

## DHEM TARGETS EXPANDS GOLDEN SWAN POTENTIAL

12 October 2020

### HIGHLIGHTS

- Latest Down Hole Electro Magnetic (DHEM) survey results are further demonstrating the growing opportunity from Golden Swan, with new DHEM anomalies identified. These include;
  - A high conductance DHEM anomaly, located to the south and up dip of the high-grade intersections at Golden Swan, extending the footprint of a contiguous series of open-ended DHEM plates
  - The detection of an exciting series of new DHEM plates that are located in the footwall of the Southern Terrace surface. The conductors are pointing to an emerging opportunity for mineralisation to be hosted on multiple surfaces
- A high priority flat dipping drill hole is underway that is drilling across the Southern Terrace. The hole will provide an excellent platform for DHEM coverage across its entire strike length
- Underground Contractor tender process to develop the drive is well underway
- The drill drive, once completed, provides the company the quickest and most cost-effective route to undertake a major resource definition and the exploration drilling programs of the Southern Terrace

**Poseidon Nickel (ASX: POS, “the Company”)** is pleased to provide an update on exploration activity at the recently discovered Golden Swan mineralisation and within the Southern Terrace.

Managing Director and CEO, Peter Harold, commented “At the Black Swan operations there is a long history showing the effectiveness of DHEM surveys leading to the discovery of massive nickel sulphides. *The new EM conductors reported today which potentially extend the know extent of the Golden Swan mineralisation are very exciting. The identification of the new footwall EM plates is as equally exciting as it demonstrates that the Southern Terrace has the potential to host multiple mineralised surfaces. The current drilling program and investment to ongoing DHEM surveys is continuing to deliver outstanding results. We believe we have only just scratched the surface of the Golden Swan and Southern Terrace potential.*”

### Downhole EM survey extends strike potential at Golden Swan

Subsequent to the recent Downhole EM (DHEM) survey reported in hole PBS0029C (refer ASX announcement dated 30 September 2020) that highlighted a potential target size at Golden Swan of 50m width by 170m depth, Poseidon has completed an additional drillhole approximately 120m to the south of the existing high-grade drill intersections, known as the Golden Swan mineralisation. Hole PBS0031 was designed to traverse below, and in close proximity to, the modelled footwall position to provide a platform for DHEM geophysics. A successful DHEM survey in PBS0031 using the recently installed underground transmitter loop has **identified a new high conductance anomaly that extends the potential strike of the Golden Swan mineralisation.**

The two newly modelled EM plates are contiguous, along strike to the south, of both existing mineralised drill intersections and EM plates and increase the potential strike of upper parts of Golden Swan mineralisation by 60m in a north-south direction. Of the new plates identified in this survey, one is a high conductance anomaly of 20,000 Siemens and given there are no known other conductive sources to provide false anomalies at Black Swan, this new anomaly is interpreted to represent massive sulphides.

Combined with a potential dip extent of 170m, the opportunity for the Golden Swan mineralisation to grow in size continues to increase. Many of the individual orebodies previously discovered and mined in the Silver Swan Channel have strike extents less than that now being revealed at Golden Swan as shown in Figure 1.

### New footwall EM plates identified – potential for another mineralised system

In addition to the EM plates that indicate the potential southern extension of the Golden Swan mineralisation the survey in hole PBS0031 has identified **two new EM plates approximately 50m beneath the Southern Terrace surface to the south of known mineralisation**. These new Footwall EM plates, shown projected onto the Southern Terrace model in Figure 1, present an exciting new opportunity for a new mineralised system proximal to Golden Swan. These two moderate conductance plates are interpreted by the Company to represent nickel sulphide mineralisation and are located within an interpreted ultramafic re-entrant feature beneath the main Southern Terrace horizon. The drill drive recently approved by Poseidon’s board will provide an ideal location to drill test these new anomalies.

