## Diggers & Dealers Conference

13 October 2020

# NICKEL

# Advancing a High-Grade Nickel Sulphide Discovery

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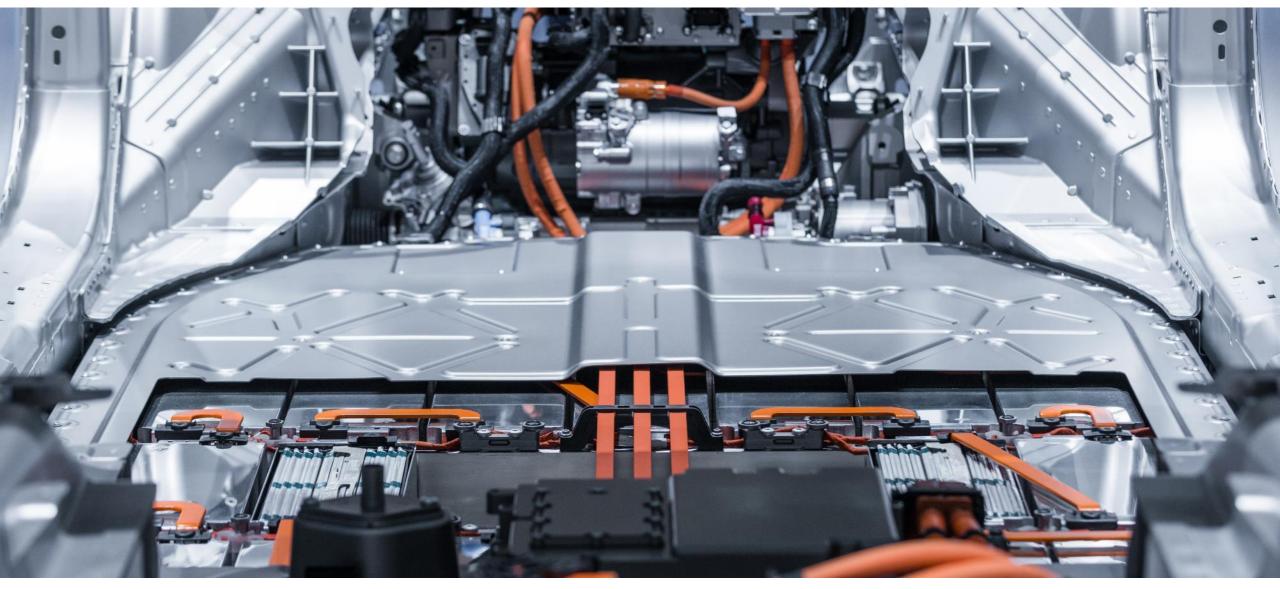
## **Stainless History**





## **Battery Future**





#### **Battery Future**



"I'd just like to re-emphasize, any mining companies out there, please mine more nickel"

Elon Musk



#### Investment case & corporate profile



#### • What we have

- Combined Nickel Resources 395kt Ni<sup>1</sup>
- Black Swan 195kt Ni<sup>1</sup> in Resources, 2Mtpa processing plant on C&M, Golden Swan highgrade Ni discovery
- Lake Johnston 52kt Ni<sup>1</sup> in Resources, 1.5Mtpa processing plant on C&M
- Windarra 149kt Ni in Resources<sup>1</sup>
- Gold Windarra Gold Tailings project<sup>2</sup> containing 180,000oz Au<sup>3</sup>
- Strategy
  - Discover more high-grade nickel
  - Expedite commercial nickel production
  - Monetise the gold

Capital Structure/Enterprise Value						
ASX Code	POS					
Shares on Issue	2.64B					
Share Price (12 Oct 2020)	~\$0.074					
Market Cap	~\$195M					
Projected Net Cash (30 Sept 2020)	~\$15M					
Major Shareholders						
Black Mountain Metals Ltd	~20.8%					
Wyloo Metals/Forrest	~17.9%					
Board & Executive Team						
Derek La Ferla Non-Executive Chairman						

Derek La Fe	erla Non-	Executive Chairman
Peter Harol	d Man	aging Director and CEO
Felicity Goo	oding Non-	Executive Director
Dean Hildel	orand Non-	Executive Director
Peter Mucc	illi Non-	Executive Director
Brendan Sh	alders CFO	& Joint Co Sec
Andrea Bet	ti Joint	Co Sec
Steve Warri	iner Chie	f Geologist

