SIGNIFICANT KEMPFIELD RESOURCE UPDATE
CONTAINED METAL EQUIVALENTS SIGNAL BOOST TO ECONOMIC POTENTIAL

Highlights:

■ Major progress at the Kempfield project with new metallurgical details.
■ Kempfield mineral resource statement updated to incorporate the results of metallurgical breakthroughs announced 12 April 2018 and market pricing of zinc, silver, lead and gold.
■ Silver equivalent contained metal estimate now 100 million ounces Ag Eq at 120 g/t Ag Eq - approximately double the previous estimate, and significantly higher Ag Eq grade.
■ Zinc equivalent contained metal estimate: 520,000 tonnes Zn Eq at 2.0% Zn Eq – newly reported for the Kempfield project as a result of the substantially increased zinc contribution to potential revenues.
■ The updated resource estimate statement does not include additional resource potential identified in the Exploration Target announced 8 November 2017.
■ The revised silver and new zinc contained metal equivalents signal a significant advance towards potential economic viability as Argent readies further drilling.
■ Drilling to proceed as the top priority.

Argent Minerals Limited (ASX: ARD, Argent, or the Company) is pleased to report an updated mineral resource statement for the Kempfield project, which we believe significantly advances the progress of the project.

The resource statement has been updated to incorporate the milestone metallurgical results reported on 12 April 2018 - creating a positive new positive development scenario for Kempfield.

The new scenario has been created by the successful separation of the primary feed material into a potentially marketable commercial grade zinc and lead concentrates, which also contain silver and gold.

The contained metal equivalence formula has been substantially revised to reflect the significant impact of the metallurgical recoveries announced on 12 April 2018 for the primary material, as well as updated market pricing for zinc, silver, lead and gold. Whilst the underlying mineral resource estimation methodology and individual metal grade estimates remain unchanged, the cut-off grade for reporting of the primary material resource, which is based on the contained metal equivalence formula, has been increased to 80 g/t Ag Eq (from 50 g/t Ag Eq previously).

The cut-off grade for the oxide/transitional material, which does not depend on the equivalence formula, remains unchanged at 25 g/t Ag.

The application of the updated cut-off grades and the contained metal equivalence formula to the existing underlying resource estimate has resulted in the following contained metal equivalents for the total mineral resource estimate:

100 million ounces silver equivalent contained metal: 26 Mt @ 120 g/t Ag Eq – almost double the ounces and at a significantly higher grade than the previous estimate of 52 million ounces Ag Eq at 74 g/t Ag Eq; OR/
520,000 tonnes zinc equivalent contained metal: 26 Mt @ 2.0% Zn Eq – reported for the first time for the Kempfield project as required by the JORC 2012 code due to the substantially increased contribution of zinc (approximately 45%) to potential revenues.

Detailed breakdowns are provided by the following updated Kempfield Mineral Resource Statement, which is in turn followed by the Relevant Information Summary, and further details on the boost to the project’s economic potential.
MINERAL RESOURCES AND ORE RESERVES STATEMENT 30 MAY 2018 UPDATE

Table 1 is a summary of the updated Kempfield mineral resource as at 30 May 2018 and Table 2 provides details of metal zonation. Table 3 shows the Resource tonnes and grades by Measured, Indicated and Inferred categories, whilst Table 4 provides details of tonnes and contained metal in the Measured and Indicated categories as at 30 May 2018.

At cut-off grades 25 g/t Ag for Oxide/Transitional and for 80 g/t Ag equivalent for Primary:

Table 1 - Kempfield Resource Summary – 30 May 2018

<table>
<thead>
<tr>
<th></th>
<th>Silver (Ag)</th>
<th>Gold (Au)</th>
<th>Lead (Pb)</th>
<th>Zinc (Zn)</th>
<th>In-situ Contained Metal Equivalents^2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Resource Tonnes (Mt)</td>
<td>Grade (g/t)</td>
<td>Contained Metal (Moz)</td>
<td>Grade (g/t)</td>
<td>Contained Metal (000 oz)</td>
</tr>
<tr>
<td>Oxide/Transitional*</td>
<td>6.0</td>
<td>55</td>
<td>11</td>
<td>0.11</td>
<td>21</td>
</tr>
<tr>
<td>Primary**</td>
<td>20</td>
<td>35</td>
<td>23</td>
<td>0.13</td>
<td>81</td>
</tr>
<tr>
<td>Total***</td>
<td>26</td>
<td>40</td>
<td>33</td>
<td>0.12</td>
<td>100</td>
</tr>
</tbody>
</table>

* 90% ** 76% *** 79%: % of material class tonnes in Measured or Indicated Category (see Table 4 for details). i : Not recoverable.