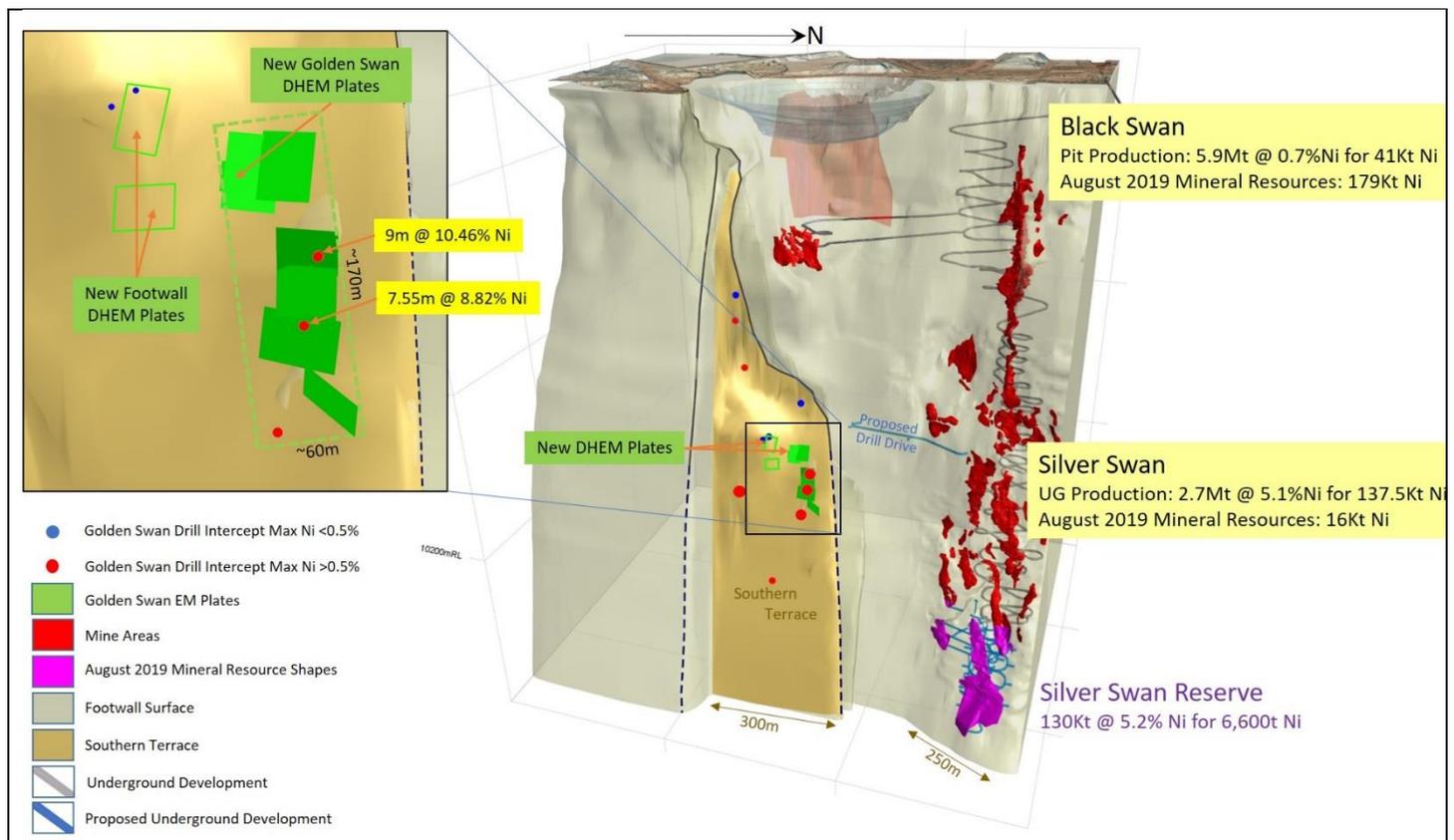


Figure 1: 3D representation of the footwall surface at Black Swan and the emerging potential of the Southern Terrace (See ASX Announcements 5 August 2020 and 14 April 2020 for further details)

Exploration drilling is ongoing with a drill hole from the existing Silver Swan underground mine infrastructure (the magazine at the 450RL) in progress to intersect the Southern Terrace south of existing intersections and traverse the extents of the interpreted Southern Terrace at that level. The hole will provide support for the interpreted scale of the Southern Terrace target area and additional DHEM coverage beyond the range of surveys completed to date.

## Next Steps

To advance Golden Swan the Company has recently committed to the development of a circa 400m drill drive from the existing Silver Swan decline to facilitate resource definition and ongoing exploration drilling. Poseidon is in the process of seeking tender submissions from shortlisted contractors for the drill drive project. The drive, to be developed in competent footwall felsic rocks, will be positioned approximately 200m from the known mineralisation and will provide a platform for resource definition drilling of Golden Swan and additional exploration drilling of the highly prospective Southern Terrace.



