POSEIDONNICKEL

Corporate Directory

ASX Code: POS
Shares on Issue: 2,6M Market Cap: ≈$95M
Cash & equivalents at 31 Dec 2019 $51.6M

Board of Directors

Non-Executive Chairman
Derek La Ferla

Non-Executive Directors
Geoffrey Brayshaw
Felicity Gooding
Karl Paganin

Managing Director & CEO
Peter Harold

CFO & Joint Company Secretary
Brendan Shalders

Joint Company Secretary
Andrea Betti

Key Shareholders

Black Mountain Metals: 20.8%
Squadron Resources: 17.1%

Key Operating Nickel Assets (100%)

Black Swan/Silver Swan
Lake Johnston
Windarra

Principal & Registered Office

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Western Australia

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EXCEPTIONAL GRADES RECEIVED AT GOLDEN SWAN AND WINDARRA GOLD TAILINGS UPDATE

14 APRIL 2020

HIGHLIGHTS

Golden Swan Intersection

- **Golden Swan maiden hole discovers high grade Ni-Cu-Co massive sulphides in the Black Swan channel adjacent to Silver Swan**
- **Composite assays for PBSD0029A include:**
  7.6m @ 8.8% Ni (true width = 4.3m)
  - **includes 2.1m massive sulphides @ 15.9% Ni (true width 1.2m)**

  total interval 23.1m @ 4.0% Ni & 0.4% Cu (true width = 13.3m)
- **Drilling and Electromagnetic surveying (EM) to continue**

Windarra Gold Tailings

- **Scoping Study underway on the Windarra Gold Tailings Project**
- **Gold Tailings Resource being updated to JORC2012**

Poseidon Nickel Managing Director/CEO Peter Harold commented, "These Golden Swan assays confirm the significance of this discovery. The entire team is extremely excited and eagerly await results from the down hole EM survey and further drilling to see how big Golden Swan is."

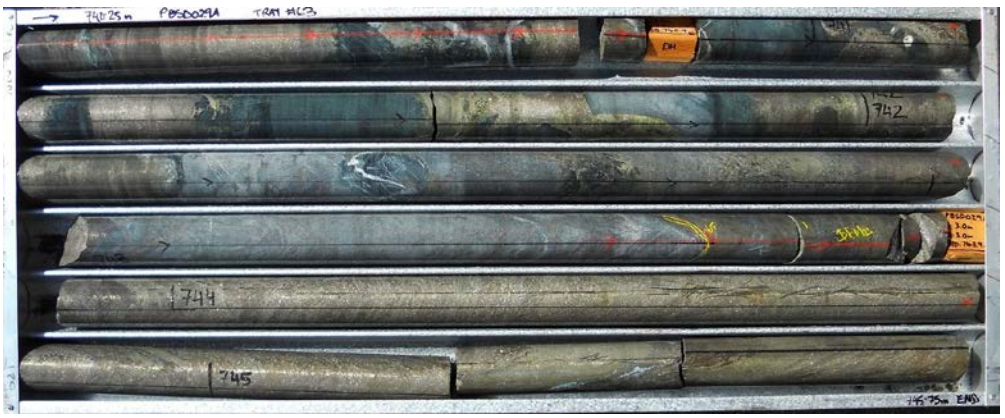

Figure 1: Golden Swan High-Grade Massive Nickel Sulphides

Poseidon Nickel (ASX: POS, "the Company") is pleased to announce that assays received from the first diamond drill hole into the newly discovered Golden Swan massive sulphide have returned exceptional nickel, copper and cobalt grades akin to that of the neighboring Silver Swan Deposit. Assays received for PBSD0029A are summarised in Table 1 below.

Table 1: Composite assay results from PBSD0029A

Geology	From	To	Interval	True Width	Ni%	Cu%	Co ppm	As ppm	MgO%	S%
Total Massive + Disseminated	740.2	763.35	23.15	13.3	3.99	0.37	778	406	17.8	8.81
Massive + Stringer Sulphides	740.2	747.75	7.55	4.3	8.82	0.68	1633	425	8.69	20.98
Massive Sulphide Only	743.65	745.75	2.1	1.2	**15.86**	0.52	2819	445	2.18	34.11
Upper Matrix Sulphide	761.55	762.45	0.9	0.5	6.52	2.04	1750	700	9.60	10.48

The discovery drill hole was collared from the Gosling Access Drive as an EM platform hole to test for massive sulphides between the Gosling Deposit and the Golden Swan Deposit (see Figure 2). The hole included a navi cut to intersect the very top of the Golden Swan EM conductor detected earlier this year. The massive sulphides are located along the southern edge of the Black Swan channel and have been interpreted to result from the gravitational settling of nickel sulphides within the Black Swan channel. The remainder of the EM conductor 120m below the current intersection is yet to be drill tested.

