

**ENTERPRISE ADDS SUBSTANTIAL IRON ORE PROJECT AT  
EARAHEEDY TO IT'S PORTFOLIO**

**SUMMARY**

- **New 617km<sup>2</sup> iron ore tenement granted at Earaheedy**
- **Nine large palaeochannels with potential for channel iron deposits and/or detrital iron deposits interpreted from existing aeromagnetics**
- **Detailed aeromagnetic and gravity surveying planned prior to drilling**

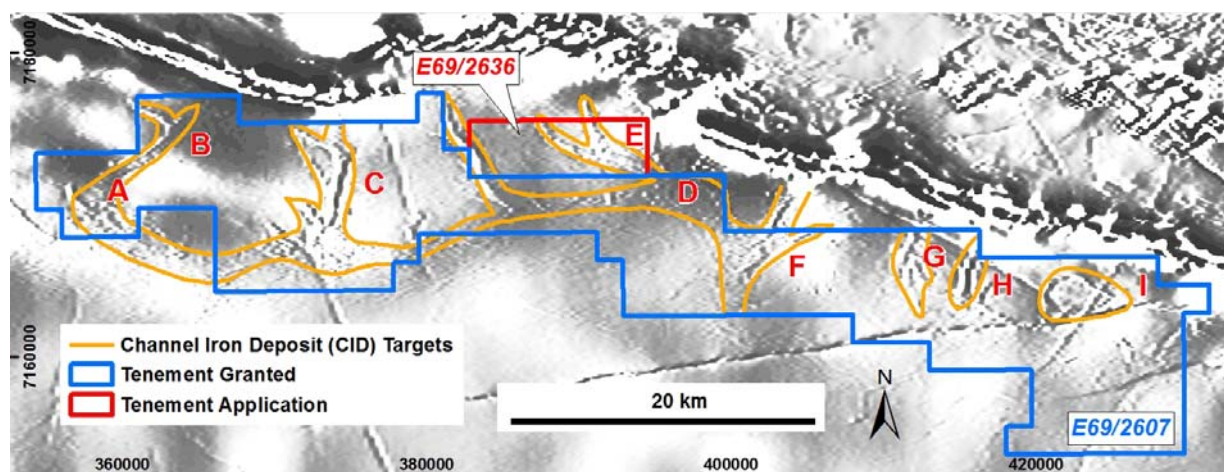
Enterprise Metals Limited ("Enterprise" or "the Company", ASX: "ENT") is pleased to announce that Exploration Licence E69/2607-I, located 200km northeast of Wiluna and 800km northeast of Perth, was granted on 30 March 2011. This is the first tenement granted in Enterprise's Earaheedy Project, which is considered to have potential for channel iron deposits ("CID") and/or detrital iron deposits ("DID") concealed beneath thin Cainozoic cover.

Channel iron deposits contribute approximately 40% of all iron ore production in Western Australia, and known resources in the Robe and Yandicoogina channel systems total around 7 billion tonnes. (*Ramanaidou and Morris 2007*)

**EARAHEEDY EXPLORATION LICENCES 69/2607-I & 69/2636-I**

Enterprise has image processed and interpreted GSWA 400m line spaced airborne magnetic data for the Stanley 1:250,000 map sheet. Figure 1 below clearly shows a series of major magnetic palaeochannels draining south from the banded iron formations (BIF's) of the Lee Steere Ranges along the northern margin of the Proterozoic Earaheedy Basin.

