

6 January 2020

## CASSINI CONTINUES TO GROW: 17.6m @ 5.0% NICKEL IN STEP-OUT HOLE

**Significant new intercept 115m down-plunge from the last reported intersection in the CS4 channel and beyond the current Mineral Resource boundary**

### Highlights

- Outstanding new high-grade nickel sulphide intercept of **17.6m @ 5.0% Ni** in MDD339 within the CS4 channel, including a higher grade core of **13.0m @ 6.1% Ni**
- Estimated true width intersection of 12.0m demonstrates the presence of continued thick nickel sulphide mineralisation in this channel
- MDD339 is a significant step-out hole, being 115m down-plunge of the last reported CS4 intersection and 144m down-plunge from the deepest intersection in the core of the CS5 channel (MDD334: 12.3m @ 5.1% Ni), announced on 18 October 2019
- The new intercept is located well beyond the boundary of the current Mineral Resource of 1.254Mt at 4.0% Ni for 50,400 nickel tonnes, highlighting strong potential for further resource growth
- Further follow-up diamond drill holes planned for January and early February 2020

Mincor Resources NL (ASX: MCR, "Mincor" or the "Company") is pleased to advise that ongoing diamond drilling at the Cassini nickel sulphide deposit at Kambalda has returned another exceptional high-grade nickel intercept which yielded **17.6m at 5.0% Ni (including 13.0m @ 6.1% Ni)**, interpreted to be within the CS4 channel (see Figures 1 and 2).

Importantly, the new intersection is 115m down-plunge from the last reported CS4 intersection and represents the first result from a discrete program aimed at demonstrating the continuity of nickel sulphide mineralisation at Cassini. This intersection is down-plunge of the boundary of the reported Mineral Resource of **1.254Mt at 4.0% Ni for 50,400 nickel tonnes** (refer ASX announcement, 6 November 2019). Initial interpretation from this intersection indicates that the CS4 and CS5 channels may be steeper dipping beyond the current Mineral Resource.



Figure 1: MDD339 core photo showing a section of heavy matrix nickel sulphides

TEL 08 9476 7200  
FAX 08 9321 8994  
EMAIL [mincor@mincor.com.au](mailto:mincor@mincor.com.au)  
WEBSITE [www.mincor.com.au](http://www.mincor.com.au)  
ACN 072 745 692

POSTAL ADDRESS  
PO Box 1810  
West Perth WA 6872  
Australia

REGISTERED OFFICE  
Ground Floor, 9 Havelock Street  
West Perth WA 6005  
Australia

The new intercept demonstrates the continuity, thickness and tenor of the high-grade nickel sulphide mineralisation within both the CS4 and CS5 surfaces, providing the proof of concept to continue the extensional drilling program at Cassini throughout January and early February 2020.

The first hole of the program, MDD338, was designed to test the CS4 channel up-dip in a shallower position to allow for any potential changes to the basalt model and provide an electromagnetic survey platform, which ultimately provided the target for MDD339. Positively, MDD338 intersected nickel sulphides on the CS4 surface returning an intercept of 1.3m @ 7.8% Ni. Consistent with this interpretation, MDD339 also intersected the upper leading edge of the sub-vertical CS5 surface, returning an initial intercept of 4.2m @ 1.2% Ni before encountering the wide high-grade zone of nickel sulphide mineralisation reported above.

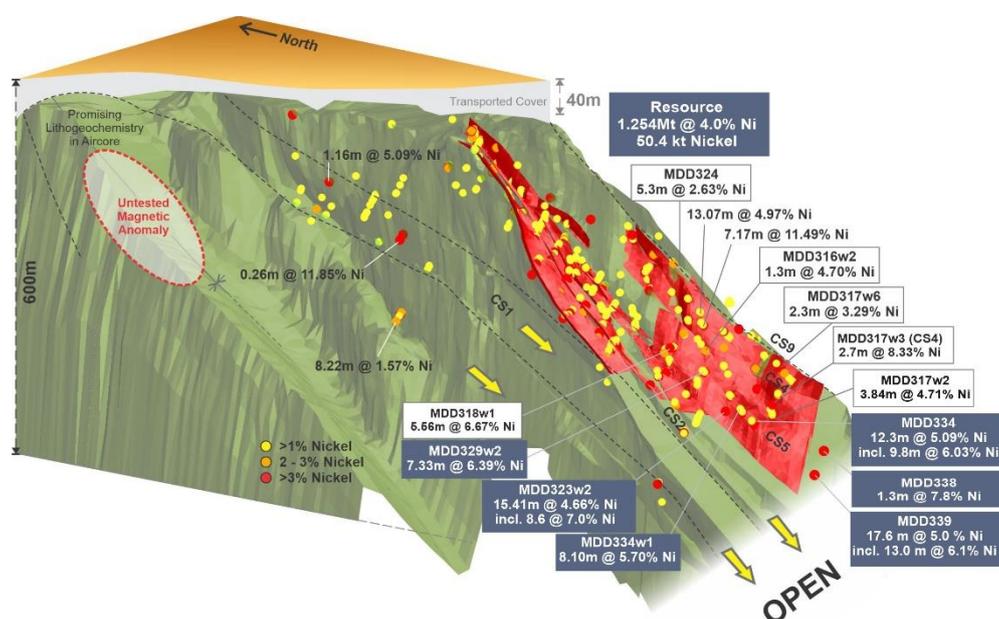
Mincor’s Managing Director, David Southam, said the 17.6m thick high-grade intercept in MDD339 was a significant development, being the second hole of a newly designed program to test extensions of the known mineralised channels beyond the currently defined Mineral Resource at Cassini.

