# ASX Release



8 January 2015

## ARTEMIS DRILLING CONTINUES TO DELIVER EXCELLENT COPPER-GOLD-ZINC RESULTS

### HIGHLIGHTS

- **Results received for further three diamond drill holes and five RC drill holes testing the Artemis copper-gold-zinc mineralisation;**
- **Drill hole EL14D25 extends mineralisation down dip and returned assays of 19.9m @ 1.44% Cu, 0.8g/t Au and 1.79% Zn (225 to 244.9m, downhole intercept);**
- **Drill holes EL14D22 and EL14D31 define northern boundary and northward continuity of massive sulphide hosted mineralisation respectively; drill hole EL14D31 returned assays of 22.15m @ 1.17% Cu, 0.47g/t Au and 3.46% Zn (170.81 to 192.96m, downhole intercept) and 5m @ 0.68% Cu, 1.66g/t Au and 9.95% Zn (199 to 204m, downhole intercept);**
- **RC drill holes EL14D24, EL14D26, EL14D27, EL14D28 and EL14D29 define the up-dip boundary to the massive sulphide hosted mineralisation;**
- **New downhole EM surveys conducted in drill holes EL14D32 and EL14D35 indicate potential new targets at depth.**

Drilling continued at the Artemis copper-gold-zinc-silver prospect, located 20km west of the Eloise copper-gold mine *(Figure 1)*, until 18 December when drilling activities paused for a break over the Christmas – New Year period. Drilling continued to focus on strike and dip continuity of mineralisation[1,2,3]. Thirteen diamond drill holes and five Reverse Circulation (RC) drill holes have been completed since recommencement of drilling at Artemis up to the 18 December *(Figure 2)*.

Geochemical results have been received for three diamond drill holes (EL14D22, EL14D25 and EL14D31) and the five RC drill holes (EL14D24, EL14D26, EL14D27, EL14D28 and EL14D29). Holes EL14D22 and EL14D31 targeted the northern along-strike extent of mineralisation from holes EL14D21 and EL14D12 respectively, while hole EL14D25 targeted the gap between holes EL14D12 and EL14D20 *(Figure 3)*. The RC drill holes targeted the up-dip, near surface pinch-out of the mineralisation above drill holes EL14D10 and EL14D16 *(Figure 3)*.

Downhole EM surveys were conducted in drill holes EL14D32 and EL14D35 to assist with targeting future drill holes.

Assays are awaited for a further five drill holes (EL14D33-37; *Table 1*).

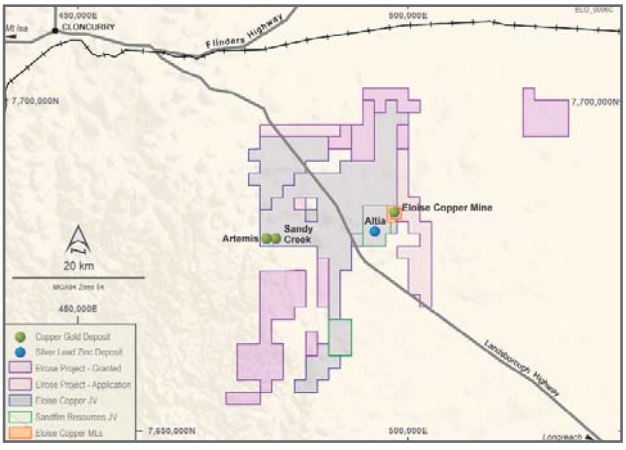


*Figure 1: Location of the Artemis Prospect with respect to the Eloise Copper Joint Venture and other Minotaur Cu-Au prospective tenements in the Cloncurry region.*

1 *Aggressive $6M Workplan launched around Artemis Copper-Gold Prospect*, MEP report to ASX dated 13 October 2014
2 *Drilling underway at Artemis Prospect*, MEP report to ASX dated 22 October 2014
3 *Exceptional copper-gold values intersected in Artemis drilling,* MEP report to ASX dated 11 December 2014



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**Drill Results and Analysis**

Drill hole EL14D22 intersected a zone of banded sulphide mineralisation along strike approximately 30m north of drill hole EL14D21 *(Figure 3)* that returned **8.97m @ 0.55% Cu, 0.79 g/t Au, 2.1% Zn, 0.59% Pb and 12.2 g/t Ag** (145.28 to 154.25m, downhole intercept). The style and tenor of mineralization is similar to that in drill hole EL14D20 and appears to represent a lower-grade halo to the massive sulphide hosted mineralization.

Drill hole EL14D25 aimed to test the position between holes EL14D12 and EL14D20 *(Figure 3)*. Mineralisation was intersected over a downhole width of approximately 20m and is hosted in a distinctive amphibole-garnet alteration assemblage with only minor massive sulphide developed.

