

SIGNIFICANT KEMPFIELD MILESTONE ACHIEVED SEPARATE COMMERCIAL GRADE ZINC AND LEAD CONCENTRATES PRODUCED SUBSTANTIAL BOOST TO PROJECT ECONOMICS

Highlights:

- High quality commercial grade separate concentrates achieved: zinc (54-59%), and lead (47-64%).
- Excellent zinc recoveries: 87-92% - the dominant base metal of the deposit.
- High combined recoveries for silver (75-85%) and gold (66-90%).
- Kempfield repositioned as an economically viable polymetallic project with zinc, silver, lead and gold revenue streams from separate saleable zinc and lead concentrates.
- Industry standard flotation process design for potentially favourable capex and opex.
- Drilling to proceed as the top priority.

Argent Minerals Limited (ASX: ARD, Argent, or the Company) is pleased to report that a significant new milestone has been achieved for the Kempfield polymetallic project - the successful separation of primary material into potentially marketable commercial grade zinc and lead concentrates also containing silver and gold.

The extraction of zinc and lead into separate concentrates marks a significant advance towards project development, as the Company pursues the redefinition of Kempfield as an economically viable polymetallic project with multiple revenue streams at prevailing market prices.

Under the project redefinition validated by today's results, zinc becomes the major contributor to potential revenue, followed by silver, lead and gold - substantially boosting the economics and de-risking the project.

In addition to potentially taking advantage of favourable market conditions for zinc producers, the polymetallic scenario retains significant upside leverage to any future silver price escalation that may occur.



High grade (54-59%) zinc concentrate produced by the 2nd cleaner stage of test AF8.



High grade (47-64%) lead concentrate produced by the 2nd cleaner stage of test AF8.



About the metallurgical test results

The following results were achieved by a flotation test followed by the regrinding of lead rougher concentrates and conducting a series cleaning tests for separate lead and zinc flotation circuits:

Table 1 – Metallurgical test results summary¹

	Grade	Recovery
Zinc	54–59%	87–92%
Silver	Up to 977 g/t ²	75–85% ²
Lead	47–64%	44–53% ³
Gold	Up to 16 g/t ²	66–90% ²

Notes:

1. The results are displayed in approximate decreasing order of each metal contribution to potential revenue, from the highest (zinc) in the top row of the table;
2. Silver and gold grades and recoveries depend on the final flowsheet design, and optimisation for prevailing commercial conditions; several potential concentrate product take-off points are provided by the tested process flowsheet.
3. Further potential process improvements have been identified for increasing lead recoveries, for incorporation into ongoing testwork.

About the quality of the concentrates

The achieved zinc and lead grades are considered to be high grade in the context of the typical industry-accepted guideline of the order of 50% concentration, and comfortably within publicly reported historical smelter contract requirements.

The commercial impact of deleterious elements is estimated to be very low with penalties estimated to be zero for the lead concentrate and less than 1.3% of the total potential net smelter revenue (NSR) for the zinc concentrate.

Based on these metallurgical test results (and subject to further metallurgical testing), Argent's project modelling indicates that production concentrate silver grades could be up to four times the grades reported in Table 1. This is because the available drill core suitable for making the metallurgical testwork composite sample had approximately a quarter of the average silver grade of the Kempfield deposit¹.

Capex and opex benefits - industry standard process design

The test results also showed that:

■ Optimum commercial performance is achievable by a relatively simple process.

- Whilst the performance of product from different stages of the process was evaluated, the optimum commercial result (after taking into account smelter terms and conditions assumptions) is estimated to be provided by the 1st cleaner stage for both the zinc and lead concentrates – a relatively simple process design implying reduced process plant capital expenditure requirements.
- Argent's modelling of the above scenario indicates potential revenue stream contributions to NSRⁱ comprising zinc (45%), silver (36%), lead (11%), and gold (8%) – at recent market pricesⁱⁱ and the Company's estimates for smelter contract terms and conditions based on available information.

■ Primary grind particle size well within industry peer process plant design practice.

- Whilst the tests included a primary grind size down to $P_{80} = 40 \mu\text{m}$, the results showed that $P_{80} = 53 \mu\text{m}$ was sufficient for achieving the target concentrate grade and recoveries, implying reasonable electrical power requirements.
- a lead rougher concentrate regrind particle size distribution of $P_{80} = 15 \mu\text{m}$ was sufficient to produce the lead 1st cleaner concentrate. The design required only 2.6% (by weight) of the feed material to be reground for further refinement.

