POSEIDONNICKEL

9th December 2014

Poseidon Announces Maggie Hays Mineral Resource (JORC Code, 2012 Edition)

Highlights

- **Poseidon completed the Lake Johnston acquisition 26 days ago and appointed Golder Associates Pty Ltd ("Golder") to re-estimate the Mineral Resource in accordance with the JORC Code, 2012 Edition guidelines**

- **Lake Johnston includes two mines at Maggie Hays and Emily Ann**

- **Maggie Hays Mine Indicated and Inferred Mineral Resource has been estimated at a 0.8% Ni cut-off grade as:**

  - **3.8 million tonnes @ 1.41% Ni for 53,100 tonnes contained nickel**

- **Substantial additional data not included in the main resource database was identified by Poseidon post the acquisition and is now being processed for later inclusion into the next published Mineral Resource**

- **Emily Ann North Mineral Resource estimation in accordance with the JORC Code, 2012 Edition guidelines will be undertaken with publication of the Mineral Resource not due until early 2015**

- **Lake Johnson increases Poseidon's total project resource to a total of 380,600 tonnes of contained nickel**

Poseidon Nickel Limited (ASX:POS) ("Poseidon") completed the acquisition of Lake Johnston on 13th November 2014 and immediately began to work to convert the existing Mineral Resource to the JORC Code, 2012 Edition guidelines as is required by regulation. The Lake Johnston resources include two main mineralised bodies at Maggie Hays and Emily Ann. The Maggie Hays mine has been under care and maintenance since mining was temporarily suspended in April 2013 and Poseidon expects this ore body to be the first back into production when it re-opens the site.

The re-estimation of the Mineral Resource has been completed without undertaking any further drilling using existing data handed over during the sale process. Poseidon's geologists have already undertaken a review of the Maggie Hays ore body both internally and using external specialists that have concluded additional drilling will continue to extend the project resource in several areas. As an example, in the Maggie Hays North Shoot, an extensive database of additional mine data from sampling carried out in the mining drives will allow a much more detailed understanding of the mineralisation to be developed. This information is currently being processed into a detailed electronic 3D model and will be added to the Mineral Resource model during the first quarter of 2015.

The Maggie Hays (Lake Johnston Project) Mineral Resource is estimated to be **3.8mt @ 1.41% Ni for 53.1kt of contained nickel metal** (using 0.8% cut-off grade) and is tabulated in Table 1 below. This result is in line with the guidance previously provided.

This brings Poseidon's total nickel inventory encompassing the company's three nickel projects to over **380kt of total contained nickel metal**.

LAKE JOHNSTON MINERAL RESOURCE ESTIMATION

Poseidon recently announced its completion of the Lake Johnston Project acquisition from OJSC MMC Norilsk Nickel ("Norilsk Nickel") but was unable to announce the Mineral Resource estimate. ASX listing rules requires that a Mineral Resource which is announced for the first time by the new project owner must report Mineral Resources to the JORC code, 2012 Edition requirements. Accordingly, Poseidon engaged Golder Associates Pty Ltd (Golder) to estimate the Maggie Hays Mineral Resource to JORC Code, 2012 Edition standards. Golder had carried out previous reviews of historical resource estimation work for Norilsk Nickel and was familiar with the drill database and previous resource work.

The Mineral Resource at the Maggie Hays underground deposit has been estimated to be **3.8mt @ 1.41% Ni for 53.1kt of contained nickel metal** (using 0.8% cut-off grade).

Table 1: Lake Johnston Mineral Resource on 31 October 2014 (at 0.8% nickel cut-off grade)

Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	Mineral Resource Category								
			Indicated			Inferred			TOTAL		
			Tonnes (Kt)	Ni% Grade	Ni Metal t	Tonnes (Kt)	Ni% Grade	Ni Metal t	Tonnes (Kt)	Ni% Grade	Ni Metal t
LAKE JOHNSTON PROJECT											
Maggie Hays-Zone 13	2012	0.8%	200	3.57	6,600	-	-	-	200	3.57	6,600
Maggie Hays-Suture Zone& Disseminated	2012	0.8%	1,800	1.18	21,300	400	1.06	3,900	2,200	1.15	25,200
Maggie Hays-North Shoot	2012	0.8%	-	-	-	1,400	1.52	21,300	1,400	1.52	21,300
Total Ni Resources	2012	0.8%	**2,000**	**1.40**	**27,900**	**1,800**	**1.43**	**25,200**	**3,800**	**1.41**	**53,100**

Note: totals may not sum exactly due to rounding.

