

## ASX ANNOUNCEMENT 14 October 2024

# Exceptional Gold Recoveries from Star of Mangaroon - Mangaroon Au (100%)

## HIGHLIGHTS

- Five composite samples representing various grades from the Star of Mangaroon were submitted to determine recoveries from standard gravity and carbon in leach (“CIL”) circuits.
- The results are exceptional with:
  - Combined gravity and leach recoveries averaging 96.7% and up to 99.5%
  - High gravity recovery averaging 74.4% and up to 85.2%
- Test work confirms that mineralisation at the Star of Mangaroon is free milling (non-refractory) and amenable to conventional cyanide extraction methods with a strong gravity recovery component. Additional strengths include:
  - Rapid leach kinetics with extraction largely completed within 8 hours.
  - Low cyanide and moderate lime consumption on all tests.
- Metallurgical results will provide positive input to a scoping study for an open pit at the Star of Mangaroon deposit. An initial Mineral Resource for the deposit is on track for in November 2024.

**Dreadnought Resources Limited (“Dreadnought”) is pleased to announce exceptional metallurgical test results from the Star of Mangaroon part of the 100% owned Mangaroon Gold Project, located in the Gascoyne region of Western Australia.**

Dreadnought’s Managing Director, Dean Tuck, commented: “These metallurgical results highlight the quality of the mineralisation at the Star of Mangaroon and strongly support our strategy to transform into a self-funded explorer. Initially, this involves a potential high-grade open pit at the Star of Mangaroon where we outsource funding, development, haulage & processing to third parties. We will then look to extend this concept to Popeye, Two Peaks, Lead, Pritchard Well and so on. This strategy allows us to focus on exploration and growth while “outsourcing” our cash-flow generating activities. These exceptional metallurgical results will be included in the initial open-pit Mineral Resource in November 2024 which will be promptly followed by completion of a scoping study.”



Figure 1: Image of panned gold from SOMRC004 16-17m which assayed 19.8g/t Au. Field of view ~5cm.

### **Metallurgical Test Work - Star of Mangaroon Planned Open Pit**

The metallurgical program assessed conventional gravity and CIL gold recovery at a range of grind sizes (212µm, 150µm, 106µm, 75µm). The results confirm that exceptional gold recoveries are achieved using conventional gravity and CIL processing.

Key results after 48 hours were:

- Combined gravity and leach recovery averaged 96.7% across all grind sizes and 98.6% at 75µm grind size.
- Gravity gold recovery averaged 74% at 212 µm grind size.
- Rapid leach kinetics with extraction largely completed within 8 hours.
- Low cyanide and moderate lime consumption on all tests.

The test work was carried out on a total of five composite samples from the 2023 Star of Mangaroon RC drilling program which were selected to represent a range of head grades and locations within the planned open pit (Table 1 and Figure 2). The tests were conducted using Perth tap water (Composite S1) and site water from the Paulsens Gold Operation (Composites S2-S5). The program was completed by independent metallurgical consultants Strategic Metallurgy.

Additional metallurgical and geotechnical test work is underway with the recently drilled diamond core.

**Table 1: Summary table of the gravity recoverable gold test work.**

Composite ID	Grind Size (µm)	Head Grade (g/t)	Gravity Gold Recovery (%)	Gold Extraction (%)				Reagent Consumption	
				4 hrs	8 hrs	24 hrs	48 hrs	Cyanide (kg/t)	Lime (kg/t)
S1	212	5.91	55.6	87.6	88.9	91.1	91.1	0.30	1.44
	150			92.3	94.0	95.1	95.1	0.33	1.33
	106			96.4	96.4	96.4	96.4	0.34	1.83
	75			97.1	97.1	97.4	97.4	0.31	2.10
S2	212	15.5	85.2	94.0	96.4	97.4	97.4	0.25	0.21
	150			97.5	98.3	98.3	98.3	0.15	0.31
	106			98.1	99.3	99.4	99.4	0.08	0.35
	75			99.0	99.5	99.5	99.5	0.18	0.43
S3	212	6.57	76.0	76.5	78.5	79.1	79.1	0.53	1.43
	150			92.9	95.3	95.3	96.0	0.37	1.43
	106			95.6	98.0	98.6	98.6	0.30	1.26
	75			98.1	98.7	98.7	98.7	0.58	1.33
S4	212	22.5	84.6	90.3	92.7	95.7	96.8	0.65	1.71
	150			92.0	94.7	97.7	98.9	0.90	1.67
	106			92.2	94.1	97.5	98.3	0.66	1.66
	75			93.0	95.0	98.7	98.8	0.66	1.98
S5	212	4.59	70.4	94.5	96.2	97.9	98.2	0.34	1.50
	150			94.0	95.7	98.3	98.3	0.33	1.15
	106			95.5	97.1	98.3	98.3	0.23	1.17
	75			95.6	97.2	98.4	98.4	0.33	1.27
<b>Average</b>		<b>11.01 g/t</b>	<b>74.4%</b>	<b>93.6%</b>	<b>95.2%</b>	<b>96.4%</b>	<b>96.7%</b>	<b>0.39</b>	<b>1.28</b>





