CASSINI
RESOURCES LIMITED

ABN: 50 149 789 337

ASX Announcement 18 December 2014

# BABEL DRILLING PRODUCES BEST RESULTS TO DATE

**Summary:**

- **Northern zone of Babel produces best-ever drill result**
  - **18m @ 1.52% Ni and 1.50% Cu from 50m (CZC0129)**
- **Extends mineralisation outside the existing resource outline**
- **Additional shallow high-grade results from Startmeup Shoot**
- **Supports open pit mining scenario**

Cassini Resources Limited (ASX:CZI) ("**Cassini**" or the "**Company**") is pleased to announce further assay results received from the recent drill program targeting the Babel Deposit, part of Cassini's 100% owned West Musgrave Project (the "**Project"**).

## Surprisingly High-Grade Mineralisation at Babel

The latest drilling results include outstanding intercepts within hole CZC0129 of:

- **18m @ 1.52% Ni, 1.50% Cu** & 0.33g/t PGE from 50m
  - including **6m @ 2.97% Ni, 3.00% Cu** and 0.55g/t PGE; and
- **28m @ 0.95% Ni, 0.53% Cu** & 0.17g/t PGE from 6m
  - including **4m @ 2.24 Ni, 0.97% Cu** and 0.48g/t PGE

The result is significant not only for the shallow depth of mineralisation but also that Babel is not usually considered to host high-grade matrix and massive sulphide. The hole also tested an area outside the high grade subset of the existing resource and should therefore have a positive impact on an updated resource estimate.

CZC0129 is located on the northern margin of the intrusive host and has potentially identified mineralisation in a similar setting to the Sugar Lode at Nebo, that is, in the "roll-over" position of the host intrusion. This setting has proven to host high grade mineralisation at Nebo and therefore follow-up drilling to confirm the geometry and true width of this mineralised zone is likely in the 2015 field season.

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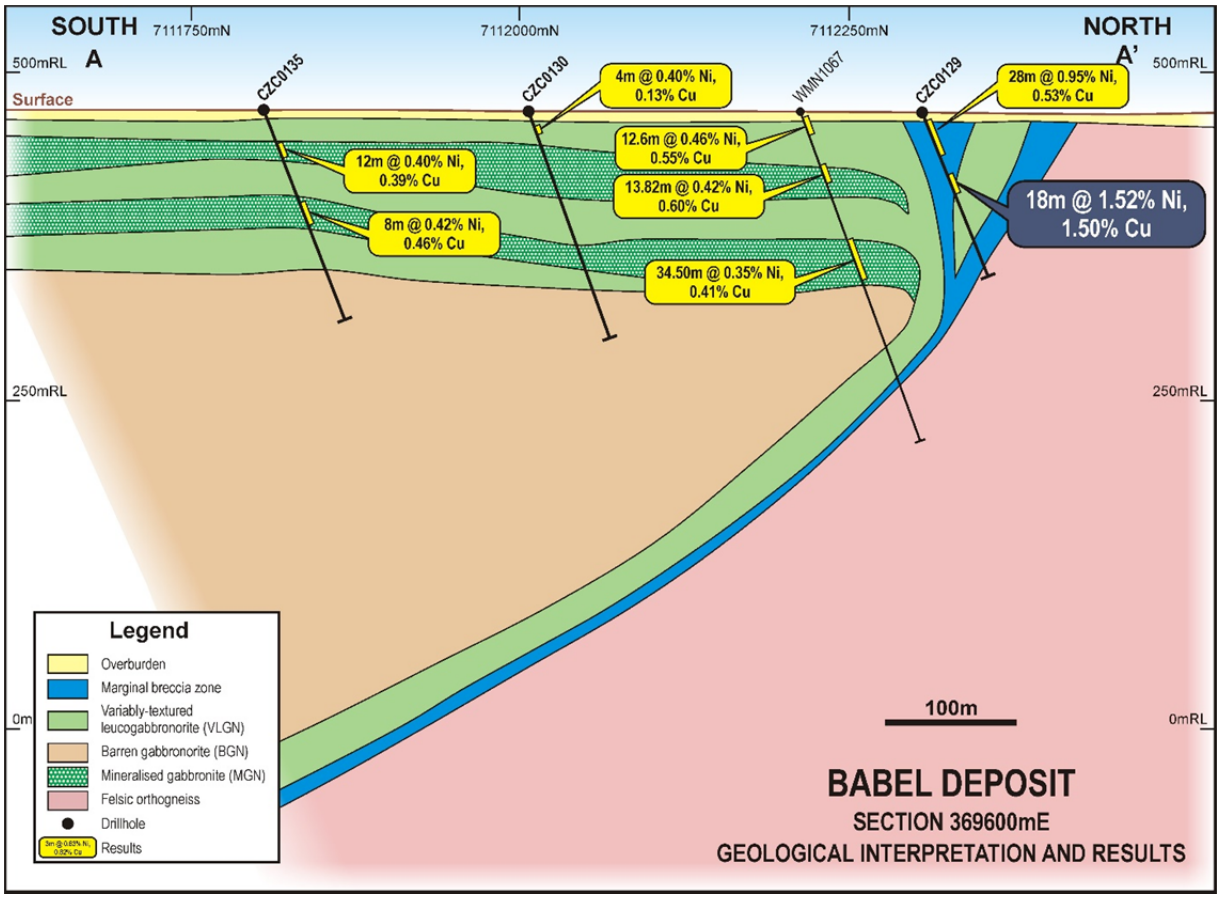


