

13 April 2021

## FIELDWORK UNDERWAY IN THE KIMBERLEY

# **HIGHLIGHTS**

- Field work has commenced at the Tarraji-Yampi Project with ground geophysical and environmental surveys in preparation of drilling in May/June 2021.
- Fixed Loop Electromagnetic ("FLEM") survey over Orion Ni-Cu-PGE target will refine previous airborne electromagnetic ("VTEM") anomalies resulting in defined drill targets.
- Results of the FLEM survey expected April/May 2021.

Dreadnought Resources Limited ("**Dreadnought**") is pleased to announce that field programs have commenced at the Tarraji-Yampi Project in the Kimberley Region of Western Australia. This program is designed to define Ni-Cu-PGE targets at Orion through a ground based FLEM survey and additional mapping and surface sampling.

In addition to the geophysical survey, an environmental survey is underway ahead of the drilling program planned to commence in May/June 2021.

Dreadnought Managing Director, Dean Tuck, commented: "Dreadnought is pleased to have commenced field programs in the Kimberley whilst drilling is ongoing at Illaara. This will allow for a smooth transition from our programs in the Yilgarn to programs in the Kimberley over the next few months. Orion has been a tantalising VTEM anomaly within the Ruins Dolerite and we are excited to undertake a ground based FLEM survey to define targets for drilling in May/June 2021.



Figure 1: Image of the transmitter station as part of the FLEM survey at Orion, manned by Marty from the Southern Geoscience's Niche Acquisitions team.



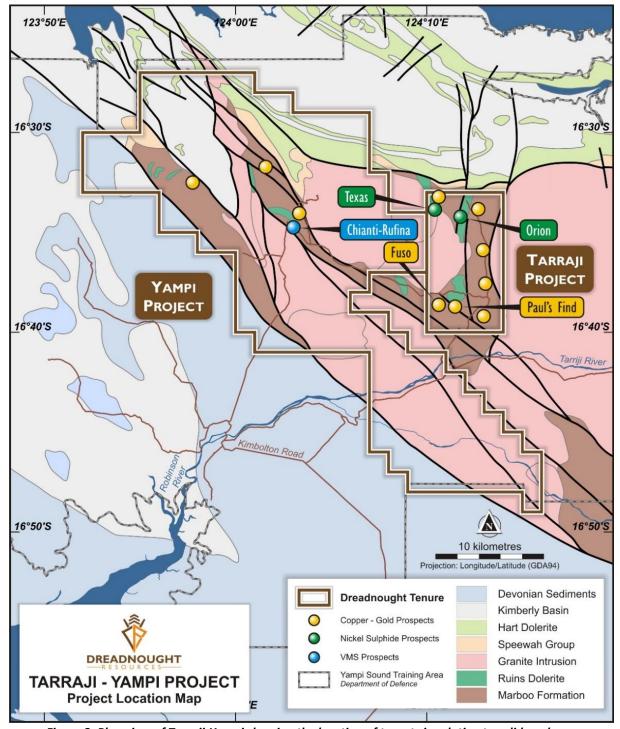


Figure 2: Plan view of Tarraji-Yampi showing the location of targets in relation to solid geology.



# Background on Texas and Orion Ni-Cu-PGE targets (E04/2315: 80%)

Texas and Orion are magmatic Ni-Cu-PGE targets hosted within the Ruins Dolerite, similar to IGO Ltd.'s Merlin JV and Chalice Mining Ltd.'s Hawkstone Projects located ~50kms to the south-east. In 2015, an airborne VTEM survey was flown resulting in the identification of Texas and Orion as multiple EM anomalies +/- coincident magnetic anomalies hosted within thick Ruins Dolerite sequence.

Since acquiring the project in 2019, Dreadnought has flown detailed airborne magnetics and undertaken a FLEM survey at Texas identifying a strong 550m x 280m conductor within the Ruins Dolerite. An additional FLEM survey is now underway at Orion where three VTEM anomalies had previously been generated.

Recent field work at Orion identified outcropping disseminated and blebby sulphides in sub-cropping Ruins Dolerite in close proximity to the airborne VTEM anomalies. This is a significant step for Orion as it indicates sulphur saturation within the Ruins Dolerite indicating that the VTEM anomalies may be associated with massive sulphide accumulations.

The results of the FLEM survey are expected April/May 2021. Targets defined will be drilled as part of the RC program commencing in May/June 2021.

