

COMPANY UPDATE

KEY POINTS

- **Black Swan Restart Project – 1.1Mtpa Throughput**
 - Metallurgical diamond drilling assays confirm the non-sulphide nickel content of the disseminated serpentinite ore is consistent with Bankable Feasibility Study assumptions
 - Cost effective 12 month option secured for the provision of 150 accommodation rooms in Kalgoorlie
- **Black Swan Expansion Project – 2.2Mtpa Throughput**
 - Progress on establishing commercial path to market via either High Pressure Acid Leach (HPAL) or Pressure Oxidation (POX) processing:
 - Rougher concentrate samples provided to potential customers who have advised they have achieved nickel extraction of circa 95% for HPAL
 - Pressure oxidation testwork indicates 96% nickel extraction
 - Majority of input assumptions for prefeasibility study received, report remains on track to be completed late in 2023, subject to confirming nickel payability assumptions
- **Lake Johnston Exploration**
 - Second aircore and reverse circulation drilling programs focusing on follow-up targets at Maggie Hays West and regional prospects along the Western Ultramafic Unit completed. Assays pending
 - Sampling of historical surface and underground diamond holes at Maggie Hays West to provide important additional litho-geochemical information on the Western Ultramafic Unit
- **Windarra**
 - Assessment of alternative processing technologies using Glycine Leaching Technology for the Gold Tailings Project has indicated the potential to improve gold recoveries
 - Detailed review of historical exploration data by geological consultants Newexco completed, identifying high prospectivity exploration targets
- **Corporate**
 - Further cost reduction initiatives driving cost savings to over \$3 million on an annualised basis

Poseidon Nickel Limited (ASX: POS, “the Company”) is pleased to provide a Company update.

CEO, Craig Jones, commented: *“the Company continues to progress several important workstreams, namely preparing the Black Swan project for a future restart, feasibility studies on the Black Swan Expansion Project to unlock further nickel tonnes from the Disseminated Resource, exploration activities at Lake Johnston along the highly rated Western Ultramafic Unit and a review of exploration potential at Windarra.*

At the Black Swan Project, work programs have continued to ensure the Company will be in a strong position to quickly proceed to FID and take full advantage of any future nickel price upswing, whilst a significant reduction in site holding costs has been achieved.

The Company continues to prepare itself for a future FID at the Black Swan Project with a cost efficient option for 150 accommodation rooms in Kalgoorlie being secured that meets the personnel requirements as per the Bankable Feasibility Study. In addition, positive results were received from initial confirmatory metallurgical testwork for the Black Swan disseminated ore, indicating the non-sulphide nickel content is consistent with the Bankable Feasibility Study assumptions.

The Expansion Project scoping study remains on track to be completed late in 2023. Recent testing of the rougher concentrates by potential customers has returned 95% extraction for HPAL and 96% for POX. Rougher concentrate is not a widely traded product, so confirming the commerciality and beneficial synergies through a third party HPAL or POX facility is key. The testwork aims to help set the platform for third parties to provide indicative nickel payability terms to treat rougher concentrate.

Follow up exploration drilling at Lake Johnston has been completed and samples submitted to the laboratory. Interpretation of historical drilling data and the most recent drilling supports the theory for channelised ultramafic environments, a key setting for nickel sulphides, are likely to occur along the Western Ultramafic Unit. It's early days on this exciting development however the opportunity is highly rated by our geological team. We are also reviewing the lithium prospectivity of our Lake Johnston tenements with validation of database records as a first step, followed by field reviews with support from a lithium expert.

Lastly, a recent review of exploration targets at Windarra by our specialised geological consultants, Newexco, has been received identifying a number of highly prospective targets which could be tested using low-cost exploration techniques such as electromagnetic surveys. The Company will provide further exploration updates for our shareholders on the Lake Johnston and the Windarra exploration targets as information comes to hand.”

BLACK SWAN

Black Swan Restart Project

The Company has recently advanced the following workstreams to progress the Black Swan restart project:

Accommodation

The Company has entered into an option agreement for the provision of accommodation rooms in Kalgoorlie with an established provider. The low-cost option provides Poseidon a minimum of 150 rooms for a minimum of four years. The option can be exercised at any time during the 12-month period through to the end of October 2024.

Metallurgical Testwork

The Black Swan Disseminated Mineral Resource was updated by Golders in June 2023 and incorporated an additional 3,000 assays from a 112-hole Reverse Circulation (RC) drilling program drilled from the base of the pit (refer to ASX Announcement “*Updated Resource provides more Nickel at Black Swan*” dated 7 June 2023).