*Figure 1. Section 369600E showing high grade results from CZC0129.*

## Startmeup Doesn't Stop

Latest results also include further high grade intercepts from the Startmeup Shoot including:

- 22m @ 0.80% Ni, 1.03% Cu and 0.31g/t PGE from 30m(CZC0094); and
- 22m @ 0.65% Ni, 1.41% Cu and 0.23g/t PGE from 46m (CZC0095)

Startmeup has demonstrated continuity of fresh nickel and copper sulphide over 500m strike starting just below surface and extending down-dip approximately 150m.

Combined with the high-grade result from CZC0129, Cassini is encouraged that shallow, high-grade mineralisation, ideal for a mining starter-pit, may be delineated along the entire 2km long northern margin of the Babel deposit.

*(See Table 1 for a complete list of results and JORC Table 1 in Annexure 1 for drilling and assaying parameters.)*

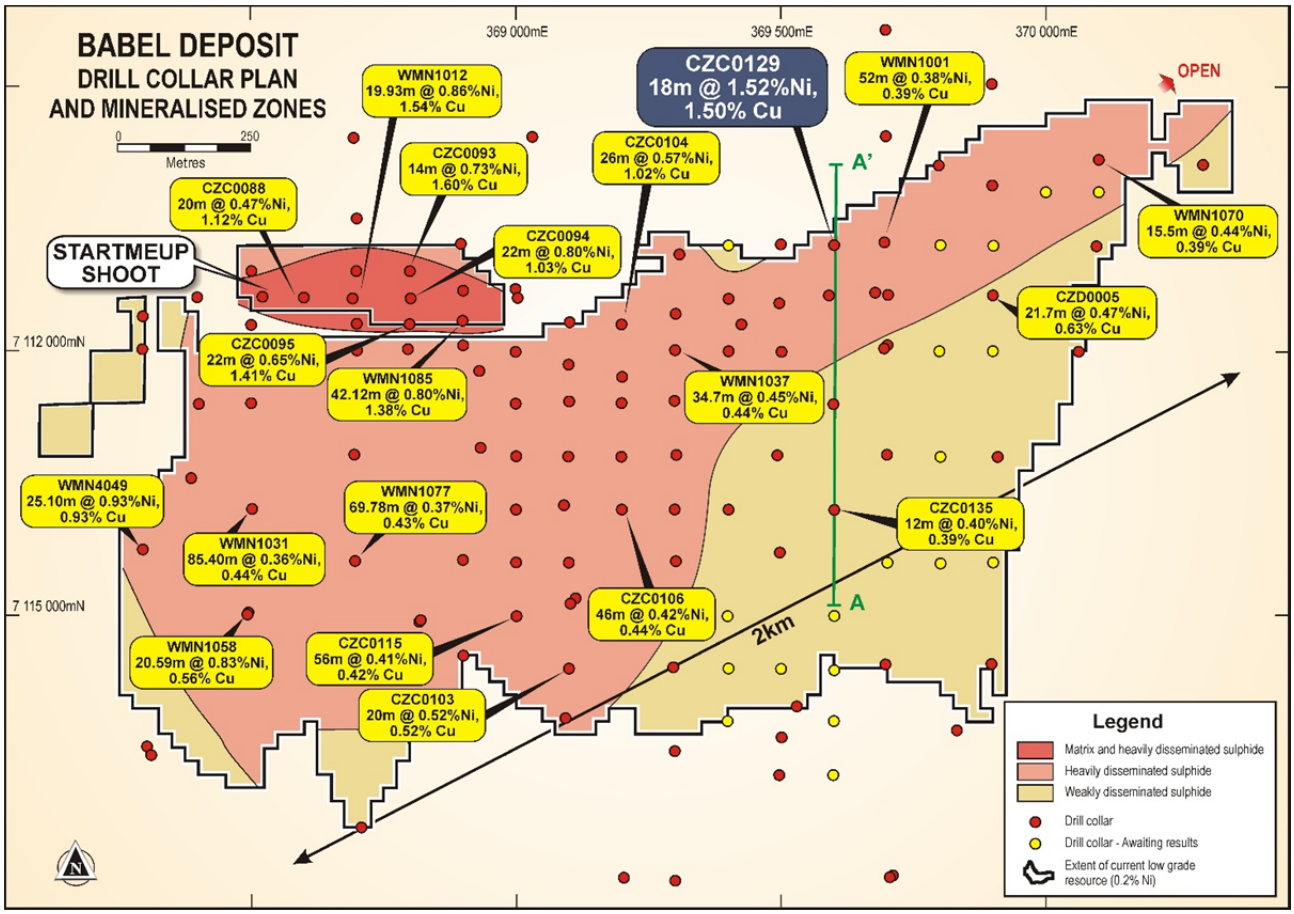


*Figure 2. Babel drill location plan showing zones of mineralisation and selected drill results.*

## Managing Director Comment

Cassini's Managing Director, Richard Bevan said "These are some great final results to finish the year. 2014 has been a landmark for us from an operational perspective, since the acquisition of the West Musgrave Project in April the exploration results have vastly surpassed our expectations. That the Babel deposit has surprised on the upside and looks like being able to deliver a high grade starter pit to support our strategy is very pleasing. The Project continues to reveal its value as we have rapidly progressed over the past 6 months and we believe it is ticking all the right boxes to realise this value for our shareholders in the New Year."

## Work Program Update

A large number of assay results remain outstanding (approximately 30%) which are expected to be returned over the Christmas – New Year period. Interpretation and modelling prior to an updated resource estimate remains on schedule.

For further information, please contact:

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## Table 1 – Drill Hole Details

