



# ENTERPRISE METALS LIMITED

(ACN 123 567 073)

31 July 2013

JUNE 2013 QUARTERLY ACTIVITIES REPORT

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## **BOARD OF DIRECTORS**

**Dr Jingbin Wang**  
Chairman

**Mr Dermot Ryan**  
Managing Director

**Ms Anna Mao**  
Non-Executive Director

**Mr Paul Hallam**  
Non-Executive Director

**Dr Allan Trench**  
Non-Executive Director

**Mr Damian Delaney**  
CFO/Company Secretary

## **PROJECTS**

### **Copper/Gold**

Doolgunna  
Wattagee

### **Nickel/Copper**

Fraser Range

### **Gold**

Darlot  
Yalgoo  
Wattagee

### **Iron Ore**

Booylgoo  
Earaheedy  
Burracoppin  
Sylvania

## **CURRENT ISSUED CAPITAL**

Shares on Issue	213,220,776
Shares Quoted	213,220,776
Listed Options	Nil
Unlisted Options	43,600,000

## **HIGHLIGHTS**

### **Fraser Range Nickel Project**

- Six bedrock EM conductors/nickel soil anomalies located 20-40km south of Sirius Resources NL's Nova nickel discovery.
- Three modelled heli-borne EM bedrock conductors at McPhersons, Plato and Heart selected for RC drill testing.
- Native Title heritage surveys planned and Programs of Work (POW's) for drilling submitted to Department of Mines and Petroleum.

### **Doolgunna Gold/Base Metals Project**

- Two high priority SEDEX copper target areas identified at Bitten Pear and Ruby Well.
- At Bitten Pear, anomalous W, Sn, Mo, Bi, Sb & Te multi-element geochemistry associated with two high priority bedrock conductors (A & B) confirmed by ground EM surveys.

## **CORPORATE**

- \$1.71M cash at 30 June 2013.
- Excludes \$450,000 awarded to the Company under the Royalties for Regions Co-funded Government – Industry Drilling Program. Doolgunna, Earaheedy and Wattagee Projects each awarded up to \$150,000 for co-funded drilling.
- Cost cutting measures include:
  - 60% reduction in board fees,
  - 40% reduction in MD's remuneration, &
  - 80% reduction in office and field personnel.

**SUMMARY OF EXPLORATION ACTIVITIES**

**FRASER RANGE PROJECT**

The Fraser Range Project covers 594km<sup>2</sup> and is located approximately 100km east of Norseman and 650km east of Perth within the Albany-Fraser province. The Project is considered prospective for gold and copper/nickel/PGE mineralisation and is situated some 30km southwest of Sirius Resources NL’s Nova nickel-copper discovery.

In March 2013, the Company completed a helicopter borne electromagnetic survey (“HeliTEM”) designed to cover areas of anomalous nickel/copper soil geochemistry, several magnetic targets and some areas where the Company’s soil sampling may be ineffective.

This HeliTEM data was been integrated with the Company’s regional and infill soil geochemical data, and three high priority HEM targets have been selected for follow up at **McPhersons** in E63/1282, and three high priority targets have been selected for follow up in E63/1281: **Highway, Heart and Plato Prospects**.

**REGIONAL SOIL GEOCHEMISTRY HIGHLIGHTED FIVE MAIN TARGET AREAS**

The Company completed regional 800m x 400m grid based multi-element soil sampling over the four tenements of the project area, which defined a number of nickel/copper anomalous areas. (Figure 1) The Company then commenced 200m x 100m grid based multi-element soil sampling over these anomalous areas and this infill sampling continued in early 2013, and complete results from this work were received during the quarter.

