



9 th June 2010

## ABOUT CARPENTARIA:

Carpentaria is an exploration company focused on discovering base, precious metals and bulk commodities in eastern Australia. The company currently has interests in iron ore, tin, gold, copper and coal exploration projects

## CARPENTARIA'S AIM:

With a strong geo-scientific team discover and build a strong cash flow generating mining operation.

## DISCOVERIES TO DATE:

Hawsons Iron Project - NSW  
Euriowie Tin Project - NSW

## Capital Structure:

Ordinary Shares 70,962,488  
Total Options 21,434,927

## Major Shareholders:

Conglin Yue 14.77%  
Giralia Resources 9.57%

## Financial

Cash and deposits on hand  
A\$8.2 million

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## Further Exploration Success and New Iron Ore Discovery Confirmed at Hawsons

### HIGHLIGHTS

- **Exploration drilling success continues at the Redan JV at the Core Anomaly**
- **Initial drilling at the 'T' Anomaly confirms a new discovery of thick magnetite ironstone**
- **Mineralogical tests demonstrate excellent magnetite liberation indicating low cost processing potential**
- **Carpentaria completes required expenditures to earn a 51% interest in the Redan JV at Hawsons following recent exploration drilling expenditure**

Carpentaria Exploration Limited (ASX: CAP) is pleased to announce successful initial second phase drilling at the Redan Perilya JV with Perilya Broken Hill Ltd (ASX:PEM), shown in figure 1, has been successful in confirming additional magnetite ironstone has been intersected.

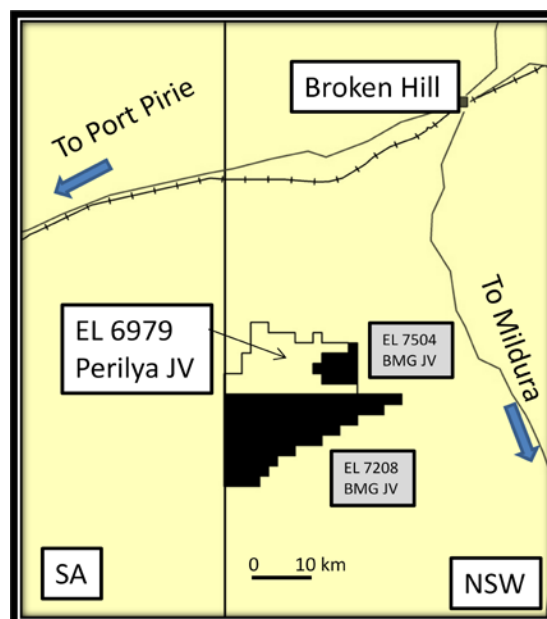


Figure 1: Hawsons Project Location showing Perilya JV at Redan

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## Redan Drilling Update

Carpentaria has just completed drilling two areas in the Redan JV area designed to test for thickness, depth of cover and extent of magnetite mineralisation. Figure 2 depicts drill hole locations plotted on a magnetic image.

