

# HIGH-GRADE MASSIVE NICKEL SULPHIDES INTERSECTED AT CASSINI

Mineralisation now defined over 300m plunge length at emerging greenfields discovery

- Two outstanding new drill intersections at the Cassini Nickel Prospect, Kambalda:
  - o **6.42 metres @ 7.25% nickel** (estimated true width 6.1 metres)
  - o **5.16 metres** @ **6.45% nickel** (estimated true width 4.9 metres)
- The results add strongly to the growing evidence that Mincor has made a significant new high-grade nickel discovery at the Cassini Prospect, 9km from its operating Mariners Mine.
- Intensive drilling continues.

Australian nickel miner Mincor Resources NL (**ASX:MCR**) is pleased to report that its first diamond drill-hole of the New Year has achieved two spectacular high-grade nickel intersections at the rapidly emerging **Cassini** discovery in the Kambalda Nickel District of Western Australia.

The latest intersections were achieved in drill-hole **MDD255** within the upper channel, known as the CS2 structure, with the hole cumulatively intersecting **nearly 10 metres of nickel sulphides grading more than 6% nickel**:

- 5.16 metres @ 6.45% nickel from 304.93 metres (estimated true width 4.9 metres)
- **6.42 metres @ 7.25% nickel from 322.50 metres** (estimated true width 6.1 metres)

Hole MDD255 is located on the same section line as hole MDD237 (**6.07 metres @ 3.53% nickel from 343 metres**) reported just before Christmas (see ASX release, 11 December 2014).

Mincor now has nine pierce points in the CS2 channel structure, extending over three drill sections, demonstrating a plunge length so far of 300 metres, with the mineralisation remaining entirely open down-plunge. Seven of the nine intersection points have encountered mineralisation of a width and grade that would typically be considered economic (subject to numerous other factors and complete feasibility studies).

The two intersections reported here are the highest grade intersections achieved at Cassini so far, and together with the intersection in MDD237 suggest that both the **grade and the tenor of the mineralisation is increasing down-plunge**.

In addition, sectional interpretation suggests that the channel structure itself is widening in the down-plunge direction, while the multiple nature of the intersections indicates the presence of stacked ore zones – with the potential to significantly enhance the nickel tonnes per vertical metre. The cross-sectional interpretations shown in the attached diagrams are based on the available data and will be refined as drilling progresses.

The upper intersection is located on an open basal contact and comprises a classic Kambalda-style ore profile of massive, matrix and disseminated nickel sulphides. The lower intersection consists of massive sulphides overlying, and partially remobilised into, sedimentary rocks. Other, lesser, mineralised intersections are present in the hole, for which assay results have not yet been received.



The CS2 channel structure is the upper of two channel structures that Mincor believes to be present at Cassini. The system as a whole is defined by a kilometre-long magnetic feature developed along the basal contact (the all-important contact between two rock types, on which Kambalda-type ore bodies typically occur). A very significant "cloud" of disseminated nickel sulphides is present in the ultramafic rocks along the anomaly.

These macro features point to the presence of a potentially large mineralising system – a positive interpretation that is strongly supported by massive sulphide intersections of the magnitude achieved in MDD255.

Cassini lies on a granted Mining Lease approximately 9km south of Mincor's operating Mariners Nickel Mine.

Mincor's Managing Director David Moore said the results from the first hole of the New Year was a game-changer for Cassini.

"Intersections of this quality are rare," he said, "and in Kambalda they almost always result ultimately in the development of a mine. Obviously there is still a long way to go before we can be sure of that at Cassini, but we are increasingly confident that we have made a significant new greenfields discovery – the first in Kambalda for many years.

"Nothing illustrates the importance of our dominant Kambalda land position better than this discovery. We still have literally dozens of exploration targets to test in the District, and together with our recent advances at Burnett (North Miitel), our emerging discovery at Voyce and our restarted drilling at Durkin, we are building up a formidable pipeline of organic growth opportunities."