<sup>1</sup> Mineral Resources Statement Table 1 and Mineral Resources Statement Table 2 attached. <sup>2</sup> ASX Announcement "Robust PFS Completed for Windarra Gold Tailings Project" dated 22 June 2020 and <sup>3</sup> ASX Announcement "Gold Tailings Resource at Windarra updated to JORC 2012" dated 22 June 2020

#### **Poseidon Share Price Performance**



Share Price (A\$/share)

#### **Portfolio of complementary assets**

#### Black Swan Project<sup>1</sup>

- 2.2Mtpa processing plant
- Silver Swan underground 16kt Ni\* (grade 9.5%)<sup>1</sup>
  Black Swan open pit & stockpiles 179kt Ni\* (grade 0.6%)<sup>1</sup>
- High-grade discovery at Golden Swan<sup>1</sup>
- Southern Terrace

#### Windarra Project<sup>1</sup>

- Mt Windarra 71.5kt Ni\* (grade 1.64%)<sup>1</sup>
  Cerberus Nickel 69kt Ni\* (grade 1.5%)<sup>1</sup>
  South Windarra 8kt Ni\* (grade 0.98%)<sup>1</sup>
- Gold Tailings contains ~180,000 oz/Au Resource<sup>2</sup>
- PFS on Windarra gold tailings project<sup>3</sup>

#### Lake Johnston Project<sup>1</sup>

- 1.5Mtpa processing plant
- Maggie Hays Ni 52kt Ni\* (grade 1.5%)<sup>1</sup>
  Abi Rose Ni discovery confirms prospectivity
- Intrusive model to be tested

\* Contained Ni Metal



<sup>&</sup>lt;sup>1</sup> Mineral Resources Statement Table 1 attached.

<sup>&</sup>lt;sup>2</sup> Mineral Resources Statement Table 2 attached.

<sup>&</sup>lt;sup>3</sup> ASX Announcement "Robust PFS Completed for Windarra Gold Tailings Project" dated 22 June 2020

### Black Swan Project Production history, processing plant, R&R, Golden Swan







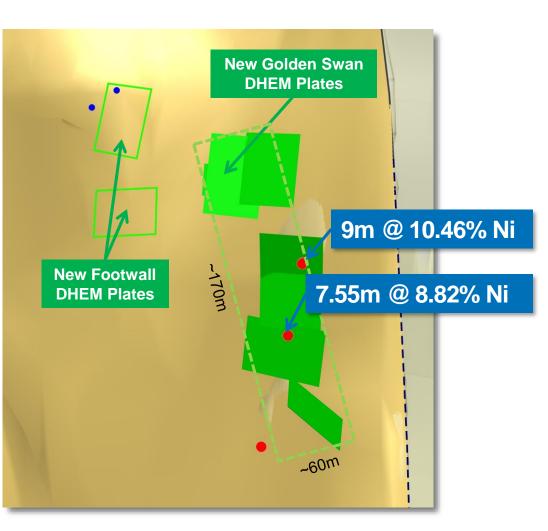
# Maiden Resource 440,000 tonnes @ 14% Ni for approximately 62,000 tonnes of Ni<sup>1</sup>

Left to Right: Kelvin Fox, David Burt & Jarmo Vesanto <sup>1</sup> MPI Press Release 20 November 1995

#### Black Swan Project Golden Swan high-grade discovery – 2020



- Maiden hole drilled in March 2020 targeting electromagnetic conductors intersected high grade massive nickel sulphides
- 1<sup>st</sup> intersection<sup>1</sup>
  - 23.1m @ 4.0% Ni & 0.4% Cu (true width 13.3m) includes
     7.6m @ 8.8% Ni (true width 4.3m)
- 2<sup>nd</sup> intersection<sup>2</sup>
  - 9.0m @ 10.46% Ni (true width 4.5m) includes 4.6m @ 13.8% Ni (true width 2.3m)
- Downhole EM survey extends strike potential at Golden Swan<sup>3</sup>
  - Two newly modelled EM plates, contiguous along strike to the south increasing strike of the upper parts of Golden Swan mineralisation
- New footwall EM plates identified potential for another mineralised system<sup>3</sup>



<sup>&</sup>lt;sup>1</sup>ASX Announcements "New Massive Sulphide Intersection in Golden Swan Anomaly" dated 26 March 2020 and

