

---

# Sorpresa exploration results indicate significant upside at promising Northern Gold prospect

---

## Highlights

- Northern Gold Prospect is an area of extensive historic gold workings in an untested area two kilometres north northwest of the existing Sorpresa Resources (Figure 1).
- Results of current auger and aircore work support progressing Northern Gold towards testing with a Reverse Circulation (RC) drilling program.
- Any discovery success at Northern Gold has the potential to provide additional resources that could support business case for monetisation of Sorpresa ([ASX 23 December 2014: Sorpresa Maiden Resource Estimate](#)).

---

Rimfire Pacific Mining NL (ASX: RIM, “the Company” or “Rimfire”) provides an update on ongoing exploration at the Fifield project in New South Wales which forms part of its key Dual Strategy ([ASX 25 September 2018](#)).

At the **Northern Gold Prospect** there is an extensive area of relatively shallow (<6m) historic gold workings covering 350m strike length x 80m width, in what is interpreted as a gravel filled poorly formed valley (Figure 2). An initial auger drilling program was completed to test both the valley fill and underlying insitu geology. Results indicate anomalous gold within the weathered bedrock below the gravels. The degree of weathering is high, creating the potential for gold depletion near surface. A program of RC drilling will test this concept and the bedrock potential. Historic workings across the area are now thought to have been targeting coarse gold accumulations within the highly weathered bedrock at the base of the infilling gravels. A single 36m deep Aircore hole was completed, which supports an interpretation of easterly dipping geology (Figure 3). The weathered bedrock samples indicated the host rocks are not black silica lithology as at Sorpresa and more work is required to understand controls of what may be a related but different mineralisation setting to the nearby Sorpresa Deposit.

The results from Northern Gold support an RC drilling program to drill through the fresh bedrock beneath the broad zone of historical gold mining pits and +20 to +100ppb anomalous gold results. There has been no historical RC or diamond drilling of the bedrock in the vicinity of the extensive surface workings so the upside potential is quite exciting. A small area to the east of Northern Gold was also tested with auger sampling with no significant results.

Overall a total of 88 auger sample holes for a total of 261m and an aircore hole of 33m depth has been completed at Northern Gold.

Craig Riley, Managing Director at Rimfire said:

*“The recent work at the Northern Gold prospect confirms the prospectivity of this +350m strike length zone of historical mining pits for coarse gold. It is exciting to have such quality targets which have never had a single drill hole to test the bedrock zones below these surficial workings.”*

*“To think that the deposit style could be something different to Sorpresa while being in such close proximity to the existing gold mineralisation at Sorpresa means positive results could substantially change the potential monetisation pathways for Sorpresa.”*