Resource details

Table 2 – Kempfield Mineral Resource – Primary material tonnes and grades by mineralisation zone and locality

<table>
<thead>
<tr>
<th>Zone</th>
<th>Locality*</th>
<th>Resource Tonnes (Mt)</th>
<th>Silver (Ag) (g/t)</th>
<th>Gold (Au) (g/t)</th>
<th>Lead (Pb) (%)</th>
<th>Zinc (Zn) (%)</th>
<th>Zinc Equivalent (Zn Eq) (%)</th>
<th>Silver Equivalent (Ag Eq (g/t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1 Total</td>
<td>BJ Zone</td>
<td>6.9</td>
<td>47</td>
<td>0.05</td>
<td>1.2</td>
<td>0.37</td>
<td>2.1</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Southern Conglomerate Zone</td>
<td>0.20</td>
<td>31</td>
<td>0.29</td>
<td>0.62</td>
<td>0.53</td>
<td>1.7</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>Zone 1 Total</td>
<td>7.1</td>
<td>46</td>
<td>0.06</td>
<td>1.2</td>
<td>0.38</td>
<td>2.1</td>
<td>130</td>
</tr>
<tr>
<td>Zone 2 Total</td>
<td>Quarries Zone</td>
<td>2.8</td>
<td>27</td>
<td>0.05</td>
<td>1.4</td>
<td>0.66</td>
<td>2.2</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>McCarron Zone</td>
<td>7.9</td>
<td>31</td>
<td>0.17</td>
<td>1.2</td>
<td>0.78</td>
<td>2.3</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>Zone 2 Total</td>
<td>11.1</td>
<td>30</td>
<td>0.14</td>
<td>1.3</td>
<td>0.75</td>
<td>2.3</td>
<td>140</td>
</tr>
<tr>
<td>Zone 3 Total</td>
<td>West McCarron</td>
<td>2.2</td>
<td>22</td>
<td>0.27</td>
<td>1.6</td>
<td>0.58</td>
<td>2.6</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>Zone 3 Total</td>
<td>2.2</td>
<td>22</td>
<td>0.27</td>
<td>1.6</td>
<td>0.58</td>
<td>2.6</td>
<td>160</td>
</tr>
<tr>
<td>Total Zone 1 + Zone 2 + Zone 3</td>
<td>20</td>
<td>35</td>
<td>0.13</td>
<td>1.3</td>
<td>0.60</td>
<td>2.3</td>
<td>140</td>
<td></td>
</tr>
</tbody>
</table>

* Mineral Resource Model constructed prior to re-characterisation of mineralisation into Zones and Horizons: BJ Zone Kempfield North = C Horizon and D Horizon Southern Conglomerate Zone Kempfield South = C Horizon and D Horizon Quarries Zone Henry Zone = C Horizon & D Horizon McCarron Zone Kempfield South = A Horizon and B Horizon West McCarron Zone Kempfield West = FW1 Horizon
### Table 3 – Kempfield Mineral Resource by category

<table>
<thead>
<tr>
<th>Category</th>
<th>Resource Tonnes (Mt)</th>
<th>Silver (Ag)</th>
<th>Gold (Au)</th>
<th>Lead (Pb)</th>
<th>Zinc (Zn)</th>
<th>Zinc Equivalent (Zn Eq %)</th>
<th>Silver Equivalent (Ag Eq g/t)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oxide/Transitional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measured</td>
<td>2.7</td>
<td>68</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>1.2</td>
<td>76</td>
</tr>
<tr>
<td>Indicated</td>
<td>2.7</td>
<td>47</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>0.9</td>
<td>56</td>
</tr>
<tr>
<td>Inferred</td>
<td>0.6</td>
<td>39</td>
<td>0.08</td>
<td>-</td>
<td>-</td>
<td>0.7</td>
<td>45</td>
</tr>
<tr>
<td><strong>Total Oxide/Transitional</strong></td>
<td>6.0</td>
<td>55</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>64</td>
</tr>
<tr>
<td><strong>Primary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measured</td>
<td>4.7</td>
<td>49</td>
<td>0.12</td>
<td>0.65</td>
<td>1.3</td>
<td>2.5</td>
<td>150</td>
</tr>
<tr>
<td>Indicated</td>
<td>10</td>
<td>34</td>
<td>0.13</td>
<td>0.57</td>
<td>1.2</td>
<td>2.2</td>
<td>140</td>
</tr>
<tr>
<td>Inferred</td>
<td>4.9</td>
<td>25</td>
<td>0.12</td>
<td>0.60</td>
<td>1.4</td>
<td>2.2</td>
<td>140</td>
</tr>
<tr>
<td><strong>Total Primary</strong></td>
<td>20</td>
<td>35</td>
<td>0.13</td>
<td>0.60</td>
<td>1.3</td>
<td>2.3</td>
<td>140</td>
</tr>
<tr>
<td><strong>Total Resource</strong></td>
<td>26</td>
<td>40</td>
<td>0.12</td>
<td>0.46</td>
<td>1.0</td>
<td>2.0</td>
<td>120</td>
</tr>
</tbody>
</table>