“What a great way to start the New Year with significant new drilling success at Cassini,” he said. “The CS4 surface has recently taken somewhat of a back-seat from the remarkable success we achieved with our drilling program in the December 2019 quarter surrounding the CS5 surface intersections. Today’s result shows that the CS4 surface could also extend significantly, with this intersection being 115m down-plunge from the last reported intersection. It is also our second highest value hole per metre (measured as intercept width multiplied by nickel grade) at Cassini.

“We have committed part of the proceeds from our recent \$35 million capital raising to continue to invest in resource extension, resource development and exploration while we complete the Definitive Feasibility Study for our integrated Nickel Restart Strategy.

“The outstanding new drilling results reported today represent a clear vindication of this approach, demonstrating that our extensional drilling strategy at Cassini has the potential to deliver substantial success beyond our existing Mineral Resource which, at just over 50,000 high-grade nickel tonnes, is already one of the most significant new nickel sulphide discoveries in the Kambalda district in recent decades.

“The next sequence of step-out holes will be targeted in the CS5 and CS2 channels of Cassini through January and into early February 2020 while we finalise our nickel restart studies.”



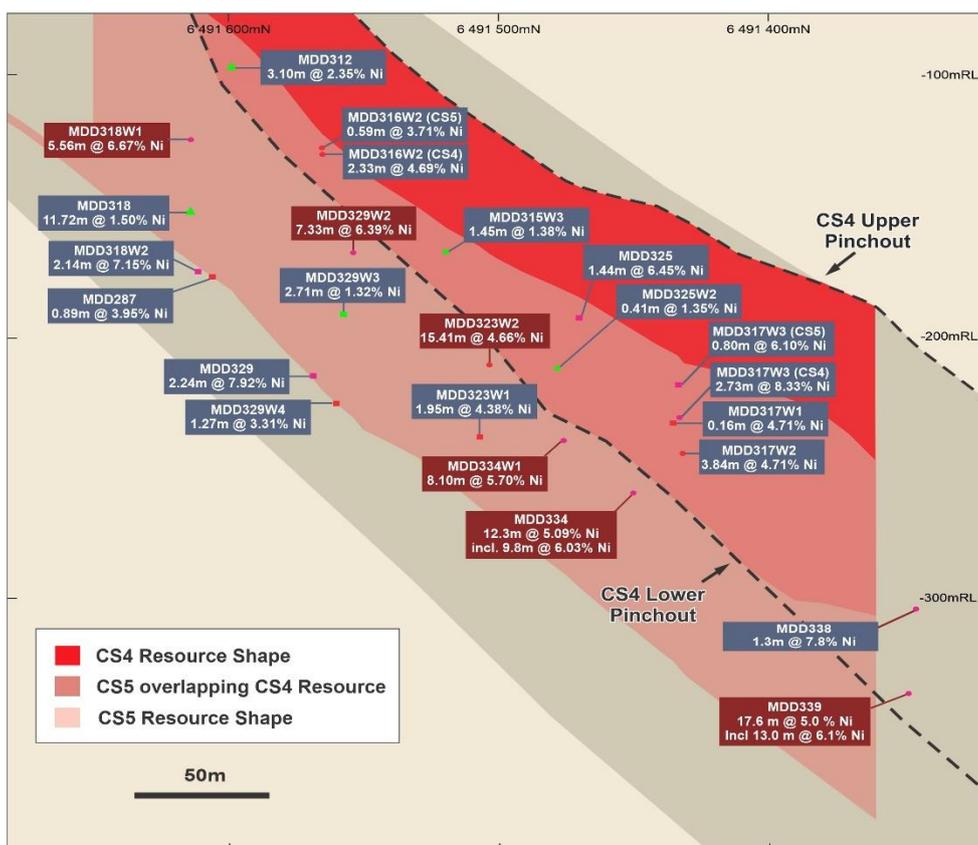


Figure 3: Zoom-in of Cassini long section depicting the CS5 Mineral Resource which partially overlaps the CS4 Mineral Resource.



