CASSINI
RESOURCES LIMITED

ASX Release (CZI)
7 December 2015

Maiden Succoth Resource Estimate

HIGHLIGHTS

- **Inferred Mineral Resource Estimate of 156Mt @ 0.60% Cu**
- **Mineralisation open along strike and down-plunge**
- **Near surface Resource, amenable to bulk tonnage open pit mining**
- **Potential low capital intensity project due to proximity to Nebo-Babel Ni-Cu deposits**
- **Initial metallurgical testwork returned high recoveries and produced marketable Cu concentrate**
- **Updated geological model to assist exploration for massive copper and nickel sulphides**
- **Awarded WA Government EIS funding to co-fund further exploration in 2016**

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") is pleased to announce a maiden Mineral Resource estimate for the Succoth Copper deposit, part of Cassini's 100%-owned West Musgrave Project in Western Australia.

A significant copper resource with development advantages

Cassini engaged independent resource consultants CSA Global Pty Ltd (CSA Global) to provide a Mineral Resource estimate for the Succoth Deposit which incorporates the results of historical drilling and data from Cassini's 2014 and 2015 field programs. The Company has also undertaken extensive geological interpretation after re-logging of more than 16,000 metres of diamond core which has provided an enormous improvement in geological information leading to increased Cassini's confidence in the nature and continuity of mineralisation within the deposit.

The maiden Inferred Mineral Resource totals 156Mt @ 0.60% Cu at a 0.3% Cu cut-off grade for 943kt Cu metal (Table 1). The Mineral Resource estimate has been completed in accordance with the guidelines of the JORC Code (2012 edition).

Table 1. **Succoth Deposit Inferred Mineral Resource estimate** (0.3% Cu cut-off)

Type	Tonnes (Mt)	Cu (%)	Cu Metal (t)	Pt (ppm)	Pd (ppm)
Oxide	5	0.59	31,000	0.04	0.11
Fresh	151	0.60	912,000	0.04	0.11
Total	**156**	**0.60**	**943,000**	**0.04**	**0.11**

The weathering profile at Succoth is very shallow and fresh mineralisation occurs approximately 30 metres below the surface. Combined with multiple, wide mineralised zones, this makes the deposit an attractive open pit mining opportunity. The grades at Succoth compare favourably to operating

open pit copper mines and projects globally and there is also potential for PGE by-product credits, particularly for palladium which has a grade of 0.11g/t.

The Company will evaluate development options for Succoth, including integration with Nebo-Babel in a co-development scenario or a sequential development to extend the overall project mine life. Both scenarios provide Succoth with the significant development advantage of lowering the required capital intensity by utilising existing infrastructure.

Exploration to provide further rewards

There are several exploration targets that exist within close proximity to Succoth that have the potential to increase the size of the Succoth resource. The Company is confident that any additional exploration drilling will provide the potential for an expansion of the existing Succoth resource.

Extension and infill drilling

The updated interpretation of the geology at Succoth has shown mineralisation to be generally east-west striking and open at its extremities. Given the broad drill-spacing throughout most of the resource, and the updated geological interpretation, infill drilling has a high probability to add additional mineralisation (Figure 1).

Most recently, diamond hole CZD0007 targeted a large electromagnetic (EM) conductor and demonstrated continuous mineralisation down-plunge over 1,300m. Mineralisation remains open in this direction.

The Company is also investigating alternative geophysical techniques to identify disseminated mineralisation, which comprises the bulk of the deposit and does not provide an EM response.

