

KEMPFIELD EXPLORATION TARGET

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 ¹
■ Share price (7 November 2017):	\$0.027
■ Option price (7 November 2017):	\$0.006
■ Shares on issue:	421.4 M
■ Market capitalisation	\$11.4 M

¹ \$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

PRINCIPAL AND REGISTERED OFFICE
Level 2, 66 Hunter Street
Sydney NSW 2000
T: +61 2 9300 3390 F: +61 2 9221 6333
E: admin@argentminerals.com.au

Highlights:

- Argent's 2016 and 2017 Kempfield drilling campaigns have materially added a JORC compliant Exploration Target to the existing Kempfield resource.
- The enhanced Kempfield 3D geology and exploration model shows the increased extent of mineralisation compared to the current resource dimensions) as follows:
 - ★ Strike length – increased 2.5 times to 3.0 km;
 - ★ Width – increased 1.8 times to 650 m;
 - ★ Depth – increased 2.0 times to 400 m.
- The reported Exploration Target is a small envelope within these dimensions with further upside potential.
- The reported Exploration Target tonnage and grade range estimates were completed by resource specialists, H&S Consultants Pty Ltd.
- The 2018 drilling programme is designed to enable an enhanced resource estimate to be completed.

KEMPFIELD 3D GEOLOGICAL MODEL – UNPRECEDENTED DEPOSIT SCALE AND DETAIL

Argent Minerals Limited (ASX: ARD, Argent, or the Company) is pleased to report the completion of an intensive sitewide geological review, resulting in a significant revision of the Kempfield 3D geology and exploration model.

MINERAL RESOURCE AND EXPLORATION TARGET ESTIMATES

Mineral Resource estimate

As detailed in Appendix D, the existing Kempfield JORC 2012 resource (prior to the planned update) is summarised in the following table:

		Silver (Ag)		Gold (Au)		Zinc (Zn)		Lead (Pb)		In-situ Contained Ag Equivalent	
	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)
Total	21.8	47	33.0	0.12	86	N/A	200	N/A	97	75	52

Exploration Target estimate

An Exploration Target for the potential mineralisation, **additional to the above existing resource**, has been estimated by H&S Consultants Pty Ltd (H&SC), as summarised in the following table:

		Silver (Ag)		Gold (Au)		Zinc (Zn)		Lead (Pb)		In-situ Contained Ag Equivalent ²	
Approx. Range	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)
Lower¹	10	20	6.4	0.1	20	0.6	60	0.3	30	40	13
Upper¹	40	50	64	0.3	390	1.2	480	0.6	240	80	100

Notes:

An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade, relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate an additional Mineral Resource and it is uncertain if further exploration will result in the estimation of an additional Mineral Resource.

1. The upper and lower grades of the Exploration Target estimate do not necessarily correspond to the upper and lower tonnages, nor do the upper and lower grades for each element necessarily correspond.

2. Ag Eq is 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. A revenue figure was calculated for each metal by category and material class (r) as follows: r = tonnes * head grade * recoverable and payable % (eg. For Measured Oxide/Transitional silver: r = 2.7Mt * 68 g/t * 80% / 31.1 g/oz * \$US 30/oz = \$US 142M. and for Measured Primary Zinc: r = 4.1Mt * 1.2% * 55% * \$US 2,200/t = \$US 59.5M). Total revenue R was calculated for each resource category and material class as the sum of all the individual (r) revenues for that category and class. Contained silver metal equivalent ounces was then calculated as follows: Ag Eq (oz) = R / Ag recoverable and payable % / Ag price = R / 80% / \$US 30. Contained silver metal grade was calculated as follows: Grade (Contained Ag Eq g/t) = Ag Eq (oz) * 31.1 / tonnes. It is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

3. The Exploration Target estimate is based on a cutoff grade 50 g/t Ag Eq.

4. The Exploration Target has been estimated on the basis of a combination of Exploration Results and the proposed exploration programmes set out under the heading 'About the resource infill drilling programme'. A detailed technical description of the Exploration Target estimation methodology employed by H&SC is provided in Appendix B – Exploration Target Estimation Methodology.

5. The Exploration Target is based on 515 holes/49,229 metres, with drill hole spacing generally greater than 100 metres, and sample spacing (downhole) predominantly 1.0 metres.

FURTHER ADDITIONAL STRIKE LENGTH POTENTIAL IDENTIFIED

The Company has identified further additional potential for mineralisation through two broad scale regional mapping campaigns and petrological analyses of drill core it has conducted at Kempfield. The following potential extensions are additional to that considered by the Exploration Target estimate reported in this announcement:

- **Kempfield host geology continues 4 km along strike to the north** – uninterrupted from the Henry Zone, containing several gossans that have yielded positive results for proximal silver-lead-zinc mineralisation;
- **Additional 800 m strike length to the south.** Mineralisation is considered open along strike to the south, following the announcement dated 15 March 2017; and
- **Copper-gold footwall domain** identified to the west (Appendix A, Figure 2). The potential for mineralisation identified by the sitewide geological review - likelihood that hydrothermal fluids responsible for formation of the Kempfield deposit have passed through this older volcanic package and potentially mineralised the immediate geology.

Please refer to Appendix C for a map and the accompanying explanation.

About the 3D Kempfield geology and exploration model

Argent developed the revised model based on the review, analysis and interpretation of 60,324 data records. In addition to assay suites of up to 33 elements obtained through 49,229 metres of drilling and various soil geochemistry surveys, the Company augmented the comprehensive database with vital lithostratigraphic information obtained from analysis of drill core, and field mapping examinations.

The result is the new Kempfield 3D geological model - providing an unprecedented level of detail for geometry of the stratigraphy and mineralisation controls for the project. The Company is using these results to design and execute the resource infill drilling programme for a high degree of effectiveness in achieving results.

The Company's revised 3D model shows the potential extent of mineralisation, with the **predicted dimensions significantly exceeding all historic expectations**:

