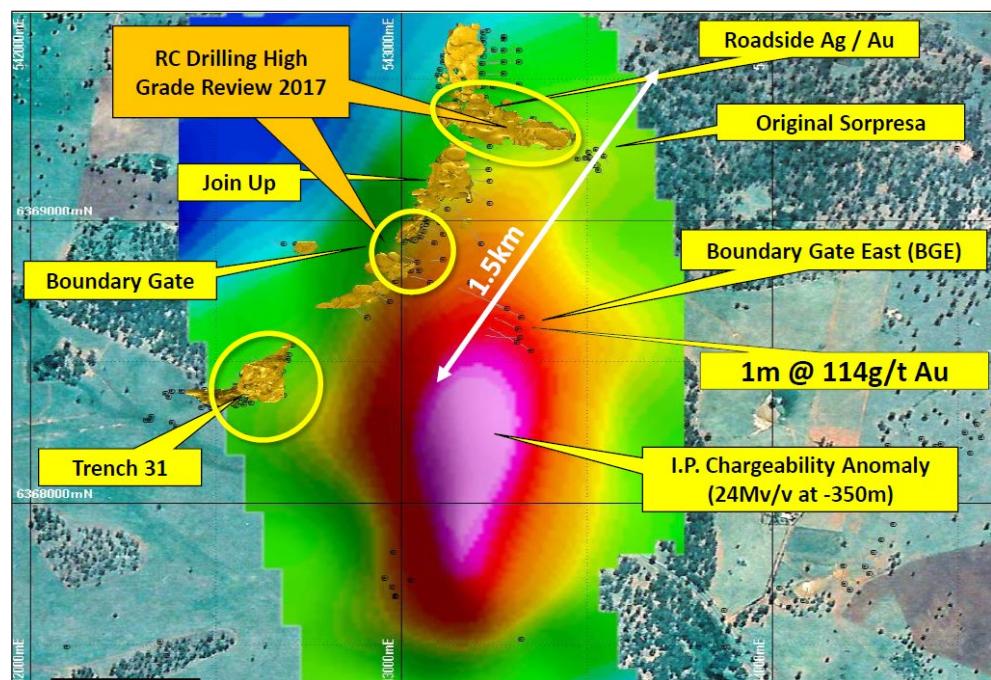
Figure 11: Sorpresa long sections

- ◆ Mineralisation is localised by crosscutting structures, and is capped by a quartz-feldspar porphyry (Figure 12); gold also occurs in chloritic shears (probably compressive), an association also seen at Cadia; the main controlling structures dip at between 5° and 30° to the SE.

Figure 12: Sorpresa conceptual mineralisation controls and geology

- ◆ There is also a strong correlation between soil geochemistry, mineralisation and a high gravity response, with the latter due to silica flooding of the carbonaceous shales leading to an increase of the specific gravity of the altered rocks when compared to unaltered units.

- ◆ Drilling, both as used in the MRE and from subsequent programmes has returned some very good results, including:
 - 16m @ 5.32g/t Au (Roadside),
 - 14m @ 24.4g/t Au (Roadside),
 - 4m @ 21.9g/t Au (Join-Up),
 - 24m @ 2.17g/t Au (Boundary Gate/BGE),
 - 1m @ 114g/t Au (BGE),
 - 14m @ 21.9g/t Au (Trench 31), and,
 - 12m @ 394g/t Ag (Roadside).
- ◆ Mineralisation is zoned, with the northern area (Roadside) being more silver rich.
- ◆ Gold is generally quite fine, with sizes around 30µm to 50µm in silica and ~3µm in sulphides, however generally occurs as free grains, with gravity/cyanidation metallurgical testwork indicating that 95% recoveries at a 75µm grind size should be achievable.
- ◆ As mentioned earlier, there is a strong IP anomaly adjacent to Sorpresa (Figure 13), with drilling on the north side at BGE intersecting 1m @ 114g/t Au (Figure 13).

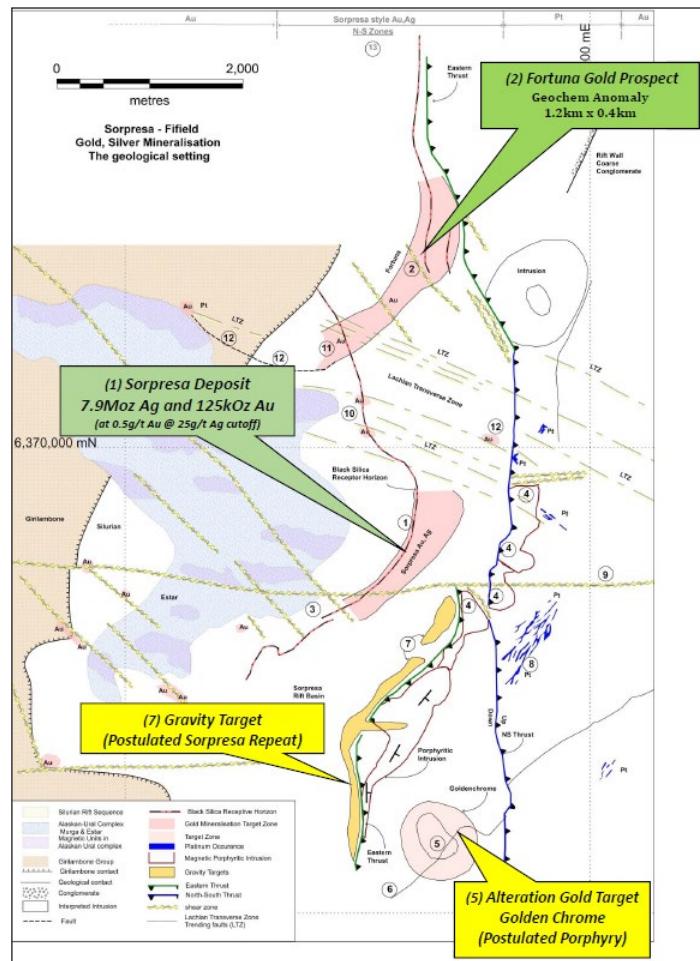
Figure 13: Sorpresa IP, mineralisation and drilling results

Source: Rimfire

- ◆ One interpretation is that this IP anomaly may represent disseminated pyrite associated with an intrusion, with a strong IP signature associated with disseminated pyrite in phyllitic alteration being a common feature of mineralised porphyry systems.