| HOLE ID | East | North | RL | Dip | Azi | EOH (m) | Intersection | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | From (m) | Width (m) | Ni % | Cu % | Co % | PGE g/t |
| CZC0079 | 368400 | 7112100 | 468 | -70 | 360 | 174 | | | NSI | | | |
| CZC0080 | 368400 | 7111900 | 467 | -70 | 360 | 300 | | | NSI | | | |
| CZC0085 | 368500 | 7112150 | 467 | -70 | 360 | 72 | | | NSI | | | |
| CZC0086 | 368500 | 7112050 | 467 | -70 | 360 | 138 | 90 | 12 | 0.37 | 0.67 | 0.01 | 0.22 |
| CZC0087 | 368500 | 7112000 | 467 | -70 | 360 | 168 | | | NSI | | | |
| CZC0088 | 368600 | 7112100 | 468 | -70 | 360 | 84 | 36 | 20 | 0.47 | 1.12 | 0.02 | 0.22 |
| CZC0089 | 368600 | 7112000 | 467 | -70 | 360 | 204 | | | NSI | | | |
| CZC0090 | 369100 | 7111975 | 470 | -70 | 360 | 288 | 38 | 12 | 0.80 | 0.33 | 0.03 | 0.12 |
| | | | | | | | 62 | 4 | 0.37 | 0.48 | 0.01 | 0.10 |
| | | | | | | | 96 | 28 | 0.37 | 0.47 | 0.01 | 0.20 |
| | | | | | | | 218 | 6 | 0.75 | 0.27 | 0.03 | 0.12 |
| CZC0091 | 368700 | 7112150 | 468 | -70 | 360 | 60 | 4 | 22 | 0.68 | 1.19 | 0.02 | 0.34 |
| CZC0092 | 368700 | 7112050 | 468 | -70 | 360 | 156 | 64 | 22 | 0.51 | 0.94 | 0.02 | 0.22 |
| | | | | | | Including | 72 | 12 | 0.75 | 1.45 | 0.02 | 0.26 |
| CZC0093 | 368800 | 7112150 | 468 | -70 | 360 | 66 | 4 | 14 | 0.73 | 1.60 | 0.02 | 0.22 |
| CZC0094 | 368800 | 7112100 | 468 | -70 | 360 | 84 | 30 | 22 | 0.80 | 1.03 | 0.02 | 0.31 |
| CZC0095 | 368800 | 7112050 | 468 | -70 | 360 | 150 | 46 | 22 | 0.65 | 1.41 | 0.02 | 0.23 |
| | | | | | | | 52 | 8 | 0.77 | 2.18 | 0.03 | 0.26 |
| CZC0096 | 368900 | 7112115 | 467 | -70 | 360 | 60 | 8 | 10 | 0.43 | 0.92 | 0.02 | 0.13 |
| CZC0097 | 368900 | 7112010 | 467 | -70 | 360 | 252 | | | NSI | | | |
| CZC0098 | 369000 | 7112115 | 470 | -70 | 360 | 78 | | | NSI | | | |
| CZC0099 | 369000 | 7112050 | 470 | -70 | 360 | 104 | | | NSI | | | |
| CZC0100 | 369000 | 7112000 | 470 | -70 | 360 | 240 | 48 | 4 | 0.65 | 0.48 | 0.02 | 0.22 |
| | | | | | | | 114 | 10 | 0.85 | 0.49 | 0.03 | 0.23 |
| | | | | | | | 204 | 6 | 0.54 | 0.35 | 0.02 | 0.17 |
| CZC0101 | 369100 | 7111800 | 467 | -70 | 360 | 240 | 54 | 14 | 0.46 | 0.41 | 0.01 | 0.10 |
| | | | | | | | 74 | 4 | 0.38 | 1.45 | 0.02 | 0.32 |