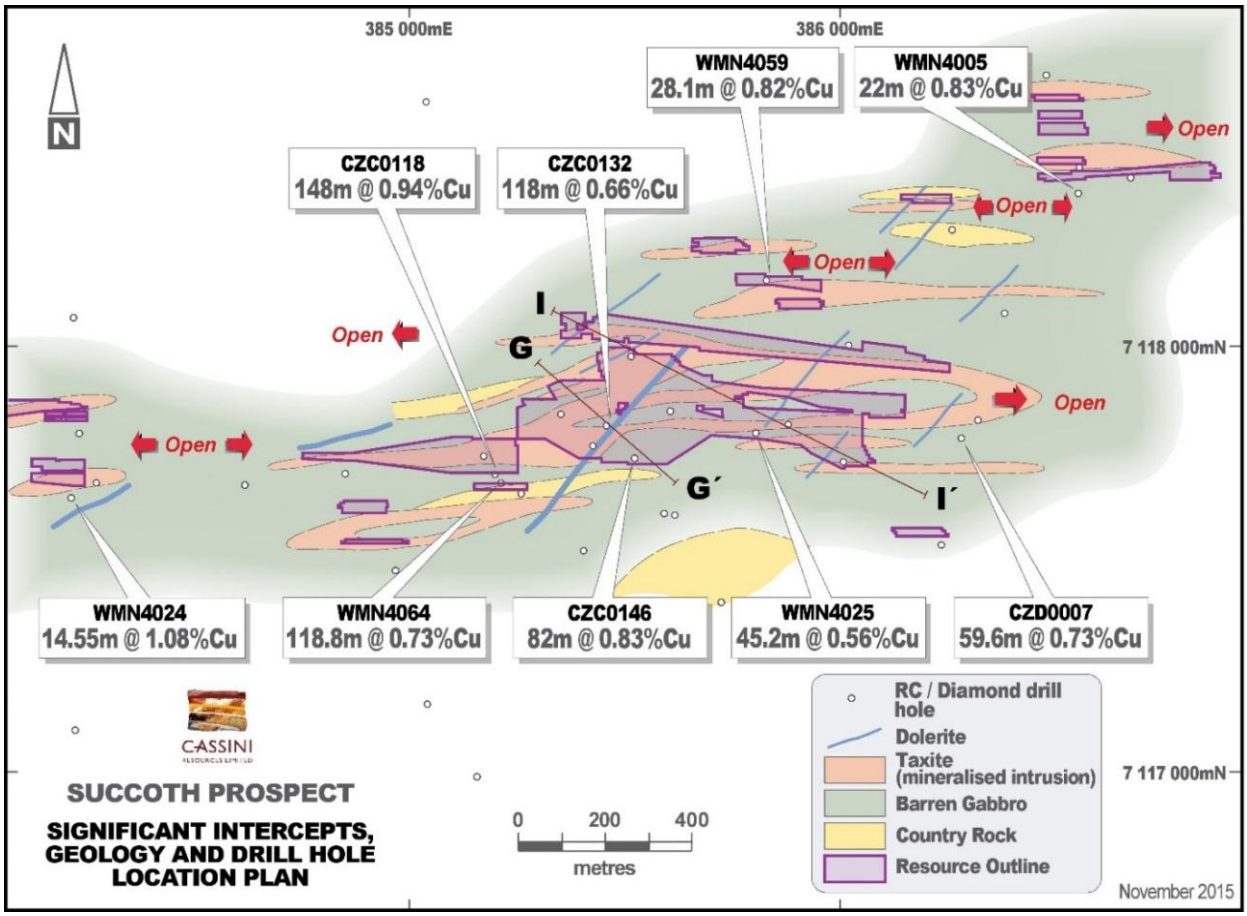


Figure 1. Succoth geology plan with significant intercepts, and resource limits.

Nickel and copper-rich massive sulphide

The Company remains confident that Succoth may also host Ni-rich mineralisation at depth. Minor Ni-rich mineralisation has been intersected in previous drilling, such as **0.55m @ 1.59% Ni from 225.8m** (WMN4023) at the recently recognised Babylon Intrusion, west of Succoth.

The updated geological interpretation has resulted in a refined exploration model for massive nickel and copper sulphides. Changes in geometries, orientation and thickness of the host units are considered highly favourable settings for the accumulation of massive sulphides. At Succoth, these favourable settings are considered more likely to be present at the down-plunge and down-dip extensions of the host intrusion.

The Company has won WA Government Exploration Incentive Scheme (EIS) funding worth $148,500 to assist with the drilling of two holes at the Babylon Prospect during the 2016 field season. The holes are designed to explore for Ni-rich mineralisation. The Company would like to acknowledge the WA Government's on-going support for greenfield exploration through the EIS initiative.

Exploration under cover

Large portions of the north-eastern part of the project area, including much of the highly prospective Succoth-Esagila complex, remain significantly under-explored (Figure 2).

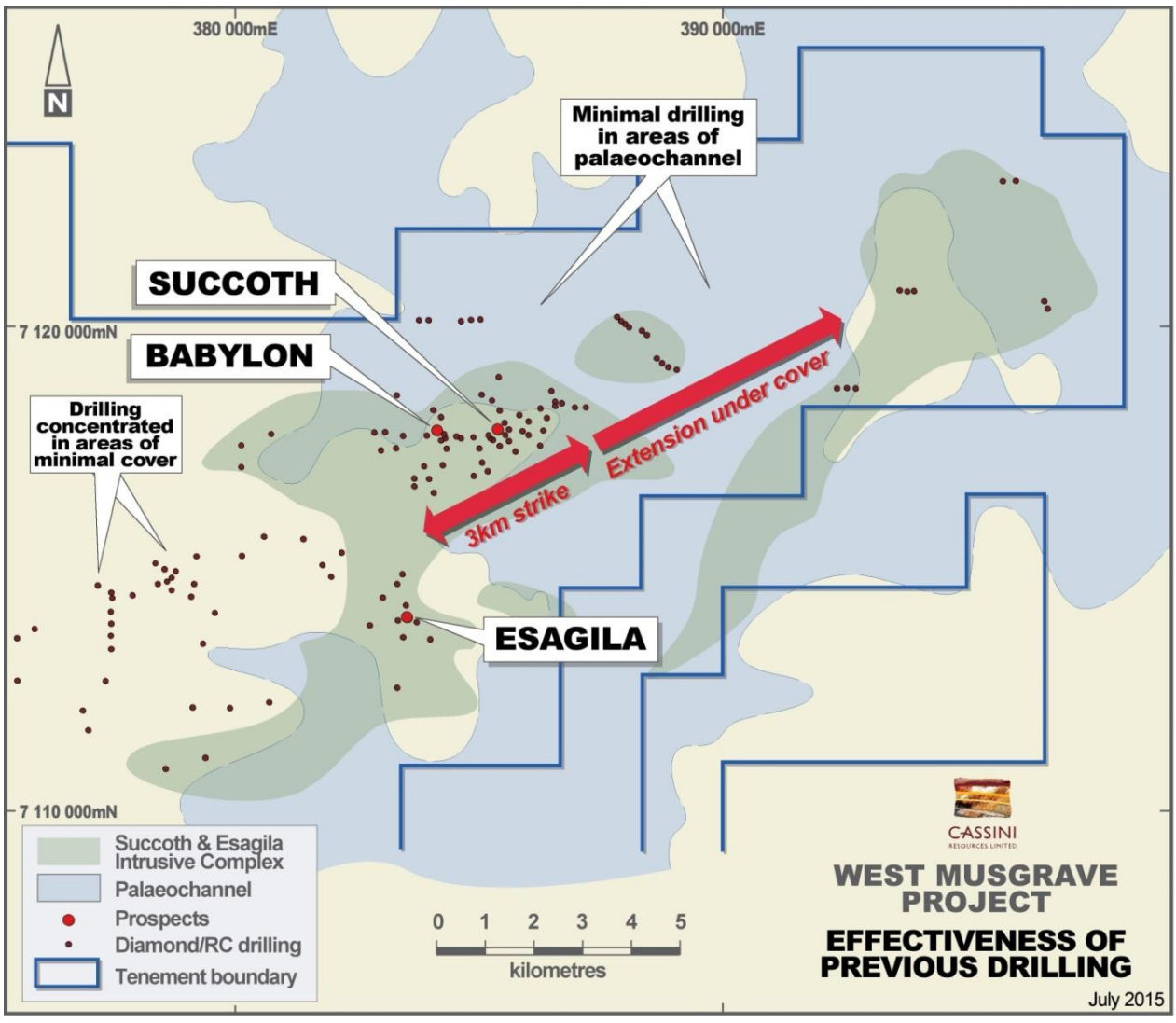


Figure 2. Prospective Succoth-Esagila intrusive complex and masking by alluvial cover.

