

QUARTERLY REPORT 30 SEPTEMBER 2022

HIGHLIGHTS

- **Black Swan Feasibility Study**
 - Material improvement in anticipated concentrate quality and saleability through utilising the existing Silver Swan ball mill to regrind the rougher concentrate prior to the production of final concentrate
 - Repeatable locked-cycle flotation tests incorporating regrinding demonstrates production of a smelter **grade concentrate with up to 17% Ni, < 6% MgO and a Fe:MgO ratio of 5:1**
 - Additional metallurgical testwork incorporating regrinding is underway to further optimise the concentrate nickel grade versus recovery and to maximise the nickel payability
 - 1.1Mtpa Bankable Feasibility Study on track to be completed during the December quarter with the feasibility study base on utilising the full 2.2Mtpa milling capacity continuing in parallel
- **Windarra Gold Tailings Heads of Agreement**
 - Heads of Agreement for the Windarra Gold Tailings Project signed with Green Gold Technology
 - Green Gold currently undertaking metallurgical testing to confirm potential gold recovery improvements using their proprietary technology
- **Lake Johnston Exploration**
 - Planning continues for the 15,000m Western Ultramafic RC drilling program which is expected to commence in early 2023
 - Co-funding grant of up to \$180,000 received from WA State Government to support the planned drilling program
 - Review of lithium potential underway
- **Corporate**
 - Strong offtake interest with improved indicative terms received as a result of the improved concentrate specifications
 - Poseidon is working in conjunction with Pure Battery Technologies to support metallurgical testwork as part for the proposed Kalgoorlie pCAM Hub Feasibility Study
 - Cash and investments were \$7.4 million at 30 September 2022

Poseidon Nickel (ASX: POS, “the Company”) is pleased to report on its activities and progress achieved for the September quarter 2022.

Managing Director and CEO, Peter Harold, commented: *“The Company made a considerable breakthrough on the quality of our smelter grade concentrate by introducing an additional rougher concentrate regrind step into the Black Swan processing circuit. Results from a series of repeatable locked-cycle flotation tests over a wide range of potential feed grades show that the addition of a rougher concentrate regrind step improves the nickel grade and reduces the MgO content in the concentrate to an attractive level for smelters.*

Following the metallurgical breakthrough, further optimisation testwork is underway to finalise the study assumptions and optimise the smelter concentrate specifications. Completion of the Bankable Feasibility Study on the 1.1Mtpa ore feed to produce smelter grade concentrate remains on track for delivery in the December quarter.

The feasibility option to fully utilise the 2.2Mtpa ore feed capacity and site infrastructure to produce a rougher concentrate for processing through the proposed Kalgoorlie pCAM hub or other non-smelter process routes such as HPAL or POX is continuing in parallel.

Over the quarter the Company also completed the Quantitative Xray Diffraction analysis program which mapped the talc distribution in the Black Swan Disseminated resource to improve mine and process scheduling, progressed the planning for the Lake Johnston Western Ultramafic exploration program and entered into a Heads of Agreement with Green Gold Technologies to partner on the Windarra Gold Tailings Project.

It’s an exciting time for the Company as we progress activities on a number of fronts to realise the full value of our portfolio.”

BLACK SWAN

Black Swan 1.1Mtpa Ore Feed Feasibility Study

The Bankable Feasibility Study (BFS) on the 1.1Mtpa ore feed option to produce smelter grade concentrate is close to completion with the remaining outstanding workstreams being finalised.

Over the quarter, the Company made an important breakthrough with positive results from locked-cycle flotation tests (LCT) by incorporating a regrind stage (regrinding the rougher concentrate to 80% passing 32 microns).

In summary, historical production data from 2009 when only processing Black Swan Disseminated (BSD) ore indicated nickel concentrate production contained ~15% MgO with an Fe:MgO ratio of 1.4:1. Given these characteristics, this concentrate would not be preferred feed for conventional nickel smelters. By comparison the concentrate produced by introducing the regrind step is far more marketable, containing 17% nickel, only 5.4% MgO and a Fe:MgO ratio of 4.8:1. MgO levels were further suppressed when the ore blend included high-grade Silver Swan ore and Silver Swan Tailings. Feedback from potential offtake parties is this product specification is considered highly desirable as a feed for conventional nickel smelters.