## Gravity Recovery

Gravity tests simulated the gravity recovery stage of a conventional milling circuit. Samples were ground using a laboratory rod mill and the resultant feed was upgraded using a Falcon concentrator. Results showed high gravity recoveries as shown below.

Gravity recoveries range from 55-85% with an average gravity recovery of 74% using a coarse grind size of 212µm. Recoveries were highest with the high grade S2 and S4 composites, however all results are well above industry averages and reflect the high-grade and coarse nature the gold in the deposit.

## CIL Leaching

Cyanide leach tests were carried out at four different grind sizes using the gravity tails to characterise the performance at different grind sizes. Samples were milled and then transferred to a bottle where cyanide and lime were added to achieve the required pH of 10. The favourable leach extraction and associated reagent consumption results are shown in table below:

Results from all samples show:

- Excellent overall recoveries;
- Rapid leach kinetics with extraction largely completed within 8 hours; and
- Low cyanide and moderate lime consumption.

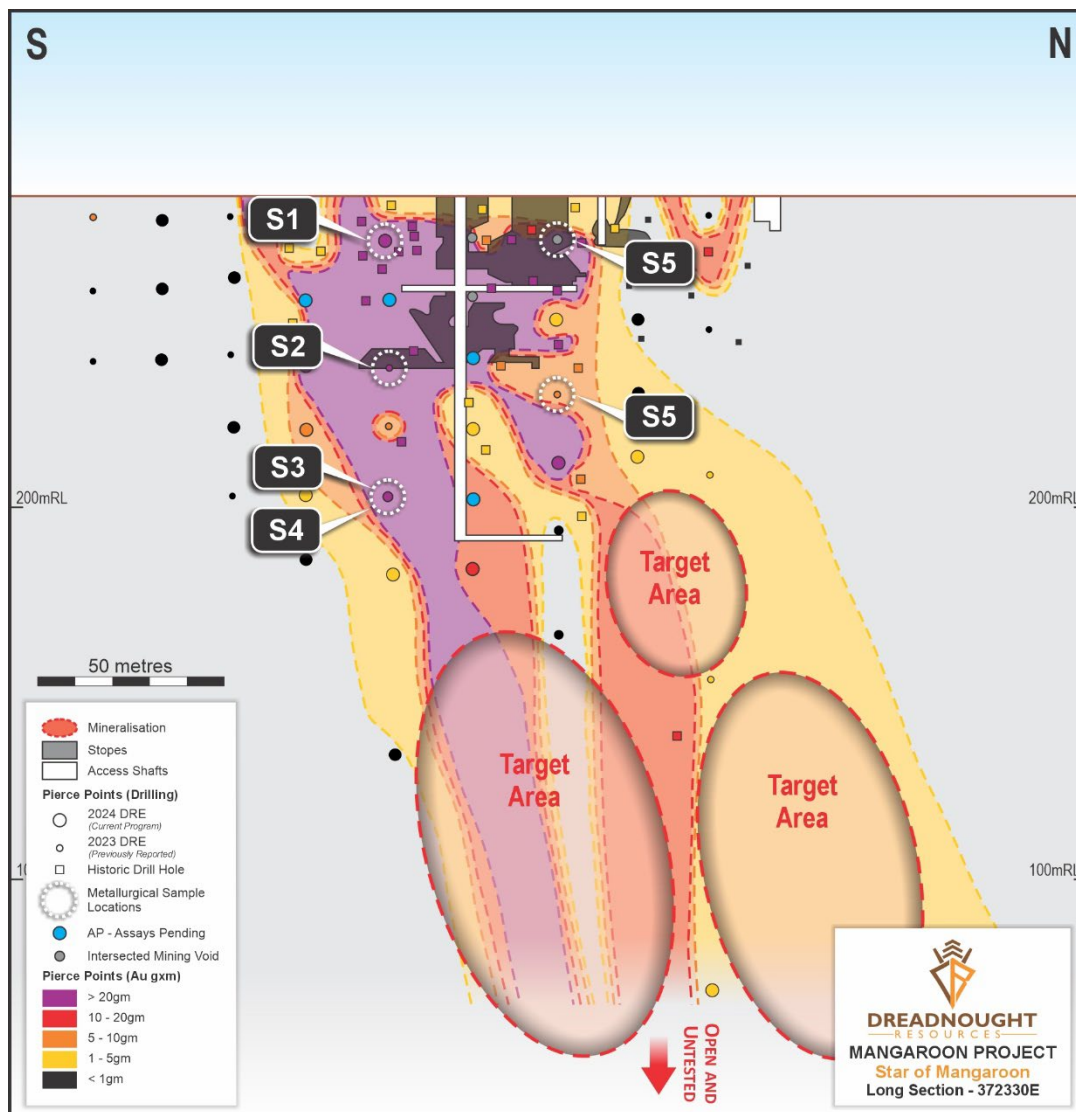


Figure 2: Long Section through the Star of Mangaroon showing the location of metallurgical samples.

## **SNAPSHOT – MANGAROON GOLD (100%)**

### **Mangaroon Gold is 100% Owned by Dreadnought**

- Mangaroon covers >5,300km<sup>2</sup> with an initial focus on the ~15km x 10km gold system situated over the Mangaroon Shear Zone between the crustal scale Minga Bar and Edmund Faults with multiple phases of intrusions. Numerous historical workings along the Mangaroon Shear Zone have only seen limited, shallow drilling along ~200m of strike near the Star of Mangaroon mine.

### **Self-Funded Explorer Strategy**

- Dreadnought's strategy is to transform into a self-funded explorer. This involves a potential high-grade open pit at the Star of Mangaroon where we outsource funding, development, haulage & processing to third parties. This is a common model in WA given the robust gold price. Once successful, extend this model concept to Popeye, Two Peaks, Lead, Pritchard Well, etc. In this way, we reduce reliance on market funding and generate our own cashflow aimed at making life changing discoveries.