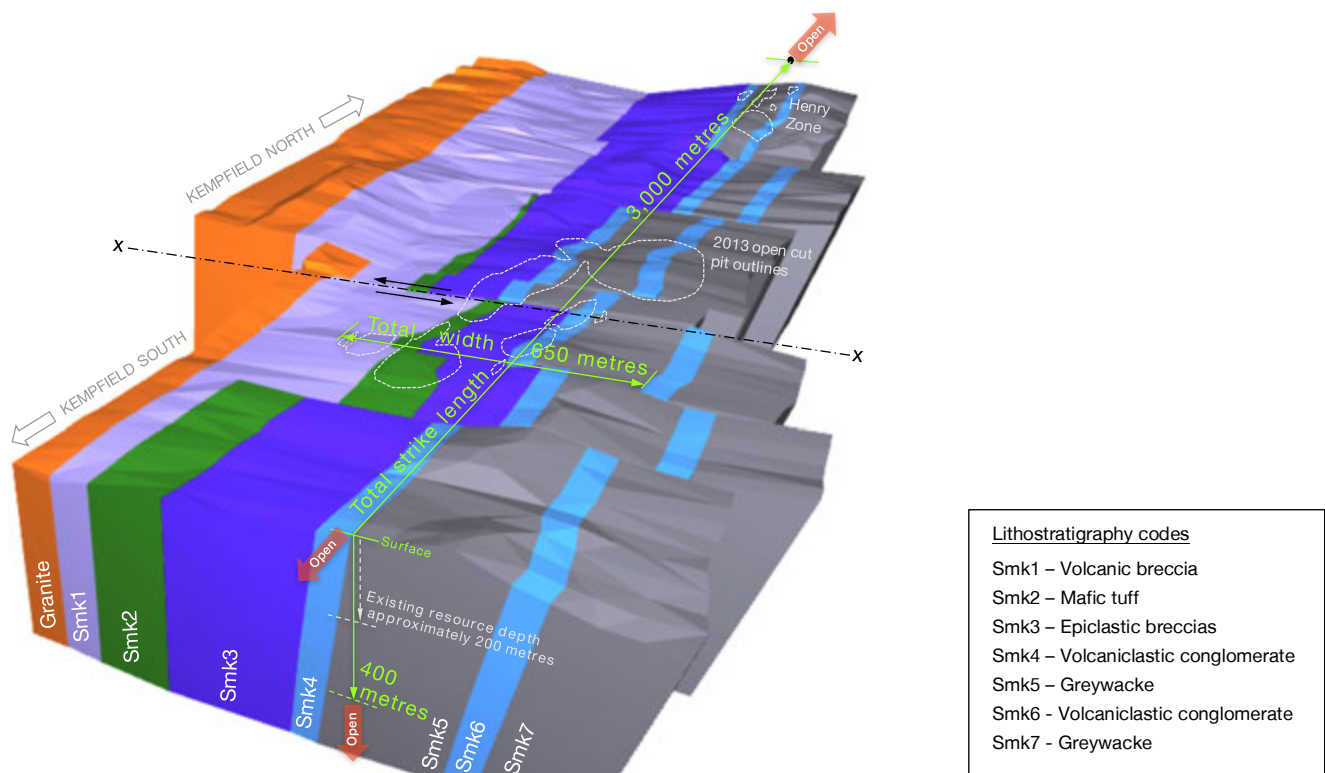


Figure 1 – Screenshot of the Kempfield 3D model – isometric view facing North



The identified total extent of potential mineralisation (together with comparisons to the dimensions of the total dimensions of the known deposit¹) is summarised as follows:

- **Total strike length – 3,000 metres (2.5 times);**
- **Total width – 650 metres (1.8 times);**
- **Total depth – 400 metres (2 times).**

1. Open cut pit outlines are included in Figure 1 to enable a simplified visual comparison of the increased scale to that of the existing deposit. The pit outlines were submitted to the NSW Government as part of the Company's 2013 Environmental Impact Statement (2013 open cut pit outlines) in relation to a proposed shallow silver and gold mining operation. For details of the existing 21.8 Mt JORC 2012 mineral resource please refer to Appendix D.

About the resource infill drilling programme

Argent is employing the planned infill drilling programme to assess the actual mineralisation continuity and additional extensions predicted by the mineralisation and genetic model, in order to quantify the validity of the Exploration Target.

The Company has determined that lower cost reverse circulation (RC) will suffice for infill drilling purposes, having established the stratigraphy through the extensional diamond drilling programmes.

Due to the significantly increased scale potential of the deposit, the resource infill drilling programme will be conducted in a series of stages:

- **Stage 1 – Mineralisation and genetic model verification** – comprising approximately 5,000 metres of RC drilling, targeting completion by the end of Q1 2018.
- **Stage 2 – Resource category drilling.** Further RC resource infill drilling will be conducted to a level sufficient to estimate an additional mineral resource, if any, initially to Inferred category (contingent on satisfactory results from Stage 1). Stage 2 timing is envisaged to be completed by end Q2 2018. Further infill drilling may be conducted by the Company in order to estimate Indicated and Measured categories ahead of potential Ore Reserve assessments, subject to the results of this stage, including a reassessment of the project economics.

The extent of drilling and indicated timings are subject to finalisation of infill drilling programme design, regulatory approvals, access, weather, as well as all and any other operational factors that could affect the ability of the Company to perform drilling.

For further information please contact:

David Busch

Chief Executive Officer

Argent Minerals Limited

M: 0415 613 800

E: david.busch@argentminerals.com.au

APPENDIX A

About the sitewide geological review process and the key results

As an integral part of the review process, the Company has developed:

- **A robust 3D geological and mineralisation model** that will form the basis of the highly efficient resource infill drilling programme design. Seven main geological sequences have been identified at Kempfield in the Kangaloolah Volcanics from granite to the greywacke (Smk7);
- **a mineralisation and genetic model** to further guide resource infill drilling activities; and
- **an alteration model** to guide further exploration.

Mineralisation and genetic model

The mineralisation and genetic model has enabled the following Kempfield volcanic-hosted massive sulphide (VHMS) mineralisation and its controls to be identified and predicted in three dimensions as follows:

- **Host Horizon A** – Located at the base of Smk2 and extending down into Smk1;
- **Host Horizon B** – Located at the base of Smk3 and mineralised along the main sequence boundaries – likely epigenetic/remobilised;
- **Host Horizon C** – Stratabound within Smk4 and extending into Smk5;
- **Host Horizon D** – Stratabound within Smk6 and extending into Smk7; and
- **Copper-gold footwall domain** – located in the middle and lower portions of Smk1 associated with the granite contact (for further details see Appendix C).