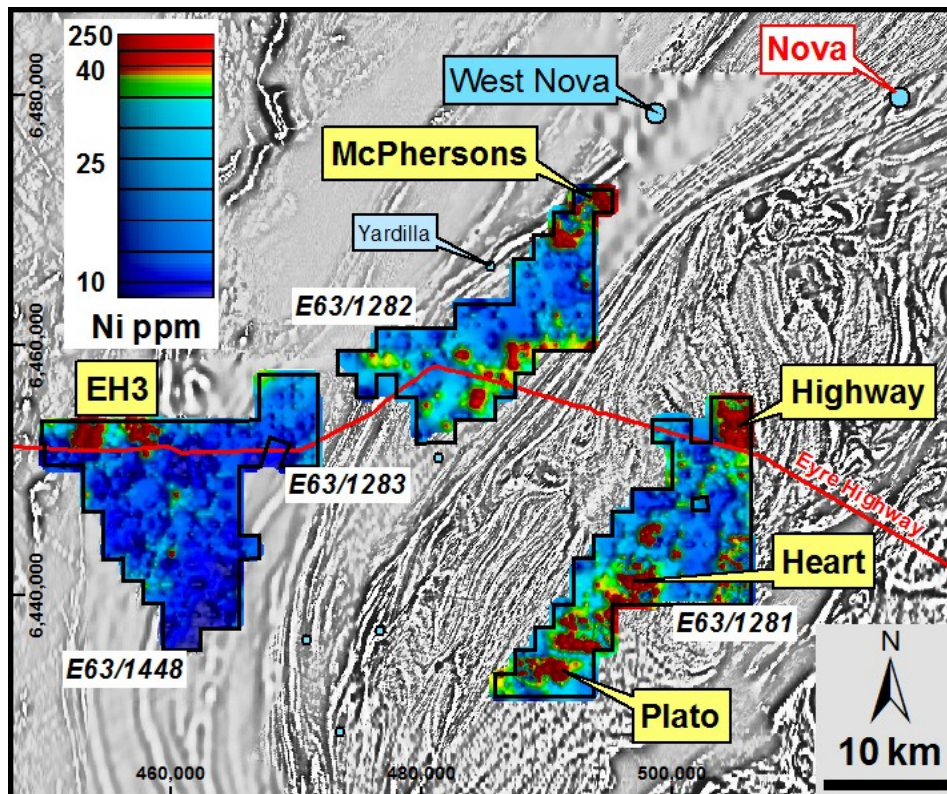


Figure 1. Regional Nickel Soil Geochemistry, 800m x 400m Sampling



**NICKEL/COPPER SOIL ANOMALIES AND EM CONDUCTORS DEFINED AT MCPHERSONS**

At McPhersons, the 200m x 100m grid based infill soil sampling (243 infill soil samples) defined a coherent area of Ni and Cu anomalism in the NE corner of E63/1282, with individual maximum values of up to 104ppm Ni, 73ppm Cu and 28ppm Co. (Refer Figures 2 & 3 below) Processing of the HeliTEM data has produced three discrete bedrock conductors within areas of no outcrop. (Refer Figures 4 & 5 below)