Sorpresa Corridor Prospects

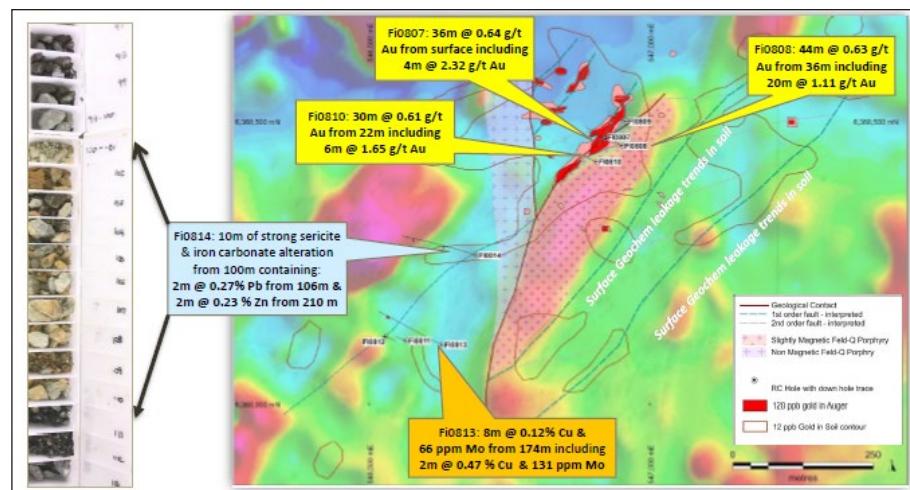
- ◆ The Sorpresa area contains a number of targets that require follow up; these include interpreted repeats of Sorpresa (or similar) style mineralisation and the porphyry potential (Figure 14).
- ◆ Prospects include the Fortuna target to the north of Sorpresa, which has a higher geochemical signature than Sorpresa, with anomalous gold ranging from 30ppb to 120ppb; this is also associated with some circular geochemical zonation, with irregular gold in the centre and an annular rim of lead in a structural prepared area at the margin of the black shales and porphyries.
- ◆ It is interpreted that the zoned geochemistry may be related to an intrusive at depth, and the area has been recently targeting as part of the reconnaissance and infill aircore programme.
- ◆ To the south there is another gravity ridge (Figure 12), that is yet to be tested but is postulated to be related to a Sorpresa style system; this is adjacent to an area of alteration at the Golden Chrome prospect that the Company has postulated is again related to a buried porphyry.

Figure 14: Sorpresa area targets

Source: Rimfire

Transit

- ◆ Transit, which is located some 4km to the NE of Sorpresa, is interpreted as being of a similar style of mineralisation, associated with multiple shears and porphyry units.
- ◆ Eight RC holes have been completed at the prospect (Figure 15), and have returned very encouraging results, [including 44m @ 0.63g/t Au \(including 20m @ 1.11g/t Au\)](#) - the thickest gold intersection to date at Fifield.

Figure 15: Transit geology, magnetics and drilling results

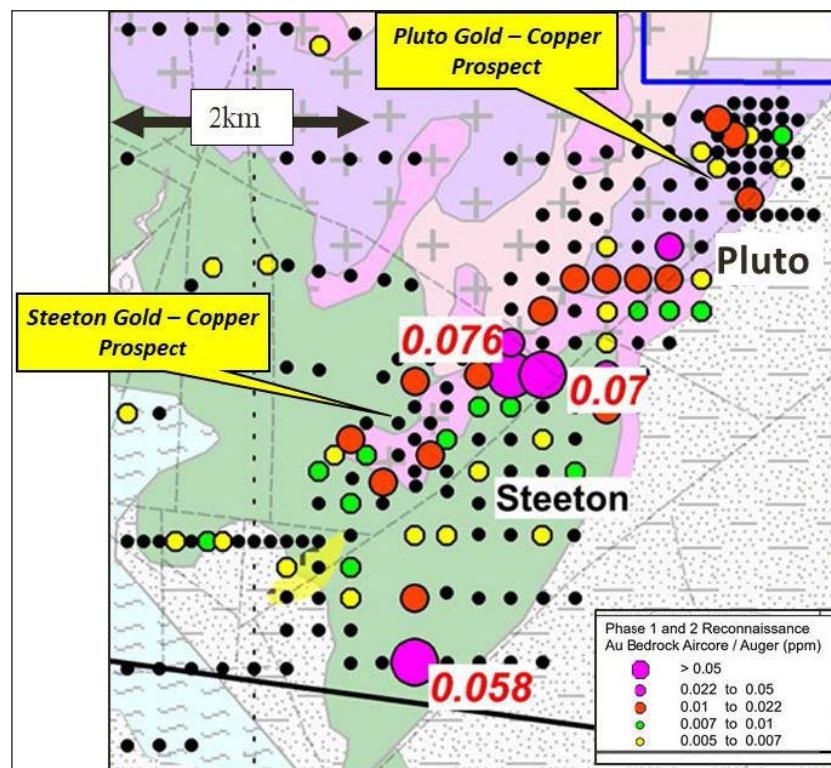
Source: Rimfire

- ◆ Drilling has also intersected appreciable copper, molybdenum and sericitic alteration, highlighting the prospectivity for distal porphyry mineralisation at depth.
- ◆ Transit is one of the priority prospects that was evaluated during the recent aircore drilling, and which returned anomalous gold.