The results of the LCT using BSD ore only are shown in Test 1 in Table 1, with the results of the LCT using a blend of BSD, high-grade Silver Swan ore and Silver Swan Tailings shown in Test 2.

TABLE 1: LOCKED-CYCLE TESTWORK RESULTS

Element/ratio	Test 1 (Black Swan Disseminated only)	Test 2 (BSD + Silver Swan tailings + Silver Swan high-grade)
Ni	17.2%	14.9%
Cu	0.59%	0.60%
Co	0.47%	0.41%
MgO	5.43%	4.52%
Fe:MgO	4.8:1	6.6:1
S	38.8%	36.1%
SiO ₂	6.29%	6.43%
As	3,438ppm	3,795ppm

As a result of this recent testwork GR Engineering Services (GRES), in conjunction with management, have added a regrind stage to the process flowsheet. The regrind stage will utilise existing infrastructure at Black Swan.

Following the recent metallurgical breakthrough, further optimisation testwork is underway to finalise study assumptions and to optimise the smelter concentrate specifications to achieve the best offtake terms. As a result, completion of the 1.1Mtpa smelter grade concentrate Bankable Feasibility Study will be towards the end of the December quarter.

The following table summarises the completion status for the 1.1Mtpa BFS workstreams.

TABLE 2 – BLACK SWAN 1.1MTPA BFS COMPLETION STATUS

Note: each shaded block of scale represents 25% completion of study workstream (i.e. 75% complete: )

BFS Workstream	Completion Status	Comment
Mineral Resource Estimate		<ul style="list-style-type: none"> Black Swan resource drilling and Mineral Resource Estimate Silver Swan resource drilling and Mineral Resource Estimate Golden Swan resource drilling and Maiden Mineral Resource Estimate Silver Swan tailings drilling and Maiden Resource Estimate
Mine Planning for 1.1Mtpa operation		<ul style="list-style-type: none"> Black Swan Serpentine mine plan optimisation for 1.1Mtpa throughput Silver Swan Mine Planning Golden Swan Mine Planning
BSD talc distribution		<ul style="list-style-type: none"> Quantification of talc content and distribution (QXRD testing) completed Talc content distribution added to the Black Swan Disseminated Resource model
Underground pre-development rehabilitation works		<ul style="list-style-type: none"> Ladderway refurbishment completed, ongoing maintenance Silver Swan decline rehabilitation project largely completed
Mine waste dump and tailings design		<ul style="list-style-type: none"> Integrated Waste Rock Landform (IWRM) design completed
Silver Swan tailings		<ul style="list-style-type: none"> Silver Swan tailings reclamation report issued

GRES 1.1Mtpa engineering Study		<ul style="list-style-type: none"> • Mechanical Equipment Lists completed • Design criteria and mass balances completed • Capital and operating cost estimates received • Additional metallurgical testwork required to confirm concentrate product specifications
Metallurgical testwork		<ul style="list-style-type: none"> • Initial locked-cycle tests complete, positive product specification results received • Further metallurgical testwork required
Power supply		<ul style="list-style-type: none"> • Load study for 1.1Mtpa throughput scenario with Western Power to access up to 18MVA completed
Water supply		<ul style="list-style-type: none"> • Formal agreement executed to access up to 3,600m³ of groundwater per day from existing open pits proximal to Black Swan
Non-processing infrastructure		<ul style="list-style-type: none"> • Capital expenditure requirements for non-processing infrastructure completed • Workforce assumed to be accommodated in surrounding Kalgoorlie area
Concentrate transport		<ul style="list-style-type: none"> • Concentrate logistics options study nearing completion
Permits / regulatory approvals		<ul style="list-style-type: none"> • Current permits suitable for start-up, amendments required for Silver Swan tailings and larger waste and tailings facilities for 2.2Mtpa throughput
Community engagement		<ul style="list-style-type: none"> • Heritage approvals held under existing mining leases
ESG & sustainability		<ul style="list-style-type: none"> • ESG framework developed • ESG audit to be completed following finalisation of mining and engineering studies
Indicative offtake terms		<ul style="list-style-type: none"> • Updated indicative terms to be received on improved concentrate product specification from potential offtake partners
Funding	N/A	<ul style="list-style-type: none"> • Project funding to be arranged prior to financial investment decision

