



Savannah Resources Plc / Index: AIM / Epic: SAV / Sector: Mining

22 January 2015

### **Savannah Resources Plc**

## **Ground Geophysics Confirms High Priority VMS Copper Drill Targets, Oman**

Further to the announcement of 24 December 2014, Savannah Resources plc (AIM: SAV) ('Savannah' or the 'Company') is pleased to announce the results from the recently completed ground Electro-Magnetic ('EM') survey conducted over a number of high priority prospective copper targets within Blocks 4 (Savannah earning 65%) and Block 5 (Savannah 65%) in Oman. Savannah has interests in three blocks, covering 1,270km<sup>2</sup> of tenure, located over the highly prospective Semail Ophiolite in northern Oman.

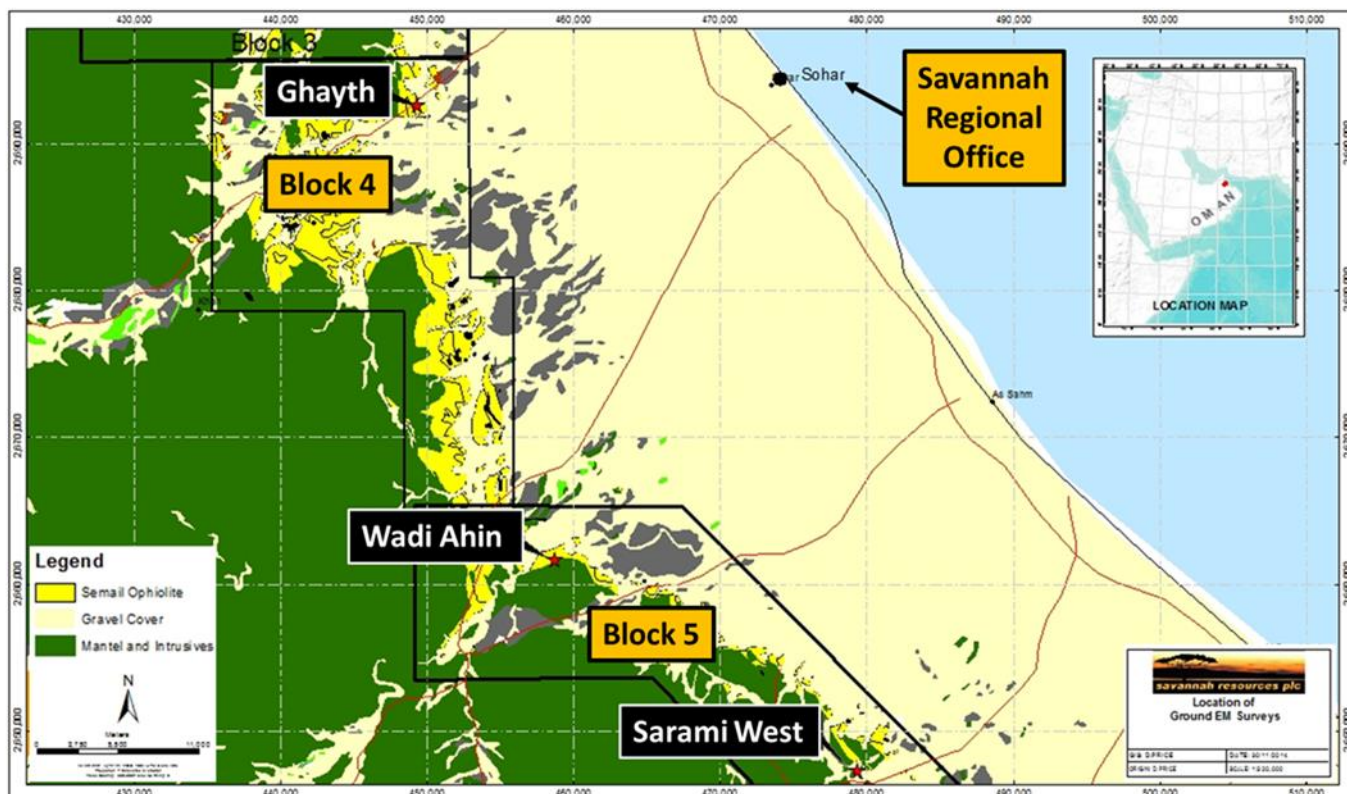
### **HIGHLIGHTS:**

- Ground EM survey has identified a series of high calibre anomalies at the Sarami West (Block 5) and Ghayth (Block 4) prospects
- The strongest anomaly was identified at Sarami West, which has very high conductance, spans over 200m, and remains open to the south
- Fieldwork has not identified any potential sources for a false anomaly, increasing the chances that the anomalies are a result of copper bearing sulphides at depth
- A drill programme to test the newly defined ground EM targets is being designed and due to commence around the end of January 2015.
- Semail Ophiolite belt is proven to host clusters of relatively high grade copper deposits with gold credits and metallurgically simple ores
- Oman is a modern Middle Eastern country with excellent infrastructure, low fuel costs and a favourable fiscal regime for any potential mine development

Savannah's CEO, David Archer said, "We are very pleased with the results of the recently completed ground EM survey, which has detected a number of high quality anomalies for early drill testing. Modelling of the data has positioned the sources of these anomalies at approximately 80 to 120m below the surface and they have exceptionally high conductance. These high levels of conductance indicate that the anomaly source bodies have a very good chance of being prospective for semi-massive to massive sulphides, supporting the potential for the discovery of copper deposits."