Steeton

- ◆ Located over an area of very poor outcrop in the east of the Project, [the Steeton - Pluto area](#) is considered prospective for porphyry Cu-Au and epithermal gold mineralisation.
- ◆ Earlier work, including mapping has identified an intrusive porphyry, proximal volcanics and epithermal quartz veining in a structurally prepared area; as discussed earlier this prospectivity has been supported by both Phase 1 and Phase 2 aircore drilling that has identified anomalous gold and copper along a NE trending corridor (Figure 16).
- ◆ Importantly, at Pluto, this also identified altered porphyry units and monzonites, potentially indicative of porphyry Au-Cu mineralisation.

Figure 16: Steeton - Pluto area Phase 2 aircore results on geology image



Source: Rimfire

- ◆ The identification of intrusive volcanics and proximal volcaniclastics/volcanics is considered significant; porphyry copper-gold systems are generally sub-volcanic, hence they are associated with these types of lithologies.
- ◆ Figure 17 shows examples of these rocks.

Figure 17: Proximal volcanics/volcaniclastic, Steeton

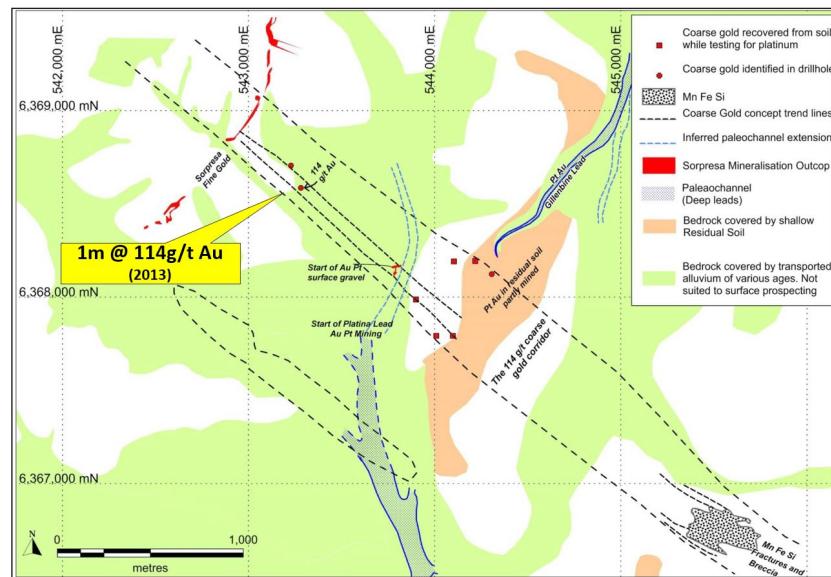


Source: IIR

Colin's Corridor

- ◆ This refers to work carried out by Colin Plumridge, the Senior Exploration Geologist, who has outlined interpreted corridors of coarser gold (~0.7mm) than that at Sorpresa, with an orientation parallel to the LTZ (Figure 18) - initially coarse gold was recovered when testing soils for platinum.
- ◆ Although still conceptual in nature and being work in progress, the interpreted corridor is near the start of the Platina and Gillenbone Pt/Au leads, with the BGE lens, including the high grade intersection (1m @ 114g/t Au) also located in this corridor.
- ◆ The gold here is different to that at Sorpresa (although the trend cuts through Sorpresa), and is interpreted as a separate gold event.
- ◆ It is also interpreted that the corridor could also host an extension of "Sorpresa-style" fine gold mineralisation, similar in orientation to the high grade Roadside Au-Ag shoot.

Figure 18: Colin's Corridor



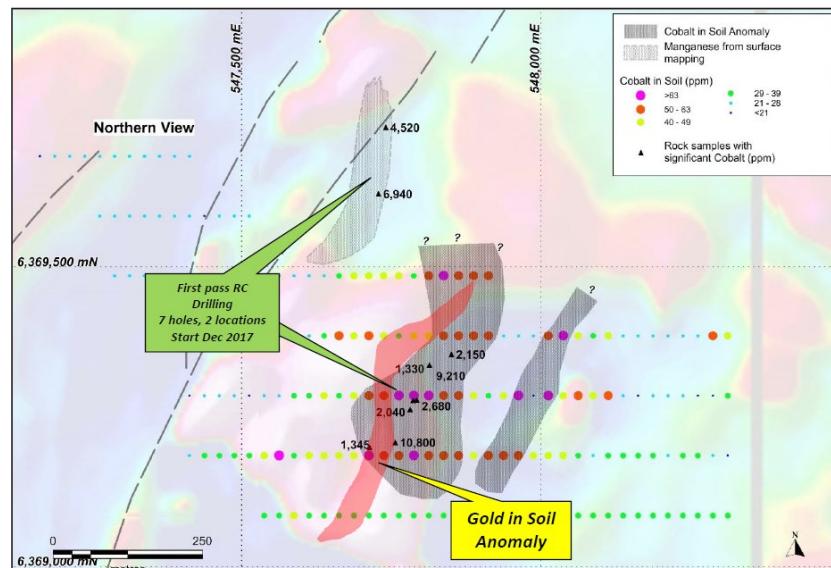
Source: Rimfire

PROSPECT DESCRIPTIONS - COBALT & PLATINUM

Northern View Cobalt

- ◆ Northern View (Figure 19) was identified from the Phase 1 aircore drilling by New Gold, where generally coincident gold and cobalt soil anomalies were identified over a strike length of ~500m.