In total, drill hole EL14D25 intersected:

- **19.89m @ 1.44% Cu, 0.8g/t Au and 1.79% Zn** (225 to 244.89m, downhole intercept); including **3m @ 2.99% Cu, 1.08g/t Au, 8.54% Zn, 1.61% Pb, 65.2g/t Ag** (237 to 240m, downhole intercept)

Drill hole EL14D31 intersected mineralization approximately 30m below and slightly north of discovery hole EL14D09 *(Figure 3)*. Sulphide mineralisation is developed within amphibole-garnet alteration over a downhole width of 37m. Two areas of strongly developed sulphide occur within this zone with each comprising variable copper, gold and zinc grades. An upper zone of higher copper mineralization is developed over 22m whilst the 5m wide lower zone is richer in zinc and gold. The area between these two zones carries elevated copper but only minor gold and zinc.

In total, drill hole EL14D31 intersected:

- **22.15m @ 1.17% Cu, 0.47g/t Au and 3.46% Zn** (170.81 to 192.96m, downhole intercept), and
- **5m @ 0.68% Cu, 1.66g/t Au and 9.95% Zn** (199 to 204m, downhole intercept)

Results of the five RC drill holes EL14D24, EL14D26, EL14D27, EL14D28 and EL14D29, which targeted potentially shallower parts of the Artemis system up-dip from drill hole EL14D10 and the upper modelled EM plate *(Figure 3)*, all returned low levels of base metals and gold. Most holes intersected zones of amphibole-garnet alteration, some with minor pyrrhotite, which is considered to represent the more distal parts of the Artemis massive sulphide mineralization.

Significant assay results are presented in *Tables 2 and 3* with QAQC discussed in the Appendix.

The downhole EM response from drill holes EL14D32 and EL14D35 is dominated by the highly conductive body above these holes *(Figure 3)*. A new zone of lesser conductance has been defined by these new surveys, which for the first time identifies a potential target in the footwall to the main massive sulphide lode; modelling of this anomaly is ongoing and remains to be tested by drilling.

| Hole ID | Easting (m) | Northing (m) | Dip | Azimuth (T) | Depth (m) |
|---|---|---|---|---|---|
| EL14D18 | 479127 | 7679960 | -60 | 290 | 243.2 |
| EL14D20 | 479184 | 7679965 | -60 | 290 | 406.4 |
| EL14D21 | 479161 | 7680053 | -60 | 290 | 207.9 |
| EL14D22 | 479161 | 7680053 | -60 | 306.5 | 204.3 |
| EL14D24 | 479111 | 7680044 | -65 | 290 | 132 |
| EL14D25 | 479191 | 7679988 | -60 | 290 | 321.7 |
| EL14D26 | 479103 | 7680020 | -65 | 290 | 90 |
| EL14D27 | 479095 | 7679998 | -65 | 290 | 90 |
| EL14D28 | 479120 | 7680069 | -70 | 290 | 132 |
| EL14D29 | 479128 | 7680091 | -70 | 290 | 132 |
| EL14D31 | 479161 | 7680053 | -70 | 290 | 256.1 |
| EL14D32 | 479216 | 7679980 | -65 | 290 | 390.9 |
| EL14D33 | 479162 | 7680053 | -70 | 309 | 274 |
| EL14D34 | 479217 | 7679980 | -65 | 309 | 430.1 |
| EL14D35 | 479214 | 7680005 | -70 | 309 | 411.8 |
| EL14D36 | 479216 | 7679980 | -61 | 300 | 318.7 |
| EL14D37 | 479214 | 7680006 | -62 | 309 | 295 |

***Table 1:*** *Collar details for recent Minotaur drill holes at the Artemis Prospect. All coordinates refer to GDA94 datum, Zone 54. EL14D20, EL14D22 and EL14D31-37 located by handheld GPS (Minotaur), remaining collars located by DGPS (Haines Surveys).*

## Drill Results and Analysis continued

| Hole | From | To | Interval m | Cu % | Au g/t | Zn % | Ag g/t | Pb % |
|---|---|---|---|---|---|---|---|---|
| EL14D22 | 145.28 | 154.25 | 8.97 | 0.55 | 0.79 | 2.1 | 12.2 | 0.59 |
| EL14D25 | 225 | 244.89 | 19.89 | 1.44 | 0.8 | 1.79 | 17 | 0.35 |
| *including* | *237* | *240* | *3* | *2.99* | *1.08* | *8.54* | *65.2* | *1.61* |
| EL14D31 | 170.81 | 192.96 | 22.15 | 1.17 | 0.47 | 3.46 | 26.3 | 0.36 |
| and | 199 | 204 | 5 | 0.68 | 1.66 | 9.95 | 74.4 | 1.26 |