| HOLE ID | East | North | RL | Dip | Azi | EOH (m) | Intersection | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | From (m) | Width (m) | Ni % | Cu % | Co % | PGE g/t |
| | | | | | | | 132 | 12 | 0.40 | 0.54 | 0.01 | 0.30 |
| CZC0102 | 369100 | 7111600 | 468 | -70 | 360 | 280 | 92 | 20 | 0.77 | 0.46 | 0.02 | 0.21 |
| | | | | | | Including | 92 | 4 | 2.17 | 0.44 | 0.05 | 0.25 |
| | | | | | | | 152 | 4 | 0.53 | 0.66 | 0.02 | 0.44 |
| | | | | | | | 166 | 16 | 0.38 | 0.46 | 0.01 | 0.25 |
| | | | | | | | 186 | 4 | 0.43 | 0.25 | 0.01 | 0.27 |
| CZC0103 | 369100 | 7111400 | 468 | -70 | 360 | 258 | 142 | 20 | 0.52 | 0.52 | 0.02 | 0.18 |
| | | | | | | | 196 | 8 | 0.38 | 0.53 | 0.01 | 0.22 |
| CZC0104 | 369200 | 7112050 | 467 | -70 | 360 | 228 | 34 | 26 | 0.57 | 1.02 | 0.02 | 0.17 |
| | | | | | | | 82 | 6 | 0.40 | 0.61 | 0.02 | 0.31 |
| | | | | | | | 150 | 4 | 0.39 | 0.59 | 0.01 | 0.24 |
| CZC0105 | 369200 | 7111950 | 467 | -70 | 360 | 228 | 60 | 12 | 0.77 | 0.40 | 0.03 | 0.17 |
| | | | | | | | 122 | 6 | 0.30 | 0.46 | 0.01 | 0.23 |
| CZC0106 | 369200 | 7111800 | 467 | -70 | 360 | 186 | 48 | 8 | 0.32 | 0.41 | 0.01 | 0.27 |
| | | | | | | | 94 | 46 | 0.42 | 0.44 | 0.01 | 0.34 |
| CZC0107 | 369200 | 7111700 | 467 | -70 | 360 | 162 | 92 | 16 | 0.38 | 0.43 | 0.01 | 0.24 |
| | | | | | | | 116 | 22 | 0.44 | 0.40 | 0.01 | 0.31 |
| CZC0108 | 369300 | 7112070 | 470 | -70 | 360 | 174 | 60 | 8 | 0.33 | 0.47 | 0.01 | 0.15 |
| | | | | | | | 90 | 24 | 0.37 | 0.40 | 0.01 | 0.26 |
| | | | | | | | 124 | 6 | 0.48 | 0.38 | 0.01 | 0.32 |
| | | | | | | | 136 | 12 | 0.38 | 0.45 | 0.01 | 0.28 |
| CZC0109 | 369300 | 7111905 | 470 | -70 | 360 | 210 | 42 | 22 | 0.55 | 0.79 | 0.02 | 0.31 |
| | | | | | | Including | 62 | 2 | 0.45 | 3.86 | 0.02 | 0.1 |
| | | | | | | | 130 | 6 | 0.44 | 0.38 | 0.01 | 0.29 |
| CZC0110 | 369400 | 7111700 | 468 | -70 | 360 | 180 | 42 | 18 | 0.40 | 0.53 | 0.01 | 0.21 |
| | | | | | | | 98 | 8 | 0.38 | 0.40 | 0.01 | 0.22 |
| CZC0111 | 369000 | 7111900 | 467 | -70 | 360 | 240 | 46 | 6 | 0.29 | 0.79 | 0.01 | 0.15 |
| | | | | | | | 88 | 16 | 0.38 | 0.42 | 0.01 | 0.25 |
| | | | | | | | 112 | 34 | 0.40 | 0.47 | 0.01 | 0.23 |
| | | | | | | | 164 | 20 | 0.38 | 0.45 | 0.01 | 0.23 |
| CZC0112 | 369000 | 7111800 | 467 | -70 | 360 | 288 | 60 | 10 | 1.08 | 0.63 | 0.02 | 0.65 |
| | | | | | | | 134 | 34 | 0.42 | 0.45 | 0.01 | 0.25 |
| CZC0113 | 369000 | 7111700 | 467 | -70 | 360 | 276 | 100 | 26 | 0.31 | 0.45 | 0.01 | 0.12 |
| | | | | | | | 204 | 6 | 0.29 | 0.41 | 0.01 | 0.18 |
| CZC0114 | 369000 | 7111600 | 467 | -70 | 360 | 216 | 130 | 6 | 0.24 | 0.53 | 0.01 | 0.16 |