Previous exploration at Succoth has been strongly driven by surface EM methods, which was very successful in discovering the known prospects. However, much of the north eastern part of the project area and prospective host sequence has been covered by recent alluvial drainage systems (paleochannels). The effectiveness of EM surveying methods over these areas is limited because of the masking effect of the paleochannels.

Alluvial cover sequences may have also reduced the effectiveness of regional air core drilling as many of the prospects identified to date are in areas of minimal cover suggesting air core drilling may not have reached basement rocks in areas of deep cover.

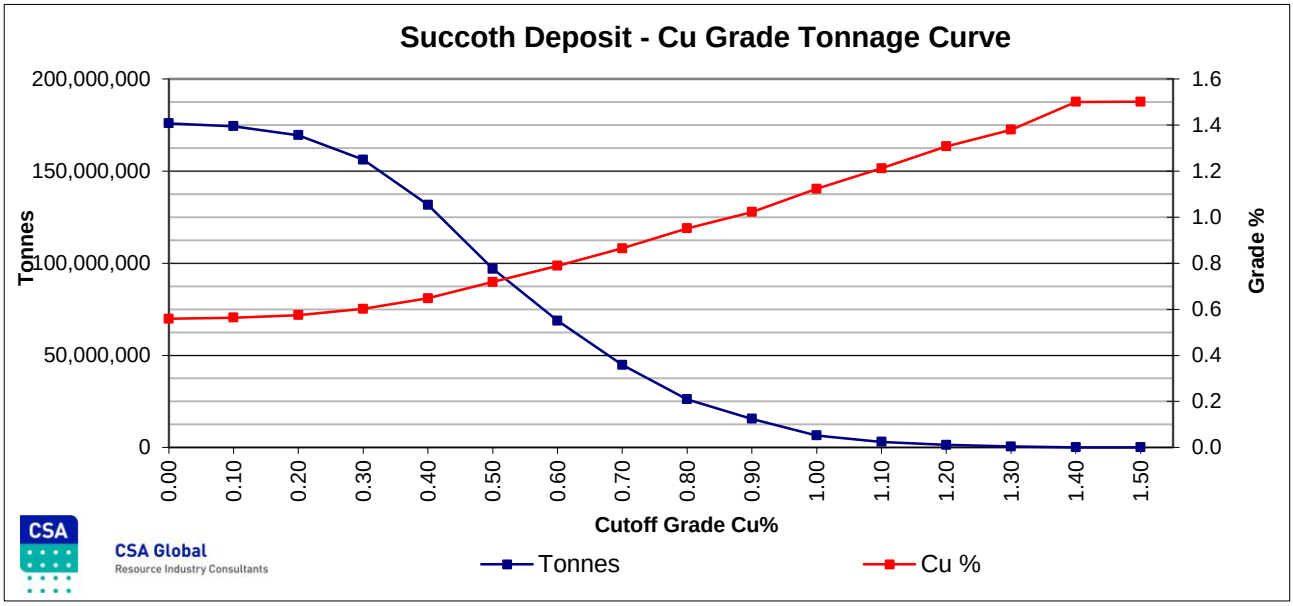
Good metallurgical recoveries and high Cu concentrate grades

In 2011, the previous operators submitted two representative Cu mineralisation composites from diamond drill hole WMN4073 to ALS Ammtec for initial metallurgical testwork. The samples produced a marketable copper concentrate (>24% Cu) with good recoveries (>87%). Other payable metals in the concentrate, such as PGE's, were not assessed.

The program involved comminution, grind establishment and bench-scale flotation testwork. The final circuit consisted of conventional rougher flotation, concentrate regrinding and cleaner plus recleaner flotation, similar to the overall process for Nebo-Babel testwork undertaken by the Company in 2014.

The testwork results represent an early stage of process flowsheet development and significant improvement would be expected with additional testwork and flowsheet optimisation. The next stage will involve a comprehensive geometallurgical characterisation program and a much larger number of mineralised samples.

Chart 1. **Cut-off grade sensitivities**



Geology and technical resource information

The project lies within the West Musgrave Province of Western Australia, which is part of an extensive Mesoproterozoic orogenic belt. The Succoth deposit in hosted in a gabbroic intrusion that has been emplaced into an amphibolite and felsic gneiss country rocks. The intrusion consists of a series of vertical to sub-vertical, tabular bodies, which are interpreted to represent different magma pulses (Figures 3 & 4). Copper mineralisation predominantly occurs as disseminated to matrix textured sulphides dominated by chalcopyrite, pyrrhotite and locally bornite. Disseminated sulphides are generally restricted to the core of the intrusion. Although thickness and geometry of the mineralised units varies these form a continuous body of mineralisation along strike of the deposit as currently defined by drilling. A series of dolerite dykes were logged in the drill samples, and interpreted to cross cut mineralisation. A set of wireframed domains representing the dolerites were modelled and used to deplete the Mineral Resource where they cut the mineralisation domains.