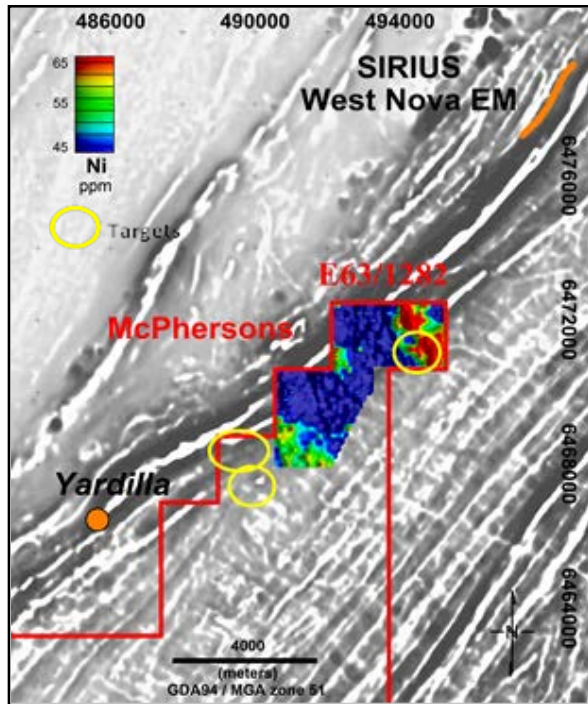


Figure 2: Ni Soil Geochemistry over Magnetics

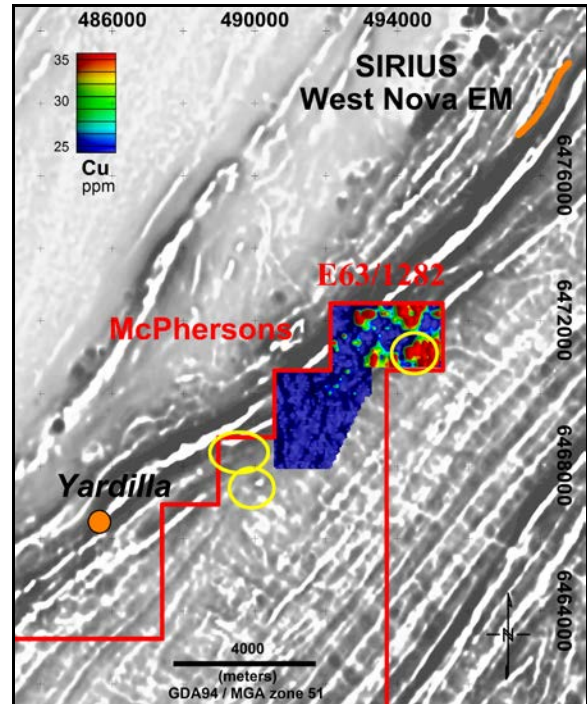


Figure 3: Cu Soil Geochemistry over Magnetics

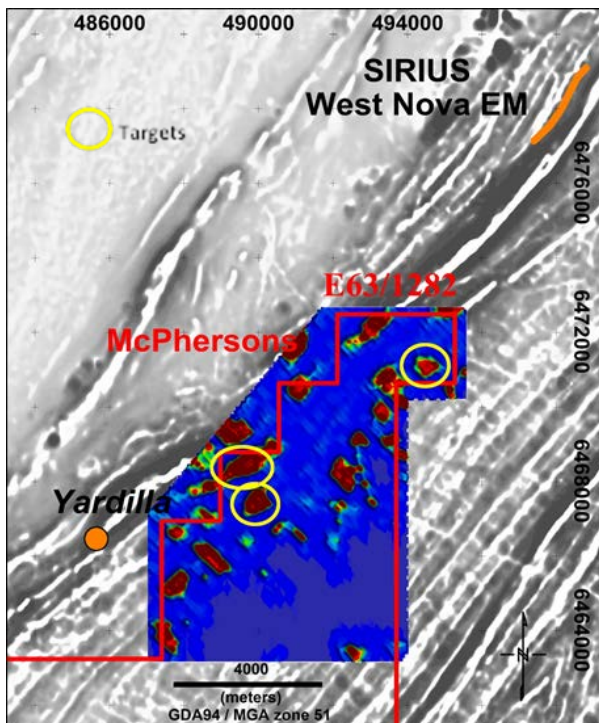


Figure 4: HEM Bedrock Conductors over Magnetics

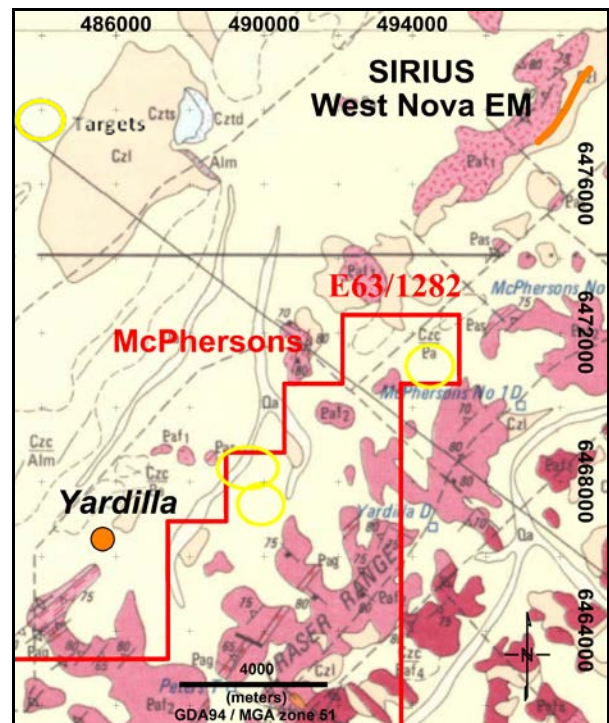


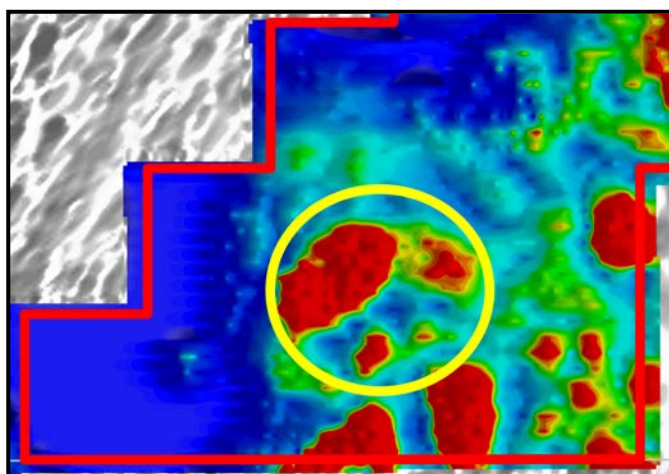
Figure 5: GSWA Mapped Geology



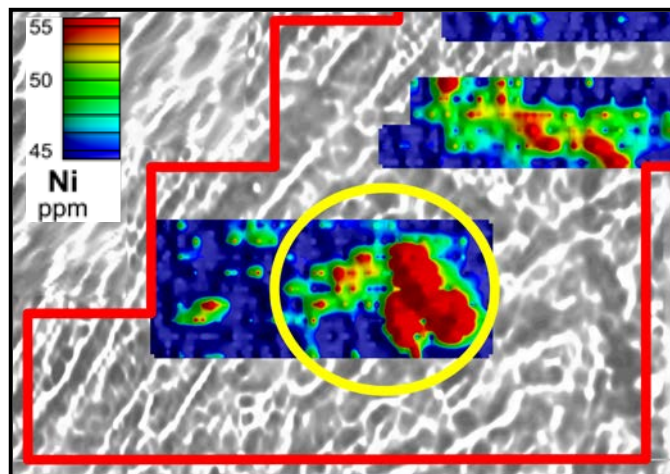
**NICKEL/COPPER SOIL ANOMALIES DEFINED AT PLATO, HEART AND HIGHWAY**

The **Plato** infill soil sampling program defined a coherent area of Ni-Cu-Co anomalism, with individual maximum values of up to 252ppm Ni, 46ppm Cu and 32ppm Co. The program also returned 14 samples in excess of 100ppm Ni.

