FURTHER 733 Km² OF MURCHISON GREENSTONE BELT ACQUIRED NORTH OF CUE, WA - PROSPECTIVE FOR Au & Cu/Zn

- Agreement executed to acquire 100% of Calypso Minerals Pty Ltd, holder of seven tenement applications north west of Cue
- Six applications cover northern extensions of structures hosting Cuddingwarra gold deposits and Cu-Zn mineralization at Emily Well and Wattagee, with seventh application adjacent to the Big Bell gold mine
- Highly prospective stratigraphy hidden under cover and under-explored, ready for application of modern geophysical and geochemical exploration techniques and drilling
- Total Murchison Project landholding now 820km², strategically located between several major gold deposits and existing production facilities

SUMMARY

Enterprise Metals Limited ("Enterprise", ASX: ENT) is pleased to advise of that it has entered into an agreement to purchase 100% of the issued capital of Calypso Minerals Pty Ltd, the holder of seven “1st in time” Exploration License applications covering 733km² of greenstone belt in the Murchison Goldfields of Western Australia (Figure 1 overleaf).

The Calypso landholdings are centred 30km north of Cue and 35km north east of the Big Bell Gold Mine, and form a contiguous block with the tenure recently acquired from Zelda Therapeutics Ltd. Enterprise’ landholdings near Cue now total approximately 820 km².

The landholdings cover Archaean mafic, ultramafic, sedimentary and felsic volcanic rock sequences prospective for orogenic gold and volcanogenic massive sulphide (“VMS”) copper-zinc deposits, and include strike extensions of the gold mineralized Big Bell, Cuddingwarra, Chieftain (or Mt Magnet) and Emily Shear Zones, and a further 37km of strike of the Wattagee and Emily Well VMS mineralized horizons (Figure 2).

Commenting on the acquisition, Enterprise’s managing director Dermot Ryan said:

“Enterprise will be the first company to apply the many recent advances in geophysical and geochemical exploration techniques, and our improved understanding of the regolith (weathered rocks and alluvial cover) to this prospective greenstone sequence, which we consider to be highly prospective for both high-grade Au and Cu/Zn deposits.

Historical exploration by others has been successful at discovering outcropping gold deposits nearby, whereas the Enterprise landholding has been under-explored due to the regolith. The proximity to existing gold production facilities at Mt Magnet and Tuckabianna is also a positive for the package.”
Summary of Agreement Terms

Enterprise has entered into an agreement with the vendor to acquire 100% of the issued capital of Calypso Minerals Pty Ltd, whose main assets are Exploration Licence applications 20/911 to 916, and E20/918 and a considerable quantity of historic exploration information.

At Completion, Enterprise has agreed to pay a Consideration of $170,000, to be satisfied by $50,000 in cash and $120,000 worth of Enterprise fully paid ordinary shares (6 million ENT), based on the 5 day VWAP prior to execution of the agreement. There is no royalty attached to the acquisition.

Figure 1. Enterprise Murchison Project over Interpreted Bedrock Geology and Competitor Landholdings Showing Gold Endowment (Moz produced + Moz current resource)
Geological Setting Favourable for Gold and Base Metals Deposits

The Cue district contains several major gold mines, including Westgold's Big Bell (2.8 Moz historical production, and 2.5 Moz resource), Day Dawn (Great Fingall and Golden Crown mines, 1.7 Moz historical production and 0.89 Moz resource) and Cuddingwarra camp gold mines (Cuddingwarra produced 0.8 Moz with current resources of 0.55 Moz). [Source: Westgold Resources Ltd, Diggers & Dealers presentation August 2017]

Enterprise’s new landholdings cover the northern and north-eastern extensions of the same greenstone belts and shear zones that host the Big Bell and Cuddingwarra gold deposits and extensions of the Chieftain (or “Mt Magnet”) and Emily Well shear zones, which also host gold mineralization.

In addition to the gold potential, the new tenement package contains two stratigraphic horizons with VMS style mineralization identified by previous explorers. The tenements contain 21km of strike of the Wattagee horizon, containing the AM14, Wattagee Hill and Metals Ex gossans or prospects, and 16km of strike of the Emily Well horizon, with VMS mineralization and gossans located at or near Emily Well. Recent geochemical work by the GSWA indicates felsic volcanics in both the Wattagee horizon and the Emily Well horizon have geochemical characters consistent with VMS fertile packages across the Yilgarn and Canadian Abitibi Provinces.

Previous Exploration and Gold and Base Metal Prospects

Modern exploration in the area commenced in 1971, with copper-zinc exploration based around prospects either defined by gossan sampling, and therefore limited to the small windows of outcrop, (for example, around Wattagee Hill and the Eastmet Gossan), or areas of anomalous conductivity defined in historical airborne electromagnetic surveys. These surveys were only effective in areas of nil to shallow transported cover (for example, at Emily Well).