### **Consolidation Provides for First Ever Modern Exploration**

- All historical workings and known gold occurrences relate to outcropping mineralisation. There has been minimal historical and modern exploration due to fractured, small-scale ownership with Dreadnought now undertaking modern exploration for the first time.

### **Genuine Camp Scale Potential**

- Five historical mines developed on outcropping mineralisation and dozens of gold occurrences along highly prospective structural corridors.

### **Significant, Step-change, Growth Potential**

- Dreadnought is deploying modern geochemical and geophysical techniques to explore for mineralisation under shallow cover.
- Initial geochemical and geophysical surveys have generated new prospects with stronger and larger signatures than the historical mines, including the region's largest high-grade producer at the Star of Mangaroon mine.
- Project wide stream sediment sampling and geophysical surveys have identified additional camp scale prospects at Bordah and High Range.

### **Shallow, High-grade, Au-Ag Potential**

- The Star of Mangaroon deposit contains significant shallow high-grade gold intersections including (ASX: 6 Jun 2023, 4 Sep 2023, 11 Dec 2023, 22 Jan 2024):

MA10: 4m @ 26.0 g/t Au from 9m

MA17: 7m @ 14.3 g/t Au from 21m

SOMRC004: 9m @ 13.4 g/t Au from 9m

SOMRC005: 7m @ 23.0 g/t Au from 53m

SOMRC006: 8m @ 15.5 g/t Au from 89m

SOMDD001: 1.4m @ 87.9 g/t Au from 16m

- Popeye, located <1km from the Star of Mangaroon, contains significant shallow high-grade gold intersections including:

POPRC001: 3m @ 22.8 g/t Au from 13m

POPRC002: 1m @ 1.6 g/t Au, 15.5g/t Ag from 11m

- Rock chip results from regional prospects and historical workings include:

MNRK0515: 74.8 g/t Au (Diamond)

TPRK05: 41.7 g/t Au (Two Peaks)



**Background on Mangaroon (E8/3178, E08/3229, E08/3274, , E08/3275, E08/3439, E09/2290, E09/2359, E09/2370, E09/2384, E09/2405, E09/2422, E09/2433, E09/2448, E09/2449, E09/2450, E09/2467, E09/2473, E09/2478, E09/2535, E09/2616, M09/91, M09/146, M09/147, M09/174, M09/175: 100%)**

Mangaroon (Figure 5) covers >5,300km<sup>2</sup> of the Mangaroon Zone in the Gascoyne Region of Western Australia and is comprised of:

