Level 1
3 Ord Street
West Perth WA 6005
E admin@poseidon-nickel.com.au
T +61 8 6167 6600

POSEIDON NICKEL

ASX Announcement

EXCEPTIONAL INTERSECTION OF MASSIVE SULPHIDES AT SILVER SWAN

22 November 2021

HIGHLIGHTS

- Significant mineralised intersection logged in the Tundra-Mute zone of Silver Swan Channel
- **PTMD018 intersected 13.6m of massive Ni-Cu sulphides visually logged, true width estimated at 9.8m, assays pending**
- Resource extension and infill drilling continues in Silver Swan, 18 holes completed to date in Tundra-Mute

Poseidon Nickel (ASX: POS) ("Poseidon", "the Company") is delighted to provide the following update on the Silver Swan drilling program which is aiming to increase the high-grade resource base.

Managing Director and CEO, Peter Harold, commented, *"we are very pleased to have recorded a very wide intersection of 13.6 metres of massive sulphides within the Tundra Mute Resource in the Silver Swan channel. This is the best intersection so far in this drill program and is significant given that the average thickness of the Tundra Mute Inferred Resource was previously about 2 metres.*

The aim of this program is to increase the confidence in the resource, by converting existing resources from Inferred to Indicated and to potentially find high-grade mineralisation outside the current known resources. This latest hole will most certainly increase the amount of material in the Indicated Resource category.

We are still planning to drill at least two deeper EM holes and look forward to seeing whether the EM surveys detect any EM plates beyond the current extent of the know mineralisation."

Tundra-Mute Resource Drilling Program

Infill drilling in and around the Tundra-Mute Mineral Resource continues. To date 18 holes have been completed with an outstanding intersection of 13.6m of massive sulphides being intersected in PTMD018. Estimated true width of the intersection is 9.8m.

The abbreviated log of the visually mineralised interval is included as Table 1, with the core photographs included as Figure 1. The hole has been sampled and sent for analysis at SGS.

FIGURE 1: VISUAL MASSIVE SULPHIDES IN HOLE PTMD018 FROM 265.5M

TABLE 1: VISUAL SULPHIDE ESTIMATES FROM PTMD018

Hole ID	From	To	Interval	Mineralisation Description
PTMD018	265.5	269.6	4.1	Massive sulphides (Po-Pe-Cpy) 95%
	269.6	270.3	0.7	Massive sulphides (Po-Pe-Cpy) 85%
	270.3	274.5	4.2	Massive sulphides (Po-Pe-Cpy) 95%
	274.5	274.8	0.3	Komatiitic Ultramafic (Disseminated Po 2%)
	274.8	275	0.2	Matrix sulphides (Po-Pe-Cpy) 55%
	275	279.2	4.2	Massive sulphides (Po-Pe-Cpy) 95%
	279.2	279.4	0.2	Matrix sulphides (Po-Pe-Cpy) 55%

The Company advises that visual estimates of sulphide material should never be considered a proxy for laboratory analysis, which are required to determine grade and widths for geological reporting and all reported intersection widths are measured down hole, not true thickness. These visual estimates potentially provide no information regarding potential impurities or deleterious physical properties. Assay results will be announced when they become available.

The aim of the Tundra-Mute drilling program is to increase the confidence in the current Silver Swan Resource, by converting existing resources from Inferred to Indicated. If the drilling is successful, the Silver Swan Reserve should increase, which will assist the economics of the Fill the Mill Strategy.

The intersection in PTMD018 falls within the previously announced Tundra-Mute Inferred Resource area as shown in Figure 2 and is typical of Silver Swan style mineralisation (refer ASX release dated 5 August 2019, "*Silver Swan Resource Upgrade*"). The Silver Swan Resource Estimate is included as Table 3 of this announcement. Once the current resource infill drilling program is completed at Tundra Mute the plan is to drill at least two deeper holes below the resource which will be used as EM platform holes.