For further details of the tests and the Argent process design refer to Appendix A.

Next steps for metallurgical testing

The next steps for metallurgical testing are envisaged to include variability testing across the various mineralogical domains of the Kempfield deposit. This will require additional samples to be collected. The metallurgical engineer has prescribed a highly cost-efficient method based on collecting samples from reverse circulation (RC) drilling and protecting the samples from oxidation by storage within nitrogen-filled containers prior to freezer storage at the metallurgical laboratory facilities. This method has been determined by the metallurgical engineer as appropriate for the current stage of the Kempfield project, avoiding the need for costly dedicated metallurgical diamond drilling whilst making use of samples obtained for exploration and resource infill drilling.

Drilling to proceed as the top priority

Following its review of the Company's projects, the Argent board has determined that drilling is to proceed at Kempfield as the top priority.

Planning is underway for an initial drilling programme, the design of which is guided by the new geological model and the Company's internal project economics model that has been updated based on today's metallurgical results.

The drill plan and strategy will be announced separately to the ASX on completion of the design work.

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ⁱ For further details see JORC Table 1 *Section 4 . Metallurgical factors or assumptions* under the heading 'Nature, amount, and representativeness of testwork' on page 11 of this announcement.

ⁱⁱ Zinc US\$1.47/lb (US\$3,245/tonne), lead US\$1.08/lb (US\$2,370/tonne), silver US\$16.24/oz, gold US\$1,332.80/oz and A\$/US\$ 0.7700.



APPENDIX A

KEMPFIELD METALLURGICAL TESTING

The 9 November 2017 announcement reported the results of tests AF1 to AF3 on composite samples made up from existing drill core from two diamond holes (AKD183 and 187).

Utilising 6 kg of material from the same composite, subsequent tests AF4 to AF8 were conducted and supervised according to the following procedure devised by the metallurgical engineer as follows:

1. The primary grind to conducted at a finer particle size distribution of $P_{80}=40\text{ }\mu\text{m}$.
2. Produce sufficient Pb rougher concentrate to allow further cleaning tests.
3. Regrind the bulk Pb rougher concentrate to a particle size distribution of $P_{80}=15\text{ }\mu\text{m}$.
4. Conduct a 1st cleaner test followed by a 2nd cleaning test on the 1st cleaner concentrates.
5. The 1st cleaner tailings to be sent to the zinc circuit.
6. The 2nd cleaner concentrate to be a “final” concentrate (for the purposes of this test group series).
7. The 2nd cleaner tailings were refloats as a 2nd cleaner scavenger with the concentrate potentially a “final” concentrate and 2nd cleaner scavenger tailings sent to the zinc circuit.
8. The zinc circuit to comprise:
 - a. A rougher flotation step;
 - b. with rougher tailings as final tailings;
 - c. and Zn rougher concentrate treated in a 1st cleaner step followed by a 2nd cleaner step with 2nd cleaner concentrates as final concentrate and 1st and 2nd cleaner tailings separate. (In a commercial production plant the tailings products would be recycled).

The full metallurgical balance in schematic form is illustrated in Figure 1 and the results from this test are summarised in Table A.