- >45km long Money Intrusion (Ni-Cu-Co-PGE): containing high tenor magmatic Ni-Cu-Co-PGE.
- ~10km x 15km Mangaroon Gold Camp (Au, Cu-Zn-Ag-Au): where fractured, small-scale ownership has limited previous gold exploration with only ~200m of the >12km long Mangaroon Shear Zone having been drilled.
- ~43km long Yin Ironstone (REE): which already contains: an independent Resource of 20.06Mt @ 1.03% TREO (ASX 5 Jul 2023) over only ~4km of the ~43km of ironstones including an initial Indicated Resource of 5.52Mt @ 1.23% TREO over only ~250m of strike (ASX 5 Jul 2023).
- ~17km long Gifford Creek Carbonatites (REE-Nb-Ti-P-Sc): which contains a suite of critical minerals and an initial independent Inferred Resource of 10.84Mt @ 1.00% TREO at C3 (ASX 28 Aug 2023).

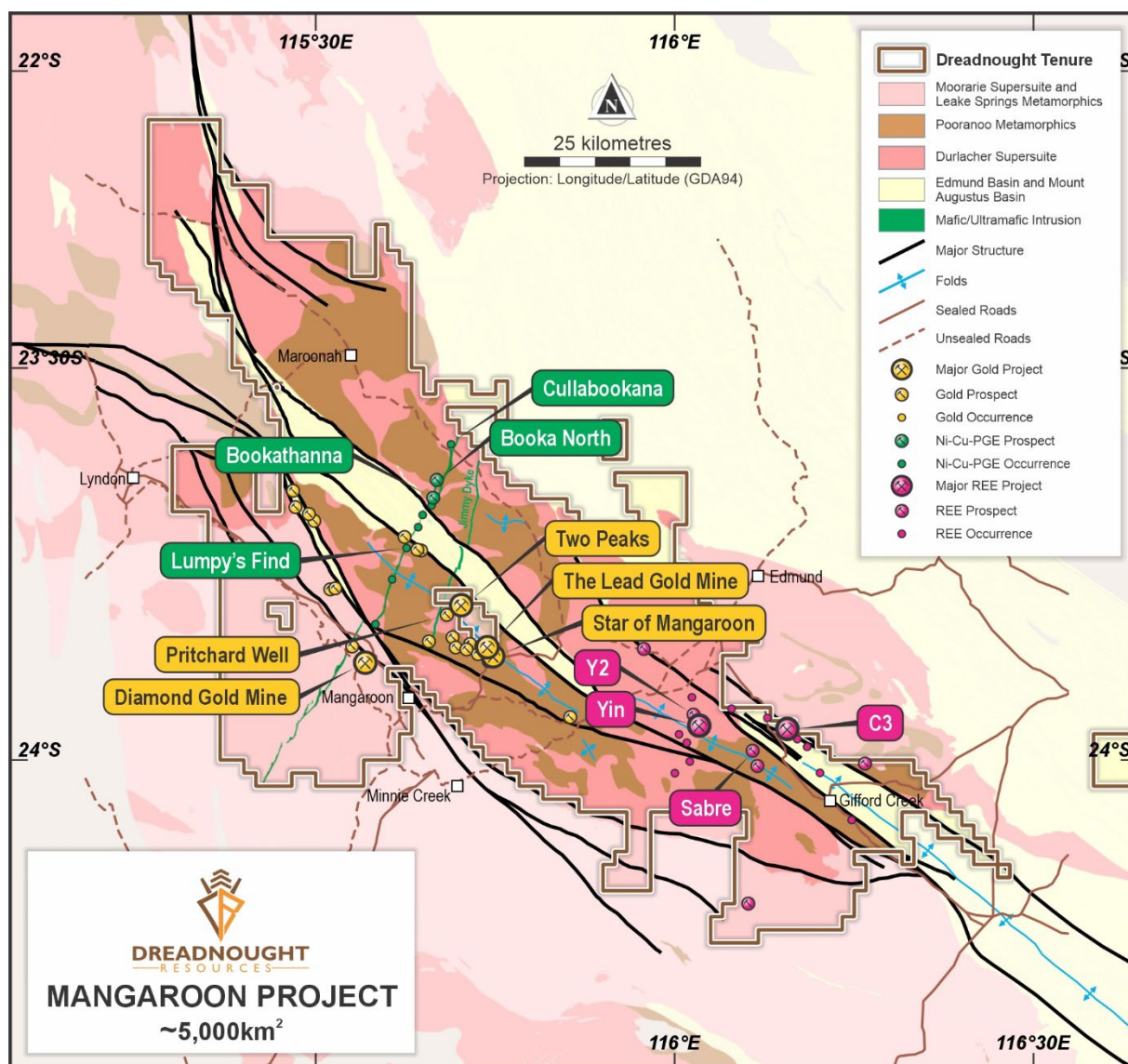


Figure 3: Plan view map of Dreadnought's 100% owned Mangaroon projects: the >45km long Money Intrusion (Ni-Cu-Co-PGE); the ~10km x 15km Mangaroon gold camp (Cu-Zn-Ag-Au); Yin Ironstone Complex (REE) and the Gifford Creek Carbonatites (REE-Nb-Ti-P-Sc) in relation to major structures, geology and roads.

