



Strategically important nickel assets in WA

Melbourne Mining Club Cutting Edge Series

12 September 2023

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COMPETENT PERSON STATEMENTS

The information in this presentation that relates to Geology and Mineral Resources is based on information compiled and/or reviewed by Mr John Hicks, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hicks has sufficient experience which is relevant to the style of mineralisation and the deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Hicks is Chief Geological Consultant of the Company. Mr Hicks is taking responsibility for the quality of the resource estimation data and the collection and processing of the 2023 resource estimation data. Details for the Competent Persons responsible for the individual Mineral Resource estimates are disclosed in the respective Mineral Resource estimates contained in the report.

The information in this presentation that relates to metallurgical testwork, process opex and process plant capex is based on information compiled and/or reviewed by Mr Peter Allen, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Allen has sufficient experience which is relevant to the metallurgy and processing method under consideration, to qualify as a Competent Person as defined in the JORC Code. Mr Allen is a full-time employee of GR Engineering Services Limited. Mr Allen has consented to the inclusion in the report of the matters based on his information in the form and context, which it appears.

The information in this presentation that relates to open pit mining methods and open pit Ore Reserve is based on information compiled and/or reviewed by Mr Craig Mann, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Mann has sufficient experience which is relevant to the mining methods and modifying factors under consideration, to qualify as a Competent Person as defined in the JORC Code. Mr Mann is a full-time employee of Entech Pty Ltd. Mr Mann has consented to the inclusion in the report of the matters based on his information in the form and context, which it appears.

The information in this presentation that relates to underground mining methods and underground Ore Reserves for Silver Swan and Golden Swan is based on information compiled and/or reviewed by Mr Charles Walker, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Walker has sufficient experience which is relevant to the mining methods and modifying factors under consideration, to qualify as a Competent Person as defined in the JORC Code. Mr Walker is a full-time employee of

Entech Pty Ltd. Mr Walker has consented to the inclusion in the report of the matters based on his information in the form and context, which it appears.

The information in this report which relates to the Lake Johnston Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who was a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr David Reid who is a full-time employee of Golder Associates Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. Steve Warriner and David Reid have sufficient experience which is relevant to the style of mineralisation and the deposit 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). Mr Warriner and Mr Reid consented to the inclusion in the report of the matters based on his information in the form and context, which it appears.

The information in the updated Gold Tailings Project which relates to Mineral Resources is based upon details compiled by Ian Glacken, who is a Fellow of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Ian Glacken is an employee of Optiro Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and the deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Glacken consented to the inclusion in the report of the matters based on his information in the form and context, which it appears.

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.

The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release

FORWARD LOOKING STATEMENTS

This release contains certain forward looking statements including nickel production targets. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position and performance are also forward-looking statements

Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance.

Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of the Golden Swan underground mine.

POSEIDON HAS 422kt OF NICKEL

BLACK SWAN NICKEL PROJECT

- Resources of 222kt Ni¹
- 2.2Mtpa mill
- BFS released in Nov 2022
- Offtake and debt well advanced
- Potential high-grade exploration targets

LAKE JOHNSTON NICKEL PROJECT

- Resources of 52kt Ni¹
- 1.5Mtpa mill
- Exciting exploration targets along Western Ultramafic

WINDARRA NICKEL/GOLD PROJECTS

- Resources of 148kt Ni¹
- Strategic gold tailings resource (with DFS) and water
- Exploration potential



STRATEGIC ASSETS IN MAJOR NICKEL PROVINCE

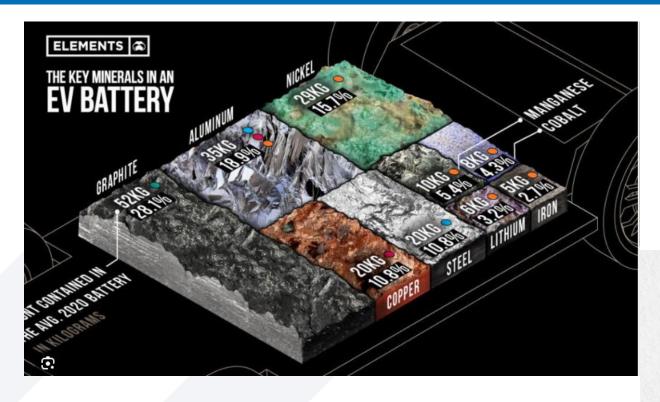


- Recent consolidation in the WA nickel industry highlights the demand for nickel assets:
 - OZ Minerals acquired by BHP for \$9.6B (includes West Musgrave Project)
 - Western Areas acquired by IGO for \$1.26B
 - Mincor acquired by Wyloo for \$756M
 - Cannon Resources remaining 80% acquired by Kinterra for \$45M