Photograph of lower intersection in MDD255 (6.42 metres @ 7.25% nickel from 322.50 metres (estimated true width 6.1 metres)):





Figure 1: Cassini magnetic image showing the CS1 and CS2 magnetic anomalies

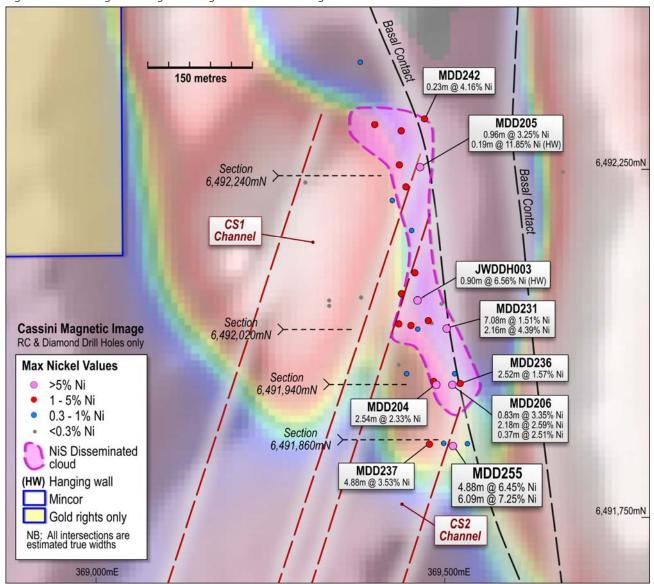




Figure 2: Cassini interpretive cross-section 6491860N

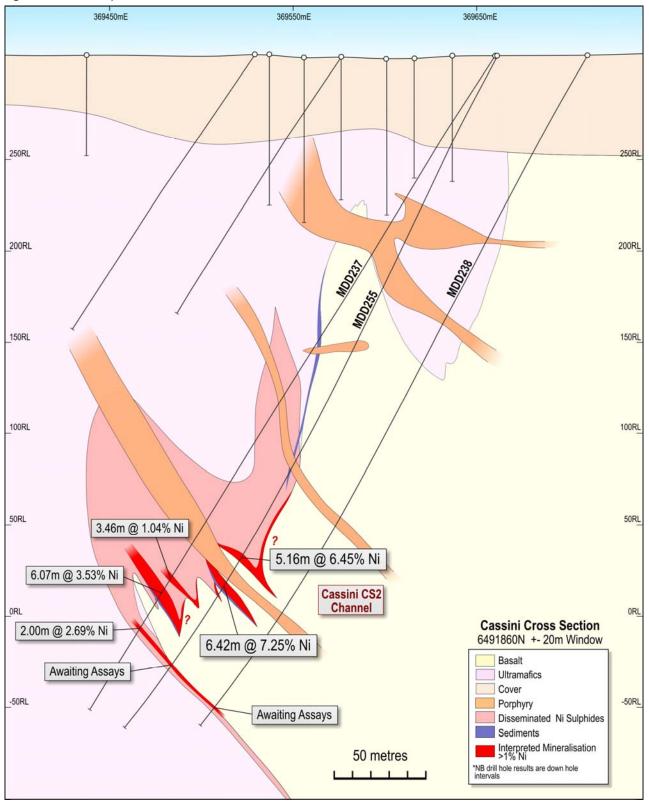
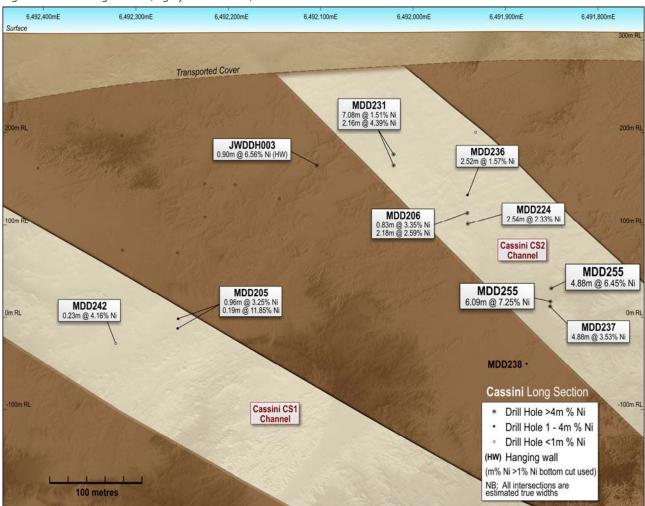




