

10 May 2022

ASX Announcement ASX Codes: SRN and SRNOC

# Perenjori West (100%)

# HIGH PRIORITY TARGETS IDENTIFIED

## **Key points**

- Initial assessment of poorly explored, concealed greenstone belt completed
- Interpretation of aeromagnetic data and historic exploration results has yielded 15 priority gold and base metal targets
- Previously unrecognised and unexplored ultramafic belt identified
- Project sits in the West Yilgarn Ni-Cu-PGE Province, host to the recently discovered Julimar PGE deposit
- Field work commenced to verify significant undrilled surface geochemistry gold anomalies and validate interpretation
- Work is prelude to planning more substantial surface geochemical surveys and possibly drilling

Surefire Resources NL ("Surefire", "the Company") wishes to report on the results of a review of historical data and interpretation of aeromagnetic surveys in this under-explored and underappreciated concealed greenstone belt.

Tenement E70/5572 was recently granted to Surefire (ASX:30 December 2021). The tenement covers a largely concealed greenstone of the Koolanooka Greenstone Belt in the southern Murchison Geological Province of the Archaean Yilgarn Craton of Western Australia (Figure 1).

Perenjori West lies within the West Yilgarn Ni-Cu-PGE Province, the focus of intense exploration and host to the recently discovered Julimar PGE deposit. Interpreted lithologies in this northwest trending belt include acid volcanics, basic volcanics that become more mafic towards the base of the sequence culminating in interpreted ultramafic units, and gneisses. The belt is constrained to the west by cratonic granites.

Previous explorers, including Anaconda, Sons of Gwalia, BHP, and CRA focused on the acid volcanic portion of the sequence, targeting gold and Golden Grove Volcanogenic Hosted Massive Sulphides (VMS) style base metal mineralisation. Mixed results and the weak gold price at the time saw interest in the belt wane, in spite of a number of highly anomalous BLEG gold anomalies remaining untested. Pervasive cover, mainly laterites and soils, further discouraged exploration.

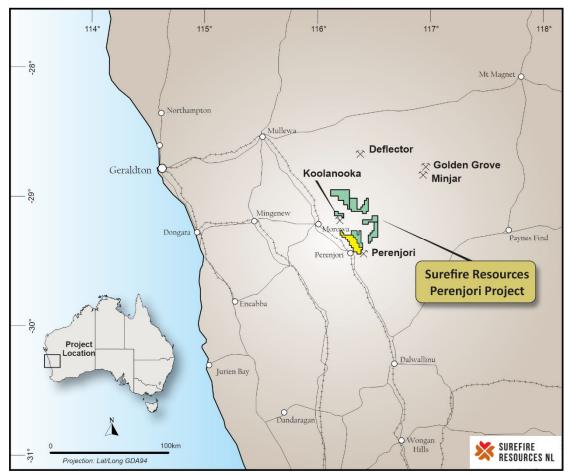


Figure 1 Perenjori West E70/5572 location (highlighted) – all tenements shown 100% owned by Surefire.

#### Gold anomalies to test

The last gold exploration undertaken in the area was poorly or not followed up due to the low stagnant gold price. Anomalous results from multiple surveys remain untested. The surveys were disparate and used varying assaying techniques. A summary of results, internally normalised to each surveys background values, are shown in Figure 3. The JORC Table sets out the normalisation procedure.

## New interpretation highlights prospectivity

The interpretation of publicly available aeromagnetic data has highlighted increasingly mafic lithologies in a basic volcanic package to the west (Figure 2). A number of felsic and mafic intrusives have also been identified that may relate to porphyry intrusive related or contact related, gold mineralisation. A number of craton-scaled north-west faults are recognised, with at least one of these likely to be a wide, long-lived shear zone conducive to structurally related gold.

This interpretation varies significantly from the GSWA published maps, particularly in detail relating to the presence and distribution of ultramafics in the western side of the mafic belt. While the historic explorers focused on the eastern acid volcanic unit as a possible host to Golden Grove style VMS base metals, the new interpretation opens up the prospectivity of the western ultramafics for Julimar-style nickel-copper-PGE mineralisation.

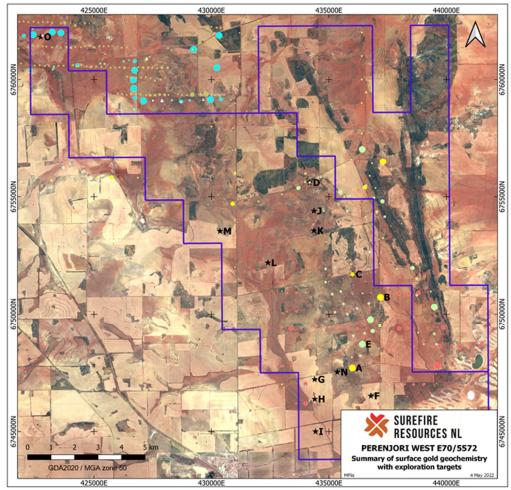


Figure 3 Perenjori West E70/5572: Summary of surface gold geochemistry anomalies. The larger symbols indicate the highest percentile of each survey. Refer to JORC Table 1.