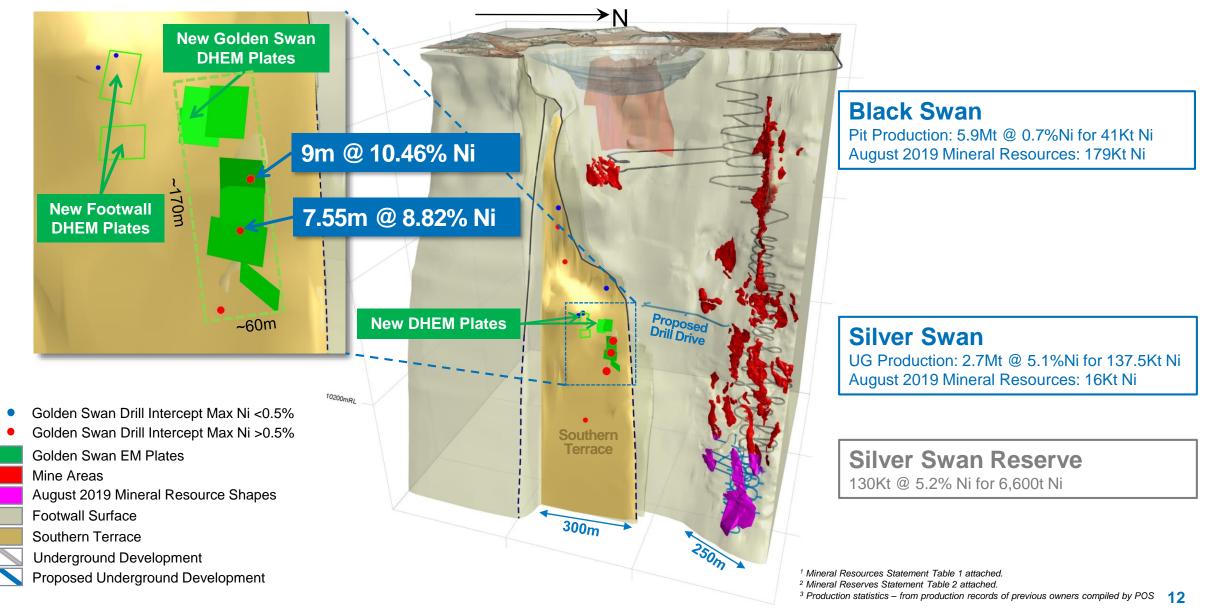
<sup>&</sup>quot;Exceptional grades received at Golden Swan & Windarra update" dated 4 April 2020

<sup>&</sup>lt;sup>2</sup> ASX Announcement "Second Golden Swan Massive Sulphide Intersection extends new discovery" dated 6 August 2020

<sup>&</sup>lt;sup>3</sup> ASX Announcement "DHEM Targets Expands Golden Swan Potential" dated 12 October 2020.

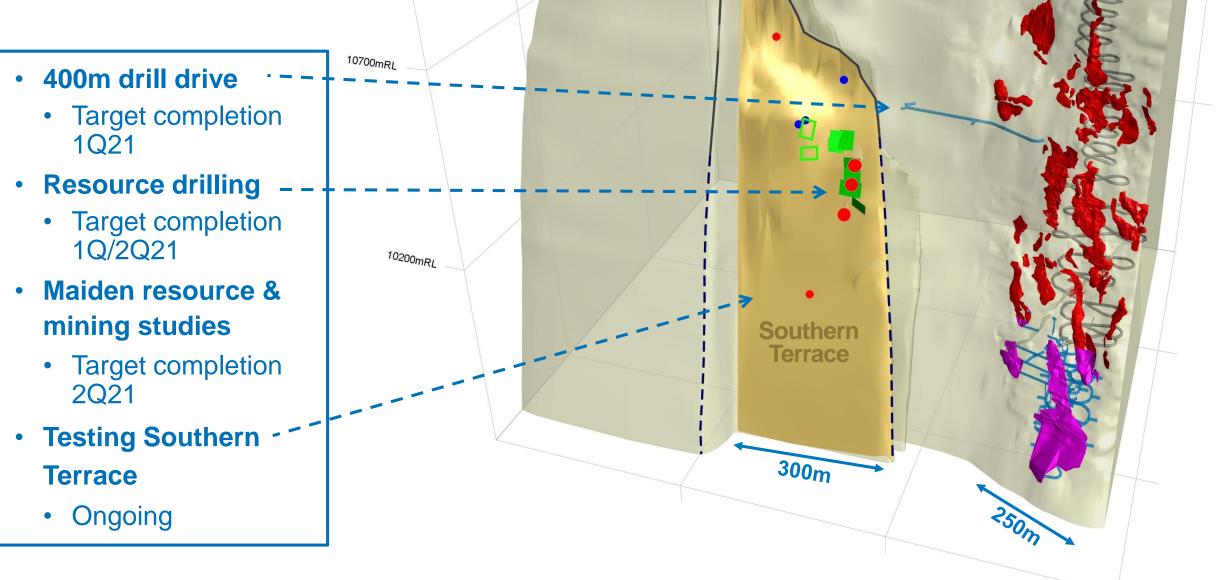
## Black Swan Project Golden Swan High Grade & Southern Terrace Prospectivity