Figure 19: Northern View cobalt prospect



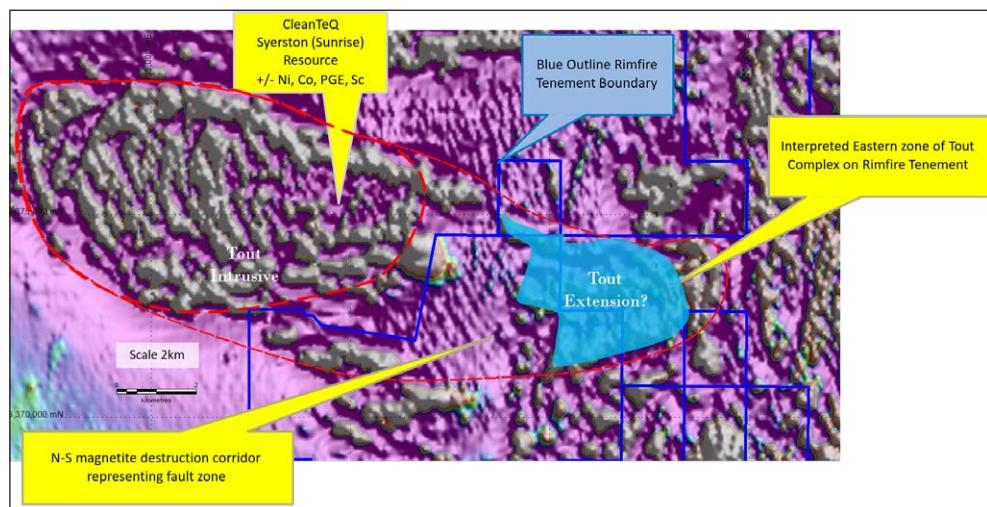
Source: Rimfire

- ◆ Rock chips, of what is interpreted to be structurally controlled mineralisation, returned up to 1.08% Co; the prospect has subsequently been [tested with a 343m, seven hole RC programme](#), which returned up to 10m @ 332ppm Co from 14m in hole Fi0820, and anomalous gold in hole Fi0821 (4m @ 175ppb Au from 38m).
- ◆ The mineralisation is associated with quartz rich red jasper, containing manganese, magnetite and trace chromite, in what is interpreted to be a broad hydrothermal alteration system; although the results of the initial RC drilling are of low tenor, the presence of a broader alteration system appears evident.

Tout East

- ◆ The Tout East prospect is located over an interpreted eastern extension of the Tout Intrusive Complex, which is part of the broader Fifield Igneous Province; Tout hosts CleanTeQ's Sunrise Sc-Co-Ni-Pt project, for which a DFS is nearing completion.
- ◆ The Tout Intrusive Complex is a zoned Alaskan-Ural intrusive, with the targeted mineralisation developed in laterites developed during Tertiary weathering.
- ◆ The main mineralised zone sits above a central ultramafic dunite core, which concentrically zones out through pyroxenites to mafic intrusives at the periphery; mineralisation is commonly zoned with strongest Co-Ni-Pt developed above the core dunite and Sc associated with the peripheral pyroxenites.
- ◆ Tout is one of a number of similar intrusive complexes at Fifield; others include Murga, Owendale and Avondale.
- ◆ The potential at Tout East was tested by the broad spaced (1,000m x 250m) Phase 1 aircore programme, where lateritic material was recognised over an area with similar magnetics to Tout to the west; it is interpreted that the two areas have been separated by the N-S trending Tullamore Suture that has demagnetised the intrusive.
- ◆ As mentioned earlier, [in late 2017 New Gold drilled 10 aircore holes at Tout East](#), with further 21 drilled in early 2018 - assays are awaited.

Figure 20: Tout East prospect



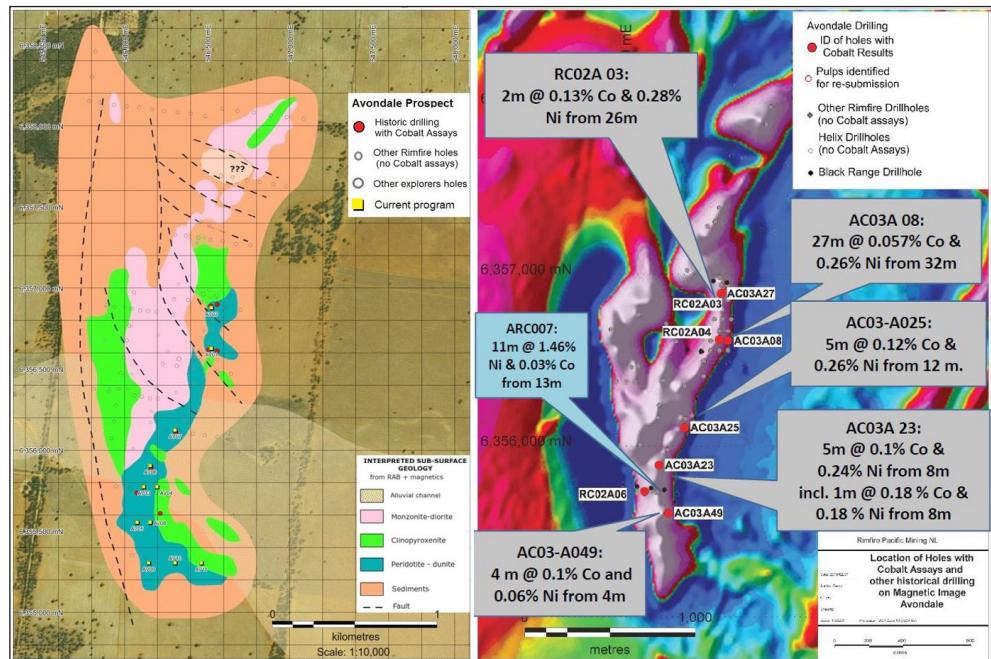
Source: Rimfire

Avondale

- ◆ [Aircore and RC drilling](#) has recently been undertaken over the Avondale prospect, which covers the western part of the Avondale Alakan-Urals intrusive (Figures 4 and 21), which is typical of these styles of intrusive that form the Fifield Igneous Province.
- ◆ The key cobalt prospective dunite units have been identified along the eastern side of the complex, with an interpreted strike length of ~2.5km (Figure 21); orthopyroxenite has also been recognised which may be prospective for scandium.
- ◆ Historical work over the prospect was completed by Helix Resources (1987 to 1988), Black Range Minerals (2000) and Rimfire (2002 - 2003) - this work was largely concentrated on platinum group element exploration, with very little multi-element work completed.