The Mineral Resource was classified in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The classification was based principally on geological confidence, drill hole spacing and grade continuity from available drilling data. Golder has consented to the release of the attached Mineral Resource statement (Table 1 below) and Attachment A as required under the JORC Code, 2012 Edition.

The Maggie Hays Mineral Resource has been reported at a 0.8% nickel cut-off grade by shoot or zone as well as resource category to best reflect the potentially economic mineralisation within the Mineral Resource. For mine planning purposes, ore loss and dilution should be considered.

MAGGIE HAYS RESOURCE ASSUMPTIONS AND METHODOLOGY (Extracted from Golder report)

The Maggie Hays Mineral Resource estimate is shown in Table 1 and has been classified and reported in accordance with the JORC Code, 2012 Edition guidelines. The Mineral Resource has been estimated using Ordinary Kriging, taking into account the following criteria:

- A selection of available drilling data as of November 2010 was used for the Mineral Resource estimate. The data was restricted to drill holes that were of high confidence in position, and intersected mineralisation at appropriate angles. The drilling data was collected over several decades by numerous operating companies and as such this Mineral Resource update relies on reports by other practitioners regarding selection of appropriate high quality samples.
- Statistical and geostatistical analyses were carried out on drilling data composited to 2m downhole intervals for disseminated ore and host rock domains. Drilling data was composited to 1m downhole intervals for narrow, massive, mineralisation. The analyses included variography to model the spatial continuity of the grades within each domain.
- The Ordinary Kriging interpolation method was used for the estimation of Ni using variogram parameters defined from the geostatistical analysis.
- Mineral Resource classification was based principally on geological confidence, drill hole spacing and grade continuity from available drilling data.
- Information was also utilised from previous studies completed by Golder at the Lake Johnston Operations for Norilsk Nickel.

