

ASX ANNOUNCEMENT ACN 123 567 073 21 July 2014

# DOOLGUNNA PROJECT: BORG BASE METAL PROSPECT UPGRADED TO 3.5KM X 0.6KM TARGET

- Borg prospect now recognised as 3.5km x 0.6km high priority base metal target
- Further Maglag sampling and gravity surveying has commenced
- Other Doolgunna co-incident EM and geochem anomalies being re-evaluated

Enterprise Metals Limited ("Enterprise"; "the Company", ASX: ENT) announces that following the completion of the recent RC drilling at Borg, it has reviewed previously collected helicopter (VTEM) and fixed wing airborne EM data (Spectrem<sub>2000</sub>), ground EM (GEM) data, gravity data, Maglag geochemistry and the RC drilling results, and concluded that Borg represents a high priority 3.5km x 0.6km structurally controlled base metal target. (Refer ENT: ASX Release 8 July 2014 & Figures 1 - 3)

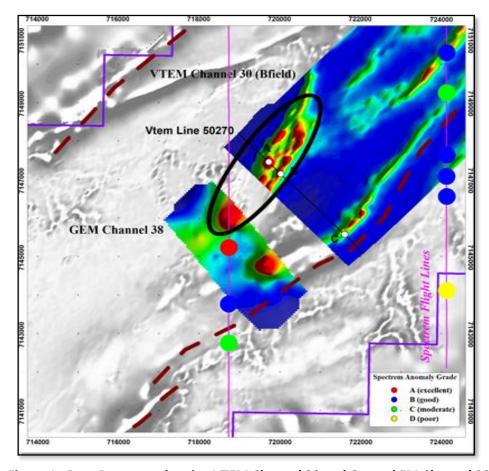


Figure 1. Borg Prospect, showing VTEM Channel 30 and Ground EM Channel 38

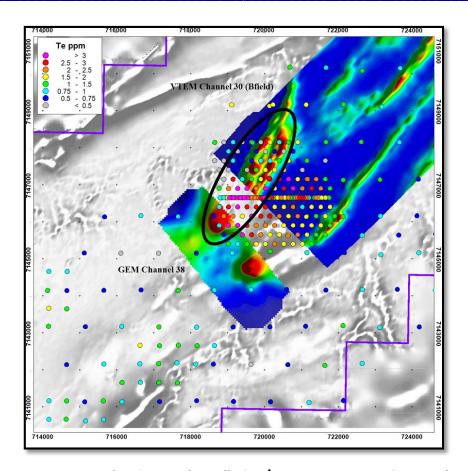


Figure 2. Borg Prospect, showing Maglag Tellurium<sup>1</sup> Assays over VTEM & Ground EM Images

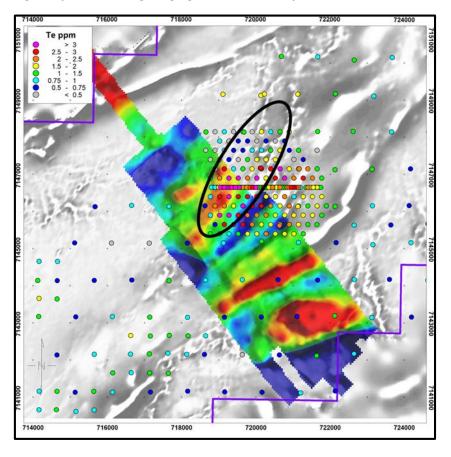


Figure 3. Borg Prospect, showing Maglag Tellurium Assays over Gravity Image

1. Refer Footnotes on Tellurium on Page 6.

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#### **PROJECT OVERVIEW**

The Doolgunna Project covers approximately 1,069km² and is located 110km northeast of Meekatharra and some 10km southwest of Sandfire Resources NL's DeGrussa copper-gold mine. The project is considered prospective for volcanic hosted massive sulphide deposits (VMS) and sediment hosted base metals deposits (SEDEX copper). The Doolgunna geological setting is similar in some respects to the Central African Copperbelt, and the Company has identified a number of SEDEX style basemetal-gold targets along the Southern Boundary Fault, which marks the southern boundary of the sediment filled Doolgunna basin.