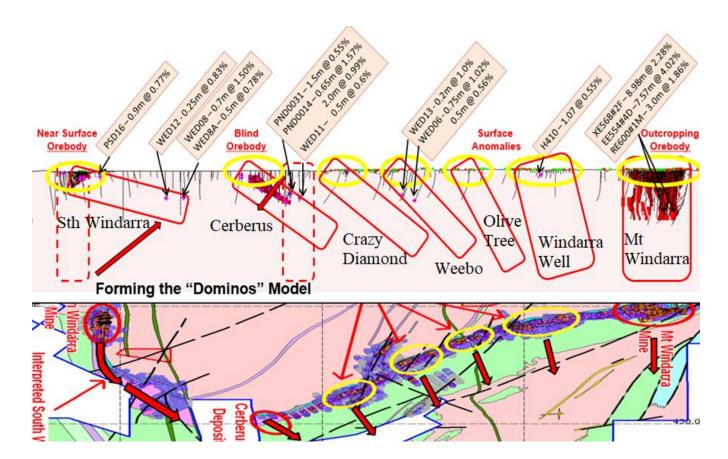
## Black Swan Project Golden Swan & Southern Terrace Next Steps





#### Windarra Project Historic production, existing resources & exploration upside

- History
  - 8Mt mined and processed on site to produce 84kt Ni<sup>\*</sup>
- Current resources
  - Windarra 4.36Mt @1.64% Ni for 71,500t Ni<sup>1</sup>
  - Cerberus 4.55Mt @1.51% Ni for 69,000t Ni<sup>1</sup>
- Future Activities
  - Follow up Crazy Diamond discovery
  - Review geophysics and determine locations for further Kambalda-style deposits
  - Review previous development studies



Multiple Kambalda-style targets at Windarra



#### History

\*Contained Ni metal

 Emily Ann - 1.5Mt @ 3.5% Ni mined and processed b/n 2001-2007

Historical production, infrastructure, resources

- Maggie Hays 10Mt @ 0.6%Ni mined and processed b/n 2008-2014
- Current resources & infrastructure
  - Maggie Hay 3.5Mt @ 1.5% Ni\* for 52kt Ni<sup>1</sup>
  - 1.5Mtpa process plant (on C&M)
- Future Activities
  - Update restart study

<sup>1</sup> Reference Mineral Resources Statement Table 1 attached

Lake Johnston Project

- Test geological theory
  - More Kambalda Style deposits
  - Intrusive Model Follow up Abi Rose Ni discovery<sup>2</sup>