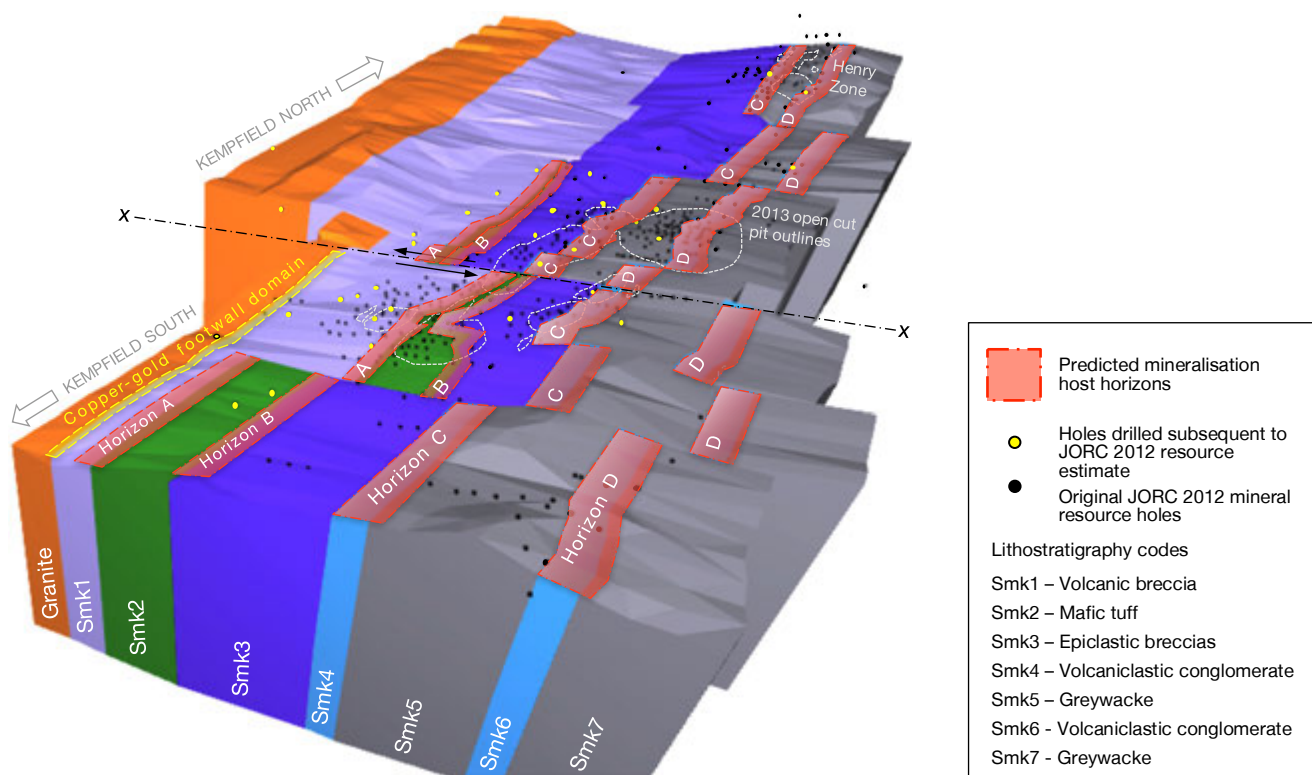


Figure 2 – Illustrating approximate locations of mineralisation host horizons predicted by the mineralisation and genetic model, that will form the basis of the resource infill drilling programme design. Isometric view, facing North.

APPENDIX B – EXPLORATION TARGET ESTIMATION METHODOLOGY

Database update

As an integral part of the sitewide geology review process, the Company provided all the available data to H&SC Consultants Pty Ltd (H&SC), the custodian of the Kempfield mineral resource database. H&SC had performed the existing mineral resource estimate based on the available drilling data as at April 2012, and on 6 May 2014 re-issued the same estimate quantities, categories and grades in compliance with JORC 2012.

The historical drilling database was reviewed and updated for consistency with lithostratigraphy coding that has been refined based on drill core observations, field mapping, and petrographic analysis of drill core. The database includes 34 holes/7,818 metres drilled subsequent to the existing mineral resource estimate holes (Appendix A, Figure 2).

Exploration Target estimation procedure

The following methodology was applied by H&SC to estimate the potential additional tonnes and grade for the Kempfield deposit in eight steps:

1. **Unconstrained estimate.** An Unconstrained Estimate was firstly generated in Datamine, based on the database fully populated with all existing drillhole data, and a maximum search radius of 300 metres from all mineralisation intersection data (300 metres was chosen for consistency of average model depth with the maximum depth of the drillholes of approximately 400 metres below surface).
2. The **existing mineral resource model was then superimposed** over the unconstrained model to define the 3D profile of the data to be excluded from the upper and lower Kempfield Exploration Target estimates.
3. **Lithostratigraphy superimposed.** Next the lithostratigraphic model was added, comprising the seven stratigraphic UNITS (Smk1 to 7) and eight west to east fault SEGMENTS (including an additional SEGMENT to capture the most northern 300 metre extrapolation, for a total of 56 SUBUNITS (see Figure 3). This procedure added the Unestimated volume (coded in dark grey) not captured by the 300 metre search radius (Step 1), which was considered separately by the procedure outlined in Step 6.

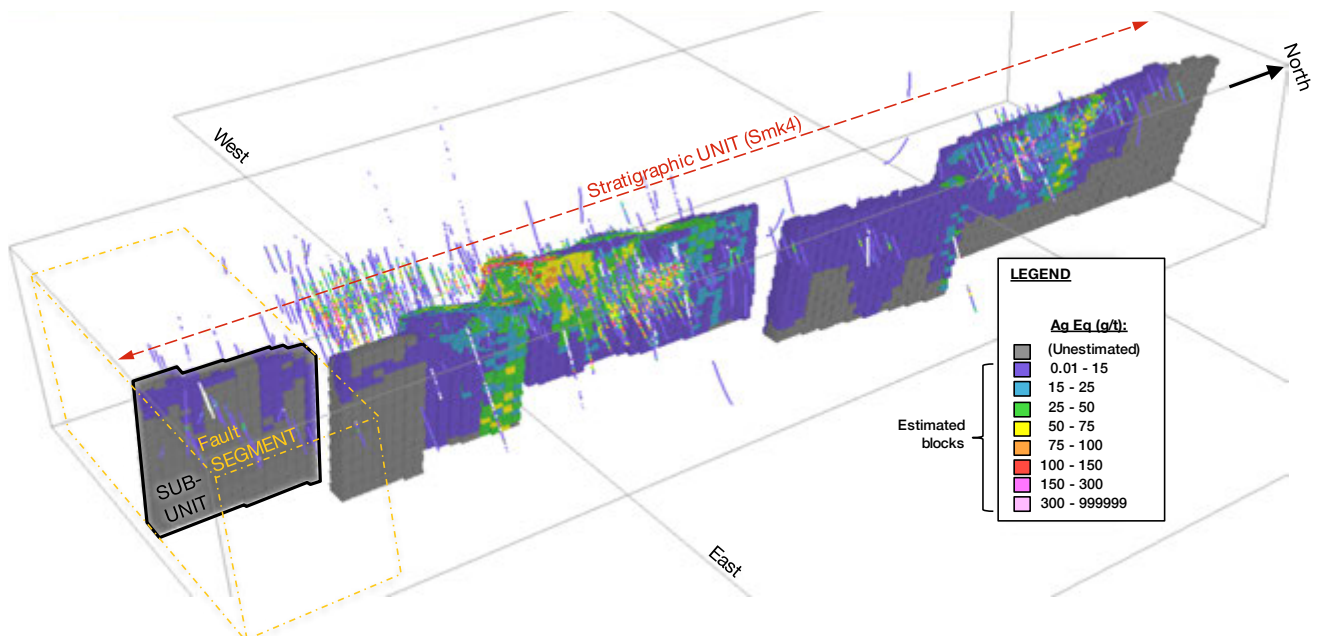


Figure 3 – Example screen shot of the 3D Datamine Unconstrained Estimate model produced by the combined actions outlined in points 1-3. To simplify the view, only one of the seven stratigraphic UNITS is shown – Smk4 (see also Figure 2), with the most southern fault SEGMENT selected by the orange rectangle, to form the example illustrated SUBUNIT.

