

## APPROVED WEST WYALONG COPPER-GOLD TARGET DRILL-TEST PLAN

### Argent at a glance

ASX-listed mineral resource company focused on the expansion, development, extraction and marketing of its existing base and precious metals discoveries in NSW.

### Facts

■ ASX Code:	ARD, ARDO
■ Share price (13 February 2017):	\$0.031
■ Shares on issue:	360.1 M
■ Market capitalisation:	\$11.16 M

### Directors and Officers

**Stephen Gemell**  
Non-Executive Chairman

**David Busch**  
Managing Director

**Peter Nightingale**  
Non-Executive Director

**Peter Michael**  
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### Highlights:

- Regulatory approval has been received for the West Wyalong diamond drilling program, allowing Argent to commence during the last week of February 2017.
- This program, totalling 2,300 metres in six holes, is the first drilling to be conducted by Argent to test the Theia and Narragudgil geophysical targets.
- Five diamond holes have been designed to test the Theia copper-gold porphyry target and potential system over a strike length of 1.8 kilometres, with the deepest hole to be drilled to a depth of 500 metres.
- One diamond hole has been designed to test the Narragudgil epithermal gold target to a depth of 400 metres.
- Key positions identified in conceptual model derived from detailed analyses of geochemical and geophysical assessments will be drill tested.
- Up to \$200,000 of direct drilling costs will be co-funded by the NSW Government, merit based, Cooperative Drilling fund.
- Expenditure will result in Argent increasing its interest in the West Wyalong project to 70%.

Argent Minerals Limited (ASX: ARD, Argent, or the Company) is pleased to report that regulatory approval has been received for the West Wyalong diamond drilling program.



The West Wyalong project is strategically positioned within an active gold producing region in central NSW.

**About the drill program**

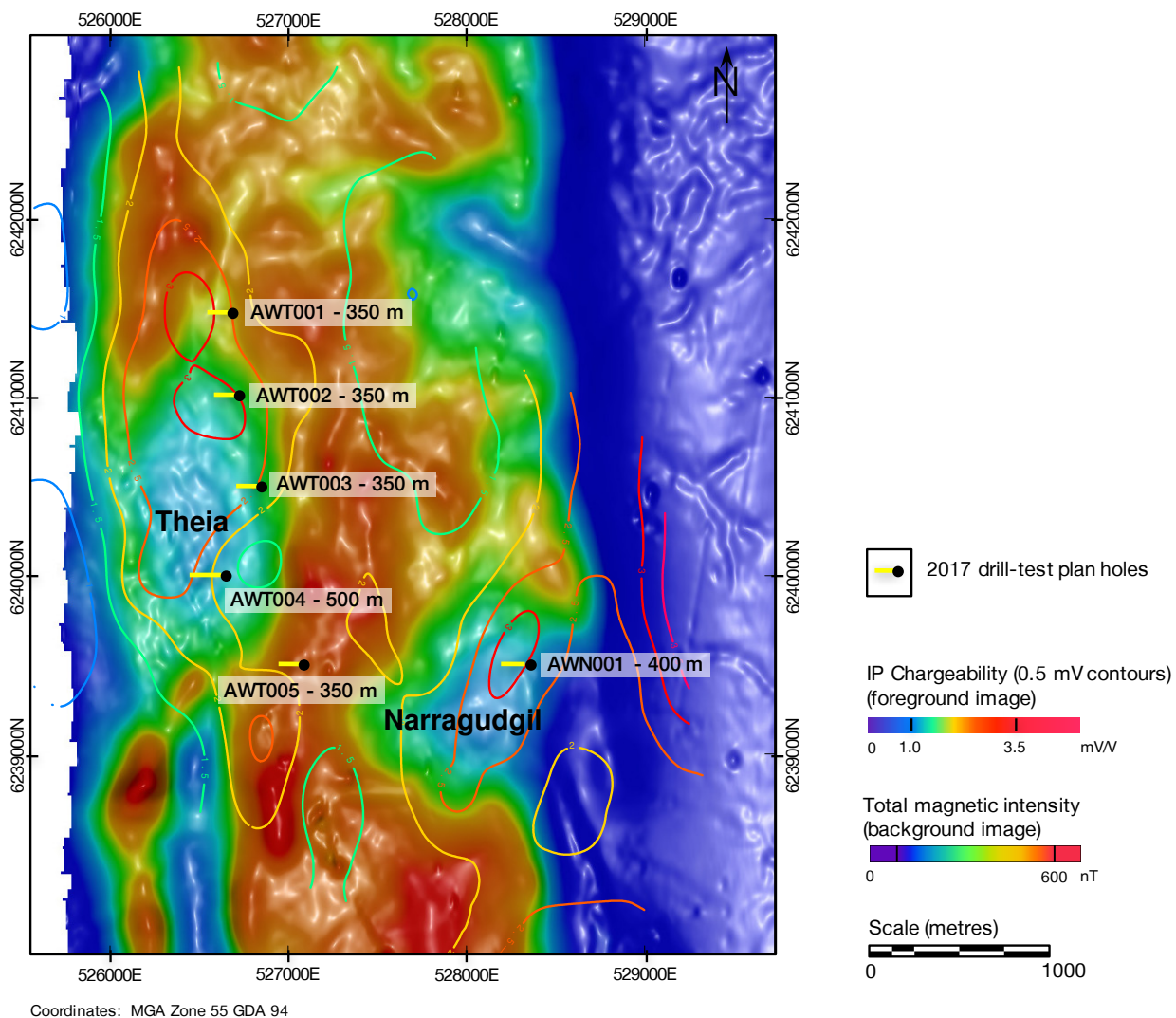
The six-hole drill program has been designed for a total length of 2,300 metres with the deepest hole to reach 500 metres depth.