#### **BORG PROSPECT - EXPLORATION SUMMARY**

**2008 Project Review and Maglag Sample Assaying:** The Company's detailed airborne magnetic and radiometric data and geochemical datasets were integrated with a regolith and structural interpretation along with a multi-element geochemical analysis of previously collected regional Maglag samples. The dataset, comprised of some 1,350 sample pulps, was submitted for analysis of a suite of 60 elements using 4 acid digest and ICP analysis. (ENT: ASX Release 31 July & 27 August 2008) The analyses revealed a number of areas (including the subsequently named Borg area) with unusually elevated values of Te, W, Sn, Mo, Bi, & Sb, which are common gold and base metal "pathfinders". (Refer Footnotes on Tellurium and Tellurides on Page 6 of this Report)

**2009 VTEM Helicopter borne EM Survey**: Flown by Enterprise, this survey identified a complex series of parallel conductors, some associated with linear magnetic features. An intense NNE trending conductor, discordant to the regional strike of the sediments, was defined on the western margin of the survey area. (ENT: ASX Release 15 July 2009) This feature is now considered to be the north easterly extension of the Borg prospect.

**2012 Spectrem**<sub>2000</sub> **Airborne EM Survey:** This AEM survey was flown as part of the GSWA/CSIRO's Bryah Basin Research Project, flown at 5.5km line spacing in a north-south direction. Several "excellent" basement conductors were located on Enterprise's ground, with the most prominent being **Anomaly "B".** (Refer Figure 4 below) This anomaly was located to the south west of the VTEM conductors referred to in the paragraph above. (ENT: ASX release 24 April 2013)

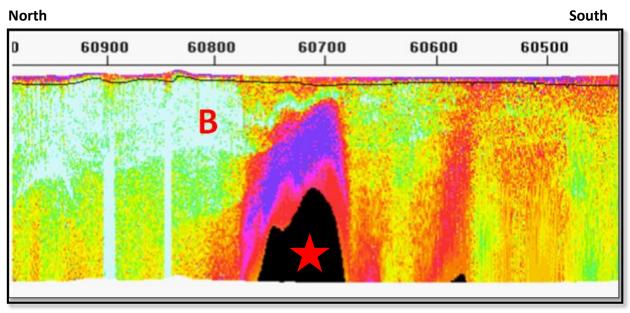


Figure 4. Borg Prospect, Spectrem<sub>2000</sub> Conductivity Depth Image

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March 2013 Ground EM Surveys: The Company followed up Anomaly B with a Moving Loop EM survey to better locate and characterise the form of the airborne anomaly. The ground EM survey recovered the Spectrem<sub>2000</sub> Anomaly B, and several other ground EM anomalies (B1, B2, B3). (ENT: ASX release 24 April 2013). Figure 5 shows the location of the strong bedrock conductor "Anomaly B" on the ground EM profile.

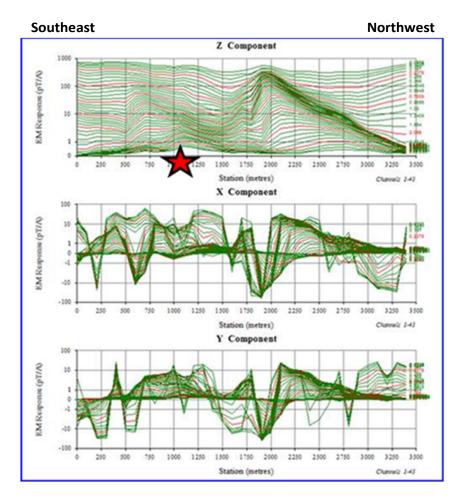


Figure 5. Anomaly "B". Ground EM Log-Linear Profiles

<u>May 2013 Detailed Technical Review:</u> Sinotech Minerals Exploration Co., Ltd ("Sinotech") and Enterprise Metals jointly organised an elite technical team to review key datasets and generate target areas for the Doolgunna project. The review identified the "Bitten Pear" area, which includes the Borg and Azan prospect areas, as being highly prospective for SEDEX style mineralisation. (ENT: ASX Quarterly Activities Report 23 July 2013)

<u>July 2013 Enterprise Awared Co-funded Drilling to Test EM Targets</u>: Enterprise proposed a scout RC drilling program to test the Spectrem and ground EM targets, and was awarded co-funded drilling funds under Round 7 of the WA Government Exploration Incentive Scheme (EIS). (ENT: ASX Quarterly Activities Report 23 July 2013)

<u>Dec 2013/Jan 2014 Detailed Gravity Surveying:</u> Detailed gravity surveys (stations at 50m, 100m and 200m intervals on 200m, 400m and 800m line intervals) were conducted over two Borg ground EM anomalies and other Doolgunna EM targets. The Borg gravity survey showed that the B2 and B3 ground EM anomalies were located over coincident gravity highs, which could reflect sediment hosted massive sulphide mineralisation at depth. (ENT: ASX release 23 January 2014).

