

ASX Announcement 30 September 2014

First Assay Results Reveal High Tenor Nickel and Copper in Massive Sulphides

- Assay results from initial drill holes exceed expectations
- High tenor nickel and copper massive sulphide mineralisation with grades up to 3.4% nickel and 2.02% copper intersected over wide intervals
- Infill drill results support continuity of high-grade zones
- Drilling continues at Nebo, and will progress to Babel and Succoth

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") is pleased to announce high tenor mineralisation from its maiden drilling program at the 100% owned West Musgrave Project, located in Western Australia (the "Project").

Background to the Program

Cassini commenced its maiden drill program at the Nebo and Babel deposits on 2 September 2014. The aim being to demonstrate continuity of massive Ni-Cu sulphide lenses and high-grade disseminated zones as well as upgrading a large portion of the Inferred Resource to Indicated Resource category.

The drilling program comprises approximately 25,000 metres of reverse circulation ("RC") drilling (as well as approximately 700 metres of diamond core drilling and associated metallurgical test work) and is a combination of infill and exploratory step-out drilling.

High-grade Nickel and Copper Intersected

Assay results from the first four RC drill holes at Nebo have been received, and include significant intersections of high-grade nickel and copper.

For a shallow, large tonnage open pittable nickel sulphide orebody such as Nebo-Babel, it is considered that a resource grade of >0.7% Ni and 0.6% Cu is significant. In light of this, the results from Cassini's first four drill holes at the Project are exceptional.

Assay results from the first four drill holes include:

- 28m @ 1.38% Ni and 0.87% Cu from 63m in WMC0015, including;
 - o 6m @ 3.40% Ni and 0.96% Cu from 84m
- 29m @ 1.00% Ni and 0.61% Cu from 56m in WMC0004, including;
 - 2m @ 3.12% Ni and 1.07% Cu from 81m.

Importantly, drill hole WMC0015 intersected the thickest and highest grade mineralisation drilled to date on Section 371900E (shown in Figure 1), clearly surpassing the previous best historical intercept (16m @ 0.84% Ni and 0.56% Cu in hole WMN23). This supports the Company's belief that the previous drill spacing on nominal 200m centres was too broad to define a continuous core of higher-grade mineralisation.



Impact of Assay Results

The drilling undertaken by Cassini intersected the Marginal Breccia Zone (MBZ), which hosts the massive sulphides that have previously been demonstrated to carry higher-grade nickel and copper. Drilling also intersected wide zones of disseminated sulphide mineralization beneath the MBZ, with grades of Ni and Cu high enough to form a significant portion of the estimated mineral resource.

These initial results support both the existing resource model, and the potential of a higher-grade core of mineralisation that would support an economic open pit mining operation. Future results of this magnitude of Ni and Cu mineralisation, as displayed in the both the MBZ and disseminated zones, will further demonstrate the Company's ability to deliver these objectives

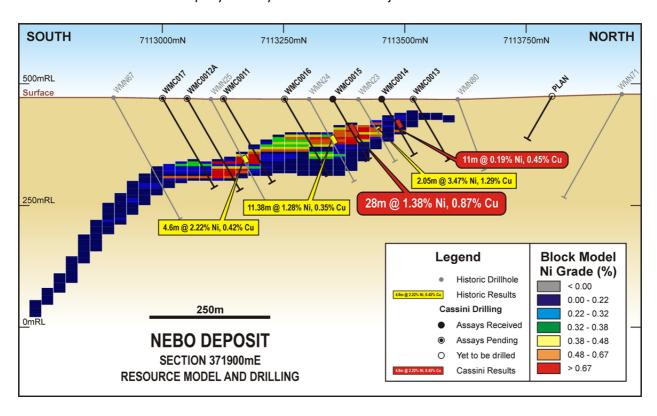


Figure 1. Section through 371900E showing WMC0015 intercept.

WMC0004 is 50m down dip from historical hole WMN11, which returned 19m @ 2.16% Ni and 1.09% Cu and is broadly in line with expectations (Figure 2).