The HeliTEM over **Plato** displays a more conductive basement lithology (Figure 6) associated with the anomalous nickel geochemistry in soils. (Refer Figure 7)



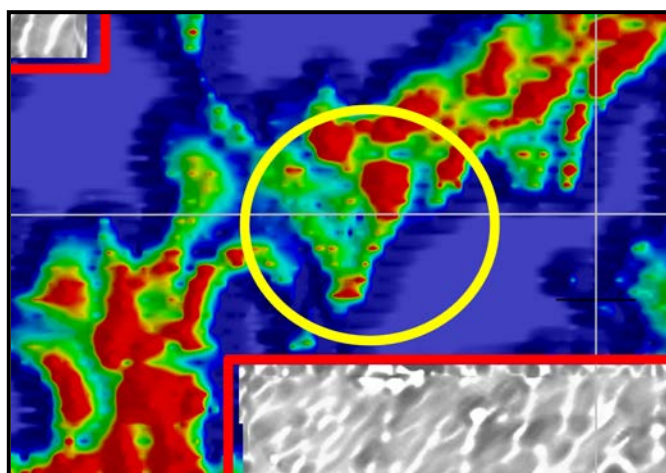
**Figure 6: Plato Basement EM Conductors**



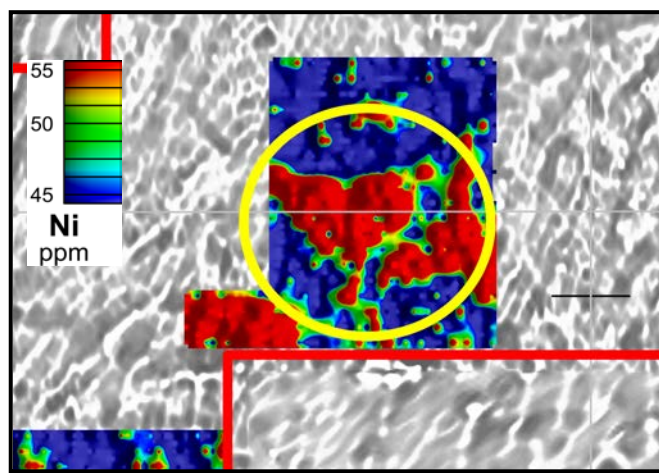
**Figure 7: Plato Surface Ni Soil Geochemistry**

The infill soil sampling program at **Heart** (583 infill soil samples) has defined a coherent “heart shaped” area of Ni anomalism with associated Cu-Co anomalism, with individual maximum values of up to 141ppm Ni, 48ppm Cu and 43ppm Co. (Refer Figure 9)

The HeliTEM over the **Heart** anomaly also displays a more conductive basement, which appears to be structurally and/or lithologically controlled. (Refer Figure 8)



**Figure 8: Heart Basement EM Conductors**



**Figure 9: Heart Surface Ni Soil Geochemistry**

The infill soil sampling program at **Highway** (418 infill soil samples) just north of the Eyre Highway within tenement E63/1281, has defined a coherent area of Ni anomalism. (Figure 11) The 4 acid digest analysis yielded individual maximum values of up to 114ppm Ni, 56ppm Cu and 27ppm Co.

The **Highway** HeliTEM image displays a more conductive basement lithology (Figure 10) spatially coincident with the nickel soil geochemical target.

The Highway target is also highly anomalous in **arsenic (As) with values up to 212ppm** (Figure 12). The As anomaly is coherent and coincides with anomalous Bi, Mo, Ni, Pb and Sb and is centred over a large magnetic low. On the periphery of the magnetic low, other anomalous elements include Cd, Co, Cu, Mn, Sc, Sn, Ti and W.

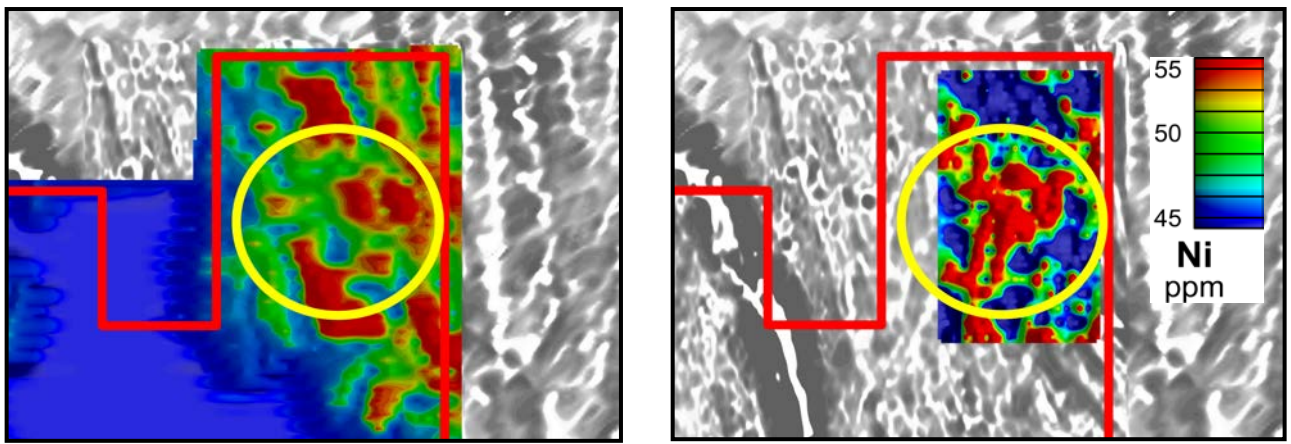


Figure 10: Highway Basement EM Conductors      Figure 11: Highway Surface Ni Soil Geochemistry