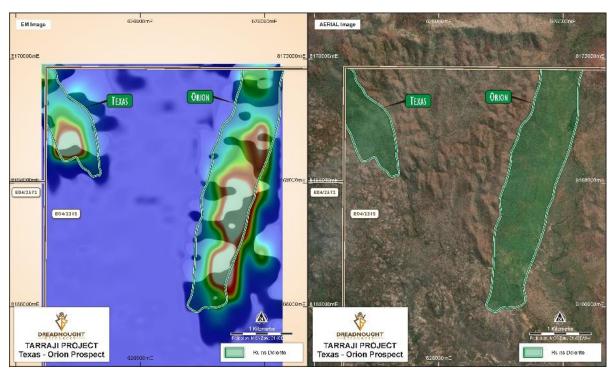


Figure 3: Two images showing the airborne VTEM late time anomaly (L), and interpreted Ruins Dolerite (R) over the Texas (L) and Orion (R) targets.



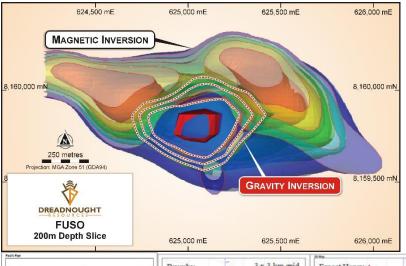
## Background on Fuso and Paul's Find Cu-Au targets (E04/2315: 80%)

Fuso and Paul's Find are Proterozoic Cu-Au targets defined from airborne magnetics and ground gravity surveys undertaken in 2019. This work was motivated by the comparisons of the lithostructural and geochemical signature of outcropping mineralised veins at Tarraji-Yampi to other Proterozoic Cu-Au terranes such as the Tennant Creek Inlier (Gecko, Peko) and Mt Isa (Brumby, Ernest Henry). In these terranes, Proterozoic Cu-Au deposits occur as coincident magnetic-gravity anomalies regionally associated with Proterozoic high-K intrusions.

Both Fuso and Paul's Find are located in close proximity to a high-K felsic intrusion similar in age to the intrusions at Tennant Creek.

Fuso is defined by an intense magnetic high surrounding the northern extent of a strong density anomaly. The  $\sim$ 500m x 400m ovoid gravity feature is cupped on the northern side of the  $\sim$ 1,700m x 700m magnetic anomaly. The magnetic anomaly is interpreted to be related to intense iron-rich alteration, either as magnetite or pyrrhotite and the gravity signature conceptually represents the mineralised breccia.

Paul's Find is defined by an intense, isolated, reversely/remanently magnetised anomaly with a coincident density anomaly. Inversion modelling suggests that the isolated feature is located near surface with dimension of  $\sim 300 \text{m} \times 200 \text{m}$ . The magnetic low is interpreted to be remnant



magnetisation associated with a mineralised body.

Figure 4: A 200m depth slice through the Fuso magnetic and gravity 3D inversion model showing intense magnetic anomalies wrapping around a gravity anomaly potentially representing a demagnetised zone as a result of mineralised fluids.

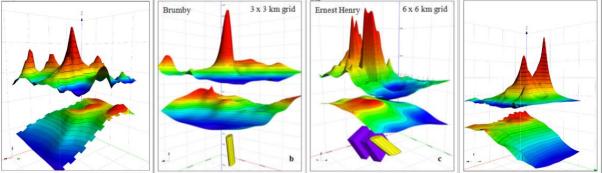


Figure 5: Examples of coincident magnetic (top) and gravity (middle) and the resultant inversion modelled bodies (bottom) from Brumby and Ernest Henry Proterozoic Cu-Au deposits compared with Paul's Find (L) and Fuso (R). (modified from Austin and Foss 2012.)



## Background on Chianti-Rufina Cu-Zn-Ag (E04/2508: 100%)

Chianti was originally defined by Australian Consolidated Minerals ("ACM") in 1972. An airborne VTEM survey flown in 2015 highlighted a conductor beneath the 1972 ACM drilling. Since acquiring the project in 2019, Dreadnought initially carried out a FLEM survey covering a portion of the VTEM conductor which contained outcropping gossans and historical drilling. The FLEM survey identified two strong EM plates which were then drilled in late 2019 and successfully intersected highly magnetic massive sulphide mineralisation.

During the 2019 drill program, Dreadnought immediately applied the geological and geophysical learnings from the first drill holes, to identify additional gossans within an interpreted VMS horizon, with coincident magnetic anomalies. Additional FLEM surveys were undertaken as was a soil survey to identify and add confidence to defining drill targets.

Dreadnought has now defined seven FLEM plates with associated outcropping gossans, magnetic anomalies and/or soil anomalies. Each of these targets will be drilled as part of the RC drilling program commencing in May/June 2021.