**Table 2:** *Key mineralised intervals for holes EL14D22, EL14D25 and EL14D31. Depths tabulated are downhole depths; true thicknesses are estimated to be approximately 75% of downhole interval lengths for hole EL14D22, 70% for hole EL14D25 and 65% for hole EL14D31.*

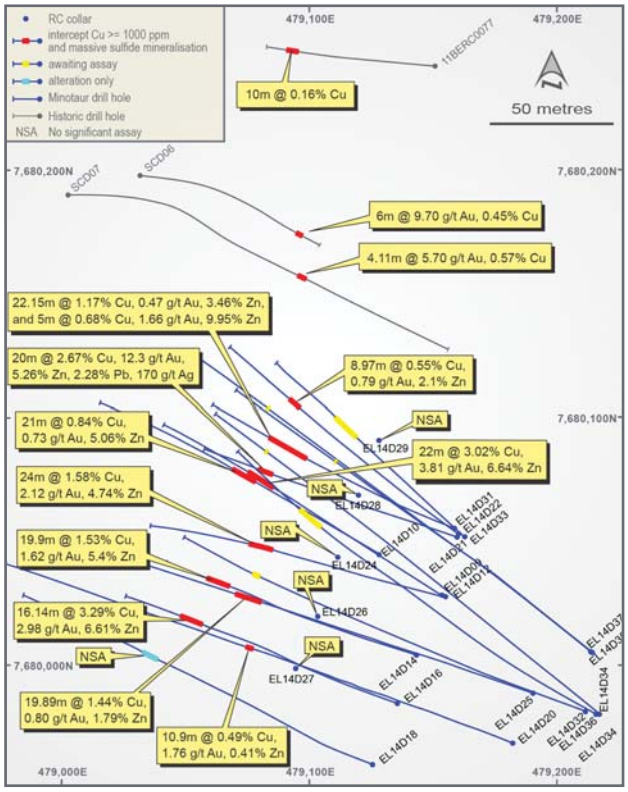


*Figure 2: Plan of the Artemis Prospect with respect to current and previous drill holes and interpreted distribution of mineralisation.*

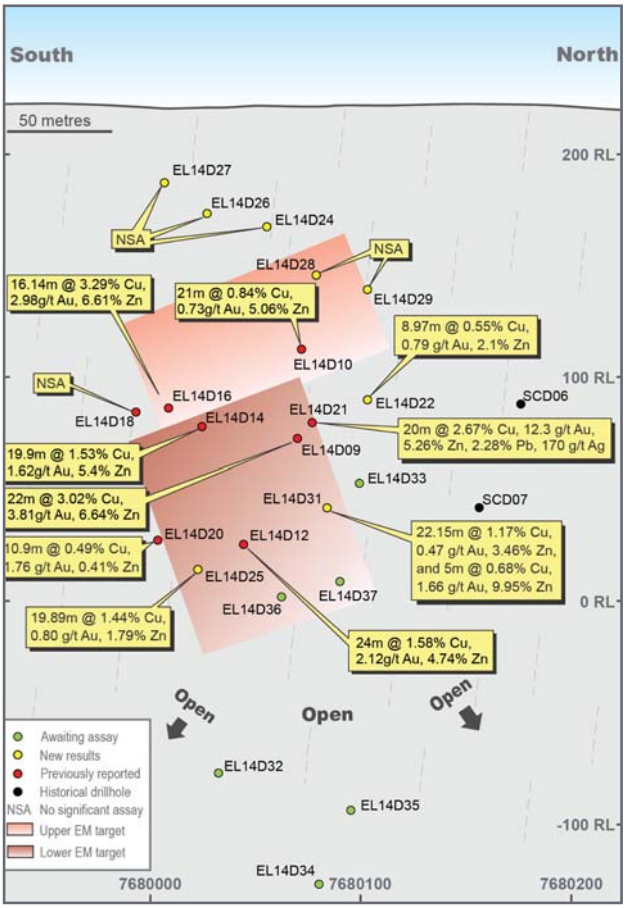


*Figure 3: Long section at Artemis (looking west-northwest along 290 true bearing) showing intersection points of Minotaur drill holesand historic drill holes with respect to modelled EM conductors.*