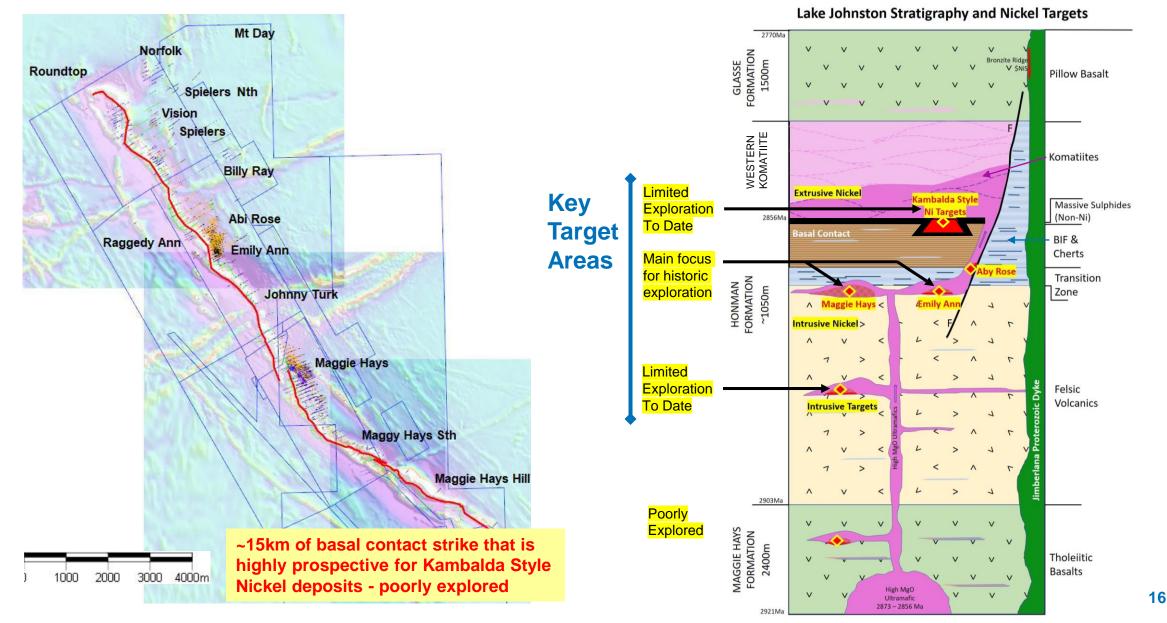






## Lake Johnston Project Walk Up Nickel Targets in Multiple Stratigraphic Positions





## **Gold Option** Windarra gold tailings project



#### Strategy

- Monetise existing gold resource
- Utilise cash for nickel strategy

#### Recent Activities

- June 2020 PFS<sup>1</sup> confirmed low risk, low Capex and Opex
- Proposed plant 1.5Mtpa CIL processing facility
- Next Steps
  - DFS incorporating Lancefield tailings<sup>2</sup>
- Upside
  - Additional feed
  - Scope to re-purpose capital equipment for Ni retreatment (Black Swan & Windarra)

June 2020 PFS - Project physicals and key economic me	etrics <sup>1</sup>
Contained gold in resource	105,000oz
Metallurgical recovery	42.3%
Gold production target <sup>1</sup>	44,400oz
Revenue <sup>2</sup>	\$112.3M
Development capital cost	\$24.6M
Max cash drawdown	\$25.3M
Net cash flow	\$30.4M
Pre-tax NPV <sub>8</sub>	\$22.8M
IRR	62.4%
Payback period (from commencement of production)	15 months
Unit cost analysis	
C1 cash cost <sup>3</sup>	\$1,209/oz recovered
AISC cash cost <sup>4</sup>	\$1,291/oz recovered
Breakeven cost <sup>5</sup>	\$1,846/oz recovered

#### Key Assumptions

1. Target Gold Production - assumes 100% mining recovery of Mineral Resource under the hydraulic mining scenario.

2. A gold price of US\$1,625/oz has been assumed and an exchange rate of A\$:US\$ of 0.65. Revenue includes \$1.4M of assumed silver credits which is produced as a by-product of the gold tailings retreatment process.

 C1 cash costs mean operating cash costs including mining, processing, geology, OHSE, project G&A, smelter and refining, divided by gold produced. Excludes development and sustaining capex, royalties and corporate overheads.

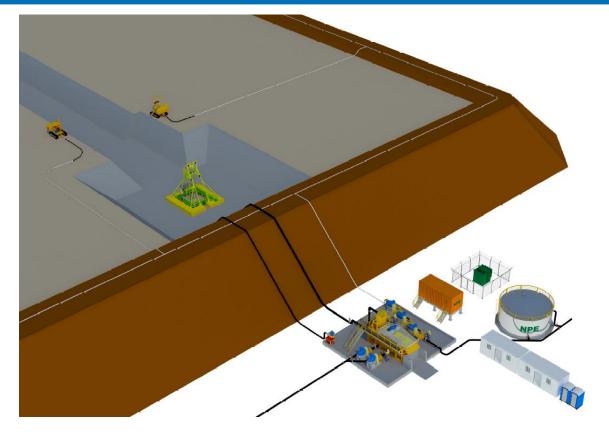
4. All-in-sustaining cash costs are C1 cash costs plus royalties and sustaining capital. Excludes development capital and corporate overheads.