Black Swan 2.2Mtpa Ore Feed Feasibility Study

The 2.2Mtpa BFS continues to progress alongside the 1.1Mtpa study. GRES will shift its focus to formulating the cost inputs for the 2.2Mtpa option once the 1.1Mtpa study is completed. Work required in addition to the work already completed as part of the 1.1Mtpa study includes further metallurgical testwork to confirm the amenability of the rougher concentrate to processing via pressure oxidation (POX) and the cost to construct and operate a POX plant. Additional flotation testwork will also be carried out on varying feed grades and blend ratios of the serpentinite and talc carbonate ores to confirm the optimum grade versus recovery curve.

A larger Stage 2 open pit design is required along with updated mining rates and optimisation of the mining schedule with the combined talc carbonate and serpentinite ore sources.

The 2.2Mtpa BFS is expected to be finalised during 1H 2023.

Black Swan Restart Activities

Over the quarter, the dewatering of the Black Swan open pit continued. Significant progress has been made to-date and the dewatering is expected to be completed during the December quarter.



FIGURE 1 – BLACK SWAN OPEN PIT WATER LEVEL (EARLY OCTOBER)

Pit dewatering will allow access to the pit floor so further resource drilling can be undertaken to convert more inferred Resources to the Indicated classification.

Restart Timing

The 1.1Mtpa ore feed study is expected to be delivered during the December 2022 quarter and assuming a decision to proceed is made during 2023 (whether based on a 1.1Mtpa or 2.2Mtpa throughput operation), production of concentrate could commence in early 2024 to take advantage of the strong nickel price environment. The decision on the larger tonnage (2.2Mtpa ore throughput), rougher concentrate project, will be dependent on the outcome of the feasibility study and discussions with potential customers for that product.

LAKE JOHNSTON

Lake Johnston Exploration Update

The Lake Johnston Project is located 190km south-west of Kalgoorlie in Western Australia and contains two historical underground nickel sulphide mines, Emily Ann and Maggie Hays, a 1.5Mtpa processing plant, 200-person village, airstrip, tailings facility and associated infrastructure. Approximately 1.5 million tonnes of ore was mined from Emily Ann at an average grade of 3.8% nickel delivering 57,000 contained tonnes of nickel in concentrate between 1998 and 2007. Mining of the Maggie Hays deposit, which had an initial resource of 12.3 million tonnes at 1.5% nickel for 182,000 contained nickel, began in 2008 before the mine and processing plant was placed under care and maintenance in 2013 due to the historically low nickel price. A resource of 52,000 tonnes nickel averaging 1.49% nickel remains at Maggie Hays (refer to ASX announcements *“Lake Johnston Plant Capital and Operating Cost”* dated 21 February 2022).

The Emily Ann and Maggie Hays nickel deposits are hosted within the Central Ultramafic Unit which has been the focus of extensive exploration by previous owners. Historically, the Emily Ann deposit was considered a structurally deformed komatiite deposit. Exploration undertaken by Poseidon has successfully identified and tested a geological model indicating that Emily Ann is hosted within a shallow intrusive peridotite body that has been confined shallowly by the presence of a banded iron formation (BIF) unit. Intersections of nickel sulphide mineralisation were discovered and interpreted as the feeder zone to the intrusive, known as Abi Rose (refer to ASX announcements *“More Nickel Sulphides Intersected at Abi Rose”* dated 22 November 2018 and *“Significant High Grade Nickel Intersection at Emily Ann North”* dated 25 January 2016).

The Western Ultramafic Unit is interpreted to represent the extruded portion of the intrusive body that has breached the Banded Iron Formation (BIF) unit. The stratigraphic contact position that is located between the extrusive komatiite and the underlying BIF unit is named the basal contact. As the extrusive lavas flow over the basal contact, melting and assimilating of the sulphidic BIF unit occurs, it is conducive for the formation of nickel sulphide. It is usually within the channelised, embayed positions of the extrusive ultramafic unit along the basal contact is where nickel sulphides can accumulate to form massive sulphides deposits. Thus, finding the channelised flows along the Western Ultramafic basal contact is a key exploration target of the proposed RC drill program.

All the stratigraphic units have subsequently been deformed and overturned over the length of the Company's tenement portfolio at Lake Johnson, refer to Figure 2.

