

## FULL STEAM AHEAD FOR BLACK SWAN RESTART

### KEY POINTS

- **Drilling underway** to increase Mineral Inventory for potential mine life extension
- Further information has been provided to selected parties for offtake and financing for the smelter grade concentrate project with aim to finalise both early in the second quarter of 2023
- On track for Final Investment Decision on the smelter grade concentrate project during **Q2 2023**
- Feasibility Study on the **Expansion Project** (rougher concentrate) continues, this project could deliver longer term value through increased annual nickel production and longer mine life

**Poseidon Nickel Ltd (ASX: POS, “Poseidon” or “the Company”)** is pleased to report that following the positive outcomes of the Black Swan Bankable Feasibility Study (“BFS” or the “Project”) for a standalone 1.1Mtpa mill feed option to produce smelter grade concentrate (refer to Company ASX announcement “*Positive Black Swan Feasibility Study*”, dated 21 November 2022), final work streams are underway as the Company heads towards the restart with the Final Investment Decision (FID) expected in the second quarter of 2023.

**Managing Director and CEO, Peter Harold commented:** “*Following the release of our 1.1Mtpa smelter grade concentrate feasibility study and the recent equity raising, the Company is pressing ahead to the restart of Black Swan. The resource drilling program we just started aims to increase the life of mine and optimise the start-up mine production schedules for the Project.*”

*We are now primarily focused on the offtake and project financing work streams. Poseidon aims to finalise the preferred offtake and project financing partner(s) by early second quarter 2023. The Company is on track to announce the Final Investment Decision on the Project during the second quarter of next year.*

*While the plan is to commence operations producing the high-grade nickel concentrate we have received strong interest in the rougher concentrate product, which has a lower nickel grade and higher magnesium oxide content, and therefore we are undertaking the feasibility study on this project – which we now refer to as the Expansion Project. If the rougher concentrate can be sold locally to a pressure oxidation or high-pressure acid leach plant with attractive nickel payability then it is possible Black Swan will switch from producing smelter grade concentrate to rougher concentrate at the optimal time in the future. The great benefit of the Expansion Project is that annual production of nickel in concentrate would increase and the mine life could be significantly extended due to the ability to treat the talc carbonate material which is not included in the current Ore Reserves.”*

## Black Swan Disseminated Resource Drilling Program

The Company has commenced an 11,000 metre RC drilling program into the Black Swan Disseminated resource. The drilling program is scheduled to be completed early February 2023 with all assay results expected by the end of March 2023.

The principal aims of the drill program are:

- to convert more Inferred Resources to Indicated and increase the Measured and Indicated Resource and in particular the conversion of the large amount of the Inferred resources that are not currently in the mining inventory;
- enhance the delineation of the metallurgically important serpentinite and talc-carbonate hosted ore types to quantify variations in their respective characteristics such as talc and non-sulphide nickel levels as well as sulphur/nickel ratios, to optimise the mining schedules and ore blending strategies;
- provide more detailed production scheduling for commencement of operations; and
- provide material for ongoing metallurgical testwork programs on the Expansion Project.

Any increase in the Ore Reserve of the Black Swan open pit would result in a longer mine life which should improve the debt financing parameters for the project.



FIGURE 1 – DRILL RIG OPERATING IN THE BLACK SWAN OPEN PIT

## Offtake and Financing

The Company has issued further information to parties that have previously expressed an interest in offtake and/or project financing. The Company will short list a select group and move forward with detailed due diligence including access to the data room and site visits. The aim is to have both offtake and project financing concluded early in the second quarter of 2023 so the Final Invest Decision can be made during that quarter.

## Final Investment Decision – Restart Project (1.1Mtpa feed)

With the completion of offtake and financing the Company is targeting FID during the second quarter 2023. If that timing is achieved **concentrate production could commence during second quarter 2024**, based on the refurbishment timetable and mine production ramp up schedule.

## Workstreams for the Restart

The following workstreams are underway:

- Offtake and financing – see above
- Pre-works at Black Swan
  - Open pit – dewatering completed
  - Underground – remaining rehabilitation works (limited) will be scheduled in with the mine ramp up
  - Resource upgrade to increase mine life – drilling underway
  - Processing plant – finalise contract with selected engineering company for plant refurbishment
  - Major contracts – discussions with potential contractors to commence shortly
  - Approvals – continue work on obtaining outstanding approvals required for the restart
  - Personnel onboarding – experienced and highly regarded Human Resources consultant Vin Gleeson has joined the Company and is working with the executive team on the personnel requirements and timing for on boarding

## Expansion Project - Feasibility Study

Work continues on the 2.2Mtpa mill feed feasibility study – the Expansion Project. The Company has received strong interest in the rougher concentrate product from the 2.2Mtpa feed project, which will have a lower nickel grade and higher magnesium oxide content and hence will be more attractive as a feed for a pressure oxidation or high-pressure acid leach plant rather than a conventional nickel smelter. Metallurgical studies are ongoing to determine a typical specification for the rougher concentrate to allow for potential offtakers to provide indicative terms. These terms will be important in determining the economics of the Expansion Project.

The benefit of the Expansion Project is that annual production of nickel in concentrate would increase and the mine life could be extended due to the ability to treat the talc carbonate material which is not included in the current Ore Reserves.

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



**Peter Harold**  
Managing Director & CEO

**15 December 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 with the aim of being a +15,000tpa 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 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.*

*The Company recently completed a Bankable Feasibility Study on Black Swan which will be the first project to restart. This will be 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*
- *"Positive Black Swan Feasibility Study" released 21 November 2022.*

*which are available to view on [www.poseidon-nickel.com.au](http://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.*



Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	Black Swan Project Mineral Resource Summary												
			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)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)
Black Swan	2012	0.4%	10,700	0.75	80,000	18,200	0.55	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	460	0.04	270
Sub-Total Ni, Co, Cu Resources	2012		11,625	0.90	103,850	18,260	0.60	102,540	29,880	0.69	206,390	0.02	5,320	0.02	7,080
Stockpiles	2012	0.4%	1,200	0.49	5,900	400	0.53	1,900	1,600	0.5	7,800	NA	NA	NA	NA
Total Ni Resources	2012		12,825	0.86	109,750	18,660	0.56	104,440	31,480	0.68	214,190	-	-	-	-

**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)
- **Black Swan Surface Stockpiles** as at 4 August 2014 (see announcement “Poseidon Announces Black Swan Mineral Resource” including surface stockpiles released 4 August 2014)

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.

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.