- Given this situation, in 2004 Rimfire re-assayed limited platinum-bearing intersections, the results of which highlighted the cobalt potential of Avondale - these historic results, as [released to the market on March 5, 2018](#), are presented in the right hand panel of Figure 21, which highlight the cobalt prospectivity of Avondale.

Figure 21: Avondale Geology (R) and historical results on magnetics image (L)



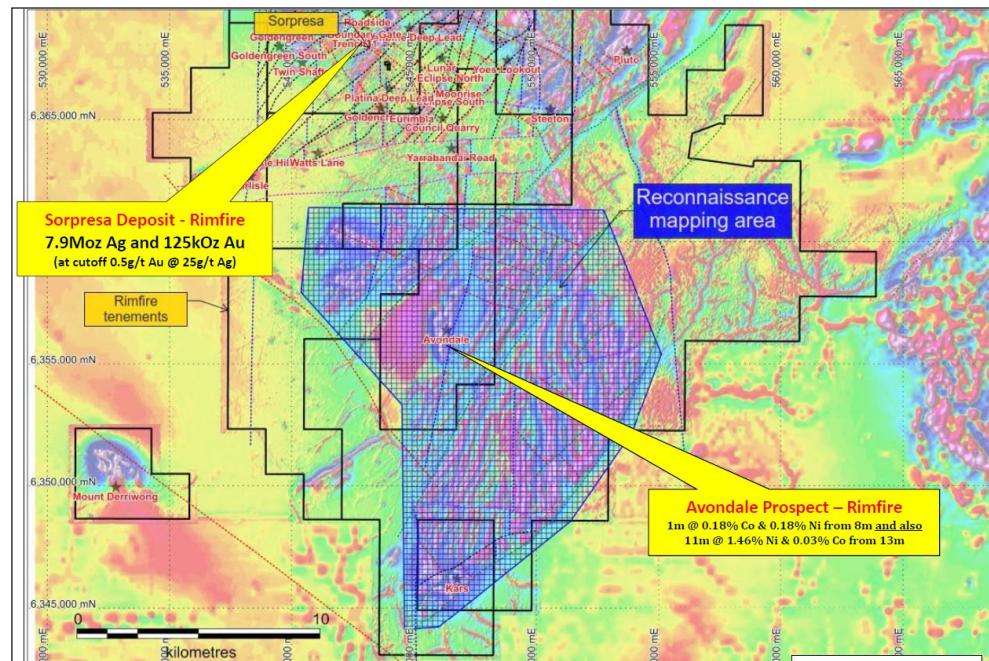
Source: Rimfire

Platinum

- Although the current focus is on the gold-copper and cobalt potential, the platinum, particularly alluvial platinum should not be discounted.
- There is still potential, subject to metals prices, to recover platinum and gold from the deep leads; the Company's view is that these would involve a relatively low strip shallow free dig operation; the Platina lead varies in depth from 15m near the sampling plant in the north to 22m, 2.8km downstream.
- One bulk sampling operation has been completed with this recovering between 1-2g/m³.
- Reportedly the paleochannel is steep sided, with mineralisation hosted in 1m to 2m in basal gravels, with mineralisation also in cracks in the bed rock.
- Platinum occurs as free grains with an average size of ~0.7mm, with gold commonly occurring as inclusions in chromite, reportedly the only place where this has been recognised globally.
- It is of the Company's view that the grains are proximal to a hard rock source, however this source is yet to be fully determined, requiring bulk sampling of oxide bedrock to confirm or otherwise; as mentioned earlier the Tout Intrusive Complex has been discounted as a source due to its chemistry.

UPCOMING ACTIVITIES

- As [announced to the market on March 21, 2017](#), immediate upcoming activities will include mapping and sampling of the southern area of the project (Figure 22), with experienced consulting geologist Mr Mike Love (ex GeoPeko) engaged to carry out this work over ~140km².
- This work is aimed at assessing the area for Lake Cowal style mineralisation; historically work has been concentrated on the Fifield Igneous Complex intrusives in this area.
- The initial work programme is expected to be completed in April/May, after which time follow on programmes, possibly including reconnaissance drilling, will be planned where necessary.
- Other ongoing activities will involve the assessment of prospects generated from the recent aircore programmes, including that at Avondale when assay results are received; this will be used to plan upcoming exploration.

Figure 22: Planned reconnaissance mapping, southern area.

Source: Rimfire

LISTED NSW OPERATORS

- ◆ Rimfire is one of only a relatively few listed juniors operating in the LFB, with these listed in Table 2 - this considers companies operating in all parts of the LFB, and not only the Macquarie Arc.
- ◆ Table 2 also includes mid-cap to large companies that are operating in the region; these include Newcrest Mining, Evolution Mining and Regis Resources.
- ◆ A number of these have projects on other jurisdictions, with these including the big three of Newcrest, Evolution and Regis (which is a WA focussed gold producer, with McPhillamy's being a potential development opportunity).
- ◆ The majors also have significant exploration areas in NSW, as well as a number of unlisted companies.