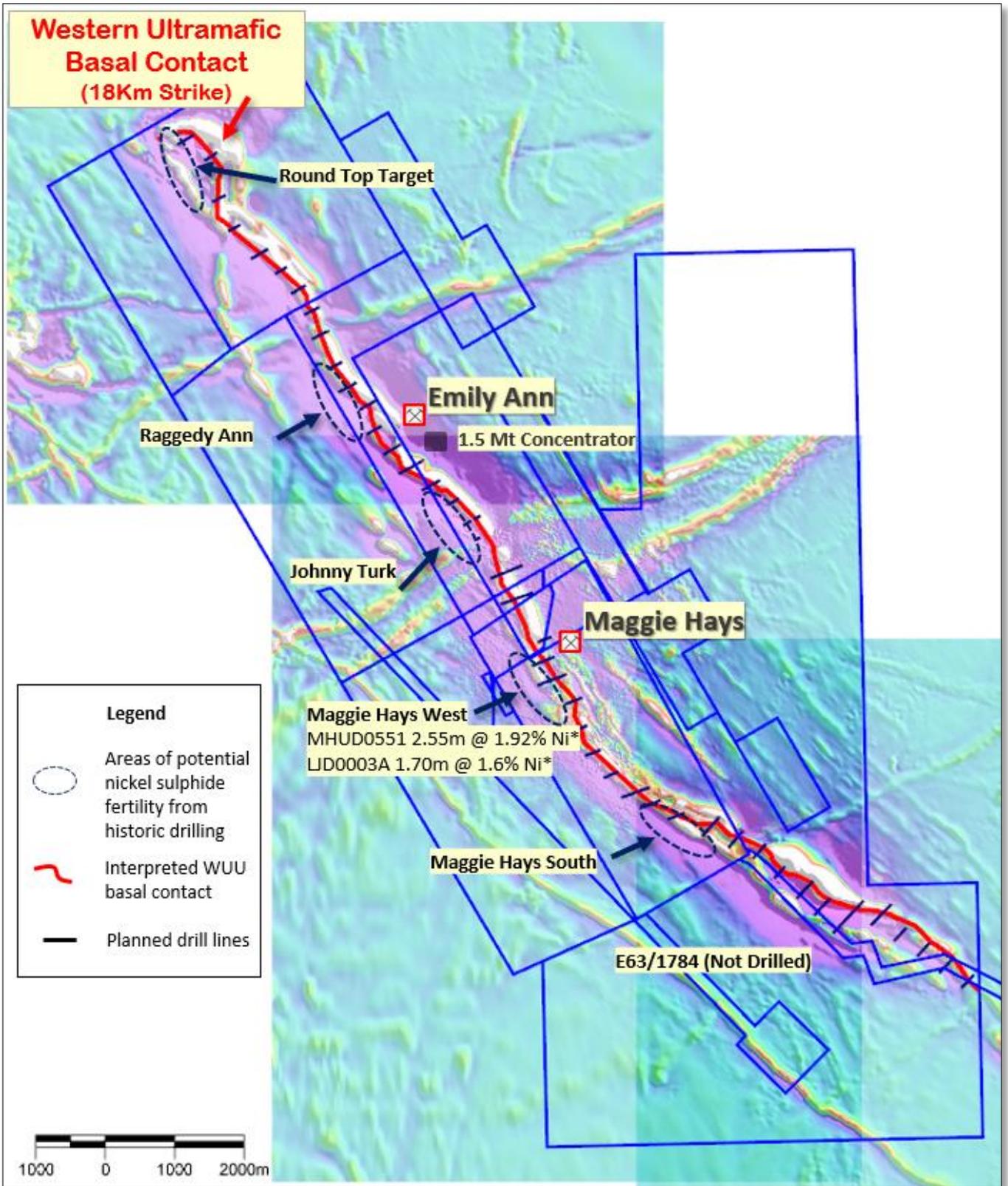


FIGURE 2: INTERPRETED BASAL CONTACT POSITION OF THE WESTERN ULTRAMAFIC OVERLAYING MAGNETICS WITH HIGHLIGHTED AREAS OF POTENTIAL NICKEL SULPHIDE FERTILITY IDENTIFIED FROM HISTORIC DRILLING CONDUCTED BY PREVIOUS OWNERS, AND NOT PUBLICLY REPORTED. BASAL CONTACT TO BE TESTED IN UPCOMING 15,000M RC DRILL PROGRAM.