For further information please refer to previous ASX announcements:

- 25 November 2020 *Mangaroon Ni-Cu-PGE & Au Project*
- 15 March 2021 *Exploration Commences at Mangaroon Ni-Cu-PGE & Au Project*
- 7 April 2021 *Option/JV Agreement Signed with Global Base Metal Miner*
- 17 May 2021 *Update on Mangaroon Ni-Cu-PGE & Au Project*
- 12 September 2022 *Star of Mangaroon Acquisition & Consolidation*
- 7 June 2023 *Mangaroon Gold Review and Further Consolidation*
- 4 September 2023 *Outstanding Gold Opportunities Along >10km Mangaroon Shear Zone*
- 1 November 2023 *Gold Drilling Commenced at Star of Mangaroon*
- 11 December 2023 *Thick, High-Grade Gold Including 7m @ 23.0g/t Au*
- 22 January 2024 *Star of Mangaroon Extended*
- 12 February 2024 *Star of Mangaroon Camp Scale Prospect Continues to Expand*
- 13 March 2024 *Star of Mangaroon Camp Scale Gold Prospect Expands to ~15km x 10km*
- 26 July 2024 *Strategic & Prospective Consolidation*
- 26 July 2024 *Consolidation, Growth & Commercialisation*
- 1 October 2024 *Shallow, High-Grades at Star of Mangaroon & Popeye*

## UPCOMING NEWSFLOW

October: Results of further target generation and definition work at Mangaroon Au (100%)

October: Results from EIS co-funded IP surveys at Tarraji-Yampi (80%/100%)

October/November: Results from Au and Cu-Au-Zn-Ag drilling at Mangaroon (100%)

October/November: Results from airborne geophysical surveys at Mangaroon (100%)

October/November: Results from diamond drilling at the Star of Mangaroon (100%)

November: Initial Mineral Resource for Star of Mangaroon (100%)

October: Quarterly Activities and Cashflow Report

28 November: Annual General Meeting

~Ends~

For further information please contact:

**Dean Tuck**

Managing Director

Dreadnought Resources Limited

E: [dtuck@dreres.com.au](mailto:dtuck@dreres.com.au)

**Jessamyn Lyons**

Company Secretary

Dreadnought Resources Limited

E: [jlyons@dreres.com.au](mailto:jlyons@dreres.com.au)

*This announcement is authorised for release to the ASX by the Board of Dreadnought.*





## Cautionary Statement

*This announcement and information, opinions or conclusions expressed in the course of this announcement contains forecasts and forward-looking information. Such forecasts, projections and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. There are a number of risks, both specific to Dreadnought, and of a general nature which may affect the future operating and financial performance of Dreadnought, and the value of an investment in Dreadnought including and not limited to title risk, renewal risk, economic conditions, stock market fluctuations, commodity demand and price movements, timing of access to infrastructure, timing of environmental approvals, regulatory risks, operational risks, reliance on key personnel, reserve estimations, native title risks, cultural heritage risks, foreign currency fluctuations, and mining development, construction and commissioning risk.*

## Competent Person's Statement – Exploration Results and Exploration Targets

*The information in this announcement that relates to geology, exploration results and planning, and exploration targets was compiled by Mr. Dean Tuck, who is a Member of the AIG, Managing Director, and shareholder of the Company. Mr. Tuck has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Tuck consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.*

*The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.*

## Competent Person's Statement – Metallurgical Results

*The information in this report that relates to metallurgy and the processing response is based on and fairly represents information compiled or reviewed by Mr Nick Vines. Mr Vines is a full-time employee of Strategic Metallurgy Pty Ltd. Mr Vines has confirmed that he has read and understood the requirements of the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Vines is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years' experience which is relevant to the processing method and type of deposit under consideration and to the activity for which he is accepting responsibility. Mr Vines is a Member of the AusIMM and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.*