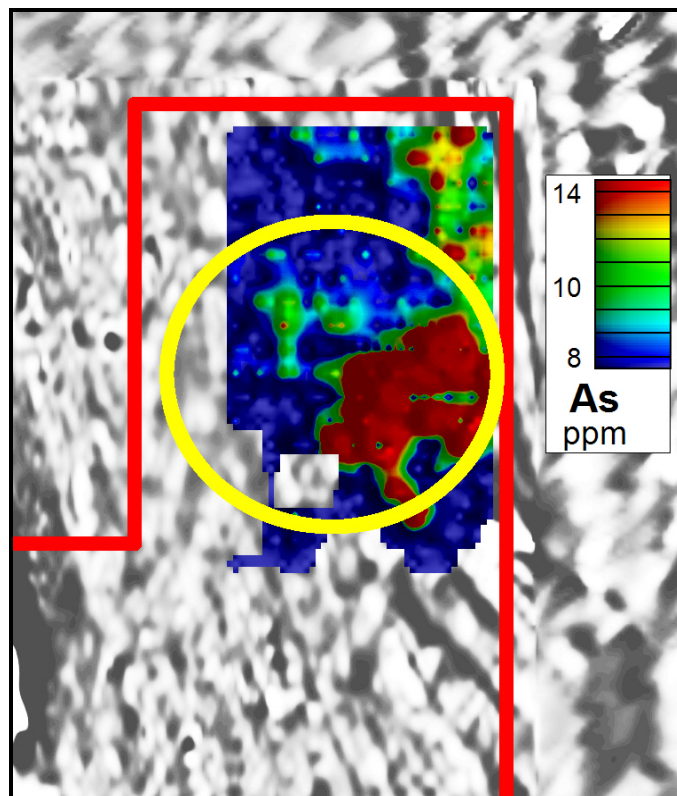


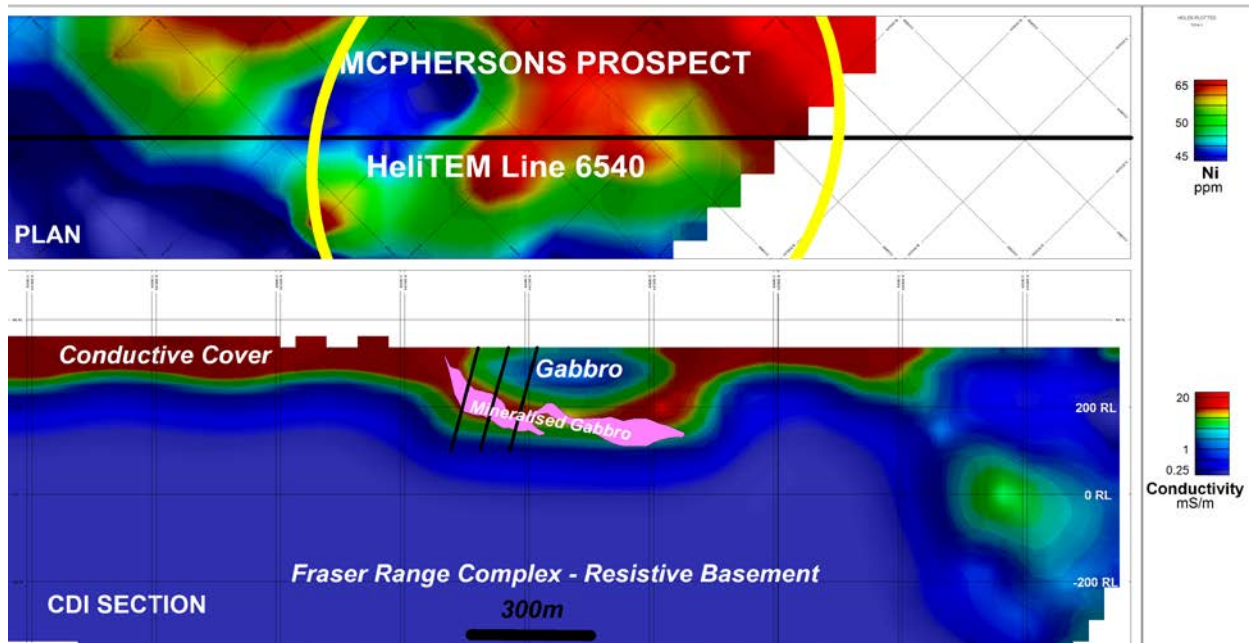
Figure 12: Highway Surface Arsenic from Infill Soil Geochemistry