** REFER TO ASX ANNOUNCEMENT "NEW MINERALISED ZONE IDENTIFIED AT LAKE JOHNSTON" DATED 18TH FEBRUARY 2015*

The basal contact of the Western Ultramafic is considered a high priority target for potential economic nickel sulphide mineralisation. Although sparsely drilled with a distinct lack of effective drilling in the near surface environment, historical nickel sulphide intersections throughout the belt prove the fertility of the unit and have had little follow-up, refer Figure 2. Coupled with this, ground EM has failed to produce distinct conductive responses as the BIF response has swamped the data.

A systematic RC drill program totalling 15,000m has been planned at regular 400m line spacing to test the basal contact position in fresh rock with planned hole depths to 100m. This drilling program will assist in mapping the basal contact and delineate geochemical vectors towards nickel sulphide mineralisation.

A Program of Works (PoW) for the drilling has been approved by the relevant department and the Company plans to commence the program in early 2023. The planning for the exploration program continued during the quarter with various preparatory activities being undertaken on site.

EIS Grant

During the quarter the Company submitted an application for the WA State Government's industry drilling program co-funding scheme. Following the end of the quarter the Company was notified the application was successful with co-funding of up to \$180,000 towards mobilisation and direct drilling costs for the proposed drilling program.

Lithium potential

In parallel to the Western Ultra mafic drill program, Poseidon is reviewing the lithium potential at Lake Johnston following a number of approaches from third parties. Previous work has provided a good foundation into the understanding of the fractionation of pegmatites in an area previously identified which supports ongoing targeting activities. As part of the work completed, rock chip sampling of pegmatites identified Li_2O mineralisation at the northeast of the Lake Johnston tenement package indicating the prospectivity for lithium in the area (refer to ASX announcement "*High Grade Lithium Bearing Pegmatites Located at Lake Johnston*" dated 23 May 2016).

WINDARRA

Windarra Gold Tailings Project

A binding Heads of Agreement (HoA) was signed on 6 September 2022 with Green Gold Projects (GGP) to earn into the Windarra Tailings Project. The conditions of the HoA to reach a Final Agreement are as follows:

- metallurgical testwork is completed by GGP on the Windarra and Lancefield tailings to determine if GGP's patented technology can improve gold recovery;
- the rights and obligations of the Lancefield tailings Right-To-Treat Agreement are assigned to GGP; and
- GGP receiving Foreign Investment Review Board and any other anticipated approval, if required.

Subject to the satisfaction of these pre-conditions, the Company will grant GGP the right to farm-in to the Project subject to the completion of the following milestones:

- Milestone 1: GGP making a non-refundable upfront payment of \$250,000 upon satisfying the pre-conditions mentioned above to earn an initial 13.8% interest in the project;
- Milestone 2: GGP completing a positive bankable feasibility study on the Project to earn a further 13.8% interest in the project; and
- Milestone 3: GGP making a final investment decision, securing funding for the project, and making a non-refundable payment of \$1.0 million to Poseidon to earn a further 64.4% interest in the project.

The above milestones are to be satisfied within 12 months of the satisfaction (or waiver) of all the Conditions Precedent, with Milestone 1 to be satisfied with 48 hours of the satisfaction (or waiver). Poseidon will then retain an 8% free carried profit interest in the project, which entitles the Company to 8% of the profit while not contributing to any capital or any other payments.

Samples for metallurgical testwork have been collected and collated, and GGP have commenced testwork.

OPERATIONS

Operating Update

Black Swan

Black Swan was on care and maintenance during the quarter. Activities over the period included dewatering of the Black Swan open pit and other preparatory site works in anticipation of operations restarting.

Activities on site were completed without any significant safety incidents.

Windarra

Windarra remained on care and maintenance during the quarter.

Lake Johnston

Lake Johnston remained on care and maintenance during the quarter.

CORPORATE

Pure Battery Technologies

The Company continues discussions with Pure Battery Technologies (PBT) to potentially supply concentrate from Black Swan as a base load feed for PBT's proposed Kalgoorlie pCAM refinery project. The rougher concentrate product from the 2.2Mtpa Rougher Concentrate Case would be ideal feed for the proposed pCAM plant.