**Craig Riley**  
Managing Director

Figure 1: Northern Gold Location Plan



Figure 2: Northern Gold Sample Location Plan

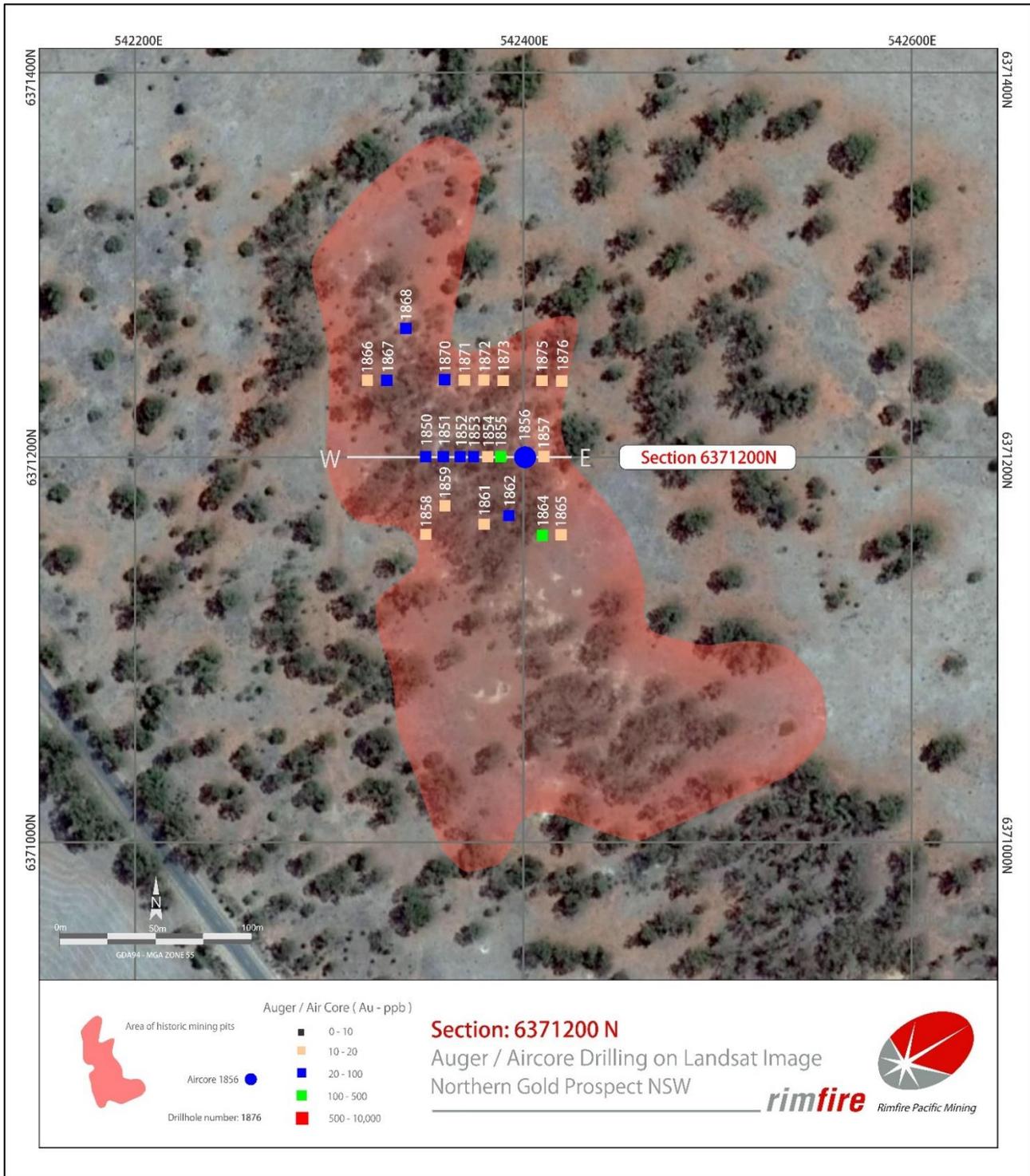
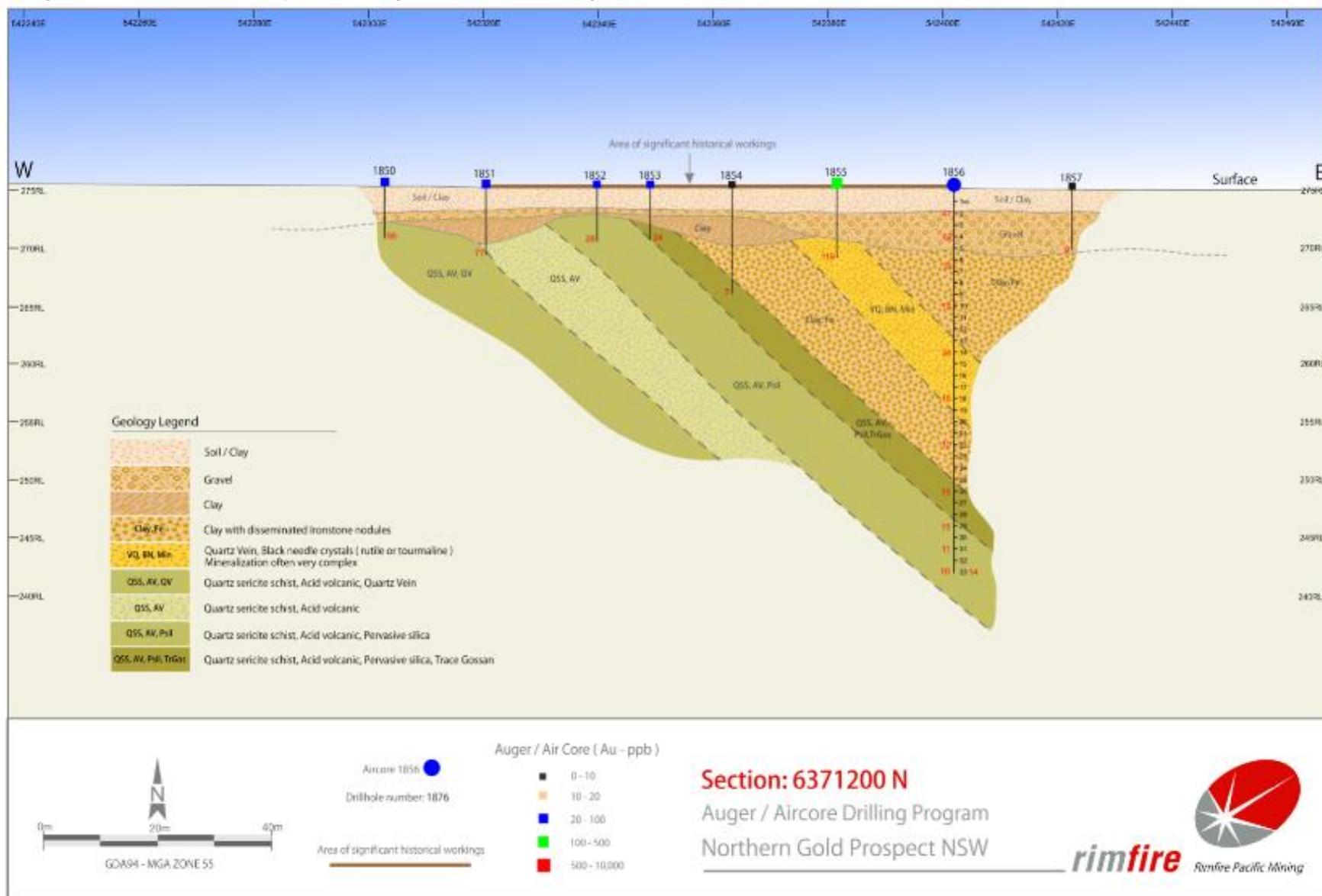
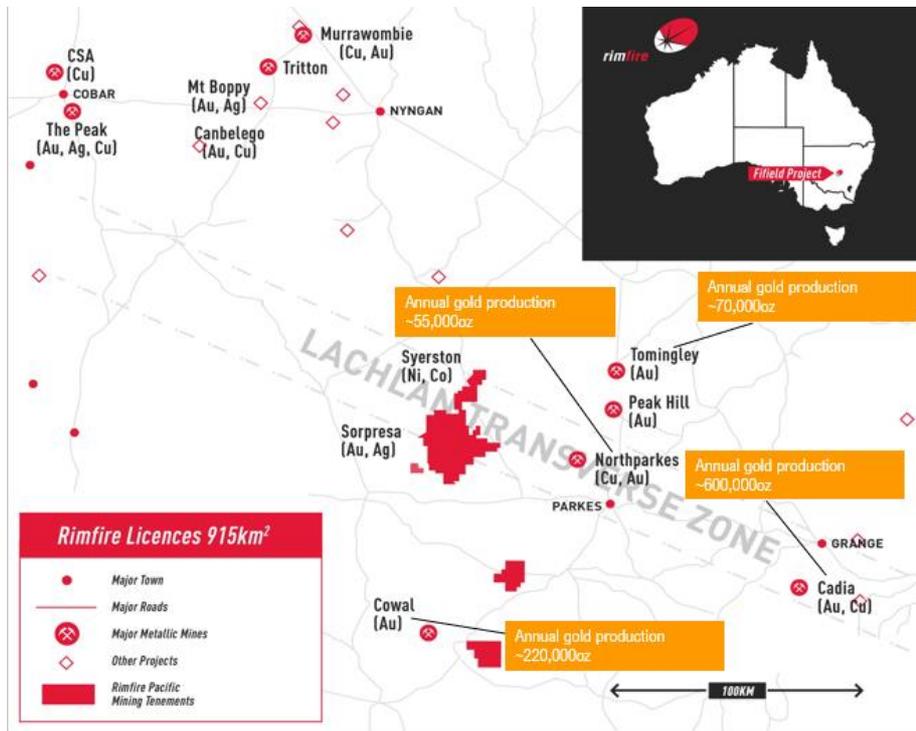