**CONDUCTIVITY DEPTH IMAGES OF HELI-BORNE EM DATA DEFINES DRILL TARGETS**

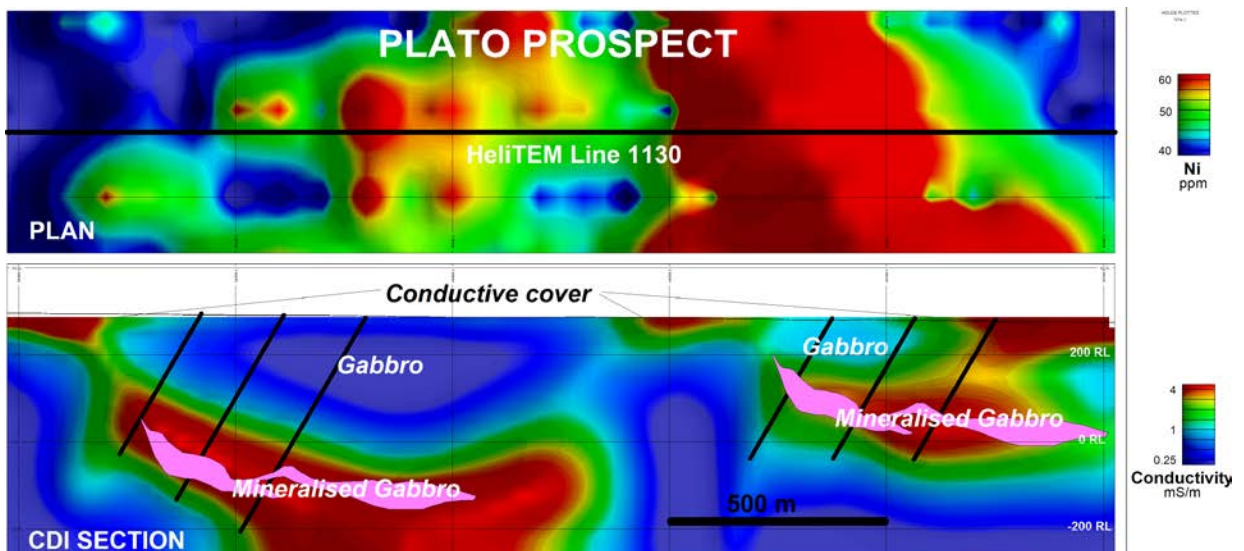
Based on an analysis of the Company’s soil geochemical data and HEM data, the Plato and McPhersons Prospects are considered to be the highest priority targets in the project area.

Refer Conductivity Depth Images (“CDI”s) for McPhersons and Plato in Figures 13 & 14 below.



**Figure 13: McPhersons:Plan of Ni Soil Geochemistry & CDI Section/ HEM Model with Proposed Drilling**

*\*Note: Outline of the Nova nickel/copper sulphide mineralisation in pink (to scale) overlain on Enterprise CDI’s.*



**Figure 14: Plato: Plan of Ni Soil Geochemistry & CDI Section/HEM Model with Proposed Drilling**

*\*Note: Outline of the Nova nickel/copper sulphide mineralisation in pink (to scale) overlain on Enterprise CDI’s.*

**DOOLGUNNA PROJECT**

The Doolgunna Project covers 1,100km<sup>2</sup> and is located approximately 110km northeast of Meekatharra. The Company is searching for copper/gold rich massive sulfide ore deposits within the Narracoota Formation volcanics, approximately 13 km southwest of Sandfire Resources NL’s DeGrussa copper mine, and is also searching for sediment hosted (SEDEX) copper deposits within the Proterozoic sediments flanking the Archaean Goodin Dome.

The Company’s Technical Committee, comprised of geoscientists from Enterprise and SinoTech Minerals (Beijing) completed a review of the Doolgunna Project in May 2013. All Open File and Company datasets were integrated with the recently acquired airborne EM and ground EM surveys. The primary aim was to understand the regional setting and identify areas prospective for SEDEX style Cu (Au) mineralisation.

The Committee concluded that the Doolgunna Project is highly prospective for both volcanic hosted (Eg. DeGrussa, Horsehoe) and sedimentary hosted (Eg. Thaduna, Egnima) SEDEX style deposits, and identified two areas for immediate follow up. These areas are termed Bitten Pear (sediment hosted) and Ruby Well (volcanic hosted). (Refer Figure 15)