5. Includes AISC plus development capital

<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement "Robust PFS completed for Windarra Gold tailings Project" dated 22 June 2020 <sup>2</sup> Refer ASX Announcement "Poseidon to acquire rights to treat Lancefield gold tailings" dated 17 August 2020

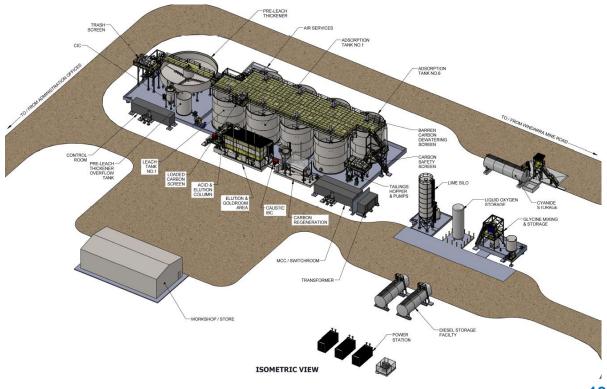
#### Windarra Gold Tailings Simple mining & processing





**Concept for the hydraulic mining** 

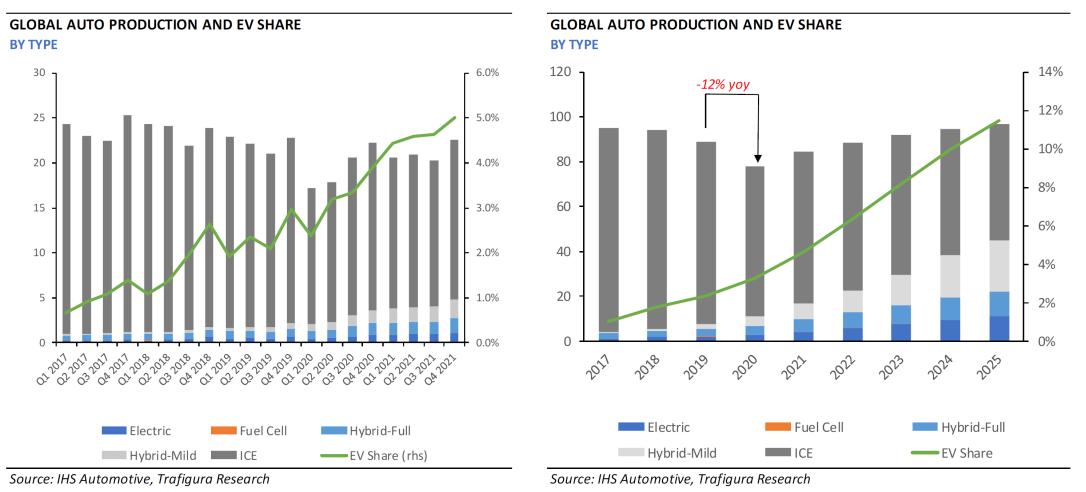
#### **Conceptual design of 1.5Mtpa CIL plant**



## Nickel Market Emerging supply shortage

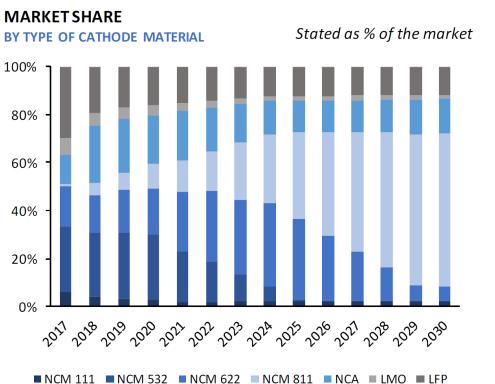


# GLOBAL AUTO PRODUCTION EXPECTED TO FALL SHARPLY IN 2020, YET EV SALES ARE EXPECTED TO GROW BY >20%, WITH LONG TERM PROSPECTS UNAFFECTED BY HEADWINDS FROM COVID-19