| HOLE ID | East | North | RL | Dip | Azi | EOH (m) | Intersection | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | From (m) | Width (m) | Ni % | Cu % | Co % | PGE g/t |
| | | | | | | | 182 | 6 | 0.29 | 0.53 | 0.01 | 0.17 |
| | | | | | | | 196 | 20 | 0.49 | 0.51 | 0.02 | 0.31 |
| CZC0115 | 369000 | 7111500 | 468 | -70 | 360 | 294 | 148 | 8 | 0.24 | 0.67 | 0.01 | 0.17 |
| | | | | | | | 166 | 8 | 0.33 | 0.47 | 0.01 | 0.19 |
| | | | | | | | 184 | 56 | 0.41 | 0.42 | 0.01 | 0.26 |
| CZC0116 | 369400 | 7112200 | 470 | -70 | 360 | 120 | | | ANR | | | |
| CZC0117 | 369400 | 7112100 | 470 | -70 | 360 | 174 | 4 | 6 | 0.28 | 0.40 | 0.01 | 0.05 |
| | | | | | | | 20 | 10 | 0.40 | 0.33 | 0.02 | 0.11 |
| | | | | | | | 132 | 16 | 0.33 | 0.52 | 0.01 | 0.21 |
| CZC0121 | 369300 | 7111700 | 467 | -70 | 360 | 216 | 16 | 16 | 0.31 | 0.43 | 0.01 | 0.18 |
| | | | | | | | 60 | 42 | 0.35 | 0.45 | 0.01 | 0.18 |
| | | | | | | | 124 | 20 | 0.38 | 0.51 | 0.01 | 0.25 |
| CZC0122 | 369400 | 7111500 | 468 | -70 | 360 | 150 | | | ANR | | | |
| CZC0123 | 369400 | 7111400 | 468 | -70 | 360 | 150 | | | ANR | | | |
| CZC0124 | 369400 | 7111300 | 468 | -70 | 360 | 168 | | | ANR | | | |
| CZC0125 | 369500 | 7111400 | 468 | -70 | 360 | 120 | | | ANR | | | |
| CZC0126 | 369500 | 7111270 | 470 | -70 | 360 | 216 | | | NSI | | | |
| CZC0127 | 369400 | 7112000 | 468 | -70 | 360 | 180 | 122 | 16 | 0.48 | 0.39 | 0.02 | 0.29 |
| CZC0128 | 369500 | 7112000 | 470 | -70 | 360 | 188 | 34 | 8 | 0.39 | 0.51 | 0.02 | 0.26 |
| | | | | | | | 122 | 12 | 0.37 | 0.40 | 0.01 | 0.25 |
| | | | | | | | 142 | 6 | 0.32 | 0.40 | 0.01 | 0.27 |
| CZC0129 | 369600 | 7112200 | 470 | -70 | 360 | 132 | 6 | 28 | 0.95 | 0.53 | 0.03 | 0.17 |
| | | | | | | Including | 8 | 4 | 2.24 | 0.99 | 0.08 | 0.48 |
| | | | | | | | 50 | 18 | 1.52 | 1.50 | 0.04 | 0.33 |
| | | | | | | Including | 50 | 6 | 2.97 | 3.00 | 0.09 | 0.55 |
| CZC0130 | 369600 | 7111900 | 469 | -70 | 360 | 180 | 10 | 4 | 0.40 | 0.13 | 0.01 | 0.11 |
| CZC0135 | 369600 | 7111700 | 469 | -70 | 360 | 168 | 24 | 12 | 0.40 | 0.39 | 0.01 | 0.28 |
| | | | | | | | 72 | 8 | 0.42 | 0.46 | 0.01 | 0.26 |