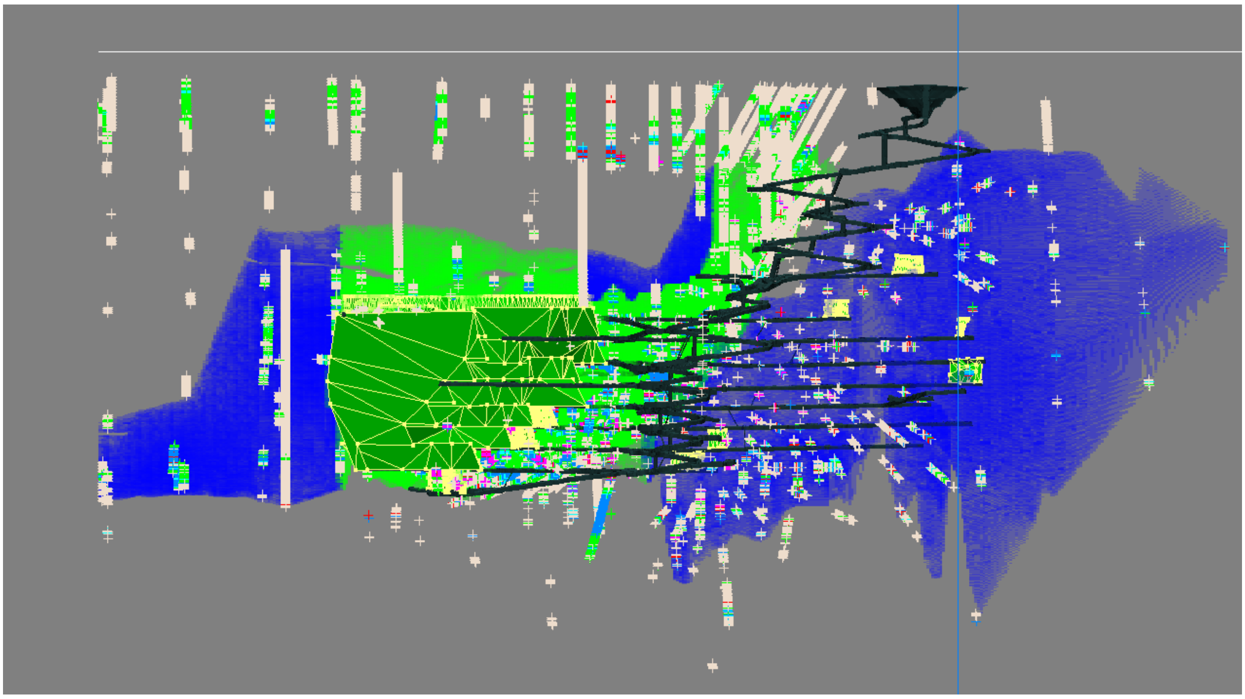

Figure 1: Maggie Hays Long-Section (Looking West) showing drill hole samples (crosses), location of JORC Resources (green=Indicated, blue=Inferred), existing mining infrastructure (black) and mine stope block (dark green & yellow).

Geology & Geological Interpretation

The Maggie Hays deposit is located approximately 500km east of Perth in the Southern Cross Province in the Archean Yilgarn Craton. Mineralisation is hosted in intrusive ultramafic rocks of the Lake Johnston Greenstone Belt. Disseminated and massive sulphides are hosted by the Central Ultramafic Unit, and massive and stringer sulphides by felsic volcanic rocks.

Maggie Hays, along with the Emily Ann deposit, form the Lake Johnston Operation (LJO).

Geological domains were provided by Poseidon, derived from previous Mineral Resource estimates. Due to the spatial uncertainty of some of the surface drilling used in the creation of these domains, the domains were adjusted by Golder to conform to drilling used within the selection file, where there is greater confidence in their spatial positioning. Drill holes in the selection file were used to re-interpret the geological domain position. Where the position of the original wireframes appeared correct, or where little information existed to allow changes to be made, wireframes were left unaltered.

It is reported (McDonald Speijers, 2008) that the original geological domains were interpreted on a 12.5 m section spacing in the main southern portion of the deposit and 10 m spacing in the North Shoot mineralisation. Interpretation was based on lithological logging and nickel grade assay data, as well as development face and backs mapping, which were checked against survey pick-ups of the massive sulphide mineralisation. Therefore, where domains intersected underground development, the positioning was deemed as correct, and the position of the domain maintained.

The wireframes provided for the disseminated mineralisation in the southern and suture zone areas of the mine were based on grade shell contours (McDonald Speijers, 2008). Drill hole assay information was used to construct the wireframes at nominal 0.4% Ni and 0.8% Ni cut-off grades. These grade shell wireframes were left unchanged by Golder. Given the arbitrary nature of the grade shells, samples from the low grade shell were used to inform the estimation for the high grade mineralisation, so as to not overstate grade given the lack of a spatial distinction between the two domains.

Wireframes used in the block model were the either the original wireframes provided by Poseidon, retained from the 2008 Mineral Resource estimate, or the re-interpreted geological wireframes by Golder. Geological wireframes were validated with statistical analysis by geological domain. For the purposes of this estimation, the provided geological domains were updated where possible to reflect the drilling used in the estimation.

Sampling and Sub-Sampling Techniques

Diamond drill core and reverse circulation (RC) drilling were used to obtain samples. Diamond core has been split on lithological contacts for sampling purposes. Sampling protocols are not known for individual campaigns of drilling, however historical reports refer to a combination of quarter, half and whole core analysis. Sampling technique documentation has not been sighted by Golder, but it is recorded in the drilling database that sampled core includes quarter, half and full core sampling.

Drilling Techniques

Golder created a selection file for use in the resource estimate. The file listed 833 drill holes, which comprised diamond drilling core and RC chip sampling. The selection file was compiled using information outlined in previous estimation work by McDonald Speijers. This work included removing holes with uncertain survey positioning, and have mostly been replaced by drilling from underground. It is not known if core was oriented

Criteria Used for Classification

Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

The classification of Mineral Resources was completed by Golder based on geological confidence, drill hole spacing and grade continuity. The Competent Person is satisfied that the result appropriately reflects his view of the deposit.