Figure 3: Cassini long section (highly schematised)





#### **APPENDIX 1: Mineral Resources and Ore Reserves**

#### Mineral Resources as at 30 June 2014

RESOURCE		MEASURED		INDICATED		INFERRED		TOTAL		
RESOURCE		Tonnes	Ni (%)	Tonnes	Ni (%)	Tonnes	Ni (%)	Tonnes	Ni (%)	Ni Tonnes
Mariners	2014	155,000	4.1	435,000	3.6	0	0.0	590,000	3.7	21,800
Manners	2013	114,000	4.8	218,000	4.3	79,000	3.4	411,000	4.2	17,400
Redross	2014	39,000	4.9	138,000	2.9	67,000	2.9	244,000	3.2	7,900
Medioss	2013	39,000	4.9	138,000	2.9	67,000	2.9	244,000	3.2	7,900
Burnett	2014	0	0.0	141,000	4.5	99,000	2.7	240,000	3.7	9,000
Daniett	2013	0	0.0	121,000	4.8	99,000	2.7	220,000	3.8	8,400
Miitel	2014	123,000	4.3	600,000	3.0	61,000	3.7	785,000	3.2	25,300
TVIIICCI	2013	198,000	3.8	414,000	3.4	73,000	3.1	684,000	3.4	23,500
Wannaway	2014	0	0.0	110,000	2.6	16,000	6.6	126,000	3.1	3,900
vvaririavvay	2013	0	0.0	110,000	2.6	16,000	6.6	126,000	3.1	3,900
Carnilya*	2014	40,000	3.8	40,000	2.2	0	0.0	80,000	3.0	2,400
Carriiya	2013	40,000	3.8	40,000	2.2	0	0.0	80,000	3.0	2,400
Otter Juan	2014	2,000	6.9	64,000	4.1	3,000	4.3	70,000	4.2	2,900
Otter Juan	2013	11,000	3.8	92,000	4.3	10,000	3.4	113,000	4.2	4,700
McMahon/Ken**	2014	32,000	2.6	105,000	3.1	105,000	4.6	242,000	3.7	8,900
Wicivial IOH/ Net I	2013	57,000	3.5	102,000	3.1	90,000	4.7	249,000	3.8	9,300
Durkin	2014	0	0.0	376,000	5.1	26,000	3.6	402,000	5.0	20,000
Darkin	2013	0	0.0	251,000	5.2	115,000	4.9	366,000	5.1	18,600
Gellatly	2014	0	0.0	29,000	3.4	0	0.0	29,000	3.4	1,000
deliatiy	2013	0	0.0	29,000	3.4	0	0.0	29,000	3.4	1,000
Cameron	2014	0	0.0	96,000	3.3	0	0.0	96,000	3.3	3,200
Carrieron	2013	0	0.0	96,000	3.3	0	0.0	96,000	3.3	3,200
Stockwell	2014	0	0.0	554,000	3.0	0	0.0	554,000	3.0	16,700
JUCKWEII	2013	0	0.0	554,000	3.0	0	0.0	554,000	3.0	16,700
Grand total	2014	391,000	4.1	2,689,000	3.5	378,000	3.7	3,458,000	3.6	123,000
Granu total	2013	459,000	4.1	2,165,000	3.6	549,000	3.8	3,172,000	3.7	117,000

Figures have been rounded and hence may not add up exactly to the given totals.