### Table 4 – Kempfield Mineral Resource tonnes and contained metal in Measured and Indicated categories

<table>
<thead>
<tr>
<th>Contained Metal</th>
<th>Resource Tonnes (Mt)</th>
<th>Moz Silver (Ag)</th>
<th>'000 oz Gold (Au)</th>
<th>'000 t Lead (Pb)</th>
<th>'000 t Zinc (Zn)</th>
<th>In-situ Zinc Equivalent (Zn Eq)</th>
<th>In-situ Silver Equivalent (Ag Eq)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oxide/Transitional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measured</td>
<td>2.7</td>
<td>5.8</td>
<td>9.3</td>
<td>-</td>
<td>-</td>
<td>33</td>
<td>6.6</td>
</tr>
<tr>
<td>Indicated</td>
<td>2.7</td>
<td>4.1</td>
<td>9.9</td>
<td>-</td>
<td>-</td>
<td>25</td>
<td>4.9</td>
</tr>
<tr>
<td>Measured + Indicated</td>
<td>5.4</td>
<td>9.9</td>
<td>19</td>
<td>-</td>
<td>-</td>
<td>57</td>
<td>11</td>
</tr>
<tr>
<td><strong>As % of Total Oxide/Transitional</strong></td>
<td>90%</td>
<td>93%</td>
<td>93%</td>
<td>-</td>
<td>-</td>
<td>93%</td>
<td>93%</td>
</tr>
<tr>
<td><strong>Primary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measured</td>
<td>4.7</td>
<td>7.5</td>
<td>19</td>
<td>31</td>
<td>60</td>
<td>120</td>
<td>24</td>
</tr>
<tr>
<td>Indicated</td>
<td>10</td>
<td>11</td>
<td>44</td>
<td>60</td>
<td>130</td>
<td>230</td>
<td>46</td>
</tr>
<tr>
<td>Measured + Indicated</td>
<td>15</td>
<td>19</td>
<td>63</td>
<td>90</td>
<td>190</td>
<td>350</td>
<td>69</td>
</tr>
<tr>
<td><strong>As % of Total Primary</strong></td>
<td>76%</td>
<td>83%</td>
<td>78%</td>
<td>76%</td>
<td>74%</td>
<td>76%</td>
<td>78%</td>
</tr>
<tr>
<td><strong>Oxide/Transitional + Primary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measured</td>
<td>7.4</td>
<td>13</td>
<td>28</td>
<td>31</td>
<td>59</td>
<td>150</td>
<td>30</td>
</tr>
<tr>
<td>Indicated</td>
<td>13</td>
<td>15</td>
<td>54</td>
<td>60</td>
<td>130</td>
<td>250</td>
<td>51</td>
</tr>
<tr>
<td>Total Measured + Indicated</td>
<td>21</td>
<td>29</td>
<td>82</td>
<td>90</td>
<td>190</td>
<td>400</td>
<td>81</td>
</tr>
<tr>
<td><strong>As % of Total Resource</strong></td>
<td>79%</td>
<td>86%</td>
<td>81%</td>
<td>76%</td>
<td>74%</td>
<td>78%</td>
<td>78%</td>
</tr>
</tbody>
</table>
Note 1 - 80 g/t Silver Equivalent Cut-off Grade for Primary

This Resource is only reported in Resource tonnes and contained metal (ounces of silver and gold, and tonnes for lead and zinc). The Resource estimation for the Primary material is based on a silver equivalent (Ag Eq) cut-off grade of 80 g/t.