"Past explorers have already identified two VMS deposits within Block 5 and, given that VMS deposits tend to occur in clusters, we think our new, integrated exploration approach has a high chance of discovering additional deposits. The recent ground EM survey has identified a series/cluster of new untested anomalies within a favourable geological setting which all point towards there being an excellent chance of making a new discovery."

“Oman is a well-developed country with excellent infrastructure (proximal to a major deep sea port, excellent bitumen road networks and extensive power line network), low fuel and labour costs and a favourable fiscal and tax regime. We believe that mining profitability in Oman will be significantly enhanced by this very favourable development setting.”



**Figure 1: Block 4 and 5, Prospect location map showing location of 3 ground EM targets**

### **Ground Electro-Magnetic Surveys**

A series of ground based EM surveys (Appendix 1) were completed over high priority anomalies including Sarami West, Wadi Ahin and Ghayth, which were identified as part of Savannah’s integrated exploration approach. In December 2014, a series of 100m spaced traverses were completed over each target using an in-loop configuration with a 100m square single turn transmitter loop and a three component fluxgate antenna.

### **Sarami West Prospect (Block 5)**

Five EM traverses were completed across Sarami West, which covered the high priority VTEM targets 145-146 (Figure 2) and produced some excellent results. A very strong response has been identified towards the middle of line 2647400n (VTEM target 145), a second anomaly on the eastern end of the grid (VTEM target 146) and a newly defined anomaly in the south east of the survey grid (Appendix 2). The symmetry of the anomalies indicate the sources dip very shallowly to the east with a long time constant suggesting that they are very good conductors.

Modelling of the ground EM data confirmed the three main anomalies identified at Sarami West have a low angled easterly dip, as well as their excellent conductance (Figures 3). The response over VTEM

target 145 has been defined over a strike length of 200m and remains open to the south confirming its excellent prospectivity.