Note: the potential quantity and grade is conceptual in nature, there has been insufficient exploration to estimate an additional Mineral Resource, and it is uncertain if further exploration will result in the estimation of an additional Mineral Resource.



4. **Evaluation of mineralisation.** Mineralisation was then evaluated, based on a 50 g/t Ag Eq cutoff grade, using the existing Ag Eq formula (see note 2 under 'Table B – Kempfield Exploration Target estimate').
5. The **Lower end of the estimated tonnage range** was estimated by subtracting the existing Mineral Resource estimate from the Unconstrained Estimate result in Step 4. The Lower end of the estimated tonnage range does not include that of the Unestimated volume.
6. **Upper end of the estimated tonnage range.** Estimates for the Unestimated portions were determined and added to the Lower end tonnage, to form the Upper end of the tonnage estimate range as follows:
 - a. SUBUNITs with partially estimated mineralisation – for example, the southernmost SUBUNIT illustrated and labelled in Figure 3, which contains both Unestimated (dark grey) and Estimated blocks (blocks that are colour-coded according to grade as per the legend). In order to extrapolate mineralised tonnage of the Estimated blocks to the Unestimated blocks within each such SUBUNIT, the total SUBUNIT host rock tonnage has been multiplied by the percentage of Unestimated blocks, followed by the percentage mineralised within each SUBUNIT (where the percentage mineralised is that portion of the blocks above the cutoff grade).
 - b. SUBUNITs without estimated mineralisation. Same procedure as for Step 6a, except that the percentage mineralised was adopted from the nearest comparable SUBUNIT.
 - c. The Upper range of the Exploration Target tonnage was estimated by summing the results of Steps 5, 6a and 6b.
7. **Visual check.** The results of the procedure were then visually checked against the model for each unit to ensure that target tonnages were reasonable; a few adjustments were made where tonnages seemed unreasonable. This included examining the number and location of holes drilled into each SUBUNIT.
8. **Grade ranges** were assigned to the Lower and Upper tonnage estimates based on target grades and existing resource grades.

The results are summarised in the Exploration Target estimate table on page 2 of this announcement as an approximate range.

For further details in relation to the underlying data, refer to JORC Table 1 in Appendix E of this announcement, and that of the existing JORC 2012 mineral resource announced on 6 May 2014.



APPENDIX C – ADDITIONAL STRIKE LENGTH AND COPPER-GOLD FOOTWALL DOMAIN

Two significant mapping campaigns and related petrological analyses of drill core at Kempfield have yielded the following additional results.

Further additional potential mineralisation up to 4,000 metres along strike to the north

Mapping conducted from the Henry Zone to the northern boundary of tenement EL5748 has revealed that the Kangaloolah Volcanics - the Kempfield host geology, continues uninterrupted for 4 kilometres along strike to the North.

The geological sequence comprises volcanics and volcanogenic sediments similar to the Kempfield area and contains several gossans which have yielded positive results for proximal silver-lead-zinc mineralisation, indicating the potential for a further immediate mineralisation extension of 1,400 metres along strike to the North from the northern point of the 3,000 metre total strike length illustrated in Figure 1.

The mapping campaign results indicate the potential for additional satellite mineralisation occurrences, and has also provided an insight into the progression of geology from Kempfield Central to the northern extent of the Kangaloolah Volcanics.

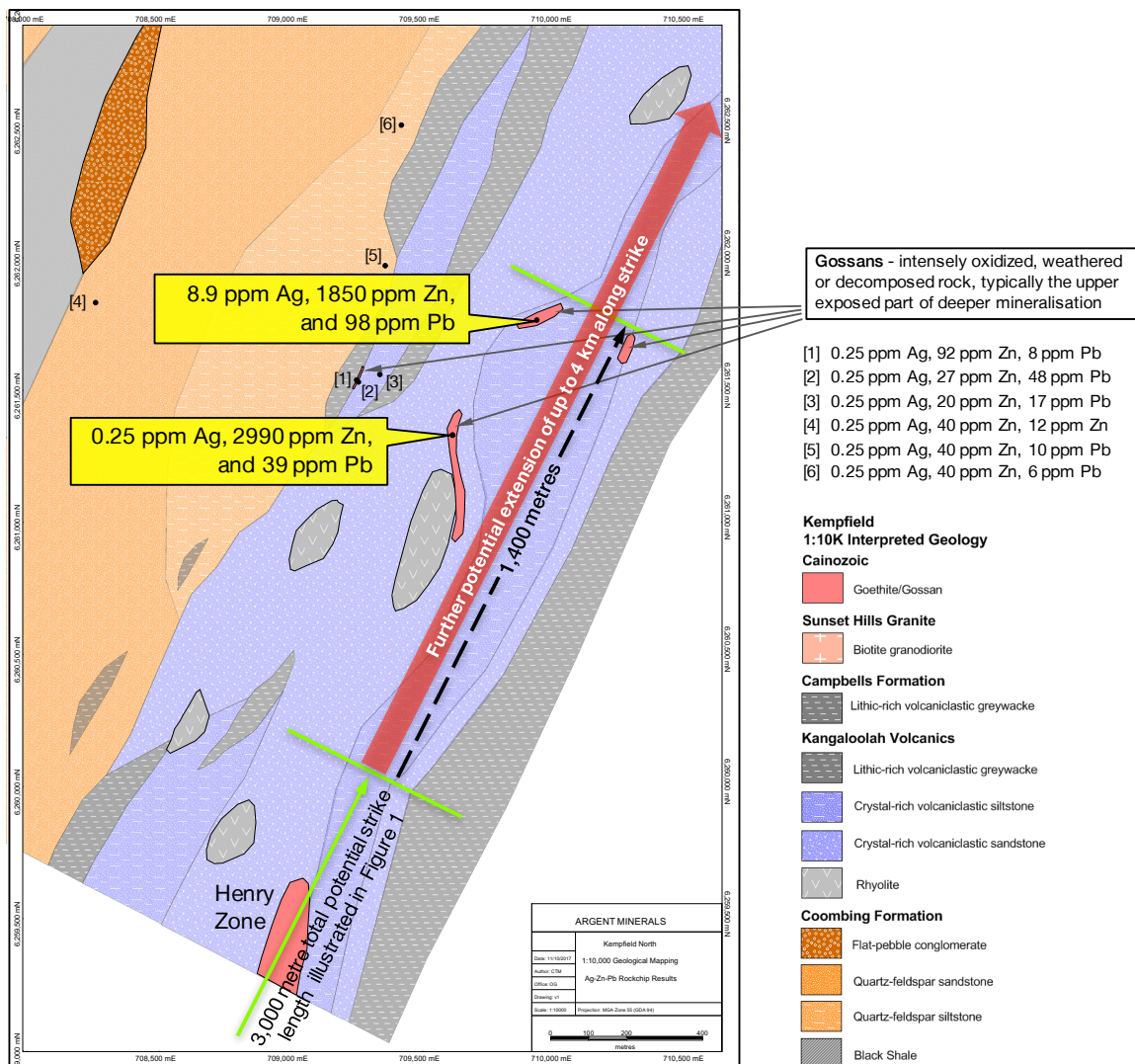


Figure 4 – Illustrating further additional potential mineralisation along strike to the North together with mapped geology and geochemical sampling results.