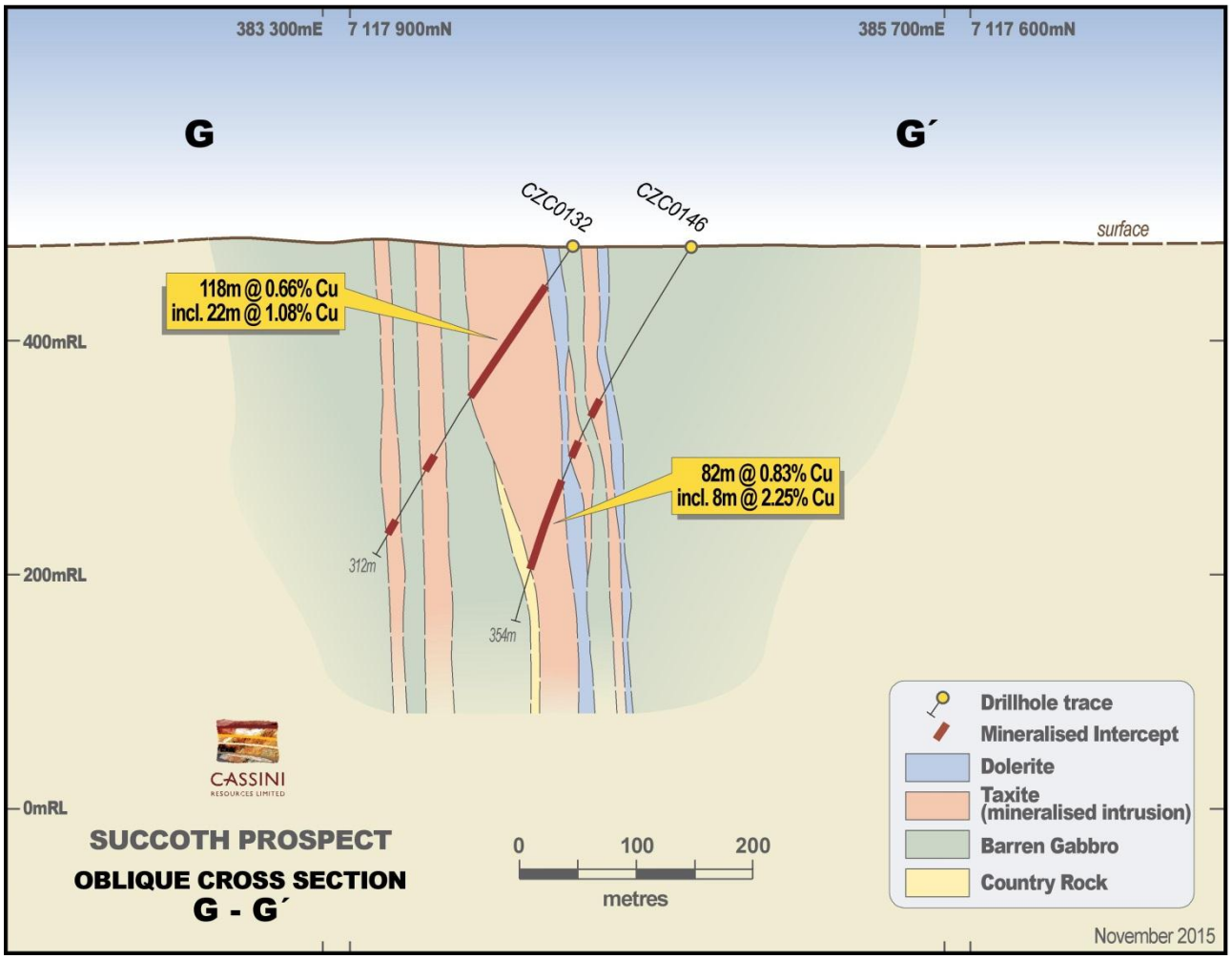


Figure 3. Cross section through Succoth Deposit.

Massive sulphides are rare and generally occur within intensely deformed and brecciaed zones at the basal contact of the intrusion and the amphibolite country rock. These are either chalcopyrite-rich (high Cu tenor) or pyrrhotite-pentlandite rich (Ni-bearing), the later providing direct evidence that Succoth deposit may host Ni-rich mineralisation.

The Mineral Resource estimate (MRE) is based upon 55 diamond core holes (25,336 m) and 15 Reverse Circulation (RC) holes (3,803 m) drilled by previous project owners BHP Billiton between 2008 and 2012, and Cassini in 2014 and 2015. Most of the historical drill holes were re-logged and the combined data formed the base for a new interpretation and development of a geological model. Not all holes intercepted mineralisation, but all were considered when preparing the geological interpretation supporting the MRE. Diamond drilling provided core samples of approximately 1 m in length, although samples of smaller length were cut based upon geological intervals within the 1 m lengths. RC drilling obtained samples from 1 m or 2 m drilling runs.

Cassini field QAQC procedures included use of certified reference material (CRM) as assay standards, blanks and field duplicates. The insertion rate of these averaged 1:16. Historical QAQC was routinely conducted during previous drilling programs and as no material issues were identified the date are considered reliable.