Managing Director of Poseidon, Peter Harold commented "*The assays we have just received from Golden Swan are exceptional. The nickel content is as good as the best ore in the neighbouring Silver Swan while the arsenic content is only one fifth. Golden Swan has the potential to produce a very clean concentrate, so our priority is to perform the EM survey and keep drilling. Given that we are not yet sure of the upper or lower limits of the Golden Swan Massive Sulphide mineralisation, the planned EM survey will assist us in determining whether the mineralisation extends upward towards the Gosling workings where drilling is sparse.*"

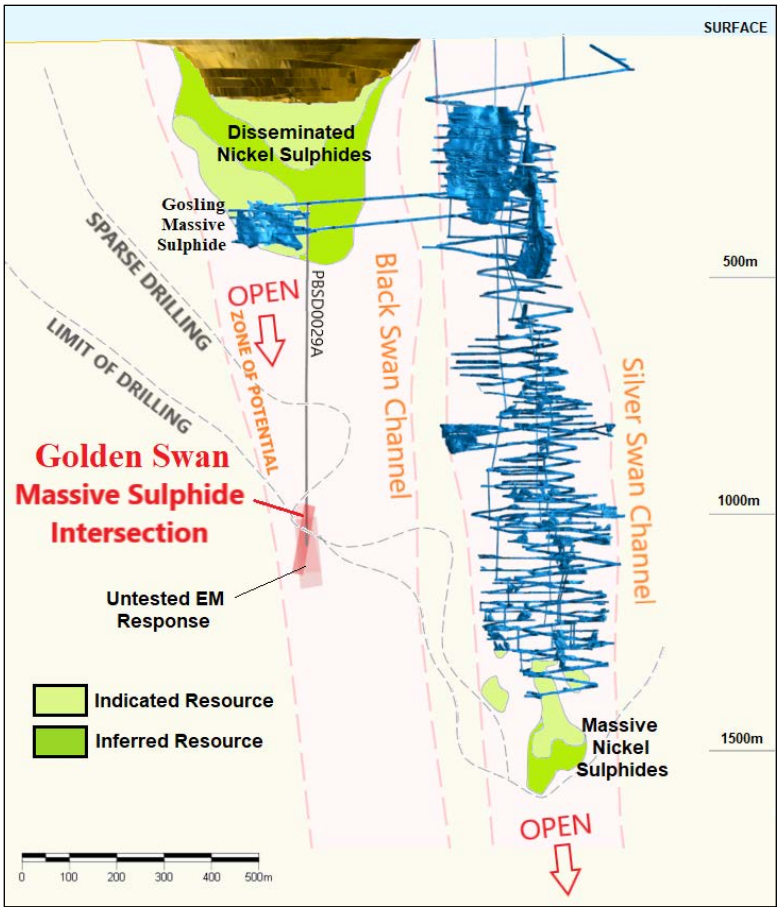

Figure 2: Long section showing the Golden Swan massive nickel sulphide intersection and EM response within the Black Swan channel. The "zone of potential" for Gosling repeats and the upper limit of the Golden Swan massive sulphide will be EM tested by PBSD0029A.

Geological Observations

The Black Swan komatiite flow formed the third mineralized channel within a sequence of successive ultramafic lava flows. Towards the top of the flow, nickel mineralization forms as disseminated and blebby sulphide droplets that have been frozen in the core of the cooling lava.

Further down the channel at Golden Swan, core observations from PBSD0029A (Figure 3) show a basal chill zone (which represents that bottom of the Black Swan flow) above which massive sulphides and felsic breccia clasts are accumulating directly on the channel floor. Above this is a zone of richly mineralized, blebby nickel sulphide mineralization where sulphide droplets have begun to sink to the channel floor before the melt cooled and froze them in place, just above the massive sulphide accumulations.