Continuous zones meeting the following criteria were used to define the resource class:

<u>Indicated Resource</u>

- Two or more drill holes confirming grade continuity.
- Kriging slope of regression greater than 0.6, giving a relative degree of confidence in quality of estimates in the kriging estimation from the perspective of a low likelihood of conditional bias.

<u>Inferred Resource</u>

- Single drill holes or large spatial separation between drill holes (more than 40 m).
- Uncertain mineralisation positioning.

Sample Analysis Method

Assays are by four acid digest and OES finish method and four acid digest with AAS finish.

Estimation Methodology

Mineralisation was estimated within domains defined by lithological and assay information. Statistical analysis of sample data in the composite file was used for estimation purposes. The block size is 5 m (X) by 12.5 m (Y) by 10 m (Z). The sub-block size is 0.625 m (X) by 3.125 m (Y) by 1 m (Z) to achieve acceptable resolution of geological domains.

Using parameters derived from the modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades for Ni. The estimation was conducted in three passes with the search size increasing for each pass. In some domains, where blocks had not been filled after three passes, a fourth pass was used to fill the remaining blocks. All grade estimates were made to the parent cell size. The model was validated visually and statistically using swath plots and comparisons to sample statistics. The estimation smoothing effect was validated globally for the main mineralised domains against a Discrete Gaussian change of support model.

Areas of depleted mine workings were removed from the model in order to yield the final Mineral Resources.

Cut-off Grade and Basis for Selected Cut-off Grade

No high-grade cuts were applied by Golder in the estimation of Ni grades.

Mining and Metallurgical Methods, Parameters and Other Material Modifying Factors

Golder assumed any future mining would likely continue with sub-level caving of disseminated mineralisation and a form of stoping for North Shoot massive sulphides. The block model uses a parent cell size of 5 m (X) by 12.5 m (Y) by 10 m (Z), Sub-block size is 0.625 m (X) by 3.125 m (Y) by 1 m (Z). These were primarily determined by data availability and the dimensions of the mineralisation. As grade estimates were made to the parent cell size, this defines the effective selectivity of the Mineral Resource estimate. Some interpretation of existing mining voids was required to deplete the Mineral Resource model, with the exact face of the southern sub-level cave unknown. The most conservative approach was taken, with surveyors pickups of rings fired assumed to be the extent of the cave.

Other Information

The Lake Johnston concentrator has a capacity of approximately 1.5 Mtpa based on historically demonstrated mill capacity. The concentrator was shutdown in April 2013 by Norilsk before being placed into care and maintenance. Poseidon Nickel is planning to operate the concentrator at approximately 1.0 Mtpa throughput rates with ore supplied initially from Maggie Hays underground operations, the disseminated caved ore, North zone and potentially the suture zone. The plant will be refurbished and minor modifications to the flowsheet and reagents will be made to allow for the reduced throughput. A scope and cost for this refurbishment has been generated as part of the Study.

The plant is an existing and proven concentrator with a demonstrated capacity to process nickel sulphide ores from Maggies Hays and Emily Anne. The metallurgical process is conventional, well understood and has many years of operational experience to support the flotation response of the Lake Johnston pentlandite and millerite ore. An assessment of the concentrate produced at Lake Johnston confirmed that a quality smeltable highly sort after concentrate was typically produced with no expected penalties.

The site has a large number of approvals issued under the *Mining Act* and *Environmental Protection Act*. Approvals remain current for the project and can be transferred to Poseidon as part of the change in ownership. Environmental impacts were assessed as part of obtaining the above approvals. No significant impacts are considered to result from the project. Geochemical characterisation studies have been conducted on Lake Johnston waste rock and tailings. Lake Johnston waste rock and tailings were both determined to be Potentially Acid Forming (PAF) similar to Windarra.