The plan has been developed to drill key positions on the Theia and Narragudgil targets to test for the occurrence of a copper-gold porphyry system and associated epithermal gold mineralisation that is based on Argent’s conceptual model for the area.

Figure 1 is a plan view illustrating the position of the hole collars, the planned hole traces and depths over the combined high resolution geophysics and induced polarisation (IP) survey results, as announced on 13 May 2016 – *West Wyalong IP survey reveals additional gold target*.

The holes will be drilled to a design of 270° (True) azimuth (ie. to the west), and a dip of 70°. Five holes will test the Theia copper-gold porphyry target and potential system derived from coincident multi-survey geophysical anomalies over a 1.8 kilometre distance in the north-south strike direction. Drillholes are generally designed to 350 metre depth and the deepest hole to 500 metres. A single hole has been designed to test the potential for epithermal gold mineralisation at the Narragudgil target to a depth of 400 metres.

Figure 1 – Plan view illustrating the key positions of the hole collars and traces in relation to the coincident magnetic low and IP chargeability high anomalies that the 2017 drill plan has been designed to test





Figures 2 to 6 provide a series of west-east cross inversion model sections illustrating the positioning, dip, depth and purpose of each hole in relation to, and based on, a 3D IP model derived from the geophysics survey results.

Figure 2 – 6241500N section illustrating the hole AWT001 design targeting the main IP chargeability high corridor of the Theia anomaly at a depth >100 metres

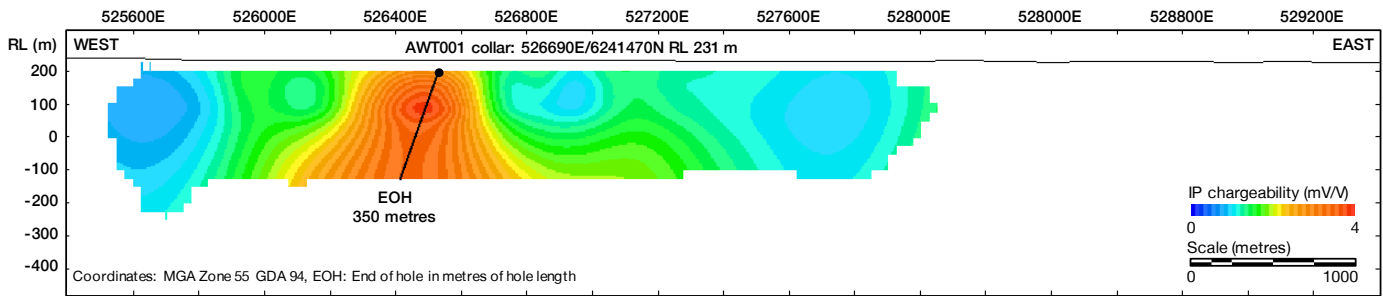


Figure 3 – 6241000N section illustrating the hole AWT002 design targeting the main IP chargeability high corridor of the Theia anomaly at a depth >200 metres

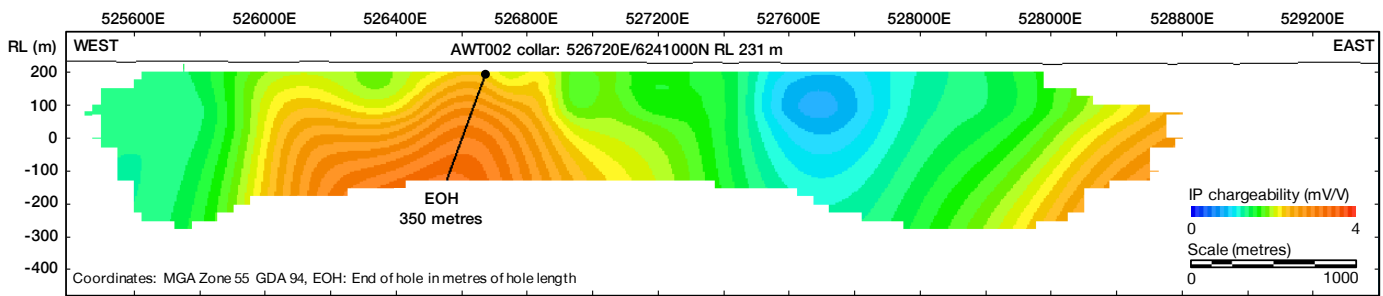


Figure 4 – 6240500N section illustrating the hole AWT003 design targeting the main IP chargeability high body and potential contact zone of the Theia anomaly at a depth >300 metres