Figure 3: Mineralised intersection from PBSD0029A

Above the basal sulphides is a large zone of blebby to disseminated nickel mineralization that was partially drilled by the Company early in 2019 (*see ASX announcement "Successful Phase 1 Drilling Under Black Swan Open Pit", 6 May 2019*) where PBSD001A returned 223m @ 1.02%Ni and PBSD0002 returned 289m @ 0.62% Ni.

More drilling will be required to define the southern edge of the Black Swan channel and the Golden Swan massive sulphide deposits. A preliminary interpretation of the geology in the area can be seen in Figure 4.

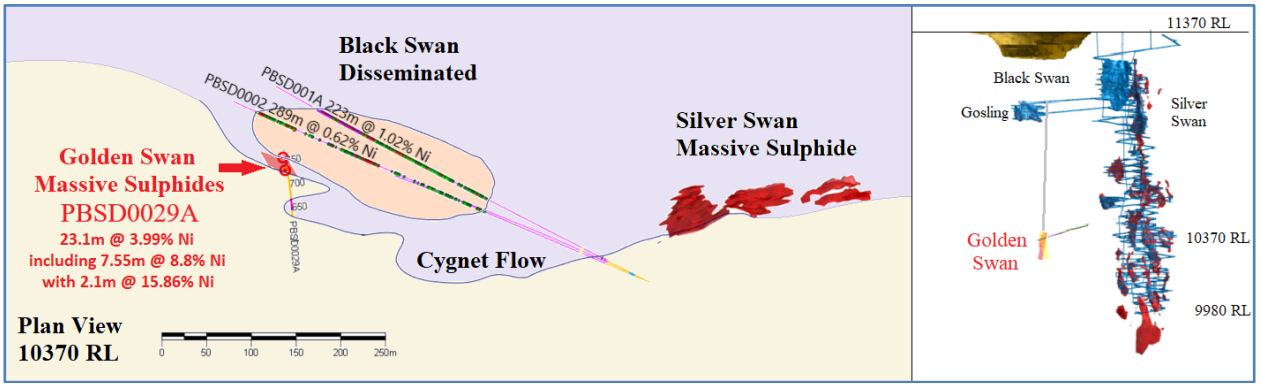

Figure 4: Interpretation of the blebby mineralised envelope (from 2019) and the location of the Golden Swan massive sulphide intersection. South is to the left.

Next Steps: The Company is planning to install a permanent underground EM loop which can be used to better define this new mineralization ahead of further drilling. The loop will eventually replace the use of a surface EM loop which suffers significant energy loss and noise due to the conductive overburden. The EM loop should be operational in around three weeks and will provide more accurate targeting options to allow the Company to test the extent of this new mineralisation through subsequent drilling. Figure 5 shows the effective range of EM coverage using a surface loop to survey PBSD0029A. The underground loop should significantly expand the effective search radius by up to 50%.