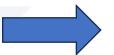
WA Goldfields Nickel Sulphide Province

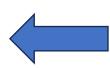


ELECTRIC VEHICLES DRIVING MASSIVE INCREASE IN NICKEL DEMAND



A significant increase in nickel supply is needed to support projected demand growth driven by forecasted EV production in the period through to 2035





Nickel is a key mineral input to most EV batteries, nearly 6x more nickel than lithium

HOW MANY MINES DO WE NEED?

As the lithium ion battery revolution gains momentum, **Benchmark** forecasts just how many mines need to be built to keep up with the exceptional volumes of demand for key raw materials expected by 2035.



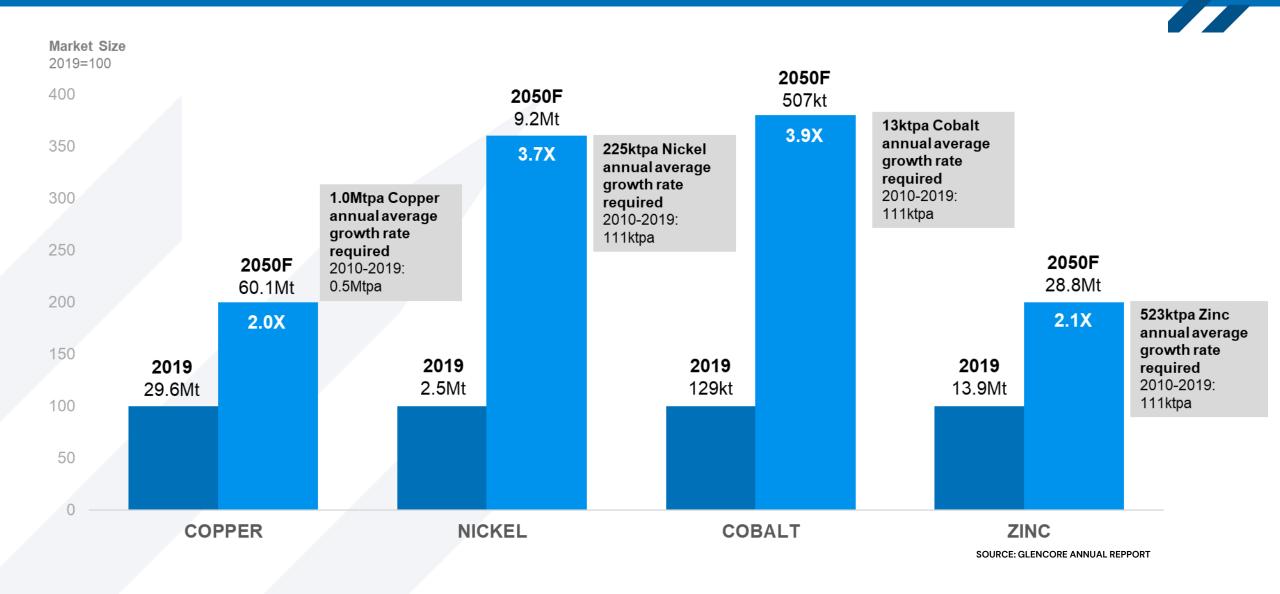




No. of Mines/



EVS DRIVING MASSIVE INCREASE IN BASE METAL DEMAND



EXPERIENCED BOARD



DEREK LA FERLANon-Executive Chairman

Derek is a highly regarded company director and experienced corporate lawyer with over 30 years of experience.

Derek is currently the Non-Executive Chairman of Chalice Mining and was until recently the Non-Executive Chairman of Sandfire Resources. He is a partner at WA law firm, Lavan.