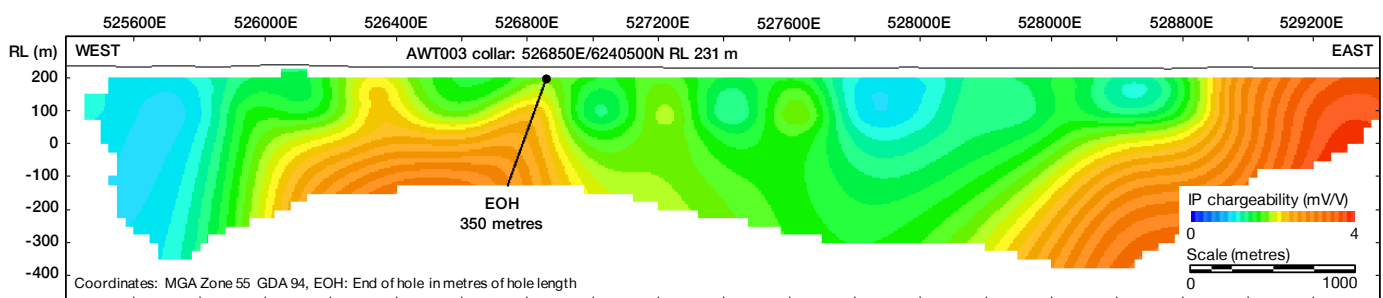


Figure 5 – 6240000N section illustrating hole AWT004 design targeting the main centre of the magnetic low, elevated IP chargeability and MIMDAS responses of the Theia anomaly at a depth >=300 metres

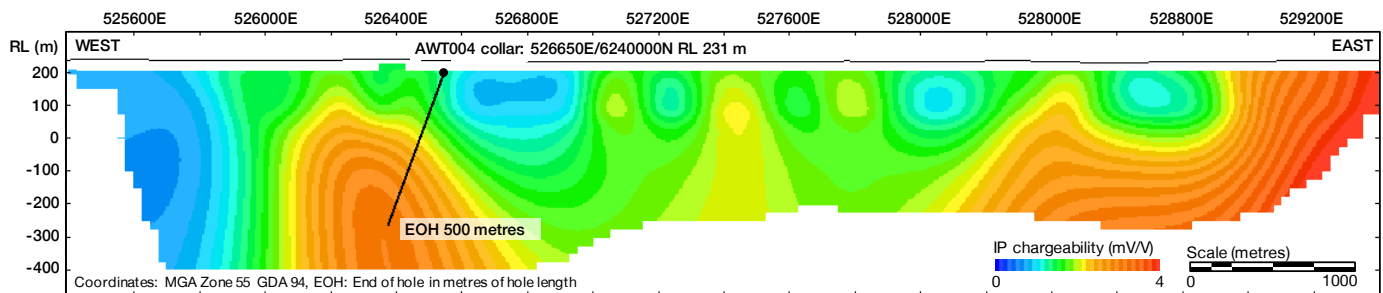
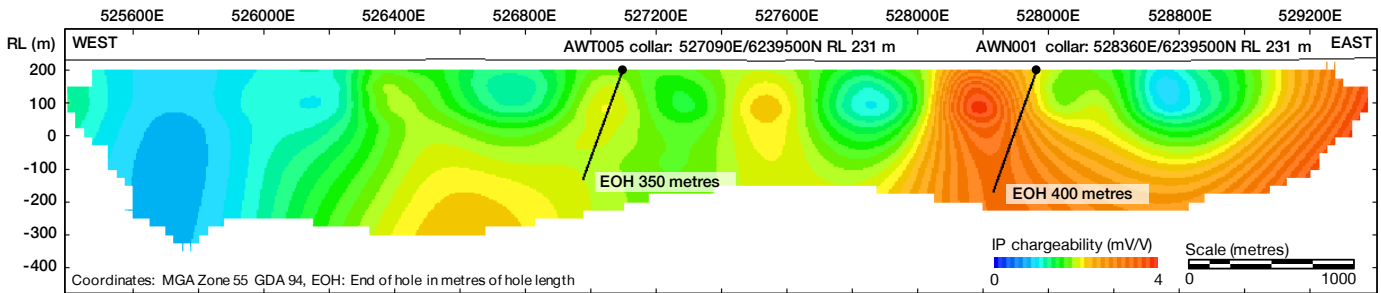