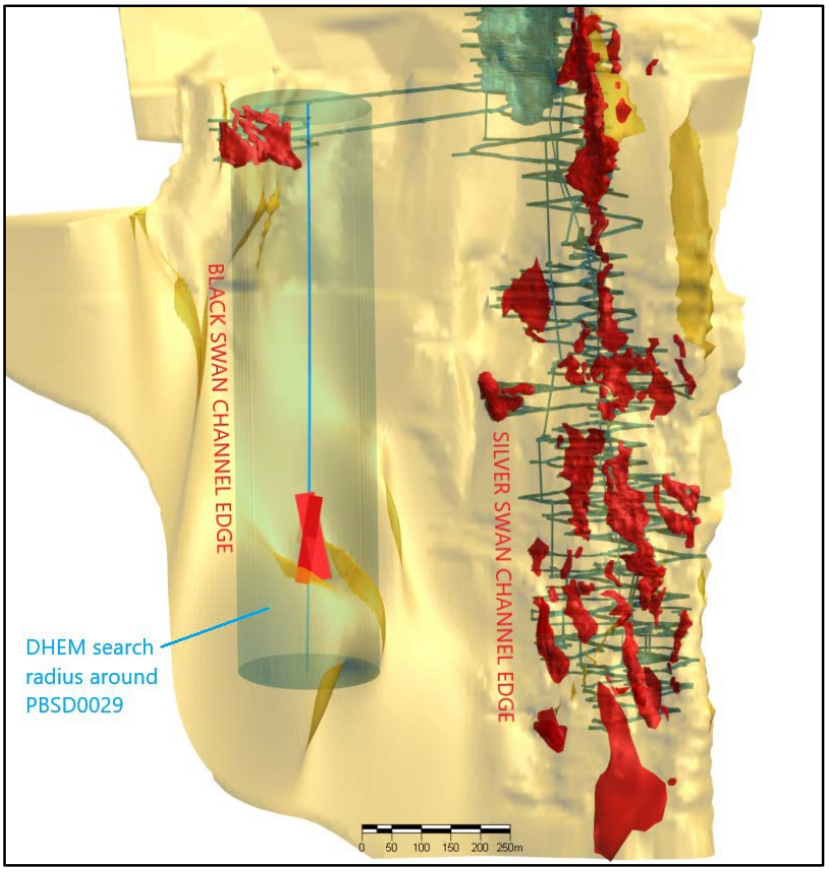

Figure 5: Depicting the search DHEM radius around PBSD0029

Collar and survey details are presented in Table 2.

Hole ID	Easing	Northing	RL	Depth	Dip	Azimuth	Comment
PBSD0029A	10173.8	11302.6	11012.0	0	-67.7	88.5	0029 EM hole
				325	-68.7	94.5	Start of 0029A
				422	-61.8	81.6	End of NAVI bend
				600	-60.5	90.6	
				845.9	-56.4	102.4	EOH

Table 2: Hole Details

New activities and protocols in relation to COVID-19

The Company recently suspended the ladder repair works being undertaken underground at Black Swan and the drilling activities (including the associated geophysics programs) in response to the rapidly changing situation in relation to the COVID-19 pandemic.

During this period, Poseidon's management team has introduced a variety of protocols in response to COVID-19 and is now working with various contractors to ensure that any activities undertaken in the immediate future can be conducted within the safe operating parameters as per the WA Government requirements. The priority is to have the EM loop installed underground and the EM survey completed. The drilling contractor has advised they could be in a position to recommence in 4-6 weeks.

Windarra Gold Tailing Scoping Study

The Windarra Nickel Project sits in the North Eastern Goldfields and was used by Western Mining Corporation, the project owner at the time, as a central hub for processing gold ore from local mines including Lancefield and Beasley Creek. This resulted in a large stockpile of tailings containing over 180,000 ounces of gold (also refer Table 2 of the Mineral Resource Statement). *****

Metallurgical test work by previous owners has concluded that some of the tailings are amenable to reprocessing using standard CIL technology.

Given the increase in the price of gold to the current level around A$2,700 per ounce Poseidon has commenced a Scoping Study to evaluate the economics of recovering the gold from two of the tailings dams using hydraulic mining techniques and then processing the material on site in a purpose build plant to produce loaded carbon for final treatment off site or the production of gold ore on site.

The Scoping Study has commenced and the engineering component should be completed by early May. Work is also underway to convert the gold Mineral Resources used in the Scoping Study to 2012 JORC compliance during this time frame.

***Cautionary Note**: The reference to the Windarra gold tailings resource has been reported in accordance with the 2004 JORC Code and so not reported in accordance with the 2012 JORC Code. Currently a competent person has not done sufficient work to classify this historical estimate as a mineral resource in accordance with the 2012 JORC Code. Work is underway to convert this historical resource to a 2012 JORC standard, however currently, it is not certain that this historical estimate will be able to be reported as a mineral resource in accordance with the 2012 JORC Code.*

This announcement has been authorised for release by the Board of Directors of Poseidon Nickel Limited.

Peter Harold
Managing Director and CEO

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

About Poseidon Nickel Limited

Poseidon Nickel Limited (ASX Code: POS) is a nickel sulphide development and exploration 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 over 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 Nickel Project, the Black Swan Nickel Operations and the Lake Johnston Nickel Operations. In addition to the mines and infrastructure including concentrators at Black Swan and Lake Johnston, the operations 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. Management is also reviewing the economics of retreating the gold tailings at Windarra given the strength of that A$ gold price.