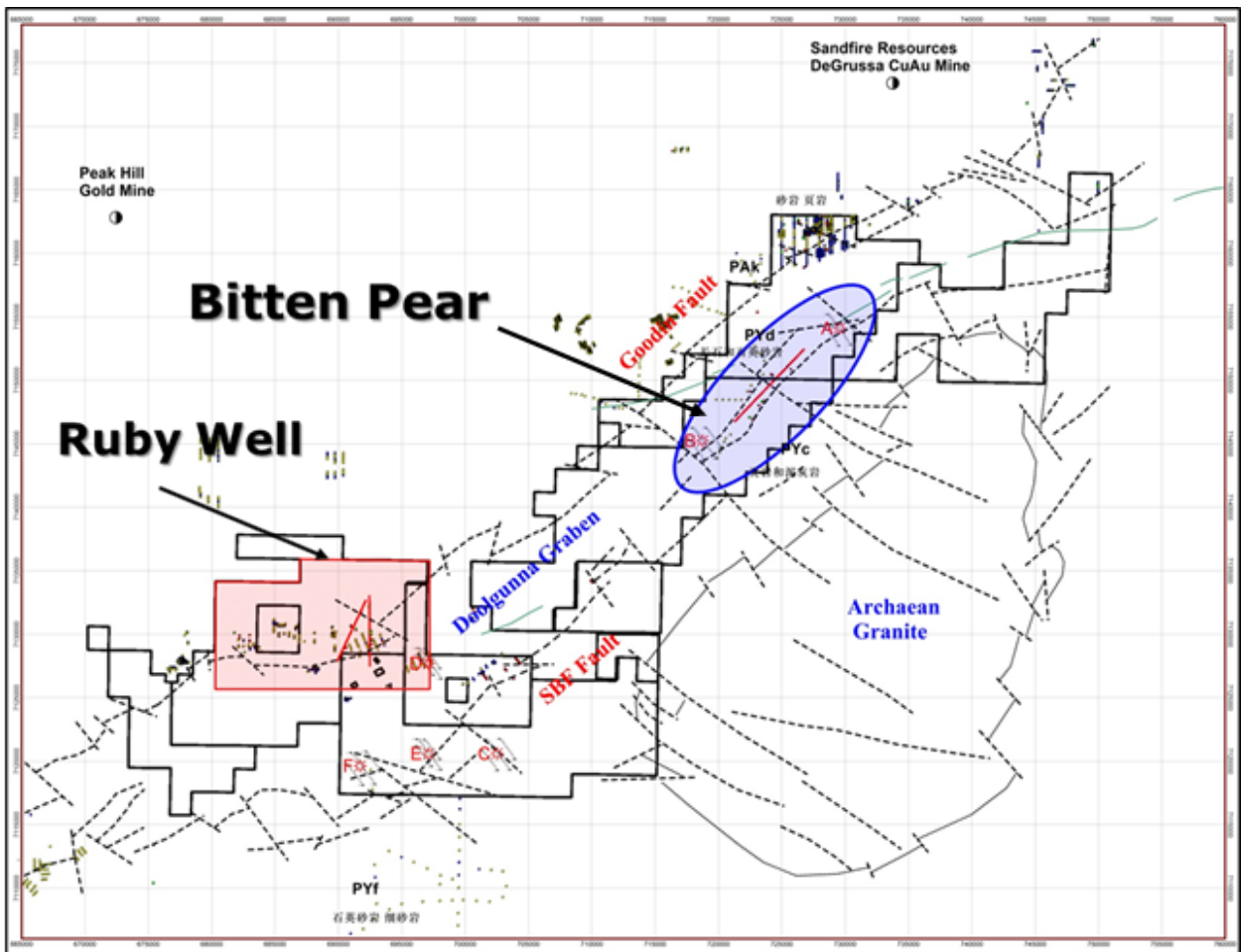


Figure 15: Doolgunna Project, Bitten Pear & Ruby Well SEDEX Copper Target Areas

The key parameters of the SEDEX style economic model are:

- **Ore-controlling factors:** Structural control, NW striking cross-cutting intersection of NE-striking Goodin and SBF faults.
- **Mineralisation source and fluids:** Cu sourced from mafic volcanic, fluids medium-low temperature hot brine, heated by Archean granite due to decay of radioactive elements.
- **Prospecting indicators:** NE-striking Goodin and SBF faults, with major NW-striking cross cutting faults, associated with geochemical anomalies (W, Sn, Mo, Bi, Sb, Te) enrichment on surface and Cu(Zn) depletion at surface.

Ground EM surveys, following up the Spectrem<sup>2000</sup> airborne EM anomalies, located two high priority bedrock conductors (**A & B**) within the Bitten Pear target area, which are also associated with highly anomalous W, Sn, Mo, Bi, Sb & Te surface enrichment. (Refer Figure 16 below)