***NSI = No Significant Intercept, ANR = Assays not received, ABD = Abandoned hole, did not reach target***

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## About Cassini

Cassini Resources Limited (ASX: CZI) is an Australian resource company that successfully listed on the ASX in January 2012. In April 2014, Cassini acquired the significant Nebo and Babel nickel and copper sulphide deposits in the Musgrave region of WA. The Company's primary focus is now on the development of these deposits and progressing them through to successful mineral production as a matter of priority.

Cassini aims to progress its development projects, to explore and add value to its exploration stage projects with the aim to increase shareholder value.

**Table 2. Nebo – Babel Inferred Mineral Resource Estimate**

| Prospect | Cut-off Ni% | Mt | Ni% | Cu% | As ppm | Co ppm | Fe % | MgO % | S % |
|---|---|---|---|---|---|---|---|---|---|
| Nebo | 0.2 | 84 | 0.39 | 0.31 | 3 | 153 | 9.5 | 5.9 | 2.5 |
| Babel | 0.2 | 362 | 0.32 | 0.36 | 3 | 118 | 9.9 | 7.8 | 2.1 |
| **Total** | **0.2** | **446** | **0.33** | **0.35** | **3** | **125** | **9.9** | **7.4** | **2.2** |
| Nebo | 0.5 | 15.9 | 0.82 | 0.48 | 3 | 323 | 14.2 | 3.7 | 5.6 |
| Babel | 0.5 | 17.3 | 0.64 | 0.70 | 3 | 196 | 12.9 | 6.0 | 4.4 |
| **Total** | **0.5** | **33.2** | **0.73** | **0.59** | **3** | **257** | **13.5** | **4.9** | **5.0** |

## Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resource Estimates is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates as reported in the market announcement dated 14th of April 2014 continue to apply and have not materially changed.

## ANNEXURE 1:

The following Tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of the Exploration Results at the Nebo deposit.