## Drill Results and Analysis continued

***Table 3:*** *Analytical data for holes EL14D22, EL14D25 and EL14D31. Samples with <0.5% Cu and/or <0.3g/t Au outside the reported intercepts have been omitted. Drill core analysed at ALS Laboratories (fire assay and AAS for Au, four acid digest and analysis by ICP-MS/ICP-AES for elements other than Au, ore grade analysis of following four acid digest for high Cu, Zn, Pb, Ag samples). Depths tabulated are downhole depths; true thicknesses are estimated to be approximately 75% of downhole interval lengths for hole EL14D22, 70% for hole EL14D25 and 65% for hole EL14D31.*

| Hole ID | From (m) | To (m) | Interval (m) | Cu % | Au g/t | Zn % | Ag g/t | Pb % | Co % |
|---|---|---|---|---|---|---|---|---|---|
| EL14D22 | 143 | 144 | 1 | 0.08 | 0.60 | 0.78 | 0.80 | 0.01 | <0.01 |
| EL14D22 | 144 | 145.28 | 1.28 | 0.37 | 0.01 | 0.65 | 1.31 | 0.01 | 0.01 |
| EL14D22 | 145.28 | 146 | 0.72 | 1.06 | 0.01 | 2.26 | 2.98 | 0.01 | 0.03 |
| EL14D22 | 146 | 147 | 1 | 0.41 | 0.15 | 3.04 | 17.70 | 0.93 | 0.09 |
| EL14D22 | 147 | 148 | 1 | 1.05 | 0.38 | 5.33 | 23.50 | 1.13 | 0.07 |
| EL14D22 | 148 | 149 | 1 | 0.92 | 0.12 | 5.70 | 53.30 | 2.81 | 0.07 |
| EL14D22 | 149 | 150 | 1 | 0.44 | 0.03 | 0.81 | 1.16 | 0.02 | 0.02 |
| EL14D22 | 150 | 151 | 1 | 0.60 | 0.07 | 2.26 | 10.25 | 0.35 | 0.06 |
| EL14D22 | 151 | 152 | 1 | 0.30 | 0.32 | 0.01 | 0.60 | 0.01 | 0.02 |
| EL14D22 | 152 | 153 | 1 | 0.35 | 2.50 | 0.02 | 0.50 | 0.01 | 0.01 |
| EL14D22 | 153 | 154.25 | 1.25 | 0.12 | 2.79 | 0.01 | 0.12 | 0.01 | 0.01 |
| EL14D25 | 225 | 226 | 1 | 1.52 | 1.05 | 0.41 | 5.13 | 0.01 | 0.02 |
| EL14D25 | 226 | 227 | 1 | 0.29 | 0.04 | 0.02 | 1.22 | 0.01 | 0.02 |
| EL14D25 | 227 | 228 | 1 | 1.00 | 0.78 | 3.86 | 25.80 | 0.52 | 0.09 |
| EL14D25 | 228 | 229 | 1 | 1.17 | 0.73 | 2.63 | 25.20 | 0.47 | 0.14 |
| EL14D25 | 229 | 230 | 1 | 1.21 | 0.44 | 0.34 | 7.71 | 0.12 | 0.26 |
| EL14D25 | 230 | 231 | 1 | 0.69 | 0.46 | 0.35 | 5.17 | 0.09 | 0.18 |
| EL14D25 | 231 | 232 | 1 | 1.15 | 0.59 | 0.37 | 5.81 | 0.06 | 0.19 |
| EL14D25 | 232 | 233 | 1 | 1.39 | 0.34 | 0.27 | 5.35 | 0.04 | 0.18 |
| EL14D25 | 233 | 234 | 1 | 1.25 | 0.26 | 0.50 | 11.45 | 0.25 | 0.07 |
| EL14D25 | 234 | 235 | 1 | 2.24 | 0.32 | 0.62 | 15.35 | 0.21 | 0.09 |
| EL14D25 | 235 | 236 | 1 | 3.09 | 0.58 | 0.15 | 20.20 | 0.25 | 0.12 |
| EL14D25 | 236 | 237 | 1 | 1.37 | 0.31 | 0.17 | 7.29 | 0.11 | 0.16 |
| EL14D25 | 237 | 238 | 1 | 1.56 | 0.55 | 3.42 | 53.80 | 1.42 | 0.14 |
| EL14D25 | 238 | 239 | 1 | 2.16 | 1.75 | 14.75 | 104.00 | 2.94 | 0.24 |
| EL14D25 | 239 | 240 | 1 | 5.26 | 0.95 | 7.45 | 37.90 | 0.48 | 0.25 |
| EL14D25 | 240 | 241 | 1 | 0.59 | 1.09 | 0.20 | 2.83 | 0.06 | 0.08 |
| EL14D25 | 241 | 242.04 | 1.04 | 0.38 | 3.01 | 0.11 | 1.02 | 0.01 | 0.06 |
| EL14D25 | 242.04 | 243 | 0.96 | 0.43 | 0.30 | 0.02 | 0.88 | 0.01 | 0.01 |
| EL14D25 | 243 | 243.73 | 0.73 | 0.57 | 0.21 | 0.02 | 0.90 | <0.01 | 0.01 |
| EL14D25 | 243.73 | 244.89 | 1.16 | 1.28 | 1.74 | 0.01 | 1.77 | <0.01 | 0.03 |
| EL14D31 | 170.81 | 172 | 1.19 | 0.66 | 0.88 | 6.65 | 28.70 | 0.42 | 0.12 |
| EL14D31 | 172 | 173 | 1 | 0.81 | 0.30 | 2.55 | 24.60 | 0.34 | 0.09 |
| EL14D31 | 173 | 174 | 1 | 1.16 | 0.36 | 2.76 | 23.80 | 0.28 | 0.09 |
| EL14D31 | 174 | 175 | 1 | 1.93 | 0.41 | 2.05 | 21.10 | 0.20 | 0.10 |
| EL14D31 | 175 | 176 | 1 | 1.21 | 0.17 | 1.12 | 12.10 | 0.09 | 0.12 |
| EL14D31 | 176 | 177 | 1 | 1.17 | 0.23 | 1.06 | 13.00 | 0.12 | 0.11 |
| EL14D31 | 177 | 178 | 1 | 1.65 | 0.49 | 2.47 | 25.30 | 0.33 | 0.12 |
| EL14D31 | 178 | 179 | 1 | 1.05 | 0.34 | 0.08 | 17.70 | 0.24 | 0.16 |
| EL14D31 | 179 | 180 | 1 | 1.48 | 0.61 | 1.57 | 12.40 | 0.11 | 0.15 |