WMC0014 (11m @ 0.19% Ni and 0.45% Cu) and WMC0002 (broad anomalous zone <0.4% Ni) intersections reflect the presence of broad, lower-grade disseminated mineralisation beneath the MBZ. The results from these holes are in line with expectations considering their locations on the periphery of the current high-grade resource model (Figure 3).



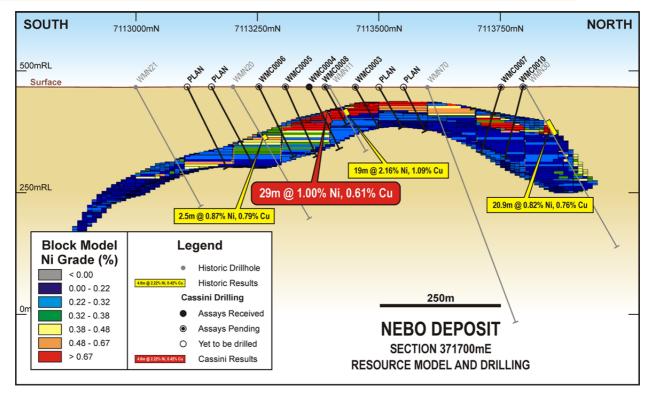


Figure 2. Section through 371700E showing WMC0004 intercept.

A number of samples are still being processed at the lab. The Company expects future results to be a combination of massive and disseminated styles of mineralisation.

Platinum, palladium and gold assay results remain pending. See Table 1 for a complete list of results and JORC Table 1 in Annexure 1 for drilling and assaying parameters.



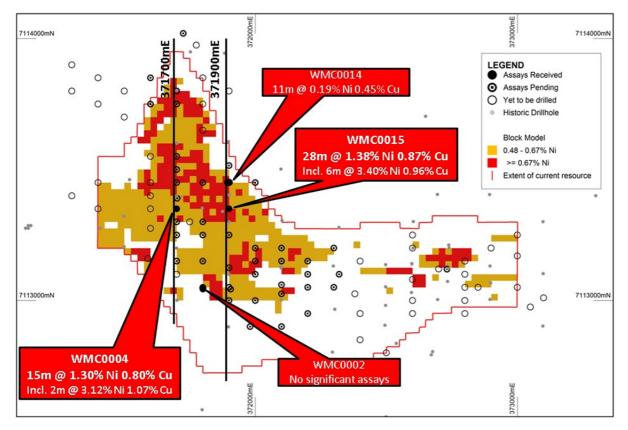


Figure 3. Plan view of existing resource model showing drill collar locations.

Cassini remains confident that further drilling will continue to demonstrate the continuity of higher-grade mineralisation, at depths amenable to open pit mining methods. It is anticipated that a maiden Indicated Resource estimate will be prepared at the end of the current drilling program. The current higher grade Inferred Resource estimate is 33.2Mt @ 0.73% Ni and 0.59% Cu using a 0.5% Ni cut-off grade.

Managing Director Comment

Cassini's Managing Director, Richard Bevan said "We are very pleased to report such excellent results from Cassini's maiden drill program at the West Musgrave Project. These are exactly the type of results we were after and confirm our view that the Nebo-Babel deposits represent a realistic near-term development opportunity."

"I would like to thank Cassini's excellent technical team that have come together over the past 6 months for their hard work, passion and commitment to the Project."

Program Update

RC Drilling is continuing at a steady pace with 42 holes (approximately 6,300m) now completed at Nebo. Two rigs are currently on-site. Results from all other holes are still pending with numerous batches currently being processed at the assay laboratory.

A diamond core rig will mobilise to site during the first week in October. This rig will drill seven largediameter (PQ) holes through mineralised zones at Nebo and Babel to collect samples for metallurgical test work. Initiating metallurgical testing is another key component of the Company's development strategy. Further updates about this part of the program will be released in due course.