Table A – Kempfield flotation testwork results AF8

Product	Weight	Grade					Recovery				
	%	Pb	Zn	Fe	Ag	Au	Pb	Zn	Fe	Ag	Au
		%	%	%	ppm	ppm	%	%	%	%	%
Feed Material	100.0	0.55	1.56	4.21	9.1	0.20					
Lead Circuit											
Pb Rough	2.6	14.5	15.2	9.1	230	3.63	67.5	24.9	5.5	57.0	46.7
<i>Pb 1st Cleaner Concentrate</i>	<i>0.6</i>	<i>47.4</i>	<i>14.5</i>	<i>4.9</i>	<i>650</i>	<i>14.0</i>	<i>52.5</i>	<i>5.7</i>	<i>0.7</i>	<i>43.5</i>	<i>42.9</i>
Pb 1 st Cleaner Tailings	1.9	4.3	15.4	10.4	63	0.39	15.0	19.2	4.8	13.5	3.8
Pb 2 nd Cleaner Concentrate	0.2	67.4	7.7	2.8	1,020	19.2	29.1	1.2	0.2	26.6	22.9
Pb 2 nd Cleaner Tailings	0.4	34.7	18.9	n/a	413	10.7	23.4	4.5	n/a	2.5	20.0
Pb 2 nd Cleaner Scavenger Con	0.1	57.4	11.6	3.8	907	11.9	15.0	1.1	0.1	16.9	8.6
Pb 2 nd Cleaner Scavenger Tails	0.2	20.3	23.5	7.9	100*	10*	8.4	3.4	0.4	2.5	11.4
Final Pb Concentrate	0.4	63.6	9.1	3.2	977	16.4	44.0	2.2	0.3	40.9	31.4
Zinc Circuit											
Zn Rough	3.6	5.0	40.1	6.0	112	2.7	32.5	92.6	5.1	44.3	49.3
<i>Zn 1st Cleaner Concentrate</i>	<i>2.6</i>	<i>6.4</i>	<i>54.2</i>	<i>4.1</i>	<i>145</i>	<i>3.6</i>	<i>30.9</i>	<i>91.9</i>	<i>2.6</i>	<i>42.1</i>	<i>47.3</i>
Zn 1 st Cleaner Tailings	1.0	0.9	1.1	11.2	21	0.39	1.6	0.7	2.6	2.2	1.9
Zn 2nd Cleaner Con (Final)	2.3	6.3	59.2	2.9	136	3.0	26.3	87.4	1.6	34.4	34.5
Zn 2 nd Cleaner Tailings	0.3	7.4	20.6	11.8	203	7.5	4.6	4.5	1.0	7.6	12.8
Zn Rougher (Final) Tailings	96.0	0.1	0.1	4.2	1.4	0.04	23.4	5.2	94.6	14.8	19.3





APPENDIX B - JORC 2012 EDITION TABLE 1

KEMPFIELD METALLURGICAL TEST RESULTS

The following information follows the requirements of JORC 2012 Table 1 Sections 1, 2 and as applicable for this ASX announcement.

Section 1 - Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	<p>The Kempfield deposit was sampled with drill chips from reverse circulation (RC), conventional rotary percussion (PERC) drilling, and with diamond drill hole (DDH).</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Metallurgical samples were extracted from drillholes AKDD183 (a 23.0 m section from Horizon C primary material) and AKDD187 (two sections from Horizon D primary material, each 11.0 m). The drillcore was shipped to AMML in Gosford, who prepared the samples and conducted the testwork. The samples were prepared by crushing to 3.25 mm, and then divided into two equal halves. One half was retained, while the other was combined to form an 18 kg composite. The composite was further divided into 18 portions, each 1 kg for individual testwork. All samples were stored in freezers at the AMML facility in order to enhance the life of the samples.</p>
Drilling techniques	<p>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.</p> <p>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.</p> <p>PERC/RC was conducted using conventional methods using standard 4-1/2 inch or 5-1/2-inch face sampling down the hole hammer.</p>
Drill sample recovery	<p>Recovery was recorded by the geologist or field geotechnician.</p> <p>Diamond: Triple tube was permanently employed to maintain core integrity.</p> <p>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.</p> <p>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.</p> <p>No significant core loss occurred during drilling. However, localised lower recoveries were recorded in intensively weathered (BJ Zone) and clay-altered (McCarron Zone) rocks.</p>
Logging	<p>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.</p>
Sub-sampling techniques and sample	<p>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.</p>



separation	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	<p>Quality assurance and quality control (QAQC) procedures for historical sampling, assay data and laboratory tests are summarised in Table 1.1.1</p> <ul style="list-style-type: none"> 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. <p>Table 1.1.1 – QAQC Summary for each Exploration Company</p> <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> <ul style="list-style-type: none"> - 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> <ul style="list-style-type: none"> - 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:</td></tr> <tr> <td></td><td></td><td> <ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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:			<ul style="list-style-type: none"> - 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
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Verification of sampling and assaying	<p>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.</p> <p>Reported results are compiled by the Company's Exploration Manager and the Chief Executive Officer.</p>																															