The updated Mineral Resource pointed to a notable increase in the Non-Sulphide Nickel (NSNi) content within the modelled mineralised zones (see Figure 1) along with a lower sulphur to nickel ratio (S:Ni ratio) in the

Hangingwall zone. Follow-up work was conducted in June and July 2023 to compare the NSNi assays from prior diamond drilling (DD) campaigns, however a reliable comparison could not be made given the limited NSNi assays completed. The NSNi assays received from the RC drilling program were approximately two times higher than anticipated. This led to a recommendation to improve confidence in the NSNi assay dataset given the importance of the metallurgical recovery assumptions and anticipated concentrate specification for the project

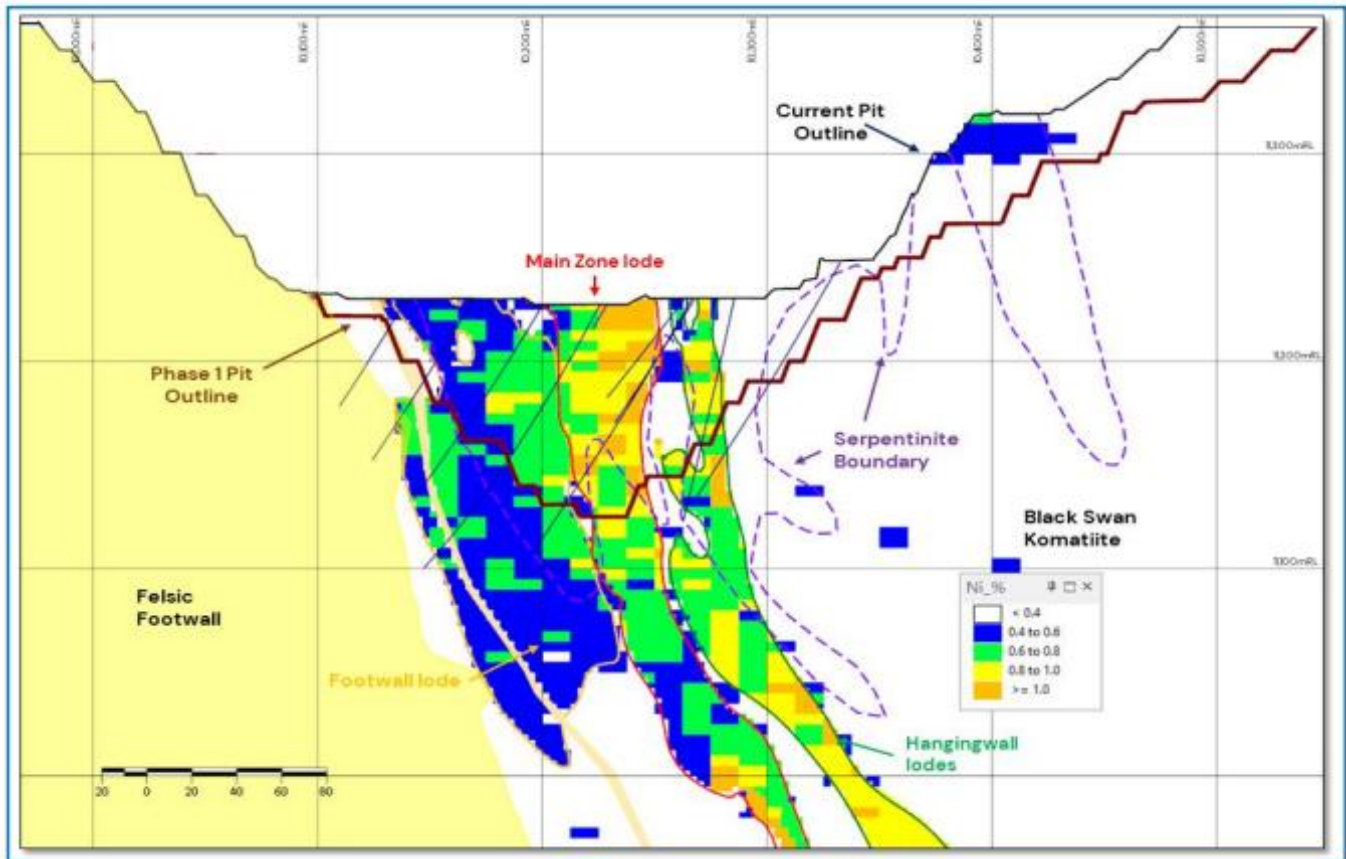


FIGURE 1: BLACK SWAN DISSEMINATED RESOURCE IDENTIFYING MINERALISED ZONES, FOOTWALL, MAIN ZONE AND HANGINGWALL

Expert technical advisors recommended the use of samples derived from DD core to assess the variability in the NSNi content within each mineralised zone and to verify the nickel recovery within each mineralised zone. The metallurgical testwork program will also quantify the concentrate specification quality that can be achieved within each mineralised zone.

