Poseidon Nickel Ltd.

POS.AX

MST Access

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Black Swan FID Nears

NEED TO KNOW

- Black Swan 1.1mtpa restart progressing; FID planned for 2QCY23
- Expansion Study to 2.2mtpa continuing
- Lake Johnston drilling to commence

Black Swan restart powers ahead: Poseidon Nickel (POS) continues to make solid progress towards the restart of the Black Swan 1.1mtpa nickel (Ni) mine and processing plant. Potential offtake partners have shown strong interest, and attractive terms have been received from debt providers. The all-important open-pit drilling program, which seeks to increase mining inventory and extend mine life, has been completed, with all assays due imminently. POS continues to work towards a 2QCY23 final investment decision (FID), which would see first ore in 2HCY24.

Black Swan Expansion Study continues, production to 2.2mtpa: The key to the expansion project is the ability to treat ores which are not included in the current Ore Reserves, potentially doubling annual production and increasing mine life. Progress continues, including customer testing of the Ni product.

Lake Johnston drilling to start in April 2023; another potential project restart: A drilling program of up to 15,000 metres is scheduled to commence in early April at Lake Johnston to test for further Ni mineralisation and potentially add to the current resource. Lake Johnston remains an important part of the strategy and presents a further near-term production project for POS.

Investment Thesis

Black Swan restart – a robust project: The Black Swan restart is the key to POS, with initial processing of 1.1mtpa of Ni ore to produce 30kt of Ni in smelter-grade concentrate. The completed Bankable Feasibility Study (BFS) outlines a robust project with relatively low up-front capex and planned first production in CY24.

Black Swan expansion potential adds value; additional projects provide options: The Black Swan project has a large ore resource that is amenable to processing a lower-quality concentrate for sale into the battery production space. This would allow production to double and, potentially, mine life to increase. POS owns 100% of 2 other Ni projects in WA, providing further Ni production potential.

Nickel – a key commodity for the new world: The use of high-quality Ni in EV batteries represents a long-term driver for demand and upside to the Ni price. Battery manufacturers are adopting battery chemistries with higher Ni content. The Ni market is likely to encounter significant supply deficits over the medium to long term, forcing prices to rise and incentivising new production capacity.

Valuation

Our valuation is A$0.17 fully diluted (unchanged), substantially higher than the current share price of A$0.038. The share price has declined over the last 12 months due to a broad market sell-off in small and micro-cap stocks and macro concerns about increasing interest rates and a potential recession. Our valuation is driven by our expectation of the successful restart of Black Swan and subsequent expansion to 2.2mtpa. We also include a risked valuation for the restart of Lake Johnston.

Risks

Key risks include delays to FID, Ni price volatility and increasing capital costs.

Equities Research Australia

Metals and Mining

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POSEIDON NICKEL

Poseidon Nickel (POS) owns 100% of the Black Swan, Windarra and Lake Johnston nickel (Ni) assets located in Western Australia's Goldfields Ni province. The Black Swan project is the focus for POS, with the high-grade Golden Swan and Silver Swan adding high-grade Ni tonnes to the Black Swan open pit. A BFS has been completed on the 1.1mtpa Black Swan Restart Project, with FID slated for 2QCY23 and first production for CY24.

https://poseidon-nickel.com.au/

Valuation	**A$0.17** *(unchanged)*
Current price	**A$0.038**
Market cap	**A$129m**
Cash on hand	**A$11.5m** (6 *March 2023*)

Upcoming Catalysts and Newsflow

Period	
2QCY23	Black Swan: drilling results
2QCY23	Black Swan: funding and offtake completion; FID
2QCY23	Lake Johnston: commencement of drilling

Share Price (A$)

Source: FactSet, MST Access

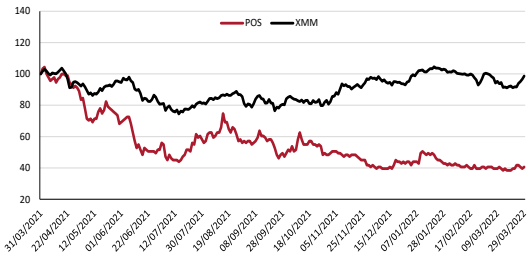
FINANCIAL SUMMARY POSEIDON NICKEL YEAR END 30 JUNE

Poseidon Nickel Limited — **POS.AX**

Year end 30 June

MARKET DATA 03 April 2023		
Price	**$**	**0.038**
52 week high / low	$	0.14-0.03
Valuation (diluted)	**$**	**0.17**
Market Capitalisation	**$m**	**129.4**
Enterprise Value	**$m**	**121.9**
Shares on issue (basic) (assumes SPP fully taken up)	m	3404.0
Options / Performance shares	m	10.5
Other equity (assumed issue FY2023 for FID)	m	500.0
Potential shares on issue (diluted)	m	**3914.5**

