

‘Fill-the-Mill’ Strategy: Black Swan Concentrator to Restart

Recent studies on refurbishment of the Black Swan concentrator have presented Poseidon Nickel (POS) with several capital-efficient options to commence production in CY2022. POS has determined the most economically attractive production scenario is to refurbish the 1.1Mtpa processing circuit and ‘fill the mill’ to maximise nickel (Ni) concentrate production. Final investment decision (FID) is planned for May 2022, with first concentrate targeted for December 2022.

Black Swan – Delivering Maximum Nickel

The Black Swan project has presented a number of options to POS to process the ore, including processing high-grade ores into concentrate, processing low-grade ores into concentrate and direct ship ore (DSO). POS will now focus on the refurbishment of the 1.1Mtpa capacity Black Swan concentrator as it presents the most economically attractive option given the large resource available at Black Swan, the low cost and relatively short time required to refurbish the mill, higher levels of payability and a stronger Ni market driven by battery demand.

Options Opened Up – Grade, Quality and Windarra

The Black Swan concentrator refurbishment also opens up options for POS given the high-grade Ni available from both the Silver Swan and Golden Swan deposits, which can be blended with the low-grade Black Swan ore in order to both increase the input grade to the concentrator and increase the quality of output. In addition, the option to process ore from the Windarra deposit opens up, where POS has a significant resource but no processing capacity.

Golden Swan – Maiden Resource Mid-October

The resource definition drilling for Golden Swan has been completed with 60 holes drilled and has high-grade Ni continuity within the trend. POS expects to report a maiden resource by mid-October 2021.

Silver Swan Tailings – Adds More Nickel

POS has a maiden resource from the Silver Swan tailings for 6,200 tonnes of contained Ni. Combining the Silver Swan tailings with the Black Swan ore feed significantly improves the saleability of the Black Swan concentrate product marketability. Measured resource provides six-plus years of mining inventory for blending.

Silver Swan – Further Drilling

The Silver Swan deposit currently has a resource of 16.1kt of Ni and a reserve of 6.8kt of Ni. POS will conduct drilling to convert to a reserve and extend resource.

Valuation A\$0.21; Golden Swan the Key to Upside

Our valuation remains at A\$0.21 and is based on the restart of Black Swan. We are yet to incorporate the full Golden Swan resource, Silver Swan tailings or Silver Swan infill into our valuation as we await the announcement of the Golden Swan resource. We see further upside from these additions. Further exploration at the Southern Terrace could add further Ni resource to the project. Disappointing exploration results or delays to Golden Swan resource definition are key risks.



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 discovery looking to deliver a maiden resource in Mid October 2021.

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

Stock	ASX: POS
Price	A\$0.10
Market cap	A\$306m
Valuation (per share)	A\$0.21

Key investment highlights

Ongoing: Southern Terrace exploration drilling, Silver Swan Infill Drilling

Oct 21: Golden Swan maiden resource

May 2022: FID for Black Swan Mill Upgrade

POS share price – 1 year



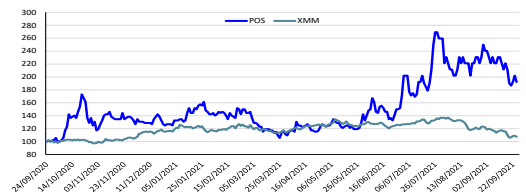
Source: FactSet.

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Exhibit 1 – POS company summary (year-end 30 June)

MARKET DATA 27 Sep 2021		
Price	\$	0.10
52 week high / low	\$	0.14-0.05
Valuation (diluted)	\$	0.21
Market Capitalisation	\$m	300.3
Enterprise Value	\$m	292.8
Shares on issue (basic)	m	3064.0
Options / Performance shares	m	0.0
Other equity (assumed issue FY2023)	m	90.9
Potential shares on issue (diluted)	m	3064.0

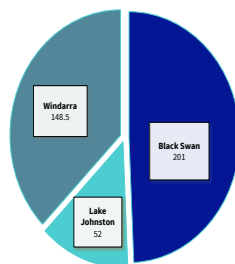
12 month Relative Performance versus S&P/ASX300 Metals and Mining