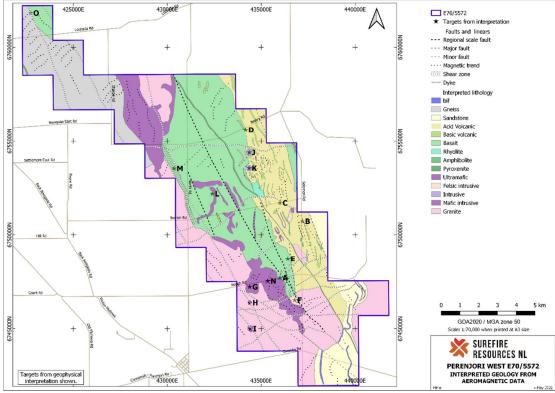


Figure 2 Perenjori West E70/5572: Geological interpretation of aeromagnetic data.

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## Field reconnaissance underway

Surefire has started the first phase of field reconnaissance on the lease. Targets identified from the aeromagnetic interpretation are being prospected to validate the interpretation and to directly sample the locations.

Historic gold anomalies are also being sampled to very historic results. The Company intends to undertake wider surface geochemical sampling of those reconnaissance samples that return anomalous assays as a prelude to planning for drill testing.

This announcement is issued under the authority of the Managing Director of Surefire Resources NL.

For further information, contact:

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**Managing Director** 

#### **Competent Person Statement**

The information in this report that relates to Mineral Resource is based on information compiled by Mr Marcus Flis who is a Fellow of the Australian Institute of Geoscientists. Mr Flis is an independent Principal Consultant at Rountree Pty Ltd. Mr Flis has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity that they are undertaking 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' and consents to the inclusion in this report of the matters based on their information in the form and context in which they appear.

#### Forward Looking Statements:

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

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# JORC Code, 2012 Edition: Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	<ul> <li>Historical Open file data BLEG samples completed by BHP.DMIRS WAMEX open file report A063335.</li> <li>Aeromagnetic data consists of historic surveys available on open file via the DMIRS' MAGIX system.</li> </ul>
Drilling techniques	Reverse Circulation drilling was completed using a face sampling hammer.
Drill sample recovery	No drilling is being reported.
Logging	No drilling is being reported.
Sub-sampling techniques and sample preparation	No drilling is being reported.
Quality of assay data and laboratory tests	Historic sampling techniques, quality control procedures, sample preparation, and assaying method are poorly described in historic reports
Verification of sampling and assaying	Historic data derived from historic reports and cannot be verified.
Location of data points	<ul> <li>Accuracy of sample locations is unknown.</li> <li>Grid system GDA94, MGA Zone 50.</li> </ul>
Data spacing and distribution	Sample data distribution is generally of a reconnaissance nature and not considered sufficient to cover the tenement.
Orientation of data in relation to geological structure	<ul> <li>Data samples were obtained where possible and not cognisant of geology and/or structures.</li> </ul>
Sample security	Unknown.
Audits or reviews	Data presented is based on WAMEX publicly available reports.

# **Section 2: Reporting of Exploration Results**

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Mineral tenement and land tenure status	Located approximately 300km north of Perth in the mid-west region of Western Australia.
	• E 70/5572 is a recently granted tenement held 100% by Surefire Resources Pty Ltd.
	• Surefire sees no impediment to advancing this exploration licence to a mining lease should it be successful in discovering economic mineralisation.
Exploration done by other parties	Dominion Gold  Dominion undertook soil sampling with follow up RAB and RC drilling in tenements to the south. While Dominions tenement holdings included the southern portion of E70/5572 no work was one there (Bradley, 2008). A key learning from this work was that auger sampling, to get below transported cover, was very effective. Preference was given to collecting nodular calcrete, although rare in some areas, or in the absence of calcrete, laterite, lag and then soil.
	Anaconda Australia Inc

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#### <u>Criteria</u> Commentary

During 1981 – 1983 Anaconda investigated the area for a Golden Grove style felsic hosted (VMS) polymetallic massive sulphides. They undertook the following work (Edwards, 1984):