Figure 6 – 6239500N section illustrating hole designs for AWT005 and AWN001 targeting the main IP chargeability high and geochemical corridor linking the Theia anomaly to the Narragudgil anomaly at a depth of >200 metres

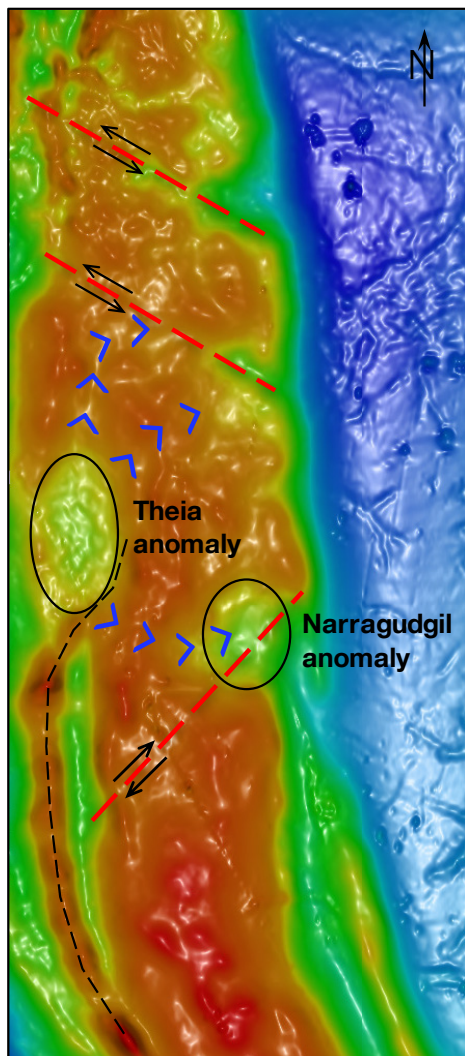


**About the conceptual model**

The conceptual model guiding the drill program is based on results from the high resolution magnetic survey which shows clearly distinguishable structural features that may be extensional faults associated with a potential intrusion and possible telescopic epithermal system.

Figure 7 shows the basic elements of the conceptual model used for drill targeting.

Figure 7 – Plan view illustrating the newly-constructed conceptual model being tested by the drilling program



The interpreted extensional faults are illustrated as red dashed lines in the figure, and were interpreted from consistent geometry of the low magnetic intensity of the low magnetic features. The areas of lesser magnetic intensity which appear to link the main intrusive element with the faults are possibly resulting from high rates of hydrothermal fluid flow (blue arrows).

The potential fluid flow areas are coincident with high resistivity values observed in the recent ground IP survey that would be expected from intense silicification.

A basal unit of the Narragudgil Volcanics with high magnetic signature (black dashed line in the south of the image) can be observed ‘draping’ over the Theia anomaly target area, which is consistent with disruption of existing geology during later stage intrusion. This is based on the geology being sub-vertical and younging to the east.

Each of the described features above have coincident geochemical signatures supporting this conceptual model, elevated copper and gold at Theia, elevated zinc to the east of Theia, elevated molybdenum to the north and south of Theia, and elevated gold and copper at the Narragudgil target area.

>> Destructive hydrothermal fluid pathways

- - - Structures

Reduced to pole (RTP) magnetic intensity  
-460 770 nT

Scale (metres)  
0 2000



**About the drilling approvals and schedule**

The regulatory drilling approval included a new condition requiring Argent to submit details of the post-drilling rehabilitation plan no less than 14 days prior to drilling commencement. The resultant delay allows drilling commencement next week, but no earlier than 22 February 2017 for compliance with the new condition.

Although drillholes are located well beyond the statutory minimum from dwellings, Argent has decided that any possible interaction with a local dwelling should be considerate and reasonable, therefore drill shifts have reduced to daylight hours only. The program schedule is planned to be completed within a 70 day period, subject to factors outside the control of Argent such as weather and drilling conditions.