**Peter Harold**  
Managing Director & CEO  
12 October 2020

For further information contact Peter Harold: + 61 (0)8 6167 6600.

*The announcement was authorised for lodgement by the Board of Poseidon Nickel Limited.*

## About Poseidon Nickel Limited

*Poseidon Nickel Limited (ASX Code: POS) is a nickel sulphide exploration and development company with three projects located within a radius of 300km from Kalgoorlie in the Goldfields region of Western Australia and a resource base of around 400,000 tonnes of nickel and 180,000 ounces of gold.*

*Poseidon's strategy is focused on the exploration and eventual restart of its established nickel operations in Western Australia where project risk capital and operating costs are low. A critical element of this strategy has been to acquire projects and operations with high levels of geological prospectivity likely to lead to potential substantial extension of the operation's life through the application of modern exploration techniques.*

*Poseidon owns the Windarra, Black Swan and the Lake Johnston Nickel Projects. In addition to the mines and infrastructure including concentrators at Black Swan and Lake Johnston, these projects have significant exploration opportunities demonstrated by the discovery of the Abi Rose deposit at Lake Johnston and the recent discovery of the Golden Swan mineralisation at Black Swan. The Company is also undertaking a Definitive Feasibility Study on retreating the gold tailings at Windarra given the strength of the A\$ gold price.*