Figure 4: Cassini cross-section 6491350N with DHEM plates

The information in this Public Report that relates to Exploration Results is based on information compiled by Robert Hartley, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hartley is a full-time employee of Mincor Resources NL. Mr Hartley has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hartley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**- ENDS -**

**Approved by:**

**Board of Mincor Resources NL**

**For further details, please contact:**

David Southam

Managing Director

Mincor Resources NL

Email: [d.southam@mincor.com.au](mailto:d.southam@mincor.com.au)

Tel: (08) 9476 7200

[www.mincor.com.au](http://www.mincor.com.au)

**Media Inquiries:**

Nicholas Read

Read Corporate

Tel: (08) 9388 1474

## APPENDIX 1: Nickel Mineral Resources and Ore Reserves

### Nickel Mineral Resources as at 5 November 2019

RESOURCE	MEASURED		INDICATED		INFERRED		TOTAL		
	Tonnes	Ni (%)	Tonnes	Ni (%)	Tonnes	Ni (%)	Tonnes	Ni (%)	Ni tonnes
Cassini			1,092,000	4.0	162,000	4.3	1,254,000	4.0	50,400
Long			410,000	4.0	340,000	4.4	750,000	4.2	32,000
Redross	39,000	4.9	138,000	2.9	67,000	2.9	244,000	3.2	7,900
Burnett	-	-	241,000	4.0	-	-	241,000	4.0	9,700
Miitel	156,000	3.5	408,000	2.8	27,000	4.1	591,000	3.1	18,100
Wannaway	-	-	110,000	2.6	16,000	6.6	126,000	3.1	3,900
Carnilya*	33,000	3.6	40,000	2.2	-	-	73,000	2.8	2,100
Otter Juan	2,000	6.9	51,000	4.1	-	-	53,000	4.3	2,300
Ken/McMahon**	25,000	2.7	183,000	3.9	54,000	3.2	262,000	3.7	9,600
Durkin North	-	-	417,000	5.3	10,000	3.8	427,000	5.2	22,400
Durkin Oxide			154,000	3.2	22,000	1.7	176,000	3.0	5,200
Gellatly	-	-	29,000	3.4	-	-	29,000	3.4	1,000
Voyce	-	-	50,000	5.3	14,000	5.0	64,000	5.2	3,400
Cameron	-	-	96,000	3.3	-	-	96,000	3.3	3,200
Stockwell	-	-	554,000	3.0	-	-	554,000	3.0	16,700
<b>TOTAL</b>	<b>256,000</b>	<b>3.7</b>	<b>3,973,000</b>	<b>3.7</b>	<b>712,000</b>	<b>4.1</b>	<b>4,940,000</b>	<b>3.8</b>	<b>187,900</b>

Note:

- Figures have been rounded and hence may not add up exactly to the given totals.
- Note that nickel Mineral Resources are inclusive of nickel Ore Reserves.

\*Nickel Mineral Resource shown for Carnilya Hill are those attributable to Mincor – that is, 70% of the total Carnilya Hill nickel Mineral Resource.

\*\*Ken/McMahon also includes Coronet (in the 2010/11 Annual Report it was included in Otter Juan).

The information in this report that relates to nickel Mineral Resources is based on information compiled by Rob Hartley, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hartley is a full-time employee of Mincor Resources NL and 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hartley consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

### Nickel Ore Reserves as at 30 June 2019

RESERVE	PROVED		PROBABLE		TOTAL		
	Tonnes	Ni (%)	Tonnes	Ni (%)	Tonnes	Ni (%)	Ni tonnes
Burnett	-	-	271,000	2.6	271,000	2.6	6,900
Miitel	28,000	2.6	129,000	2.2	157,000	2.3	3,600
Durkin North	-	-	708,000	2.5	708,000	2.5	17,700
<b>TOTAL</b>	<b>28,000</b>	<b>2.6</b>	<b>1,108,000</b>	<b>2.5</b>	<b>1,136,000</b>	<b>2.5</b>	<b>28,200</b>

Note:

- Figures have been rounded and hence may not add up exactly to the given totals.
- Note that nickel Mineral Resources are inclusive of nickel Ore Reserves.