PETER HAROLD

Managing Director & CEO

Peter is a process engineer with over 30 years corporate experience in the minerals industry, specialising in financing, marketing, business development and general corporate activities.

He was previously the founding Managing Director of Panoramic Resources, operator of the Savannah and Lanfranchi nickel mines.



Non-Executive Director

Dean is a corporate finance and investment professional with experience in capital markets, mergers and acquisitions, and project financing and development within the natural resources sectors.

Dean currently manages a large investment fund invested across multiple sectors including natural resources.



Non-Executive Director

Peter is a geologist with over 30 years of extensive exploration, development and operational experience in the resources sector, particularly nickel, gold, zinc and lead.

Peter was formerly Managing Director and Chief Executive Officer for Mincor Resources NL.



WARREN HALLAM
Non-Executive Director

Warren Hallam is a highly experienced metallurgist and mineral economist who has held numerous board and senior executive positions within the resources sector.

His extensive experience includes financing, developing and operating of base metal and gold projects.

POSEIDON NICKEL 7

EXECUTIVE TEAM

Strong Management Team Across the Value Chain



PETER HAROLD
Managing Director &
CEO



BRENDAN SHALDERS
Chief Financial Officer
& Joint Company Secretary

m Marketing & Offtake, Funding, ESG, Strategy & Commercial

EXPLORATION



KARYN PARKER
Senior Exploration Geologist
EXPLORATION CONSULTANTS:

NEWEXCO

GEOLOGY



Chief Geologist Consultant

GEOLOGY CONSULTANTS:

GOLDERS

JOHN HICKS

OPEN PIT / UG MINING



CRAIG JONES
GM Mining
MINE CONSULTANTS:
ENTECH

METALLURGY / PROCESSING



DAVID MAXTON
Project Director

ENGINEERING CONSULTANTS:
GR ENGINEERING SERVICES

A Operations



ANTHONY CAPUTO
GM Maintenance & Registered
Manager for Black Swan

ESG Strategy Consultant: RPM Global **Governance Consultant:** Consilium Corporate

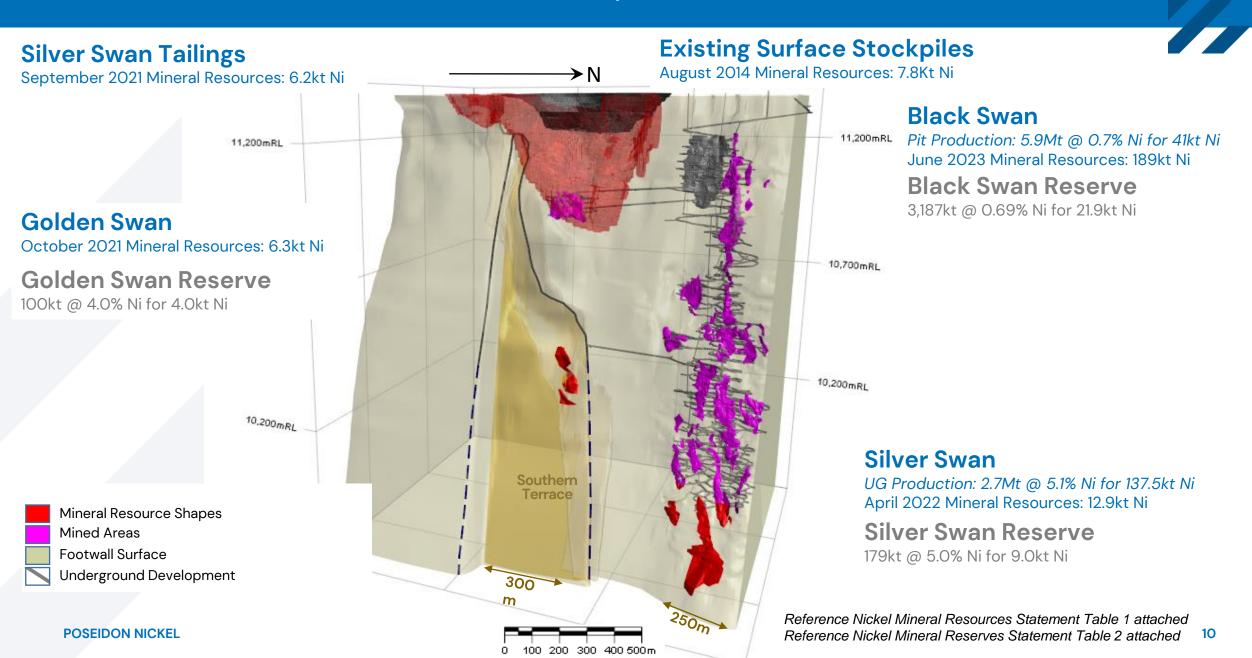
Environmental Consultant: MBS Environmental

