

## EXPLORATION UPDATE

### Argent at a glance

ASX-listed Company focused on the expansion and development of its significant existing base and precious metal projects and to leverage its expertise to pursue value accretive acquisitions of other significant projects identified by the Company.

### Facts

■ ASX Codes:	ARD, ARDO <sup>1</sup>
■ Share price (16 August 2017):	\$0.031
■ Option price (16 August 2017):	\$0.008
■ Shares on issue:	421.4 M
■ Market capitalisation	\$13.1 M

<sup>1</sup> \$0.10 exercise price, 27 June 2019 expiry.

### Directors and Officers

**Stephen Gemell**  
Non-Executive Chairman

**David Busch**  
Chief Executive Officer

**Peter Nightingale**  
Non-Executive Director

**Peter Michael**  
Non-Executive Director

**Vinod Manikandan**  
Company Secretary

### Contact details

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### Highlights:

- Netley target diamond hole completed at the Loch Lilly project, for which core logging nearing completion, and sampling commenced.
- More than 50% of the Netley drill core to be assayed based on visual observations.
- Eaglehawk target drilling commenced.
- Argent will earn an initial 51% of up to a 90% interest in the Loch Lilly project on completion of the two-hole drilling programme.
- Loch Lilly drilling expenditure co-funded by the NSW Government.
- West Wyalong project - Argent interest has increased to 76.7% as drill core petrography and other advanced lab analysis continues for 3D modelling of the recent drilling.
- Kempfield resource update – 3D modelling and metallurgical work in progress.

Argent Minerals Limited (ASX: ARD, Argent, or the Company) is pleased to report the successful completion of the first hole of the Loch Lilly diamond drilling programme.

The Netley target drill hole has been completed, and drill core logging at the local facility in Broken Hill is nearing completion.

Core sampling for assaying is scheduled to commence this week.



**About the drilling progress**

Drilling has commenced at the Eaglehawk target in conditions expected to be similar to those seen during drilling of the Netley target where incompetent overburden extends to 120 metres depth. Several attempts at collaring were made at Netley to reach hardrock basement and drill fluid specialists were employed to maintain the integrity of the drillhole.

**Core sampling and assays**

ALN001 (Netley) drill core is currently being processed at a facility in Broken Hill and samples are expected to be dispatched within the next few weeks.

**Maiden test of the Netley and Eaglehawk targets**

The Netley and Eaglehawk holes have been designed by Argent with the benefit of geophysics survey work and analysis performed by Dr. Anthony Crawford and Anglo American Exploration (Australia) Pty Ltd (AngloAmerican) during 2014/15.

The 2014/15 analysis yielded three key outcomes for the Loch Lilly project:

- **Western Tasmania Mount Read Volcanics analogy confirmed** – with the added unexpected bonus of rock dating information that further enhances prospectivity;
- **Prospectivity** – new geochemical data obtained from historic drill core during the 2014/15 work indicates that the Loch Lilly – Kars Belt geology is prospective for porphyry copper-gold and volcanic-hosted massive sulphides (VHMS), with further prospectivity of Sedex silver-lead-zinc, nickel sulphide and sedimentary copper; and
- **Targeting information** – new, higher resolution data for enhanced drill targeting.

The specific analysis of the Netley target revealed near-coincident magnetic high and gravity low anomalies reminiscent of the scale and detail of the Northparkes copper-gold finger porphyries rising from a basal monzodiorite pluton. Further, the historic drilling was too shallow and consequently failed to intersect the magnetic source body.

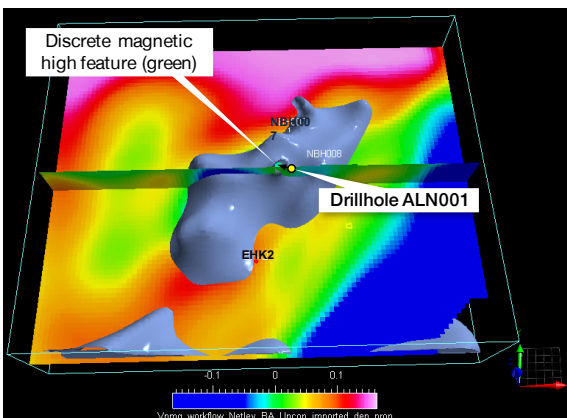


Figure 1a – Argent drillhole ALN001 design targeting the Netley discrete magnetic high within the 3D magnetic response surface, overlaid on a two dimensional residual gravity plot, and intersected by a vertical residual gravity ‘slice’.