A silver equivalent was not employed for the oxide/transitional material estimation and is based on a 25 g/t silver only cut-off grade.

The contained metal equivalence formula is based on the following assumptions:

- Silver price: $US 16.77/oz
- Gold price: $US 1,295/oz
- Zinc price: $US 3,129/tonne
- Lead price: $US 2,402/tonne
- Silver recoverable: 86% of head grade
- Gold recoverable: 90% of head grade
- Zinc recoverable: 92% of head grade
- Lead recoverable: 53% of head grade

The metals pricing is based on the one year historical average daily market close as at 25 May 2018.

The metallurgical recovery assumptions are based on metallurgical testing to date, including the results announced on 12 April 2018. It is the Company’s opinion that all the elements in the metals equivalents calculation have a reasonable potential to be recovered and sold.

Note 2 – In-situ contained metal equivalent (‘Zn Eq’ and ‘Ag Eq’) calculation details

(i) The zinc equivalent (Zn Eq) is reported for the time for the Kempfield deposit on the basis that zinc is estimated to be the greatest contributor to potential revenues (45%).

(ii) The formula for calculating the zinc equivalent grade (% Zn Eq) is:

\[ % \text{ Zn Eq} = % \text{ Zn} + % \text{ Pb} \times 0.4422 + \frac{g}{t} \text{ Ag} \times 0.0161 + \frac{g}{t} \text{ Au} \times 1.3017 \]

(iii) The silver equivalent (Ag Eq) is also reported on the basis that a) whilst under current market conditions the estimated silver contribution to potential revenues follows zinc closely (36%), the order of metal contributions is highly sensitive to volatile market prices, which could reverse the order for silver to become the greatest contributor followed by zinc; and b) since the Company has historically published a silver equivalent, the Company’s opinion is that continuing to do so is in the interest of transparency for investors.

(iv) The formula for calculating the silver equivalent grade (g/t Ag Eq) is:

\[ \frac{g}{t} \text{ Eq Ag} = \frac{g}{t} \text{ Ag} + \frac{g}{t} \text{ Au} \times 80.81 + % \text{ Pb} \times 27.46 + % \text{ Zn} \times 62.08 \]

(v) The above Ag Eq and Zn Eq formulae apply to both the Oxide/Transitional and Primary. For Oxide/Transitional the grade value for Pb and Zn is entered into each formula as zero.

Note 3 – Rounding and Significant Figures

Figures in the tables in this report may not sum precisely due to rounding, and any increased number of significant figures, does not imply an added level of precision.

a: Refer to 12 April 2018 announcement (p. 2)
RELEVANT INFORMATION SUMMARY

Resource estimation methodology and underlying data

There has been no material change to the underlying individual grades estimates in the Kempfield resource model for the mineral resource estimate as initially reported on 26 April 2012, as subsequently updated to JORC 2012 reporting standard on 6 May 2014, and further updated on 16 October 2014 with the addition of the metal zonation detail in Table 2 of the Mineral Resource statement (‘Previous Reports’).

Investors should refer to the Previous Reports.

The reporting of the underlying Mineral Resource estimate has been updated in this announcement to incorporate:

- Contained metals pricing assumptions updated for the contained metal equivalence formula;
- Metallurgical recovery assumptions updated to incorporate the most recent results into the contained metals equivalence formula;
- Silver equivalent cut-off grade updated for the reporting of the primary material;
- Zinc contained metal equivalent (added); and
- Silver contained metal equivalent - update.

Contained metals pricing assumptions

The underlying market pricing assumptions for the contained metals in the resource have been updated to the values stated in Note 1 of the Mineral Resource Statement (page 4 of this announcement).

The metals pricing is based on the one year average of the daily market closes for each of the metals, utilising LBMA for Ag, LME London Fix for Au, and LME Cash Settlement for Zn and Pb, and calculated as at market close on 25 May 2018.

Metallurgical recovery assumptions

The metallurgical recovery assumptions have been updated to the values stated in Note 1 of the Mineral Resource Statement (page 4 of this announcement).

The recovery assumptions for the primary material are as reported for the first cleaner stage of both the lead and zinc concentrates in the 12 April 2018 announcement.

The same silver and gold recovery assumptions have been adopted for the Oxide/Transitional material on the basis that they are approximately identical to historical metallurgical results for that material.