BLACK SWAN - NOVEMBER 2022 BANKABLE FEASIBILITY STUDY¹

- NPV₈ of \$248M
- Free cashflow of \$333M
- IRR of 103%
- Low pre-production capital of \$50M
- Plant refurbishment 46 weeks
- High-grade nickel concentrate
 - 15% Ni
 - < 6% MgO
 - Fe:MgO ratio of 5:1
 - Highly desirable for nickel smelters
- ESG focus grid power



BLACK SWAN - HISTORIC PRODUCTION, RESOURCES & RESERVES



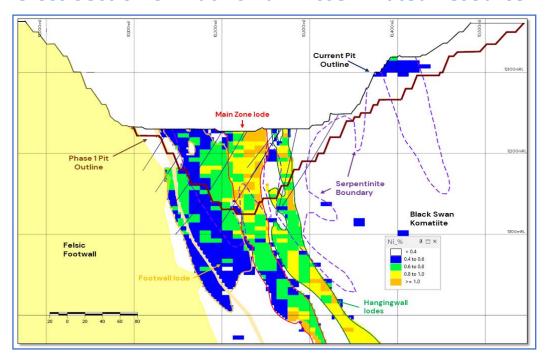
BLACK SWAN - DISSEMINATED RESOURCE UPDATE¹

- Resource of 26.3Mt at 0.72% nickel (previously 0.63%) for 189kt Ni
- Compared to the 2022 Resource:
 - 48% increase in nickel in Measured and Indicated
 - 14% increase in the average nickel grade and 8,000t increase in nickel
 - Increased understanding of the distribution of serpentinite and talccarbonate
- Additional metallurgical testwork required to confirm recovery assumptions for the disseminated serpentinite ore

Updated Black Swan Disseminated Resource

		2023		2022					
	Tonnage (mt)	Ni (%)	Ni (kt)	Tonnage (mt)	Ni (%)	Ni (kt)			
Measured	0.8	0.78	7	0.8	0.76	6			
Indicated	15.1	0.73	111	9.9	0.75	74			
Inferred	10.4	0.69	71	18.2	0.55	101			
TOTAL	26.3	0.72	189	28.9	0.63	181			

Cross Section of Black Swan Disseminated Resource²



BLACK SWAN – UPDATES SINCE NOVEMBER 2022 BFS

- Black Swan disseminated resource
 - 48% increase in nickel in Measured & Indicated categories
- Plant refurbishment capital expenditure
 - Further review has seen a relatively small increase in costs
- Approvals & Permits
 - Mining approval received
- Factors delaying restart
 - Inflationary pressures
 - Tightness in labour market
 - Accommodation shortage in Kal
 - Grid power now available late 2024
 - Additional metallurgical testwork required
- Opportunities
 - ESG CO₂ sequestration opportunity



ARCA technology used to assist the carbon sequestration process

UPSIDE – 2.2Mtpa EXPANSION PROJECT

- Opportunity: process up to 2.2Mtpa of serpentinite and talc-carbonate to produce a rougher concentrate containing 5-6% Ni with higher MgO
- Impact: significantly more annual Ni production and lower unit operating costs
- Customers: local existing HPAL and/or new POX plant/pCAM refinery
- Prefeasibility Study: expected completion late 2023