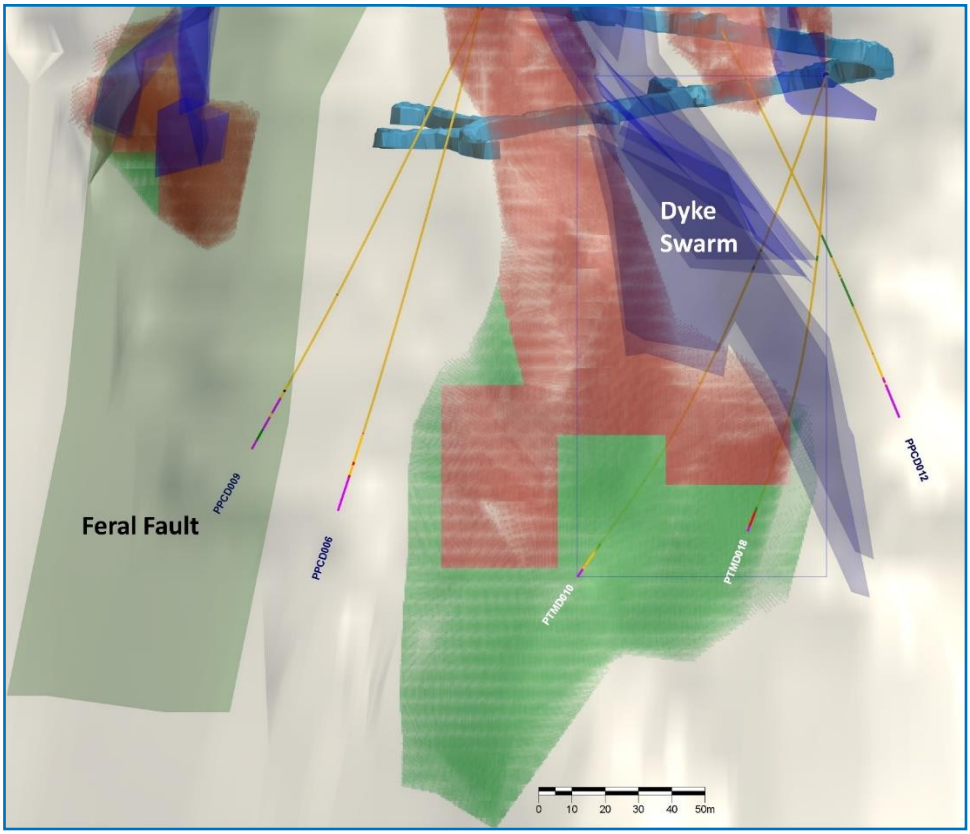

FIGURE 2: LONG SECTION VIEW TO THE WEST SHOWING DRILLING DISCUSSED IN THIS RELEASE

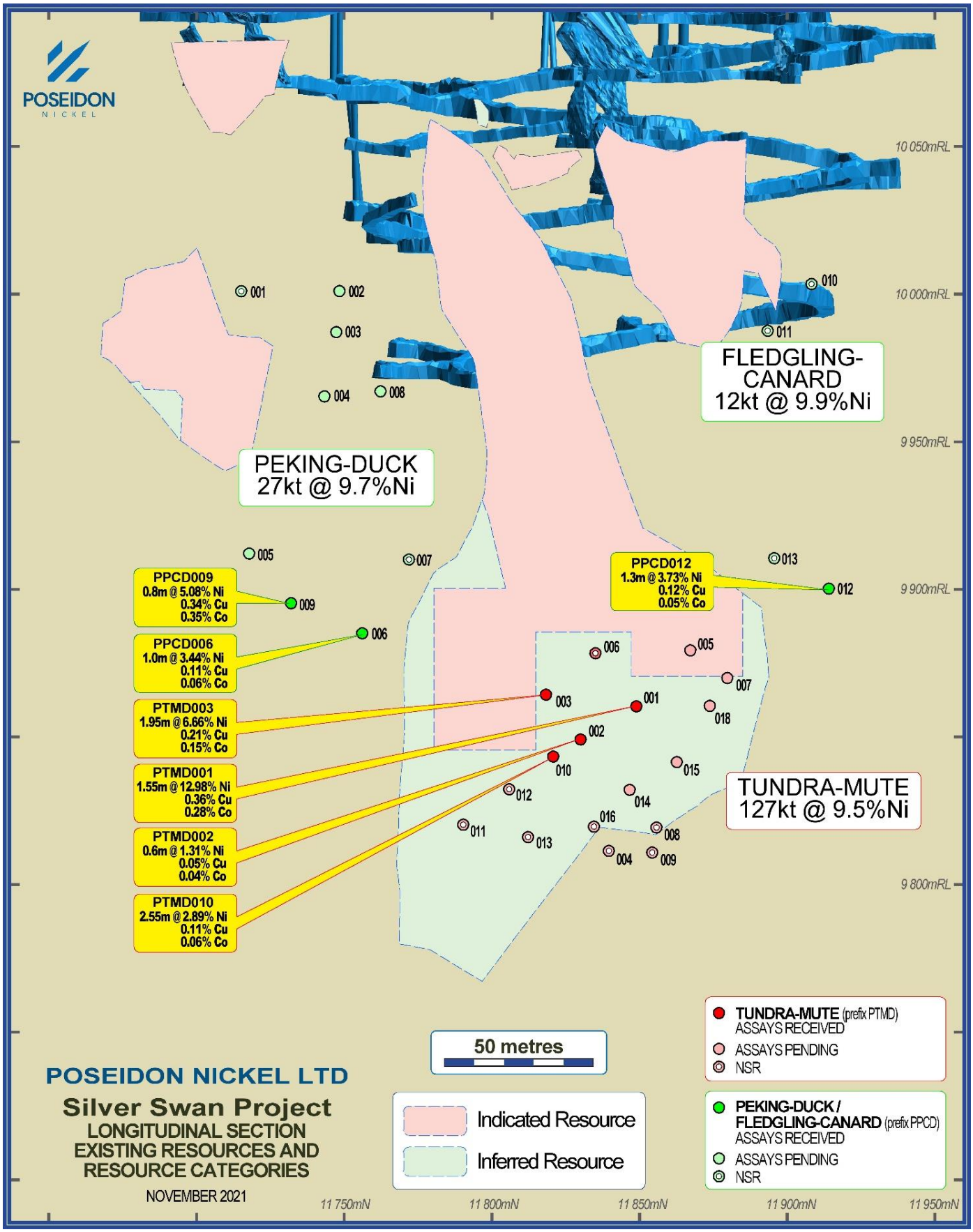

FIGURE 3: LONG SECTION OF RECENT INTERSECTIONS IN AND AROUND TUNDRA-MUTE AND PEKING DUCK

Silver Swan Assay Results

Assay results received to date from drilling in the Silver Swan Channel are presented in Table 2.

It is believed that the mineralisation seen in PPCD009 is a remobilised stringer within fractured material associated with the emplacement of the Feral Fault, while the mineralisation seen in PPCD006 is 9 metres from the footwall contact and will be of insufficient width to be included in a mineral resource estimate.

The current drill program is also testing for more high-grade mineralisation outside the current resources. EM surveys will be conducted in holes already drilled at Peking Duck and Fledgling Canard when an EM crew becomes available.

TABLE 2: SILVER SWAN ASSAYS TO DATE

	From (m)	To (m)	Down Hole Interval (m)	Estimated True Width (m)	Ni%	Cu%	Co ppm
Tundra-Mute							
PTMD001	259.6	261.15	1.55	1.30	12.98	0.36	2814
inc	259.8	260.85	1.05	0.88	15.67	0.22	2886
PTMD002	273.4	274	0.6	0.50	1.31	0.05	378
PTMD003	251.15	253.1	1.95	1.64	6.66	0.21	1503
inc	251.45	251.9	0.45	0.38	10.60	0.16	2040