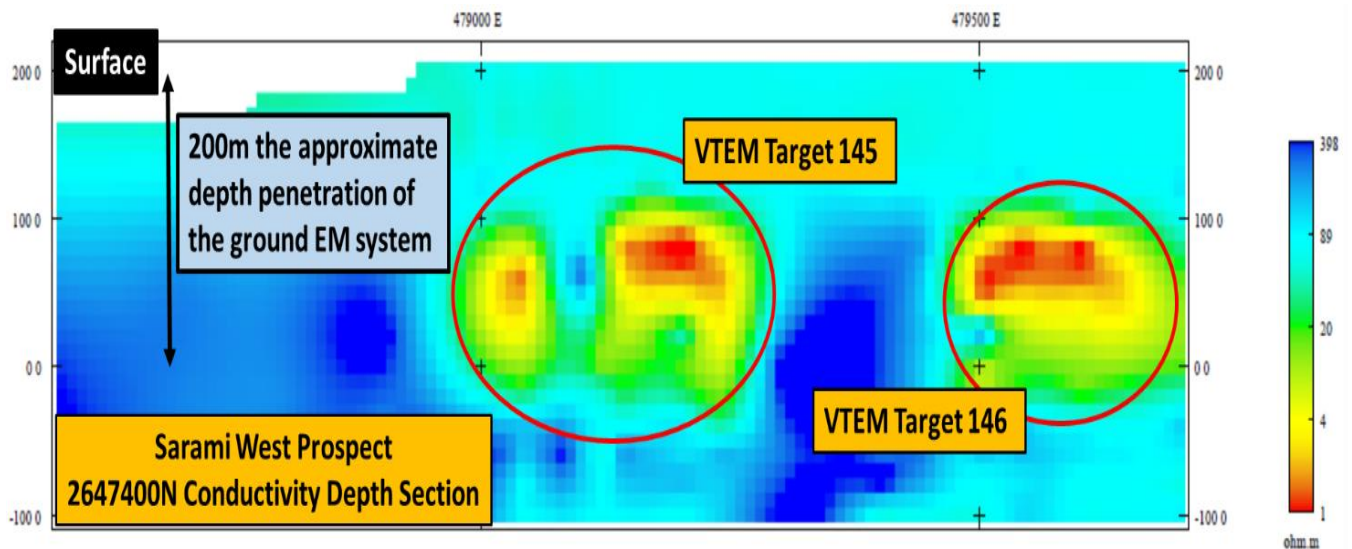


Figure 2: Sarami West Prospect: Modelled Conductivity Cross Section for 2647400N, note the strong conductor at VTEM Target 145

#### Ghayth Prospect (Block 4)

A series of seven east-west ground EM data traverses were collected over the Ghayth project area. The results showed a bunching of the mid to late time channels across the profiles which may indicate the presence of flat lying conductors potentially related to the weathering of the Ghayth gossan (Figure 3). Three discrete flat lying anomalies have been defined at a depth of around 80m and require drill testing to determine whether they are sulphide mineralisation associated with the extensive surface gossan.