Pressure Oxidation (POX)¹



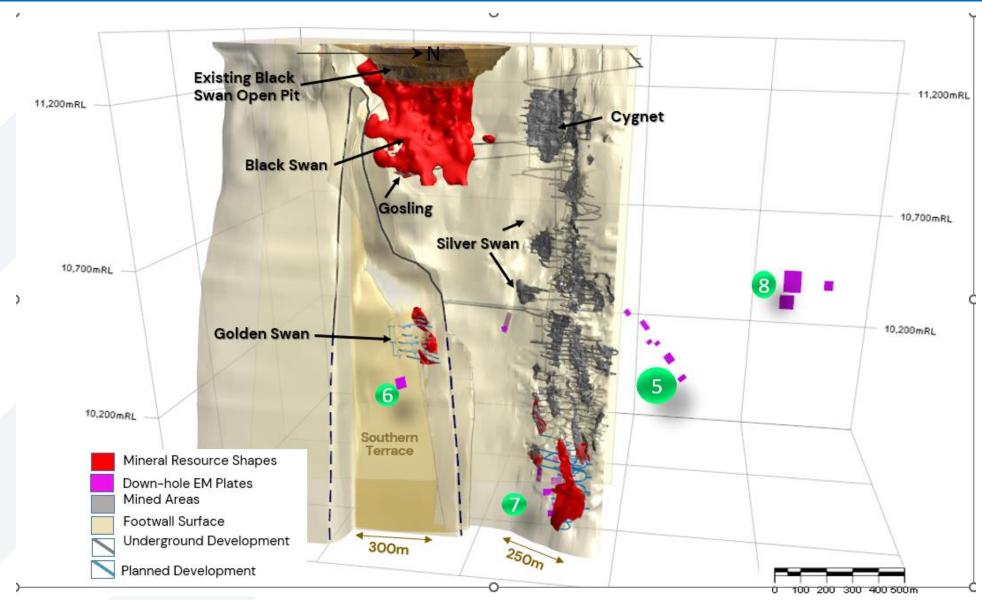
High Pressure Acid Leach (HPAL)²



¹ Process Plants International website

² Murrin Murrin autoclave

BLACK SWAN GROWTH – EXPLORATION TARGETS



LAKE JOHNSTON - PROJECT OVERVIEW

HISTORY

Emily Ann - 1.5Mt @ 3.5% Ni

Maggie Hays -12.3Mt @ 1.5%Ni

11.5Mt ore mined and processed to produce +100kt Ni*

CURRENT RESOURCES & INFRASTRUCTURE

Maggie Hays - 3.5Mt @ 1.5% Ni for 52kt Ni¹

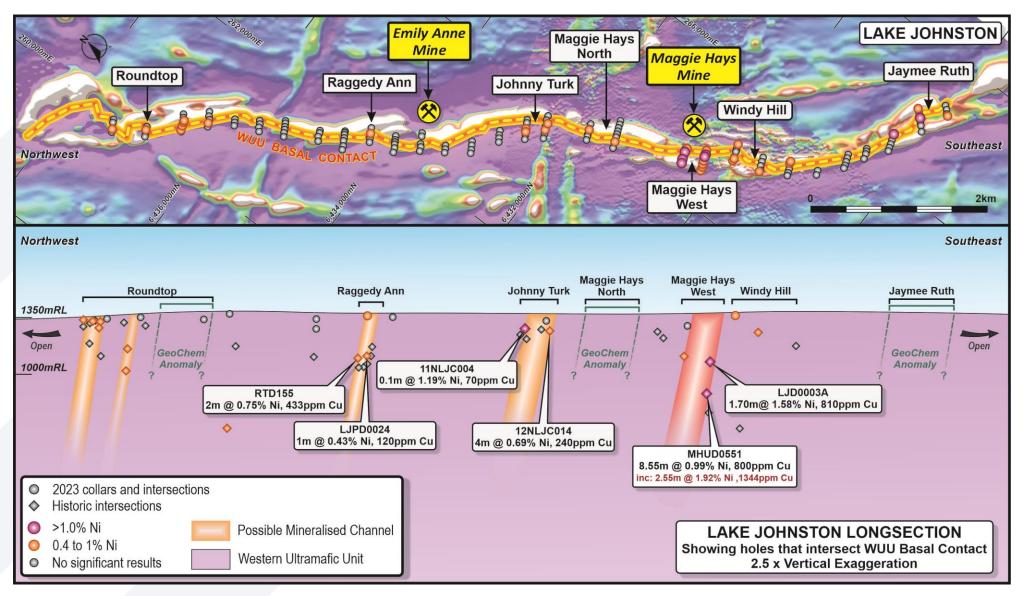
1.5Mtpa process plant (on C&M)