and	252.25	252.45	0.2	0.17	14.20	0.16	2940
and	259	265	6	5.03	1.22	0.07	266
PTMD010	281	283.55	2.55	2.08	2.89	0.11	567
inc	282.8	283.55	0.75	0.61	6.34	0.22	1260
and	285	285.45	0.45	0.37	7.93	0.10	1552
Peking-Duck and Fledgling Canard							
PPCD006	163	164	1	0.55	3.44	0.11	610
PPCD009	149.5	150.3	0.8	0.51	5.08	0.34	3497
PPCD012	155.7	157	1.3	1.02	3.73	0.12	96
inc	155.7	156.05	0.35	0.27	8.97	0.32	1190

Awaiting assays for the following holes:
Tundra-Mute*: PTMD005, PTMD007, PTMD014, PTMD015, PTMD018*
Fledgling Canard and Peking Duck*: PPCD002, PPCD003, PPCD005, PPCD008*

Assays have been received for the following holes which contained No Significant Result (NSR):
Tundra-Mute*: PTMD012*
Fledgling Canard and Peking Duck: *PPCD004, PPCD013*

Holes to Assay:
Tundra-Mute*: PTMD004, PTMD006, PTMD008, PTMD009, PTMD011, PTMD016, PTMD017*
Fledgling Canard and Peking Duck*: PPCD001, PPCD007, PPCD010, PPCD011*

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

Peter Harold
Managing Director & CEO
22 November 2021

COMPETENT PERSON STATEMENTS:

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

Mr Pearce has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Pearce consents 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 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 Golden Swan underground mine.