Note that Resources are inclusive of Reserves.

The information in this report that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Rob Hartley, who is a full-time employee of the Company and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity that he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hartley approves the Mineral Resources statement as a whole and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears, and is a Member of the AusIMM.

#### Ore Reserves as at 30 June 2014

RESERVE		PROVED		PROBA	BLE	TOTAL			
		Tonnes	Ni (%)	Tonnes	Ni (%)	Tonnes	Ni (%)	Ni Tonnes	
Mariners	2014	60,000	4.2	291,000	2.7	351,000	3.0	10,500	
IVIAIIIIEIS	2013	59,000	4.2	181,000	3.7	240,000	3.8	9,200	
Redross	2014	49,000	3.3	0	0.0	49,000	3.3	1,600	
neuross	2013	49,000	3.3	0	0.0	49,000	3.3	1,600	
Miitel	2014	54,000	2.9	381,000	2.4	434,000	2.5	10,800	
Miller	2013	88,000	2.9	274,000	2.6	362,000	2.7	9,800	
Otter Juan	2014	2,000	6.9	0	0.0	2,000	6.9	100	
Otter Juan	2013	7,000	4.1	0	0.0	7,000	4.1	300	
McMahon/Ken**	2014	0	0.0	3,000	2.4	3,000	2.4	100	
MCManon/Ren	2013	13,000	2.8	2,000	2.6	15,000	2.7	400	
Crand total	2014	164,000	3.5	674,000	2.6	838,000	2.7	23,000	
Grand total	2013	215,000	3.4	457,000	3.1	672,000	3.2	21,200	

Figures have been rounded and hence may not add up exactly to the given totals.

The information in this report that relates to Ore Reserves is based on, and fairly represents, information and supporting documentation prepared by Brett Fowler, who is a full-time employee of the Company 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 Fowler approves the Ore Reserve statement as a whole and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears, and is a Member of the AusIMM.

 $<sup>^{*}</sup>$  Resources shown for Carnilya Hill are those attributable to Mincor - that is, 70% of the total Carnilya Hill Resource.

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

Note that Resources are inclusive of Reserves.

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



#### **APPENDIX 2: Drill-hole tabulations**

Table 1: Cassini drill-hole information (table needs assays)

Hole ID	Tenement	Northing (MGA94)	Easting (MGA94)	RL	Dip	Azimuth	EOH Depth	From	То	Interval	Estimated true width	Nickel %
MDD255	M15/1457	6491860	369660	306.7	-61	270	420.7	304.93	310.09	5.16	4.88	6.45
IVIDD233	10113/143/	0491000	309000	300.7	-01	270	420.7	322.5	328.92	6.42	6.09	7.25
MDD238	M15/1457	6491861	369709	306.9	-59	270	468					Awaiting
ואוטט230	10113/143/	0471001	309/09	500.9	-39	2/0	400					assay

### 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		
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.	Mineralisation is visible and is all sampled. Sampling is extended a few metres before and after the mineralised interval. For diamond drill core, representivity is ensured by sampling to geological contacts.		
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.			
	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 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.			
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 or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Surface Diamond drill core is HQ or NQ sizes. All surface diamond core is orientated.		
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	For diamond core, recoveries are measured for each drill run. Recoveries generally 100%.		
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Only in areas of core loss are recoveries recorded and adjustments made to metre marks.		
	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.	IIIdirs.		
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 drilling is geologically logged and stored in database.  For diamond core, basic geotechnical		
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	information is also recorded.  All core is photographed.		
	The total length and percentage of the relevant intersections logged.			
Sub-sampling	If core, whether cut or sawn and whether quarter, half or all core taken.	Half-cut diamond sawn core sampled, marked		
techniques and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	up by Mincor geologists while logging and cut by Mincor field assistants.		
p. spanous.	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample lengths to geological boundaries or no greater than 2.0 metres per individual sample.		
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	As nickel mineralisation is in the 1 to 15% volume range, the sample weights are not an		
	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.	issue vs grain size.		
	Whether sample sizes are appropriate to the grain size of the material being sampled.			