The metallurgical recovery assumptions are subject to any changes that may result from future metallurgical testing including variability testing across the various mineralogical domains across the Kempfield deposit.

Silver equivalent cut-off grade

The silver equivalent cut-off grade has been increased to 80 g/t Ag Eq from 50 g/t Ag Eq previously for the primary material.

The cut-off grade provides a numerical filter to determine which resource blocks of the unchanged mineral resource estimate are reported.

Applying the contained metal equivalence formula resulting from the updated pricing and metal recovery assumptions, the 80 g/t Ag Eq primary cut-off was determined on the basis of a comparable estimated net recovered value to that of the 50 g/t Ag Eq cut-off employed in the original April 2012 mineral resource estimate.

A silver equivalent was not employed for the oxide/transitional material, the reporting of which remains based on the original 25 g/t silver only cut-off grade.
ADDITIONAL RESOURCE POTENTIAL

This mineral resource update does not include additional mineral resource potential associated with:

■ Exploration results of drilling performed subsequent to the original April 2012 mineral resource estimate (which in the Company’s opinion is unlikely to be material at this point); and
■ the Exploration Target announced 8 November 2017.

The Company intends to perform a mineral resource re-estimate at the point where the Company considers the additional drilling data at the time to be likely to make a material difference.

The Company is currently preparing the next drilling programme.

BOOST TO PROJECT ECONOMICS

Commercial grade concentrates

The contained metals reported in this announcement signal a significant advance toward economic viability of the Kempfield project.

This advance is a direct result of the metallurgical work performed over a period of approximately one year to achieve the breakthroughs reported on 12 April 2018. The extraction of metals from Kempfield primary material into separate marketable grade lead and zinc concentrates marks an important milestone for the project – allowing commercial potential smelter revenues to be included in the Company’s cash flow modelling at current metals pricing.

Zinc contribution rises to prominence

The reporting of a zinc equivalent for the first time for Kempfield, as required by the JORC Code 2012 when the contribution of a metal to potential revenues rises to prominence, also marks a de-risking of the project. With potentially positive cash flows at recent metals pricing for zinc, silver, lead and gold, the project no longer depends on an escalation in the silver price.

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

Next steps

The Company continues to focus on upscaling the identified potentially cash flow positive scenario toward the goal of economic viability.

Aided by the new 3D Kempfield geological model and the updated resource and related cash flow modelling, the Company is planning drilling the parts of the deposit that are the most likely to result in increased potential cash flows.

The key goal is to achieve a sufficiently positive net present value of potential cash flows to take the project to the next level of feasibility work, and ultimately, production.

This announcement must be read in conjunction with Appendix A – JORC 2012 Table 1.

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APPENDIX A – JORC 2012 TABLE 1

KEMPFIELD MINERAL RESOURCE STATEMENT UPDATE

The following information is provided pursuant to the JORC Code 2012 clause 27 as the information relevant to the mineral resource update reported in this announcement. For all other JORC 2012 Table 1 information refer to those reported in the announcements dated 6 May 2014 and 16 October 2014.