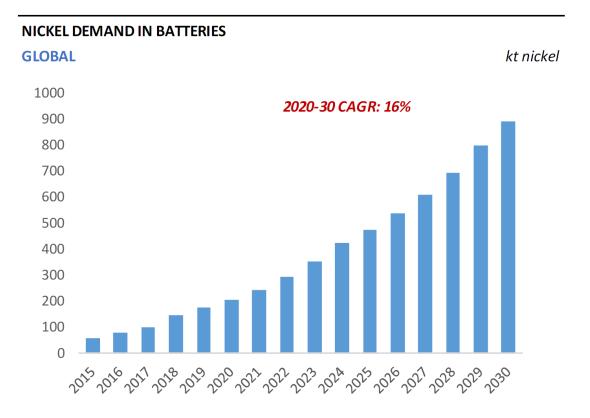




# WITH THE LONG-TERM EV FORECAST INTACT NICKEL DEMAND IN BATTERIES EXPECTED TO CONTINUE GROWING AT DOUBLE DIGITS TO REACH 500KT IN 2025



Source: Trafigura Research, SMM



Source: Trafigura Research, SMM, CIAP

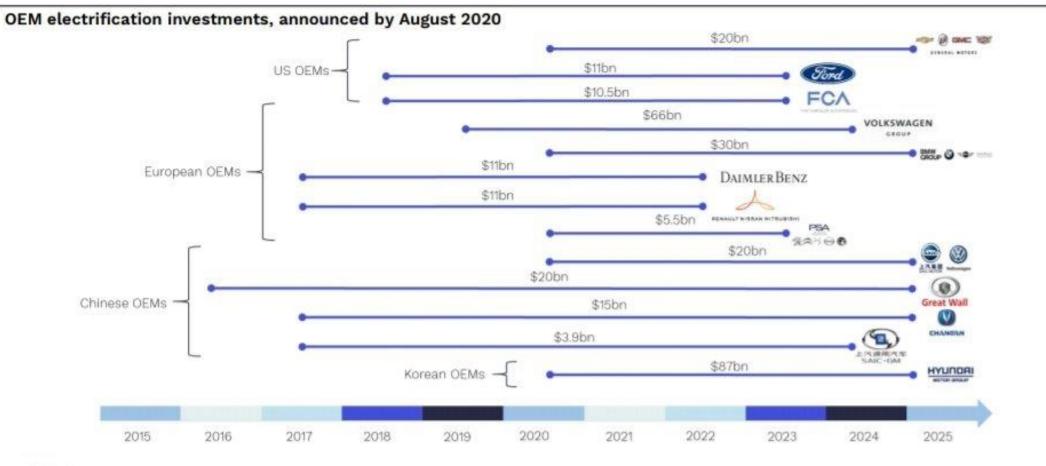
#### Massive investment in electrification by car makers



motion

rho.

## **OEM investments exceed USD500bn to 2025**



www.RhoVotion.com

#### Road to cashflow and share price appreciation

- Exploration success
  - Black Swan More high-grade at Golden Swan, test the Southern Terrace
  - Opportunities at Windarra and Lake Johnston
- Exposure to commodities with positive price outlook
  - Nickel early cash from DSO vs restarting Black Swan concentrator
  - Gold monetise tailings to fund nickel strategy
- Healthy Balance Sheet projected net cash ~\$15M (30 Sept 2020)\*
- Supportive shareholders Wyloo Metals and Black Mountain Metals
- Experienced Team with nickel sulphide exploration, project development and operating capabilities

# **VISION: TO BECOME A SELF FUNDING MINING COMPANY**

# NICKEL

Peter Harold Managing Director & CEO T: +61 (0)8 6167 6600 E: admin@poseidon-nickel.com.au W: poseidon-nickel.com.au ASX:POS



#### **Table 1: Nickel Projects Mineral Resource Statement**

		MINERAL RESOURCE CATEGORY													
Nickel Sulphide Resources Compliance		Cut Off Grade	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 S	BLACK SWAN PROJECT														
Black Swan	2012	0.40%	9,600	0.68	65,000	21,100	0.54	114,000	30,700	0.58	179,000	0.01	4,200	NA	-
Silver Swan	2012	4.50%	108	9.4	10,130	61	9.7	5,900	168	9.5	16,030	0.19	316	0.4	679
LAKE JOI	LAKE JOHNSTON PROJECT														
Maggie Hays	2012	0.80%	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
WINDARF	RA PROJECT														
Mt Windarra	2012	0.90%	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	0.80%	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														
Total Ni, Co, Cu Resources	2004 & 2012		16,775	1.04	174,030	27,275	0.81	221,500	44,049	0.90	395,530	0.02	7,516	0.03	13,379

Black Swan Resource as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4<sup>th</sup> August 2014)

Silver Swan Resource as at 5 August 2019 (see ASX announcement "Silver Swan Resource Upgrade..." released 5<sup>th</sup> August 2019)

Maggie Hays Resource as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17<sup>th</sup> March 2015)

*Mt Windarra Resource as at t November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7<sup>th</sup> 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<sup>st</sup> 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.