The first stage of the confirmatory testwork commenced immediately following the August 2023 capital raising:

- DD core intervals from historical holes were selected and sent to the Strategic Metallurgy laboratory to assess the NSNi content on a one metre sampling basis and to confirm metallurgical recoveries. The samples selected represent the three modelled mineralised zones (Main, Hangingwall and Footwall) and provide spatial representation of the second half of the mine plan.
- With reference to Table 1, the underlying NSNi content reported from the first stage of testwork is in line with the metallurgical samples utilised in the November 2022 Bankable Feasibility Study (BFS). Despite the limited number of DD samples (70) tested so far, the results indicate that it is likely that the higher NSNi assays derived from the finer RC drill samples was a result of the samples oxidising between drilling and assaying.

TABLE 1 - INTERIM ASSAY RESULTS FROM DIAMOND CORE METALLURGICAL SAMPLES

BSD Ore Zone	Tonnage Proportion of Mine Plan (%)	Met Comps (No.#)	As (%)	Co (%)	Fe (%)	MgO (%)	Ni (%)	S (%)	SiO ₂ (%)	NSNi (%)	S/Ni Ratio	%NSNi
Main	51.6	28	0.040	0.022	5.80	37.1	1.14	1.72	34.8	0.090	1.51	8.0
Footwall	25.7	21	0.040	0.020	5.84	37.7	0.78	1.24	33.8	0.123	1.60	15.8
Hangingwall	22.7	21	0.038	0.015	4.75	37.1	0.99	0.66	37.6	0.126	0.67	12.7

The second stage of the confirmatory testwork involves diamond core samples from the ten-hole DD and metallurgical sampling program completed during September 2023:

- Approximately 520 additional NSNi assays were received from the drilling program that was designed to intersect the three mineralised zones and to spatially cover the north to south extents of the resource. Importantly, the NSNi assays received were all in line with the results presented in Table 1 and therefore are also in line with the samples tested in the BFS. This is another positive outcome given the much larger sampling size and extent of the resource covered by the drilling program.
- An investigation into why the NSNi assays reported in the RC in-fill drilling program returned 'elevated' values has concluded that partial sulphide oxidation is the most likely mechanism. RC drilling introduces a significant amount of energy (including heat) into the rock, pulverising it to produce ultra-fine samples. These ultra-fine size fractions are then susceptible to sample 'aging' i.e., partial oxidation of the liberated metal sulphides. The RC samples took approximately six weeks from drilling to be assayed in the laboratory. This significant time period is also believed to have contributed to the partial oxidation of the pulverised RC samples.

2.2Mtpa Expansion Project

Engagement with potential customers for the rougher concentrate remains ongoing with concentrate samples supplied to interested parties to confirm suitability as a feed source for their hydrometallurgical processes.

- One potential customer completed High Pressure Acid Leaching (HPAL) testwork and confirmed the nickel extraction for the rougher concentrate was circa 95% when the concentrate was blended at 2.5%, 5.0% and 7.5% (by weight) with their nickel laterite ore.
- Pressure Oxidation (POX) amenability testwork has also demonstrated high nickel extraction can be achieved with the rougher concentrate with relatively rapid leach kinetics. The testwork reported circa 96% nickel extraction within 30 minutes when applying standard POX operating conditions in a laboratory autoclave.

These tests confirm high nickel extraction rates for the rougher concentrate when processed through either a HPAL or POX facility, which is an important input to the ongoing Prefeasibility Study (PFS) for the Expansion Project.

The Company has now received the majority of input assumptions to the PFS and remains on track to release the study late in 2023, subject to confirming nickel payability assumptions for the rougher concentrate.

Rougher concentrate is not a widely traded product and therefore verifiable nickel payability assumptions are not readily available to confirm revenue assumptions in the PFS. As such, the study is subject to potential customers being able to provide such information. Poseidon continues to progress the product testing and is anticipating receiving indicative payability assumptions that can be used in the PFS.

LAKE JOHNSTON

Western Ultramafic Unit Exploration

During May 2023 Poseidon completed an initial program of shallow Aircore (AC) and RC drilling along a 14km section of the Western Ultramafic Unit (WUU), identifying coincident nickel sulphide pathfinder anomalous zones at several regional locations and primarily at Maggie Hays West (refer to Company ASX announcement “Exciting Greenfields Nickel Intersections at Lake Johnston” dated 3 July 2023).