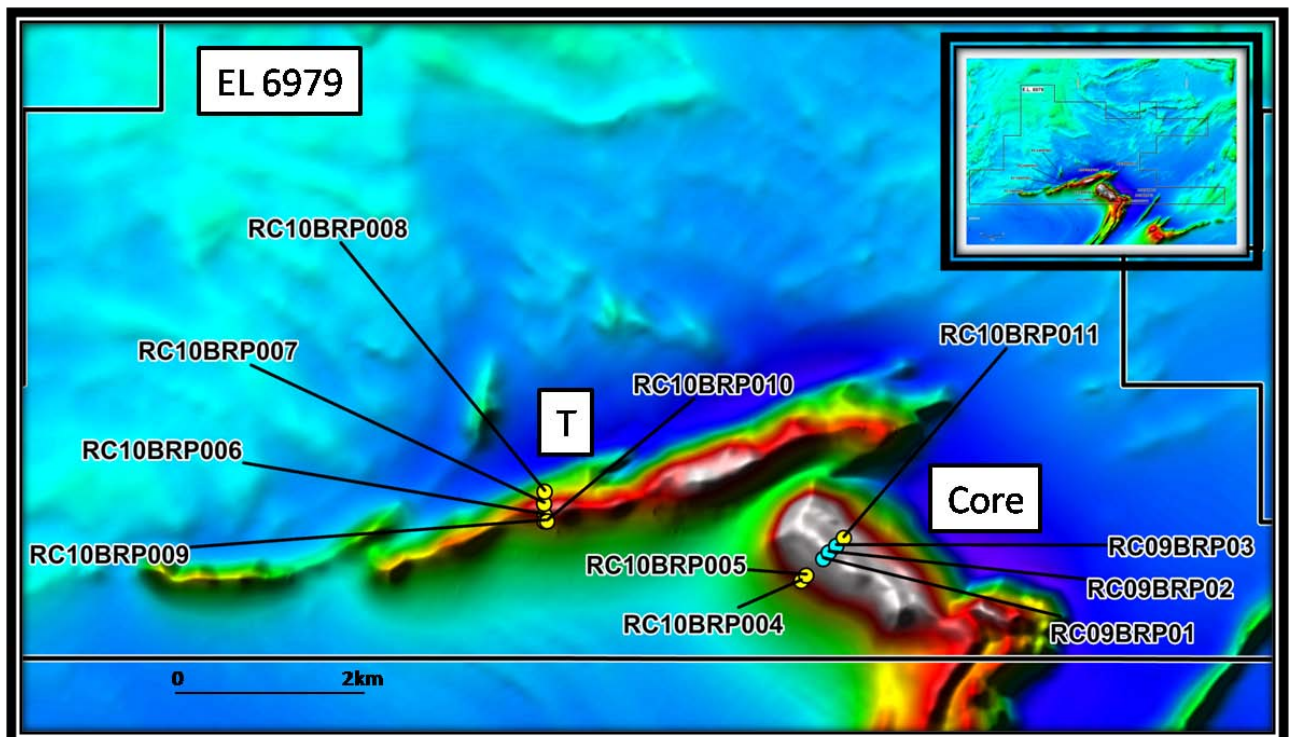


Figure 2: Location of current drill program holes over a magnetic image on EL 6979. The regional image is shown inset.

Eight RC drill holes have been completed for 1,673m at the Core and the “T” Anomalies.

Drilling was successful at the Core Anomaly (Figure 2), identifying **significant thicknesses** of additional magnetite ironstone and magnetite mineralisation. Field measurements of magnetic susceptibility, which relates directly to magnetite content, taken from RC10BRP011 confirms that another magnetic unit (Core Magnetic Unit 4) consists of **over 100m combined thickness of magnetite ironstone and mineralisation** to the end of hole. Assay results are awaited (Figure 3). Drilling last year confirmed mineralisation in the adjacent Core Magnetic Unit 3 was 130m thick. Drilling of Core Magnetic Unit One intersected relatively narrow mineralisation.

Initial drilling to test the 9km long “T” Anomaly was also successful and confirmed the geophysical interpretation and represents a **new discovery with the intersection of a 200m thick sequence of magnetite ironstone**. Field measurement of magnetic susceptibility and geological logging, show that significant thicknesses of magnetite mineralisation occur within this sequence (Figure 3). Assay results are awaited.

Further exploration planned for EL6979 includes drilling of higher amplitude areas of the “T” Anomaly, along and across strike testing of the Core Anomaly and drill testing the Fold Anomaly.

