



**HD Argent Minerals Limited (ASX:ARD) Mag Survey Reveals Large Copper-Gold Target at West Wyalong**

**WC** 1,730 words

**PD** 17 July 2014

**ET** 11:14

**SN** ABN Newswire

**SC** ABNENG

**LA** English

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Sydney, Australia, July 17, 2014 - (ABN Newswire) - Argent Minerals Limited (ASX:ARD) ("Argent", "Argent Minerals" or the "Company") is pleased to announce the results of an airborne magnetic survey conducted at the West Wyalong Project in NSW, Australia, a farmin joint venture between Argent Minerals and Golden Cross Resources in which Argent Minerals has the right to earn a 51% interest, then 70%, through exploration expenditure.

The West Wyalong Project is situated in the Macquarie Arc of the Lachlan Orogen, in a geological setting of Ordovician volcanics which hosts worldclass porphyry copper-gold mines such as Newcrest's Cadia, China Molybdenum's Northparkes, and 37 kilometres to the north of West Wyalong - Barrick Gold's Lake Cowal mine.

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The purpose of the West Wyalong survey was to obtain enhanced magnetic geophysics data over an area of interest which Argent had recently identified as being potentially prospective for a porphyry copper-gold deposit. In 2013 the Company had identified the potential deposit by reprocessing historical geophysics data that had been obtained from low resolution government magnetic and radiometric surveys.

The high resolution magnetic data from this recent survey has enabled Argent to significantly advance interpretation of the subsurface geology and the definition of areas where the magnetic minerals in the host rock may have been altered by mineralisation processes. The survey has successfully identified an area of low magnetic rocks within a belt of predominantly magnetic high response, indicating thermal destruction of magnetism typically associated with volcanic intrusion processes. The much higher resolution of the new data at 50 metre line spacing has enabled 3D modeling of the anomaly, and correlation with induced polarisation (IP) data reprocessed from a historical Mount Isa Mines Distributed Acquisition System (MIMDAS) survey.

The co-location of the magnetic anomaly with an IP chargeability high anomaly, and the strong copper-gold geochemistry intercepted above it by shallow air core drilling, together confirm a sizeable potential porphyry copper-gold target. The interpreted dimensions of the magnetic anomaly are significant, being approximately 1.4 kilometres in the north-south direction, 800 metres from east to west, and extending to depth from 200 metres.

Managing Director David Busch said, "This is a very exciting development for the West Wyalong Project, placing it on the map as a sizeable Australian porphyry copper-gold target, in which Argent has earned a 51% interest. If it is connected to the same structure as our Narragudgil Prospect 2 kilometres to the south east as we believe it to be, then we may have identified the potential for a major discovery in this rich, fertile area which has produced some of Australia's best copper-gold deposits".

About the magnetic anomaly

Figures 1a and 1b (in link below) show a side by side comparison plan view of the magnetic low and the chargeability high identified over the area of interest. Figures 2a and 2b are to the same scale as Figures 1a and 1b, and show the related cross sections of the interpreted models of the anomalies to a depth of approximately 625 metres from surface.

The airborne magnetic survey data was obtained by Thompson Aviation Limited using latest technology equipment with the sensitivity and accuracy to measure changes in the earth's magnetic field as small as 1 part in 5 million.

The survey was flown at 35 metres above ground in a pattern of parallel lines spaced 50 metres apart for a total of 1,574 kilometres. Details of the equipment employed are set out in JORC 2012 Table 1 Section in Appendix B of this announcement.

The high resolution of the magnetic survey data, a first for this area, enabled ARCTAN Services Pty Ltd (ARCTAN) to perform a detailed analysis and to produce a 3D interpreted model of the magnetic anomaly. An interpreted cross section is presented in Figure 2a, with inverted colours for ease of reference in the context of thermal destruction of magnetic properties. Amongst other possible interpretations, the section presented in Figure 2a (in link below) is consistent with known porphyry copper-gold mineralisation (eg. Northparkes) in this geological terrain.

The interpreted dimensions of the magnetic anomaly are significant, being approximately 1.4 kilometres in the north-south direction, 800 metres from east to west, and extending to depth from 200 metres.

About the IP chargeability anomaly and the co-incidence with the magnetic anomaly

Comparison of the new magnetic data with chargeability data from a historical 100 metre pole-dipole MIMDAS survey reveals a coincidence of the magnetic low with an area of elevated IP chargeability (see Figure 1b - plan view, and Figure 2b - the corresponding cross section). Originally obtained during 2002-2003, the MIMDAS survey data was re-processed by ARCTAN as part of this analysis, for comparison with the magnetic survey data; a 3D interpreted model has also been produced from the MIMDAS data and a cross section set out in Figure 2b for side-by-side comparison with the magnetic anomaly.