## INVESTMENT HIGHLIGHTS

### Mangaroon Au, Nb-REE, Ni-Cu-PGE Project (100%)

Mangaroon covers ~5,300kms<sup>2</sup> and is located 250kms south-east of Exmouth in the Gascoyne Region of WA. At Mangaroon, Dreadnought has consolidated areas of outcropping high-grade gold and historical high grade gold mines including the historic Star of Mangaroon and Diamond gold mines. Exploration at the Money Intrusion has identified high tenor Ni-Cu-PGE sulphides. In addition, Mangaroon has emerged as a globally significant, rapidly growing, potential source of critical minerals. Highlights include:

- An independent Resource for Yin Ironstones Complex of 29.98Mt @ 1.04% TREO over only ~4.6kms – including a Measured and Indicated Resource of 26.3Mt @ 1.04% TREO (ASX 30 Nov 2023).
- Discovery of the globally significant, Nb-REE-P-Ti-Sc enriched Gifford Creek Carbonatite (ASX 7 Aug 2023).
- A large, independent initial Resource of 10.84Mt @ 1.00% TREO at the Gifford Creek Carbonatites, containing a range of critical minerals including rare earths, niobium, phosphate, titanium and scandium (ASX 28 Aug 2023).

### Kimberley Ni-Cu-Au Project (80/100%)

The project is located only 85kms from Derby in the West Kimberley region of WA and was locked up as a Defence Reserve since 1978.

The project has outcropping mineralisation and historical workings which have seen no modern exploration.

Results to date indicate that there may be a related, large scale, Proterozoic Cu-Au VMS system at Tarraji-Yampi, similar to DeGrussa and Monty in the Bryah Basin.

### Central Yilgarn Gold, Base Metals, Critical Minerals & Iron Ore Project (100%)

Central Yilgarn is located ~190km northwest of Kalgoorlie in the Yilgarn Craton. The project comprises ~1,400kms<sup>2</sup> covering ~150km of strike along the majority of the Illaara, Yerilgee, South Elvire and Evanston greenstone belts. Central Yilgarn is prospective for typical Archean mesothermal lode gold deposits, VMS base metals, komatiite-hosted nickel sulphides and critical metals including Lithium-Cesium-Tantalum.

Prior to consolidation by Dreadnought, the Central Yilgarn was predominantly held by iron ore explorers and remains highly prospective for iron ore.

### Bresnahan HREE-Au-U Project (100%)

Bresnahan is located ~125km southwest of Newman in the Ashburton Basin. The project comprises ~3,700kms<sup>2</sup> covering over 200kms strike along the Bresnahan Basin / Wyloo Group unconformity. Bresnahan is prospective for unconformity related heavy rare earth (“HREE”) deposits similar to Browns Range HREE deposits, unconformity uranium (“U”) deposits and mesothermal lode gold similar to Paulsens Au-Ag-Sb deposits along strike.

Prior to consolidation by Dreadnought, the Bresnahan Basin had been successfully explored for unconformity uranium with limited exploration for mesothermal gold. Bresnahan is a first mover opportunity to explore for unconformity HREE.





**Table 2: Significant Intersections >0.3g/t Au with >10g/t Au highlighted.**

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Prospect
SOMRC004	9	18	9	13.4	Star of Mangaroon
incl	16	18	2	59.4	
SOMRC005	53	60	7	23.0	
incl	54	57	3	48.9	
SOMRC006	89	97	8	15.5	
incl	90	93	3	30.4	
SOMRC007	19	20	1	4.0	
SOMRC008	68	70	2	4.8	

**Table 3: Drill Collar Data (GDA94 MGAz50)**

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Type
SOMRC004	372324	7359784	284	-60	274	36	RC
SOMRC005	372362	7359779	284	-61	274	84	RC
SOMRC006	372403	7359783	283	-61	272	114	RC
SOMRC007	372332	7359823	284	-59	272	42	RC
SOMRC008	372376	7359824	284	-58	273	90	RC