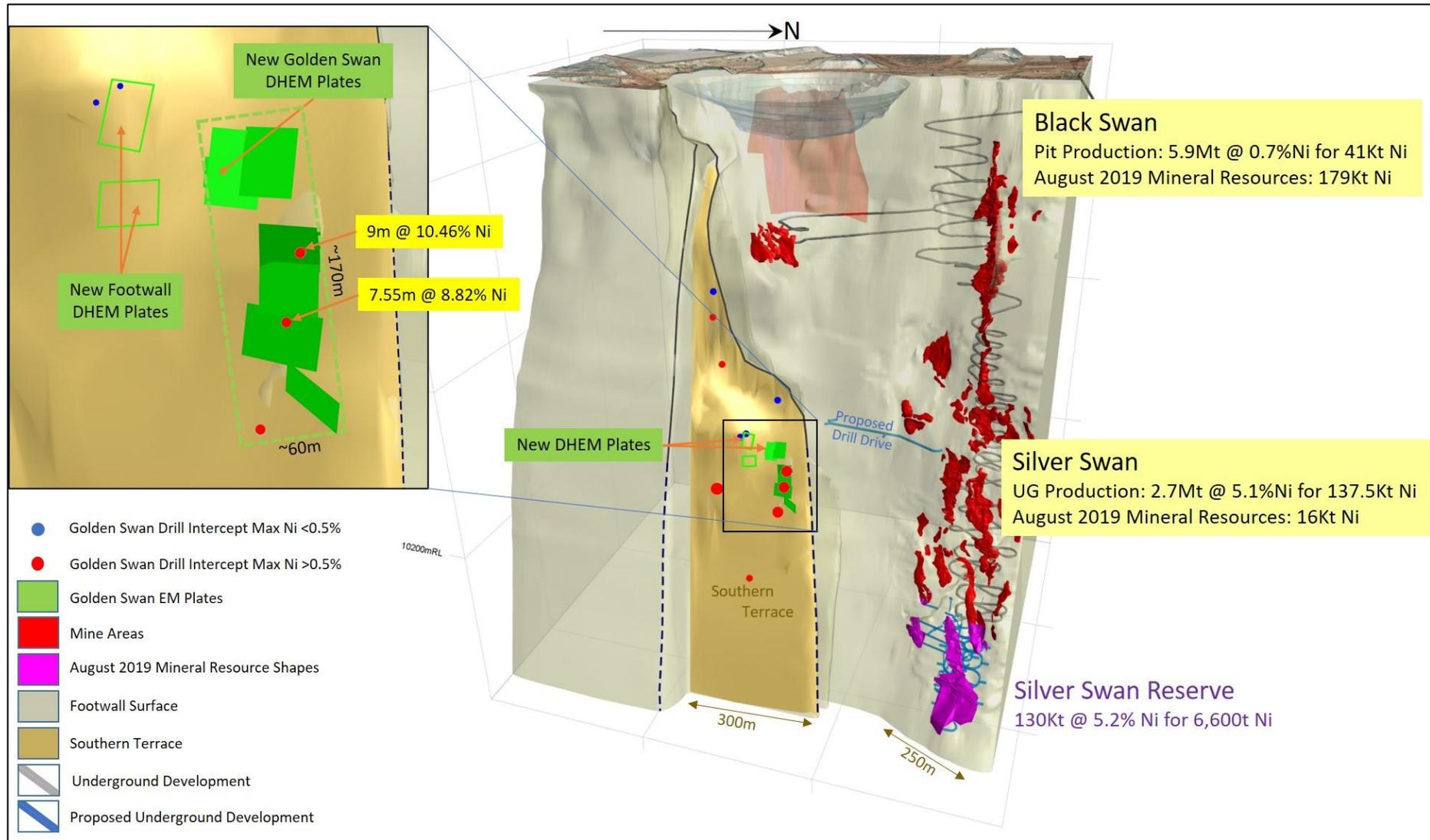


Figure 2: 3D representation of the footwall surface at Black Swan and the emerging potential of the Southern Terrace

# MINERAL RESOURCE STATEMENT

## Table 1: Nickel Projects Mineral Resources 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)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)
<b>BLACK SWAN PROJECT</b>															
Black Swan	2012	0.40%	9,600	0.68	64,900	21,100	0.54	113,800	30,700	0.58	179,000	0.01	4,200	NA	-
Silver Swan	2012	4.50%	108	9.4	10,130	61	9.7	5,900	168	9.5	16,030	0.19	316	0.4	679
<b>LAKE JOHNSTON PROJECT</b>															
Maggie Hays	2012	0.80%	2,600	1.60	41,900	900	1.17	10,100	3,500	1.49	52,000	0.05	1,800	0.10	3,400
<b>WINDARRA PROJECT</b>															
Mt Windarra	2012	0.90%	922	1.56	14,500	3,436	1.66	57,500	4,358	1.64	72,000	0.03	1,200	0.13	5,700
South Windarra	2004	0.80%	772	0.98	7,500	-	-	-	772	0.98	7,500	NA	-	NA	-
Cerberus	2004	0.75%	2,773	1.25	34,600	1,778	1.91	34,000	4,551	1.51	69,000	NA	-	0.08	3,600
<b>TOTAL</b>															
Total Ni, Co, Cu Resources	2004 & 2012	-	16,775	1.03	173,530	27,275	0.81	221,300	44,049	0.90	395,530	0.02	7,516	0.03	13,379

Note: totals may not sum exactly due to rounding. NA = information Not Available from reported resource model. The Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves.

**Black Swan Resource** as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4<sup>th</sup> August 2014)

**Silver Swan Resource** as at 5 August 2019 (see ASX announcement "Silver Swan Resource Upgrade" released 5<sup>th</sup> August 2019)

**Maggie Hays Resource** as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17<sup>th</sup> March 2015)

**Mt Windarra Resource** as at 7 November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7<sup>th</sup> November 2014)

**South Windarra and Cerberus Resource** as at 30 April 2013 (see ASX announcement "Resource Increase of 25% at Windarra Nickel Project" released 1<sup>st</sup> December 2011)

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

# ORE RESERVE STATEMENT

## Table 2: Nickel Projects Ore Reserve Statement

Nickel Sulphide Reserves	JORC Compliance	ORE RESERVE CATEGORY		
		PROBABLE		
		Tonnes (Kt)	Ni% Grade	Ni Metal (t)
<b>SILVER SWAN PROJECT</b>				
Silver Swan Underground	2012	130	5.2	6,800
Black Swan Open pit	2012	3,370	0.63	21,500
<b>TOTAL</b>				
Total Ni Reserves	2012	3,500	0.81	28,300

Note: Calculations have been rounded to the nearest 10,000 t of ore, 0.01 % Ni grade 100 t Ni metal and 10t of cobalt metal.

**Silver Swan Underground Reserve** as at 26 May 2017 (see ASX announcement "Silver Swan Definitive Feasibility Study" released 26<sup>th</sup> May 2017) **Black Swan Open Pit Reserve** as at 5 November 2014 (see ASX announcement "Poseidon Announces Black Swan Ore Reserve" dated 5<sup>th</sup> November 2014).