Poseidon has now completed an initial follow-up drill program targeting both Maggie Hays West and several regional targets. The recent follow-up program comprised a total of 18 AC holes for 844m and seven RC holes for 835m. A total of 1,049 samples were collected and dispatched to SGS’s Perth Laboratory for analysis, with all results anticipated to be returned in early December 2023. Drillhole locations for the recent drilling program are presented in Figure 2.

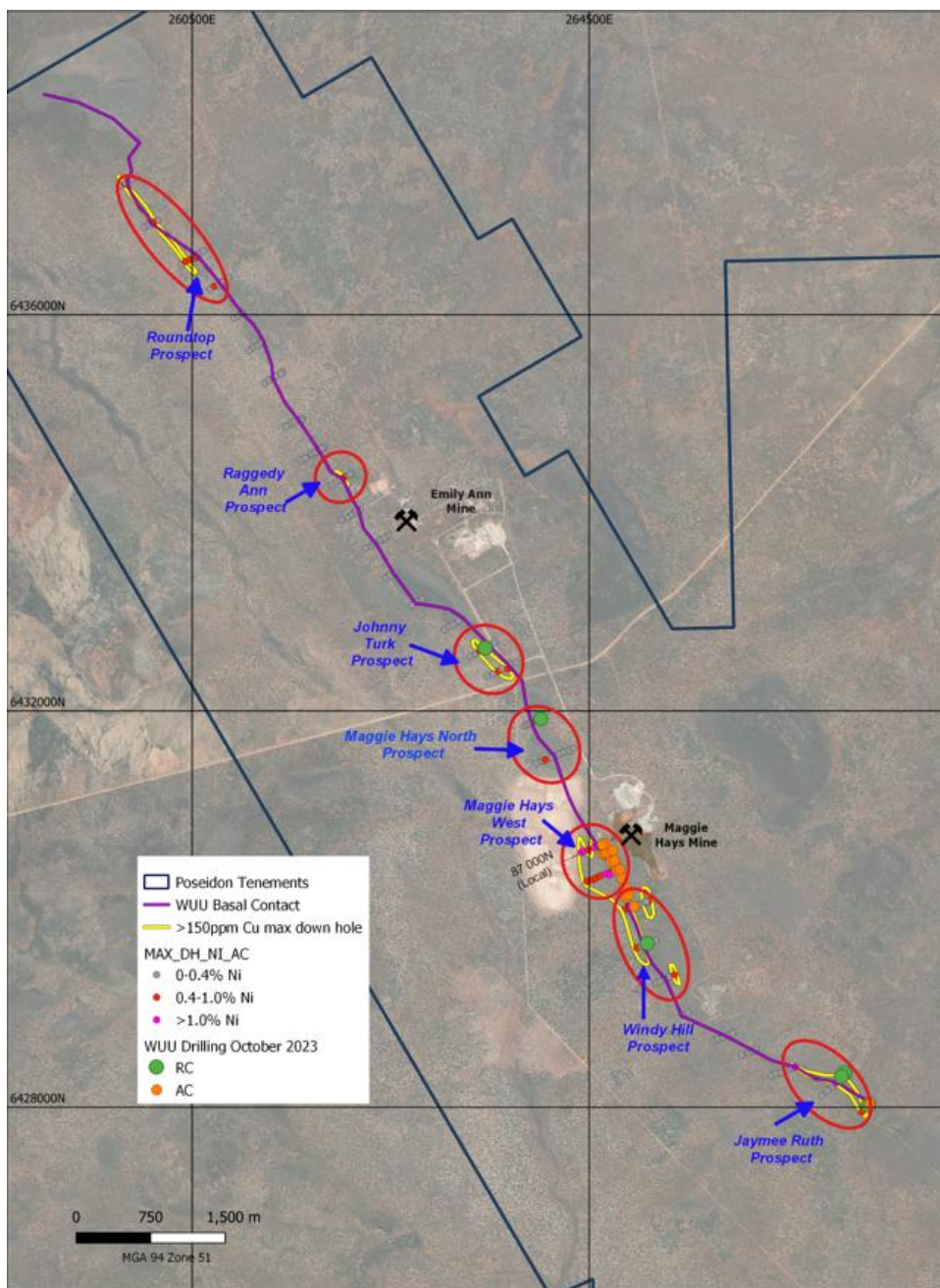


FIGURE 2: LOCATION PLAN SHOWING COMPLETED DRILLING IN OCTOBER AT LAKE JOHNSTON

Maggie Hays West

The Maggie Hays West component of the recent drill program consisted of 17 AC holes for 807m drilled on 100m spaced lines with the aim to define the position of the basal (eastern) contact of the WUU against the Banded Iron Formation (BIF). Maggie Hays West is located 200m west of the existing Maggie Hays nickel ore body and associated underground workings (Maggie Hays is 250m from the surface within the Central Ultramafic Unit (CUU)).

