## **ASX MEDIA RELEASE**



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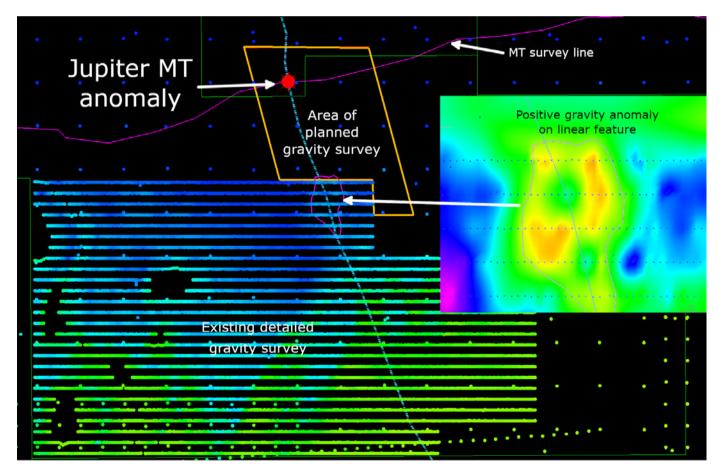
# **Jupiter MT Anomaly Gravity Survey**

### **HIGHLIGHTS**

- Jupiter is an exciting conceptual copper-gold target with independent corroborative indicators from regional gravity, aeromagnetic and MT geophysical surveys.
- A detailed gravity survey is planned before year end over Jupiter to assist drill targeting.

**Havilah Resources Limited** ('Havilah' or 'Company') is pleased to announce plans for a ground gravity survey over the <u>Jupiter magnetotelluric (MT)\* anomaly target ("Jupiter"</u>). Experienced geophysical contractor, Haines Surveys, has been engaged to carry out the gravity survey, to be completed before the end of this year, subject to crew availability.

During evaluation of publicly available data, a circular gravity feature was noted in some detailed SARIG data about 5 km south of the MT survey line (Figure 1). Coincidentally, this positive gravity residual anomaly lies on a prominent north-northwesterly trending magnetic lineament, which may be indicative of a major fault structure.



**Figure 1** Area of planned detailed gravity survey over the Jupiter MT anomaly. Interpretation of earlier publicly available 500 metre x 100 metre spaced gravity data to the south of Jupiter revealed a circular gravity feature (see inset picture). This interesting feature has not been drilled and so its origin is conjectural at this stage.

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Gravity measurements are influenced by the density of underlying rocks in relation to the earth's surface. Hence at a given depth denser rocks (which can include metalliferous deposits or their host rocks) will generate a positive gravity anomaly or gravity high at surface. Circular gravity features can sometimes indicate intrusive igneous rocks or a pipe-like alteration zone that can be host to mineralisation. While the source of this particular gravity feature is unknown at this stage, it does indicate the potential usefulness of gravity as a targeting tool in this region.

Accordingly, as an exploration objective Havilah has decided to extend the detailed gravity survey northwards to beyond the MT survey line (Figure 1). The aim is to determine whether the subtle gravity ridge detected in the public data continues to the north.

#### Commenting on the planned detailed gravity survey, Havilah's Technical Director, Dr Chris Giles, said:

"Jupiter is an exciting copper-gold conceptual exploration play in a prospective geological setting with plenty of evidence for major fault or fracture systems from aeromagnetic data.

"Three independent geophysical indicators all point to roughly coincident features of interest in the vicinity of Jupiter.

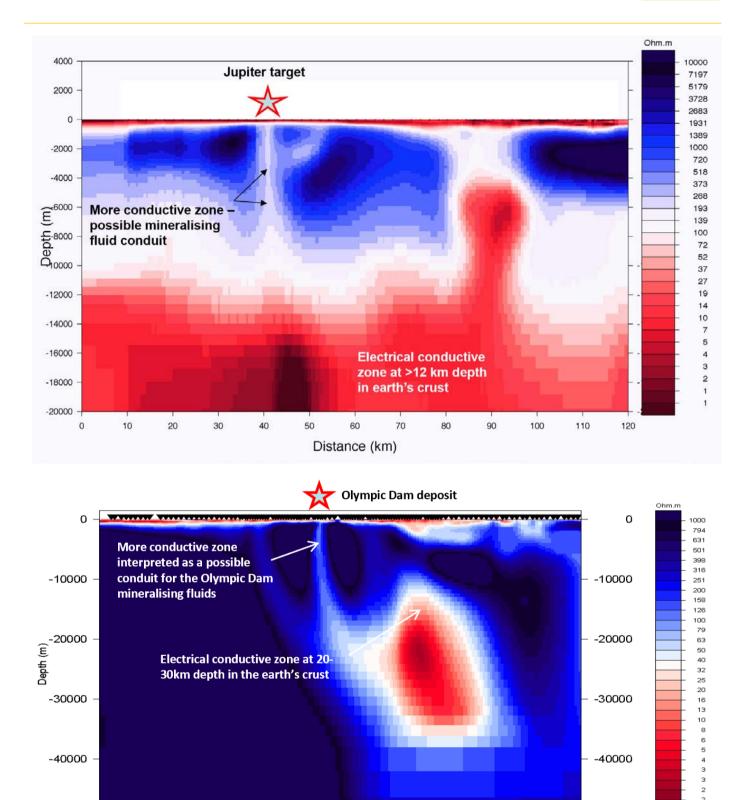
"Our challenge is to refine those geophysical indicators down to a drilling target scale if possible, and the planned gravity survey will be important in helping us to achieve that," he said.

#### \*About Jupiter and MT geophysics

Jupiter was identified by Professor Graham Heinson and his team from the University of Adelaide during 2017 following collection and analysis of 2 km spaced MT readings (Figure 2). Notably, the volcanic rocks and associated granites in this part of the Curnamona Craton are almost identical in age and origin to those in the Gawler Craton that host the Olympic Dam deposit, a point which encouraged previous explorers like MMG and Newcrest in their quest for IOCG (iron oxide copper gold) deposits in this region.

MT is a geophysical method that relies on measuring the very small natural time variations of the Earth's magnetic and electric fields to determine the electrical resistivity in the subsurface. The method is able to distinguish zones of varying electrical conductivity in the earth's crust to depths of more than 20 km. It is a powerful technique because it can potentially identify major conductive zones in the earth's crust that could represent the feeder zones to large metal accumulations. For example, research work in the Gawler Craton has identified a large conductive zone at depth beneath the Olympic Dam deposit with a distinctive conductive feature rising up towards the surface immediately beneath the orebody (see Figure 2 below). This vertical feature has been interpreted as a possible feeder zone for metalliferous fluids from a more conductive and potentially copper rich part of the deep crust in this region.





**Figure 2** Comparison of MT conductive zones beneath Jupiter (top) and Olympic Dam (bottom). The MT anomaly sections are reproduced with the permission of Professor Graham Heinson from the University of Adelaide.

40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

Distance (Km)

-50000

-50000

30



#### **Cautionary Statement**

This announcement contains certain statements which may constitute "forward-looking statements". Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, performance or achievements to differ materially from those expressed, implied or projected in any forward looking statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results and Mineral Resources is based on data and information compiled by geologist, Dr Chris Giles, a Competent Person who is a member of The Australian Institute of Geoscientists. Dr Giles is Technical Director of the Company, is employed by the Company on a consulting contract and is a substantial shareholder. Dr Giles has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Giles consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

For further information visit www.havilah-resources.com.au Contact: Dr Chris Giles, Technical Director, on info@havilah-resources.com.au