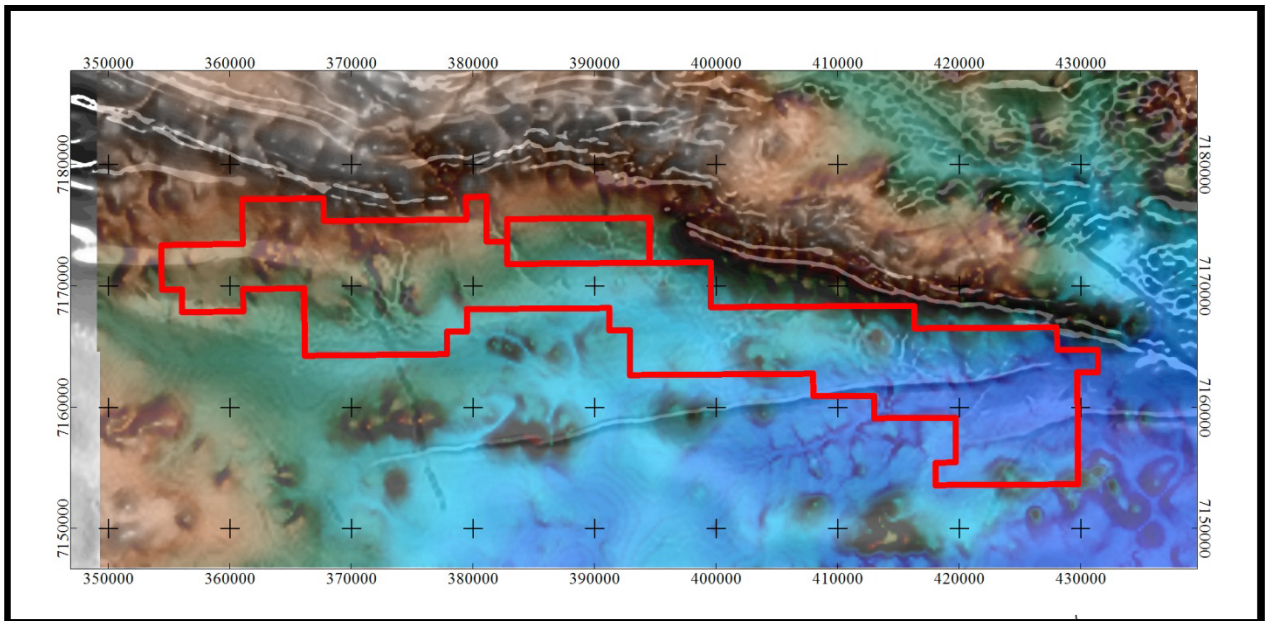
These interpreted channels have the potential to CID'S and /or DID's, similar in setting and character to the Robe, Yandicoogina or Koodaideri deposit in the Hamersley Basin.



**Figure 1. Earaheedy Project Aeromagnetic Image Showing Channel Iron Deposit Targets**

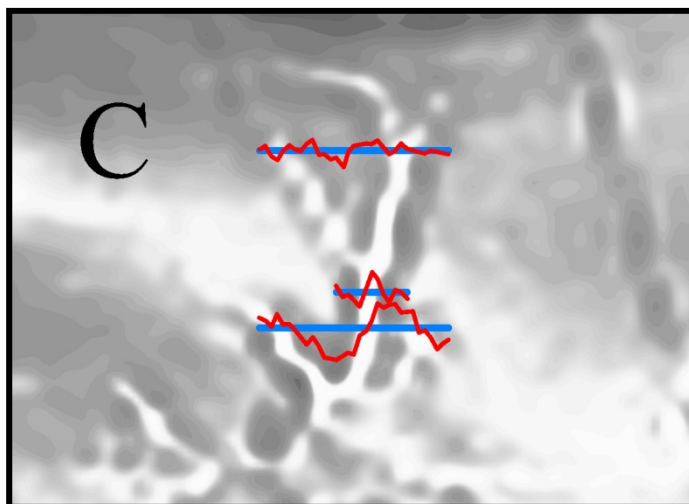
Digital terrain model and gravity data for the area provide additional support for the Company's hypothesis that the large "worm like" magnetic anomalies represent paleochannels filled with iron rich material eroded from BIF's of the Lee Steere Range.

Figure 2 below shows the aeromagnetic data superimposed on an image of the digital terrain model. The high ground of the Lee Steere Range is represented by the darker brown colours, and the flat terrain and valley floor incised by the paleochannels is represented by the bluish colours.



