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## QUARTERLY ACTIVITIES REPORT FOR QUARTER ENDED 31<sup>st</sup> MARCH 2014

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8<sup>th</sup> April 2014

### HIGHLIGHTS

- **\$1.3M CASH IN BANK**
- **DATA REVIEW INITIATED FOR FRASER RANGE REGION TENEMENT**
- **HIGHLY PROSPECTIVE JERRAMUNGUP EL APPLICATION - GOLD**
- **HIGHLY PROSPECTIVE SOCRATES APPLICATION – GOLD AND BASE METALS**
- **CONTINUED SEARCH FOR NEW OPPORTUNITIES IN AUSTRALIA AND OVERSEAS**

#### **OPERATIONS**

##### **Fraser Range Tenement Application – E28/2369 (100% application)**

Dempsey Minerals Ltd ('the Company' or 'Dempsey') is the priority applicant for the highly prospective tenement (E28/2369) situated within the Fraser Range region. It covers an area of approximately 200 km<sup>2</sup> and is located around 40 km north of the Sirius Resources Ltd discoveries of Nova and Bollinger.

The Fraser Range project includes 40 kilometres of strike length of the Proterozoic Albany-Fraser mobile belt on the south-east margin of the Yilgarn Craton. In July 2012, Sirius announced the discovery of the Nova nickel-copper-cobalt deposit, which sits within the Fraser Range Joint Venture. The Dempsey lease application is located to the North of the Sirius Resources discoveries of Nova and Bollinger.

The Nova deposit is a magmatic nickel sulphide deposit, a style of deposit never before seen in Australia, which occupies a geological structure known as the Eye. This style of deposit has many features in common with various aspects of Canadian deposits such as Thompson (owned by Vale), Raglan (owned by Xstrata) and Voisey's Bay (owned by Vale) which are frequently an order of magnitude larger than most Australian nickel sulphide deposits. Common features include the age of the rocks, the degree of metamorphism and deformation, the association with a (once) mafic intrusive rock, the presence of copper and cobalt in addition to nickel, and the ratios of these metals.

The Company has commenced a data review process and planning for an initial exploration programme.

##### **Socrates Tenement Application – E28/2452 (100% application)**

During the quarter, Dempsey applied for tenement E28/2452, a large 61 Block Exploration Licence. The Socrates Gold Project is located some 155 Km southeast of Kalgoorlie and comprises dramatically underexplored Archaean Greenstones of the Eastern Goldfields Province, as well as Proterozoic metamorphic rocks of the emerging Tropicana Gold Province. When the Tropicana Gold Deposits in the 'Transition Zone' between the Proterozoic Albany-Fraser Metamorphic Province and the Archaean had been discovered about 300 kilometres to

the northeast, by AngloGold Ashanti and the Independence Group, a series of new possibilities emerged. By late 2006, a new prospect Beachcomber, in similar geology, was identified only 75 Km to the NE of the Socrates Project.

Data review is ongoing.

### **Bungarra Ridge Phosphate Tenement Application – E04/2335 (100% application)**

The Company has previously applied for tenement E04/2335 referred to as the Bungarra Ridge Phosphate Project. It is located in the West Kimberley Mineral Field, 50 km south southeast of Derby in the Kimberley Region of Western Australia (Figure 1). The Great Northern Highway provides direct access in the northeast of the project area and several station tracks and fence lines provide good additional access.

The geological units of interest are Jurassic–Cretaceous glauconite and phosphate rich horizons within a marine sequence deposited into the Fitzroy Trough, Canning Basin. A complete review of previous work is being undertaken but it appears the most valuable work was completed between 2008 and 2011. A first pass reverse circulation (RC) drilling programme comprising 151 holes for 2,263 m was completed in October 2008. The holes were drilled over 18 lines on a sparse and irregularly spaced grid ranging from 80mE to 640mE and 640mE x 1920mN. The average depth of the holes was 15 m. The main geological focus was to determine the depth, thickness and competency of the phosphate horizon. A best result of 8.86% P<sub>2</sub>O<sub>5</sub> was obtained at 6.5–7.0 m depth in drill hole LCRC0009, and K2O up to 4.04% at 17.0– 17.5 m depth in drill hole LCRC0031 (558560 mE 8047680 mN).

More detailed research is ongoing. The Company notes that there are significant agricultural developments planned for the Kimberley region.