The interpreted stratigraphy and the continuity of coincident nickel sulphide pathfinder anomalous zones will be confirmed once the assays are returned and the interpretation updated. This is expected to be completed in the coming weeks. These interpretations will assist with further target definition and aid planning for the next phase of exploration at the prospect.

Important resampling of selected historic DD holes at Maggie Hays West to add more litho-geochemical information has also been undertaken and have been sent to the lab with results expected in early December 2023. The relationship between surface mapping and sampling will be utilised to create a three-dimensional interpretation of the Maggie Hays West prospect. Of the four holes sampled, two include LJD0003A and MHUD0551 which intersected nickel sulphide mineralisation at the WUU contact, Figure 3 (refer to ASX announcement “*Exciting Greenfields Nickel Intersections at Lake Johnston*” dated 3 July 2023).

Maggie Hays West is considered the priority target area for exploration activities at Lake Johnston.



FIGURE 3: HISTORICAL CORE PHOTO (MHUD0551) SHOWING MASSIVE SULPHIDE MINERALISATION INTERSECTED AT THE INTERPRETED BASAL CONTACT OF THE WUU. GRADE 2.55M @ 1.92% NI AND 1344PPM CU FROM 235.45M*

*Refer to ASX Poseidon announcement “*New Mineralised zone identified at Lake Johnston*” dated 18 February 2015 for previously reported nickel sulphide intersections.

Regional Targets

Follow-up drilling on regional prospects involved one AC (37m) and seven RC (835m) holes being drilled at Jaymee Ruth, Windy Hill, Maggie Hays North and Johnny Turk. Fine, trace disseminated sulphides internal to the WUU were intersected at Jaymee Ruth and two metres of massive pyrite recorded on the WUU basal contact at Windy Hill. Handheld pXRF readings indicated the nature of both sulphide types are iron rich, resulting in the poor potential for nickel sulphides downgrading these prospects, which can be verified once assays have been returned. No other significant sulphides were observed at the other regional prospects tested.

Next Steps

While several WUU regional prospects remain to be evaluated and the location of the basal contact confirmed, the Maggie Hays West area adjacent to the Maggie Hays mine remains a priority exploration target for Poseidon. Prospect scale geological interpretation is the immediate ongoing focus to improve the understanding of the relationship between the WUU and the mineralised CUU which hosts the Maggie Hays orebody. This includes updating existing 3D modelling and combined with the litho-geochemical results from the recent sampling of the historical WUU DD holes containing nickel sulphide mineralisation, these understandings will be used to target the controls of the Maggie Hays West prospect.

Lake Johnston Lithium

An assessment of historical information on the potential for lithium across the tenements is underway with validation of database records being the first step, this is planned to be followed up with field reviews and an assessment with an expert in lithium exploration.

WINDARRA

Gold Tailings Project

The Company is currently assessing the potential of Draslovka's Glycine Leaching Technology which may improve gold recoveries for the tailings retreatment project. Draslovka is a global leader in cyanide-based chemical specialties and their Glycine Leaching Technology is considered one of the most environmentally sustainable and cost-effective ways to produce precious metals and critical minerals. If testing indicates a material uplift in gold recoveries, this technology could improve project economics.

Since the Windarra Gold Tailings Definitive Feasibility Study (DFS) (refer to ASX announcement "*Windarra Gold Tailings DFS Highlights Robust Project*" released 23 July 2021) was released, the Australian dollar gold price has improved significantly, lifting approximately 30% from A\$2,333/oz in the DFS to circa A\$3,100/oz today. The improvement in gold price combined with any uplift in gold recoveries could further improve project economics. The Company is also continuing to pursue development opportunities with interested partners for the project.

Exploration Target Review

The Company's expert geological consultants, Newexco, recently reviewed the exploration database and prior studies into the exploration potential at Windarra. Newexco completed a detailed report and confirmed a number of exploration targets. Some of these targets can be tested using low-cost exploration techniques such as electromagnetic surveys and the report's findings are carefully being considered by company geologists.

COST SAVING INITIATIVES

Further cost saving initiatives implemented in addition to those already reported have increased annualised cost savings to over \$3.0 million. The Company continues to review our cost base to identify further cost reduction opportunities.

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


Craig Jones
CEO

9 November 2023

For further information contact Craig Jones: + 61 (0)8 6167 6600.