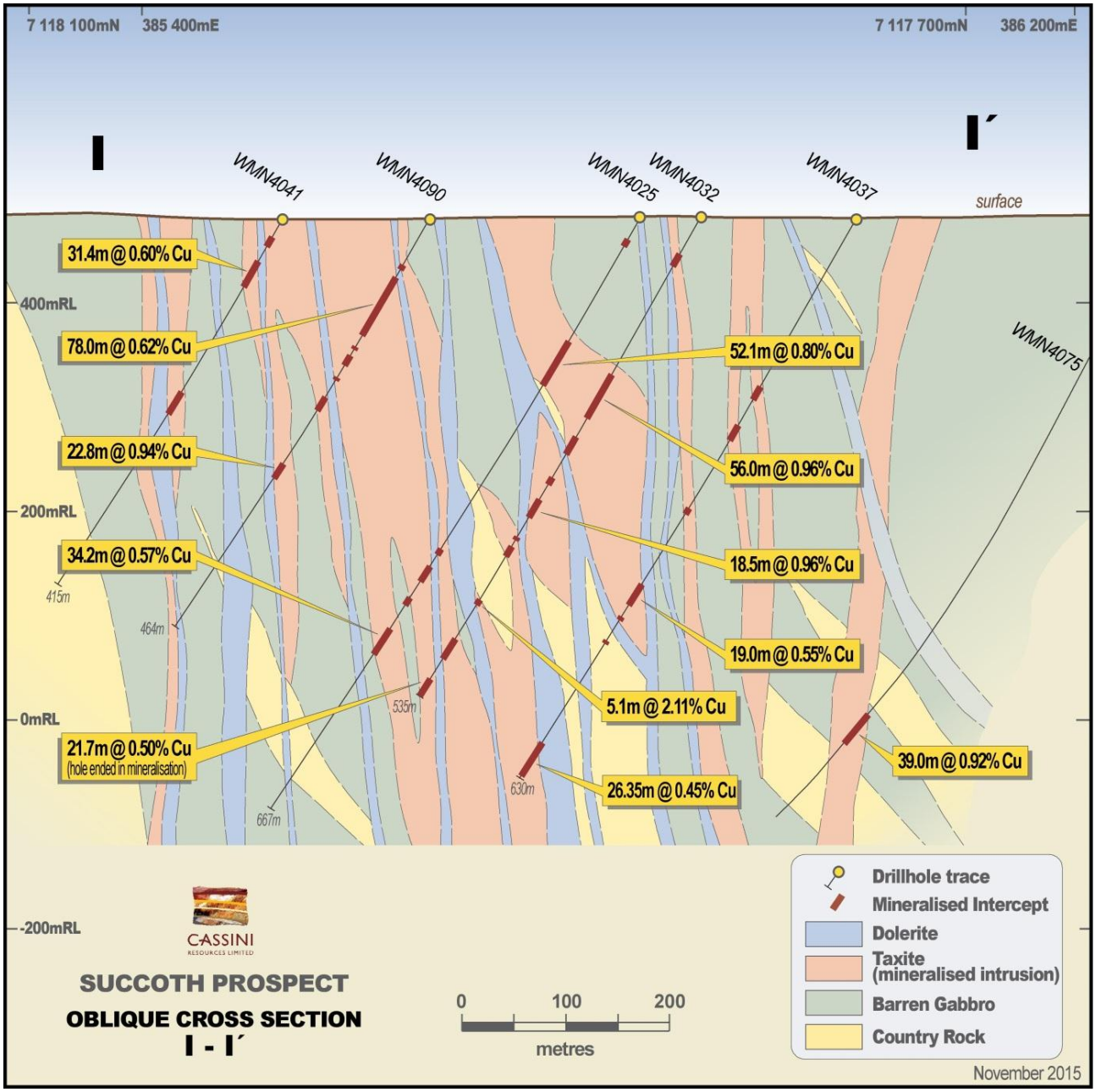


Figure 4. Cross section through Succoth Deposit

A Datamine block model with parent cell sizes 50m x 20m x 50m (Easting, Northing, RL) was constructed, compared to typical drill spacing of 100m x 50m. Composited sample grades of 2m length were interpolated into the mineralisation domains within the block model by way of ordinary kriging. A minimum of 8 and maximum of 16 composited (2m) samples were used in any one block estimate. A maximum of 4 composited samples per drill hole were used in any one block estimate. Grade interpolation was run within the individual mineralisation domains, acting as hard boundaries. The composited samples were not top cut prior to grade interpolation. A density value of 3.2 t/m3 was assigned to the mineralisation domains.

The Mineral Resource has been classified wholly as Inferred, for which the volume (tonnage) and grade were estimated on the basis of limited geological evidence and sampling. The geological evidence is sufficient to imply but not verify geological and grade continuity. All available data was assessed and the competent person's relative confidence in the data was used to assist in the classification of the Mineral Resource. The current classification assignment appropriately reflects the Competent Person's view of the deposit.

The reporting cut-off grade of 0.3% Cu is in line with the reporting of other projects by other companies, and is in line with Cassini's reporting of their Mineral Resource for Nebo-Babel.

No mining studies have been conducted to date on the deposit. It is assumed that early mining will be by conventional open cut methods. The deeper parts of the deposit may be mined by underground methods, with the geology at Succoth being conducive for large block cave methods.

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Competent Persons Statement

The information in this report that relates to Exploration Results 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 information in this report that relates to the Mineral Resources has been compiled or supervised by Mr Aaron Green, who is a full-time employee of CSA Global Pty Ltd. Mr Green has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Green consents to the disclosure of this information in this report 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 and Exploration Results as reported in the market announcements dated 26 November 2014, 16 December 2014 and 28 August 2015, 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 Succoth 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 Succoth Deposit was sampled using a combination of diamond drilling (DD) and Reverse Circulation (RC) drill holes on a variable spacing of 50m to 300m. Cassini completed a total of 9 RC holes and 1 DD hole for a total of 2,782.5m. Previous drilling completed by BHP Billiton included a total of 54 DD and 6 RC holes for a total of 26,356.5m. Holes were generally angled towards grid northwest between -60° and -70° to optimally intersect the mineralised zones. The RC drill samples were collected by a cone or a riffle splitter designed to capture a one or two metre sample of approximately 3-4kg. All RC samples were logged for lithological, mineralogical and other attributes. Diamond core was used to obtain a high quality samples that were logged for lithological, mineralogical, structural, geotechnical and other attributes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sampling was carried out under Cassini protocols and QAQC procedures which included field duplicates from both RC and DD holes. Sampling of the previous drilling was carried out under BHP Billiton protocols and QAQC procedures assumed to be in line with the industry best practices.
	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.	Diamond drilling included PQ3, HQ2 and NQ2 core sizes. Core was sampled on geological intervals (0.05m to 2m), cut into quarter (PQ3 and HQ2) and half (NQ2) to provide approximate sample weights of 3-4kg. In some cases a further 25% of the core was analysed (quarter core). RC holes were drilled with a minimum of 140mm diameter face sampling hammer. RC samples were obtained on 1m or 2m intervals from which approximately 3-4kg was prepared as per below. Historical RC drilling is assumed to have been undertaken using similar methodologies. Samples were dried, crushed, and pulverised (total prep) to produce a sub sample for a combination of Fusion XRF, Four Acid Digest ICP and Fire Assay methods. The analytical suite consisted of a combination of fused bead X-ray fluorescence (for whole rock elements Si, Al, Fe, Ti, Ca, Na, K, Mg, P, S, Zr, Mn, Cr, and V), four acid digest (hydrochloric, nitric, hydrofluoric and perchloric acid) followed by an ICP-AES and ICP-MS finish (for Co, Cu, Zn, Ni, As, Nb and Y), and fire assay with a silver secondary collector and ICP-MS finish for Pt, Pd and Au. Loss on ignition (LOI) was measured gravimetrically at 1000°C.