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)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)
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	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
LAKE JOHNSTON PROJECT															
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
WINDARRA PROJECT															
Mt Windarra	2012	0.90%	922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500	0.03	1,200	0.13	5,700
South Windarra	2004	0.80%	772	0.98	8,000	-	-	-	772	0.98	8,000	NA	-	NA	-
Cerberus	2004	0.75%	2,773	1.25	35,000	1,778	1.91	34,000	4,551	1.51	69,000	NA	-	0.08	3,600
TOTAL															
Total Ni, Co, Cu Resources	2004 & 2012		**16,775**	**1.04**	**174,030**	**27,275**	**0.81**	**221,500**	**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 4th August 2014)
Silver Swan Resource as at 5 August 2019 (see ASX announcement "Silver Swan Resource Upgrade…" released 5th August 2019)
Maggie Hays Resource as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17th March 2015)
Mt Windarra Resource as at t November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7th November 2014)
South Windarra and Cerberus Resource as at 30 April 2013 (see ASX announcement "Resource Increase of 25% at Windarra Nickel Project" released 1st 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.

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.

Windarra Gold Tailings Resource as at 30 April 2013 (see ASX announcement "Windarra Definitive Feasibility Study Supports Low Cost, Long Life Nickel Operation" released 30th April 2013).

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.

***Cautionary Note**: The reference to the Windarra gold tailings resource has been reported in accordance with the 2004 JORC Code and so not reported in accordance with the 2012 JORC Code. Currently a competent person has not done sufficient work to classify this historical estimate as a mineral resource in accordance with the 2012 JORC Code. Work is underway to convert this historical resource to a 2012 JORC standard, however currently, it is not certain that this historical estimate will be able to be reported as a mineral resource in accordance with the 2012 JORC Code.*

ORE RESERVE STATEMENT

Table 3: Nickel Projects Ore Reserve Statement

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

Co & Cu grades and metal content for Black Swan require additional modelling prior to estimation.

Silver Swan Underground Reserve as at 26 May 2017 (see ASX announcement "Silver Swan Definitive Feasibility Study" released 26th May 2017) Black Swan Open Pit Reserve as at 5 November 2014 (see ASX announcement "Poseidon Announces Black Swan Ore Reserve" dated 5th 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 complied 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 Steve Warriner, Chief Geologist, who is a full-time employee at 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 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 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.