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 over 420,000 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 with the aim of being a profitable and sustainable nickel producer. A critical element of this strategy has been to acquire projects and operations with significant existing infrastructure, large nickel resources and geological prospectivity likely to lead to resource growth through the application of modern exploration techniques.

Poseidon owns the, Black Swan Lake Johnston and Windarra 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 Golden Swan Resource at Black Swan, the Abi Rose and more recently the Maggie's Hays West mineralisation at Lake Johnston.

The Company completed a Bankable Feasibility Study on Black Swan in November 2022 which is planned to be the first project to restart, subject to appropriate project financing structures being achieved, the outlook for the nickel price remaining positive and all necessary approvals being obtained.

A Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield was completed in mid-2022.. A potential partner is currently conducting due diligence on the Lancefield gold tailings and accessing the water in the South Windarra pit.

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 Ms Karyn Parker, who is an employee of Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

Ms Parker, has 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). Ms Parker consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Additional information contained within this announcement is extracted from the reports titled:

- "Exciting Greenfields Nickel Intersections at Lake Johnston" dated 3 July 2023
- "Updated Resource provides more Nickel at Black Swan" dated 7 June 2023
- "Black Swan Restart Project Update" dated 5 April 2022

which are available to view on www.poseidon-nickel.com.au.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and, in the case of Minerals Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

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 matters that may involve risks or uncertainties and may involve significant items of subjective judgement and assumptions of future events that may or may not eventuate (Forward Statements). 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. No independent third party has reviewed the reasonableness of any such statements or assumptions. None of the Company, their related bodies corporate and their respective officers, directors, employees, or advisers represent or warrant that such Forward Statements will be achieved or will prove to be correct or gives any warranty, express or implied, as to the accuracy, completeness, likelihood of achievement or reasonableness of any Forward Statement contained in this release. Except as required by law or regulation, the Company assumes no obligation to release updates or revisions to Forward Statements to reflect any changes. Recipients should form their own views as to these matters and any assumptions on which any of the Forward Statements are based and not place reliance on such statements.

Appendix 1 - Nickel Projects Mineral Resource Statement

Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	MINERAL RESOURCE CATEGORY															
			MEASURED			INDICATED			INFERRED			TOTAL						
			Tonnes (Kt)	Ni% Grade	Ni Metal (t)	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	0.4%	800	0.78	7,000	15,100	0.73	111,000	10,400	0.69	71,000	26,300	0.72	189,000	0.02	4,000	0.03	7,900
Silver Swan	2012	1.0%	-	-	-	138	9.00	12,450	8	6.00	490	146	8.80	12,940	0.16	240	0.36	530
Golden Swan	2012	1.0%	-	-	-	112	4.70	5,200	48	2.20	1,050	160	3.90	6,250	0.08	120	0.30	480
Silver Swan Tailings	2012	NA	675	0.92	6,200	-	-	-	-	-	-	675	0.92	6,200	0.07	460	0.04	270
Stockpiles	2012	0.4%	-	-	-	1,200	0.49	5,900	400	0.53	1,900	1,600	0.50	7,800	NA	NA	NA	NA
LAKE JOHNSTON PROJECT																		
Maggie Hays	2012	0.8%	-	-	-	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	0.9%	-	-	-	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	0.8%	-	-	-	722	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	-	NA	-
TOTAL																		
Total Ni, Co, Cu Resources	2004 & 2012		1,475	0.84	13,200	23,600	0.98	233,500	17,000	1.03	176,000	42,100	1.00	422,700	0.02	7,800	0.05	18,300

Note: totals may not sum exactly due to rounding. NA = Information Not Available from reported resource model.

- **Black Swan Resource** as at 7 June 2023 (see ASX announcement "Updated Resource provides more Nickel at Black Swan" released 7 June 2023)
- **Silver Swan Resource** as at 27 April 2022 (see ASX announcement "Updated Silver Swan Resource underpins significant increase in high-grade Indicated resource base" released 27 April 2022)
- **Golden Swan Resource** as at 27 October 2021 (see ASX announcement "Golden Swan Maiden Resource" released 27 October 2021).
- **Silver Swan Tailings Resource** as at 15 September 2021 (see ASX announcement "Silver Swan Tailings – Maiden Resource Estimate" released 15 September 2021)
- **Stockpile Resource** as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4 August 2014)
- **Maggie Hays Resource** as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17 March 2015)
- **Mt Windarra Resource** as at 7 November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7 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 December 2011)