During the quarter PBT advised that the \$120 million Modern Manufacturing Initiative grant from the Federal Government for the proposed refinery hub had been confirmed following the conclusion of a funding scheme review.

PBT engaged Worley to undertake a feasibility study on their project, which is expected to be completed during 1H 2023. Poseidon is working with PBT to support metallurgical testwork as part of their feasibility study.

COVID Update

The Company and its contractors continue to operate within the safe operating parameters specified by the Western Australian Government.

Financial

As at 30 September 2022, the Company held cash and current investments totalling \$7.4 million.

Over the quarter, Poseidon's net cash outflow from operating and investing activities totalled \$3.7 million which included \$2.2 million of exploration and evaluation costs.

Costs incurred over the quarter of \$3.9 million were lower than the forecast of \$5.5 million. This was largely due to delays in various non-core activities.

There were no production or development activities conducted over the quarter and as such no production or development expenditures were incurred.

Related party expenses over the quarter totalled \$20,381, all of which were fees paid to Directors.

Costs of \$4.0 million are forecast over the next quarter.

In light of the imminent BFS release, the Company has engaged corporate advisors and has opened a virtual data room accessible to potential strategic partners, offtakers and project financiers.

This Quarterly Activities Report was authorised for lodgement by the Board of Poseidon Nickel Limited.



Peter Harold
Managing Director & CEO

28 October 2022

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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. 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 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 Golden Swan Resource at Black Swan and the Abi Rose mineralisation at Lake Johnston.

Black Swan will be the first project to restart followed by Lake Johnston and then Windarra, subject to favourable Feasibility Studies, appropriate project financing structures being achieved, the outlook for the nickel price remaining positive and all necessary approvals being obtained.

The Company has completed a Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield and has entered into a Heads of Agreement with Green Gold Projects whereby Green Gold will develop the project and Poseidon can retain an 8% free carried interest, subject to certain conditions precedent being satisfied.

COMPETENT PERSON STATEMENTS:

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

- “Black Swan Restart Update” released 12 July 2022
- “More Nickel in Updated Black Swan Mineral Resource” released 4 July 2022
- “Non-Executive Director Warren Hallam Appointment” released 1 June 2022
- “Silver Swan Resource Update” released 27 April 2022
- “Golden Swan Maiden Resource” released 27 October 2021
- “Silver Swan Tailings – Maiden Resource Estimate” released 15 September 2021
- “Gold Tailings Resource at Windarra updated to JORC 2012 Indicated” 22 Jun 2020.
- “Windarra Gold Tailings DFS Highlights Robust Project” 23 July 2021

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	0.76	6,000	9,900	0.75	74,000	18,200	0.62	101,000	28,900	0.63	181,000	0.01	4,500	0.02	5,800
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	450	0.04	250
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%	-	-	-	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		1,475	0.83	12,200	17,217	1.11	190,550	24,370	0.84	204,140	43,062	0.94	406,890	0.02	8,310	0.05	19,760

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

- **Black Swan Resource** as at 4 July 2022 (see ASX announcement "More Nickel in Updated Black Swan Mineral Resource" released 4 July 2022)
- **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 Resources** 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)
- **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)

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 2 - Nickel Projects Reserves Statement

Nickel Sulphide Reserves	JORC Compliance	Probable						
		Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co % Grade	Co Metal (t)	Cu % Grade	Cu Metal (t)
		BLACK SWAN PROJECT						
Silver Swan	2012	130	5.2	181,000	NA	NA	NA	NA
Black Swan	2012	3,370	0.63	21,500	NA	NA	NA	NA
Total Ni, Co, Cu Reserves	2012	3,500	0.81	28,300	NA	NA	NA	NA

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

- **Black Swan Reserve** as at 6 November 2014 (see ASX announcement “Black Swan Ore Reserve” released 6 November 2014)
- **Silver Swan Reserve** as at 26 May 2017 (see ASX announcement “Silver Swan Definitive Feasibility Study” released 26 May 2017)

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 – Gold Projects Ore Resource Statement

Windarra Gold Tailings Project North and South Dams Mineral Resource – JORC 2012 Tabulation