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 resource increases 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 Resource at Black Swan. The Company has recently completed a Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield given the strength of the A$ gold price.

Mineral Resource Statement

TABLE 3: SILVER SWAN MINERAL RESOURCE ESTIMATE

Area	Silver Swan Resource - August 2019											
	Indicated				Inferred				Total			
	kt	Ni %	As ppm	Ni metal (t)	kt	Ni %	As ppm	Ni metal (t)	kt	Ni %	As ppm	Ni metal (t)
Tundra-Mute	68	9.2	3,200	6,260	59	9.8	3,290	5,800	127	9.5	3,240	12,060
Peking Duck	26	9.7	2,520	2,560	1.2	8.8	4,330	100	27	9.7	2,590	2,660
Fledgling-Canard	12	9.9	2,100	1,160	0				12	9.9	2,100	1,160
Goose	1.7	9	3,180	150	0				1.7	9	3,180	150
Total resource	**108**	**9.4**	**2,910**	**10,130**	**61**	**9.7**	**3,310**	**5,900**	**168**	**9.5**	**3,060**	**16,030**

Silver Swan Resource *as at 5 August 2019 (see ASX announcement "Silver Swan Resource Upgrade" released 5 August 2019)*

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

Appendix 1

TABLE 4: SILVER SWAN PROGRAM DRILL COLLAR DETAILS

Collar ID	EAST	NORTH	RL	Dip	Azimuth (True)	TD (m)
Tundra-Mute						
PTMD001	10424.96	11895.72	9992.93	-32.8	62.7	297.2
PTMD002	10424.96	11895.72	9992.93	-33.9	67.7	299.7
PTMD003	10424.96	11895.72	9992.93	-32.9	72.8	268.4
PTMD004	10424.96	11895.72	9992.93	-35.4	62.4	323
PTMD005	10424.96	11895.72	9992.93	-29.3	58.0	258.4
PTMD006	10424.96	11895.72	9992.93	-30.6	68.3	259.2
PTMD007	10424.96	11895.72	9992.93	-31.2	55.1	264
PTMD008	10424.96	11895.72	9992.93	-36.6	57.8	304
PTMD009	10424.96	11895.72	9992.93	-37.7	58.9	314.4
PTMD010	10424.96	11895.72	9992.93	-35.5	69.0	290.6
PTMD011	10424.96	11895.72	9992.93	-36.5	74.5	306.2
PTMD012	10424.96	11895.72	9992.93	-34.4	71.9	296.8
PTMD013	10424.96	11895.72	9992.93	-36.9	67.7	316.1
PTMD014	10424.96	11895.72	9992.93	-34.8	59.6	313.5
PTMD015	10424.96	11895.72	9992.93	-32.8	56.6	292
PTMD016	10424.96	11895.72	9992.93	-35.1	63.7	310
PTMD017	10424.96	11895.72	9992.93	-32.4	55.6	171
PTMD018	10424.96	11895.72	9992.93	-32.2	54.6	283.3
PTMD019	10424.96	11895.72	9992.93	-38.2	70.5	26
Peking Duck and Fledgling Canard						
PPCD001	10517.47	11791.8	10013.57	-8.7	127.6	105
PPCD002	10517.47	11791.8	10013.57	-13.4	110.9	61.8
PPCD003	10517.47	11791.8	10013.57	-25.4	102.5	74.6
PPCD004	10517.47	11791.8	10013.57	-42.6	100.5	131.9
PPCD005	10517.47	11791.8	10013.57	-47.7	104.7	157.3
PPCD006	10517.47	11791.8	10013.57	-56.1	75.6	186.6
PPCD007	10517.47	11791.8	10013.57	-53.2	67.9	137
PPCD008	10517.47	11791.8	10013.57	-38.3	85.1	80.7
PPCD009	10517.47	11791.8	10013.57	-50.7	92.2	173.1
PPCD010	10531	11864	10007	-2.7	19.5	105.8
PPCD011	10531	11864	10007	-15.8	27.0	86
PPCD012	10531	11864	10007	-38.5	31.0	186.4
PPCD013	10531	11864	10007	-41.5	34.0	157.3