Project land disturbance appears to be within approved amounts. No additional land disturbance beyond approved amounts will be required for waste rock and tailings management. Works for the tailings storage facility tails lift were commenced prior to the project being placed on care and maintenance. These works were not completed and, as such, certification of the works by the Department of Environment Regulation (DER) could not be obtained. The Works Approval authorising construction of the 4 metre tailings embankment raise has since been resubmitted to the regulator.

COMPETENT PERSON'S STATEMENT

The information in this report which relates to the Maggie Hays Mineral Resource is based on information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd, and Member of the Australasian Institute of Mining and Metallurgy. Andrew Weeks has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012).

MINERAL RESOURCE STATEMENT

Table 1: Nickel Projects Mineral Resource Statement

Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	Mineral Resource Category								
			Indicated			Inferred			TOTAL		
			Tonnes (Kt)	Ni% Grade	Ni Metal t	Tonnes (Kt)	Ni% Grade	Ni Metal t	Tonnes (Kt)	Ni% Grade	Ni Metal t
WINDARRA PROJECT											
Mt Windarra	2012	0.90%	922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500
South Windarra	2004	0.80%	772	0.98	8,000	-	-	-	772	0.98	8,000
Cerberus	2004	0.75%	2,773	1.25	35,000	1,778	1.91	34,000	4,551	1.51	69,000
BLACK SWAN PROJECT											
Black Swan	2012	0.40%	9,600	0.68	65,000	21,100	0.54	114,000	30,700	0.58	179,000
LAKE JOHNSTON PROJECT											
Maggie Hays	2012	0.80%	2,000	1.40	27,900	1,800	1.43	25,200	3,800	1.41	53,100
TOTAL											
Total Ni Resources	2004 & 2012		**16,067**	**0.93**	**149,900**	**28,114**	**0.82**	**230,700**	**44,181**	**0.86**	**380,600**

Note: totals may not sum exactly due to rounding

Table 2: Gold Tailings Project Mineral Resource Statement

Gold Tailings Resources	JORC Compliance	Cut Off Grade	Mineral Resource Category								
			Indicated			Inferred			TOTAL		
			Tonnes (Kt)	Grade (g/t)	Au (oz)	Tonnes (Kt)	Grade (g/t)	Au (oz)	Tonnes (Kt)	Grade (g/t)	Au (oz)
WINDARRA GOLD TAILINGS PROJECT											
Gold Tailings	2004	NA	11,000	0.52	183,000	-	-	-	11,000	0.52	183,000
TOTAL											
Total Au Resources	2004		**11,000**	**0.52**	**183,000**	**-**	**-**	**-**	**11,000**	**0.52**	**183,000**

Note: totals may not sum exactly due to rounding.

ORE RESERVE STATEMENT

Table 3: Nickel Project Ore Reserve Statement

Nickel Sulphide Reserves	JORC Compliance	Ore Reserve Category		
		Probable		
		Tonnes (Kt)	Ni% Grade	Ni Metal t
WINDARRA PROJECT				
Mt Windarra	2004	498	1.78	9,000
Cerberus	2004	1,221	1.30	16,000
BLACK SWAN PROJECT				
Black Swan	2012	3,370	0.63	21,500
TOTAL				
Total Ni Reserves	2004 & 2012	**5,089**	**0.91**	**46,500**

Note: totals may not sum exactly due to rounding.

Notes

The information in this report that relates to the Windarra Nickel Project, Mineral Resources is based on information compiled by Neil Hutchison, General Manager of Geology at Poseidon Nickel, who is a Member of The Australian Institute of Geoscientists and Ian Glacken who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy.

The information in this report that relates to Ore Reserves at the Windarra Nickel Project is based on information compiled by Denis Grubic, who is a Member of The Australasian Institute of Mining and Metallurgy as well as a full time employee of Rock Team Pty Ltd.

The information in this report which relates to the Lake Johnston Mineral Resource is based on information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. The information in this report which relates to the Black Swan Mineral Resource and Ore Reserves is based on information compiled by Andrew Weeks as well as Francois Bazin of IMC Mining Pty Ltd. Both are Members of the Australasian Institute of Mining and Metallurgy.

