#### **ASX ANNOUNCEMENT**

12 September 2012

# 3 KM LONG MULTI-ELEMENT SOIL GEOCHEMICAL ANOMALY AT FRASER RANGE

- Significant Cu, Zn, As, Bi & Sb soil anomalies identified in 3km x 3km area centred on interpreted mafic-ultramafic intrusion.
- ➤ Gold soil anomaly (49ppb Au) located in shear zone 35km SE of Sirius Resources NL's Nova Ni-Cu discovery.
- Infill soil sampling planned in preparation for drill targeting.

### **SUMMARY**

Enterprise Metals Limited ("Enterprise" or "the Company", ASX: "ENT") is pleased to announce that exploration at its Fraser Range project 100km east of Norseman WA, has identified a 3,000m by 3,000m multi-element soil anomaly, called EH1. The prospect, identified from Enterprise's regional soil survey, consists of significant Cu, Zn, As, Bi and Sb anomalies developed over a high-amplitude magnetic feature identified from Enterprise's high resolution airborne magnetic survey, and interpreted to represent a mafic-ultramafic intrusion in the metamorphosed Archaean part of the Albany-Fraser Orogen.

An additional high priority soil anomaly (49ppb Au) called **Microwave**, has been identified along an interpreted shear zone that extends 35km NE to Sirius Resources NL's Nova Ni-Cu discovery.

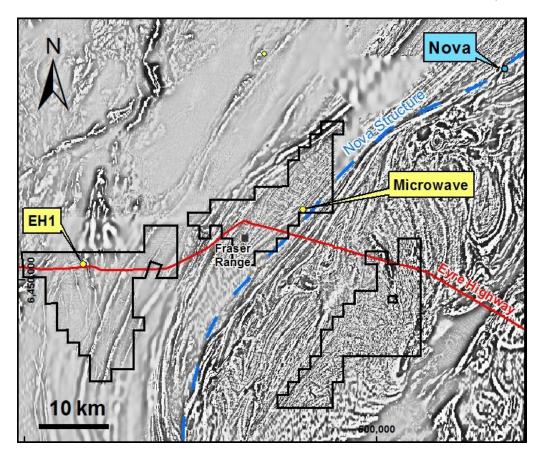


Figure 1: Fraser Range Project, Anomaly Locations over Magnetic 1<sup>st</sup> VD Image



#### **Regional Soil Sample Survey**

In late 2011/early 2012, Enterprise completed first-pass regional calcrete (1,744 samples) and bulk soil sampling (1,853 samples) across its Fraser Range project area on a nominal 400m x 800m pattern. Calcrete samples were analysed for gold only, (ENT: ASX release 30 July 2012) and -2mm fine fraction soil samples were submitted for multi-element analysis including Au, by Aqua Regia-ICPMS at SGS Australia. Several anomalies have emerged from the multi-element analyses, with two high priority targets identified.

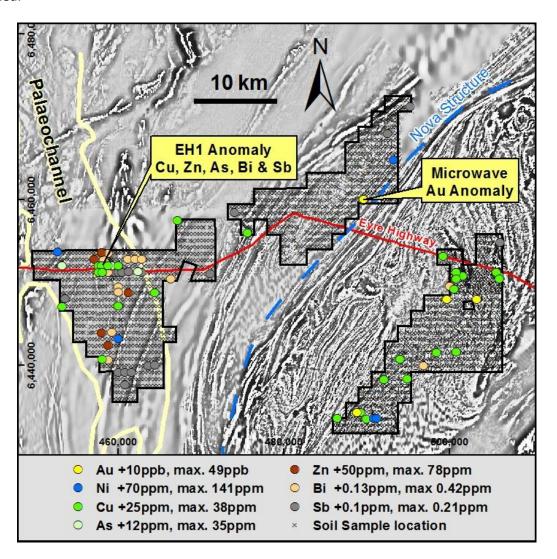


Figure 2: Fraser Range Project, Soil Sample Locations & Anomalous Results, over Magnetic 1<sup>st</sup> VD Image

#### **EH1 Anomaly**

The prospect straddles the Eyre highway approximately 100km east of Norseman, WA. Ten anomalous samples form a tight cluster developed above a high amplitude aeromagnetic feature interpreted to represent a semi-conformable mafic or ultramafic intrusion in the metamorphosed Archaean part of the Albany-Fraser Orogen. (Refer Figure 3) Peak anomalous values and corresponding *threshold\* values* are listed in Table 1 overleaf.