12 month Relative Performance versus S&P/ASX300 Metals and Mining



INVESTMENT FUNDAMENTALS		FY21A	FY22A	FY23E	FY24E	FY25E
Reported NPAT	$m	(10.9)	(11.7)	(8.0)	(12.8)	21.6
Underlying NPAT	**$m**	**(10.9)**	**(11.7)**	**(8.0)**	**(12.8)**	**21.6**
EPS Reported (undiluted)	¢	-0.32	-0.34	-0.23	-0.38	0.63
EPS Underlying (undiluted)	**¢**	**-0.32**	**-0.34**	**-0.23**	**-0.38**	**0.63**
Underlying EPS growth	%	15%	-7%	32%	61%	-269%
P/E Reported (undiluted)	x	n/m	n/m	n/m	n/m	6.0
P/E Underlying (undiluted)	**x**	n/m	n/m	n/m	n/m	6.0
Operating cash flow / share	**¢**	**(0.28)**	**(0.33)**	**(0.15)**	**(0.14)**	**1.15**
Price to operating cash flow	x	n/m	n/m	n/m	n/m	3.30
Free cash flow	**$m**	**(21.4)**	**(23.5)**	**(10.0)**	**(109.4)**	**34.0**
Free cash flow per share	**¢**	**(0.6)**	**(0.7)**	**(0.3)**	**(3.2)**	**1.0**
Price to free cash flow	x	n/m	n/m	n/m	n/m	3.8
Free cash flow yield	%	-16.5%	-18.1%	-7.7%	-84.5%	26.3%
Book value / share	**¢**	**1.77**	**2.22**	**2.98**	**2.61**	**3.24**
Price to book (NAV)	**x**	**2.2**	**1.7**	**1.3**	**1.5**	**1.2**
NTA / share	¢	1.77	2.22	2.98	2.61	3.24
Price to NTA	**x**	**2.1**	**1.7**	**1.3**	**1.5**	**1.2**
Year end shares	m	3,404	3,404	3,904	0	0
Market cap (Spot)	**$m**	**129.4**	**129.4**	**129.4**	**129.4**	**129.4**
Net debt /(cash)	$m	(7.4)	(10.7)	(34.7)	79.6	50.3
Enterprise value	**$m**	**122**	**119**	**95**	**209**	**180**
EV/Sales	x	165.22	263.64	n/m	n/m	2.10
EV/EBITDA	**x**	**n/m**	**n/m**	**n/m**	**n/m**	**4.6**
EV/EBIT	x	**n/m**	**n/m**	**n/m**	**n/m**	**6.87**
Net debt / EV	x	-0.06	-0.09	-0.28	0.65	0.41
Gearing (net debt / EBITDA)	**x**	**n/m**	**n/m**	**n/m**	**-15.30**	**1.29**

PROFIT AND LOSS $Am	FY21A	FY22A	FY23E	FY24E	FY25E
Sales	0.7	0.5	-	-	85.5
COGS	-	-	-	-	(41.2)
Gross profit	**0.7**	**0.5**	**-**	**-**	**44.3**
Other income	-	-	-	-	-
Other operating costs	(10.8)	(11.8)	(5.1)	(5.2)	(5.3)
EBITDA	**(10.0)**	**(11.3)**	**(5.1)**	**(5.2)**	**39.0**
Depreciation & amortisation	(0.4)	(0.4)	(3.0)	(3.0)	(12.9)
EBIT	**(10.4)**	**(11.7)**	**(8.1)**	**(8.2)**	**26.1**
Interest	(0.5)	0.0	0.1	(4.6)	(4.6)
Tax	**-**	**-**	**-**	**-**	**-**
NPAT	**(10.9)**	**(11.7)**	**(8.0)**	**(12.8)**	**21.6**
Adjustments & Significant items	**-**	**-**	**-**	**-**	**-**
Underlying NPAT	**(10.9)**	**(11.7)**	**(8.0)**	**(12.8)**	**21.6**

PRODUCTION AND PRICING	FY21A	FY22A	FY23E	FY24E	FY25E
Nickel Production tonnes					
Black Swan	-	-	-	-	2,693
AUD/USD	-	-	-	-	0.67
Price	-	-	-	-	
Nickel US$/lb	-	-	-	-	12.60

BALANCE SHEET $Am	FY21A	FY22A	FY23E	FY24E	FY25E
Cash at bank	7.9	11.1	34.7	14.8	44.1
Other assets	0.04	-	-	-	-
Receivables	0.9	0.9	0.9	0.9	0.9
Current assets	8.9	12.0	35.6	15.7	44.9
PP&E (with accumd dep)	24.6	24.8	21.8	118.2	105.3
Exploration and evaluation expenditure	87.4	99.9	104.9	110.0	115.2
Other assets	4.1	4.0	4.0	4.0	4.0
Non current assets	**116.1**	**128.7**	**130.7**	**232.3**	**224.6**
Total Assets	**125.0**	**140.6**	**166.3**	**247.9**	**269.5**
Trade and Payables	2.6	1.9	1.9	1.9	1.9
Employee benefits	0.1	0.2	0.2	0.2	0.2
Provisions	3.5	-	-	-	-
Borrowings	0.1	0.1	0.1	0.1	0.1
Current liabilities	**6.4**	**2.3**	**2.3**	**2.3**	**2.3**
Loans and borrowings	0.5	0.4	-	94.4	94.4
Convertible note derivative	-	-	-	-	-
Provisions	57.9	62.5	62.5	62.5	62.5
Non-Current liabilities	**58.4**	**62.8**	**62.5**	**156.9**	**156.9**
Total Liabilities	**64.8**	**65.1**	**64.7**	**159.1**	**159.1**
Share Capital	238.3	265.1	299.1	299.1	299.1
Reserves	0.3	0.6	0.6	0.6	0.6
Accumulated losses	(178.5)	(190.2)	(198.1)	(210.9)	(189.4)
Total Equity	**60.1**	**75.5**	**101.6**	**88.8**	**110.4**

Resources (kt) by Asset

Nickel Sulphide Resources	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)
Black Swan Project												
Black Swan	800	0.76	6,000	9,900	0.75	74,000	18,200	0.62	101,000	28,900	0.63	181,000
Silver Swan	-	-	-	138	9.00	12,450	8	6.00	490	146	9.50	12,940
Golden Swan	-	-	-	112	4.70	5,200	48	2.20	1,050	160	3.90	6,250
Silver Swan Tailings	675	0.92	6200	-	-	-	-	-	-	675	0.92	6,200
Lake Johnston Project												
Maggie Hayes	-	-	-	2,600	1.60	41,900	900	1.17	10,100	3,500	1.49	52,000
Windarra Project												
Mt Windarra	-	-		922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500
South Windarra	-	-		772	0.98	8,000	-	-	-	772	0.98	8,000
Cerebus	-	-	-	2,773	1.25	35,000	1,778	1.91	34,000	4,551	1.51	69,000
Total												
Total	1,475	0.83	12,200	17,217	1.11	190,550	24,370	0.84	204,140	43,062	0.94	406,890