## JORC Code, 2012 Edition – Table 1 Report Template

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<p>Reverse Circulation (RC) and Diamond (DD) drilling was undertaken to produce samples for assaying.</p> <p><b>RC Drilling</b></p> <p>Two sampling techniques were utilised for the RC drilling. 1m metre splits directly from the rig sampling system for each metre and 3m composite sampling from spoil piles. Samples submitted to the laboratory were determined by the site geologist.</p> <p><b>1m Splits</b></p> <p>From every metre drilled a 2-3kg sample (split) was sub-sampled into a calico bag via a Metzke cone splitter from each metre of drilling.</p> <p><b>3m Composites</b></p> <p>All remaining spoil from the sampling system was collected in buckets from the sampling system and neatly deposited in rows adjacent to the rig. An aluminium scoop was used to then sub-sample each spoil pile to create a 2-3kg 3m composite sample in a calico bag.</p> <p>A pXRF is used on site to help determine mineralised samples. Mineralised intervals have the 1m split collected, while unmineralised samples have 3m composites collected.</p> <p>Select samples are also submitted for 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61) to assist with lithological interpretation.</p> <p>QAQC samples consisting of duplicates, blanks and CRM's (OREAS Standards) are inserted through the program at a rate of 1:50 samples.</p> <p><b>Metallurgical Composites</b></p> <p>Primary B bags (~2-3kgs each) that were not used for duplicate analysis were combined to create the Composite samples for metallurgical test work.</p> <p>Once samples were composited, each sample was stage crushed to &lt;3.35mm, homogenized and split via a rotary sample divider to create 1kg test charges.</p> <p>Head samples were split from one of the test charges for head assays with each sample being submitted 2-4 times for</p>

Criteria	JORC Code explanation	Commentary
		gold analysis vis fire assay and atomic absorption spectrometry.
Drilling techniques	<ul style="list-style-type: none"> <li>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.).</li> </ul>	<p><b>RC Drilling</b></p> <p>The first 3 drill holes were completed by Ausdrill utilising a Drill Rigs Australia truck mounted Schramm T685WS drill rig with additional air from an auxiliary compressor and booster. Bit size was 5 3/4".</p> <p>The remaining drill holes were completed by Topdrill utilising a Schramm T685WS drill rig with additional air from an auxiliary compressor and booster. Bit size was 5 1/2 ".</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<p><b>RC Drilling</b></p> <p>Drilling was undertaken using a 'best practice' approach to achieve maximum sample recovery and quality through the mineralised zones.</p> <p>Best practice sampling procedure included: suitable usage of dust suppression, suitable shroud, lifting off bottom between each metre, cleaning of sampling equipment, ensuring a dry sample and suitable supervision by the supervising geologist to ensure good sample quality.</p>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p><b>RC Drilling</b></p> <p>RC chips were logged under the supervision of a Senior Geologist with sufficient experience in this geological terrane and relevant styles of mineralisation using an industry standard logging system which could eventually be utilised within a Mineral Resource Estimation.</p> <p>Lithology, mineralisation, alteration, veining, weathering and texture were all recorded digitally.</p> <p>Chips were washed each metre and stored in chip trays for preservation and future reference.</p> <p>RC pulp material is also analysed on the rig by pXRF, and magnetic susceptibility meter to assist with logging and the identification of mineralisation.</p> <p>RC logging is qualitative, quantitative or semi-quantitative in nature.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p><b>RC Drilling</b></p> <p>From every metre drilled, a 2-3kg sample (split) was sub-sampled into a calico bag via a Metzke cone splitter.</p> <p>QAQC in the form of duplicates and CRM's (OREAS Standards) were inserted through the ore zones at a rate of 1:50 samples. Additionally, within mineralised zones, a duplicate sample was taken and a blank inserted directly after.</p> <p>2-3kg samples are submitted to ALS laboratories (Perth), oven dried to 105°C and crushed to &gt;90% passing 3mm to produce a 500g charge for determination of gold PhotonAssay from crushed sample (ALS Method Au-PA01).</p> <p>Additional material is then pulverised to 85% passing 75 µm to produce a 0.25g charge for determination of 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61).</p> <p>Standard laboratory QAQC is undertaken and monitored.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>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.</li> </ul>	<p><b>Laboratory Analysis</b></p> <p>PhotonAssay is considered a total analysis and Method Au-PA01 is appropriate for Au determination. ME-MS61 is considered a near total digest and is appropriate for pathfinder determination.</p> <p>Standard laboratory QAQC is undertaken and monitored by the laboratory and by the company upon assay result receipt.</p>