Criteria	JORC Code explanation	Commentary
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Drill core assayed by four acid digest with ICP finish and is considered a total digest.
laboratory tests	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	Reference standards and blanks are routinely added to every batch of samples. Total QA/QC samples make up approx. 10% of all samples.
	<ul> <li>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>	Monthly QA/QC reports are compiled by database consultant and distributed to Mincor personnel.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	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.
	<ul> <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>	Holes are logged on Excel templates and uploaded by consultant into Datashed format SQL databases; these have their own in-built libraries and validation routines.
Location of data points	<ul> <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> </ul>	Surface holes are surveyed in by DGPS in MGA94 Zone 51 and on occasions GPS. DGPS control is tied into accurately surveyed trig points.
	Quality and adequacy of topographic control.	Down-hole surveys are routinely done using single shot magnetic instruments. Deeper surface holes or more rarely long underground holes are also gyroscopic surveyed.
Data spacing and distribution	<ul> <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>	Data spacing of exploration holes can be clearly ascertained by diagrams included in this release and associated tables.  General spacing's used for resource estimation varies from 80 metres along strike for Inferred resources and to less than 40 metres for Indicated. Measured resources would commonly also include strike drive mapping and sampling above and below a stoping block.
Orientation of data in relation to geological structure	<ul> <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>	Surface drill holes usually intersect at 50 to 80 degrees to contact.  Mineralised bodies are relatively planar so drill orientation would not introduce any bias.
Sample security	The measures taken to ensure sample security.	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.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	In-house audits of data are undertaken on a periodic basis.

## 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	<ul> <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> </ul>	The Prospect lies within owned 100% by Mincor Resources NL. Listed below are tenement number and expiry date:  • M15/1457 – Cassini (01/10/2033)
	<ul> <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>	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Some of the drilling around the Cassini has been undertaken by previous explorers. An assessment on the quality of the data has been undertaken. These holes have now been incorporated into Mincor Database
Geology	Deposit type, geological setting and style of mineralisation.	Typical "Kambalda" style nickel sulphide deposits undergoing a degree of deformation.



Criteria	JORC Code explanation	Commentary
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:  a easting and northing of the drill hole collar  elevation or RL (Reduced Level – elevation above sea level in metres) of the drill-hole collar  elevation or diplication of the hole  elevation depth and interception depth  elevation 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.	See attached tables in releases.
Data aggregation methods	<ul> <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>	Composites are calculated as the length and density weighted average to a 1% nickel cutoff. They may contain internal waste however the 1% composite must carry in both directions.  The nature of nickel sulphides is that these composites include massive sulphides (7 to 14% nickel), matrix sulphides (2 to 8% nickel) and disseminated sulphides (0.5 to 2% nickel). The relative contributions can vary markedly within a single ore body.
Relationship between mineralisation widths and intercept lengths	<ul> <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>	The general strike and dip of the basal contacts that is host mineralisation/morphology is generally understood so estimating likely true widths is relatively simple.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill-hole collar locations and appropriate sectional views.	See long sections.
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 holes are represented on the long sections and characterised by m% nickel to show distribution of metal.
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.	Down-hole EM modelling has been used to support geological interpretation where available.
Further work	<ul> <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>	The extremities of the reported exploration plays are open down-plunge (see long sections).

The information in this Public Report that relates to Exploration Results is based on information compiled by Peter Muccilli, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Muccilli is a full-time employee of Mincor Resources NL. Mr Muccilli 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 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Muccilli consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mincor is a leading Australian nickel producer and an active and self-funded explorer, and is listed on the Australian Securities Exchange. Mincor operates two mines in the world class Kambalda Nickel District of Western Australia, and has been in successful production since 2001.

- RELEASE ENDS -

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