***Continued – Table 3:*** *Analytical data for holes EL14D22, EL14D25 and EL14D31. Samples with <0.5% Cu and/or <0.3g/t Au outside the reported intercepts have been omitted. Drill core analysed at ALS Laboratories (fire assay and AAS for Au, four acid digest and analysis by ICP-MS/ICP-AES for elements other than Au, ore grade analysis of following four acid digest for high Cu, Zn, Pb, Ag samples). Depths tabulated are downhole depths; true thicknesses are estimated to be approximately 75% of downhole interval lengths for hole EL14D22, 70% for hole EL14D25 and 65% for hole EL14D31.*

| Hole ID | From (m) | To (m) | Interval (m) | Cu % | Au g/t | Zn % | Ag g/t | Pb % | Co % |
|---|---|---|---|---|---|---|---|---|---|
| EL14D31 | 180 | 181 | 1 | 1.16 | 0.27 | 1.18 | 14.70 | 0.17 | 0.11 |
| EL14D31 | 181 | 182 | 1 | 1.63 | 0.56 | 4.72 | 35.30 | 0.45 | 0.10 |
| EL14D31 | 182 | 183 | 1 | 1.32 | 0.51 | 6.54 | 31.80 | 0.37 | 0.11 |
| EL14D31 | 183 | 184 | 1 | 1.40 | 0.87 | 4.73 | 61.70 | 0.95 | 0.13 |
| EL14D31 | 184 | 185.26 | 1.26 | 1.25 | 0.85 | 5.37 | 63.20 | 1.08 | 0.09 |
| EL14D31 | 185.26 | 186 | 0.74 | 0.56 | 0.60 | 1.10 | 46.20 | 0.95 | 0.03 |
| EL14D31 | 186 | 187 | 1 | 0.79 | 0.19 | 0.23 | 19.30 | 0.27 | 0.04 |
| EL14D31 | 187 | 188 | 1 | 0.25 | 0.60 | 2.14 | 62.50 | 1.06 | 0.06 |
| EL14D31 | 188 | 189 | 1 | 0.99 | 0.84 | 1.26 | 29.30 | 0.49 | 0.04 |
| EL14D31 | 189 | 190 | 1 | 0.74 | 0.38 | 1.35 | 6.29 | 0.03 | 0.03 |
| EL14D31 | 190 | 191.22 | 1.22 | 0.60 | 0.08 | 6.86 | 4.17 | 0.01 | 0.02 |
| EL14D31 | 191.22 | 192 | 0.78 | 1.77 | 0.07 | 12.90 | 9.54 | <0.01 | 0.06 |
| EL14D31 | 192 | 192.96 | 0.96 | 2.47 | 0.48 | 7.25 | 11.35 | 0.01 | 0.11 |
| EL14D31 | 197 | 198 | 1 | 0.58 | 0.03 | 0.06 | 3.04 | 0.01 | 0.02 |
| EL14D31 | 198 | 199 | 1 | 0.74 | 0.06 | 0.28 | 5.33 | 0.01 | 0.02 |
| EL14D31 | 199 | 200 | 1 | 0.91 | 0.72 | 18.55 | 65.30 | 1.20 | 0.08 |
| EL14D31 | 200 | 201 | 1 | 0.83 | 0.67 | 6.70 | 40.60 | 0.73 | 0.12 |
| EL14D31 | 201 | 202 | 1 | 0.57 | 1.07 | 13.50 | 82.30 | 1.57 | 0.20 |
| EL14D31 | 202 | 203 | 1 | 0.34 | 0.18 | 6.71 | 9.62 | 0.09 | 0.02 |
| EL14D31 | 203 | 204 | 1 | 0.74 | 5.67 | 4.27 | 174.00 | 2.73 | 0.17 |

## Next steps at Artemis

Drilling is expected to resume in late January, subject to weather conditions at the time. At recommencement, drilling will continue to test for strike and dip extensions to the mineralisation already defined.