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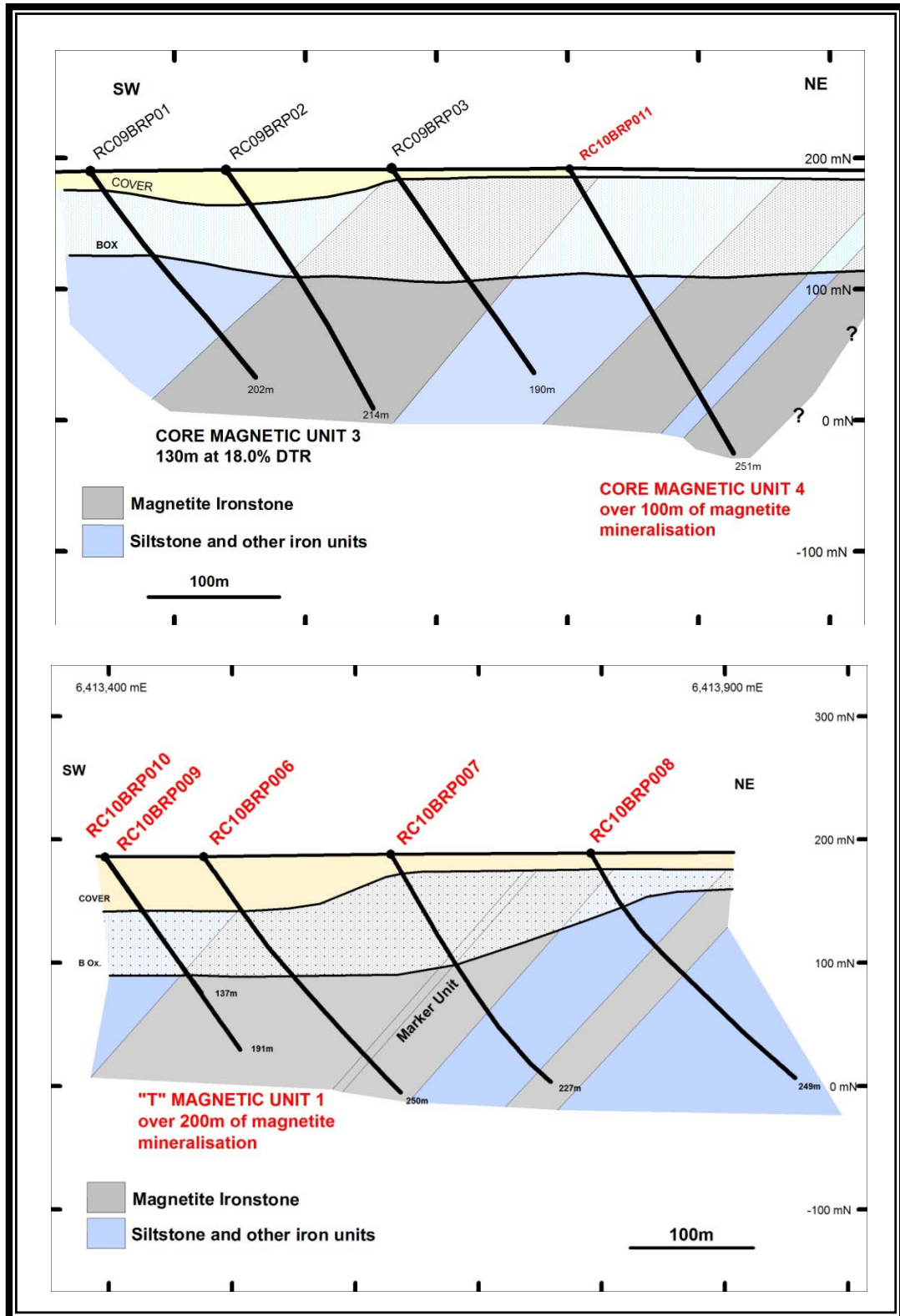


Figure 3: Geological sections drilled over the 'Core' and 'T' Anomalies.

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## Iron Ore Mineralogical Test work

Composite samples of magnetite ironstone from Hawsons have been tested using a Scanning Electron Microscope to quantitatively assess the ease of liberation of magnetite at different particle sizes. The technique is known as Mineral Liberation Analysis (MLA).

The laboratory tests to date have shown that the ore is **very soft**, potentially requiring **less than half the grinding energy of other iron-ore** to produce a high grade magnetite concentrate. The MLA confirmed the excellent quality of magnetite at Hawsons returning between **68.4 to 72.4% Iron (Fe)**.

Magnetite iron deposits require grinding to a fine size to concentrate the iron. The finer the grind size and the harder the ore, the more energy and cost is required to liberate the magnetite to make a high grade iron ore concentrate.