	<p>Collected digital data is verified and validated by the Database Administrator (H&SC consultants)</p> <p>No adjustment or calibration was made to any primary assay data collected at the Kempfield project for the purposes of reporting.</p> <p>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.</p>
Location of data points	<p>All data used in this report are in:</p> <ul style="list-style-type: none"> Datum: Geodetic Datum of Australia 94 (GDA94) Projection: Map Grid of Australia (MGA) Zone: Zone 55 <p>Topographic control was gained using government DTM data with handheld GPS check (Garmin eTrex H, GPS Accuracy: ± 10 meters).</p> <p>Soil sample locations were collected using handheld GPS (Garmin 76 ± 3 meters) at a spacing of 100m x 50m</p> <p>Downhole surveys were captured approximately every 50 or 30m including at end of hole with an Eastman multishot camera down-hole survey Tool.</p> <p>Surveys of the drill hole collars were conducted by the following methods:</p> <ul style="list-style-type: none"> 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. <p>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.</p>
Data spacing and distribution	<p>No Mineral Resources or Ore Reserves are reported in this announcement.</p>
Orientation of data in relation to geological structure	<p>Samples were taken with consideration of stratigraphy and alteration, samples do not straddle geological boundaries.</p> <p>The immediate local geological sequence and foliation is inclined at 70 degrees to the west.</p> <p>Drill holes were targeted to intersect geology on mildly oblique (55-60 degrees) sections to increase intercept potential.</p> <p>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.</p>
Sample security	<p>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.</p>
Audits or reviews	<p>A walk-through inspection of ALS Global Orange facilities was conducted by the Exploration Manager of Argent and deemed to be satisfactory.</p> <p>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.</p>



	<p>Sampling techniques and procedures were regularly reviewed internally and by external consultants (H&SC). Data reviews conclude that QAQC protocols have been adequately employed.</p> <p>The metallurgical engineer conducts similar regular inspections of the AMML Gosford facility to ensure that QAQC protocols have been adequately employed.</p>
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Section 2 - Reporting of Exploration Results

Criteria	Commentary																								
Mineral tenement and land tenure status	<p>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.</p> <p>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 counterparty 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.</p> <p>The Company's Exploration Licence renewal application for the full licence area for a five (5) year term was been approved to July 2020.</p>																								
Exploration by other parties	<p>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.</p> <p>Kempfield has been explored for more than forty years by several exploration companies as set out in Table 1.2.1.</p> <p>Table 1.2.1 – Exploration History</p> <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> <p>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.</p>	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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Geology	<p>The deposit type is a volcanic hosted massive sulphide (VHMS) deposit.</p> <p>The geological setting is in the Siluro-Devonian Kangaloolah Volcanics within the intra-arc Hill End Trough within the Lachlan Orogen, Eastern Australia.</p> <p>The style of mineralisation is strata bound barite-rich horizons hosting silver, lead, zinc ± copper ± gold.</p>																								
Drill hole Information	<p>Holes from which the metallurgical test samples were extracted are set out in Table 1.2.2</p> <p>Table 1.2.2 - Collar coordinates for metallurgical test samples</p> <table><tr><th>Drillhole</th><th>Easting² (m)</th><th>Northing² (m)</th><th>RL (m)</th><th>Depth¹ (m)</th><th>Azimuth (°)</th><th>Dip (°)</th><th>Status</th></tr><tr><td>AKDD183</td><td>708580</td><td>6258615</td><td>754</td><td>206.9</td><td>110</td><td>-75</td><td>Reported</td></tr><tr><td>AKDD187</td><td>708417</td><td>6258419</td><td>761</td><td>419.9</td><td>110</td><td>-60</td><td>Reported</td></tr></table> <p>1. Depth is hole length to end of hole. 2. AMG 66 (Zone 55)</p>	Drillhole	Easting ² (m)	Northing ² (m)	RL (m)	Depth ¹ (m)	Azimuth (°)	Dip (°)	Status	AKDD183	708580	6258615	754	206.9	110	-75	Reported	AKDD187	708417	6258419	761	419.9	110	-60	Reported
Drillhole	Easting ² (m)	Northing ² (m)	RL (m)	Depth ¹ (m)	Azimuth (°)	Dip (°)	Status																		
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AKDD187	708417	6258419	761	419.9	110	-60	Reported																		
Data aggregation methods	<p>No data aggregation has been applied to the metallurgical test results, as only the results of a single metallurgical test (AF8) out of a series of eight tests are reported in this announcement.</p>																								

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	A diagram of the process flowsheet is provided in Appendix A together with metallurgical balance data.
Balanced reporting	No Exploration Results are provided in this announcement. The results of a single metallurgical test only (AF8) out of a series of four tests are reported in this announcement.
Other substantive exploration data	All exploration data relevant to this report has been provided.
Further work	Further identified potential metallurgical testwork includes: <ol style="list-style-type: none"> 1. Variability testing across the deposit domains. 2. Locked cycle testing. These tests will require additional samples to be collected.

Section 4 – Estimation and Reporting of Ore Reserves

Since no Ore Reserves are reported, this section is provided in part only, in order to provide further details of the metallurgical testwork in a manner that is consistent with the prevailing JORC Code 2012 reporting format.