Appendix 2 - Nickel Reserves Statement

Nickel Sulphide Reserves	JORC Compliance	BLACK SWAN PROJECT							
		Proved/Probable	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co % Grade	Co Metal (t)	Cu % Grade	Cu Metal (t)
Black Swan	2012	Proved	579	0.7	4.2	NA	NA	NA	NA
		Probable	2,608	0.7	17.7	NA	NA	NA	NA
Silver Swan	2012	Proved	-	-	-	NA	NA	NA	NA
		Probable	179	5.0	9.0	NA	NA	NA	NA
Golden Swan	2012	Proved	-	-	-	NA	NA	NA	NA
		Probable	100	4.0	4.0	NA	NA	NA	NA
Total Ni Reserves	2012	Proved	579	0.7	4.2	NA	NA	NA	NA
		Probable	2,887	1.1	30.7	NA	NA	NA	NA
		Total	3,466	1.0	34.9	NA	NA	NA	NA

Note: totals may not sum exactly due to rounding. NA = Information Not Available from reported resource model.

- Black Swan Reserve, Silver Swan Reserve and Golden Swan Reserve as at 21 November 2022 (see ASX announcement "Positive Black Swan Feasibility Study" released 21 November 2022)

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 3

DRILLHOLE COLLAR LOCATION DATA, REPORTED IN GDA 94 MGA ZONE 51

Prospect	Lease	Hole ID	Type*	East	North	RL	Dip	Azi (True)	EOH (m)
Johnny Turk	M 63/283	PLJA066	AC	263423	6432616	1354	-90	0	18
Maggie Hays North	M 63/283	PLJA072	AC	263970	6431901	1354	-90	0	35
Maggie Hays West	M 63/163	PLJA076	AC	264448	6430587	1350	-90	0	63
Maggie Hays West	M 63/163	PLJA078	AC	264552	6430616	1350	-90	0	37
Maggie Hays West	M 63/163	PLJA080	AC	264478	6430279	1350	-90	0	75
Maggie Hays West	M 63/163	PLJA081	AC	264532	6430293	1350	-90	0	47
Maggie Hays West	M 63/163	PLJA082	AC	264568	6430313	1350	-90	0	57
Maggie Hays West	M 63/163	PLJA083	AC	264613	6430333	1350	-90	0	48
Maggie Hays West	M 63/163	PLJA084	AC	264670	6430356	1350	-90	0	54
Maggie Hays West	M 63/163	PLJA085	AC	264718	6430376	1350	-90	0	36
Maggie Hays West	M 63/163	PLJA086	AC	264758	6430390	1350	-90	0	64
Windy Hill	M 63/163	PLJA087	AC	264871	6430002	1350	-90	0	63
Windy Hill	M 63/163	PLJA091	AC	265103	6430084	1350	-90	0	46
Windy Hill	M 63/163	PLJA092	AC	264978	6429608	1350	-90	0	39
Windy Hill	M 63/163	PLJA093	AC	265029	6429626	1350	-90	0	25
Jaymee Ruth	M 63/163	PLJA116	AC	266574	6428405	1350	-90	0	29
Jaymee Ruth	M 63/163	PLJA119	AC	266986	6428247	1350	-90	0	59
Jaymee Ruth	M 63/163	PLJA124	AC	267248	6427951	1350	-90	0	22
Windy Hill	M 63/163	PLJA140	AC	265360	6429336	1350	-90	0	28
Johnny Turk	M 63/283	PLJA148	AC	263394	6432605	1354	-90	0	34
Roundtop	M 63/282	PLJA158	RC	260106	6436934	1364	-90	0	100
Johnny Turk	M 63/283	PLJA170	RC	263679	6432425	1354	-90	0	100
Maggie Hays West	M 63/163	PLJA172	RC	264702	6430362	1350	-90	0	100
Windy Hill	M 63/163	PLJA173	RC	264906	6430005	1350	-90	0	88