The Company is aware that the 2019 upgrade to the Silver Swan Indicated Resource will materially affect the Silver Swan Reserve above which was based upon the 2015 Silver Swan Resource Estimate (refer to Table 1 above for the new Silver Swan Resource estimate). Such information is based on the information compiled by the Company's Geologists and the Competent Persons as listed below in the Competent Person Statements.

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements for the Black Swan Open Pit Reserve. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

**COMPETENT PERSON STATEMENTS:**

*The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled and reviewed by Mr Graham Leaver, who is an employee of Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.*

*The information in this report which relates to the Black Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. The information in this report which relates to the Black Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and who is a Members of the Australasian Institute of Mining and Metallurgy.*

*The information in this report which relates to the Silver Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Kahan Cervoj 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 which relates to the Silver Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.*

*The information in this report which relates to the Lake Johnston Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Lake Johnston Ore Reserves Project is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.*

*The information in this report that relates to Mineral Resources at the Windarra Nickel Project and Gold Tailings Project is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr 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 Windarra Project contains Mineral Resources which are reported under JORC 2004 Guidelines as there has been no Material Change or Re-estimation of the Mineral Resource since the introduction of the JORC 2012 Codes. Future estimations will be completed to JORC 2012 Guidelines.*

*Mr Leaver, Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan 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 Leaver, Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

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

**FORWARD LOOKING STATEMENT – INFERRED RESOURCE STATEMENTS:**

*The Company notes that an Inferred Resource has a lower level of confidence than an Indicated Resource and that the JORC Codes, 2012 advises that to be an Inferred Resource it is reasonable to expect that the majority of the Inferred Resource would be upgraded to an Indicated Resource with continued exploration. Based on advice from relevant competent Persons, the Company has a high degree of confidence that the Inferred Resource for the Silver Swan deposit will upgrade to an Indicated Resource with further exploration work.*

*The Company believes it has a reasonable basis for making the forward looking statement in this announcement, including with respect to any production targets, based on the information contained in this announcement and in particular, the JORC Code, 2012 Mineral Resource for Silver Swan as of May 2016, together with independent geotechnical studies, determination of production targets, mine design and scheduling, metallurgical testwork, external commodity price and exchange rate forecasts and worldwide operating cost data.*

**FORWARD LOOKING STATEMENTS:**

*This release contains certain forward looking statements including nickel production targets. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “except”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position and performance are also forward looking statements*

*Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance.*

*Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of the Silver Swan underground mine.*

# ATTACHMENT A

## EXPLORATION RESULTS – JORC Code, 2012 Edition

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

JORC Code explanation	Commentary
<b>Sampling techniques</b>	
<p><i>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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>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.</i></p>	<p>Samples have been obtained from drilling carried out on the tenements since 1968, incorporating several lease owners. Sampling protocols from drilling between 1968 and 1991 have not been well documented. Since that time sampling protocols have been in line with industry standards.</p> <p>Reverse circulation (RC) and diamond drilling (DD) techniques have been used to obtain samples. Sampling is a mixture of full core, half core, quarter core or rock chip sampling.</p> <p>RC sampling is derived from 1m sample intervals collected using cone or riffle splitters or composite samples up to 4m. Diamond drilling sampling protocols have followed accepted industry practice for the time, with all mineralised core sampled and intervals selected by geologists to ensure samples did not cross geological or lithological contacts. Core was saw cut with half or quarter core submitted for laboratory analysis. Limited grade control core samples were submitted as whole core samples for laboratory analysis. Sample weights between 3kg and 5 kg have been taken throughout the project.</p>
<b>Drilling techniques</b>	
<p><i>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.).</i></p>	<p>Diamond and reverse circulation drilling are the primary methods by which drilling has been conducted. The majority of surface diamond core is NQ2 size, with PQ and HQ size core drilled selectively. Underground diamond drilling has variously used NQ2, BQ, LTK60 and LTK48 sized equipment. Core orientation, where completed, was carried out using either spear marks, the Ezimark system or more recently electronic orientation devices including the Reflex ACTIII.</p> <p>Surface RC drilling is limited to the extent of the Black Swan open pit. The underground RC system employed by Poseidon used a combination of technologies to perform a wet RC function utilising an underground long-hole drill rig. The system has been trialled in gold mines with large nugget effect. This is the first application of this technique to nickel. Face sampling RC hammers have been used throughout RC drilling.</p>
<b>Drill sample recovery</b>	
<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	<p>Core recovery and presentation has been documented as being good to excellent throughout the project. Recovery of surface RC drilling is assumed to be at or near 100%. Recovery from the underground RC methods is 100%. The rods are flushed clean on every sample before sample bags are removed. Sample weights are taken to ensure representivity.</p> <p>Due to the good to excellent sample recovery, Poseidon has no reason to believe there is bias due to either sample recovery or loss/gain of material.</p>
<b>Logging</b>	
<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>All diamond drill core and RC chips have been geologically logged over the entire length of the drillhole. Routine logging of geotechnical information is completed on all drill core with detailed geotechnical logging completed on selected drillholes. Logging methods employ qualitative and quantitative techniques appropriate to characteristics being logged.</p> <p>Photography of drill core is completed routinely with and extensive hard copy and digital library maintained.</p>

JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	
<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>Early diamond core is assumed to have been chisel cut, whilst most core was cut using a core saw, with either half or quarter core used for sampling. RC samples were collected by use of a cone splitter, with duplicates collected every 20 samples.</p> <p>Later resource and grade control drilling was crushed to &lt;3 mm and then split to 3 kg lots, then pulverised. Sub-sampling techniques are considered appropriate given the sample interval and mass.</p> <p>Underground RC samples are taken in triplicate and 1 in 10 duplicates are sent to the lab. Samples are roll-crushed to 2mm prior to splitting for assay.</p>
<b>Quality of assay data and laboratory tests</b>	
<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><i>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.</i></p>	<p>All assaying since March 2004 has been carried out by an accredited external assay laboratory using ICP-OES on a 4 acid digest using standard laboratory practices. Both independent and laboratory internal QAQC were used.</p> <p>Site specific standards were derived from two RC drillholes specifically designed for the purpose and prepared by ORE Pty Ltd in Melbourne. Analysis for these standards was for Ni, As, Fe and Mg.</p> <p>The following QA/QC measures were adopted during the sampling and assaying of underground diamond drill core and include:</p> <ul style="list-style-type: none"> <li>• Blank inserted in 1:25 samples</li> <li>• Certified standards inserted in 1:25 samples</li> <li>• Sizing analysis of 1:20 samples</li> <li>• Duplicate analysis of quarter core for 1:25 holes</li> <li>• Analysis of laboratory QAQC. Repeat analysis completed by laboratory on 5% of samples</li> <li>• Monthly reporting of QAQC</li> <li>• Six monthly temporal and spatial analysis of the erroneous standards and blanks.</li> </ul> <p>The quality of the data received from the laboratory appears to be good, with no significant issues highlighted. Standard samples have a well-defined margin of error suitable for the deposit.</p> <p>No external laboratory checks were conducted on the drill samples.</p>
<b>Verification of sampling and assaying</b>	
<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Logging and assay data is electronically captured and stored in an exploration database. Historic manual drill logs have been converted to digital format.</p> <p>No adjustments to assay data are made.</p>
<b>Location of data points</b>	
<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>All collar surveys were completed to an accuracy of <math>\pm 10</math> mm and recorded by the mine surveyor. A local grid based on seven known AMG_84 references was created. The Department of Land Information (formerly the Department of Land Administration) benchmark UO51 on the Yarri Road opposite 14 Mile Dam was used to tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000 m was adopted for the Black Swan project. A local mine grid was established and used throughout the mine operation. Poseidon has also converted surveys to the current MGA_94 grid format.</p> <p>Diamond drillholes have been routinely surveyed downhole using either Eastman Single Shot down hole survey instruments or Gyroscopic instruments.</p>
<b>Data spacing and distribution</b>	
<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral</i></p>	<p>Surface drilling used a spacing of 20 m to 50 m across strike and approximately 50 m along strike. In pit drilling is on a 10 m by 10 m staggered pattern. Surface sample data was composited to 2m intervals.</p>