**About the 50% NSW Government Cooperative Drilling funding**

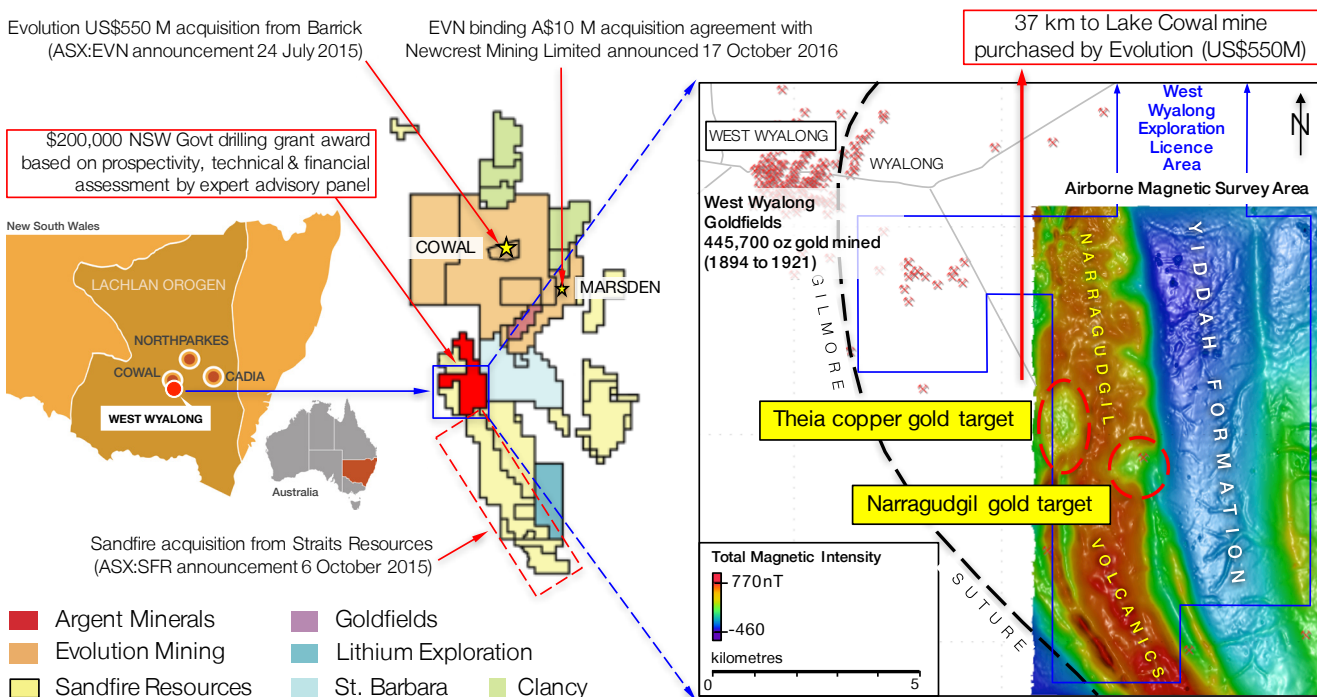
On 26 October 2016 Argent announced the award of \$200,000 of NSW Government funding for the Company’s West Wyalong project. The heavily contested funding award was granted to the Company following the evaluation by an independent expert panel of the West Wyalong project’s prospectivity and technical basis, as well as the soundness of the Company’s financial management.

Under the Funding Deed executed by the NSW Government and Argent, NSW Cooperative Drilling will refund 50% of the direct per-metre drilling costs on the drilling contractor’s invoices up to a maximum of \$200,000 within 30 business days of the Company producing the reports required by the Funding Deed.

**About the strategic location of the West Wyalong gold targets and the 70% interest to be earned**

Figure 8 illustrates the strategic positioning of the West Wyalong project in which Argent will have earned a 70% interest by incurring the expenditure for the drilling program as scheduled. The local tenement map has been updated with the recent expansion of Evolution Mining’s footprint and the entrance of Goldfields to the local area.

Figure 8 – The strategic location of the West Wyalong copper-gold and gold targets



\* West Wyalong and selected surrounding tenements as at 14 February 2017

This ASX Report must be read in conjunction with JORC 2012 Table 1 provided in Appendix A.

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# APPENDIX A – JORC 2012 EDITION TABLE 1

## JORC 2012 EDITION TABLE 1

### WEST WYALONG DRILL-TEST PLAN

The following information follows the requirements of JORC 2012 Table 1 Sections 1, 2 and as applicable for ASX Report related to West Wyalong drill-test plan.