## About the Eloise Copper Joint Venture

The Eloise Copper JV is managed and operated by Minotaur Exploration, on behalf of joint venture partner Golden Fields Resources Pty Ltd (GFR) who, upon expenditure of $6 million, may earn a 50% beneficial joint venture interest in the tenements (EPM 17838 and EPM 18442, but excluding those parts subject to the Altia joint venture with Sandfire Resources NL). The JV work plan commits expenditure of $7.7 million from commencement in December 2013 through to June 2015.

### Competent Person's Statement

Information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Glen Little, who is a full-time employee of the Company and a Member of the Australian Institute of Geoscientists (AIG). Mr Little has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking 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 Little consents to inclusion in this document of the information in the form and context in which it appears.

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# APPENDIX 1

## JORC CODE, 2012 EDITION

### Section 1: Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Sampling techniques | Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.<br><br>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.<br><br>Aspects of the determination of mineralisation that are Material to the Public Report.<br><br>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. | Drill holes EL14D22, EL14D25 and EL14D31 were drilled from surface with diamond coring technique whereas EL14D24 and EL14D26-29 were drilled using reverse circulation (RC) drilling technique.<br><br>The NQ diamond drill bit size employed to sample the zone of interest in EL14D22, EL14D25 and EL14D31 is considered appropriate to indicate degree and extent of mineralisation.<br><br>Use of reverse circulation drilling with 3 ½ inch diameter rods to locate the upper extents of the Artemis mineralization and obtain rock chip samples for assay is considered appropriate to indicate degree and extent of mineralisation.<br><br>All drill core and RC rock chips have been geologically logged. All drill core had magnetic susceptibility measurements systematically recorded every 1m, specific gravity measurement recorded every 5m though every 1m within mineralized intervals, core orientation determined where possible, all drill core trays photographed/ select lithologies and zones of mineralisation photographed.<br><br>Selected 1 metre intervals of RC sample and selected intervals of quarter core were chosen for geochemical laboratory analysis based upon visual observations on lithologies and perceived zones of alteration and mineralisation. Unsampled intervals are expected to be unmineralised. |
| Drilling Techniques | Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). | Professional drilling contractors Kelly Drilling Pty Ltd drilled EL14D22, EL14D24-EL14D29 and EL14D31 under the supervision of experienced Minotaur geological personnel.<br><br>A digital downhole survey camera was used every ~30m by Kelly Drilling to monitor hole orientation during drilling of the cored holes. At completion of each drillhole a digital downhole camera was used to take an orientation survey every ~6m; these detailed downhole data have been used to plot drillhole traces and intercept position for EL14D22, E14D25 and EL14D31.<br><br>A downhole survey was conducted every 30 metres during drilling of the reverse circulation holes. |
| Drill Sample Recovery | Method of recording and assessing core and chip sample recoveries and results assessed.<br><br>Measures taken to maximise sample recovery and ensure representative nature of the samples.<br><br>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. | Received drill core length is measured, recorded and compared to actual metres drilled as reported by the drill contractor. The ratio of measured length to drilled length is used to calculate total core recovery. In drill holes EL14D22, EL14D25 and EL14D31 recoveries were typically 100% for the mineralised intervals. |