Note: totals may not sum exactly due to rounding. NA = information Not Available from reported resource model. The Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves.



#### **Table 2: Gold Tailings Project Mineral 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 (%)		
North Dam	3,624,000	0.78	91,000	1.9	1,770	360	0.10		
South Dam	923,000	0.48	14,000	0.6	630	369	0.26		
Total	4,547,000	0.72	105,000	1.6	1,540	360	0.13		

#### Table 2.1 Windarra Gold Tailings Project JORC2012 Mineral Resource

The Windarra Tailings estimate for North and South Dams has been reported based on the following: •no cut-off grade has been used to report the resource, as the potential mining method dictates removal of the entire dams. •a dry bulk in situ density of 1.6 t/m<sup>3</sup> has been used to derive tonnages. •resource numbers in Table 2.1 may not sum exactly due to rounding.

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 Dam	6,198,000	0.37	74,000	435.0	270	0.3		

#### Table 2.2 Windarra Central Dam JORC2012 Mineral Resource

The Windarra Tailings estimate for the Central Dam has been reported based on the following:

•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/m<sup>3</sup> 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" dated 22 June 2020).

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.



#### **Table 3: Nickel Project Ore Reserve Statement**

		ORE RESERVE CATEGORY						
Nickel Sulphide Reserves	JORC Compliance	PROBABLE						
		Tonnes (Kt)	Ni% Grade	Ni Metal (t)				
SILVER SWAN PROJECT								
Silver Swan Underground	2012	130	5.2	6,800				
Black Swan Open pit	2012	3,370	0.63	21,500				
TOTAL								
Total Ni Reserves	2012	3,500	0.81	28,300				

Silver Swan Underground Reserve as at 26 May 2017 (see ASX announcement "Silver Swan Definitive Feasibility Study" released 26<sup>th</sup> May 2017) Black Swan Open Pit Reserve as at 5 November 2014 (see ASX announcement "Poseidon Announces Black Swan Ore Reserve" dated 5<sup>th</sup> November 2014).

The Company is aware that the 2019 upgrade to the Silver Swan Indicated Resource will materially affect the Silver Swan Reserve above which was based upon the 2015 Silver Swan Resource Estimate (refer to Table 1 above for the new Silver Swan Resource estimate). Such information is based on the information complied by the Company's Geologists and the Competent Persons as listed below in the Competent Person Statements.

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements for the Black Swan Open Pit Reserve. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.



The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled and reviewed by Mr Steve Warriner, Chief Geologist, who is a fulltime employee at Poseidon Nickel and a Member of The Australian Institute of Geoscientists and Mt Graham Leaver who is an employee of Poseidon Nickel and a Member of The Australian Institute of Geoscientists.

The information in this report which relates to the Black Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. The information in this report which relates to the Black Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and who is a Members of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the Silver Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Kahan Cervoj who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Silver Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

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 is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and is a Member of the Australian Institute of Mining and Metallurgy. The information in this report which relates to the Lake Johnston Ore Reserves Project is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

The information in this Updated Gold Tailings Project Mineral Resource Statement 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).

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.

Mr Warriner, Mr Leaver, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan all have 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). Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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

## FORWARD LOOKING STATEMENT – INFERRED RESOURCE STATEMENTS:

The Company notes that an Inferred Resource has a lower level of confidence than an Indicated Resource and that the JORC Codes, 2012 advises that to be an Inferred Resource it is reasonable to expect that the majority of the Inferred Resource would be upgraded to an Indicated Resource with continued exploration. Based on advice from relevant competent Persons, the Company has a high degree of confidence that the Inferred Resource for the Silver Swan deposit will upgrade to an Indicated Resource with further exploration work.

The Company believes it has a reasonable basis for making the forward looking statement in this announcement, including with respect to any production targets, based on the information contained in this announcement and in particular, the JORC Code, 2012 Mineral Resource for Silver Swan as of May 2016, together with independent geotechnical studies, determination of production targets, mine design and scheduling, metallurgical testwork, external commodity price and exchange rate forecasts and worldwide operating cost data.

#### 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 Silver Swan underground mine.