Copper gold zones to the west

Petrographic studies and re-logging of historic drillcore has identified a previously unidentified package of likely Ordovician volcanics in the Colossal Reef and Mastodon area of Kempfield West. The importance of this package of volcanics is yet to be determined however it shows that the existing hypothesis of Kempfield being located in a large regional syncline, is incorrect and the western volcanics are an intermittent progression of volcanic activity from the Ordovician to the Late Silurian.

It is now probable that hydrothermal fluids responsible for formation of the Kempfield Deposit have passed through this older volcanic package and potentially mineralised any immediate geology.

The Colossal reefs and Mastodon chalcopyrite (copper) occurrences support this view and will be investigated as part of the broader exploration strategy at Kempfield.

Additional strike length to the south

Kempfield South has historically been considered as a barren package of unidentified Ordovician rocks juxtaposed to Kempfield South mineralisation by a regional fault. Recent drilling (AKDD198 & AKDD199) has shown that the geology is the same as that hosting the Kempfield Deposit, and the potential for mineralisation to continue to the south has a much higher likelihood than previously thought. The mineral occurrences of the Gully Swamp Copper Mine, and the Sugarloaf Barite Mine support the revised interpretation. Further mapping and drilling is required to characterise the geology in this area, and investigate if there is potential for further base and precious metal mineralisation.

APPENDIX D – KEMPFIELD MINERAL RESOURCE

Kempfield resource

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

Table 1 - Kempfield existing Mineral Resource summary

		Silver (Ag)		Gold (Au)		Zinc (Zn)		Lead (Pb)		In-situ Contained Ag Equivalent ²	
	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	1.3	200	0.62	200	-	40.5
Total***	21.8	47	33.0	0.12	86	N/A	200	N/A	97	75	52

Table 2 - Resource by Category

		Grade (g/t)		Grade (%)		In-situ Grade (Contained Ag Eq g/t)
Category	Resource Tonnes (Mt)	Silver (Ag)	Gold (Au)	Zinc (Zn)	Lead (Pb)	Silver Equivalent (Ag Eq ¹)
Oxide/Transitional						
Measured	2.7	68	0.11	-	-	73
Indicated	2.7	47	0.11	-	-	52
Inferred	0.6	39	0.08	-	-	43
Total Oxide/Transitional	6.0	55	0.11	-	-	60
Primary						
Measured	4.1	57	0.12	1.2%	0.66%	93
Indicated	8.4	41	0.13	1.2%	0.58%	76
Inferred	3.2	35	0.13	1.4%	0.66%	74
Total Primary	15.8	44	0.13	1.3%	0.62%	80
Total Resource	21.8	47	0.12	N/A	N/A	75

Notes:

* The asterisks in Table 1 correspond to *90% **79% ***82%: as % of resource tonnes in Measured or Indicated category.

1. The cutoff grades for the Mineral Resource estimate in Table 1 are 25 g/t Ag for Oxide/Transitional and 50 g/t Ag Eq for Primary.

2. Ag Eq for Table 1 and Table 2 is 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.

3. The company confirms that it is not aware of any new information or data that materially affects the information provided above, the company confirms that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not materially changed. For full details please refer to the original Mineral Resources and Ore Reserves Statement announced on 6 May 2014.



APPENDIX E - JORC 2012 EDITION TABLE 1

KEMPFIELD EXPLORATION TARGET

The following information follows the requirements of JORC 2012 Table 1 Sections 1, 2 and as applicable for this ASX announcement. Refer to the 14 May 2014 announcement for JORC 2012 Table 1 details pertaining to the existing Mineral Resource estimate.

Section 1 - Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The Kempfield deposit was sampled with drill chips from reverse circulation (RC), conventional rotary percussion (PERC) drilling, and with diamond drill hole (DDH). PERC/RC drill chips are sampled at one metre intervals in plastic bags, weighed, split (to 1:12 with a riffle splitter) and then composited on two metre intervals in calico bags. Drill holes are sampled based on observed mineralisation or intensity of alteration. Holes were drilled PQ2, HQ3 and NQ3. PQ ¼ core, HQ ½ and NQ ½ core were used for sample submittal. Samples are generally constrained to >0.6 m or <1.4 m interval lengths with an average sample length of 1 m. A minimal number of samples are taken with interval lengths <0.6 m due to rock condition or stratigraphic constraints. Soil samples taken from approximately 0.5 m below the surface (aimed at C Horizon). The samples were sieved to -75 microns and then bagged ready for analysis.
Drilling techniques	Several industry standard drilling techniques have been applied in the extraction of the samples, including full length diamond drilling, percussion drilling (PERC and RC) and combination RC collar/DDH tails. Diamond drilling utilised PQ collars with HQ and NQ drilling to depth. The drill string was configured with a triple tube 3 m barrel and wireline/overshot setup. PERC/RC was conducted using conventional methods using standard 4-1/2 inch or 5-1/2-inch face sampling down the hole hammer.
Drill sample recovery	Recovery was recorded by the geologist or field geotechnician. Diamond: Triple tube was permanently employed to maintain core integrity. RC: Every effort was made to ensure samples remained dry. Wet samples were dried at the earliest opportunity. Hammer drilling was pulled back from the hammer face per sample to ensure sample separation. PERC: recoveries were calculated by weighing recovered chips per metre drilled and reconciling with the volume and expected relative density of the material sampled. This was entered into a separate table which was then uploaded into the database. No significant core loss occurred during drilling. However, localised lower recoveries were recorded in intensively weathered (BJ Zone) and clay-altered (McCarron Zone) rocks.
Logging	Geological logging is conducted to a high standard via graphic and digital logging noting lithology, mineralisation, alteration and structure with associated degrees of intensity. Logging is undertaken using both qualitative and quantitative methods accompanied with wet and dry core photography, and sampling for type section lithogeochemistry. Core was oriented when recovered and logged in full. A short field description was taken for each soil sample.
Sub-sampling techniques and sample separation	During PERC/RC, drill chips were collected at one metre intervals in plastic bags, weighed, split (to 1:12 with a riffle splitter) and then composited on two metre intervals in calico bags. The weight of recovered drill chips per metre enabled recovery rates to be estimated. Any wet samples were dried before weighing and splitting. Diamond drill holes are sampled on observed mineralisation or intensity of alteration. PQ ¼ core, HQ and NQ ½ core was used for sample submittal. Samples were constrained to >0.6 m or <1.4 m interval lengths with an average sample length of 1 m. A minimal number of samples are taken with interval lengths <0.6 m due to rock condition or stratigraphic constraints. Assay and preparation are carried out by ALS Global Orange and ALS Global Brisbane. 2-3 kg samples were crushed using a jaw crusher, riffle split, and pulverized to produce a 250g sample for various analytical methods. Petrology samples selected based on dominant lithology type compositions and alteration types, completed by A & A Crawford Pty. Ltd. (Tony Crawford)