CASH FLOW $Am	FY21A	FY22A	FY23E	FY24E	FY25E
Operating Revenue	0.6	0.5	-	-	85.5
Sundry receipts	-	-	-	-	-
Payments to suppliers and employees	(10.3)	(11.6)	(5.1)	(5.2)	(46.5)
Interest received	0.2	0.0	0.1	0.3	0.1
Tax Paid	-	-	-	-	-
Operating cash flow	**(9.5)**	**(11.1)**	**(5.0)**	**(4.9)**	**39.2**
Payments for PPE	(0.2)	(0.3)	-	(99.4)	-
Proceeds from sale of PPE	-	-	-	-	-
Exploration and evaluation expenditure	(11.6)	(12.0)	(5.0)	(5.1)	(5.2)
Payments for term deposits	-	-	-	-	-
Investing cash flow	**(11.9)**	**(12.4)**	**(5.0)**	**(104.5)**	**(5.2)**
Proceeds from the issue of shares	9.5	26.8	34.0	-	-
Proceeds (Repayments) borrowings	(25.2)	(0.2)	(0.4)	94.4	-
Interest paid	(0.2)	-	-	(5.0)	(4.7)
Financing cash flow	**(15.9)**	**26.7**	**33.6**	**89.4**	**(4.7)**
Net Increase/Decrease	(37.3)	3.2	23.6	(19.9)	29.3
Cash at Beginning Year	45.2	7.9	11.1	34.7	14.8
Final Cash Balance	**7.9**	**11.1**	**34.7**	**14.8**	**44.1**

Black Swan Phase 1 Feed Source

Feed Source	JORC Compliance	Feed Tonnage (mt)	Nickel Grade (%)	Contained Ni (kt)
Black Swan Disseminated	Proved and Probable	3.3	0.7%	22.1
Silver Swan		0.2	5.0%	9
Golden Swan	Reserves	0.1	4.0%	4
Ore Reserves		**3.6**	**1.0%**	**35.1**
Silver Swan Tailings	Measured Resource	0.4	0.9%	3.2
Existing Surface Stockpiles	Indicated Resource	0.6	0.5%	3.2
Existing Surface Stockpiles	Inferred Resource	0.4	0.5%	2
Feed from Mineral Resources		**1.4**	**0.6%**	**8.4**
Total Feed		**5.0**	**0.9%**	**43.5**

Source: POS; MST Estimates

Black Swan: Restart Powers Ahead; Final Investment Decision Targeted for 2QCY23

In November 2022, POS completed a BFS for a restart of its Black Swan mine and processing plant. The BFS outlined a robust project with a company-calculated NPV of A$248m and free cash flow of A$333m over a ~4-year life (based on November 2022 spot pricing), utilising 1.1mtpa of the plant's 2.2mtpa capacity. This compares very favourably to POS's current market cap of $129m.

The Phase 1 BFS is based on the plan to mine ore from the Black Swan disseminated (BSD) open pit (serpentinite ore only) and Silver Swan and Golden Swan high-grade underground mines, supplemented with Silver Swan Tailings and existing surface stockpiles (disseminated serpentinite material). The company will then process these feed sources through the refurbished existing concentrator and associated infrastructure at an annualised rate of 1.1mtpa. Processing of the current mining inventory of 5mt, therefore leads to a 4-year project life. The BFS assumes that only a portion of the Mineral Resource is processed at Black Swan and paves the way for a Phase 2 BFS, based on full plant capacity of 2.2mtpa.

Refresher on Black Swan Phase 1 BFS: key project attributes

- High-grade high-quality concentrate grading 15% Ni
- Processing a total of 5mt of feed (1.1mtpa)
- Total concentrate production of ~200kt, 30kt of Ni contained
- Ore reserves of 3.5mt @1% Ni for ~35kt of Ni (total resource 31.5mt @ 0.68% for 214.2kt Ni)
- Pre-production capex A$50m, total LOM capex A$99m
- C1 operating costs of A$4.52/lb