Section 3 - Estimation and Reporting of Mineral Resources

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database integrity</td>
<td>Database integrity was managed by a three phase standardised procedure as follows.</td>
</tr>
<tr>
<td></td>
<td>• Phase 1 - During data entry. Argent Minerals manually input data directly into the ‘front end’ of a Microsoft Access relational database designed by H&amp;SC. The database ‘backend’ performed ‘on the fly’ data validation during data entry. Data that did not conform to a predetermined set of validity rules, keys and referential integrity checks was rejected, and the operator alerted accordingly. Argent Minerals also performed additional manual checking of sample database records against the original hard copies. All the assay data was imported from an ALS-provided electronic file directly into the master assay tables of the main backend database using an Assay Import Tool developed by H&amp;SC. This tool imports both the metadata (lab report header) and the assay data itself in a systematic, repeatable and traceable way.</td>
</tr>
<tr>
<td></td>
<td>• Phase 2 - Post-validation. This phase commenced with Argent Minerals merging the drill log and assay datasets, an automated procedure which forms part of the database export process. Argent Minerals then performed automated checks of the merged Microsoft Access database. Using the inbuilt routines created by H&amp;SC as an integral part of the database tool set, this part of the post-validation process looked for inconsistency issues such as missing logs, overlaps or gaps in drill hole intervals and associated data (including assay data), end of hole length, or specific gravity variations. Downhole drill surveys were also automatically checked for variation of drill hole geometry outside predetermined parameters. Argent Minerals then performed manual checks on drill hole cross sections, all of which were able to be generated from the merged database. The post-validated database was then exported by Argent Minerals to H&amp;SC for the next steps in the process.</td>
</tr>
<tr>
<td></td>
<td>• Phase 3 - Final checks. This phase of the process commenced with the merged exported database being uploaded into Datamine by H&amp;SC. A combination of automated, scripted, and manual checks were then performed by H&amp;SC, including:</td>
</tr>
<tr>
<td></td>
<td>- checking drill hole collars against topography;</td>
</tr>
<tr>
<td></td>
<td>- checking for excessive down-hole deviation;</td>
</tr>
<tr>
<td></td>
<td>- checking different assay methods for same elements;</td>
</tr>
<tr>
<td></td>
<td>- visual and statistical checks of assays; and</td>
</tr>
<tr>
<td></td>
<td>- recalculating density values from raw data and checking densities against values calculated from assays.</td>
</tr>
<tr>
<td></td>
<td>• Whilst no detailed checking of the database against original records was performed by H&amp;SC, both Argent Minerals and H&amp;SC are satisfied that an appropriately comprehensive multiple phase checking process has been employed, upon which the Mineral Resource Statement is based. The conclusion of the above Phase 3 checks by H&amp;SC on the database provided by</td>
</tr>
</tbody>
</table>
Argent Minerals Limited  ABN 89 124 780 276  
Phone +61 2 9300 3390  Facsimile +61 2 9221 6333  www.argentminerals.com.au

<table>
<thead>
<tr>
<th>Site visits</th>
<th>Geological interpretation</th>
<th>Dimensions</th>
<th>Estimation and modelling techniques</th>
</tr>
</thead>
</table>
| • The Mineral Resource Competent Person visited site for 2 days in August 2011.  
• General site geology and layout were inspected, core and chip samples were examined and RC sample splitting was observed. No drilling was in progress at the time.  
• Field procedures were being performed in a professional manner and no material issues were identified. | • There is a reasonable confidence level in the geological interpretation of the mineral deposits.  
• The geological interpretation involved dividing the deposits into mineralised zones, essentially based on assay data, and identifying the fresh, transition and oxide zones from geological logging. Oxidation logging was checked against zinc assays as this element is the most sensitive to oxidation at Kempfield. It was assumed that the assays and logging are accurate.  
• There appears to be limited scope for alternative interpretations. The mineralised zones are quite clearly defined, while the oxidation zones are a little more subjective. It is considered unlikely that alternative interpretations would have a substantial impact on the Mineral Resource estimates due to the generally close spacing of the data points.  
• The mineralised zones were treated having as hard boundaries during grade estimation, while the oxidation boundaries were treated as soft boundaries, due to their gradational nature.  
• The major factor affecting the continuity of both grade and geology is the cross-faulting that truncates or displaces mineralisation. These fault surfaces were treated as hard boundaries during estimation. | • BJ Zone Main - 250 metres along strike by 100 metres wide on average (multiple lenses); starts at surface and extends to 185 metres below.  
• South Conglomerate Zone – 400 metres along strike by 20 metres wide on average; starts at surface and extends to 145 metres below.  
• McCarron East - 200 metres along strike by 30 metres wide on average; starts at surface and extends to 185 metres below.  
• McCarron West - 700 metres along strike by 35 metres wide on average; starts at surface and extends to 140 metres below.  
• Mather Zone - 300 metres along strike by 35 metres wide on average; starts at surface and extends to 145 metres below.  
• Quarries Zone – multiple lenses – largest = 160 metres along strike by 25 metres wide on average; starts at surface and extends to 150 metres below. | • A consistent estimation scheme was applied to all four deposits. All grades were estimated using ordinary Kriging, which was considered an appropriate technique because of the low to moderate coefficients of variation (typically CV < 2.0, where CV, a standardised measure of variability, is the standard deviation divided by the mean grade).  
• Samples (typically 1 metre) were composited to nominal 2 metre lengths for data analysis and grade estimation. Domaining was described in the section on geological interpretation.  
• Estimation was performed using Datamine software. A three pass search strategy was used, with initial radii of 5 x 25 x 25 metres, which were doubled for the second pass; a minimum of 8 and maximum of 24 composites in at least 4 octants was used for the first 2 passes. The third pass used the same radii as pass 2, with a minimum of 4 and maximum of 24. |
composites in at least 2 octants.