The information in this report that relates to nickel Ore Reserves is based on information compiled by Paul Darcey, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Darcey is a full-time employee of Mincor Resources NL and 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 "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Darcey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

## APPENDIX 2: Drill Hole Tabulations

Hole ID	Collar coordinates						From	To	Interval	Estimated true width	% Nickel	% Copper	% Cobalt
	MGA easting	MGA northing	MGA RL	EOH depth	Dip	MGA azimuth							
<b>Cassini - Diamond Drilling</b>													
MDD338	369539.1	6491359.0	311.3	711.5	-70	90.0	641.00	641.70	0.70	0.4	2.35	0.19	0.05
							652.54	655.30	2.76	1.5	1.55	0.12	0.03
							659.19	660.46	1.27	0.7	7.82	0.41	0.14
MDD339	369420.0	6491360.0	305.8	761.3	-69	90.0	722.96	727.17	4.21	3.4	1.18	0.08	0.03
							730.91	748.49	17.58	12.0	4.99	0.33	0.09
							733.21	746.18	12.97	8.9	6.10	0.33	0.11

## APPENDIX 3: JORC Code, 2012 Edition – Table 1

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation is visible so only a few metres before and after intersection are sampled.</li> <li>For diamond drill core, representivity is ensured by sampling to geological contacts. Diamond samples are usually 1.5m or less.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>Diamond drill core is NQ or HQ sizes. All core is orientated.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>For diamond core, recoveries are measured for each drill run. Recoveries generally 100%. Only in areas of core loss are recoveries recorded and adjustments made to metre marks.</li> <li>There is no relationship to grade and core loss.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All drilling is geologically logged and stored in database.</li> <li>For diamond core, basic geotechnical information is also recorded.</li> </ul>
<b>Subsampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Half cut diamond sawn core sampled, marked up by Mincor geologists while logging and cut by Mincor field assistants.</li> <li>Sample lengths to geological boundaries or no greater than 1.5m per individual sample.</li> <li>As nickel mineralisation is in the 1% to 15% volume range, the sample weights are not an issue vs grain size.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drill core assayed by four-acid digest with ICP finish and is considered a total digest.</li> <li>Reference standards and blanks are routinely added to every batch of samples. Total QAQC samples make up approx. 10% of all samples.</li> <li>Monthly QAQC reports are compiled by database consultant and distributed to Mincor personnel.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>As nickel mineralisation is highly visible and can be relatively accurately estimated even as to grade, no other verification processes are in place or required.</li> <li>Holes are logged on Microsoft Excel templates and uploaded by consultant into Datashed format SQL databases; these have their own in-built libraries and validation routines.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Surface holes surveyed in by differential GPS in MGA coordinates by registered surveyor both at set out and final pick up.</li> <li>Downhole surveys are routinely done using single shot magnetic instruments. Surface holes or more rarely long underground holes are also gyroscopic surveyed.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Current drill-hole spacing is 40–120m between sections and 10–25m between intercepts on sections.</li> <li>This program is infilling to a nominal 20–40m strike spacing to allow for a possible Inferred/Indicated Resource classification.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Surface drill-holes usually intersect at various angles to contact due to the complex folding in the Cassini area.</li> <li>Mineralised bodies at this prospect are irregular which will involve drilling from other directions to properly determine overall geometries and thicknesses.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Core is delivered to logging yard by drilling contractor but is in the custody of Mincor employees up until it is sampled. Samples are either couriered to a commercial lab or dropped off directly by Mincor staff.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>In-house audits of data are undertaken on a periodic basis.</li> </ul>

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All resources lie within owned 100% by Mincor Resources NL. Listed below are tenement numbers and expiry dates: <ul style="list-style-type: none"> <li>M15/1457 – Cassini (01/10/2033)</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Jupiter Mines and WMC have previously explored this area, but Mincor has subsequently done most of the drilling work.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Typical “Kambalda” style nickel sulphide deposits.</li> </ul>
<b>Drill-hole information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill-hole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>See attached tables in previous releases and Appendix 2 of this release.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Composites are calculated as the length and density weighted average to a 1% Ni cut-off. They may contain internal waste; however, the 1% composite must carry in both directions.</li> <li>The nature of nickel sulphides is that these composites include massive sulphides (8–14% Ni), matrix sulphides (4–8% Ni) and disseminated sulphides (1–4% Ni). The relative contributions can vary markedly within a single orebody.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</li> <li>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’).</li> </ul>	<ul style="list-style-type: none"> <li>The general strike and dip of the basalt contact is well understood so estimating likely true widths is relatively simple, although low angle holes can be problematic.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>See plan, cross section and 3D image</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All holes are represented on the 3d image and characterised by grade ranges to show distribution of metal.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Downhole electromagnetic modelling has been used to support geological interpretation where available.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Resources at the extremities are usually still open down plunge (see 3D image).</li> </ul>