Progress on 3 key deliverables to achieve FID in 2QCY23

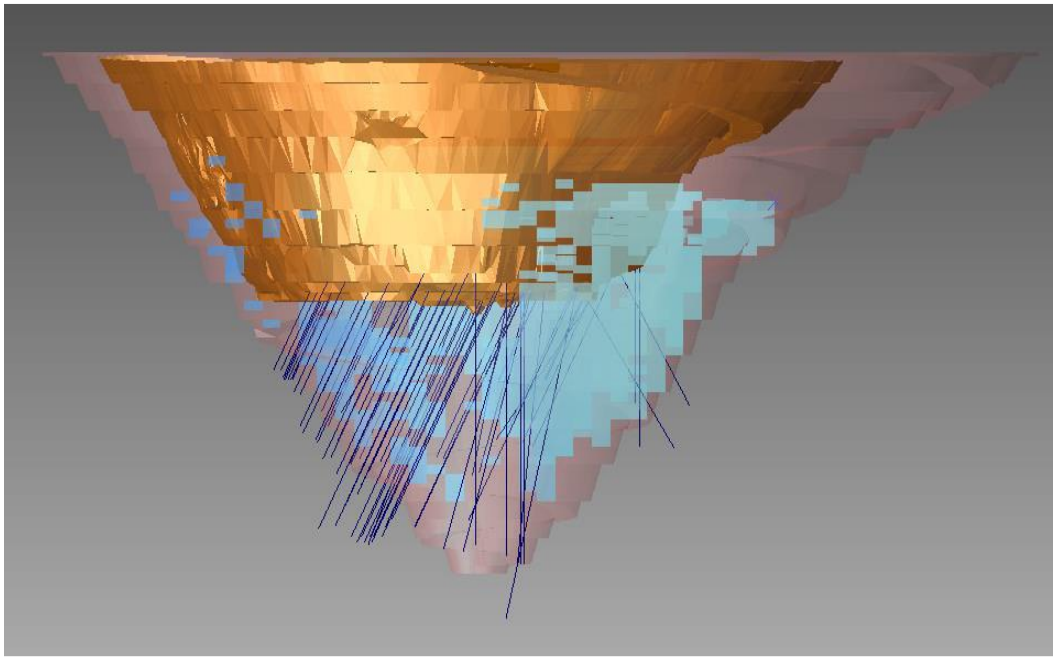
To achieve the targeted FID in 2QCY23, POS is progressing three key deliverables:

(1) resource update: in-pit drill program to increase the mining inventory to further extend the mine life and optimise start up feed schedule
(2) customer offtake: shortlisted parties doing detailed due diligence
(3) debt financing: assessing the most attractive terms offered.

Deliverable 1 – resource update: Black Swan resource drilling program

POS has completed an 11,000-metre drilling program, from the bottom of the open pit, into the BSD resource (see Figure 1).

Figure 1: Planned holes of the 11,000m drilling program below current open pit – covering inferred blocks (in blue) and showing stage 2 pit outline (in pink)



Source: POS.

The principal aims of the drill program are to:

- upgrade some of the large tonnages of Inferred Resources that are available within the proposed open-pit shell to the Indicated Resources category. The higher-confidence levels could lead to an increase in mining inventories and reportable open-pit ore reserves
- 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
- optimise the mining schedule for the commencement of operations
- provide additional material for ongoing metallurgical testwork for the Phase 2 Expansion Project study.

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

Deliverable 2 – customer offtake options: POS product in demand

Key to reaching FID is securing customer offtake agreements.

The concentrate produced for the initial 1.1mtpa process from Black Swan will produce a high-quality concentrate, ideal for potential customers to process through conventional Ni smelters to produce Ni for use in the stainless steel production process and EV batteries. Black Swan's concentrate could also be blended with lower-quality concentrates to improve the overall quality of the smelter feed.

The demand for the Black Swan concentrate has been high, attracting a number of potential customers from across the globe, with the company receiving attractive Ni payabilities and other terms.

POS has shortlisted the most attractive offtakers who are now in the process of due diligence, and have access to a data room and are conducting site visits.

Deliverable 3 – debt financing: offtakers' terms the most attractive

POS has received a number of attractive debt funding options. After assessing the debt terms offered, POS has determined the most attractive terms have come from the potential offtakers. As noted above, the data room has been made available to these parties as well as site visits.

The debt and offtake arrangements are targeted to be completed during 2QCY23 in order to support FID during the same quarter.

Other key work streams in process – progress on pre-works

Outside of the three key deliverables for FID to be taken, POS is making strong progress in a number of other areas for the Black Swan restart to go ahead.

The status of pre-works at Black Swan is as follows:

- **open-pit dewatering:** completed
- **underground:** remaining rehabilitation works will be scheduled to coincide with the mine ramp-up
- **processing plant:** contract finalisation with selected engineering company for plant refurbishment
- **major contracts:** discussions will commence as required
- **approvals:** work continues on obtaining outstanding approvals required for the restart
- **personnel onboarding:** planning is well underway for the onboarding of the technical team
- **accommodation:** this is recognised as one of the key execution risks. The company is looking at various options in order to achieve sufficient rooms in Kalgoorlie for the full complement of personnel required for the operating phase. There is a temporary accommodation camp at site which will be utilised for the plant refurbishment.

Black Swan: Phase 2 BFS – 2.2mtpa; Potentially Better Economics

Background – maximising the Black Swan open-pit ore

The updated Black Swan Mineral Resource in July 2022 significantly improved the confidence in the Ni grade and distribution of the serpentinite and talc-carbonated hosted disseminated mineralisation immediately below the Black Swan open pit.

Confirming the distribution of the ore types (and quantifying the talc content) is important to identify mining blocks that will be suitable to produce a smelter-grade concentrate. The talc-carbonate ore is typically high in talc (MgO) content (and low in iron-sulphide content) and does not produce a favourable concentrate feed for conventional smelters.

POS conducted a laboratory pressure oxidation (POX) test on a concentrate produced from a ~50:50 talc–carbonate/serpentine ore blend. The POX leach extraction results were excellent, demonstrating greater than 97% Ni and cobalt extraction to the leach solution. The testwork demonstrated the amenability of concentrate produced from higher-talc ore blends to POX and has the potential to significantly increase the volume of ore from the BSD resource that could be economically mined.

Potential for 2.2mtpa Black Swan mill

The BFS for 1.1mtpa has the Black Swan Mill at 50% of its rated capacity of 2.2mtpa in order to produce a smelter-grade concentrate, requiring low-talc ore.

With a better understanding of the BSD ore, and in order to fully understand the economics of the downstream production of a mixed hydroxide precipitate, POS has included studies on producing a rougher concentrate which could be delivered to a POX plant or sold to other Ni plants in WA that utilise autoclave leaching technology.

This option would present an opportunity to process a larger portion of the significant Ni endowment within the BSD resource and significantly increase the annual Ni output, increasing the utility ofthe large Black Swan resource. Additional capex would be minimal (MST estimate: A$20m).