Mr Hutchison, Mr Glacken, Mr Weeks, Mr Bazin and Mr Grubic all have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are 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' (the JORC Code 2012). Mr Hutchison, Mr Glacken, Mr Weeks, Mr Bazin and Mr Grubic have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This document contains Mineral Resources and Ore Reserves which are reported under JORC 2004 Guidelines as there has been no Material Change or Re-estimation of the Mineral Resource or Ore Reserves since the introduction of the JORC 2012 Codes. Future estimations will be completed to JORC 2012 Guidelines.

The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

CORPORATE DIRECTORY

Director / Senior Management

David Singleton	Managing Director & Chief Executive Officer
Chris Indermaur	Non-Executive Chairman
Geoff Brayshaw	Non-Executive Director
Robert Dennis	Non-Executive Director
Ross Kestel	Company Secretary

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Home Exchange
The Company's shares are listed
on the Australian Securities Exchange
and the home exchange is Perth
ASX code: POS

ATTACHMENT A
JORC (2012) Table 1
Maggie Hays

MAGGIE HAYS

SECTION 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

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. *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 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 drill core and reverse circulation (RC) drilling were used to obtain samples. Diamond core has been split on lithological contacts for sampling purposes. Sampling protocols are not known for individual campaigns of drilling, however historical reports refer to a combination of quarter, half and whole core analysis. Assays are by four acid digest and OES finish method and four acid digest with AAS finish.
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.).	Golder created a selection file for use in the resource estimate. The file listed 833 drill holes, which comprised diamond drilling core and RC chip sampling. The selection file was compiled using information outlined in previous estimation work by McDonald Speijers. This work included removing holes with uncertain survey positioning, and have mostly been replaced by drilling from underground. It is not known if core was oriented.
Drill sample recovery	
Method of recording and assessing core and chip sample recoveries and results assessed. *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *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.*	Drilling recovery is not recorded in databases.
Logging	
Whether core and chip samples have been geologically and geotechnically logged to a	A sophisticated hierarchical lithological coding system based on observed properties was used for

JORC Code explanation	Commentary
level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* *The total length and percentage of the relevant intersections logged.*	geological logging. Lithologies are recorded separately and an abbreviated code for plotting sections included. Mineralisation and structural data was recorded in separate tables.
Sub-sampling techniques and sample preparation	
If core, whether cut or sawn and whether quarter, half or all core taken. *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *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.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Sampling technique documentation has not been sighted by Golder, but it is recorded in the drilling database that sampled core includes quarter, half and full core sampling. Preparation techniques are not known for the samples.
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. *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.* *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.*	There are records of laboratory assay repeats, standards and duplicates, though the percentage of standards in not known. Golder has relied on the assessment of assay quality by previous practitioners, principally as described in the McDonald Speijers (2008) Mineral Resource report.
Verification of sampling and assaying	
The verification of significant intersections by either independent or alternative company personnel. *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	Underground workings have intersected significant mineralisation intervals. Underground drives and development faces have been mapped by geologists to aid the interpretation of lithology contacts and mineralised lodes. The accuracy of these maps has not been verified by Golder, as walls and backs of underground development have been sealed with shotcrete in most areas.

JORC Code explanation	Commentary
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. *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Mine workings have been surveyed by employees of the various owning companies during underground mining development. Long surface drill holes of uncertain survey positions were systematically replaced with underground drilling to improve spatial accuracy of sample locations and domain boundary positions. Local mine grid coordinates were used for the estimation.
Data spacing and distribution	
Data spacing for reporting of Exploration Results. *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.* *Whether sample compositing has been applied.*	Drill spacing was used as a factor in establishing the degree of confidence in the estimate, influencing the Ore Reserve classification. Golder composited drilling data to 2 m downhole composite intervals for disseminated ore and host rock domains. Drilling data was composited to 1 m downhole intervals for narrow, massive sulphide mineralisation.
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. *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.*	Where drilling intersected mineralisation at high angles, the holes were removed from the selection file used in the estimation. Most holes drilled from surface, which have some uncertainty in spatial positioning, were replaced with underground drilling.
Sample security	
The measures taken to ensure sample security.	There are no documented details available for sample security.
Audits or reviews	
The results of any audits or reviews of sampling techniques and data.	There are no documented reviews of audit or review for sampling.