No significant regional electromagnetic or electrical geophysics has been completed since the early to mid-1980’s, other than an IP surveys covering 1,000m of strike of the Wattagee horizon, 400m at AM14, and 600m over the gold focused Stockyard East prospect.

Esso and others in the 1970’s intersected significant downhole widths and grades of copper zinc sulphide mineralization at the AM14 and Eastmet Gossan prospects. Examples of intersections are shown below in Table 1. The locations of these prospects are shown in Figures 2 and 3.

Table 1. Significant Historic Cu-Zn intersections, Wattagee Hill area

<table>
<thead>
<tr>
<th>Prospect</th>
<th>Hole ID</th>
<th>Depth (m)</th>
<th>Interval (m)</th>
<th>Zn %</th>
<th>Cu %</th>
<th>Pd ppb</th>
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<tr>
<td>AM14</td>
<td>AMRC002&quot;&quot;</td>
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<td>2</td>
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<td>960</td>
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<tr>
<td>AM14</td>
<td>WP138&quot;</td>
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<tr>
<td>AM14</td>
<td>WP135&quot;</td>
<td>164</td>
<td>3</td>
<td>4.7</td>
<td>0.7</td>
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<tr>
<td>Eastmet Gossan</td>
<td>WP15&quot;</td>
<td>117</td>
<td>5</td>
<td>1.7</td>
<td>0.28</td>
<td></td>
</tr>
</tbody>
</table>

Footnote: References for historic (pre-JORC) drill intersections on shown on page 7 of this report.

Although these historic copper-zinc intersections are sub-economic, they are significant as VMS style deposits can occur in clusters and along strike within distinct stratigraphic horizons, which cumulatively extend for around 50km through Enterprise’s landholdings.
Figure 2. Enterprise Murchison Project Tenements over GSWA Surface Geology and trace of the Wattagee and Emily Well Cu-Zn VMS Horizons
Figure 3. Enterprise Murchison Project over 1st VD Magnetic Image, showing the trace of the Wattagee and Emily Well VMS Horizons
From 1987 onwards, the exploration focus shifted to gold, with soil sampling, rotary air blast drilling ("RAB") and reverse circulation ("RC") drilling defining gold anomalism throughout the western and northern parts of the project area.

Significant gold results have been reported from the Behring Bore area ("Big Bell North" prospect), Stockyard Well East and Jeffery Bore. Enterprise’s due diligence has identified around 3,550 predominantly shallow historical drill holes within the tenement area, the bulk of which have been targeting gold mineralization. While the compilation program is ongoing, this figure is believed to represent the bulk of the historical drilling, which was largely analysed only for gold.

**Next Steps**

The combination of favourable host rocks, large scale alteration systems, significant gold deposits and Cu-Zn intersections along strike and a complex of intersections, regional faults and shears make the tenements highly prospective area for VMS Cu-Zn and gold exploration.

The tenements can be tested for **base metals** using modern airborne geophysics, in combination with modern advanced geochemical tools, utilizing historical drill spoil from predominantly broad spaced historical gold exploration programs.

Enterprise plans to:

- fly detailed airborne EM on 50-100m line spacings, looking for both:
  - bedrock conductors, indicative of VMS related massive sulphide; and
  - zones of deep weathering indicative of oxidation of disseminated sulphides around possible VMS massive sulphide systems; and
- undertake drill spoil sampling from historical drilling, looking to identify large scale gold and VMS style alteration systems without having to undertake new grid based regolith drilling.

For **gold exploration**, a comprehensive drill hole database for the region has been acquired, which is being interrogated for:

- Effective holes i.e. those drilled deeper than the base of complete oxidation into the partly oxidized (transition) zone;
- Gold dispersion blankets within the weathering profile; and
- Significant bedrock intersections.

Geochemically focused exploration will be combined with structural targets drawn from compilation and interpretation of the most recent detailed aeromagnetic datasets, and multi-element geochemistry, and potential basement weathering zones identified in the airborne TEM flown for base metal exploration.

**Further information:**
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Competent Person Statement

The information in this Report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Dermot Ryan, who is an employee of Xserv Pty Ltd and a Director and security holder of the Company. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 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.

Historic exploration results referred to in this Report were previously reported to the WA Department of Mines and Petroleum in the 1970’s by professional geologists working for reputable mining and exploration companies prior to the imposition of the JORC code. Enterprise Metals Limited understands that this information has not been updated since to comply with the JORC Code 2012, but believes the information has not materially changed since it was last reported.

References