Criteria	JORC Code Explanation	Commentary
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.).*	Diamond drilling accounts for 87% of the total drilling completed by Cassini and BHP Billiton and comprises PQ3, HQ2 and NQ2 diameter core samples. Diamond hole depths range from 295m to 1,041m. Diamond core was oriented using downhole orientation tools (ACE, REFLEX) used by drilling contractors, with orientation marks taken at each drill run. RC drilling accounts for 13% of the total drilling and holes were drilled with a minimum 140mm diameter face sampling hammer. Historical RC drilling is assumed to have been undertaken using similar methodologies. RC hole depths range from 60m to 354m. For Cassini drilling, diamond core was reconstructed into continuous runs on an angle iron cradle for orientation marking. Historical drill core was orientated, however the method is unknown.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	For Cassini drilling, DD core and RC recoveries were logged for every hole and recorded in the database. Actual recoveries for RC drilling were calculated for the first two drill holes for each drill rig and for every tenth hole thereafter. Overall recoveries are >95% and there have been no significant sample recovery problems. There were no significant core loss or recovery problems recorded in the historical holes.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	For Cassini drilling, diamond core was reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths were checked against the depth given on the core blocks and rod counts were routinely carried out by drilling contractors. RC samples were routinely checked for recovery as described above and for moisture and contamination. Cassini is not aware of the historical drilling practices employed to maximise recoveries.
	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.	Mineralisation styles 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.*	All diamond core and RC chips have been geologically logged by Cassini or BHP Billiton geologist in the case of historical drilling. The level of understanding of geological variables has increased with the maturity of the prospect. A significant re-logging exercise of diamond drill holes was undertaken during 2015 with the focus on understanding of the igneous lithostratigraphy of the Succoth intrusion. New lithostratigraphic codes were added to the database superseding limited number of original codes. Geological cross-sections with two or more diamond holes were re-interpreted and used to develop a revised geological model. These data were used in a Mineral Resource Estimate.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging of diamond core and RC samples at Succoth recorded lithology, mineralogy, mineralisation, structural (diamond core only), weathering, colour and other relevant features of

Criteria	JORC Code Explanation	Commentary
		the samples. Logging is both qualitative (e.g. colour) and quantitative (e.g. mineral percentages). Core was photographed in both dry and wet form.
	The total length and percentage of the relevant intersections logged.	All diamond and RC holes were logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Core was cut in half (NQ2) or quarter (PQ3; HQ2) and submitted for geochemical analysis. In some cases, further quarter core was analysed to verify the results.
	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 or riffle splitters. All samples in mineralised zones were dry or presumed dry in case in historical drilling.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	RC samples were prepared at Bureau Veritas in Perth. Procedures followed industry best practice which included 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. The sample methodologies for diamond core are identical, with the addition of coarse crushing of the half core sample prior to pulverisation. Historical sample preparation was carried out at the Ultra Trace Laboratories (now Bureau Veritas), Perth presumably following similar best industry practises.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Cassini field QAQC procedures involved use of certified reference material (CRM) as assay standards, blanks and field duplicates. The insertion rate of these averaged 1:16 with an increased rate in mineralised zones. Historical QAQC was routinely conducted throughout historical drilling and included use of CRMs, blanks and field duplicates, however methodologies may have changed over time. Laboratory QAQC included repeats, duplicate samples, standards and blanks all of which were reported.
	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.	Cassini field duplicates in case of the RC samples were taken on 2m composites directly from the cone splitter. Quarter core field duplicate samples in HQ2 and NQ2 drill core represent 1.2% of total sampling. Historical methodology varied, however a combination of sample standards (CRM), blanks and field duplicates were submitted in case of both DD and RC drilling and represent >7% of total sampling.
	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 (disseminated sulphides), the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements at Succoth.
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.*	Cassini drilling 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 precious metals. The acids used are hydrofluoric, nitric, perchloric and hydrochloric

Criteria	JORC Code Explanation	Commentary
		acids, suitable for silica based samples. Total sulphur and other major and trace whole rock elements were assayed by Fusion XRF. For historical samples a combination of Fire Assay, Mixed Acid Digest ICP and Fusion XRF methods was employed. Fire Assay and Fusion XRF methods are considered a complete digest. Four Acid Digest analyses approach a total digest for most minerals, however some refractory minerals are not completely attacked.
	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.	**Cassini drilling** Sample preparation for fineness was carried out 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 CRMs, blanks, splits and replicates as part of the in-house procedures. Certified reference materials, having a good range of values, were inserted blindly and at a rate of every 20th samples in case of the RC and approximately 1 in 20 in case of diamond drilling. Results highlight that sample assay values are accurate and that contamination has been contained. Repeat or duplicate analysis for samples reveals that precision of samples is within acceptable limits. **Historical drilling** Previous operators employed QAQC procedures involving the use of certified reference materials. These procedures may have varied over the life of the project. Minor evidence for assay bias and contamination has been observed.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	The Exploration Manager and the Technical Director of Cassini have reviewed selected historical and Cassini diamond drill core and RC samples.
	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 Succoth using a set of standard Field Marshal templates on laptop computers using lookup codes. The information was sent to Geobase Australia Pty Ltd for validation and compilation into a SQL database server. Previous operators collected data electronically and stored it on an acQuire database.
	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 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. Downhole surveys were completed