Table 2 - PBSD0029A Assay Results

Hole ID	From	To	Interval	Geology	Sample	Calculated SG	Ni%	Cu%	Co ppm	As ppm	MgO%	S%
PBSD029A	737.55	738.55	1.00	Felsic	EX5871	2.80	0.00	0.00	0	0	2.93	0.00
PBSD029A	738.55	739.55	1.00		EX5872	2.80	0.00	0.00	0	0	4.81	0.00
PBSD029A	739.55	740.2	0.65	Komatiite Basal Chill	EX5873	2.99	0.22	0.06	50	0	5.89	0.38
PBSD029A	740.2	741	0.80	Basal breccia, Stringer Sulphides	EX5874	3.77	7.27	0.75	1050	0	3.57	17.78
PBSD029A	741	742	1.00		EX5875	3.68	6.45	1.39	1300	0	3.13	18.93
PBSD029A	742	743	1.00		EX5876	3.72	6.84	0.29	1450	0	10.90	20.68
PBSD029A	743	743.65	0.65		EX5877	3.35	3.46	0.16	550	0	20.77	8.50
PBSD029A	743.65	744.7	1.05	Massive Sulphide	EX5878	4.76	16.32	0.23	2250	0	2.39	33.50
PBSD029A	744.7	745.75	1.05		EX5879	4.66	15.40	0.81	3400	900	1.96	34.74
PBSD029A	745.75	746.75	1.00	Komatiite, Blebby Sulphides	EX5881	3.31	3.07	0.17	800	1400	18.91	7.50
PBSD029A	746.75	747.75	1.00		EX5882	3.34	3.36	1.56	750	1000	18.26	9.07
PBSD029A	747.75	749	1.25	Komatiite	EX5883	3.00	0.30	0.01	100	100	27.76	0.22
PBSD029A	749	750.25	1.25		EX5884	3.01	0.34	0.02	50	0	28.18	0.25
PBSD029A	750.25	751	0.75	Komatiite, Disseminated Sulphides	EX5885	3.19	1.97	0.13	300	100	24.18	2.91
PBSD029A	751	752	1.00		EX5886	3.05	0.69	0.05	150	0	24.76	0.84
PBSD029A	752	753	1.00		EX5887	3.02	0.44	0.02	100	0	27.38	0.41
PBSD029A	753	754	1.00		EX5888	3.01	0.34	0.02	100	0	29.04	0.25
PBSD029A	754	755	1.00		EX5889	3.07	0.88	0.17	200	200	26.96	1.25
PBSD029A	755	756	1.00	Komatiite, Blebby Sulphides	EX5890	3.08	1.01	0.06	250	100	28.30	1.61
PBSD029A	756	757	1.00		EX5891	3.10	1.15	0.11	250	200	26.88	1.48
PBSD029A	757	758	1.00		EX5892	3.05	0.74	0.09	200	300	21.93	1.20
PBSD029A	758	758.65	0.65	Komatiite, Disseminated Sulphides	EX5893	3.05	0.72	0.05	150	700	18.52	0.43
PBSD029A	758.65	759.75	1.10		EX5894	3.02	0.45	0.02	100	1000	21.32	0.19
PBSD029A	759.75	760.85	1.10		EX5895	2.99	0.21	0.00	100	500	20.24	0.04
PBSD029A	760.85	761.55	0.70		EX5896	3.03	0.58	0.06	100	300	14.77	0.78
PBSD029A	761.55	762.45	0.90	Komatiite, Matrix Sulphides	EX5897	3.68	6.52	2.04	1750	700	9.60	10.48
PBSD029A	762.45	763.35	0.90	Komatiite, Disseminated Sulphides	EX5898	3.04	0.64	0.03	150	2400	17.45	0.25
PBSD029A	763.35	764	0.65	Felsic	EX5899	2.80	0.02	0.00	0	100	4.08	0.00
PBSD029A	764	765	1.00		EX5901	2.80	0.02	0.02	0	0	3.72	0.02
PBSD029A	765	766	1.00		EX5902	2.80	0.00	0.00	0	0	3.58	0.03
	766	808.35		Un-mineralised, not sampled								
PBSD029A	808.35	809.35	1.00	Felsic	EX5903	2.80	0.00	0.00	0	0	4.60	0.00
PBSD029A	809.35	810.35	1.00	Basal breccia, Stringer Sulphides	EX5904	3.12	1.38	0.06	450	0	15.63	1.58
PBSD029A	810.35	810.6	0.25	Komatiite Basal Chill	EX5905	2.99	0.18	0.00	50	0	23.52	0.06
PBSD029A	810.6	810.85	0.25	Basal breccia, Stringer Sulphides	EX5906	3.27	2.75	0.02	600	0	18.45	2.20
PBSD029A	810.85	811.55	0.70		EX5907	3.08	1.03	0.08	250	100	18.27	0.73
PBSD029A	811.55	812.55	1.00		EX5908	2.99	0.22	0.00	100	800	24.42	0.03
PBSD029A	812.55	813.55	1.00		EX5909	3.00	0.25	0.00	100	800	25.10	0.03

BLACK SWAN EXPLORATION AND RESERVE ESTIMATE
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.*	Reverse circulation and diamond drilling have been used to obtain samples. Sampling is a mixture of full core, half core, quarter core and chip sampling. Generally, 1 m samples or smaller have been used for exploration drilling, whilst grade control drilling in the Black Swan pit is on 2 m sample lengths. 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. Diamond drilling sampling protocol since 1995 has 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 halved, with a half quartered, with one quarter core sent for assay, half core kept for metallurgical testing, and the remaining quarter core retained for geological reference. Samples from reverse circulation drilling were collected using cone splitters, with field splits taken every 20 samples. The underground RC technique utilises air with water injection to flush sample material from the rods and send it through a rotary cone splitter. Three duplicate samples are collected and 1 in 10 duplicates are submitted for analysis as a check and balance to sample representivity.
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.).	Diamond and reverse circulation drilling are the primary methods by which drilling has been conducted. The majority of diamond core is NQ, the rest being HQ size. Core orientation was carried out using either spear marks or the Ezimark system. Surface RC drilling is limited to the extent of the Black Swan open pit. The underground RC system being trialled by Poseidon uses 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.
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.*	Core recovery and presentation has been documented as being good to excellent, with the exception of one hole used in the estimation, BSD189, which suffered significant core rotation, but little loss, within the oxide zone. Due to the good to excellent core recovery, Golder has no reason to believe that there is bias due to either sample recovery or loss/gain of fines.
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. *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* *The total length and percentage of the relevant intersections logged.*	Much of the drill core has been oriented prior to the core being logged. Recent data was electronically captured and uploaded in to the site Acquire® geology SQL database. Golder has been provided with no record of core photography, nor the extent to which drilling was logged geologically.
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*	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.