Figure 3: Northern Gold Interpreted Geological Section with Assays



**ABOUT RIMFIRE**

Rimfire Pacific Mining is an ASX listed (code: RIM) resources exploration company with its major focus at Fifield in central NSW, located within the Lachlan Transverse Zone (LTZ). In 2010~11 the Company made a greenfields gold and silver discovery, named “Sorpresa”, announcing a JORC Inferred & Indicated Maiden resource in 2014. The discovery history of Sorpresa is shown in the [ASX presentation to the Mineral Council May 2017](#). The information provided in “About Rimfire Pacific Mining section” is available to view on the company’s website: [ASX Announcements](#).



Multiple prospects involving hard rock potential for Gold, Silver, Copper and Platinum have been established within a >6km radius of the Sorpresa discovery at Fifield, which is part of Rimfires 681km² contiguous tenements. The project area is very accessible by bitumen road and only 4.5 hours drive from Sydney.

Rimfire was recently granted two exploration licences covering 234km²; located 40 to 60kms south of the Fifield Project, in a prospective area now locked up by government moratorium on new licences. The moratorium is associated with the MinEx Cooperative Research Centre program ([minexcrc.com.au](http://minexcrc.com.au))

Aspiration target scale in the wider Fifield District

The discovery aspiration ([established with New Gold Inc., during the 2017 earn-in venture](#)) for the Fifield area is an aggregate discovery outcome in excess of 4 million ounces of gold equivalent metal, being capable of supporting a mine life in excess of 10 years, and within the lower third of industry costs of production.

**Competent Persons Declarations**

*The information in the report to which this statement is attached that relates to Exploration and Resource Results is based on information reviewed and/or compiled by Todd Axford who is deemed to be a Competent Person and is a Member of The Australasian Institute of Mining and Metallurgy.*

*Mr Axford has over 23 years’ experience in the mineral and mining industry. Mr Axford is employed by Geko-Co Pty Ltd and is a consulting geologist to the Company. Todd Axford has sufficient experience that is relevant to the style of mineralisation and type of deposits 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’. Todd Axford consents to the inclusion of the matters based on the information in the form and context in which it appears.*

**Forward looking statements Disclaimer:**

*This document contains “forward looking statements” as defined or implied in common law and within the meaning of the Corporations Law. Such forward looking statements may include, without limitation, (1) estimates of future capital expenditure; (2) estimates of future cash costs; (3) statements regarding future exploration results and goals. Where the Company or any of its officers or Directors or representatives expresses an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and the Company or its officers or Directors or representatives as the case may be, believe to have a reasonable basis for implying such an expectation or belief. However, forward looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward looking statements. Such risks include, but are not limited to, commodity price fluctuation, currency fluctuation, political and operational risks, governmental regulations and judicial outcomes, financial markets and availability of key personnel. The Company does not undertake any obligation to publicly release revisions to any “forward looking statement”, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.*

**Table 2: JORC Code Reporting Criteria**

**Section 1 Sampling Techniques and Data – Surface Rock Samples, Auger and Aircore Drilling**

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.	Auger and aircore sampling Each sample represents a scooped sample of cuttings generated via augering or aircore drilling. Cuttings are visually assessed to determine the change from surface cover (if present) to instu material, at which point the sample is taken. The nature of the sample generation and collection process means the samples should be considered as indicative of grade rather than representative of a precise grade.
	Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.	The nature of auger sampling means samples should be considered as an indictive rather than precise measure, aimed at defining areas of anomalism. A blank sample and a reference standard were inserted into the sample sequence.
	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.	Industry standard preparation, including full sample pulverising prior to subsampling for assay, was undertaken. The field collected samples were typically in the order of 0.6 to 1.0kg.  25 g of pulverized sample was utilized for gold determination via Aqua Regia, and a smaller sub-sample utilised for multi-element assay.
Drilling techniques	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).	With the exception of one hole at Northern Gold drilled via Aircore, all samples were generated via augering. All holes were vertical.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No method applied due to the early stage of exploration aimed at defining anomalism rather than quantifying grade.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No method applied due to the early stage of exploration aimed at defining anomalism rather than quantifying grade.
	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.	Not applicable