Criteria	JORC Code Explanation	Commentary
		approximately every 15m using a REFLEX EZ-TRAC gyroscope. Stated accuracy is ± 0.35° in azimuth and ± 0.25° in inclination. In case of historical drilling previous operators surveyed drill holes by handheld and/or differential GPS. Differential GPS positions have reported accuracy of ± 5cm for easting, northing and elevation coordinates. Accuracy of handheld GPS is unknown. All drill holes were surveyed downhole by single shot downhole camera and selected drill holes were surveyed by a north seeking gyroscope. Accuracy of north seeking gyroscope is unknown. Many of the drill holes which have only single shot data have substantial deviation from the initial azimuth which is believed to be the effects of magnetic minerals within certain geological units. The reliability of these historical downhole surveys is considered poor.
Data spacing and distribution	*Specification of the grid system used.*	The grid system for 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 for reporting of Exploration Results.	The drill hole spacing is variable from 50m to 300m.
	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 Succoth deposit 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 were been composited direct from the splitter to two (2) metre lengths. Samples were adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit).
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.*	Majority of the drill hole is drilled towards grid north west at -60° to -70° to intersect the mineralised zones at a close to perpendicular relationship for the bulk of the mineralised zones within 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 were 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 were kept in a locked yard. Tracking sheets track the progress of batches of samples.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No reviews to date.

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.*	Succoth Deposit is located wholly within Exploration Lease E69/2201. Cassini has a 100% interest in the Exploration Licence. BHP Billiton has 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.	The tenement is in good standing and there is an existing Aboriginal Heritage Access Agreements in place. Mining Agreement is yet to be negotiated.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Previous exploration has been conducted by BHP Billiton, WMC Resources Limited. 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 Succoth Deposit is located within the West Musgrave Province of Western Australia. The deposit is hosted in a Proterozoic gabbroic intrusions, which forms part of the Giles Complex, emplaced into amphibolites and felsic gneisses country rocks. Sulphide mineralisation is orthomagmatic in origin and forms tabular, vertical bodies. Sulphide mineralogy is dominated by chalcopyrite and pyrrhotite. The deposit has a number of features in common with other magmatic Ni-Cu-PGE deposits worldwide.
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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.*	Significant intercepts have been previously published in ASX releases dated 26 November 2014, 16 December 2014 & 28 August 2015.
	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 Succoth mineralisation were calculated using parameters of a 0.4% Cu lower cut-off, minimum reporting length of 10m, no maximum length of consecutive internal waste and the minimum grade for the final composite of 0.4% 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% Cu lower cut-off, no minimum reporting length and 2m maximum interval dilution and the minimum grade of the final composite of 1% Cu.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable as no metal equivalent values are being stated.

Criteria	JORC Code Explanation	Commentary
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the 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').*	Mineralisation at Succoth is vertically to steeply dipping to the south / south east and is hosted in gabbroic intrusion. Mineralisation is generally intersected obliquely to true-width and approximations have been made based on geological interpretations. The general orientation of the drill holes is considered suitable. Refer to 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 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).* *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 drill test the continuity of known zones of mineralisation at Succoth with the objective of finding new mineralised zones at along strike and at depth. The Mineral Resource will be updated with this new data. All relevant diagrams and inferences have been illustrated in this report.

SECTION 3: Estimation and Reporting of Mineral Resources

(Criteria listed in Section 1, and where relevant in Section 2, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	All drill data was checked and validated to an acceptable standard by Cassini staff and by independent data consultancy group Geobase Australia. Validation methods included review of drill logs and other hardcopy data and a review in 3D graphics to highlight any obvious errors. Randomly selected data files from the database (collars and assays) were cross checked against the original laboratory or survey certificates. Database scripts were run to check for missing data, abrupt down hole azimuth changes, sample depths greater than recorded hole depth, overlapping intervals.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	The Competent Person has not visited the Succoth prospect site, although did visit the nearby Nebo-Babel Exploration Camp in September 2014. At that stage Cassini had not drilled any holes at Succoth, and all earlier drill holes (WMC and BHP) had been rehabilitated. The Competent Person did inspect selected Succoth drill core stored at the Nebo-Babel coreyard and observed the sample storage facility; noting that the facilities for sample preparation, geological logging and sample storage were in good and clean order and of industry standard. This facility was used to process drill samples from Succoth in subsequent Cassini drill programmes.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	Considerable geological work has been carried out to a high level of detail at Succoth, including petrological and mineralogical studies, by Cassini staff and independent consultants. A high level of confidence is placed on the geological interpretation of the stratigraphy. The interpretation for the Cu mineralisation was guided by geophysical studies (principally electromagnetics) which indicate an east–west strike with a steep dip. Diamond drill core and RC drill hole traces were used to prepare the geological interpretation. Alternative geological interpretations were prepared on previous occasions, with grade tonnage inventories which were not publically reported presenting larger volumes than the current Mineral Resource. Geological logging of core and geophysics controlled the geological interpretation, and therefore guided Mineral Resource estimation. The project area is believed to host a number of faults which are assumed to offset the continuity of geology and mineralisation along strike.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Mineral Resource has a strike extent of 4,000 m, a plan width of 1,000 m and depth extent of 700 m below surface. There is a regolith weathering layer between 5 m and 30 m thick, immediately below which the mineralisation is recorded and modelled. The minimum and maximum strike extent of any one lens of mineralisation is approximately 100 m and 800 m respectively. True widths of mineralisation lenses vary between 5 m and 80 m.