Quality of assay data and laboratory tests	Quality assurance and quality control (QAQC) procedures for historical sampling, assay data and laboratory tests are summarised in Table 1.1.1 - Argent Minerals samples were digested with a 4-acid total digest (hydrochloric, perchloric, nitric and hydrofluoric acids) to counteract the ubiquitous presence of barite. Samples were assayed using ICP-AES for: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn, Zr. Samples over detection limit were re-assayed using 4-acid digest with ICP-AES finish. Au was quantified using a 30g charge with fire assay and AAS finish. Any over-limit samples were assayed via dilution. Argent and ALS Global employ independent QAQC assay checks. Argent uses coarse crush, fine crush and pulp duplicates, blanks and 2 types of CRM's inserted at a ratio of 1:10. Soil samples were assayed by ME-MS41 with a total of 4312 samples collected. - Golden Cross samples were submitted to ALS Laboratories in Orange for gold assays by fire assay, silver and base metals by aqua regia digest with an ICP-AES finish, and barium by X-ray diffraction (XRF). - Jones Mining samples were assayed by Australian Laboratory Services in Brisbane for silver and barium using method XRF-1A, and one hole (JKF-20) by AMDEL in South Australia. - Shell core and percussion samples were originally assayed by ALS method XRF-1A for barium and 101-B for copper, lead, zinc, and silver. - Inco submitted samples for assay by 'INAL' (Inco's own laboratory), 'Robertson Research', 'Geomin', 'Boulder Lab' and 'Rockhampton'. In some cases, the laboratory has not been identified in the available documentation. The assay method has been recorded in the drill logs as 'AAS'. Where the method field has not been ticked the almost identical sheet format and context suggest that AAS has been employed. Table 1.1.1 – QAQC Summary for each Exploration Company <table><tr><th>Company</th><th>No. of assays</th><th>Comments</th></tr><tr><td>Argent Minerals</td><td>15,019</td><td>Full QAQC applied:</td></tr><tr><td>Argent Minerals Re-assays of Inco samples</td><td>708</td><td> - field coarse blanks (every 50th); - standard reference material from standards supplied by Geostats Pty Ltd (every 50th); - duplicate every 25th or 50th ; - cross laboratory check (ALS Orange, Genalysis Laboratory Services Pty Ltd); - cross analytical technique checks (ICP-MS versus four acid leach); and - three pairs of twin holes – RC vs DDH </td></tr><tr><td>Golden Cross</td><td>4,135</td><td>Satisfactory QAQC:</td></tr><tr><td>Golden Cross Re-assays of Jones Mining</td><td>263</td><td> - duplicates; and - cross-laboratory checks (ALS Orange, ALS Stafford, Becquerel and Genalysis), and cross-analytical - technique checks (ICP-AES versus Neutron Activation Analysis) </td></tr><tr><td>Jones Mining</td><td>146</td><td>QAQC documentation partially available - Jones Mining re-assayed 82 samples</td></tr><tr><td>Shell</td><td>4,253</td><td>Satisfactory QAQC: - four check holes against percussion drilling program; and - cross-laboratory checks. </td></tr><tr><td>Inco</td><td>1,516</td><td>QAQC documentation not available</td></tr><tr><td>TOTAL</td><td>26,040</td><td>24,378 assays (94%) with satisfactory QAQC procedures and documentation</td></tr></table>	Company	No. of assays	Comments	Argent Minerals	15,019	Full QAQC applied:	Argent Minerals Re-assays of Inco samples	708	- field coarse blanks (every 50th); - standard reference material from standards supplied by Geostats Pty Ltd (every 50th); - duplicate every 25th or 50th ; - cross laboratory check (ALS Orange, Genalysis Laboratory Services Pty Ltd); - cross analytical technique checks (ICP-MS versus four acid leach); and - three pairs of twin holes – RC vs DDH	Golden Cross	4,135	Satisfactory QAQC:	Golden Cross Re-assays of Jones Mining	263	- duplicates; and - cross-laboratory checks (ALS Orange, ALS Stafford, Becquerel and Genalysis), and cross-analytical - technique checks (ICP-AES versus Neutron Activation Analysis)	Jones Mining	146	QAQC documentation partially available - Jones Mining re-assayed 82 samples	Shell	4,253	Satisfactory QAQC: - four check holes against percussion drilling program; and - cross-laboratory checks.	Inco	1,516	QAQC documentation not available	TOTAL	26,040	24,378 assays (94%) with satisfactory QAQC procedures and documentation
Company	No. of assays	Comments																										
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Argent Minerals Re-assays of Inco samples	708	- field coarse blanks (every 50th); - standard reference material from standards supplied by Geostats Pty Ltd (every 50th); - duplicate every 25th or 50th ; - cross laboratory check (ALS Orange, Genalysis Laboratory Services Pty Ltd); - cross analytical technique checks (ICP-MS versus four acid leach); and - three pairs of twin holes – RC vs DDH																										
Golden Cross	4,135	Satisfactory QAQC:																										
Golden Cross Re-assays of Jones Mining	263	- duplicates; and - cross-laboratory checks (ALS Orange, ALS Stafford, Becquerel and Genalysis), and cross-analytical - technique checks (ICP-AES versus Neutron Activation Analysis)																										
Jones Mining	146	QAQC documentation partially available - Jones Mining re-assayed 82 samples																										
Shell	4,253	Satisfactory QAQC: - four check holes against percussion drilling program; and - cross-laboratory checks.																										
Inco	1,516	QAQC documentation not available																										
TOTAL	26,040	24,378 assays (94%) with satisfactory QAQC procedures and documentation																										
Verification of sampling and assaying	All drill hole information is stored graphically and digitally in excel format. Assay results span low-level, high-level and ore-grade amounts which have been reported in a homogenised format. Reported results are compiled by the Company's Exploration Manager and the Chief Executive Officer. Collected digital data is verified and validated by the Database Administrator (H&SC consultants) No adjustment or calibration was made to any primary assay data collected at the Kempfield project for the purposes of reporting. Argent Minerals has drilled three pairs of twin RC versus DDH holes. The assay results from these pairs show reasonable correlation in the mineralised intervals. This implies that the RC drilling and the applied sampling procedure was a reliable technique.																											