MAGGIE HAYS

SECTION 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

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.* *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.*	Maggie Hays Mine is situated on M63/163 and the contractor plant is located on M63/283 which are located 190km SW of Kalgoorlie. Both tenements are registered to Lake Johnston Pty Ltd which is a 100% subsidiary of OJSC MMC Norilsk Nickel. They are currently in the process of being transferred to Poseidon Nickel Olympia Operations Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd, following the recent completion of the assets purchase. A long standing Native Title Agreement (since 1997) exists with the Ngadju People and will be continued by Poseidon Nickel. The tenements are located within the buffer zone of the Bremer Range Priority Ecological Community and within the Proposed Nature Reserve 82. Lake Johnston Plant commenced operation in 2001 and there are no known impediments to continue operating in this area. There are no royalties or other interests held.
Exploration Done by Other Parties *Acknowledgment and appraisal of exploration by other parties.*	N/A
Geology *Deposit type, geological setting and style of mineralisation.*	N/A
Drill hole information	N/A
Data aggregation methods	N/A
Relationship between mineralisation widths and intercept lengths	N/A
Diagrams	N/A
Balance reporting	N/A
Other substantive exploration data	N/A
Further work	N/A

MAGGIE HAYS

SECTION 3 Estimation And Reporting Of Mineral Resources

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

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.*	Logging and assay data has been uploaded in to an Access database. Some of this data is believed to have been transcribed from previous spreadsheets. The database has some errors, data inaccuracies and omissions. In these instances, information was not used for the Mineral Resource estimate. It does not contain sample and assay quality control information. Golder has seen no evidence of validation of drill hole data, however, underground workings have intersected mineralisation as drilled.
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.*	Golder undertook a site visit in August 2014 to view the surface and underground workings and infrastructure.
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.*	Golder created sections through mineralisation wireframes that were developed during the period the mine was in operation. The sections were then re-interpreted and snapped to drill holes using assay grades and lithological logging as a guide. The North Shoot mineralisation was re-interpreted where possible based on lithology and assay results, although mineralisation positioning is complex and the level of geological confidence is reflected in the classification of the North Shoot mineralisation as Inferred. Underground mapping was conducted and is believed to have been used in the construction of original wireframes. Wireframe locations were honoured where supported by drilling data. The geological interpretation is validated by drilling, underground chip sampling, geological mapping and mining activity. The interpretation for this Mineral Resource estimate relies on data from drilling, and underground mapping, although the mapping accuracy has not been verified by Golder due to a lack of exposure.
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 associated with the Maggie Hays deposit runs along a strike length of approximately 1000 m north-south and approximately 450 m east-west in a series of thin lenses. Drilling has intercepted Ni mineralisation at up to 600 m below surface. The deposit is split between, the 'North Shoot' mineralisation, southern cave zone, with a

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	disseminated and massive sulphide 'suture' zone connecting the north and south areas.
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.*	Mineralisation was estimated within domains defined by lithological and assay information. Statistical analysis of sample data in the composite file was used for estimation purposes. The block size is 5 m (X) by 12.5 m (Y) by 10 m (Z). The sub-block size is 0.625 m (X) by 3.125 m (Y) by 1 m (Z) to achieve acceptable resolution of geological domains. Using parameters derived from the modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades for Ni. The estimation was conducted in three passes with the search size increasing for each pass. In some domains, where blocks had not been filled after three passes, a fourth pass was used to fill the remaining blocks. All grade estimates were made to the parent cell size. The model was validated visually and statistically using swath plots and comparisons to sample statistics. The estimation smoothing effect was validated globally for the main mineralised domains against a Discrete Gaussian change of support model. Areas of depleted mine workings were removed from the model in order to yield the final Mineral Resources.
Moisture	
Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Golder used default assumed densities for each domain, taking into account the rock type, mineralisation and information from previous work by McDonald Speijers. These densities assume a dry density and do not include moisture
Cut-off parameters	
The basis of the adopted cut-off grade(s) or quality parameters applied.	No high-grade cuts were applied by Golder in the estimation of Ni grades.
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.	Golder assumed any future mining would likely continue with sub-level caving of disseminated mineralisation and a form of stoping for North Shoot massive sulphides. The block model uses a parent cell size of 5 m (X) by 12.5 m (Y) by 10 m (Z), Sub-block size is 0.625 m (X) by 3.125 m (Y) by 1 m (Z). These were primarily determined by data availability and the dimensions of