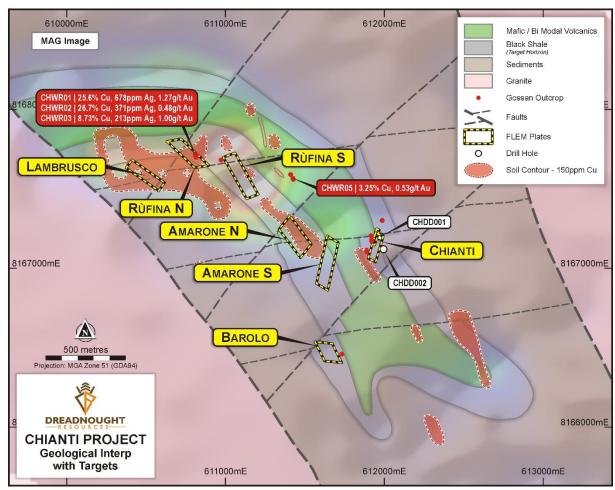


Figure 6: Plan view of Chianti-Rufina showing geology over magnetics, highlighting the location of FLEM plates within the prospective VMS horizon, soil anomalies and rock chip values from outcropping gossans.



For further information please refer to previous ASX announcements:

25 October 2019 Emerging VMS Camp around the Chianti VMS Prospect

23 December 2019 Grants Cu-Au Assays and Coincident Magnetic/Gravity Targets

28 January 2020 Soils and High-Grade Rock Chips Further Validate Chianti-Rufina EM

19 October 2020 Drilling to Continue at Longmore's Fina and Metzke's Find
24 August 2020 High Priority Copper Gold Targets at Fuso and Paul's Find
4 June 2020 Successful ESI Drilling Grant for The Tarraji-Yampi Project

#### **UPCOMING NEWSFLOW**

**April:** Results from gold and VMS target generation work using regional soils across Illaara **April:** Recommencement of field work at Tarraji-Yampi with three FLEM surveys at Orion

April: Quarterly Activities and Cashflow Report

**April to May:** Results from RC drilling at Illaara (Black Oak, Bald Hill, Lawrence's Corridor, Metzke's Find, Longmore's Find)

April to May: Results of target definition and generation work at Mangaroon Ni-Cu-PGE & Au Project

**April/May:** Results of three FLEM surveys over Orion **6 May:** RIU Sydney Resources Round Up presentation

May/June: Commencement of diamond drilling at Texas Ni-Cu-PGE target at Tarraji-Yampi

May/June: Results from target definition and generation work at Mangaroon Ni-Cu-PGE & Au Project June: Commence RC drilling at Orion Ni-Cu-PGE, Fuso and Paul's Find Cu-Au and Chianti-Rufina VMS targets

July: Quarterly Activities and Cash flow Report

**July/August:** Results of drilling at Tarraji-Yampi (Texas and Orion Ni-Cu-PGE, Fuso and Paul's Find Cu-Au, and Chianti-Rufina VMS targets).

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

## **Competent Person's Statement**

The information in this announcement that relates to geology and exploration results and planning 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 report 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 forma and context in which the Competent Person's findings are presented have not been materially modified from the original reports.



#### **INVESTMENT HIGHLIGHTS**

## **Kimberley Ni-Cu-Au Projects**

Dreadnought controls the second largest land holding in the highly prospective West Kimberley region of WA. The main project area, Tarraji-Yampi, is located only 85kms from Derby and has been locked up as a Defence reserve since 1978.

Tarraji-Yampi presents a rare first mover opportunity with known outcropping mineralisation and historic workings from the early 1900s which have seen no modern exploration.

Three styles of mineralisation occur at Tarraji-Yampi including: volcanogenic massive sulphide ("VMS"); Proterozoic Cu-Au ("IOCG"); and magmatic sulphide Ni-Cu-PGE. Numerous high priority nickel, copper and gold drill targets have been identified from recent VTEM surveys, historical drilling and surface sampling of outcropping mineralisation.



# Illaara Gold, VMS & Iron Ore Project

Illaara is located 190km northwest of Kalgoorlie in the Yilgarn Craton and covers 75kms of strike along the Illaara Greenstone Belt. Illaara is prospective for typical Archean mesothermal lode gold deposits and base metals VMS mineralisation.

Dreadnought has consolidated the Illaara Greenstone Belt mainly through an acquisition from Newmont. Newmont defined several camp-scale targets which were undrilled due to a change in corporate focus. Prior to Newmont, the Illaara Greenstone Belt was predominantly held by iron ore explorers and has seen minimal gold and base metal exploration since the 1990s.

## **Rocky Dam Gold & VMS Project**

Rocky Dam is located 45kms east of Kalgoorlie in the Eastern Goldfields Superterrane of Western Australia. Rocky Dam is prospective for typical Archean mesothermal lode gold deposits and Cu-Zn VMS mineralisation. Rocky Dam has known gold and VMS occurrences with drill ready gold targets including the recently defined CRA-North Gold Prospect.

# Mangaroon Ni-Cu-PGE & Au Project

Mangaroon is a first mover opportunity covering ~4,000sq kms of tenure located 250kms southeast of Exmouth in the Gascoyne Region of Western Australia. Mangaroon is prospective for magmatic Ni-Cu-PGE mineralisation and high grade gold with evidence of both outcropping within the project area and virtually unexplored for the past 40 years.