Location of data points	All data used in this report are in: - Datum: Geodetic Datum of Australia 94 (GDA94) - Projection: Map Grid of Australia (MGA) - Zone: Zone 55 Topographic control was gained using government DTM data with handheld GPS check (Garmin eTrex H, GPS Accuracy: ± 10 meters). Soil sample locations were collected using handheld GPS (Garmin 76 ± 3 meters) at a spacing of 100m x 50m Downhole surveys were captured approximately every 50 or 30m including at end of hole with an Eastman multishot camera down-hole survey Tool. Surveys of the drill hole collars were conducted by the following methods: - Historical collars surveyed under the Kempfield local grid and later converted to AMG 66 (Zone 55) grid (by a registered surveyor). Accuracy and quality of drill hole collar survey depends on the age of survey and exploration company which conducted the survey; - Holes not originally surveyed by a registered surveyor were located with a GPS and stored in AMG66 (for consistency with the above); and - Collars surveyed by a registered surveyor in GDA 94 (Zone 55) grid and then converted to AMG 66 (Zone 55) grid (also for consistency); all Argent Minerals drill hole collars are surveyed by a registered surveyor, an H&SC requirement. The elevations for the Argent holes were surveyed by an independent registered surveyor (195 holes). Elevations for historical holes were either assigned from digital terrain model (DTM) or interpolated from known surveyed collar elevations. The DTM was derived from Light Detecting and Ranging (LIDAR) survey (with an accuracy of ± 5 cm) conducted by Geospectrum for the Kempfield project during 2010.
Data spacing and distribution	The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate an additional Mineral Resource, and it is uncertain if further exploration will result in the estimation of an additional Mineral Resource. Exploration results incorporated and used to generate the Kempfield Exploration Target estimate are: - Unconstrained estimate model with all existing drillhole data. The models search radius was 300 m from all mineralised intersection data. - Existing superimposed 2012 resource model was used to define the extents of what was to be excluded from the upper and lower Exploration Target estimates. - Drill hole spacing for the Exploration Target is generally greater than 100 m with drilling density not yet sufficient to provide a Mineral Resource and Ore Reserve Estimation. - Sample compositing: Argent and Golden Cross RC samples were taken at 1 metre down-hole intervals and composited to 2 metre intervals. Regarding shell drill chips the documentation has not been located.
Orientation of data in relation to geological structure	Samples were taken with consideration of stratigraphy and alteration, samples do not straddle geological boundaries. The immediate local geological sequence and foliation is inclined at 70 degrees to the west. Drill holes were targeted to intersect geology on mildly oblique (55-60 degrees) sections to increase intercept potential. No orientation based sampling bias has been identified in the data to date. However, holes drilled to the west (along stratigraphy) usually are controlled by cleavage and/or faults and reported assays can be inconsistent.
Sample security	Chain of custody involved graphic and digital sign off sheets onsite, sample transfer protocols onsite, delivery to ALS Global Orange by Argent staff, and receipt by ALS Global Orange.

Audits or reviews	A walk-through inspection of ALS Global Orange facilities was conducted by the Exploration Manager of Argent and deemed to be satisfactory. A review of assay method was conducted by the Exploration Manager of Argent and was altered from a partial digest (3-acid), to a total digest (4-acid). Significant amounts of barite cause Ag to precipitate out of solution which is difficult to quantify in a partial digest solution. Sampling techniques and procedures were regularly reviewed internally and by external consultants (H&SC). Data reviews conclude that QAQC protocols have been adequately employed
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Section 2 - Reporting of Exploration Results

Criteria	Commentary																																
Mineral tenement and land tenure status	Exploration Licence Kempfield EL5748, Trunkey Creek, NSW held by Argent (Kempfield) Pty. Ltd. (100%), a wholly owned subsidiary of Argent Minerals Limited. There is no overriding royalties’ other than the standard government royalties for the relevant minerals. Argent has freehold title to the land which has historically been utilised for pastoral activities. Heritage items have been identified on the property. A native title claim (Gundungurra Application #6) was lodged on the 29th April 1997 covering a large area inclusive of Kempfield. A single counterpart only, the Gundungurra Tribal Council Aboriginal Corporation, responded to Argent advertisements as part of the standard ‘right to negotiate’ process, and is the sole registrant. The Company’s Exploration Licence renewal application for the full licence area for a five (5) year term was been approved to July 2020.																																
Exploration by other parties	Argent Minerals Limited through its wholly owned subsidiary Argent (Kempfield) Pty Ltd is the sole operator of the project. Argent introduced best industry practice work. Kempfield has been explored for more than forty years by several exploration companies as set out in Table 1.2.1. Table 1.2.1 – Exploration History <table><tr><th>Company</th><th>Period</th><th>Exploration activities</th></tr><tr><td>Argent Minerals</td><td>2007-present</td><td>Drilling, VTEM survey, pole-dipole IP survey, gravity survey, ground EM and down-hole EM survey</td></tr><tr><td>Golden Cross</td><td>1996-2007</td><td>Drilling and high resolution airborne magnetic survey</td></tr><tr><td>Jones Mining</td><td>1982-1995</td><td>Drilling</td></tr><tr><td>Shell</td><td>1979-1982</td><td>Drilling, ground EM survey, dipole-dipole IP survey and soil sampling</td></tr><tr><td>Inco</td><td>1972-1974</td><td>Drilling</td></tr></table> Earlier exploration was performed at the industry standard of the time; available QAQC indicates that the historical data is reasonable and suitable for use in Mineral Resource estimates.	Company	Period	Exploration activities	Argent Minerals	2007-present	Drilling, VTEM survey, pole-dipole IP survey, gravity survey, ground EM and down-hole EM survey	Golden Cross	1996-2007	Drilling and high resolution airborne magnetic survey	Jones Mining	1982-1995	Drilling	Shell	1979-1982	Drilling, ground EM survey, dipole-dipole IP survey and soil sampling	Inco	1972-1974	Drilling														
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Shell	1979-1982	Drilling, ground EM survey, dipole-dipole IP survey and soil sampling																															
Inco	1972-1974	Drilling																															
Geology	The deposit type is a volcanic hosted massive sulphide (VHMS) deposit. The geological setting is in the Siluro-Devonian Kangaloolah Volcanics within the intra-arc Hill End Trough within the Lachlan Orogen, Eastern Australia. The style of mineralisation is strata bound barite-rich horizons hosting silver, lead, zinc ± copper ± gold.																																
Drill hole Information	Kempfield drilling post the original April 2012 Resource Estimate is set out in Table 1.2.2 Table 1.2.2 - Collar coordinates for Kempfield drilling post the April 2012 Mineral Resource estimate <table><tr><th>Drillhole</th><th>Easting^c</th><th>Northing^c</th><th>RL^b</th><th>Depth¹</th><th>Azimuth^a</th><th>Dip^a</th><th>Status</th></tr><tr><td>AKDD171</td><td>708427</td><td>6258247</td><td>776</td><td>51.3</td><td>290</td><td>-60</td><td>Reported</td></tr><tr><td>AKDD172</td><td>708502</td><td>6258316</td><td>775</td><td>53.2</td><td>290</td><td>-60</td><td>Reported</td></tr><tr><td>AKDD173</td><td>708688</td><td>6258349</td><td>785</td><td>48.1</td><td>110</td><td>-60</td><td>Reported</td></tr></table>	Drillhole	Easting ^c	Northing ^c	RL ^b	Depth ¹	Azimuth ^a	Dip ^a	Status	AKDD171	708427	6258247	776	51.3	290	-60	Reported	AKDD172	708502	6258316	775	53.2	290	-60	Reported	AKDD173	708688	6258349	785	48.1	110	-60	Reported
Drillhole	Easting ^c	Northing ^c	RL ^b	Depth ¹	Azimuth ^a	Dip ^a	Status																										
AKDD171	708427	6258247	776	51.3	290	-60	Reported																										
AKDD172	708502	6258316	775	53.2	290	-60	Reported																										
AKDD173	708688	6258349	785	48.1	110	-60	Reported																										