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p><b>Logging and Sampling</b></p> <p>Logging and sampling were recorded directly into a digital logging system, verified and eventually stored in an offsite database.</p> <p>Significant intersections are inspected by senior company personnel.</p> <p>2 historical RC holes have been diamond twinned and 1 RC twinned to compare and validate historical RC drilling.</p> <p>No adjustments to any assay data have been undertaken.</p>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>Collar position was recorded using a Emlid Reach RS2 RTK GPS system (+/- 0.2m x/y, +/-0.5m z).</p> <p>GDA94 Z50s is the grid format for all xyz data reported.</p> <p>Azimuth and dip of the drill hole was recorded by Ausdrill and Hagstrom after the completion of the hole using a Reflex Sprint IQ Gyro. A reading was undertaken every 30<sup>th</sup> metre with an accuracy of +/- 1° azimuth and +/-0.3° dip.</p> <p>Azimuth and dip of the drill hole was recorded by Topdrill after the completion of the hole using an Axis Champ North-seeking Gyro. A reading was undertaken every 10<sup>th</sup> metre with an accuracy of +/- 0.5° azimuth and +/-0.15° dip</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>See Table 3 or hole positions.</p> <p>Data spacing at this stage is suitable for Mineral Resource Estimation.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<p>Drilling was undertaken at a near perpendicular angle to the interpreted strike and dip of the mineralised lode.</p> <p>No sample bias is known at this time.</p>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p>All geochemical samples were collected, bagged, and sealed by Dreadnought staff and were delivered directly to ALS Laboratories Perth by Jarrahbar Contracting out of Carnarvon.</p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<p>Metallurgical results were reviewed by Dreadnought staff and contractors.</p>

## Section 2 Reporting of Exploration Results (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<p>The Mangaroon Project consists of 20 granted Exploration License (E08/3178, E08/3229, E08/3274, E08/3275, E08/3439, E09/2290, E09/2359, E09/2370, E09/2384, E09/2405, E09/2422, E09/2433, E09/2448, E09/2449, E09/2450, E09/2467, E09/2473, E09/2478, E09/2535, E09/2616), 1 pending Exploration License (E08/3539) and 5 granted Mining Licenses (M09/91, M09/146, M09/147, M09/174, M09/175).</p> <p>All tenements are 100% owned by Dreadnought Resources. E08/3178, E09/2370, E09/2384 and E09/2433 are subject to a 2% Gross Revenue Royalty held by Beau Resources. E08/3274, E08/3275, E09/2433, E09/2448, E09/2449, E09/2450 are subject to a 1% Gross Revenue Royalty held by Beau Resources. E09/2359 is subject to a 1% Gross Revenue Royalty held by Prager Pty Ltd. E09/2422, E08/3229 and E08/3539 are subject to a 1% Gross Revenue Royalty held by Redscope Enterprises Pty Ltd. E09/2290, M09/146 and M09/147 are subject to a 1% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry. M09/174 is subject to a 0.5% Gross Revenue Royalty held by STEHN, Anthony Paterson. M09/175 is subject to a 0.5% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry. M09/91 is subject to a 1% Gross Royalty held by DOREY, Robert Lionel.</p> <p>The Mangaroon Project covers 4 Native Title Determinations including the Budina (WAD131/2004), Thudgari (WAD6212/1998), Gnulli (WAD22/2019) and the Combined Thiin-Mah, Warriyangka, Tharrkari and Jiwarli (WAD464/2016).</p> <p>The Mangaroon Project is located over Lyndon, Mangaroon, Gifford Creek, Maroonah, Minnie Creek, Edmund, Williambury and Towera Stations.</p>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>Historical exploration of a sufficiently high standard was carried out by a few parties which have been outlined and detailed in this ASX announcement including:</p> <p>Regional Resources 1986-1988s: WAMEX Reports A23715, 23713</p> <p>Peter Cullen 1986: WAMEX Report A36494</p> <p>Carpentaria Exploration Company 1980: WAMEX Report A9332</p> <p>Newmont 1991: WAMEX Report A32886</p> <p>Hallmark Gold 1996: WAMEX Report A49576</p> <p>Rodney Drage 2011: WAMEX Report A94155</p> <p>Sandfire Resources 2005-2012: WAMEX Report 94826</p>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>The Mangaroon Project is located within Mangaroon Zone of the Gascoyne Province.</p> <p>The Mangaroon Project is prospective for orogenic gold, VMS and intrusion-related base metals, magmatic Ni-Cu-PGE mineralisation and carbonatite hosted REEs and Nb.</p>



Criteria	JORC Code explanation	Commentary
Drill hole information	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	An overview of the drilling program is given within the text and tables within this document.
Data aggregation methods	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<p>All sample intervals with a minimum length of 3m and gold assays greater than 0.5g/t Au have been reported.</p> <p>No metal equivalents are reported.</p>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	Drilling is undertaken close to perpendicular to the dip and strike of the mineralisation.
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	Refer to figures within this report.
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	The accompanying document is a balanced report with a suitable cautionary note.
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	Suitable commentary of the geology encountered are given within the text of this document.
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<p>RC drilling</p> <p>Diamond drilling</p> <p>Metallurgical test work</p> <p>Resource estimation</p> <p>Mapping</p>