Table 1 - Drill Hole Details

								Inters	ection	
HOLE ID	East	North	RL	Dip	Azi	EOH (m)	From (m)	Width (m)	Ni %	Cu %
WMC0001	371800	7113150	469	-60	360	162			ANR	
WMC0002	371800	7113050	468	-60	360	192			NSI	
WMC0003	371700	7113450	468	-60	360	96			ANR	
WMC0004	371700	7113350	469	-60	360	138	56	29	1.00	0.61
						Including	81	2	3.12	1.07
							99	3	0.67	0.45
							118	3	0.32	0.45
WMC0005	371700	7113300	469	-60	360	156			ANR	
WMC0006	371700	7113250	469	-60	360	162			ANR	
WMC0007	371700	7113750	469	-60	180	120			ANR	
WMC0008	371702	7113390	468	-60	360	120			ANR	
WMC0009	372732	7113119	470	-60	347	120			ANR	
WMC0010	371700	7113800	469	-60	180	132			ANR	
WMC0011	371900	7113125	468	-60	360	198			ANR	
WMC0012	371900	7113050	469	-60	360	42			Abandoned	
WMC0012A	371906	7113043	469	-60	360	210			ANR	
WMC0013	371900	7113515	468	-60	360	144			ANR	
WMC0014	371900	7113450	468	-60	360	132	80	11	0.19	0.45
							97	3	0.45	0.24
WMC0015	371900	7113350	468	-60	360	144	63	28	1.38	0.87
						Including	63	4	2.06	2.02
						And	84	6	3.40	0.96
							96	8	0.71	0.27
WMC0016	371900	7113250	468	-60	360	180			ANR	
WMC0017	371900	7113000	470	-60	360	210			ANR	
WMC0018	372000	7113200	469	-60	360	144			ANR	
WMC0019	372000	7113100	469	-60	360	180			ANR	
WMC0020	372000	7113000	470	-60	360	222			ANR	
		NSI = N	o Signific	ant Inter	cept, AN	IR = Assays no	t received			



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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 successfully 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.

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 (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.	The Nebo deposit was sampled using Reverse Circulation (RC) drill holes on a nominal spacing of 50m x 100m. A total of 43 RC drillholes for 6,359m have been drilled to date, with results received for 2 drillholes. Holes were generally angled towards grid north at 60 degrees 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.	The drillhole locations will be picked up by survey contractors at the completion of the drilling, they 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	Reverse Circulation drilling was used to obtain 1m samples 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 228m.		
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 Nebo recorded lithology, mineralogy, mineralisation, weathering, colour and other relevant features of the samples. Logging of chips is both qualitative (eg. colour) and quantitative (eg. mineral percentages).		
	The total length and percentage of the relevant intersections logged.	All drillholes were logged in full.		



Criteria	JORC Code explanation	Commentary		
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable as non-core.		
sample preparation	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 Nebo 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 involves 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 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.		
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie 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.		
		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.		
		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.		
	The use of twinned holes.	To date Cassini has not twinned any drill holes.		



Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected for Nebo 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. At the completion of the drill program, survey contractors will be employed to complete differential GPS surveying.
		Downhole surveys were completed every 5m using north-seeking gyroscopes after hole completion. Stated accuracy is \pm 0.25° in azimuth and \pm 0.05° in inclination.
	Specification of the grid system used.	The grid system for Nebo 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 is 50m (northing) by 100m (easting) in the core of the deposit.
	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 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 deposit is drilled towards grid north at 60° 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 Nebo 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 track 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. 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:	Refer to the body of this report for significant intercepts pertaining to this announcement.
	 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. 	
	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 (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	Weighted averages for the Nebo deposit 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.



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 (eg 'down hole length, true width not known').	Mineralisation at Nebo-Babel is a flat-lying, southwesterly plunging body of variably mineralised mafic rock. Mineralisation is generally intersected with true-width down-hole lengths. 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 and Cu 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 (eg 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 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. All relevant diagrams and inferences have been illustrated in this report.