		AKDD174	708535	6258122	775	60.4	110	-60	Reported
		AKDD175	708110	6258034	764	30.0	110	-60	Reported
		AKDD176	709235	6259355	807	29.7	290	-60	Reported
		WB5-TBA1	708319	6258715	743	102.0	0	-90	Reported
		WB6-TBA3	707925	6258098	739	90.0	0	-90	Reported
		TB3	709083	6258815	768	79.0	0	-90	Reported
		AKDD177	708252	6258582	745	408.0	103	-72	Reported
		AKDD159_EXT	708138	6258075	764	72.9*	290	-70	Reported
		AKDD178	707830	6258475	800	498.4	105	-55	Reported
		AKDD179	707714	6258872	805	702.2	117	-55	Reported
		AKDD180	708028	6258117	760	210.5	110	-55	Reported
		AKDD181	708144	6258403	770	456.6	110	-60	Reported
		AKDD182	708141	6258403	750	299.9	110	-80	Reported
		AKDD183	708580	6258615	754	206.9	110	-75	Reported
		AKDD184	708706	6258564	763	242.2	110	-75	Reported
		AKDD185	708649	6258481	767	278.8	110	-75	Reported
		AKDD186	708460	6258559	761	273.0	110	-60	Reported
		AKDD187	708417	6258419	761	419.9	110	-60	Reported
		AKDD188	708118	6257937	763	256.7	110	-60	Reported
		AKDD189	708056	6258152	751	307.2	110	-65	Reported
		AKDD190	708087	6258195	746	307.9	110	-65	Reported
		AKDD191	708580	6258615	754	333.6	110	-85	Reported
		AKDD192	708460	6258559	761	249.9	110	-55	Reported
		AKDD193	708418	6258841	753	224.9	110	-60	Reported
		AKDD194	708555	6258785	766	262.9	110	-60	Reported
		AKDD195	708371	6258005	783	233.7	110	-60	Reported
		AKDD196	708577	6257960	798	299.9	110	-60	Reported
		AKDD197	707810	6257998	748	152.5	110	-80	Reported
		AKDD198	707971	6257785	763	206.9	110	-60	Reported
		AKDD199	707917	6257751	760	215.3	110	-80	Reported
		AKDD200	709150	6259500	824	236.6	110	-60	Reported
		* Hole extended from 100.8 m							
		1. Depth is hole length to end of hole.							
		2. AMG 66 (Zone 55)							
Data aggregation methods	Drillhole: A nominal cut-off grade of 0.1% Pb, Zn and Cu were used, 0.01 g/t Au and 1 g/t Ag. Significant intersections have been length weighted where grouped results exceed a single sample. Higher grade intervals use a lower cut-off grade of 0.5% Pb and Zn, 0.2% Cu, 0.2 g/t Au and 10 g/t Ag. Sub-grade results are included in significant intersections if bounded by 1 or more significant results. Only significant results initiate grouping whereby the majority of assay results are deemed significant. April 2012 Mineral Resource estimate: The cut-off grades for Table A are 25 g/t Ag for Oxide/Transitional and 50g/t Ag Eq for Primary. Ag Eq is 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. The Company confirms that it is not aware of any new information or data that materially affects the information provided above, the company confirms that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not materially changed. For full details please refer to the JORC 2012 Mineral Resources and Ore Reserves Statement announced on 6 May 2014. Exploration Target: estimate is based on a cut-off grade 50 g/t Ag Eq and the inclusion of 34 additional drillholes post the 2012 resource estimate. The upper and lower grades do not necessarily correspond to the upper and lower tonnages, nor do the upper and lower grades for each element necessarily correspond.								

Relationship between mineralisation widths and intercept lengths	The immediate local geological sequence and foliation is inclined at 70 degrees to the west and drilling planned to intersect mineralisation at an oblique angle where true width is 70%-80% of downhole length. Downhole lengths are reported herein.
Diagrams	Diagram descriptions for the Exploration Target estimate are included in the Figure captions and where appropriate, the adjacent report text. The 3D Kempfield model was created in Micromine and the Exploration Target in Datamine 3D modelling suites.
Balanced reporting	The Exploration Target has been estimated based on a combination of exploration results and the proposed exploration programmes set out under the heading 'About the resource infill drilling programme'. A detailed technical description of the Exploration Target estimation methodology employed by H&SC is provided in Appendix B – Exploration Target Estimation Methodology.
Other substantive exploration data	All available exploration data relevant to this report has been provided.
Further work	Further infill drilling at Kempfield is planned to follow up the on the actual mineralisation continuity and additional extensions predicted by the mineralisation and genetic model. In doing so, the drilling programme will quantify the validity of the Exploration Target reported in this announcement. Stage 1 – Approximately 5,000 m of RC drilling. Stage 2 – Further RC resource infill drilling contingent of satisfactory results of Stage 1.



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> :

1. 6 May 2014 Kempfield Mineral Resource upgraded to JORC 2012 standard
2. 10 October 2016 Diamond Drilling Results in Major Breakthrough at Kempfield²
3. 2 February 2017 10 Metre Gold Intersection Returned by 1st Kempfield Assays²
4. 20 February 2017 20 Metre Intersection Confirms New Kempfield Southeast Zone²
5. 15 March 2017 Significant Ag Pb Zn intersections at Kempfield Henry Zone²
6. 30 June 2017 Annual report to shareholders – Mineral Resources and Ore Reserves Statement¹

Competent Person:

1. Arnold van der Heyden
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, and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. 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 Target Estimate

The information in this Report that relates to the Exploration Target for the Kempfield deposit is based on information compiled by Mr. Arnold van der Heyden, who is a Member and Chartered Professional (Geology) of the Australian Institute of Mining and Metallurgy and a Director of H&S Consultants Pty Ltd. Mr. van der Heyden has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr. van der Heyden consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

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.