#### Section 1 - Sampling Techniques and Data

Criteria	Commentary																		
<p><b>Sampling techniques</b></p>	<p>Argent is reporting new diagrams from the ground IP survey that was conducted in March 2016. The data from which the diagrams derive was processed and interpreted by ARCTAN Services Pty Ltd (ARCTAN). These diagrams make reference to a historical MIMDAS survey conducted by MIMEX (Mount Isa Mines Exploration) in 2002.</p> <p><u>Ground IP Survey March 2016</u></p> <p>Argent contracted Fender Geophysics Pty Ltd (Fender Geophysics) to conduct a ground IP Survey within Argent’s exploration licence EL8430 at West Wyalong. A total of 6 square kilometres was surveyed. Equipment and sampling techniques employed in the survey are listed as follows:</p> <table border="0"> <tr> <td>Survey Type</td> <td>3D Induced Polarisation</td> </tr> <tr> <td>Array</td> <td>Offset pole dipole</td> </tr> <tr> <td>Number of Arrays</td> <td>4 arrays + 1 repeat array</td> </tr> <tr> <td>Dipole Length</td> <td>100m</td> </tr> <tr> <td>Receiver Lines</td> <td>1600m long of 16 dipoles of 100m length</td> </tr> <tr> <td>Transmitter Line</td> <td>3200m</td> </tr> <tr> <td>Line Separation</td> <td>200m</td> </tr> <tr> <td>Domain</td> <td>Time Domain</td> </tr> <tr> <td>Cycle</td> <td>0.125Hz or 2 seconds</td> </tr> </table> <p>Fender provided a 6 man crew including 4 experienced field geophysicists, 1 experienced transmitter operator and 1 experienced field assistants. The survey consisted of four standard arrays of three lines each with two receiver lines of 17 electrodes each separated by 400m, a receiver dipole length of 100m, and a line of transmitter electrodes spaced at 100m giving a line separation of 3 x 200m. Each array covered an area of approximately 1600 metres by 400 metres, and the total surveyed area was approximately 6 square kilometres. The survey was conducted as an offset pole-dipole IP survey layout and was measured in the time domain to 2 seconds, or 0.125Hz.</p> <p>The results of the ground IP survey were provided to Steve Collins of ARCTAN and were inversion modelled using ResInv3DX64 inversion modeling software. The resulting 3D model was interpolated onto uniform 25m cubic voxels to create a 3D block model, thereby showing the possible sources of the observed IP chargeability and resistivity responses. ARCTAN provided results of chargeability and resistivity as a time slice and pseudosections, of which were derived from the 3D model.</p> <p>Figures 2 through 6 are sliced, west-east cross sections of the 3D IP chargeability model. The edges of the cross sections were cut off when the model sensitivity was below 50% of the average for the whole model.</p> <p><u>Historical MIMDAS Survey</u></p> <p>MIMDAS (MIM Distributed Acquisition System) is a geophysical acquisition system developed by MIM (Mount Isa Mines). The system allows for concurrent acquisition of data from an (theoretically) unlimited number of sensors. The current ‘normal’ configuration records magneto-telluric (MT) and pole-dipole induced polarization/resistivity data. The system has been in operation since 1996 and is used routinely in Mt Isa Mines exploration programs. Implementation of remote referencing provided significant improvements in signal to noise and development of 3D survey techniques. The system has superior depth of investigation and data quality over conventional IP systems.</p> <p>In total, 18 lines (for total 57.5 line km) of IP/MT MIMDAS were read over the West Wyalong project. The pole-dipole configuration with 100 m dipoles was used for both IP and MT. IP transmitter poles were offset</p>	Survey Type	3D Induced Polarisation	Array	Offset pole dipole	Number of Arrays	4 arrays + 1 repeat array	Dipole Length	100m	Receiver Lines	1600m long of 16 dipoles of 100m length	Transmitter Line	3200m	Line Separation	200m	Domain	Time Domain	Cycle	0.125Hz or 2 seconds
Survey Type	3D Induced Polarisation																		
Array	Offset pole dipole																		
Number of Arrays	4 arrays + 1 repeat array																		
Dipole Length	100m																		
Receiver Lines	1600m long of 16 dipoles of 100m length																		
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Line Separation	200m																		
Domain	Time Domain																		
Cycle	0.125Hz or 2 seconds																		





	<p>50 m in order to negate the need to remove potential electrodes from the spread. Hence data were collected for n=0.5, 1.5, 2.5 etc to the maximum possible for each line. IP/ resistivity data were recorded using a sampling rate of 200 samples per second. Transmitter frequency was 25/256 Hz. Fifty percent duty cycle time domain responses were calculated from the frequency domain responses incorporating a 15 point Hanning window moving average filter. Data were stacked over 13 periods. Chargeability calculations were normalized to the average decay voltage divided by the average 'primary' voltage for the entire charge and decay periods. An integration period of 1.8 to 2.4 seconds was used. Units are millivolts per volt (mV/V).</p> <p>The MIMDAS survey over EL8430 was the first in NSW to use remote-reference telluric cancellation. The method proved very effective with significantly improved signal to noise and clean, useable data being collected from below significant depths (~100m) of conductive (&lt;10 ohm-m, largely due to saline groundwater) material.</p> <p>'Telluric corrected' data were used for all inversion modelling. Data were inverted using Zonge Engineering's TS2DIP 2D inversion program.</p> <p>MT time-series data were recorded at 1600 samples per second. This sample rate generally provided valid apparent resistivity and phase data over a frequency range from 400 Hz to about 0.04 Hz. An electric field dipole (100m) orientated normal to the survey line and two pairs of orthogonal magnetometers provided Ey, Hx, and Hy data. MT data quality was very good. Data were inverted using OCCAM software.</p>
<p>Drilling techniques</p>	<p>Drilling was not conducted.</p>
<p>Drill sample recovery</p>	<p>Drilling was not conducted.</p>
<p>Logging</p>	<p>Drilling was not conducted.</p>
<p>Sub-sampling techniques and sample separation</p>	<p>Drilling was not conducted.</p>
<p>Quality of assay data and laboratory tests</p>	<p>Drilling was not conducted.</p>
<p>Verification of sampling and assaying</p>	<p><u>Ground IP Survey March 2016</u></p> <p>All data was reviewed on a daily basis by Fender Geophysics prior to re-formatting and distribution to Argent personnel and consultant ARCTAN.</p> <p><u>Historical MIMDAS Survey</u></p> <p>The data quality was very good according to MIM geophysical report. Data verification and processing was conducted by MIM geophysicist D. L. Webb. In addition, in 2012 Argent contracted ARCTAN (Steve Collins) to conduct a review and inversion of this data and create 3D chargeability/resistivity model.</p>
<p>Location of data points</p>	<p>All data used in this Report are in:</p> <p>Datum: Geodetic Datum of Australia 94 (GDA94)</p> <p>Projection: Map Grid of Australia (MGA)</p> <p>Zone: Zone 55</p> <p>Two handheld Garmin GPS60 units were used to record point locations for receivers and transmitters giving an accuracy of ±5m.</p> <p>The locations of MIMDAS survey lines and the air drill hole collar are assumed to be determined using a hand</p>