Rougher concentrate product would be targeted at the high-growth battery sector. The BFS for this option will be completed in 1HCY23.

Figure 2: A comparison of the Phase 1 BFS vs expanded Phase 2 option

BLACK SWAN RESTART PROJECT OPTIONS		
1.1mtpa smelter-grade concentrate	**Mining**	**2.2mtpa rougher concentrate**
• Potential to economically mine and process low-talc (MgO) serpentinite material • Lower capital requirement and greater near-term mining production potential		• Potential to economically mine and process a larger portion of the Mineral Resource (to include the talc carbonate ore type) • Reduces reliance on high-grade underground ore sources and tailings
• Smelter-grade concentrate production requiring suitable low-talc (MgO) ore feed • Likely project life based on suitable ore feed: less than 5 years	**Concentrate Processing**	• Higher talc ore types amenable to POX processing, significantly increasing mine inventory • Likely project life based on suitable ore feed: significantly more than 5 years
• Truck concentrate to Kambalda, rail to Esperance/Fremantle, ship to overseas smelter • Potentially higher carbon footprint than trucking to WA downstream processing location	**Logistics**	• PBT: truck concentrate to Kalgoorlie – 55kms • Existing WA autoclave operation: truck concentrate less than 300kms • POX located at Black Swan, nil transport
• Smelter industry proven path to market • Payabilities increased in recent times for smelter grade (low MgO) concentrate	**Downstream Processing**	• Less established technologies compared to smelter path • Value add downstream MHP or pCAM product could attract higher payability
• Smelter grade concentrate produces Class 1 nickel needing further processing for battery applications	**End Customer**	• Emerging markets supporting global decarbonisation initiatives (battery, EVs) • Strong interest received from EV and battery manufacturers for product offtake
• Both 1.1mtpa and 2.2mtpa scenarios likely to benefit from existing infrastructure, including: o lower carbon emission grid power instead of diesel generation; and o water from replenishing nearby existing open pit sources rather than bore fields	**ESG**	• Shorter concentrate product transport to PBT Kalgoorlie refinery expected to reduce carbon emissions per nickel unit • Downstream processing in a stable mining jurisdiction provides security of supply for customers

Source: POS.

Lake Johnston: Low-Capex Restart, Just Like Black Swan – Drilling to Start in April

A quick history of Lake Johnston

The Lake Johnston plant started operating in 1998, treating ore from the Emily Ann underground Ni mine. 1.5m tonnes of ore were mined and processed, at an average grade of 3.8% Ni, delivering 57,000 tonnes of contained Ni between 1998 and 2007. There have been a number of expansions since, the most recent being a major expansion to 1.5mtpa throughput capacity in 2006. The Maggie Hays deposit was brought online in 2007 with a resource of 12.3m tonnes at 1.5% Ni for 182,000 contained Ni and mined and processed between 2008 and 2013. The plant was placed on care and maintenance in 2013. In 2017, certain pieces of infrastructure were removed from the Maggie Hays mine and the workings were allowed to flood.

The Lake Johnston resource is 3.5Mt @ 1.5% Ni for 52kt Ni (Maggie Hays).

Pathway to a Lake Johnston restart

What would be required?

In order to restart Lake Johnston, the mine would need to be dewatered and the mill refurbished. In 2020, mining consultants Entech costed the dewatering and rehabilitation of the submerged ground support and reinstallation of required infrastructure at $26.4m. The expected duration of these works was 22 months.

What would it cost and how long would it take?

POS engaged GR Engineering (GRES), the same organisation that reviewed the Black Swan start up, to review a Lake Johnston mill restart scenario in late 2021. GRES estimated that the processing plant and associated infrastructure could be refurbished for an estimated cost of $31m and that this would take approximately seven months to complete. The operating cost for the process plant is estimated at approximately A$36 per tonne of ore based on a throughput rate of 0.9mtpa. The project also has a 200-person village, tailings dam and airstrip.

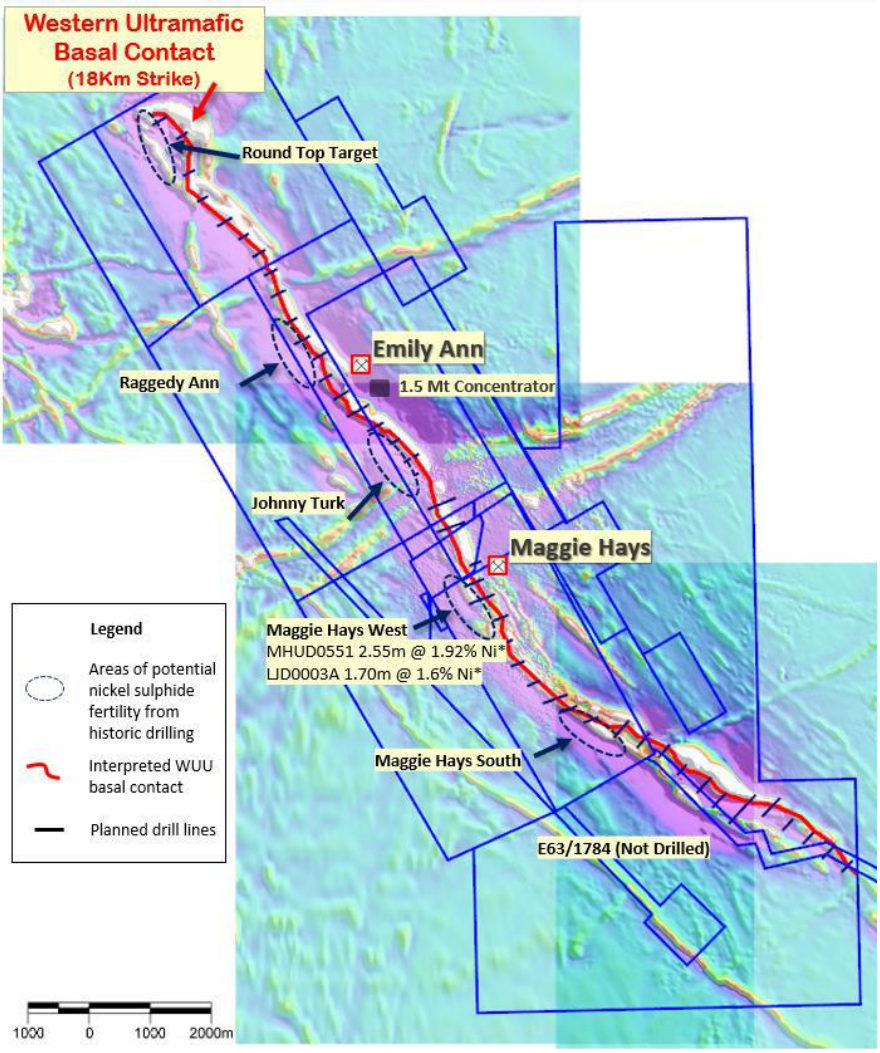
Next steps: large drilling campaign to increase resource