# APPENDIX 1

## JORC CODE, 2012 EDITION

### Section 1: Sampling Techniques and Data continued

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Logging | Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.<br>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.<br>The total length and percentage of the relevant intersections logged. | All drill core has been geologically logged with magnetic susceptibility and specific gravity measurements recorded every 5m throughout (1m measurements through the mineralized interval). Core orientation determined where possible. All drill core trays photographed with select lithologies and zones of mineralization photographed.<br>Lithological and magnetic susceptibility logging data for the entire hole was entered onsite into Minotaur's OCRIS Mobile logging system.<br>Rock quality data (RQD) have been measured and recorded for all core drilled to date, however, comprehensive geotechnical assessment has not yet been undertaken on the drill core. Such assessment is not required to adequately evaluate the significance of the results at this early exploration stage. |
| Sub-sampling techniques and sample preparation | If core, whether cut or sawn and whether quarter, half or all core taken.<br>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.<br>For all sample types, the nature, quality and appropriateness of the sample preparation technique.<br>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.<br>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/ second-half sampling.<br>Whether sample sizes are appropriate to the grain size of the material being sampled. | The cores from drill holes EL14D22, EL14D25 and EL14D31 were cut and quarter core samples were collected as generally 1 metre composites. The sampled intervals were selected based upon visual observations of lithologies and perceived zones of alteration and mineralisation. Unsampled core intervals are expected to be unmineralised.<br>Each laboratory submission sample was collected in an industry-standard calico bag with sample number written in black on the bag and sample number ticket inserted into the bag.<br>Samples were placed in large plastic polyweave bags, labeled with the sample number range and secured with a plastic cable tie for direct transport to ALS Laboratories in Mount Isa by a Minotaur representative. |
| Quality of assay data and laboratory tests | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.<br>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. | Results reported in the body of this Report pertain to quarter core samples from drill holes EL14D22, EL14D25 and EL14D31 analysed by ALS Laboratories. A 48-element suite including Cu, Zn, Pb, Ag was analysed by four acid digest and ICP-MS/ICP-AES finish (ALS method ME-MS61): a four acid digest is considered a near total digest and appropriate for resource appraisal.<br>Cu, Zn, Pb and Ag results above the upper detection limit of ALS method ME-MS61 were repeated with ALS method OG46 (aqua regia digest and AAS finish): an appropriate method for evaluation of ore/high grade material. |

# APPENDIX 1

## JORC CODE, 2012 EDITION

### Section 1: Sampling Techniques and Data continued

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Quality of assay data and laboratory tests *continued* | Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. | Gold content analysed by fire assay with AAS finish (ALS method Au-AA25).<br><br>ALS analysed regular blanks (around 1 in 9), regular standards (around 1 in 3) and regular duplicates (around 1 in 5) when analysing the samples from drill holes EL14D22, EL14D25 and EL14D31.<br><br>Four different commercially-sourced standards were submitted by Minotaur to ALS simultaneously with drill core samples from EL14D22, EL14D25 and EL14D31. Twelve packets of standard pulps were submitted representing around 1 in 9 samples.<br><br>Gold standard results are largely within 2 standard deviations of expected value with one outlier currently being investigated.<br><br>Minotaur's QAQC indicates that Cu and Pb values may be reporting low (based on comparison of lab assays and expected values of commercially sourced reference material) and this issue is under investigation. Standard assays for other metals are within tolerable limits.<br><br>Eight gravel blanks (around 1 in 12 samples) were also submitted to ALS as part of Minotaur's quality control procedure; assay results for blanks have been within expected limits.<br><br>Seven duplicate quarter core samples (around 1 in 14 samples) were submitted to ALS as part of Minotaur's quality control procedure. Duplicate sample assays compare well to alpha samples.<br><br>For the laboratory results received and reported in the body of this Report an acceptable level of accuracy and precision has been confirmed by Minotaur's QAQC protocols. |
| Verification of sampling and assaying | The verification of significant intersections by either independent or alternative company personnel.<br><br>The use of twinned holes.<br><br>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br><br>Discuss any adjustment to assay data. | All drilling data including collar coordinates, hole orientation, total depth, sampling intervals and lithological logging were recorded using OCRIS Mobile logging software with inbuilt data validation.<br><br>Significant intersections have been verified by Minotaur's Project Geologists: laboratory assays are consistent with mineralised intervals highlighted by geological logging.<br><br>No twinned holes were undertaken.<br><br>No adjustments to assay data were undertaken. |