	held GPS, which with an accuracy of +/-5m.
Data spacing and distribution	<p><u>Ground IP Survey March 2016</u></p> <p>Four arrays were employed with 100m receiver dipole length, 100m transmitter dipole length and a 200m line separation. Receiver lines totaled 1600m in length, the transmitter line totaled 3200m in length.</p> <p><u>Historical MIMDAS Survey</u></p> <p>Survey comprises 19 lines (for total 57.5 km) of about 3 km length. Lines are perpendicular to regional geology trend and are between 1 and 3 km apart. IP/ resistivity data were recorded using a sampling rate of 200 samples per second.</p>
Orientation of data in relation to geological structure	<p>Ground IP Survey lines were oriented east-west and the array was offset north-south. This direction was considered to best represent regional geological boundaries which occur along dominantly north-south trend.</p> <p>MIMDAS survey lines are located perpendicular to regional geology trend (090 – 270 degrees).</p>
Sample security	<p>The Ground IP Survey Chain of Custody was managed by Argent staff who oversaw data transfer from Fender Geophysics Pty. Ltd. to ARCTAN for processing.</p> <p>MIMDAS survey data are available in .pdf (sections and plans) and .txt files (raw survey data).</p>
Audits or reviews	<p>A review of the Ground IP Survey logistics and interpretation of results has been undertaken by Argent staff.</p> <p>MIMDAS survey data were reviewed and re-processed by ARCTAN (Steve Collins). Argent staff conducted a subsequent review.</p>