POS plans to conduct an exploration program aimed at increasing the Lake Johnston resource, starting with a 15,000m RC program scheduled to start in April 2023 focused on the highly prospective Western Ultramafic Unit. The addition of Lake Johnston to POS's production profile would contribute to its corporate strategy of producing >15,000t of Ni in concentrate per annum.

The drilling program is aimed at testing the base of Western Ultramafic Unit against the underlying Banded Iron Formation (BIF) Unit, at regular intervals over its 14km strike. The Western Ultramafic Unit is sparsely drilled with a lack of effective drilling that intersects the all-important basal contact position.

The Western Ultramafic Unit is interpreted to represent the extruded portion of the intrusive body hosting the Maggie Hays and Emily Ann deposits that has breached the BIF Unit. As the extrusive lavas flow over the basal contact, melting and assimilating of the sulphidic BIF Units occurs, which is conducive to the formation of nickel sulphides.

Figure 3: The Lake Johnston Project – drilling focused on Western Ultramafic



Source: POS.

Windarra: Another Option in the Nickel Portfolio

The Windarra Nickel project sits some 250 km north of Black Swan in WA's Mt Margaret Goldfields, about 25 km west of Laverton. The project, in a well-established mining precinct, is well serviced by regional infrastructure with a skilled labour and contracting workforce available. Since 2008, POS has completed over 550 drill holes for ~70km of drilling on the project to bring the historical mine resources into JORC-compliant status. The drilling program alsodiscovered a new resource at Cerberus.

The Windarra deposit consists of three broad geologically based mineralised areas: Mt Windarra, South Windarra and Cerberus. A more recent exploration focus lies between Cerberus and Mt Windarra at Crazy Diamond.

Windarra underground mine remnants contain resources of 148,500 t of contained Ni at an average grade of around 1.5%. There are no processing facilities at Windarra. With the Black Swan mill in operation, the option to process ore from the Windarra deposit opens up, with ore being trucked to Black Swan.

Financials: POS Funded to FID

Funding sources

Private placement: On 1 December 2022, POS placed $6m (before costs) through a private placement of ordinary shares with the issue of 171.5m fully paid ordinary shares at an issue price of 3.5 cents per share, an 18.2% discount to the 5 day volume weighted average share price (VWAP) of $0.043 and a 14.6% discount to last closing price before the trading halt of $0.041.

Share purchase plan: POS also conducted a non-underwritten share purchase plan (SPP) in December 2022, which was heavily oversubscribed. The POS board exercised its discretion under the terms of the SPP and increased the amount to accept A$6m, up from the originally planned A$3m.

Cash position and uses of funds

At 6 March 2023, POS had A$11.5m in cash, sufficient to take it through to FID for the Black Swan project.

The funds are being used to:

- commence an infill RC drilling program from the bottom of the dewatered Black Swan open pit to convert Inferred resources to Indicated for both the 1.1Mtpa smelter grade concentrate and 2.2Mtpa rougher concentrate projects
- undertake a 15,000 metre RC drilling program at Lake Johnston in early 2023
- complete the Black Swan 2.2mtpa Phase 2 Feasibility Study during 1H2023 to potentially support the expansion of operations at Black Swan beyond the 1.1Mtpa Phase 1 concentrate project
- review the exploration potential of Windarra
- meet general working capital needs.

Nickel Market: Batteries Turbo-Charging Growth

Over the medium to long term, Ni demand will be incrementally driven by the battery market off the back of EV demand. Recent shifts in legislation that favour EVs will likely result in a surge in demand for Ni units to be used in battery production.

Global nickel demand growth: the future is batteries

While stainless steel will continue to be the primary use for Ni, the major engine of demand growth over the next two decades will be batteries. In 2021, batteries accounted for only 7% of the total market. Market consensus is that battery use will grow to 35-40% of Ni consumption by 2040. That will push Ni demand to double in size to 6 million tonnes per year.

The use of high-quality Ni in EV batteries represents a long-term driver for demand and upside to the Ni price. Battery manufacturers are now adopting battery chemistries with higher Ni content. The Ni market is likely to encounter significant supply deficits over the medium to long term and we expect prices to rise, incentivising new production capacity.