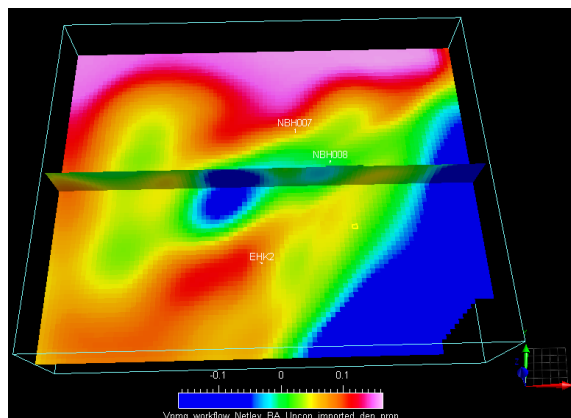


Figure 1b – Illustrating the underlying 2D residual gravity plot in Fig. 1a, and the vertical residual gravity ‘slice’ produced by the inversion modeling.

At Eaglehawk, AngloAmerican’s new proprietary magnetic induced polarisation (MIP) survey technology yielded immediate results that re-rated the project to high priority. The MIP chargeability anomaly coincided with magnetic and gravity anomalies and alteration vectors to generate a compelling porphyry copper target for drilling.

Argent continues on from where AngloAmerican ceased work on the project after being instructed by its head office to abort Australian operations. In the new Loch Lilly joint venture with Dr. Crawford, Argent utilised the fresh data produced by the 2014/15 analysis to design diamond holes ALN001 and ALE001 - to test the Netley and Eaglehawk targets as set out in Figures 1 and 2.

Figures 2a, b and c illustrate the design of the Eaglehawk hole currently underway (ALE001) in relation to three coincident geophysical anomalies identified within the target area.

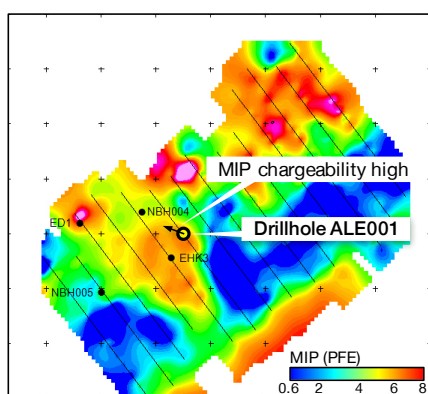


Figure 2a – Argent drillhole ALE001 design in relation to the Eaglehawk MIP chargeability high (plan view).

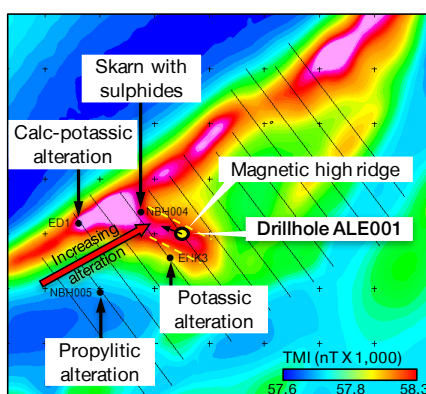


Figure 2b – Drillhole ALE001 design in relation to alteration and magnetic high ridge, over magnetics reduced to pole (RTP) background (plan view).

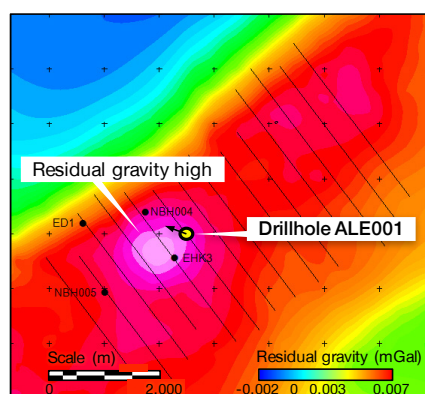


Figure 2c – Drillhole ALE001 design in relation to residual gravity high, over 0.5 km spacing residual gravity background (plan view).

For further detail please refer to the following ASX announcement:

<http://argentminerals.com.au/wp-content/uploads/2017/07/Argent-commences-Loch-Lilly-drilling-programme.pdf>

**Argent’s right to earn up to a 90% interest and the NSW Government 75% co-funding funding.**

Argent will earn an initial 51%, of up to a 90%, interest of the Loch Lilly project on completion of the two hole drilling programme. Direct drilling costs up to \$150,000 are funded by the NSW Government through the Co-operative Drilling Programme Round 2. This highly sought after funding was awarded on the basis of project prospectivity and technical merit, as assessed by an independent expert panel in a competitive environment.

The NSW Government investment decision was underpinned by the significant potential of the Loch Lilly project, the success of which could open up the possibility of a new major mineralisation province of world class scale.

**WEST WYALONG INTEREST INCREASED TO 76.72%**

Argent’s interest in the West Wyalong project has been increased to 76.72% following exploration expenditure subsequent to Argent attaining 70% (announced 27 April 2017), when the cash call/dilution phase of the joint venture commenced.