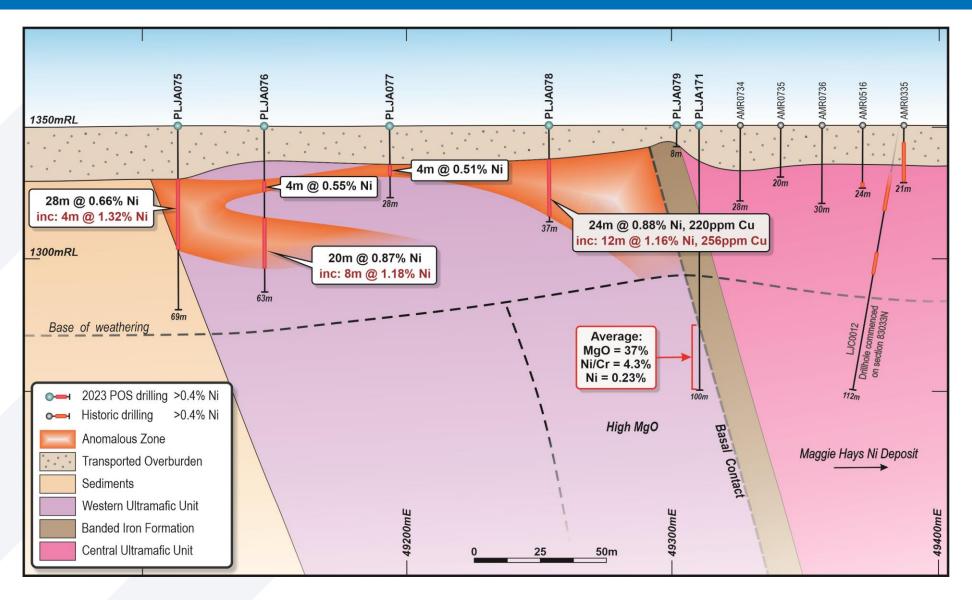
^{*}Contained Ni metal

¹ Reference Nickel Mineral Resources Statement Table 1 attached.