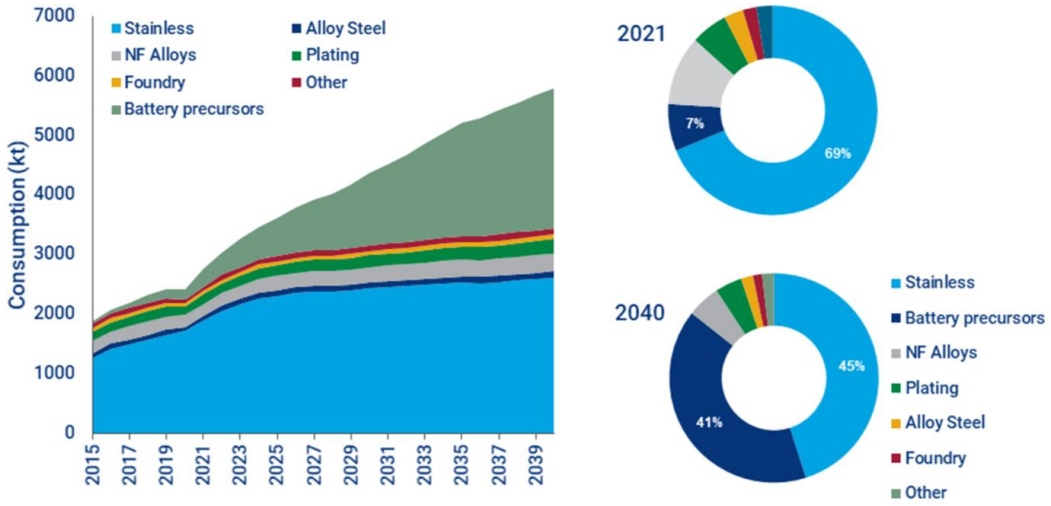
The UK's plan to outlaw the sale of wholly petrol and diesel cars from 2030 is an indication of where the global motor vehicle industry is heading and the forces which will drive Ni demand. Greater net zero commitments from governments and automakers are increasing the importance of energy storage to enable wider use of renewables, which will also be an important factor in driving demand.

Significant additional Ni will be required over the next decades. However, the vast majority of new capacity development over the past decade has been in Indonesia, and has had significant environmental side effects. Recent pledges by Indonesia to reverse deforestation and cease coal-fired power station development will hamper Indonesia's potential continued contribution to Ni supply growth.

There is a growing focus on using locally-produced raw materials in Europe and the US. However, the lack of new project development for Ni mining outside Asia means battery manufacturers will need to turn to recycling to plug the gap.

BHP has made statements on Ni which support this view, with its Chief Commercial Officer stating in late 2021: 'Demand for nickel in batteries is estimated to grow by over 500 per cent over the next decade, in large part to support the world's rising demand for electric vehicles.' 85% of BHP's Ni is now sold to global battery material suppliers.

Figure 4: Use of Ni in batteries to Increase significantly over the next few decades



Source: Wood Mackenzie.

Recent performance of Ni prices

Ni has historically been a volatile commodity, and the last two years have been no exception.

Early 2022 saw some extraordinary price action when the LME suspended Ni trading for several days following a massive rally sparked by fear of supply disruptions after Russia's invasion of Ukraine, with a short squeeze by one of the biggest Chinese steel manufacturers, Tsingshan Holding Group, also fuelling Ni's massive price rally.

A global economic slowdown caused by central banks' aggressive monetary tightening and the effects of COVID-19 lockdowns on China's economy saw prices decline in mid-2022 but recover once China relaxed its COVID-related quarantine measures.

Continued concern recently about ongoing tightening monetary policy has seen prices for Ni and other base metals decline into 2023.

Looking at the two-year history of Ni, rarely has the price dropped below US$9/lb and the price is some 40% above that of two years ago.

Figure 5: 2-year nickel price – volatile but rarely below US$9/lb (US$20k/t)

Source: Factset.

Valuation: A$0.17/Share (Unchanged)

Valuation methodology: SOTP with risked NPV

In our previous report, we reviewed our assumptions and incorporated the results of the BFS into our modelling. Our current valuation of A$0.17/share remains unchanged.

We use a sum-of-the-parts (SOTP) methodology, valuing Black Swan and Lake Johnston on a risked NPV basis (see Figure 6). We place nominal value on Windarra Nickel and see potential upside as a feed source for Black Swan.

We have risked the 1.1mtpa at 100% as we consider that the project is at an advanced stage with strong funding and offtake interest. We risk the Phase 2 expansion to 2.2mtpa at 50% as it is at a less advanced stage and there are a number of milestones to be achieved for the project to advance. We consider Lake Johnston as an attractive option but it is less advanced and requires further drilling and as such is risked at 40%.

Figure 6: Valuation summary

	Current Valuation			
VALUATION	A$m	Risk Weighting	EQUITY VALUE A$/SHARE FULLY DILUTED	Valuation Methodology
Equity Valuation of Black Swan 1.1	$246.0	100%	$0.07	Risked NPV
Equity Valuation of Black Swan 2.2	$444.1	50%	$0.07	Risked NPV
Equity Valuation of Lake Johnston	$189.6	40%	$0.02	Risked NPV
Windarra Gold and Nickel	$40.0	100%	$0.01	Potential Sale Windarra Gold/ nominal value Windarra Nickel
EQUITY VALUE PROJECTS	**$919.6**		**$0.17**	
Add: Cash	$11.5		$0.01	6-Mar-23
EQUITY VALUE PRE SG&A	**$931.1**		**$0.18**	
SG&A	-$31.7		-$0.01	NPV of Corporate Costs
EQUITY VALUE	**$899.4**		**$0.17**	

Source: MST estimates.