Criteria	Commentary
Metallurgical factors or assumptions	<p><u>Metallurgical process and appropriateness</u> – the Company is conducting a series of metallurgical testwork to determine the effectiveness of extracting metals from Kempfield primary material by flotation, targeting separate concentrates. This is considered by the Company to be standard practice for such material in the Kempfield VHMS deposit.</p> <p><u>Well-tested or novel technology</u> - The Company considers the above process to be standard well-tested technology that has been proven over time. At this point there is no 'novel' or unproven technology under consideration.</p> <p><u>Nature, amount, and representativeness of testwork</u> – due to the limited availability of suitable drillcore, the samples have been extracted from only two holes. Whilst due care has been applied in the selection of these holes to maximise representivity under the circumstances, the results cannot not be considered as representative of the broader Kempfield deposit. The samples have been extracted from Horizon C and Horizon D primary material, for a total of 45 metres of drillcore as follows:</p> <ol style="list-style-type: none"> 1. A combined AKDD183 sample representing Primary material from C Horizon with 23 m of intersection and with an expected grade of 1.59% Zn, 0.65% Pb, 11g/t Ag and 0.25% Ba; 2. A single AKDD187 sample from 133 m to 143.8 m representing Primary material from D Horizon with 11 m of intersection and with an expected grade of 1.43% Zn, 1.04%Pb, 25g/t Ag and 0.05%Ba; and 3. A single AKDD187 sample from 154 m to 66.9 m representing Primary material from D Horizon with 11 m of intersection and with an expected grade of 1.29% Zn, 0.37%Pb, 8g/t Ag and 0.22% Ba <p>The genesis of these samples are that AKDD183 represents C Horizon while AKDD187 represents D horizon (see Appendix A of announcement 8 November 2017 – Kempfield Exploration Target).</p> <p>The combined AKDD183 intersections are Primary material and equal 23 m which the Company considers to be a reasonable sample size to commence with. It is noted that the Ba concentration is relatively high at 0.25% while silver is relatively low, Pb and Zn are reasonable. This may or may not have relevance regarding</p>



metallurgical performance.

Sample AKDD187 is essentially a sample primary material made up of three parts; the first part is 11 m of low Ba, relatively moderate Ag and higher arsenic with reasonable Pb and Zn, the second part is also Primary and has 11 m of intersection but is high in Ba, low in silver, reasonable Zn and low Pb. The third sample is minor with only 4m intersection, high in Ba as well as moderate Pb and high Zn.

AMML determined that these intersections weighed 36.4kg, which was prepared and stored as described under "Sampling techniques" in the first row of JORC Table 1 Section 1 on page 5 of this announcement.

Whilst the Company considers the assayed test mill feed grades to be reasonable for the stated testing purposes at 0.55% Pb, 1.56% Zn, 9.10 g/t Ag and 0.20 g/t Au, this varies from the deposit average and the Company's assumptions of 0.54% Pb, 1.08% Zn, 38.48 g/t Ag and 0.12 g/t Au resulting from its internal modelled hypothetical mining schedules (on which the estimated mineral contributions to potential NSR on page 2 of this announcement are based).

Further testing will need to be conducted to ensure that metallurgical recovery and concentrate grade assumptions are representative of both the average head grades, and their variation across the various mineralogical domains of the deposit. Refer to JORC Table 1 under the heading 'Further Work' on page 11 of this announcement.

Deleterious elements – preliminary tests were conducted as summarised in the following table:

Table 1.4.1 – Deleterious element test results

Element	Pb 2 nd Cleaner Con	Pb 2 nd Cleaner Scav Con	Zn 2 nd Cleaner Con
Hg	58	90	319
As	101	106	27
Sb +As	1,711	1,276	
Bi	37	29	
Cd			3,080

No bulk sample or pilot scale testwork has yet been conducted.

Minerals defined by specification – none under consideration at this point.



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> :

- 9 November 2017 Excellent Kempfield metallurgical test results¹

Competent Person:

1. Clifton Todd McGilvray (Exploration Results) and Mr. Roland Nice (Metallurgical test results)

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.

Metallurgical testwork

The information in this Report that relates to the Exploration Target for the Kempfield deposit is based on information compiled by Mr. Roland Nice, who is a Fellow of the Australasian Institute of Mining and Metallurgy and the Principal of R W Nice & Associates Pty Ltd. Mr. Nice has sufficient experience relevant to the mineral processing of complex base metal deposits 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. Nice consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.