LAKE JOHNSTON – EXPLORATION UPSIDE – WESTERN ULTRAMAFIC



LAKE JOHNSTON – MAGGIE HAYS WEST



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WINDARRA - PROJECT OVERVIEW

HISTORY

Discovered in 1969, Mined from 1974–1983

8Mt mined / processed to produce 84kt Ni*

CURRENT RESOURCES & INFRASTRUCTURE

Mt Windarra 71.5kt Ni*

Cerberus Nickel 69.0kt Ni*

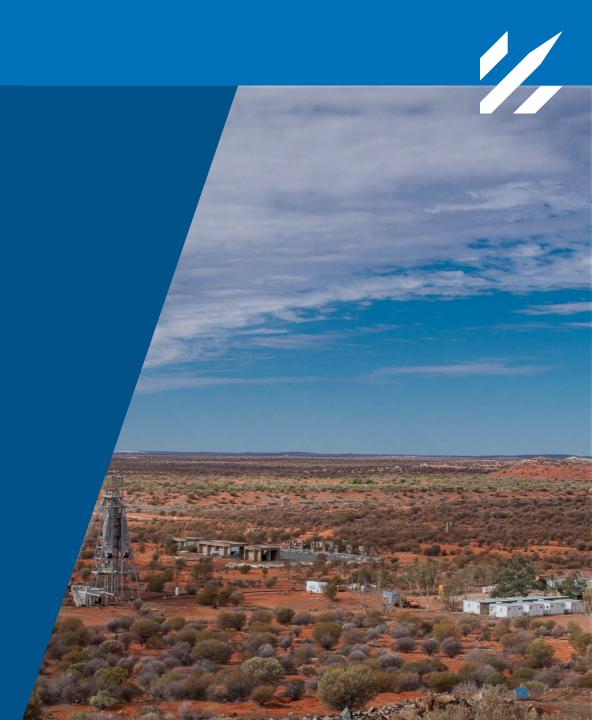
South Windarra 8.0kt Ni*

Gold Tailings contains ~180,000 oz/Au Resource²

New player interested in gold tailings and water



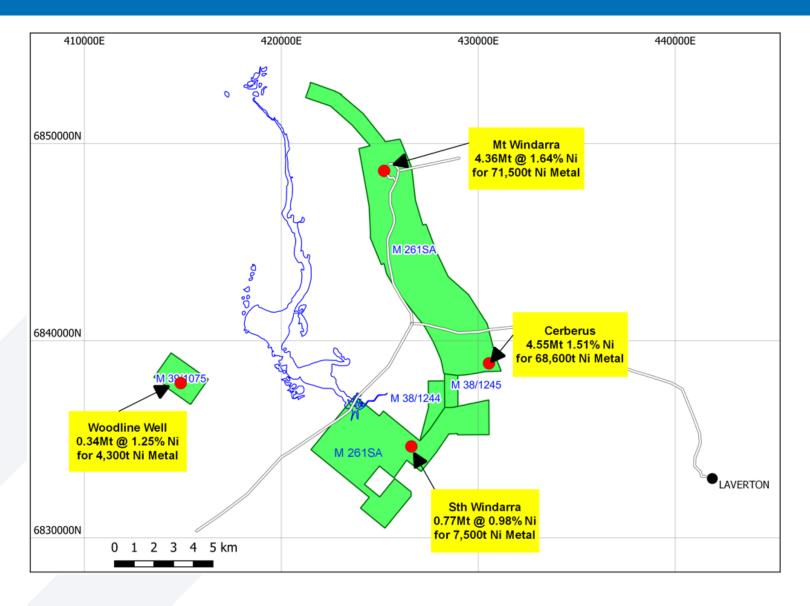
¹ Reference Nickel Mineral Resources Statement Table 1 attached.



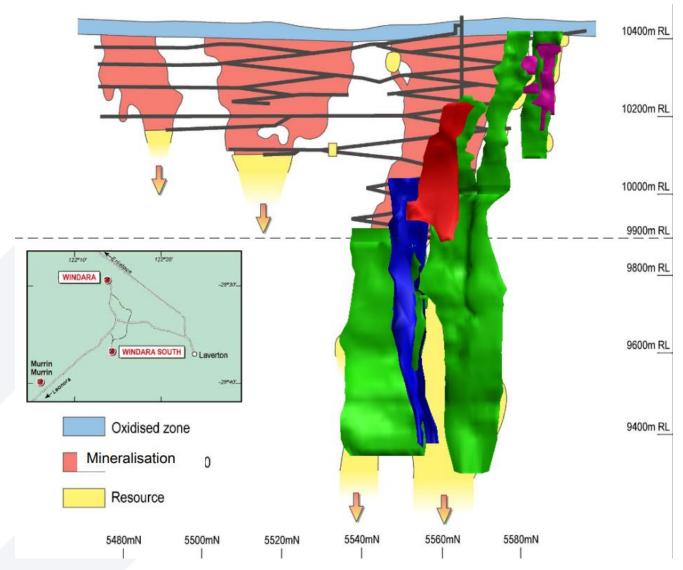
² Reference to Gold Mineral Resources Statement Table 3 attached.

³ Refer to Poseidon Nickel ASX announcement 23 July 2021

WINDARRA – SIGNIFICANT NICKEL RESOURCES



WINDARRA – MT WINDARRA EXTENSIONAL OPPORTUNITIES



¹Refer ASX announcement "Investor Presentation USA January 2013", 9 January 2013

² Refer ASX announcement "Australian Nickel Conference Presentation", 20 October 2016

POSEIDON NICKEL ³ Refer ASX announcement "Australian Nickel Conference Presentation", 10 October 2013

CORPORATE STRUCTURE

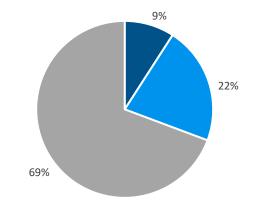
Capital Structure/Enterprise Value								
ASX Code	POS							
Shares on Issue	~3.7B							
Share Price (7 September 2023)	\$0.022							
Market Cap	~\$80M							
Cash (30 June 2023)	~\$6M*							