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Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	the mineralisation. As grade estimates were made to the parent cell size, this defines the effective selectivity of the Mineral Resource estimate. Some interpretation of existing mining voids was required to deplete the Mineral Resource model, with the exact face of the southern sub-level cave unknown. The most conservative approach was taken, with surveyors pickups of rings fired assumed to be the extent of the cave.
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.	The Lake Johnston concentrator has a capacity of approximately 1.5 Mtpa based on historically demonstrated mill capacity. The concentrator was shutdown in April 2013 by Norilsk before being placed into care and maintenance. Poseidon Nickel is planning to operate the concentrator at approximately 1.0 Mtpa throughput rates with ore supplied initially from Maggie Hays underground operations, the disseminated caved ore, North zone and potentially the suture zone. The plant will be refurbished and minor modifications to the flowsheet and reagents will be made to allow for the reduced throughput. A scope and cost for this refurbishment has been generated as part of the Study. The plant is an existing and proven concentrator with a demonstrated capacity to process nickel sulphide ores from Maggies Hays and Emily Anne. The metallurgical process is conventional, well understood and has many years of operational experience to support the flotation response of the Lake Johnston pentlandite and millerite ore. An assessment of the concentrate produced at Lake Johnston confirmed that a quality smeltable highly sort after concentrate was typically produced with no expected penalties.
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.	The site has a large number of approvals issued under the *Mining Act* and *Environmental Protection Act*. Approvals remain current for the project and can be transferred to Poseidon as part of the change in ownership. Environmental impacts were assessed as part of obtaining the above approvals. No significant impacts are considered to result from the project. Geochemical characterisation studies have been conducted on Lake Johnston waste rock and tailings. Lake Johnston waste rock and tailings were both determined to be Potentially Acid Forming (PAF) similar to Windarra. Project land disturbance appears to be within approved amounts. No additional land disturbance beyond approved amounts will be required for waste rock and tailings management. Works for the tailings storage facility tails lift were commenced prior to the project being placed on care and maintenance. These works were not completed

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	and, as such, certification of the works by the Department of Environment Regulation (DER) could not be obtained. The Works Approval authorising construction of the 4 metre tailings embankment raise has since been resubmitted to the regulator.
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 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.*	Density measurements were largely made using the water immersion technique. However, the database does not contain information on the origin of density measurements and there are some conflicting points on the provenance of density measurements in the database tables. Based on previous work done by McDonald Speijers, and knowledge of the area, Golder applied default densities for each geological unit.
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.*	Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The classification of Mineral Resources was completed by Golder based on geological confidence, drill hole spacing and grade continuity. The Competent Person is satisfied that the result appropriately reflects his view of the deposit. Continuous zones meeting the following criteria were used to define the resource class: <u>Indicated Resource</u> ■ Two or more drill holes confirming grade continuity. ■ Kriging slope of regression greater than 0.6, giving a relative degree of confidence in quality of estimates in the kriging estimation from the perspective of a low likelihood of conditional bias. <u>Inferred Resource</u> ■ Single drill holes or large spatial separation between drill holes (more than 40 m). ■ Uncertain mineralisation positioning.
Audits or reviews	
The results of any audits or reviews of Mineral Resource estimates.	This Mineral Resource estimate is based on data and information from previous resource estimates

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	completed by McDonald Speijers that have been reviewed by Golder previously, and for this Mineral Resource estimate.
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.*	The relative accuracy is reflected in the Mineral Resource classification discussed above that is in line with industry acceptable standards. This Mineral Resource estimate includes knowledge gained from mining recovery data during production.