- The search ellipsoid dipped 70° west for all domains, except for zinc at BJ and McCarron/Mather zones, where the ellipsoid was flat for the oxide zone. The maximum extrapolation distance was 50 metres, and is only applicable to Inferred category; Measured and Indicated category Mineral Resources are essentially only interpolated.

- Several previous estimates were generated by H&SC (and its predecessor H&S) and the new estimates take into account these earlier estimates. The deposit remains unmined, so there are no production records for reconciliation.

- Kempfield is currently considered primarily a zinc and silver project (with estimated potential revenue contributions of 45% and 36% respectively, followed by lead (11%) and gold 8%)*). Metallurgical test work has been performed for all these elements (see section below) and they have been incorporated into the cut-off grades for the sulphide (primary) mineralisation using appropriate revenue and recovery factors. (* 12 April 2018 announcement p. 2)

- There are no estimates for potentially deleterious elements or other non-grade variables of economic significance (eg. sulphur). Sulphide content at Kempfield is low, so acid mine drainage is unlikely to be a significant problem. 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.

- Parent block size is 5 x 12.5 x 10 metres, compared to a nominal sample spacing of 25 x 25 x 2 metres, in the X, Y and Z planes respectively. The block size in X reflects the down-hole sample spacing in the direction of least continuity, while the block size in Y is half the nominal section spacing. The block size in the Z plane is compatible with the proposed bench height and is around half the sample spacing in this direction.

- The model block size (nominally 5 x 12.5 x 10 metres, with sub-blocks to 2.5 x 6.25 x 5 metres) is effectively the selective mining unit for these estimates.

- Correlation between most elements is very weak; the exceptions are lead/zinc with good correlation and silver/barium with weak correlation. No assumptions about correlation between variables were made during estimation – each element was estimated independently.

- A description of how the geological interpretation was used to control the resource estimates was given in the section on geological interpretation.

- No grade cutting or capping was applied because the grade distributions are not particularly skewed, as indicated by the low coefficients of variation.

- The estimates were validated by several methodologies – visual and statistical comparisons of block and drill hole grades, examination of grade-tonnage data, and comparison with previous estimates. The comparisons of model and drill hole data demonstrated that the drilling tends to be clustered in the higher grade areas, but the estimates appear reasonable once this factor is taken into account. No reconciliation data is available because the deposit currently remains unmined.

Moisture

- Tonnages are estimated on a dry basis; moisture content not determined.

Cut-off parameters

- Cut-off grades are 25 g/t silver for oxide and transitional mineralisation (silver cutoff grade only, no metal equivalence employed for Mineral Resource estimation in oxide/transitional material), and 80 g/t silver equivalent for the primary (fresh rock) mineralisation. The cutoff grades were chosen on the basis of providing reasonable prospects for eventual economic extraction given a multitude of factors including metallurgical testing, long term market prices, and mining and processing costs.

- The 2018 Mineral Resource estimate contained metal equivalence formula is based on the
following assumptions made by Argent Minerals:
- Silver price: $US 16.77/oz
- Gold price: $US 1,295/oz (Gold/silver: 77:1)
- Zinc price: $US 3,129/t
- Lead price: $US 2,402/t
- Silver recoverable: 86% of head grade
- Gold recoverable: 90% of head grade
- Zinc recoverable: 92% of head grade
- Lead recoverable: 53% of head grade

**Mining factors or assumptions**
- The mining method is currently assumed to be all open pit. The estimates include allowance for mining dilution, in that the parent block size is 5 x 12.5 x 10 metres and it may be possible to mine the resources more selectively than this.

**Metallurgical factors or assumptions**
- The metallurgical recovery assumptions are based on flotation of primary sulphides for lead, zinc, silver and gold, and on carbon in leach (CIL) processing for silver and gold in the oxide and transitional ores. Based on metallurgical testing to date, Argent is of the opinion that silver and gold recoveries of 86% and 90% respectively, and lead and zinc recoveries at 53% and 92% respectively, are both achievable and have been employed as the basis for Mineral Resource update report. It is the Company’s opinion that each of the contained metals reported have a reasonable potential to be recovered and sold.
- Metallurgical recoveries from test work are provided in the preceding section on cut-off parameters.