Table 2: ASX-listed NSW operators and explorers

ASX-listed NSW operators and explorers					
Description	MC (A\$m)	Precious Metals	Base Metals	Specialty Metals, Ni	Key NSW Projects
Newcrest Mining	\$15,456				Cadia Porphyry
Evolution Mining	\$5,543				Cowal Au, Marsden Porphyry
Regis Resources	\$2,350				McPhillamy's - Structurally-Hosted Epigenetic or Syngenetic?
Clean Teq Holdings	\$667				Sunrise Sc-Co-Ni nr Fifield
Aurelia Metals	\$334				Hera, The Peak
Australian Mines	\$252				Flemington Co nr Fifield
Heron Resources	\$162				Woodlawn VMS
Alkane Resources	\$147				Tomingly, Peak Hill, DZP
Peel Mining Limited	\$116				Southern Nights, Mallee Bull Discoveries
Ardea Resources	\$84.5				Lewis Ponds VMS and others
Jervois Mining	\$79.6				Nico Young Sc Laterite
Collerina Cobalt	\$66.1				Collerina Ni-Co, HPA
Emmerson Resources	\$38.1				Various Macquarie Arc Exploration Areas
Platina Resources	\$29.1				Owendale Pt nr Fifield
Broken Hill Prospect	\$18.5				Thackereringa Co, Murray Basin Mineral Sands
Rimfire Pacific	\$17.9				Fiifield Project

ASX-listed NSW operators and explorers					
Description	MC (A\$m)	Precious Metals	Base Metals	Specialty Metals, Ni	Key NSW Projects
Impact Minerals	\$15.3				Commonwealth Hill polymetallic
Argent Minerals	\$12.5				Kempfield VMS
Thomson Resources	\$6.1				Bygoo Tin Project, Thomson Orogen Exploration
Magmatic Resources	\$2.8				Macquarie Arc Exploration
Golden Cross	\$2.0				Copper Hill Porphyry

Source: IRESS, Company reports.

- ◆ A number of major operations in NSW are owned and operated by offshore companies - these include the Northparkes (CMOC-Sumitomo) and CSA (Glencore).
- ◆ What this highlights is the potential for an upgrade on a discovery - a case in point is Peel Mining, which has seen its share price rise from A\$0.22 to a high of A\$0.80 since October 2017 on the back of the Southern Nights.
- ◆ The Table also highlights the value ascribed to the laterite developers in the Fifield region, including CleanTeq (A\$851 million) and Australian Mines (A\$281 million), both of which are looking to produce Co, Ni and Sc from the advanced projects; the third, Platina has a market capitalisation significantly less at A\$40.9 million.

CAPITAL STRUCTURE

- ◆ Rimfire currently has 943.5 million shares on issue.
- ◆ The largest shareholder is the MD, Mr John Kaminsky, with combined holdings of 33,408,169 shares, or 3.54% of the Company.
- ◆ Directors hold 4.88% of the Company.
- ◆ The top 20 hold 37.04%, and the Company has over 2,060 shareholders.

RISKS

- ◆ **Exploration** – This is the key risk facing any junior explorer, and this is no different with Rimfire. The Project is generally under-explored, however the results of work to date highlight the potential for gold and copper mineralisation. In addition the laterite potential is highlighted by results from neighbours, including CleanTeq, Australian Mines and Platina.
- ◆ **Funding** - With New Gold now out of the picture Rimfire will now have to look at options for funding Fifield; this could include, amongst others, self funding, in which case the Company will need to go to the market sometime this year, else attract a new earn-in partner.
- ◆ **Markets** – Although markets are performing well at the moment, they can turn on a dime, with junior resources the first to feel the pinch.
- ◆ **Sovereign** – We do not consider this risk as significant – New South Wales is a well established mining jurisdiction (although, as mentioned earlier with increasing red tape), in which Rimfire personnel are experienced in operating in.

BOARD AND MANAGEMENT

- ◆ **Mr Ian McCubbing – Non-Executive Chairman:** Mr Ian McCubbing was appointed Non-Executive Director and Chairman of the Board on 25th July 2016, bringing a strong commercial background in the resources industry to the Company. He has over 30 years experience as a Chartered Accountant with industrial and mining companies, principally in the areas of corporate finance and mergers and acquisition. He holds a Bachelor of Commerce (Honours) from UWA and Executive MBA from the AGSM, and is a graduate member of the Australian Institute of Company Directors. Mr McCubbing is currently a Non-Executive Director of three other ASX listed resources related companies - Avenira Ltd, Swick Mining Services Ltd and Symbol Mining Corporation Ltd. He has previously been a director and CFO of other ASX 200 listed mining companies.

- ◆ **Mr John Kaminsky – Managing Director and CEO:** Mr Kaminsky became a Non-Executive Director in April 2004 and Executive Chairman later in 2004, moving to the role of Managing Director and CEO in March 2015. He completed a Bachelor of Applied Science (Chemistry) at RMIT and an MBA from the Melbourne Business School (1988). He brings strong business, strategic and international skills to the company, with more than 30 years experience internationally, including commodity trade, government representation, consulting, marketing, high technology software, venture capital, exploration and mining services. Mr Kaminsky is very knowledgeable in the requirements of the ASX Public Company environment and is a highly effective multitasker well suited to the needs of Rimfire.

Mr Kaminsky was resident in South Korea, for more than 10 years, including a period as Country President for Elders Resources. He has extensive experience in Asia in a range of business activities and possesses a wide network of contacts.

- ◆ **Ms Ramona Enconniere – Non-Executive Director:** Ms Enconniere (Bachelor of Commerce and MBA, University of Melb., and MBS) became a Director of Rimfire in May 2005 and has professional affiliations with CPA Australia and the Financial Services Institute of Australasia.