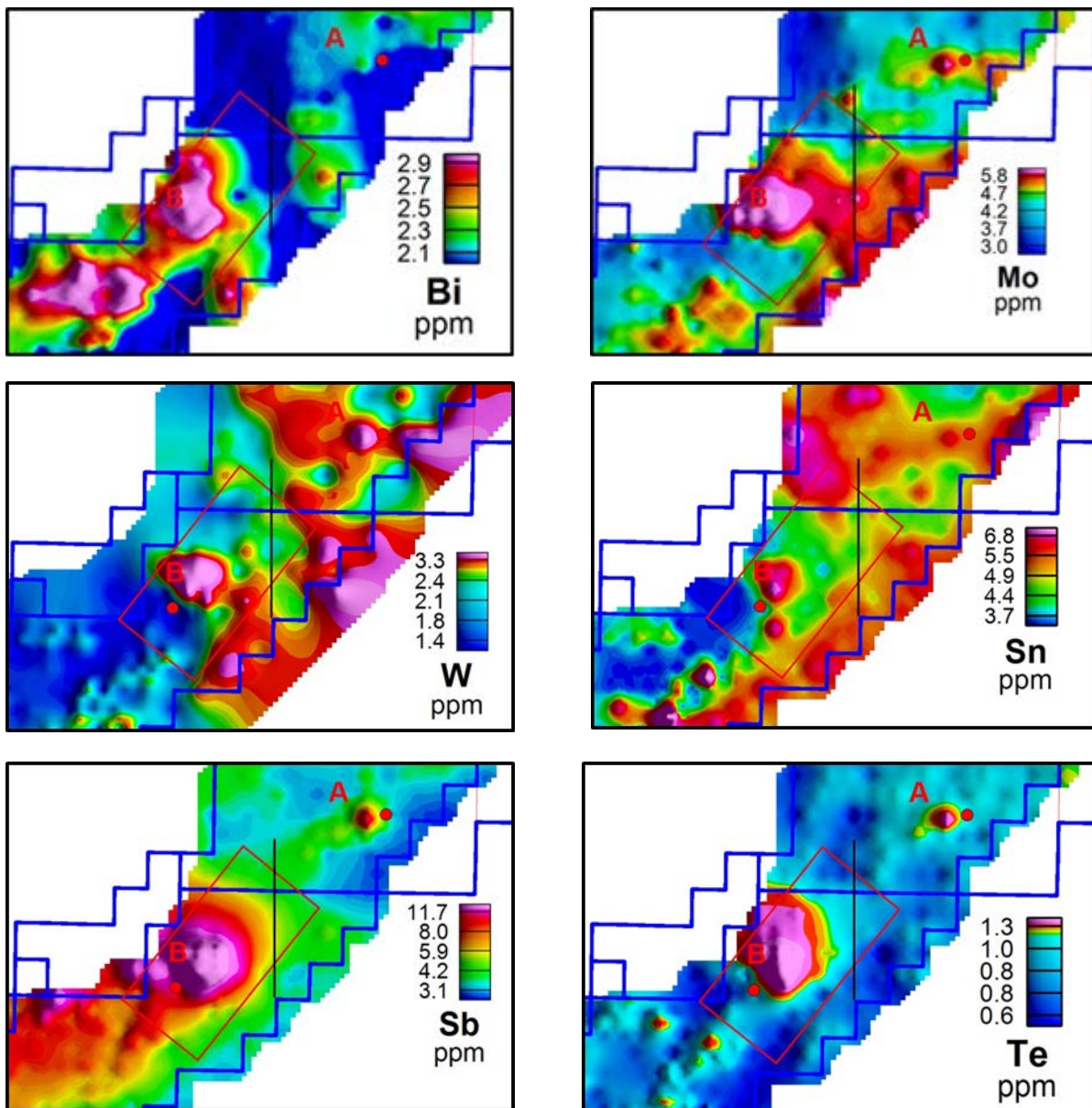


Figure 16: Bitten Pear Target Area. Historical Mag-Lag Surface Geochemistry Images.



## CORPORATE

No significant corporate activity during the Quarter.

## COST REDUCTION PROGRAM

Commencing 1<sup>st</sup> April 2013, the Company has implemented a number of cost saving initiatives, including:

- 60% reduction in the Chairman and Non-Executive Directors Fees,
- 40% reduction in Managing Directors' remuneration, and
- 80% reduction in office and field personnel;

The remaining staff are currently focused on the planning and implementation of a drilling program in the Fraser Range.

## EXPIRY OF OPTIONS

5,725,806 unlisted options expired unexercised during the Quarter. A further 10 million unlisted options expired unexercised on 12 July 2013. Current issued Capital is:

	Number
<b>Fully Paid Ordinary Shares</b>	213,220,776
<b>Options</b>	
Expiring 12 July 2014 @ 22.9 cents	36,000,000
Expiring 11 September 2015 @ 14.9 cents	7,600,000

## CASH POSITION

Cash position at 30 June 2013 was \$1.71 million.

The Company received notification in late June that it had been successful in three applications (total \$450,000) for funding under the **Royalties for Regions Co-funded Government – Industry Drilling Program**, Round 7. This program is also known as the Exploration Incentive Scheme or "EIS", and is a competitive process.

The Department of Mines and Petroleum notified the Company that it is eligible for up to \$150,000 in EIS co-funding to complete drilling at each of three projects, Doolgunna, Earahedy and Wattagee. Under the EIS, funds committed by Enterprise towards the approved drill programs will be matched by funds from the State Government's program, up to the maximum of \$150,000 at each project.



**Dermot Ryan**  
Managing Director

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### Competent Persons Statements

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Dermot Ryan, who is employed as the Managing Director of the Company through geological consultancy Xserv Pty Ltd. Mr Ryan is a Fellow of the Australasian Institute of Mining & Metallurgy, a Fellow 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 Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Exploration results are based on standard industry practice, with appropriate quality assurance and quality control (QAQC) measures. Sample preparation and base metal analyses of soil samples for a variety of elements were completed by Minanalytical Laboratory Services Australia, aqua digest and inductively coupled plasma mass spectrometry (AR10MS) and inductively coupled optical emission spectrometry (AR10OES) for the following elements: Au, Ag, As, Bi, Cd, Co, Pb, Sb, Tl, Cu, Mn, Ni, Zn.

Sample pulps were then reanalysed with 4 acid digest by Minanalytical Laboratory Services Australia for the following elements: Ag, As, Bi, Cd, Co, Pb, Sb, Sc, Sn, Tl, Cu, Mn, Ni, Zn. Four acid digestion is a mixture of hydrofluoric, nitric, perchloric and hydrochloric acids. This digest is suitable for dissolving silica based samples and approaches total dissolution for most minerals.

The information in this report that relates to Geophysical Exploration Results is based on information compiled by Mr Bill Robertson, who is the Principal of geophysical consultancy Value Adding Resources Pty Ltd. Mr Robertson 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 Robertson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

### \*DISCLAIMER

**Superimposed depictions of the cross-sections of the Nova mineralisation on the CDI profiles are illustrative only and are intended to communicate the respective scale only of the Plato/McPhersons anomalies versus Nova mineralisation: They are not intended to represent the predicted geometry of any sulphide mineralisation likely to be intersected. The resolution of the HEM data is insufficient to allow such detailed geometry to be resolved.**

### PROJECT LOCATIONS WESTERN AUSTRALIA 30 JUNE 2013