^{*}before the \$6M raised in the placement in August 2023

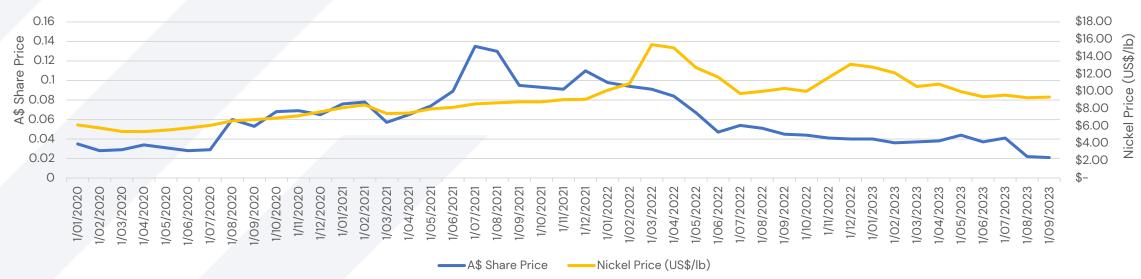
Shareholder Split (No. Shares)



- Other Top 20 Shareholders
- Remaining Shareholders



Share Price Performance



POSEIDON NICKEL

WHY INVEST IN POSEIDON?





Advanced nickel sulphide projects in Tier 1 jurisdiction, short timeframe from FID to production



Significant infrastructure advantage over peers at multiple locations



Management with significant experience in finding, financing, building & operating nickel projects

POSEIDON NICKEL 2





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NICKEL MINERAL RESOURCES

Table 1: Nickel Projects Resources Statement

									МІ	NERAL RESOL	IRCE CATEGO	RY						
Nickel Sulphide	JORC Complia	olia Cut Off Grade	MEASURED			INDICATED			INFERRED		TOTAL							
Resources	nce Graf		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 J	OHNSTON PRO	DJECT								
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
								WIN	IDARRA PROJE	СТ								
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.

POSEIDON NICKEL

- •Black Swan Resource as at 7 June 2023 (see ASX announcement "Updated Black Swan Disseminated Resource provides more nickel supporting restart" 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 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)
- *Black Swan Surface Stockpiles as at 4 August 2014 (see announcement "Poseidon Announces Black Swan Mineral Resource" including surface stockpiles released 4 August 2014)

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NICKEL MINERAL RESERVES

Table 2: Nickel Projects Reserves Statement

	JORC Compliance										
Nickel Sulphide Reserves	Jone compliance	Proved/Probable	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co % Grade	Co Metal (t)	Cu % Grade	Cu Metal (t)		
			BLAC	K SWAN PROJECT							
	2012	Proved	579	0.7	4.2	NA	NA	NA	NA		
Black Swan		Probable	2,608	0.7	17.7	NA	NA	NA	NA		
	2012	Proved	-	-	-	NA	NA	NA	NA		
Silver Swan		Probable	179	5.0	9.0	NA	NA	NA	NA		
	2012	Proved		-	-	NA	NA	NA	NA		
Golden Swan		Probable	100	4.0	4.0	NA	NA	NA	NA		
	2012	Proved	579	0.7	4.2	NA	NA	NA	NA		
Total Ni Reserves		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.

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[•]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)

[•]Silver Swan Reserve as at 26 May 2017 (see ASX announcement "Silver Swan Definitive Feasibility Study" released 26 May 2017)

GOLD MINERAL RESOURCES

Table 3: Gold Projects Resources Statement

Windarra Gold Tailings												
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					
	INDICATED											
	Tonnes (t)	AU (g/t)	Au (oz)	Ag (g/t)	As (ppm)	CU (ppm)	Ni (%)					
Central Dam	6,198,000	0.37	74,000	n/a	435	270	0.3					

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

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 Table 3A 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.

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

North and South Dam Resource as at 23 July 2021 (see ASX announcement "Windarra Gold Tailings Feasibility Study Highlights Robust Project" 23 Jul 2021).

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