**Feb-April 2014 RC Drilling:** At Borg, 13 shallow vertical RC holes and 4 deeper angled RC holes were drilled along a 5 km NW-SE traverse to test the AEM, ground EM and gravity features just to the west of an area with anomalous 1km x 1km spaced Maglag assays of Te, W, Sn, Mo, Bi and Sb. The holes demonstrated that the two gravity highs are part of a broad NE-SW trending gravity ridge composed of silicified and mineralised sulphidic shales and carbonates in fresh rock. The mineralised zone (gravity ridge) is open to the NE and SW. (ENT: ASX release 17 April 2014).

<u>March-April 2014 Maglag Sampling:</u> Coincident with the Doolgunna RC drilling program, a program of infill Maglag sampling was undertaken over multi-element geochemical anomalies identified from the 1km x 1km regional Maglag program. In particular, the multi-element geochemical assays from the infill sampling at Borg strongly supported the Company's view that Borg is a significant base metal target. (ENT: ASX release 17 April 2014).

## **CONCLUSIONS**

The recent drilling program has provided evidence of base metal sulphide accumulations in fresh rock on the south western margin of the Borg prospect (Refer ENT: ASX Releases 17 April & 8 July 2014). In addition, it has been concluded that combining detailed Maglag sampling for base metal pathfinders together with electromagnetic and gravity surveying is an effective exploration tool in this area.

Enterprise believes that these results from Borg further highlight the potential of the Doolgunna basin to host major SEDEX style base metal deposits, within the Company's extensive 1,000km<sup>2</sup> tenement holdings. Refer Figure 6.

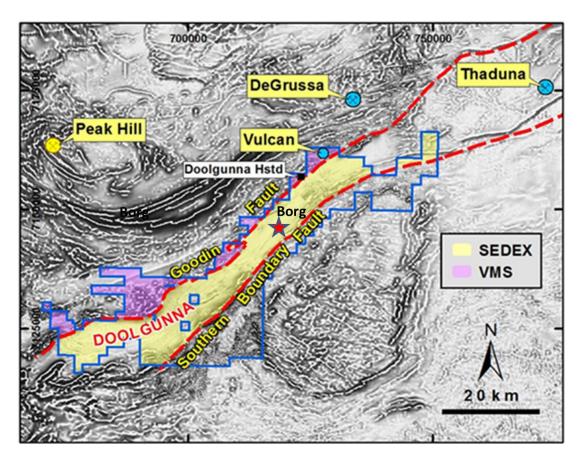


Figure 6. Location of Borg Prospect over 1<sup>st</sup> VD magnetic Imagery

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#### **FURTHER WORK**

Further Maglag sampling and detailed gravity surveying commenced at Borg on 21<sup>st</sup> July 2014 to help define drill targets over the 3.5km length of the Borg target.

Other areas of Maglag geochemical anomalism in the Doolgunna project area are being reviewed in light of the Borg results.

Dermot Ryan
Managing Director

## **Competent Persons statement**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Dermot Ryan, who is an employee of the Company. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

### **FOOTNOTES**

**Tellurium:** Tellurium is one of the rarest stable solid elements in the Earth's crust. Tellurium is sometimes found in its native form, but is more often found as the tellurides of gold. Gold itself is usually found uncombined, but when found naturally as a chemical compound, it is most often combined with tellurium.

Tellurium can be associated with copper-lead-zinc sulphide ores, and the principal source of tellurium is from anode sludges produced during the electrolytic refining of blister copper. It is also a component of dusts from blast furnace refining of lead.

**From Australian Museum Website 2014**: "The gold-bearing minerals that contain tellurium are called 'tellurides'. The Golden Mile deposit in Kalgoorlie, Western Australia, is a massive deposit containing greater than 1500 tonnes of gold. Some 70 to 75% of gold in the deposit occurs as native gold, but a further 20% occurs as tellurides."

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