JORC Code explanation	Commentary
<p><i>Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Underground drilling used a maximum spacing of 10 m x 10 m for Indicated category resources and approximately 10m x 20m and 20 m x 40m for Inferred resources. Sample data was composited to 1m intervals.</p>
<p><b>Orientation of data in relation to geological structure</b></p>	
<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>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.</i></p>	<p>Surface drill hole orientation was dominantly perpendicular to geological continuity and befits the requirements of resource estimation.</p> <p>Underground drillhole orientation was dominantly between 20<sup>o</sup>-60<sup>o</sup> to geological continuity as the mineralisation is drilled from underground workings in the footwall of the deposit which dips 80<sup>o</sup> to grid east. The angle of intersection is factored into the resource shape interpretations and is well understood and is verified by mining and reconciliation of the ore zones to a depth of 1300m below surface. The sampling and interpretations meets the requirements of the resource estimation.</p>
<p><b>Sample security</b></p>	
<p><i>The measures taken to ensure sample security.</i></p>	<p>There are no documented details available for historical sample security.</p>
<p><b>Audits or reviews</b></p>	
<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<p>Examination of duplicate, blank and standard data does not highlight any material bias or systematic error.</p>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

<b>Mineral Tenement and Land Tenure Status</b>	
<p><i>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.</i></p> <p><i>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.</i></p>	<p>The Black Swan Nickel Project including open-pit and underground mine, processing plant and surface infrastructure is located on tenements M27/39 and M27/200. The project is located 42.5km NE of Kalgoorlie, Western Australia. All project tenements are registered to Poseidon Nickel Ltd.</p> <p>Historical royalties of 3% NSR exist over the minerals produced.</p>
<b>Exploration Done by Other Parties</b>	
<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>The nickel sulphide bearing ultramafic rocks present at Black Swan were first identified during the 1960's nickel boom with disseminated nickel sulphides identified. Limited additional exploration was conducted prior to the discovery of the high-grade Silver Swan orebody by MPI Mines Ltd in 1995.</p> <p>The mine was developed and operated between 1997 and 2009 under various owners; MPI Mines, Outokumpu, LionOre and Norilsk Nickel. Extensive exploration on the project has been conducted by each successive owner. The operation was placed on care and maintenance by Norilsk Nickel in 2009.</p> <p>Poseidon Nickel purchased the operation from Norilsk in late 2014.</p>
<b>Geology</b>	
<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>The Black Swan Nickel Project hosts both Type 1 and Type 2 komatiite hosted nickel sulphide mineralisation. Nickel sulphide mineralisation is hosted within the Black Swan Komatiite Complex, a large series of ultramafic komatiite flows. The Silver Swan deposit is a Kambalda style Type 1a komatiite hosted massive nickel sulphide deposit. The massive sulphide Silver Swan mineralisation is located within the lower basal komatiite flow of the Black Swan Complex. Type 2 komatiite hosted disseminated nickel sulphide mineralisation is present in the Black Swan Deposit.</p>
<b>Drill Hole Information</b>	
<p><i>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:</i></p> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> <p><i>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.</i></p>	<p>No new drillholes are reported in this ASX release</p>
<b>Data Aggregation Methods</b>	
<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>Grades have been aggregated using length and specific gravity weighted average.</p>

<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	
<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></p>	<p>True widths are stated where necessary.</p>
<b>Diagrams</b>	
<p><i>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.</i></p>	<p>Refer to the body of text above.</p>
<b>Balanced Reporting</b>	
<p><i>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.</i></p>	<p>Not applicable.</p>
<b>Other Substantive Exploration Data</b>	
<p><i>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.</i></p>	<p>Geophysical Down-hole Electromagnetic (DHEM) surveys have been completed in recent exploration diamond drillholes targeting reported Golden Swan Nickel Sulphide mineralisation. The highly conductive nature of massive nickel sulphide mineralisation and the absence of any other known conductive lithological units makes DHEM an effective remote sensing geophysical technique for this application.</p> <p>DHEM surveys have been designed, and results interpreted by Newexco Exploration Pty Ltd. DHEM surveys were conducted by Vortex Geophysics using a VTX-100 high powered transmitter, Digi-Atlantis B-Field probe and Smart-EM equipment. Poseidon Nickel has installed a permanent underground EM transmitter loop to maximise EM Signal.</p>
<b>Further work</b>	
<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Poseidon expects to undertake further resource definition and grade control drilling at Black Swan.</p> <p>Mineralogical and metallurgical recovery studies will be conducted on the drill samples.</p>