**Environmental factors or assumptions**
- In April 2013, Argent submitted an Environmental Impact Statement ('EIS') for an initial phase of the Kempfield Project to the NSW Government Department of Planning & Infrastructure. Whilst the initial phase submitted in the EIS focused on Oxide/Transitional, various infrastructure scenarios were investigated in relation to carbon-in-leach ('CIL') and flotation processing options for the Primary, including related electricity, water, tailings dam and waste rock emplacement configurations for with a potential mine life of up to 20 years.
- The environmental impacts associated with the submitted EIS were assessed by twelve specialist consultancies. In all cases, the impacts were determined to be less than the relevant criteria, capable of being offset through licencing, or not significant. Additionally, the submitted EIS included a proposed biodiversity offset strategy that Argent contends would provide medium and long-term biodiversity benefits within and surrounding the site, while balancing the community need to ensure that agricultural land remains productive.
- The study work undertaken by Argent was progressed beyond pre-feasibility toward feasibility, and was based on mining lead and zinc in addition to the silver and gold, designed as an open cut mine with CIL processing for the Oxide/Transitional silver and gold, and flotation processing for Primary zinc, silver, lead and gold. The relevant environmental aspects were investigated under the direction of an appropriately qualified environmental consultant experienced with NSW mining projects. Subject to further feasibility work, Argent Minerals is satisfied that the environmental aspects of a full scale zinc silver lead gold project at Kempfield can be successfully managed to the satisfaction of the relevant regulations.
- Whilst the EIS was placed on hold, the data resulting from the investment in the detailed assessment work – amounting to approximately $3 million, remains as a significant asset that the Company envisages will assist in a rapid restart for further feasibility work and related
regulatory approval processes.

Bulk density

- Density measurements were determined on site by Argent personnel in 2011 using an unsealed water immersion method – 292 samples were tested. Of these, 10 samples were submitted to ALS Orange for checking by unsealed and waxed immersion methods. There are a further 45 historical density measurements on core from the Jones Mining and Golden Cross core – these are believed to be unsealed water immersion measurements.

- A comparison of the Argent site measurements and 10 ALS waxed values show no significant difference. Since all these samples appear to be fresh rock, little variation would be expected.

- Dry bulk density at Kempfield is primarily controlled by the concentration of heavy minerals, as there is limited variation in the density of the unmineralised rock. The concentration of heavy minerals (galena, sphalerite and barite) can be calculated from assays, although not all samples are assayed for lead, zinc and barium. Unfortunately, samples were not systematically assayed for iron or sulphur, so pyrite content cannot be calculated but sulphide content is generally low. A set of density formulas based on heavy mineral concentration and oxidation were derived from available data and used to estimate density in the resource models.

Classification

- The resource classification is essentially based on an ordinary Kriging three search pass methodology in which Pass 1 was classified as Measured, Pass 2 as Indicated, and Pass 3 as Inferred categories. For search details see ‘Resource estimation and modelling techniques’ Criteria above.

- Appropriate account has been taken of all relevant factors, including the relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data.

- The geological and grade continuity of the deposit has been demonstrated and the quality of the assay data is adequate as shown by the quality control analysis.

- The reported Mineral Resources appropriately reflect the Competent Person’s view of the Kempfield deposits.

Audits or reviews

- Internal H&SC peer review has been undertaken and no material issues were identified.

Discussion of relative accuracy/confidence

- The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person’s experience with similar VMS deposits around the world. The factors that could affect the relative accuracy and confidence of the estimate include:
  - The completeness and accuracy of the database; and
  - The accuracy of the historic assay methods.

The Competent Person is of the opinion that the scope for variations is minimal, and if any, the impact on the Mineral Resource estimate is unlikely to be significant.

- The estimates are local, in the sense that they are localised to model blocks of a size considered appropriate for local grade estimation. The tonnages relevant to technical and economic analysis are those classified as Measured and Indicated Mineral Resources.

- No production data is available as the deposit currently remains unmined.
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:

- 6 May 2014 Kempfield Mineral Resource upgraded to JORC 2012 standard
- 16 October 2014 Base and Precious Metal Zonation in Kempfield Resource
- 8 November 2017 Kempfield Exploration Target
- 12 April 2018 Separate Commercial Grade Concentrates – Kempfield Milestone

Competent Person:
1. Arnold van der Heyden and Dr. Vladimir David
2. Arnold van der Heyden and Clifton Todd McGilvray
3. Clifton Todd McGilvray and Roland Nice

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.

Mineral Resources – Kempfield
The information in this Report that relates to Mineral Resources 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.