**Section 2 - Reporting of Exploration Results**

Criteria	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>The West Wyalong project (exploration licence EL8430, NSW) is a joint venture between Argent Minerals Limited (51% interest) and Golden Cross Operations Pty Ltd (49% interest). Golden Cross Operations Pty Ltd is a wholly owned subsidiary of Golden Cross Resources Limited.</li> <li>In addition to the standard government royalties for the relevant minerals, a net smelter return (NSR) royalty of 2.5% is payable to Royal Gold, Inc.</li> <li>EL5195 and EL8001 were consolidated into a single tenement EL8430 effective 20 April 2016, and registered under the name Argent Minerals Limited. EL8430 is adjacent to the West Wyalong township and occupy western lease lands which have historically been employed mostly for crops growth and partly for pastoral usage. Heritage items have not been identified on the property.</li> <li>EL8430 was granted for a three term to 20 April 2019.</li> </ul>
Exploration by other parties	<ul style="list-style-type: none"> <li>The West Wyalong project has a long history of exploration with a strong focus on the Wyalong Goldfield. The Wyalong Goldfield was discovered in 1893 and production peaked in 1897 with 45,000 ounces. Mining ceased in 1920 with a reported total production of 445,700 ounces from 340,000 tonnes (average grade 1.31 oz/t or 40 g/t Au). Post 1920, systematic exploration only commenced in 1981 when Mineral Management and Securities Ltd held EL 1658 over the Wyalong Goldfield and surrounding area (including part of the previous tenement EL 8001) until its relinquishment in January 1989.</li> <li>Previous exploration work by different mineral exploration companies is summarised by historical tenements as follow: <ul style="list-style-type: none"> <li>EL 2179 Seltrust/Paragon Gold (1984-1986);</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>- EL 2246 Lachlan Resources (1985 – 1988);</li> <li>- EL 3620 North Ltd/Gold Mines of Australia/Cyprus (1990-1998);</li> <li>- EL 4533 CRA (1993-1996);</li> <li>- EL 6515 Golden Cross Resources (1997-2000); and</li> <li>- EL 5915 Golden Cross Operations/Newcrest/MIM Exploration (2000-2006).</li> </ul> <ul style="list-style-type: none"> <li>• The extensive exploration activities performed by Golden Cross Operation on EL4615 over the period 1995 to 2000 included: <ul style="list-style-type: none"> <li>- The entire licence area was flown with aeromagnetics and Quest EM;</li> <li>- 26 x RCP holes were drilled for 2,116.6 metres;</li> <li>- 234 x aircore holes were drilled for a total of 10,991 metres;</li> <li>- 7 x costeans were excavated for 272 metres;</li> <li>- 10 x mud/percussion holes were drilled for 807 metres;</li> <li>- The entire licence area was geologically mapped and interpreted at 1:25,000 scale;</li> <li>- 112 partial leach soils were collected;</li> <li>- 4309 samples of composited hand &amp; auger soils were submitted for assay;</li> <li>- Re-assay of 32 air core pulps for Pt, Pd, Co, Ni and V;</li> <li>- A gravity survey was taken over the entire licence area; and</li> <li>- 778 rock chip samples were collected over all the various prospects.</li> </ul> </li> <li>• During 1998 to 2000, exploration work carried out by Newcrest Operations under a joint venture agreement with Golden Cross Operations in the Narragudgil (south-eastern portion) area included: <ul style="list-style-type: none"> <li>- 90 x Air Core drill holes for 7838.4 metres at the Narragudgil prospect ;</li> <li>- 10 x RCP holes for 1822.5 metres at Yiddah North prospect; and</li> <li>- 8 x combined Air Core/Diamond core holes for 1224 metres of air core, and 824.5 metres diamond core.</li> </ul> </li> <li>• Initial work carried out by MIMEX in 2002 included a compilation of historic drill results, review of existing core, mapping, reconnaissance ground magnetics, and MIMDAS surveys. A total of 57.5 line km of MIMDAS IP/MT were surveyed on 19 lines and five RC percussion holes for a total of 834m were drilled to test anomalous areas. The MIMDAS geophysical IP/resistivity, magnetotelluric system was used in the pole-dipole configuration with 100 dipoles. MIMEX withdrew its interest in the joint venture in June 2003.</li> <li>• Reviews by Argent of past exploration including drilling, surface geochemistry and geophysical surveys highlighted two prospects: Narragudgil and Yiddah North Prospects, both directed towards porphyry style base metals (Cu-Au) in the Narragudgil Volcanics. These prospects are located in the south-western portion of the EL8430 tenement area. A wide zone (400m) of principally propylitic alteration was identified during the drilling, extending in a north westerly direction for around 3km through the licence area.</li> </ul>
<p><b>Geology</b></p>	<p>The Argent exploration strategy at West Wyalong primarily focuses on the targeting of porphyry style Cu-Au systems hosted in Ordovician arc rocks, as well as orogenic / structurally controlled quartz vein hosted gold deposits. The occurrences of major epithermal (Cowal), porphyry (Marsden, Yiddah North and Gidginbung) and intrusion related (Hobbs, Adelong) deposits provide encouragement that large intrusion/volcanic-related hydrothermal systems may exist in this part of the Lachlan Orogen. This, in addition to the discoveries at Cadia, near Orange, and Northparkes, near Parkes, shows that Ordovician age magmatic arc complexes in New South Wales are highly prospective for Cu-Au porphyries and associated epithermal deposits.</p>



Drill hole Information	Drilling was not conducted.
Data aggregation methods	Interpretation of airborne magnetic and radiometric images with 10m x 10m cell size produced with by-cubic spline gridding method with bilinear interpolation.
Relationship between mineralisation widths and intercept lengths	Drilling was not conducted.
Diagrams	<p>Figure 1 comprises an airborne Total Magnetic Intensity image overlaid with IP chargeability contours of 0.5mV/V increments at 100mRL (340m below surface).</p> <p>Figures 2 through 6 comprise a series of sliced, west-east cross sections of the 3D IP chargeability model. The west-east cross sections are colour-coded so that chargeability responses are represented as a colour spectrum that begins at Blue (0 mV/V) and progresses through to Red (4 mV/V). The depths of the chargeability responses within Figures 2 through 6 ranges from approximately 200mRL to -400mRL.</p>
Balanced reporting	All available exploration data relevant to this Report has been provided.
Other substantive exploration data	All available exploration data relevant to this Report has been provided.
Further work	Diamond drilling to test the targets.



## COMPETENT PERSON STATEMENTS

### Previously Released Information

This ASX announcement contains information extracted from the following reports which are available for viewing on the Company's website <http://www.argentminerals.com.au> :

- 17 July 2014 Magnetic survey reveals large copper gold target at West Wyalong<sup>1</sup>
- 29 September 2015 IP survey confirms large copper gold target at West Wyalong<sup>2</sup>
- 13 May 2016 West Wyalong IP survey reveals additional gold target <sup>2</sup>

Competent Person:

1. Dr. Vladimir David
2. Clifton Todd McGilvray

The Company confirms it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

### Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Mr. Clifton Todd McGilvray who is a member of the Australasian Institute of Mining and Metallurgy, an employee of Argent, and who has sufficient experience 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 the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr. McGilvray consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.