**Section 1:** Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Sampling techniques** | *Nature and quality of sampling (e.g. 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.* | The Nebo and Babel deposits were sampled using Reverse Circulation (RC) drill holes on a nominal spacing of 50m x 100m at Nebo and on a nominal spacing of 100m x 100m at Babel. A total of 86 RC drillholes for 12,816m were completed at Nebo. A total of 61 RC drillholes for 10,319m were completed at Babel. Holes were generally angled towards grid north at 60 degrees (Nebo) and at 70 degrees (Babel) to optimally intersect the mineralised zones. |
| | *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | A survey contractor is currently at the West Musgrave Project completing differential GPS surveying, the drillhole locations are currently surveyed by handheld GPS units. The RC samples have been obtained by a cone splitter. Sampling has been carried out under Cassini protocols and QAQC procedures as per industry best practice. |
| | *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g 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 (e.g. submarine nodules) may warrant disclosure of detailed information.* | Reverse Circulation drilling was used to obtain 1m samples for Nebo and 2m samples for Babel. From which 3 kg was pulverised (total prep) to produce a sub sample for analysis by four acid digest with an ICP/AES or ICP/MS finish (0.25 gram) for base metals or a FA/AAS finish (40 gram) for Au, Pt and Pd. |
| **Drilling techniques** | *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc.) and details (e.g. core diameter, triple of standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc.).* | Reverse Circulation accounts for 100% of the drilling completed by Cassini and comprises 140 mm diameter face sampling hammer drilling. Hole depths range from 42 to 300m. |
| **Drill sample recovery** | *Method of recording and assessing core and chip sample recoveries and results assessed.* | RC recoveries are visually logged for every hole and recorded in the database. Actual recoveries were calculated for the first two holes for each rig. Overall recoveries are >95% and there has been no significant sample recovery problems. |
| | *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | RC samples are routinely checked for recovery, moisture and contamination. |
| | *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.* | The massive sulphide style of the mineralisation and the consistency of the mineralised intervals are considered to preclude any issue of sample bias due to material loss or gain. |
| **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.* | Drill chip samples have been geologically logged and the level of understanding of these variables increases with the maturity of the prospect. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* | Logging of RC samples at the West Musgrave Project recorded lithology, mineralogy, mineralisation, weathering, colour and other relevant features of the |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | samples. Logging of chips is both qualitative (e.g. colour) and quantitative (e.g. mineral percentages). |
| | *The total length and percentage of the relevant intersections logged.* | All drillholes were logged in full. |
| **Sub-sampling techniques and sample preparation** | *If core, whether cut or sawn and whether quarter, half or all core taken.* | Not applicable as samples are non-core. |
| | *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* | RC samples were collected on the rig using cone splitters. All samples in mineralised zones were dry. |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | The sample preparation of RC samples at the West Musgrave Project follows industry best practice in sample preparation involving oven drying, followed by pulverisation of the entire sample (total prep) using Essa LM5 grinding mills to a grind size of 90% passing 75 micron. |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | Field QC procedures involve the use of certified reference material (CRM) as assay standards, along with blanks and duplicates. The insertion rate of these averaged 1:15 with an increased rate in mineralised zones. |
| | *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.* | Field duplicates were taken on 1m (at Nebo) and 2m (at Babel) composites directly from the cone splitter. |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled.* | Sample sizes are considered appropriate for the rock type, style of mineralisation (massive sulphides), the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements at Nebo and Babel. |
| **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.* | The analytical techniques used a four acid digest multi element suite with ICP/AES or ICP/MS finish (25 gram) for base metals and a FA/AAS for previous metals. The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. Total sulphur is assayed by combustion furnace. These methods approach total dissolution of most minerals. |
| | *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.* | Hand held assay devices have not been reported. |
| | *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | Sample preparation for fineness were carried by the laboratory as part of their internal procedures to ensure the grind size of 90% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures.<br><br>Certified reference materials, having a good range of values, were inserted blindly and randomly. Results highlight that sample assay values are accurate and that contamination has been contained.<br><br>Repeat or duplicate analysis for samples reveals that precision of samples is within acceptable limits. |
| **Verification of sampling and assaying** | *The verification of significant intersections by either independent or alternative company personnel.* | Both the Exploration Manager and the Technical Director of Cassini have viewed the RC chip samples. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *The use of twinned holes.* | To date Cassini has not twinned any drill holes. |
| | *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | Primary data was collected for the West Musgrave Project using a set of standard Field Marshal templates on laptop computers using lookup codes. The information was sent to Geobase Australia for validation and compilation into a SQL database server. |
| | *Discuss any adjustment to assay data.* | No adjustments or calibrations were made to any assay data |
| **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.* | Holes drilled to date by Cassini have been located with a Garmin hand-held GPS and are assumed to be accurate to ±5m. This is considered appropriate for the drill hole spacing. A survey contractor is currently at the West Musgrave Project completing differential GPS surveying.<br>Downhole surveys were completed every 5m using north-seeking gyroscopes after-hole completion. Stated accuracy is ± 0.25° in azimuth and ± 0.05° in inclination. |
| | *Specification of the grid system used.* | The grid system for the West Musgrave Project is MGA_GDA95, Zone 52. |
| | *Quality and adequacy of topographic control.* | The tenement package exhibits subdued relief with undulating hills and topographic representation is sufficiently controlled. |
| **Data spacing and distribution** | *Data spacing for reporting of Exploration Results.* | The nominal drillhole spacing in the core of the deposit at Nebo is 50m (northing) by 100m (easting) and at Babel is 100m (northing) by 100m (easting). |
| | *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.* | The mineralised domains for Nebo and Babel have demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resources and Reserves, and the classifications applied under the 2012 JORC Code. |
| | *Whether sample compositing has been applied.* | Samples have been composited to one metre lengths. |
| **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.* | The Nebo and Babel deposits are drilled towards grid north at 60° (Nebo) and at 70° (Babel) to intersect the mineralised zones at a close to perpendicular relationship for the bulk of the deposit. |
| | *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.* | To date, mineralisation orientation has been favourable for perpendicular drilling and sample widths are not considered to have added a sampling bias. |
| **Sample security** | *The measures taken to ensure sample security.* | Sample chain of custody is managed by Cassini. Samples for the West Musgrave Project are stored on site and delivered to Perth by recognised freight service and then to the assay laboratory by a Perth-based courier service. Whilst in storage the samples are kept in a locked yard. Tracking sheets tracks the progress of batches of samples. |
| **Audits or reviews** | *The results of any audits or reviews of sampling techniques and data.* | A review of the sampling techniques and data was carried out by CSA Global during September 2014. The sampling techniques and data were considered to be of sufficient quality to carry our resource estimation. |