Black Swan constitutes bulk of valuation – our key assumptions

Production: Our valuation is based on POS adopting the Black Swan 1.1mtpa concentrator model as per the BFS for 2 full production years, utilising the Black Swan BFS modelling. From year 3 onwards we assume POS switches to the 2.2mtpa model, producing a rougher concentrate and accessing the entire Black Swan Disseminated (BSD) ore body.

Tax losses: We have assumed all tax losses are utilised.

Black Swan 1.1mtpa smelter-grade concentrate: Our valuation of the 1.1mtpa option follows the assumptions in the BFS. As the BFS is an up-to-date document, we believe that the capex and opex assumptions take into consideration the current tight labour markets in WA and the global supply chain issues.

Our key assumptions for the 1.1mtpa option are:

- first production in FY25, ramping up to full production in FY26 and FY27
- WACC of 10%
- total capex of $99m (see Figure 7)
- operating costs of US$4.60/lb
- full utilisation of the high-grade Silver Swan and Golden Swan deposits
- AUD/USD exchange rate of 0.70
- Ni price at spot for 1.1mtpa project
- payability on contained Ni of 80%
- recovery rates as per the BFS
- project funded 80/20 debt to equity.

Black Swan 2.2mtpa rougher concentrate: Our valuation of the 2.2mtpa option assumes that FY28 is the first full year of running a 2.2mtpa mill and mining the entire BSD open pit. We assume ~75% of the BSD resourced is mined, taking into consideration that part of the resource is not open pittable and that there is mining dilution. We assume a 9-year mine life for this project. Feed from Windarra is assumed to add an additional year of mine life to the project.

Other key assumptions:

- WACC of 10%
- additional capex (above 1.1mtpa project) of $20m
- operating costs of US$3.60/lb
- AUD/USD exchange rate of 0.70
- Ni price $11.00/lb escalated
- payability on contained Ni of 70%
- recovery rates of 70%
- project funded by cashflow and/or debt
- risk weighted at 50% to reflect pre-BFS assumptions and execution risk.

Our assumptions for the 2.2mtpa Black Swan rougher concentrate project are preliminary and will be refined upon the release of the BFS in 1HCY23.

We consider that the 2.2mtpa option has strong potential, because it would mean:

- producing a larger amount of concentrate sooner, thus bringing forward higher cashflows
- reducing reliance on high-grade ore
- a longer mine life
- lower unit operating costs
- minimal additional capex for the rougher concentrate option
- broader market options and possible better payment terms
- with the inclusion of a POX plant, producing a significantly higher-value product (we estimate a POX plant would cost around A$100m).

Figure 7: Capex estimates: Black Swan restart (A$m)

Black Swan Phase 1 Capital Costs	
Concentrator restart capital costs	37.8
Open pit mine establishment and pre-strip	1.8
Underground mine establishment and development	19.8
Other capital items	7.0
Open pit mine development	26.8
Open pit & underground contractor demobilisation	0.5
Sustaining capital – Processing plant	0.8
Sustaining capital – Underground mining	1.5
Sustaining capital – Tailings facility uplift	2.9
Total capital expenditure	**99**

Source: MST estimates.

Positive catalysts for the share price

Key drivers of share price upside

Offtake agreements for Ni production and funding: Funding is key to achieving FID and any agreements to purchase Ni from POS would be a positive indication of the Ni market's acceptance of the product.

2.2mtpa BFS: We have estimated a 2.2mtpa option in our valuation and consider that this option has the potential to be a key catalyst for the share price.

Exploration and further resource definition: Further exploration success and reserve and resource definition at Black Swan is a key to share price appreciation.

FID for Black Swan mill refurbishment: The FID for the Black Swan mill refurbishment will mark a major step towards first production and will be a positive catalyst.

First production from Black Swan mill: The first production from the Black Swan mill refurbishment will mark the start of cash flow generation for POS.

Exploration success at Lake Johnston/Windarra Ni: The Lake Johnston and Windarra projects both have exploration potential. Exploration success at either project would accelerate the potential and add to the valuation.

Ni price increases: POS is directly leveraged to higher Ni prices. A sustainable increase in the Ni price would accelerate the potential start of Black Swan in particular, even without exploration success.

Other potential share price catalysts

Potential processing of third-party ores at Black Swan/Lake Johnston: Black Swan and Lake Johnston have processing facilities. Any agreements to process third-party ore could generate cash at high margins.

Sale of Windarra Gold: The Windarra gold project has been flagged as an asset up for sale, as POS is focusing on the Ni 'fill the mill' strategy. We value the project at A$40m as a project in POS's hands. The generation of cash from such a sale would be a positive for the stock.

Risks to the Share Price and Valuation

Key risks to the share price

Delays to or not achieving FID for Black Swan mill refurbishment: The FID for the Black Swan mill refurbishment will mark a major milestone. Any delay or non-achievement of FID would be a negative catalyst for the stock.

Delay to first production from Black Swan mill: The first production from the Black Swan mill refurbishment will mark the start of cash flow generation for POS. Any delay to first production would be a negative for the stock.

Extended period of low Ni prices: Ni prices are the key driver of POS's valuation. Extended periods of low Ni prices could delay projects, even with exploration success.

Disappointing exploration at Windarra Ni/Lake Johnston: As longer-term drivers of value, any disappointing exploration results at Lake Johnston/Windarra could lead to a decrease in the share price/valuation.

Other potential risks to the share price and valuation

Further capital cost increases for projects: Capital cost increases lead to direct valuation decreases. Capital costs at the POS projects are relatively low, and therefore have a smaller effect on valuation, but increases could nonetheless be negative to stock sentiment.

Further operating cost increases: Any increase in operating costs would have a direct negative effect on valuation.

Appreciating AUD vs USD: An increasing AUD against the USD would lead to a decreased AUD Ni price, reducing cashflow and valuation.

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