- geological mapping at 1:10,000 scale
- aeromagnetic surveying at a 250m line spacing with a 70m agl sensor height
- 101 line km of reconnaissance SIOTEM ground moving loop EM survey at a line spacing of 200m
- 105 line kilometres of 25x200m ground magnetic surveying
- 5 line kilometres of gravity surveying over picked EM anomalies
- 70 pisolite samples
- RAB drilling of 16 SIROTEM anomalies and 2 pisolite anomalies for 1,278m of rotary and 306m of hammer
- Five RC holes for 388m to depths ranging from 18m to 64m None of this data is in digital form, though some has been recovered for this report. Importantly, the focus was on base metals and gold was not assayed for. It was concluded that:
  - i) No significant base or precious metals were discovered within the central section of the felsic pile at Perenjori
  - The noisey magnetic background inherent in amphibolite facies metamorphism and strong regional gradient from adjacent bif reduced the effectiveness of aeromagnetics for all but the strongest of anomalies
  - iii) A major aeromagnetic anomaly under salt lake cover to the south remains untested
  - iv) Sirotem could not differentiate saline aquifers from sulphide conductors although anomalies were easily screened by RAB geochemistry. Repeating the survey several months later shows different characteristics for aquifers.

Anaconda dropped the ground after this work.

#### **BHP-Utah**

BHP undertook regional soil sampling surveys over a large portion of the lease. These consisted of auger samples (1 to 2m deep), pisolite, stream sediment, and standard soil samples. An 800x400m soil auger sampling survey over the central portion of the lease. Ground magnetic surveys were undertaken over distinct magnetic features which were interpreted as kimberlite pipes in 1985. Whilst drilling was recommended, no evidence of it having been done is recorded (Label, 1985).

#### **CRA Exploration Pty Ltd**

During 1987-8 CRAE undertook a cyanide leach surface geochemistry survey of previously defined pisolite anomalies from a study done by Anaconda for base metals. This survey identified gold anomalies up to 2.95ppb. These were followed up with 146 RAB holes for 2,010m with an average depth of about 18m. These returned only very subtle anomalism with a maximum gold intercept of 0.055ppm gold which coincided with the highest surface sampling result (Jackson, 1988).

#### Sons of Gwalia NL

Sons of Gwalia undertook geological mapping, and soil and rock chip sampling (Fotios, 1991), followed by RAB drilling (140 holes for 1,028m) and aeromagnetic surveying (200m line spacing, 60m sensor height). These activities were mostly

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Criteria	Commentary
Geology  Drill hole Information Data aggregation methods	centred on the Koolanooka synform and north of it, though some work overlapped E70/5572 to the east. Only low level gold was obtained in results.  Devereux Nominees Pty Ltd In 2000, Devereux Nominees commissioned Continental Resource Management Pty Ltd to undertake a review of all previous exploration data. Many of the geochemical datasets were obtained from this report.  • Gold mineralisation at the project is orogenic, hosted within quartz veining with minor sulphides in ultramafic/mafic lithologies and felsic porphyry intrusions.  • No drilling has been undertaken.
Relationship between mineralisation widths and intercept lengths	<ul> <li>Historic surface geochemical surveys were assessed. These consisted of:         <ul> <li>Greenbushes/St Joe/Sons of Gwalia Laterite sampling</li> <li>CRA soil sampling</li> <li>BHP soil sampling</li> <li>BHP BLEG stream samples</li> </ul> </li> <li>To assess any significant influences attributable to soil type or landform regimes on metal responses, background values were calculated for samples allocated to each soil or landform category. After interrogation, the compatibility of the individual data sets was shown to be suspect. Consequently a number of sub-sets were established within the BHP database to allow normalisation, processing and interpretation.</li> </ul> <li>For each element, a background was calculated using the following methodology:         <ul> <li>Each element was selected individually and the lowest 25% of the data for all the samples analysed within the Survey Area was identified.</li> <li>Any values less than the detection limit was included and a value half of the detection limit was substituted as an estimate value.</li> <li>After determining the lowest quartile (25%) of the data, the average of these values was then calculated. This was assigned as the BACKGROUND value for that element within the specific data set of the Survey Area.</li> <li>Response Ratios were calculated for individual samples by dividing each raw value by the predetermined background value for that element. The numbers were then rounded to give whole numbers greater than or equal to one.</li> <li>The displayed assay values are therefore dimensionless and have no units</li> </ul> </li> <li>No drilling has been undertaken.</li>
Diagrams	The data has been presented using appropriate scales.  No delivers have been presented using appropriate scales.
Balanced reporting	<ul> <li>No drilling has been undertaken to necessitate cross sections.</li> <li>The reporting is presented as being a fair representation of previous explorer's results.</li> </ul>
Other substantive exploration data	<ul> <li>Regional geology has been sourced from GSWA data and historic reports.</li> <li>No new exploration data has been generated at this time apart from the stated interpretation of publicly available aeromagnetic data.</li> </ul>
Further work	Reconnaissance prospecting is underway. This includes resampling of historic geochemical anomalies to check historic results.