Mrs Enconniere makes an excellent contribution to the Board through her experience gained in corporate banking and the funding of mergers and acquisitions, loan syndications, project financing, debt raising via capital markets/securitisation with Citibank, Bank of America, OCBC (Overseas-Chinese Bank Corporation) and NAB.

- ◆ **Mr Andrew Greville – Non-Executive Director:** Mr Greville became a director of Rimfire in August 2017. Mr Greville is a qualified mining engineer and brings over 30 years of mining industry experience with an outstanding track record of international success in the resources industry, particularly in the fields of business development and marketing. Before establishing West End Mining & Consulting in 2015, Mr Greville's most recent position was Executive General Manager, Business Development and Strategy, Xstrata Copper.
- ◆ **Ms Melanie Leydin – Company Secretary:** Melanie has 25 years' experience in the accounting profession and is a director and company secretary for a number of oil and gas, junior mining and exploration entities listed on the Australian Securities Exchange. She is a Chartered Accountant and a Registered Company Auditor.

She graduated from Swinburne University in 1997 with a Bachelor of Business (Acc/Law), became a Chartered Accountant in 1999 and since February 2000 has been the principal of chartered accounting firm, Leydin Freyer specialising in outsourced company secretarial and financial duties for resources and biotechnology sectors.

- ◆ **Mr Greg Keane – Chief Financial Officer:** Greg was appointed the CFO of Rimfire in May 2017. Greg is an experienced commercial and financial professional who has gained significant experience in all stages of a resources company lifecycle both internationally and nationally.

Greg is big 4 trained and qualified CPA / MBA (Deakin University) professional with significant experience and exposure in defining Operational, Commercial and Financial Strategy and the subsequent implementation of strategy; in addition to hands on management of companies accounting, information technology, human resources, logistics, supply and contracts and other support services functions, both within Australia and Overseas (including Papua New Guinea, Mongolia and Hong Kong).

- ◆ **Mr Colin Plumridge - Senior Exploration Geologist:** Mr Plumridge has been with the Company since 2004 and has provided key, scientific, geological and technical insights, including major discovery break throughs on exploration in the Fifield district. Mr Plumridge is a Member of the AUSIMM and the Geological Society (Aust.), The Society for Economic Geologists and the Mineralogical Society of NSW. He has a successful track record in discovering and determining mineral deposits over a 45 year career and makes a valuable contribution to the Company.

Mr Plumridge has an extensive depth of experience which covers a wide range of prospecting geology techniques, exploration concept development, drill program management, mine planning and operations. In exploration, Mr Plumridge specialises in detailed field work programs and historic interpretation of complex data previously under examined by others. He has extremely practical and value adding skills ideally suited to the Fifield project area.

APPENDIX 1 - MAJOR NEW SOUTH WALES MINERAL DEPOSITS

- ◆ The tables below present a summary of firstly, major Cu-Au deposits in NSW, and secondly a summary of the laterite hosted deposits near Fifield.
- ◆ This is not an exhaustive list of NSW mineral deposits, given the commodities being considered in this note.
- ◆ For the most part the resources quoted include current resources, and not current resources plus depletion.

Cu-Au Deposits

Major NSW Cu-Au Mineral Deposits									
Deposit	Current Ownership	Tonnage (Mt)	Au Grade (g/t)	Cu Grade (%)	Au Moz	Cu Kt	Style	Age	Source
Cadia Group	Newcrest	3460	0.39	0.40	43	8,700	Porphyry and related Cu-Au	Late Ordovician - Early Silurian	Latest Company Statement
McPhillamy's	Regis Resources	68.9	1.04		2.30		Orogenic ?	Silurian	Latest Company Statement
North Parkes	CMOC/ Sumitomo	578	0.2	0.57	3.72	3,295	Porphyry Cu-Au	Late Ordovician - Early Silurian	China Moly website, 2015 Est.
Cowal	Evolution Mining	177.65	0.88	-	5.03	-	Low sulphidation epithermal Au?, possibly related to an alkalic porphyry at depth	Middle Ordovician	Latest Company Statement
Marsden	Evolution Mining	180	0.2	0.38	1.16	684	Porphyry Cu-Au	Middle Ordovician	Latest Company Statement
Browns Creek	ANL	-	-	-	0.99	13	Cu-Au Skarn	Silurian	DPI summary sheet
Copper Hill	Golden Cross	87	0.32	0.36	0.90	313	Porphyry Cu-Au	Late Ordovician - Early Silurian	Golden Cross website
Mineral Hill	KBL Mining	21.38	0.47	0.32	0.32	68	Epithermal	Middle Devonian	Latest Company Statement
Mt Boppy	Black Oak Minerals	0.463	3.4		0.05		Epithermal?	Middle Devonian	Black Oak release, 2015
Peak Hill	Alkane Resources	17.02	1.4	0.08	0.77	14	High-sulphidation epithermal Au	Late Ordovician - Early Silurian	Company, historic production and current resources
Peak Gold Mine	Auralia	9.25	1.86	1.64	0.55	152	Cobar-style Orogenic	Middle Devonian	Latest Company Statement
Tritton	Aeris Resources	9.89	-	1.55	-	153	Cobar-style Orogenic	Middle Devonian	Latest Company Statement
Hill End	Hill End Gold Ltd	5.32	3.4	-	0.58	-	Orogenic Au	Late Devonian - Early Carboniferous	Latest Company Statement
Hera	Aurelia Metals	2.698	4.12	-	0.36	-	Cobar-style Orogenic	Middle Devonian	Latest Company Statement
Tomingly	Alkane Resources	10.324	1.8	-	0.60		Orogenic Lode?	Late Ordovician	Latest Company Statement