JORC Code explanation	Commentary
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.*	RC samples were collected by use of a cone splitter, with duplicates collected every 20 samples. Later resource and grade control drilling was crushed to <3 mm and then split to 3 kg lots, then pulverised. This is appropriate given the sample interval and mass.
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.*	Pulps were prepared by acid digest and analysed by ICP-OES using standard laboratory practices. Both independent and laboratory internal QAQC were used. Site specific standards were derived from two RC drill holes specifically designed for the purpose and prepared by ORE Pty Ltd in Melbourne. Analysis for these standards was for Ni, As, Fe and Mg. For RC grade control drilling, blank samples were inserted 1 in 50 and 1 in 19 samples as standard. Standard samples have a well-defined margin of error suitable for the deposit. No external laboratory checks were conducted for exploration drill samples.
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.*	Logging and assay data is electronically captured and up loaded in to the company SQL database.
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.*	All collar surveys were completed to an accuracy of ±10 mm. A local grid based on seven known AMG 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. All Black Swan diamond drill holes up to 2008 have been routinely surveyed—generally every 30 m or less. In the case of the some early drill holes, however, only the hole dip component was measured, using the acid vial method. All subsequent diamond drill holes have been surveyed using Eastman single shot down hole survey instruments. All Poseidon drilling has been surveyed using the latest gyro equipment to ensure accuracy of downhole data locations. Collar locations underground at Silver Swan have been measured off the old mine plans and are within 30cm of actual.
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.*	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. Underground drill data was also used in the estimate. Sample data was composited to 2 m.
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.*	Drill hole orientation was dominantly perpendicular to geological continuity and befits the requirements of resource estimation.

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Sample security	
The measures taken to ensure sample security.	There are no documented details available for sample security.
The results of any audits or reviews of sampling techniques and data.	Examination of duplicate, blank and standard data does not highlight any material bias or systematic error.

Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section.)

Section 2: Reporting of Exploration Results	
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.*	Black Swan open-pit is centred on M27/39 and extends into M27/200. Silver Swan is wholly located on M27/200. They are located 42.5km NE of Kalgoorlie. They are registered to Poseidon Nickel Atlantis Operations Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd, following the purchase of the assets. Historical royalties of 3% NSR exist over the minerals produced.
Exploration Done by Other Parties	
Acknowledgment and appraisal of exploration by other parties.	The Black Swan Disseminated Resource has been explored by MPI / Lion Ore and Norilsk Nickel. Both companies followed best practise and Poseidon has validated all data handed over as a part of the purchase. Only minor errors have been found and corrected. It has recently been noted by Newexco that previous DHEM surveys have had poorer performance that was expected at the time. Therefore their effectiveness has been found also to be poor and mineralisation such as Golden Swan may have been missed.
Geology	
Deposit type, geological setting and style of mineralisation.	Black Swan, Silver Swan and Cygnet are just 3 mineralised Kambalda Style komatiite lava flows in a larger complex containing may other komatiite flows. The komatiites were deposited onto a dominantly felsic substrate. Silver Swan formed massive nickel sulphides, Cygnet formed matrix to disseminated massive sulphides and Black Swan, until now, was dominated by disseminated sulphides.
Drill Hole Information	
A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: *easting and northing of the drill hole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *dip and azimuth of the hole* *down hole length and interception depth hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	Refer to the body of the announcement above.
Data Aggregation Methods	
In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. *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.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Grades have been aggregated using the length x SG weighted average. See body of text for individual sample grades.
Relationship Between Mineralisation Widths and Intercept Lengths	
These relationships are particularly important in the reporting of Exploration Results. *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	True widths are stated where necessary.
Diagrams	

Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views	Refer to the body of text above.
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.	Not applicable.
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.	Refer to body of text above.
Further work	
The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Refer to body of text above.