The expenditure included assays and analysis of the results of the recent drilling programme.

Petrographic analysis by Dr. Crawford on selected West Wyalong drill core samples is nearing completion, and the Centre of Excellence in Ore Deposits (CODES) at the University of Tasmania is continuing to perform Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS) analysis.

The results of these analyses will yield detailed specifics on the intersected rock types and mineralisation vectors for generation of a 3D model of the drilling results. The 3D model will aid drill planning and targeting for the next phase of the West Wyalong project.



### KEMPFIELD RESOURCE UPDATE

Argent is currently completing a substantial update of the Kempfield deposit Micromine model, incorporating the refined lithostratigraphic and host horizon model developed through the 2016/17 extensional drilling programmes, as well as the detailed 36 element geochemical database provided by the assays.

A resource infill reverse circulation (RC) drilling programme, designed from the updated Micromine model, will focus on establishing the maximum possible continuity of mineralisation within a hypothetical open cut mining area covering the potential lateral and depth extensions indicated by the 2016/17 diamond drilling programmes.

Preliminary results of the metallurgical testing programme currently underway are expected to be available during the infill drilling programme, which may be extended to include further metallurgical samples if required. The metallurgical testing programme has been designed to test potential silver, lead and zinc recoveries in a standard flotation processing environment, based on initial testing of existing diamond drill core.

Together with the results of a metallurgical testing programme, the resource update will provide additional data for a concept-level reassessment of Kempfield economics.

The Company notes that the market valuation of Argent as at market close on 15 August 2017 – prior to the planned resource update – was \$0.39 per contained silver ounce<sup>1</sup>, and \$0.25 per in-situ contained silver equivalent ounce<sup>2</sup> (which takes into account the contained zinc and lead metal as AgEq in Table 1 of Appendix A).

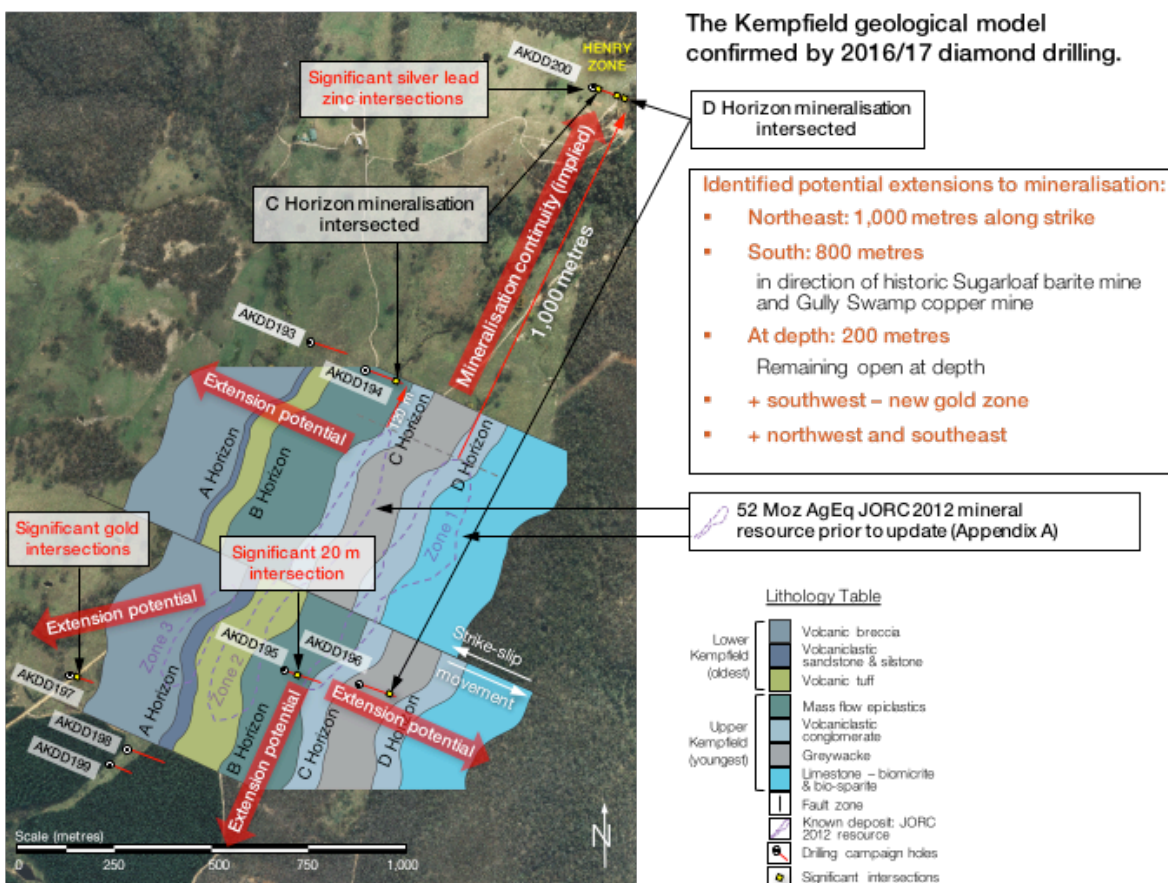


Figure 3 – Illustrating the potential deposit extensions at Kempfield (plan view).