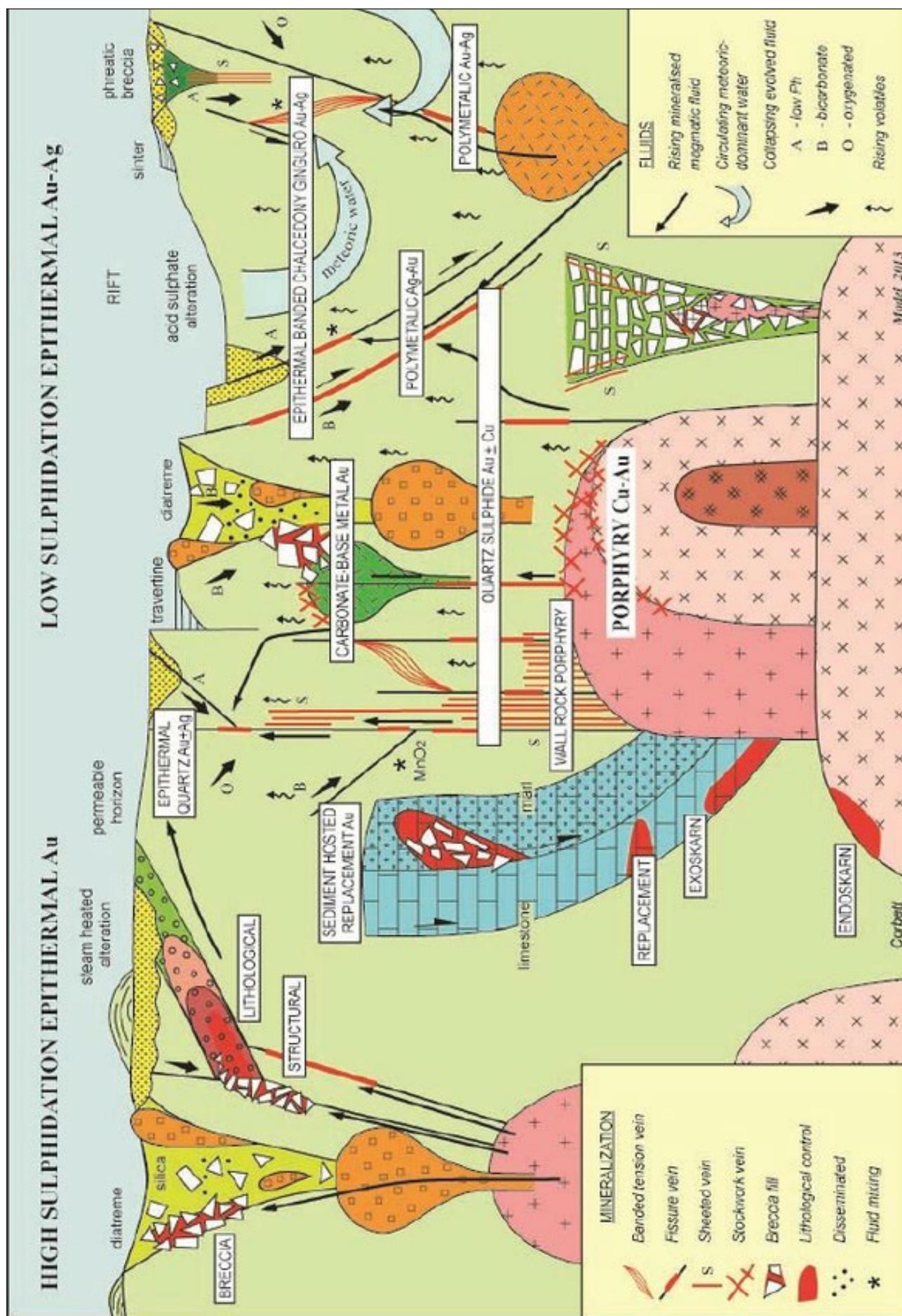
Source: IRESS, Company announcements

Laterite Deposits

NSW Fifield Igneous Province laterite deposits									
Deposit	Current Ownership	Tonnage (Mt)	Sc Grade (ppm)	Co Grade (%)	Ni Grade (%)	PGE Grade (ppm)	Style	Age	Source
Sunrise Sc	CleanTeq	28.2	419	-	-	-			
Sunrise Ni-Co	CleanTeq	109	-	0.100	0.65	-			
Flemington Co-SC	Australian Mines	2.7	403	0.101	-	-			
Homeville	Collerina Cobalt	16.3Mt	-	0.05%	0.93%	-	Laterite, over Alaskan-Ural Intrusive	Early Silurian	
Nyngan	Scandium International	16.81Mt	235	-	-	-		Mafic/Ultramafic Intrusive, Tertiary Weathering	
Owendale Sc	Platina Resources	33.7	385	-	-	-			
Owendale Co	Platina Resources	17.6	-	0.15	-	-			

Source: IRESS, Company announcements

APPENDIX 2 - SCHEMATIC DIAGRAM OF ARC AND PORPHYRY RELATED MINERAL SYSTEMS (GREG CORBETT, VARIOUS PUBLICATIONS)



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For further information, please contact IIR at: client.services@independentresearch.com.au



Independent Investment Research (Aust.) Pty Limited

SYDNEY OFFICE
Level 1, 350 George Street
Sydney NSW 2000
Phone: +61 2 8001 6693
Main Fax: +61 2 8072 2170
ABN 11 152 172 079

MELBOURNE OFFICE
Level 7, 20–22 Albert Road
South Melbourne VIC 3205
Phone: +61 3 8678 1766
Main Fax: +61 3 8678 1826

HONG KONG OFFICE
1303 COFCO Tower
262 Gloucester Road
Causeway Bay, Hong Kong

DENVER OFFICE
200 Quebec Street
300-111, Denver Colorado USA
Phone: +1 161 412 444 724

MAILING ADDRESS
PO Box H297 Australia Square
NSW 1215