INDICATED							
	Tonnes (t)	AU (g/t)	Au (oz)	Ag (g/t)	As (ppm)	CU (ppm)	Ni (ppm)
North Dam	3,902,000	0.78	98,000	1.9	1,805	365	975
South Dam	850,000	0.50	14,000	0.6	645	355	2,533
Total	4,752,000	0.73	112,000	1.7	1,600	363	1,250

Windarra Gold Tailings Project Central Dam Mineral Resource – JORC 2012 Tabulation

INDICATED							
	Tonnes (t)	AU (g/t)	Au (oz)	As (ppm)	CU (ppm)	Ni (%)	
Central	6,198,000	0.37	74,000	435.0	270	0.3	

Lancefield Gold Tailings Mineral Resource – JORC 2012 Tabulation

INDICATED AND INFERRED							
	Tonnes (t)	AU (g/t)	Au (oz)	Ag (g/t)	As (ppm)	Cu (ppm)	Ni (ppm)
Indicated	1,210,084	1.27	49,278	3.61	2,789	314	70
Inferred	337,964	1.20	13,063	3.48	2,951	269	57
Total	1,548,048	1.23	62,341	3.58	2,824	304	67

Windarra Gold Tailings North and South Dams Resource: no cut-off grade has been used to report the resource, as potential mining method dictates removal of the entire dams. a dry bulk in situ density of 1.6 t/m³ has been used to derive tonnages. resource numbers in the above table may not sum exactly due to rounding.

Windarra Gold Tailings central Dam Resource: No cut-off grade has been used to report the resource, as the potential mining method dictates removal of the entire dam down to a specified elevation. The mineralisation has been reported above a flat elevation of 446 mRL; there are tailings below this level but these have been shown by drilling to contain no gold, and it is anticipated that the proposed mining method will not treat material below this elevation. A dry bulk in situ density of 1.6 t/m³ has been used to derive tonnages. Resource totals may not sum exactly due to rounding.

Windarra Gold Tailings Resource as at 22 June 2020 (see ASX announcement "Gold Tailings Resource at Windarra updated to JORC 2012 Indicated" 22 Jun 2020).

Lancefield Gold Tailings Resources as at 23 July 2021 (see ASX Announcement "Windarra Gold Tailings DFS Highlights Robust Project" 23 July 2021).

TENEMENTS HELD

Tenements Held as at 30 September 2022

AREAS OF INTEREST	TENEMENTS	ECONOMIC ENTITY'S INTEREST
Western Australia		
Windarra Nickel Assets	SA 38/261, G38/21, L38/121, L39/184, L38/199, L38/218, L39/221	100%
Windarra South	MSA 38/261, L38/119, L38/122, L38/220	100%
Woodline Well	M39/1075, L39/224	100%
Pool Well	M38/1244, M38/1245, L38/118	100%
Lake Johnston Nickel Assets	G63/0008, G63/0005, L63/0051, L63/0052, L63/0055, L63/0057, M63/0163, M63/0282, M63/0283, M63/0284, M63/0292, M63/0293, M63/0294, M63/0522, M63/0523, M63/0524, E63/1784	100%
Black Swan Nickel Assets	M27/0039, M27/0200, M27/0214, M27/0216, L27/0057, L27/0058, L27/0059, L27/0074, L27/0075, L27/0077, L27/0078, L24/0219, L24/0222, G27/	100%

E = Exploration Licence M = Mining Lease MSA = Mining Tenement State Act PL = Prospecting Licence L = Miscellaneous Licence

Mining Tenements Acquired or Disposed during the September 2022 Quarter

Nil

Beneficial Percentage Interests Held in Farm-In or Farm-Out Agreements during the September 2022 Quarter

Farm-out Agreement

Under the terms of the Heads of Agreement with Green Gold Projects, Green Gold Projects currently owns 0% of the Windarra / Lancefield Gold Tailings Project Gold Rights. Refer to the ASX announcement Windarra Gold Tailings Heads of Agreement – re-lodgement dated 7th September 2022. Poseidon currently owns 100% of the Gold Rights of the Windarra / Lancefield Gold Tailings Project Gold Rights.

Beneficial Percentage Interests Held in Farm-In or Farm-Out Agreements Acquired or Disposed of during the September 2022

Nil