<sup>1</sup> \$13.5 million market capitalisation ÷ 34.2 million ounces (33.0 million ounces of contained silver metal in the Kempfield resource, plus 1.2 million ounces of silver in the Sunny Corner resource). See Appendix B for the Sunny Corner resource.

<sup>2</sup> \$13.5 million market capitalisation ÷ 53.2 million ounces (52 million ounces of contained AgEq in the Kempfield resource, plus 1.2 million ounces of silver in the Sunny Corner mineral resource).



For further information please contact:

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**APPENDIX A – MINERAL RESOURCE**

**Kempfield resource**

The existing Kempfield mineral resource (prior to the planned update) is summarised in the following table:

Table 1 – Kempfield JORC 2012 mineral resource

	Silver (Ag)		Gold (Au)		Lead (Pb)		Zinc (Zn)		In-situ Contained Ag Equivalent <sup>2</sup>		
	Resource Tonnes (Mt)	Grade (g/t)	Contained Metal (Moz)	Grade (g/t)	Contained Metal (000 oz)	Grade (%)	Contained Metal (000 t)	Grade (%)	Contained Metal (000 t)	Grade (Ag Eq g/t)	Contained Ag Eq (Moz)
Oxide/ Transitional*	6.0	55	10.7	0.11	21	N/A	N/A	N/A	N/A	-	11.7
Primary**	15.8	44	22.3	0.13	66	0.62	97	1.3	200	-	40.5
<b>Total***</b>	<b>21.8</b>	<b>47</b>	<b>33.0 M</b>	<b>0.12</b>	<b>86</b>	<b>N/A</b>	<b>97</b>	<b>N/A</b>	<b>200</b>	<b>75</b>	<b>52 M</b>

\*90% \*\*79% \*\*\*82%: % of resource tonnes in Measured or Indicated category. 1. Cutoff grades 25g/t Ag for Oxide/Transitional and 50g/t AgEq for Primary. 2. AgEq based on US\$30/oz Ag, US\$1,500/oz Au, US\$2,200/t Pb and Zn, recoverable and payable @ 80% of head grade for Ag and Au and 55% for Pb and Zn. For full details refer to the Mineral Resources and Ore Reserves Statement in the Company’s 30 June 2016 Annual Report.

**Sunny Corner mineral resource**

The following table sets out the Sunny Corner Mineral Resource statement published in the Company’s Annual Report to shareholders for the year ended 30 June 2016. This information was prepared and first disclosed under JORC Code 2004. It has not been updated since then to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported:

At a combined base metals (cbm) cutoff of 2.5%:

Table 2 - Sunny Corner Resource Estimate - 30 June 2016

Category	Resource Tonnes (Mt)	Density	cbm (%)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)	Ag (g/t)
<b>Inferred</b>	<b>1.5</b>	<b>2.8</b>	<b>6.21</b>	<b>0.17</b>	<b>2.13</b>	<b>3.70</b>	<b>0.39</b>	<b>24</b>

for contained metal as:

- 55,000 tonnes of zinc;
- 32,000 tonnes of lead;
- 5,800 tonnes of copper; and
- 1.2 million ounces of silver.

For further detail please refer to the Mineral Resources and Ore Reserves Statement in the Annual Report to Shareholders dated 30 June 2016.

## 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> :

- 30 June 2016 Annual report to shareholders – Mineral Resources and Ore Reserves Statement<sup>1</sup>
- 10 October 2016 Diamond Drilling Results in Major Breakthrough at Kempfield<sup>2</sup>
- 2 February 2017 10 Metre Gold Intersection Returned by 1<sup>st</sup> Kempfield Assays<sup>2</sup>
- 20 February 2017 20 Metre Intersection Confirms New Kempfield Southeast Zone<sup>2</sup>
- 20 February 2017 Argent Secures Strategic Stake in Mt. Read Equivalent Belt
- 15 March 2017 Significant Ag Pb Zn intersections at Kempfield Henry Zone<sup>2</sup>
- 12 July 2017 Argent Commences Loch Lilly Drilling Programme<sup>2</sup>

Competent Person:

1. Arnold van der Heyden (Kempfield resource) and Simon Tear (Sunny Corner resource)
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.