\* **Threshold Values** were determined from histograms of each element, and represent values around the 90<sup>th</sup> percentile. Values greater than the threshold values are therefore highly anomalous.



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Based on the coincident magnetic feature and anomalous geochemistry, Enterprise considers this anomaly to be prospective for magmatic base metal sulphide deposits, which might include nickel even though Ni is not prominent among the anomalous elements at surface. The base metal anomalism in soils (Figure 3) is broadly coincident with the higher calcrete gold values reported to the ASX on 30 July 2012.

Basement rocks in the area are covered by palaeochannel sediments shown by historical drilling in the wider area to vary from several metres to 80m thick. Basement-sourced geochemical anomalies would not normally be expected in such a setting, as the cover sequence would normally mask any geochemical response.

The majority of the anomaly is on Vacant Crown Land north of the Eyre Highway, with the southern part extending into a DEC controlled Nature Reserve where additional approvals are required prior to grounddisturbing work.

Table 1. Peak Anomalous Values and Threshold Values at EH1 Anomaly

MGA94\_Z51 Element Maximum MGA94\_Z51 East North Values at EH1

Threshold Sample No. **Values** (ppm) (ppm) 458040 6451215 BFRS0765 Cu 38 22 BFRS0724 458800 6452000 Zn 40 63 BFRS0725 459200 6452000 15.5 3 As BFRS0767 458800 6451200 0.42 Bi 0.13 459200 6451200 Sb 0.21 BFRS0768 0.1

Samples analysed by 50g Aqua regia digest, ICP-MS. Method ARM155 by SGS Australia Pty Ltd.

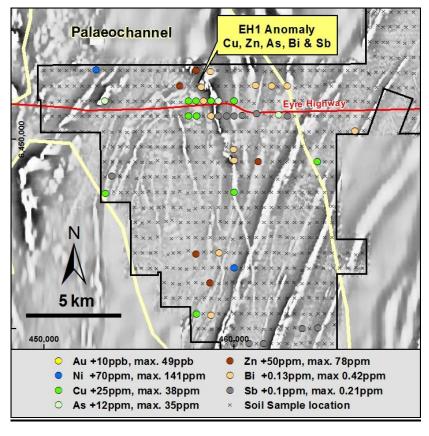


Figure 3: E63/1448, EH1 Anomaly, Anomalous Base Metal Results over 1st VD Magnetic Image

#### **Microwave Anomaly**

A 49ppb Au anomaly (-2mm fraction; threshold values 3ppb Au) with an adjacent weak Au anomaly is located in an important structural corridor that extends 35km SE from Sirius Resources NL's Nova Ni-Cu discovery. Most gold values in soils in the Fraser Range are extremely low, (less than 1ppb), so any value above 3ppb Au is considered highly anomalous in this area.

The anomaly is 4km north of the Eyre Highway on a pastoral lease.

**Table 2. Microwave Anomalous Samples** 

Sample No.	MGA94_Z51 East	MGA94_Z51 North	Au ppb
BFRS0290	489600	6460000	49
BFRS0289	489219	6459998	8

Au analysed by 50g Aqua regia digest, ICP-MS. Method ARM155 by SGS Australia Pty Ltd.

#### **Proposed Work**

Second-pass infill soil sampling is being prepared to delineate the anomalies in sufficient detail to allow drill target design.

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#### Competent Persons statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Derek Waterfield, who is an employee of the Company. Mr Waterfield is 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 2004 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Waterfield consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

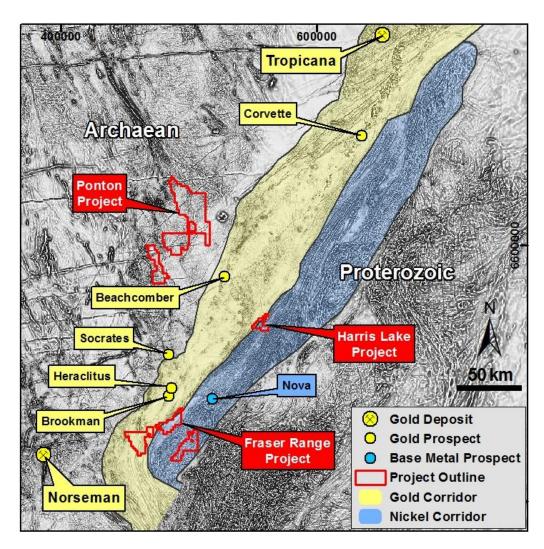


Figure 4: Fraser Range Project, Tenement Location Plan over Magnetics