Criteria	JORC Code explanation	Commentary
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.	Duplicate samples were collected for the purpose of geological logging, aimed primarily at assessing the litho type and confirming sample represents insitu material.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging of chips/rock samples is qualitative by nature.
	The total length and percentage of the relevant intersections logged.	Not applicable
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable
Sub-sampling techniques and sample preparation continued.	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Sample was scooped from cuttings.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Given the indicative nature of the sample medium (refer to sampling techniques section above) this process is considered appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All sampling equipment was cleaned between samples.
	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.	Field duplicates, blanks and standards were inserted in the sample stream submitted to the commercial laboratory. No issues have been identified.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered suitable for a qualitative assessment for indications 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.	Reported Gold was assayed via Aqua Regia  Aqua Regia is considered a partial method.
	For geophysical tools, spectrometers, handheld XRF instruments (fpXRF), etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable
	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.	A blank and a recognized Standard were inserted in the sample stream. The reported results for these samples are as expected.

Criteria	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	The verification of significant intersections by either independent or alternative company personnel.	All reported mineralised results have been reviewed by 2 company personnel.
	The use of twinned holes.	Not applicable
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data was recorded on field sheets at the sample site. Field data was digitized and loaded via Datashed in to the site database. Assay results were reported in a digital format suitable for direct loading into the database via Datashed.
	Discuss any adjustment to assay data.	No adjustments have been made.
<b>Location of data points</b>	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.	Sample locations are recorded using handheld Garmin GPS expected accuracy +/- 3m.
	Specification of the grid system used.	GDA94 zone55.
	Quality and adequacy of topographic control.	Handheld GPS, which is suitable for the early stage and broad spacing of this exploration.
<b>Data spacing and distribution</b>	Data spacing for reporting of Exploration Results.	Data spacing is controlled by the interpretation of the prospect and potential orientation of mineralisation. For data discussed in this report spacing varies from 10 to 50 metres.
	· 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.	Sampling is considered appropriate to identify 'broad' anomalous areas of potential mineralisation. Samples are not to be used in resource/reserve estimation.
	· Whether sample compositing has been applied.	No compositing has occurred
<b>Orientation of data in relation to geological structure</b>	· Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Given the early stage of exploration it is not yet known if sample spacing and orientation achieves unbiased results.
	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.	Not applicable
<b>Sample security</b>	The measures taken to ensure sample security.	Samples double bagged and delivered directly to the laboratory by company personnel.
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	No audits or reviews completed.

Section 2 Reporting of Exploration Results

<i>Criteria</i>	<i>JORC Code explanation</i>	<i>Commentary</i>
<b>Mineral tenement and land tenure status</b>	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 results all from 100% Rimfire Pacific Mining NL tenements at Fifield NSW, which may include EL5534, EL6241, EL7058, EL7959, EL5565, EL8401, EL8542, EL8543, MC(L)305, MC(L)306. All samples were taken on Private Freehold and / or Common Land (prescribed for mining). No native title exists. The land is used primarily for grazing and cropping.
	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 Department of Planning and Energy, Resources and Geoscience.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	No results are relied on from other parties in this report.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	The prospect areas lack geological exposure, available information indicates the bedrock geology across the project is a package of interbedded volcanoclastic and sedimentary rocks, with local porphyritic intrusives. Remnant surface rock in the sample areas is often resistive, highly silicified and variably gossanous and brecciated. The deposit type/style of mineralisation is not known at this early stage.
<b>Drill hole Information</b>	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:	The data for the single Aircore hole is included within the report.
	easting and northing of the drill hole collar	
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
<b>Drill hole Information Continued.</b>	dip and azimuth of the hole	The hole is vertical Individual sample results are included in the cross-section within the report. No intercepts are reported.
	down hole length and interception depth	
	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.	Not applicable

<i>Criteria</i>	<i>JORC Code explanation</i>	<i>Commentary</i>
<b>Data aggregation methods</b>	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.	No data aggregation
	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.	Not applicable
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal equivalents are not reported
<b>Relationship between mineralisation widths and</b>	· These relationships are particularly important in the reporting of Exploration Results.	Not applicable
	· 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 and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Not applicable
<b>Diagrams</b>	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.	Included within the report (or as appendices)
<b>Balanced reporting</b>	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.	All results are included on the plans and cross-section.
<b>Other substantive exploration data</b>	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.
<b>Further work</b>	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work is discussed in the document in relation to the exploration results.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable at this stage