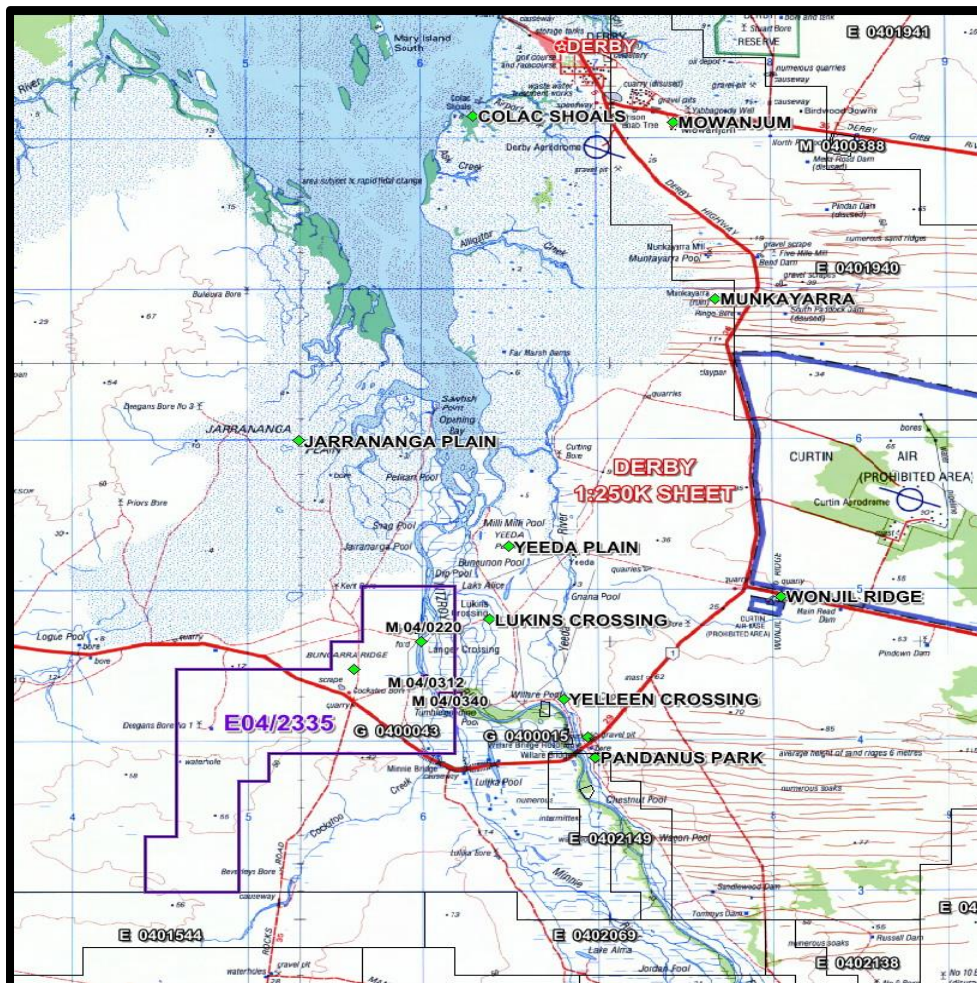


Figure 1.

### **Jerramungup Tenement Application – E70/4592 (100% application)**

During the quarter, Dempsey applied for tenement E70/4592, covering approximately 160km<sup>2</sup>. The Jerramungup Gold Project covers approximately 17km of the Yandina Shear Zone.

Data review is ongoing.

### **Dandaragan Phosphate Project**

The Dandaragan Potash Project is located approximately 150km north of Perth, centred on the town of Dandaragan. The project comprises a single granted Exploration License, E70/3741, covering 100 sub-blocks or approximately 295 Km<sup>2</sup>. No work has been conducted.

### **CORPORATE ACTIVITIES**

At the end of the March 2014 quarter, the Company had cash reserves of \$1.30 million.

The company continues working on its existing projects whilst also trying to grow its project portfolio by evaluating other opportunities in Australia and overseas.

#### **For further information contact:**

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#### Competent Person's Statement

*The information that relates to exploration targets, exploration results and drilling data of Dempsey operated projects is based on information compiled by Mr Don Horn a Member of The Australasian Institute of Geoscientists. Mr Horn has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Horn consents to the inclusion in their names in the matters based on their information in the form and context in which it appears.*