**Section 2:** Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

| 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.* | Nebo is located wholly within Mining Lease M69/0074. Babel is located Mining Leases M69/0072 and M69/0073. Cassini entered into an agreement to acquire 100% of the leases comprising the West Musgrave Project (M69/0072, M69/0073, M69/0074, M69/0075, E69/1505, E69/1530, E69/2201, E69/2069, E69/2070, E69/2313, E69/2338), over which the previous operator retains a 2% NSR. The tenement sits within Crown Reserve 17614. |
| | *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.* | All tenements are in good standing and have existing Aboriginal Heritage Access Agreements in place. No mining Agreement has been negotiated. |
| **Exploration done by other parties** | *Acknowledgment and appraisal of exploration by other parties.* | Previous exploration has been conducted by BHP Billiton and WMC. The work completed by BHP Billiton and WMC is considered by Cassini to be of a high standard. |
| **Geology** | *Deposit type, geological setting and style of mineralisation.* | The project lies within the West Musgrave Province of Western Australia, which is part of an extensive Mesoproterozoic orogenic belt. The Nebo-Babel and Succoth deposits lie within mafic intrusions of the Giles Complex (1068Ma) that has intruded into amphibolite facies orthogneiss country rock. Mineralisation is hosted within tubular chonolithic gabbronorite bodies and are expressed primarily as a Type 2 deposit with broad zones of disseminated sulphide and comagmatic or potentially remobilised accumulations of more rich, matrix to massive sulphides. |
| **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>• *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>• *hole length.* | Refer to the body of this report for significant intercepts pertaining to this announcement. |
| | *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.* | Not applicable, all information is included. |
| **Data aggregation methods** | *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* | Weighted averages for the Nebo and Babel deposits were calculated using parameters of a 0.4% Ni and/or Cu lower cut-off, minimum reporting length of 2m, maximum length of consecutive internal waste of 2m and the minimum grade of the final composite of 0.4% Ni and/or Cu. |
| | *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.* | Short lengths of high grade results use a nominal 1% Ni and/or Cu lower cut-off, no minimum reporting length and 2m maximum internal dilution. |
| | *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | Metal equivalent values are not currently being reported. |
| **Relationship between** | *These relationships are particularly important in the* | Mineralisation at Nebo-Babel is a flat-lying, south- |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **mineralisation widths and intercept lengths** | *reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | westerly plunging body of variably mineralised mafic rock. Mineralisation is generally intersected with true-width down-hole lengths.<br>Refer to Annexure 1 and Figures in body of text. |
| **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.* | Refer to Figures in body of text. |
| **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 Ni, Cu and Co results are reported. |
| **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.* | All relevant exploration data is shown on figures, in text and Annexure 1. |
| **Further work** | *The nature and scale of planned further work (e.g. 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.* | Cassini aims to test the continuity of known higher grade zones of mineralisation at Nebo-Babel and near-surface mineralised positions of other prospects including Succoth with aim to define a JORC compliant Indicated Resource.<br>All relevant diagrams and inferences have been illustrated in this report. |