The MLA of four samples from drill hole RC09BRP02 (115m @ 18.0% DTR @ 69.8% Fe DTRC)<sup>1</sup> has shown that 96% to 98% of the magnetite is liberated at both 45 and 38 micron grinds which is approximately the size requirement for Australia's longest running magnetite operation at Savage River in Tasmania. Grinding to this size is also required to transport the magnetite iron ore in a slurry pipeline to the rail head.

The scanning electron microscope image (Figure 4) shows electronically isolated particles of magnetite as red and silica as dark green at a grind size of around 38 microns (note the 100micron scale bar). The lack of other minerals attached to the magnetite demonstrates its excellent liberation characteristics.

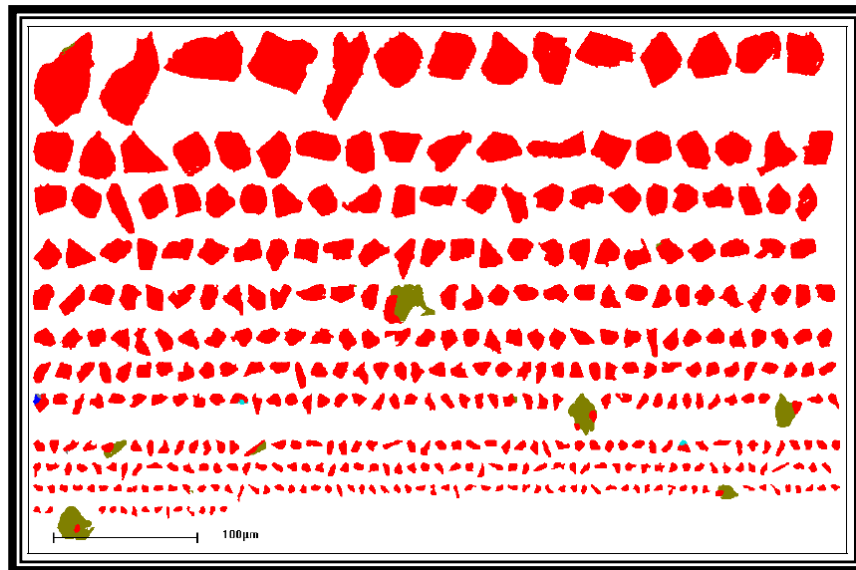


Figure 4: Scanning electron microscope image of composite sample from Hawsons Knob, EL 6979- isolated magnetite as red, silica green, carbonates blue

The only significant contaminant present is quartz and very minor traces of carbonates. Quartz is removed in the normal concentrator regrinding process. The MLA was able to provide a complete scan of all minerals present in the Hawsons iron samples and confirmed that **the magnetite concentrate has low levels of deleterious elements**.

### Notes

<sup>1</sup> Glossary of abbreviations:

- DTR = Weight Percentage of material obtained from Davis Tube Recovery test.
- DTRC = Davis Tube Recovered Concentrate grade.



# ASX ANNOUNCEMENT

9 th June 2010

## **Redan Joint Venture – Vesting of 51% Interest**

Carpentaria has now spent \$825,000 on EL6979 held by Perilya Broken Hill Pty Ltd. (ASX: PEM), and have served notice to Perilya that it has completed the required expenditures to earn a 51% interest in the Joint Venture (refer location in Figure 1). Under the terms of the JV, Perilya can elect to contribute to project funding from now on or dilute to 25% by Carpentaria spending a further \$1.0m, at which stage Perilya can elect to contribute or retain a 1.5% NSR.

Executive Chairman Nick Sheard commented that “these results are very significant and confirm the conclusions from our original exploratory work that there is potential for a significant iron deposit that could be mined efficiently due its mineralogical properties, low cost processing potential, and proximity to infrastructure and the Broken Hill service industry.”

Assay results for the Redan drilling program are expected in about four weeks and the next round of drilling is anticipated to begin in July/August.

*The information in this announcement that relates to Exploration Results and Resources is based on information compiled by S.N.Sheard, who is a Fellow of the Australian Institute of Geoscientists and has had sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. S.N.Sheard is an employee of Carpentaria and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*