# APPENDIX 1

## JORC CODE, 2012 EDITION

### Section 1: Sampling Techniques and Data continued

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Location of data points | Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.<br>Specification of the grid system used.<br>Quality and adequacy of topographic control. | Drillhole collar locations (GDA94, MGA Zone 54) of EL14D24-EL14D29 were determined by Haines Surveys using Trimble 5700 series equipment with horizontal (easting, northing) accuracy +/- 1cm and vertical (RL) accuracy +/-1.5cm. Drillholes<br>EL14D22 and EL14D31 have been located using a handheld GPS unit pending DGPS location as soon as possible. The drill collars are considered to be located with an appropriate level of accuracy for early-stage mineralisation appraisal.<br>Kelly Drilling used a digital survey system every ~30m downhole to determine hole orientation during diamond drilling, followed up with ~6m spaced surveys after completion of the hole; these data have been used to the plot drillhole traces and intercept positions for EL14D22, EL14D25 and EL14D31. |
| Data spacing and distribution | Data spacing for reporting of Exploration Results.<br>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.<br>Whether sample compositing has been applied. | Results reported in the body of this Report pertain to quarter core samples from drill holes EL14D22, EL14D25 and EL14D31 analysed by ALS Laboratories. Typically 1 metre intervals coincident with mineralisation and alteration selected for downhole geochemical sampling. The total intervals sampled in drill holes EL14D22, EL14D25 and EL14D31 are considered appropriate for the perceived degree of mineralisation present.<br>Historic exploration drilling is of insufficient density to determine extents of mineralisation along strike or at depth from Minotaur drillholes.<br>No mineral resource or ore reserve estimation has been undertaken. |
| Orientation of data in relation to geological structure | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.<br>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. | Drillhole orientation was optimized to intersect the centre of the target geophysical anomalies.<br>No orientation-based sampling bias has been identified. |
| Sample security | The measures taken to ensure sample security. | All drill samples were stored at a secure location and delivered to the Laboratory for analysis by Minotaur personnel. Remnant drill core and laboratory pulps from EL14D22, EL14D25 and EL14D31 have been retained by Minotaur. |
| Audits or reviews | The results of any audits or reviews of sampling techniques and data. | No independent audit or review undertaken. |

# APPENDIX 1

## JORC CODE, 2012 EDITION

### Section 2: Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Mineral tenement and land tenure status | Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.<br><br>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. | The drilling reported herein was conducted on tenement EPM17838 which forms part of the Eloise Copper Joint Venture between Levuka Resources Pty Ltd, Breakaway Resources Ltd (both subsidiaries of Minotaur Exploration Limited) and Golden Fields Resources Pty Ltd. Exploration activities are managed by Minotaur Exploration under a jointly agreed work program.<br><br>There are no existing impediments to any tenement within the Eloise Joint Venture.<br><br>Ground disturbing activities require consultation with regard to appropriate aboriginal heritage site avoidance. All drillsites within the current program have been cleared for drilling. |
| Exploration done by other parties | Acknowledgment and appraisal of exploration by other parties. | Extensive historical exploration by other companies across the JV tenements includes surface rock chip analyses, geological mapping, airborne magnetic surveys, gravity surveys, induced polarization (IP) survey, EM surveys, RC drilling and diamond drilling.<br><br>Historic exploration drill hole data and down-hole geophysical data have been re-assessed, but are of insufficient density to determine the extent of mineralisation along strike or at depth Minotaur holes. |
| Geology | Deposit type, geological setting and style of mineralisation. | Within the eastern portion of Mt Isa Block targeted mineralisation styles include: IOCG-style mineralisation associated with ~1590-1500Ma granitic intrusions and fluid movement along structural contacts e.g. Eloise Cu-Au; and sediment-hosted Zn+Pb+Ag±Cu±Au deposits e.g. Mt Isa, Cannington. |
| Drill hole Information | A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:<br>• easting and northing of the drill hole collar<br>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar<br>• down hole length and interception depth<br>• hole length.<br><br>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. | Full drill collar details for drill holes EL14D22, EL14D25 and EL14D31 including location coordinates, orientation and final depth are provided in *Table 1* of the body of this Report.<br><br>Assay results are reported in *Tables 2-3* of the body of this Report. |

# APPENDIX 1

## JORC CODE, 2012 EDITION

### Section 2: Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Data aggregation methods | In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.<br>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.<br>The assumptions used for any reporting of metal equivalent values should be clearly stated. | Assay results reported in the body of this Report pertain to quarter core samples from drill holes EL14D22, EL14D25 and EL14D31 analysed by ALS Laboratories.<br>EL14D22 was drilled at approximately -60 degrees towards 306.5 degrees (True bearing) to intersect the interpreted EM plate at a moderately high angle.<br>EL14D25 and EL14D31 were drilled at approximately -60 and -70 degrees respectively towards 290 degrees (True bearing) to intersect the interpreted EM plate at a moderately high angle.<br>No maximum and/or minimum grade truncations have been used. Most (but not all) assays are for 1 metre representative splits, therefore intervals and grade reported for EL14D22, EL14D25 and EL14D31 include weighted averages based upon down-hole distance. |
| Relationship between mineralisation widths and intercept lengths | These relationships are particularly important in the reporting of Exploration Results.<br>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.<br>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). | All depths and intervals are reported as downhole measurements. True widths are estimated to be approximately 75% of downhole interval lengths for hole EL14D22, 70% for hole EL14D25 and 65% for hole EL14D31. |
| Diagrams | Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. | See *Figures 2 and 3* of this Report. |
| Balanced reporting | Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. | All results of significance have been reported within this Report. |
| Other substantive exploration data | Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | No significant exploration data have been omitted. |
| Further work | The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | Extent of future investigations at the Artemis Prospect is dependent upon results achieved through completion of the current drill program and receipt of outstanding geochemical analyses. |