Criteria	JORC Code Explanation	Commentary
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	The mineralisation, geological domains and weathering surfaces were constructed using Datamine software, which was also used for block modelling, grade interpolation, Mineral Resource classification and reporting. GeoAccess Professional and Snowden Supervisor were used for geostatistical analyses. The Cu domain interpretations were based upon a lower cut-off grade of 0.2% Cu. The Mineral Resource model consists of 31 zones of Cu mineralisation. Two weathering domains (Regolith and oxide) were also interpreted which overlie the fresh rock. Mineralisation domains were encapsulated by means of 3D models. Domains were extrapolated along strike or down plunge to half a section spacing or if a barren hole cut the plunge extension before this limit. The more strike- and dip-extensive domains were extrapolated to 0 m RL or deeper where diamond drilling existed. Dolerite dykes were modelled along a strike of 060 and are believed to stope out the mineralisation. Six dolerite units were modelled. Top cuts were not used in the Mineral Resource estimate. There are several high grade samples, with maximum grade of 21% Cu, however these were very narrow sample intervals of up to 0.2 m. These were included in the composited samples. All samples were composited to 2 m intervals, based upon a review of sample length distribution. All diamond core and RC drill hole data were utilised in the grade interpolation; samples from aircore and other drill hole types were excluded. A block model with parent cell sizes 50 m x 20 m x 50 m (Easting, Northing, RL) was constructed, compared to typical drill spacing of 100 m E x 50 m RL. Sub celling was used to ensure volumes of wireframes were honoured. Statistical analysis of the Cu population by mineralisation domain, weathering domain, hole type, and a combination of these, was conducted on both the non-composited and composited drill data. Variography was carried out on selected domains with the greatest data population. Log variograms were modelled, and the back transformed parameters used in grade interpolation algorithm. Variogram studies showed the mineralisation has a relatively low nugget effect, implying that a small sample population would normally be required to interpolate a single block. A moderate easterly plunge was modelled. Grade estimation was by Ordinary Kriging (OK) with Inverse Distance Squared (IDS) estimation concurrently run as a check estimate. A minimum of 8 and maximum of 16 composited (2 m) samples were used in any one block estimate. A maximum of 4 composited samples per drill hole were used in any one block estimate. Grade interpolation was run within the individual mineralisation domains acting as hard boundaries. A density value of 3.2 t/m3 was assigned to the mineralisation domains. The Mineral Resource tonnage and grade was checked against previous non-reported grade tonnage models and is of similar grade to those. The earlier models used different geological interpretations and cannot be used to compare volumes. The Mineral Resource model was depleted by the dolerite geological units cutting obliquely across the

Criteria	JORC Code Explanation	Commentary
		mineralisation lenses. The volumes depleted are minor. Pt (ppm), Pd (ppm), Au (g/t) and Ni (%) were all modelled as by-products. The grades were interpolated into the Cu mineralisation domains using the same estimation and variogram parameters as Cu. No selective mining units were assumed in this model. The grade model was validated by 1) creating slices of the block model and comparing grades to drill holes on the same slice; 2) swath plots comparing average block grades with average sample grades on nominated easting, northing and RL slices; and 3) mean grades per domain for estimated blocks and flagged drill hole samples. No reconciliation data exists to validate the model.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The reporting cut-off grade of 0.3% Cu is in line with the reporting of other projects by other companies, and is in line with Cassini's reporting of their Mineral Resource for Nebo-Babel.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	It is assumed early mining will be by conventional open cut methods. The deeper parts of the deposit may be mined by underground methods, with the geology at Succoth being conducive for large block cave methods.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	Metallurgical testwork was conducted in 2011 for BHP on drill hole samples sourced from Succoth. Succoth flotation testwork, although only represented by two samples, resulted in marketable Cu concentrate (>24% Cu) at acceptable Cu recoveries (>87%). A larger sample set is required for additional testwork. The significant difference in the metallurgical behaviour of the two samples tested highlights the requirement for a comprehensive geometallurical characterisation programme.
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	No assumptions regarding possible waste and process residue disposal options have been made. It is assumed that such disposal will not present a significant hurdle to exploitation of the deposit and that any disposal and potential environmental impacts would be correctly managed as required under the regulatory permitting conditions.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and*	Density was calculated using the water immersion method from Cassini diamond drill hole CZD0007. A total of 262 individual measurements were taken from the drill core, representing mineralized and non-

Criteria	JORC Code Explanation	Commentary
	representativeness of the samples. *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	mineralized intervals, and the samples were mostly taken from the fresh rock interval.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (i.e. 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).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The Mineral Resource has been classified wholly as Inferred, for which the volume (tonnage) and grade were estimated on the basis of limited geological evidence and sampling. The geological evidence is sufficient to imply but not verify geological and grade continuity. All available data was assessed and the Competent Persons relative confidence in the data was used to assist in the classification of the Mineral Resource. The current classification assignment appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	The Mineral Resource was peer reviewed internally by CSA Global. No other reviews or audits have been conducted.
Discussion of relative accuracy/confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	An IDS estimation algorithm was run in parallel with the OK interpolation and results compared well. No other estimation method or geostatistical analyses were performed. The Mineral Resource is a global estimate, whereby the global Mineral Resource is reported, with the tonnages and grade above the reporting cut-off grade appropriately reported. Relevant tonnages and grade above a nominated cut-off grade for Cu are provided in the introduction and body of this report. Tonnages were calculated by filtering all blocks above the cut-off grade and sub-setting the resultant data into bins by mineralisation domain. The volumes of all the collated blocks were multiplied by the dry density value to derive the tonnages. The contained metal for each block were calculated by multiplying the Cu grade (%) by the block tonnage. No production data is available.