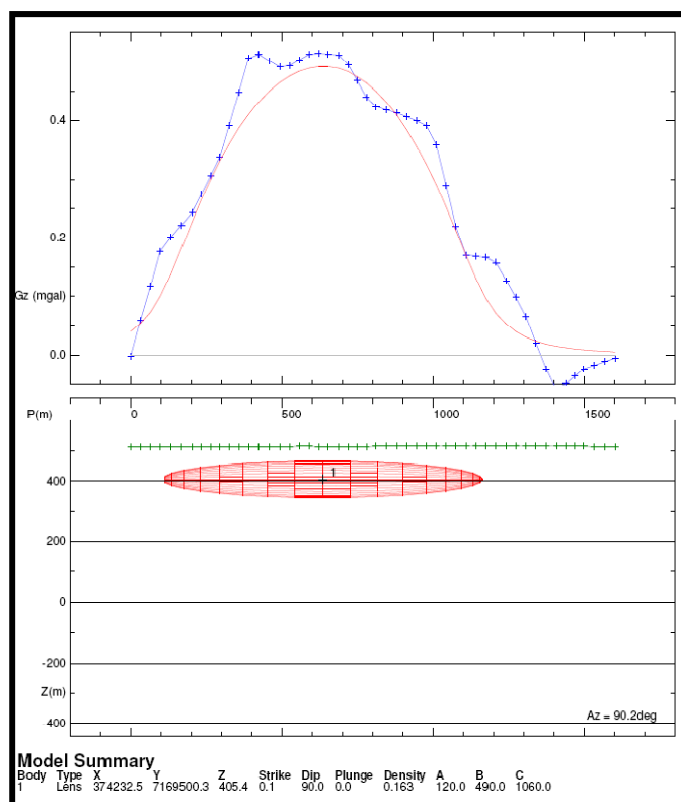
**Figure 2. Digital Terrain Model Draped over Magnetics**

Regional and some detailed gravity data is available for some parts of the area. Figure 3 below shows Bouguer Anomaly residual profiles for CID Target C.



**Figure 3: Gravity Bouguer Anomaly Residual Profiles - CID Target C**

Geophysical modeling of the gravity data over Target C (see Figure 4 below) indicates that the observed gravity anomaly associated with the magnetic anomaly produces a discrete lense like body consistent with the cross section of a paleochannel.



**Figure 4. Target C South Line – Lens Model**

## EXPLORATION MODEL

The Earraheedy Project is located in the Earraheedy Basin, which has a similar size, sedimentation history and style of mineralisation to the Hamersley Basin. The northern most margin of the basin contains a BIF sequence with some similarity to the Hamersley Basin BIF's and consists of purple to black finely laminated hematitic chert up to 150m thick, which is often interbedded with minor granular iron formation and thin shale units.

Exploration by Amax Exploration (Australia) Inc. ("Amax") in the late 1970's and more recently by Giralia Resources NL (2008) in the Miss Fairbairn Hills area of the northern Earraheedy Basin, NW of Enterprise's tenements, resulted in the location of widespread areas of hematite enrichment of these BIF's, with surface grades up to 66% Fe and substantial drilled thicknesses of +55% Fe. These results have confirmed that deep penetrative hematite enrichment of the BIF's of the northern Earraheedy Basin has taken place. (*Giralia Resources NL website, 2011*)

It is the erosion and deposition within channels of these enriched BIF's that Enterprise Metals Ltd sees as a major target within its Earraheedy project area.

## **PROPOSED EXPLORATION**

The Company plans to complete detailed aeromagnetic surveys over the interpreted iron rich channels in the next Quarter, and then select the largest of the channels for detailed gravity surveying and profiling.

RC drill testing will follow, to determine depth and widths of channels, iron content, and metallurgical characteristics.



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*The information in this announcement that relates to Exploration Results is based on information compiled by Mr Derek Waterfield, a Member of the Australian Institute of Geoscientists and a full time employee of Enterprise Metals Limited. Mr Waterfield has sufficient relevant experience in the styles of mineralisation and types of deposit under consideration, and in the activity he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code), and consents to the inclusion of the information in the form and context in which it appears.*

Reference:

Ramanaidou E. R. and Morris R.C. ( 2007) Channel Iron Deposits of the Hamersley Province Western Australia, in *Proceedings, Iron Ore Conference , Perth WA 2007.*