Appendix 2

JORC Code, 2012 Edition – Table 1 report template
Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• NQ2 core was sampled at least 10m either side of logged mineralisation by cutting the core in half using a Corewise core saw. Samples were divided into logged domains, with no individual sample being greater than 1.2m or less than 0.3m. Appropriate QAQC standards and blanks from Geostatswere inserted, and duplicates taken in quarter core at selected intervals where mineralisation variability warranted it.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• Drilling is conducted by Webdrill using the Diamec Smart 6 Mobile Carrier rig. The holes are drilled in NQ2 and the core was orientated using the Trucore Orientation Tool. The hole was surveyed using the DHS DeviGyro OX tool.
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 was recovered via 3m core tube used behind drill bit, and then transferred from tube to core trays. Recovery was calculatedon the amount recovered versus the amount drilled. Depths and recovery were recorded on wooden blocks placed in the core trays by the driller at the end of every run. Lost core was also recorded in this way. Core recovery was good, even through frequent broken ground.
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.*	• Core was logged into Geobank Mobile. Logging was done for Geology, structure, RQD and a check against drilling records for recovery. Holes were validated before being exported to the Geobank database. • After logging, all core was photographed in both dry and wet images. The photographs are stored on site.

Criteria	JORC Code explanation	Commentary
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.*	• Core was sampled as half core, unless duplicates were taken which required samples to be quarter core.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples have been dispatched to SGS lab in Perth • After crushing and pulverizing they are analysed by 4-acid ore grade digest with ICP-OES finish
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.*	• Sampling was conducted by the logging geologists who are employees of Newexco • Data is collected using Geobank Mobile which utilises a validation function before data can be exported into the Geobank 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 ±10mm. A local grid based on known MGA 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 usedto tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000m was adopted for the Black Swan project. • All holes are surveyed using the DHS Devishot tool. Shots were taken every 2 or 3m on in and out runs across the entire length of the hole at every survey interval. The tool is True North seeking and has an accuracy of +/-1 degree of dip and azimuth.In tool analysis gave an indication of whether the survey passed or failed and successive

Criteria	JORC Code explanation	Commentary
		surveys were overlayed in DeviCloud to visually check deviation between surveys with an average survey used as the base for modelling.
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.*	• The holes drilled form part of a program that is intended to bring the mineral occurrence to Indicated status. The nominal spacing is 40x40m, with infill drilling to be conducted as required to comply with resource modelling requirements.
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 core is oriented using the Trucore Ori.
Sample security	• *The measures taken to ensure sample security.*	• N/A
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews were completed during drilling

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.*	• The 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.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Silver Swan Mine was discovered by MPI Mines Ltd, then was acquired by Lion Ore in 2004. Much of the exploration drilling and development was completed by these two companies. Lion Ore was acquired by Norilsk in 2007 and Norilsk continued mining and developing the underground mine at Silver Swan until 2010. Poseidon Nickel purchased the operation from Norilsk in late 2014.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Silver Swan deposit is a Kambalda style komatiite hosted nickel deposit.

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.*
		• The current drill hole information is listed as Table 4 in Appendix One of this document.

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.*	• When reporting Silver Swan assay results, a cut off grade of 1.0% Ni has been used.

Criteria	JORC Code explanation	Commentary
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').*	• Mineralised widths are reported as down hole lengths. • Due to the uneven nature of the Felsic footwall, true width of the reported assays cannot be stated with certainty at this time.
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.*	• No significant new discovery reported. All current drilling is shown on the Long Section (Figure 3) with significant intercepts highlighted on the diagram and included as Table 2. A summary log of the mineralised intersection is included as Table 1. Collar locations and drill dip and azimuth are included as Table 4.
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.*	• Mineralised intervals >1.0% from each assay received that are consistent with Silver Swan mineralisation for this announcement are shown in Table 2. Intervals below this threshold as well as unsampled intervals are listed below the table.
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.*	• No further observations to be reported at this stage.
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.*	• Resource drilling on the Black Swan deposit was commenced in FY 2021-22, and as part of that program further diamond drilling will be done in the area in order to extend the known mineralisation.