*AC = Aircore, RC = Reverse Circulation

Appendix 4

Checklist of Assessment and Reporting Criteria

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Air core and reverse circulation drilling was used to obtain 1m drill samples that were placed on the ground in 20m rows. Four metre composite samples were created using a spear to collect sample from each pile and produce a representative 1 to 2kg sample. Each sample was crushed and pulverized and a 0.2g sample digested with a mixture of nitric, hydrochloric, perchloric and hydrofluoric acids before analysed via ICP-OES (SGS method GE_ICP40Q20). All samples >0.4% Ni were resampled on one metre intervals with a spear to collect a 1-2kg sample. 1m interval samples were submitted for base metal and PGE analysis via ICP-OES (SGS method GE_ICP40Q20) and fire assay (SGS method GE_FAM30V10), respectively.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Air core and reverse circulation drilling was conducted by Gyro Drilling Pty Ltd using a KL-150 rig. The holes were drilled with a 95 mm hole diameter, using a blade bit and face sampling hammers. The majority of holes were vertical. Holes that were angled were drilled at -60 towards 250 and orientated using a compass and clinometer. Collar locations were established using a hand-held GPS using GDA MGA zone 51 co-ordinate system.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Recovery was estimated visually, and notes made in the logs. Sample recoveries were generally considered good to excellent. No relationship between sample recovery and grade was recognized.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All drill chip samples were logged into Geobank Mobile by Geolithic Pty Ltd field staff at the time of drilling. Logged chips were washed prior to recording geology (including lithology, weathering, mineralogy and alteration). Holes were validated before being exported to the Geobank database. All holes were logged in full.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Air core and RC samples were collected using a spear directly from the sample piles to give a 1-2kg composite sample over 4m. Follow-up 1 m samples were taken using the same method of composite samples with >0.4% Ni. Field duplicates were carried out every 100 samples, and Certified Referenced Materials (CRM) were used every 100 samples.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Samples were dispatched to SGS laboratories in Perth. After crushing and pulverizing they were analysed by 4-acid exploration grade digest with ICP-OES finish 1m samples were also crushed and pulverized and analysed via 4 -acid exploration grade digest with ICP-OES finish and precious metals determined by using lead collection technique with a 30g charge weight with ICP-MS instrument finish CRMs standards and field duplicate samples were submitted at a rate of 1 in 50 throughout the course of the program. Analysis of the results demonstrate a high degree of reliability can be assigned to the SGS analytical results. No portable analysis tools were used in the determination of assay results.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Sampling was conducted by the logging geologists and field staff who are contractors to Geolithic Pty Ltd. Data was collected using Geobank Mobile which utilises a validation function before data can be exported into the Geobank database. No adjustments have been made to the assay data.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Collar locations were picked up after drilling using a hand-held GPS $\pm 5m$. The grid used is GDA 94 MGA Zone 51. No downhole surveys were conducted on the vertical holes.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The air core holes were generally spaced 50m apart on approximately 400m line spacing, utilising previously cleared lines. The results being reported are mostly on 4m composite samples, and subsequent 1m intervals over selected intervals.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill sample orientation is considered appropriate with respect to the geology being tested. Bias introduced by drilling orientation is considered insignificant due to the depth of cover and lower penetration of residual bedrock
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All samples were placed in prenumbered calico bags and secured with a draw string. The calico samples were then placed in a polyweave bag and sealed with a cable tie annotated with sample numbers and then placed in a bulky bag. Samples were collected by a transport company from site and transported to SGS Perth for assay.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Western Ultramafic Unit covers a strike length of 17km and extends through tenements M63/282, M63/283, M63/284, M63/163 and E63/1784. Mining tenements M63/282, M63/283, M63/284 and M63/163 are all 100% owned by Poseidon Nickel Limited. E63/1784 is a joint venture between Poseidon Nickel (80%) and Essential Metals Limited (20%). The tenements are located 160km west of Hyden and straddle the Hyden-Norseman Road.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The Maggie Hays and Emily Ann nickel mines were discovered by LionOre. Much of the exploration drilling and development was completed by LionOre which was taken over by Norilsk in 2007. Norilsk Nickel continued mining and developing the underground mines on and off until 2013. Poseidon Nickel purchased the operation from Norilsk in December 2014.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Emily Ann, Maggie Hays and Abi Rose nickel deposits are hosted within the Central Ultramafic Unit are intrusive-style massive and disseminated nickel deposits. The Western Ultramafic Unit, however, is considered to be a Kambalda-Style Komatiite.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Lake Johnston drill hole database has developed and been maintained in different software formats for 30 years. It contains data captured by 6,523 drill holes by numerous companies over this period. The latest drill hole information pertaining to this announcement that has not been previously reported is listed as Table within the text.
Data aggregation methods	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> When reporting nickel assay results, a cut-off grade of 0.4% Ni has typically been used to create weighted averages. When reporting Platinum and Palladium the values have been added to give a combined PGE value. A cut off of 50 ppb has been used in the tabulated results.

Criteria	JORC Code explanation	Commentary
	<p><i>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> <ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> No metal equivalents are used.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> Nickel, Copper and Combined PGE widths are reported as down hole lengths at Lake Johnston.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Appropriate maps and sections related to this latest Lake Johnston drilling have been included with the announcement.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Significant intersections from the recent AC and RC programs are tabulated in Table 1 of the report. Both low and high grades and widths are reported.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No further substantive exploration data is necessary to support this announcement.
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Further drilling is being planned to test the results reported.