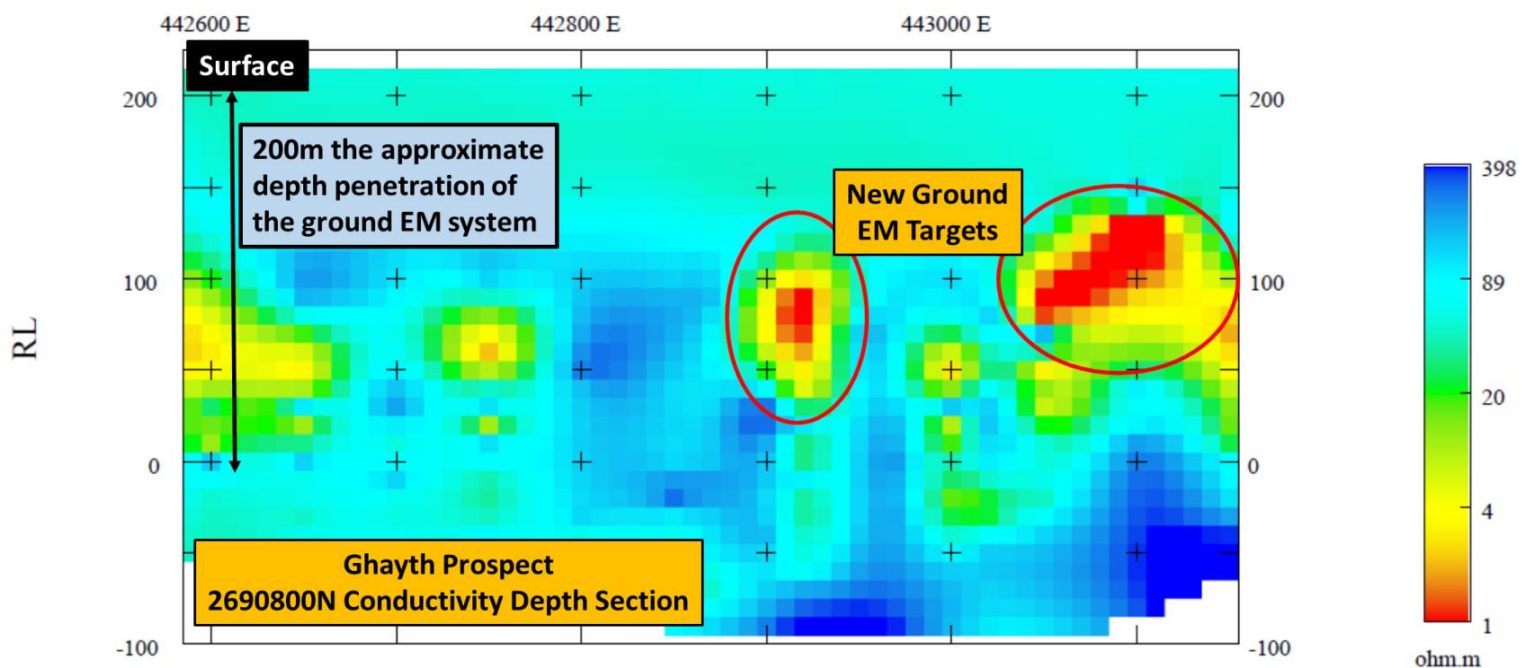


Figure 3: Ghayth Prospect: Modelled Conductivity Cross Section for 2690800N

### **Wadi Ahin Prospect (Block 5)**

EM data traverses over the Wadi-Ahin prospect covered VTEM anomalies 62 and 64. Six traverses were collected over a northern and a southern survey block, with traverses over the northern block collected in a north-easterly orientation with the southern block traverses being collected in an east-west orientation.

The northern block data recorded over VTEM target 62 identified no features of interest in the acquired data. Results from the southern block data over VTEM anomaly 64 identified some short wavelength anomalies on the two most southern lines; however they do not have any line to line continuity and are of limited size.

The modelling of the anomalies was difficult due to the complexity of the small localised conductors and trying to model them with simple plate like geometries replicating the three components. Based on the results to date, none of the modelled conductors were found to be of significant conductance or dimensions to justify immediate follow-up.

### **Ongoing Resource Definition and Exploration Programme**

Further work is now required to test the EM conductors defined by the recent ground EM survey and continue the ongoing exploration programme. The ongoing work programme will include:

- Completing a detailed targeting assessment of the geophysical data looking at subtle targets, targets under cover, and targets potentially concealed by cover along known prospective trends
- Improving understanding through better characterisation of known deposits, inside and outside the blocks, especially through litho-geochemical signatures of mineralisation and alteration and a better definition of structural and lithostratigraphic control
- Further geological mapping, geochemical sampling and airborne VTEM survey
- Drill targets being defined by a combination of VTEM conductors, ground EM follow-up, systematic surface geochemistry, geological mapping and litho-geochemical targeting

### **Competent Person**

The information in this document that relates to exploration results is based upon information compiled by Mr Dale Ferguson, Technical Director of Savannah Resources Limited. Mr Ferguson is a Member of the Australian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Ferguson consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

**\*\*ENDS\*\***

For further information please visit [www.savannahresources.com](http://www.savannahresources.com) or contact:

David Archer	Savannah Resources plc	Tel: +44 20 7389 5019
James Biddle (Nominated Adviser)	RFC Ambrian Limited	Tel: +44 20 3440 6800
Charlie Cryer (Corporate Broker)		
Felicity Winkles/ Charlotte Heap	St Brides Partners Ltd	Tel: +44 20 7236 1177

## **Appendix 1**

### **What is a Ground Electro-Magnetic (EM) Survey?**

A Ground Electro-Magnetic Survey (EM) works on the same principle as a hand held metal detector, except on a much larger scale and with a much larger power source which allows for much greater depth penetration. Ground EM is a geophysical technique in which an alternating current is passed through a (closed/isolated) transmitter loop at surface. This change in current generates a time alternating Electro-Magnetic Force/Field (EMF) that permeates through the earth exciting/energising any subsurface conductors, such as massive sulphides. These excited/energised subsurface conductors generate a “secondary EMF response” which is measured at surface with the receiver antennae. The rate at which this observed secondary signal/response decays/dissipates/dies is directly related to the quality of the conductor i.e. the slower the secondary EMF response decays the better the conductor. From this information the location, geometry (dip/strike) and conductivity characteristics (conductance quality) can be inferred and modelled.

## **Appendix 2**

Example of a "Z" component data profile stack for Sarami West. Note the good anomaly in the centre of the traverses, with its strongest response on line 2647400n. The single peak is due to the low dip. Note the development of another good conductor towards the end of the lines, this is a new discovery.