The coincident IP chargeability anomaly is indicative of porphyry copper-gold mineralisation in this geological setting. The IP chargeability anomaly indicates a potential pyritic halo typically surrounding mineralisation in a porphyry deposit. Coincidence of the magnetic low and the IP chargeability high is a strong indication of alteration associated with intrusions related to porphyry copper-gold style mineralisation.

Further modelling and interpretation of the IP and high resolution magnetic data indicates that the anomaly plunges to the north and continues to depth.

About the shallow drilling - strong geochemistry provides additional confirmation

Shallow aircore drilling conducted by Newcrest Mining in January 2000 intersected strong gold and copper geochemistry, providing additional confirmation of the porphyry copper-gold signature.

Intercepts above the magnetic anomaly include gold from 0.05 g/t to 0.24 g/t, and copper to 645 ppm, which are considered to be strong geochemical anomalies in the context of shallow aircore drilling. As can be seen by the cross sections in Figures 2a and 2b, the holes are considered as not having tested either of the magnetic or IP chargeability anomalies.

It is important to note that the shallow Newcrest drilling was performed prior to the MIMDAS survey conducted during the 2002-2003 period. The shallow aircore drilling was performed by Newcrest in 2000 as part of a broad grid-based geochemical mapping exercise which extended across a much larger area.

Only the relevant Newcrest drill holes are shown on Figures 1a, 1b, 2a and 2b, out of a much larger drillhole population. The Newcrest shallow drilling did not target what we now know to be a strong magnetic anomaly in the area, and the company's historical exploration reports make no mention of any magnetic anomalies.

Had the exploration company known about the coincident magnetic and IP chargeability anomalies in the area, there would have been a strong case for drilling much deeper holes. However, since the anomalies were not identified, and the company's strategy was to perform broad grid-based shallow aircore drilling, the depths of the holes were limited.

Please refer to Appendix A, Table A for details of the Newcrest shallow aircore drilling in link below.

About the geological setting and the airborne magnetic survey area

The West Wyalong Project is situated in the Macquarie Arc of the Lachlan Orogen, in a geological setting of Ordovician volcanics which hosts world-class porphyry copper-gold mines such as Newcrest's Cadia,

**China** Molybdenum's Northparkes, and 37 kilometres to the north of West Wyalong - Barrick **Gold**'s Lake Cowal mine.

Exploration licence EL5915 and the southern portion of EL8001 of the West Wyalong Project are strategically located on the Narragudgil Volcanics, in between the Gilmore Suture, a major crustal structure, and the Yiddah Formation (Figure 3). **Copper-gold** porphyry deposits commonly occur in orogenic belts at convergent plate boundaries and are often associated with oceanic volcanic island arcs overlying oceanic crust such as the Macquarie Arc. Ordovician age Narragudgil Volcanics are prospective for porphyry **copper-gold** deposits. These deposits are typically medium to large tonnage (30 to >300 Mt) with grades ranging from 0.4 to 2.5 g/t **gold** and 0.2 to 1.5% **copper**.

Argent Minerals has now earned a 51% interest in this project whose key prospects are the magnetic anomaly featured in this announcement, and the Narragudgil Prospect located approximately 2 kilometres to the south east. Given the north-west trend of the structures, there is a possibility that these two prospects are connected beneath overlying cover.

Similarities have been observed in relation to the Northparkes deposit, and will be reported separately to the ASX on completion of the analysis.

#### Next steps

Argent has determined that the anomalies are to be tested as a priority.

Prior to drill testing of this anomaly, the area of the magnetic low will be surveyed with more closely spaced deeply penetrating IP, such as a 100 metre by 200 metre offset pole-dipole survey. The model generated from such a survey would be more accurate in terms of defining the strongest IP chargeability response to aid precision drillhole planning.

#### Joint Venture Position

Figure 4 summarises Argent's interest in the Joint West Wyalong Farmin and Joint Venture Agreement between Argent Minerals Limited and Golden Cross **Operations** Pty Ltd, a wholly owned subsidiary of Golden Cross Resources Limited as at the date of this announcement (JVA).

To view all tables and figures, please visit:

<http://media.abnnewswire.net/media/en/docs/ASX-ARD-684170.pdf>

#### About Argent Minerals Limited:

Argent Minerals Limited (ASX:ARD) is an Australian publicly listed **company** with a 100% interest in a silver/**gold** project at Kempfield NSW. Work is underway on the preparation of an EIS and a feasibility study for the first stage of the project which will involve heap leaching some 8.8 **million** tonnes of mainly oxide and transitional material to produce over 9.5 **million** ounces of silver and 15,000 ounces of **gold** over a 5 year mine life. Argent is also earning up to a 70% interest in two other NSW projects - **gold** at West Wyalong and base metals at Sunny Corner.

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**RF** ABNEN77631

**CO** argmin : Argent Minerals Limited

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