INVESTMENT FUNDAMENTALS		FY19A	FY20A	FY21A	FY22E	FY23E
Reported NPAT	\$m	(10.5)	(12.9)	(10.9)	(10.1)	24.2
Underlying NPAT	\$m	(10.5)	(12.9)	(10.9)	(10.1)	24.2
EPS Reported (undiluted)	¢	-0.34	-0.42	-0.36	-0.33	0.79
EPS Underlying (undiluted)	¢	-0.34	-0.42	-0.36	-0.33	0.79
Underlying EPS growth	%		-22%	15%	7%	339%
P/E Reported (undiluted)	x	n/m	n/m	n/m	n/m	12.4
P/E Underlying (undiluted)	x	n/m	n/m	n/m	n/m	0.1
Operating cash flow / share	¢	(0.31)	(0.33)	(0.31)	(0.13)	1.46
Price to operating cash flow	x	n/m	n/m	n/m	n/m	6.72
Free cash flow	\$m	(46.8)	21.8	(21.4)	(89.1)	(15.3)
Free cash flow per share	¢	(1.5)	0.7	(0.7)	(2.9)	(0.5)
Price to free cash flow	x	n/m	13.8	n/m	n/m	n/m
Free cash flow yield	%	-15.6%	7.2%	-7.1%	-29.7%	-5.1%
Book value / share	¢	2.42	2.00	1.96	2.55	3.66
Price to book (NAV)	x	4.1	4.9	5.0	3.9	2.7
NTA / share	¢	2.42	2.00	(2.62)	(2.04)	(0.92)
Price to NTA	x	4.1	4.9	(3.7)	(4.8)	(10.6)
Year end shares	m	2,643	2,643	2,809	3,064	3,155
Market cap (Spot)	\$m	300.3	300.3	300.3	300.3	300.3
Net debt / (cash)	\$m	(37.0)	(45.2)	(7.4)	56.9	68.2
Enterprise value	\$m	263	255	293	357	368
EV/Sales	x	n/m	n/m	396.81	n/m	3.62
EV/EBITDA	x	n/m	n/m	n/m	n/m	8.3
EV/EBIT	x	n/m	n/m	n/m	n/m	12.22
Net debt / EV	x	-0.13	-0.15	-0.03	0.19	0.23
Gearing (net debt / EBITDA)	x	n/m	n/m	n/m	-14.22	1.53

PRODUCTION AND PRICING	FY19A	FY20A	FY21A	FY22E	FY23E
Nickel Production tonnes					
Black Swan	-	-	-	-	4,125
Windarra Gold Production oz	-	-	-	-	13,000
AUD/USD					
Price	-	-	-	-	0.70
Nickel US\$/lb	-	-	-	-	7.00
Gold US\$/oz	-	-	-	-	1,800

Resources (kt) by Asset	Reserves
Windarra 148.5	
Black Swan 201	
Lake Johnston 52	



Nickel Sulphide Reserves	ORE RESERVE CATEGORY		
	PROBABLE		
Silver Swan Underground	130	5.2	6,800
Black Swan Open pit	3,370	0.63	21,500
Total	3,500	0.81	28,300

PROFIT AND LOSS \$Am	FY19A	FY20A	FY21A	FY22E	FY23E
Sales	-	-	0.7	-	101.6
COGS	-	-	-	-	(52.9)
Gross profit	-	-	0.7	-	48.7
Other income	0.4	0.5	-	-	-
Other operating costs	(10.4)	(12.4)	(10.8)	(4.0)	(4.1)
EBITDA	(10.0)	(11.9)	(10.0)	(4.0)	44.6
Depreciation & amortisation	(0.0)	(0.0)	(0.4)	(3.0)	(14.5)
EBIT	(10.0)	(11.9)	(10.4)	(7.0)	30.2
Interest	(0.5)	(1.0)	(0.5)	(3.2)	(5.9)
Tax	-	-	-	-	-
NPAT	(10.5)	(12.9)	(10.9)	(10.1)	24.2
Adjustments & Significant items	-	-	-	-	-
Underlying NPAT	(10.5)	(12.9)	(10.9)	(10.1)	24.2

BALANCE SHEET \$Am	FY19A	FY20A	FY21A	FY22E	FY23E
Cash at bank	60.1	45.2	7.9	8.2	33.9
Other assets		0.01	0.04	0.04	0.04
Receivables	1.3	0.6	0.9	0.9	0.9
Current assets	61.5	45.9	8.9	9.2	34.8
PP&E (with accumd dep)	24.7	24.6	24.6	86.8	127.3
Exploration and evaluation expenditure	60.9	65.7	87.4	107.4	112.4
Other assets	3.5	3.5	3.5	3.5	3.5
Non current assets	89.2	93.8	115.5	197.7	243.2
Total Assets	150.6	139.7	124.3	206.8	278.0
Trade and Payables	2.3	1.7	2.6	2.6	2.6
Employee benefits	0.1	0.2	0.1	0.1	0.1
Provisions	3.5	3.5	3.5	3.5	3.5
Borrowings	-	24.7	140.0	140.0	140.0
Current liabilities	5.9	30.2	146.2	146.2	146.2
Loans and borrowings	23.1	-	0.5	65.1	102.1
Convertible note derivative	1.1	-	-	-	-
Provisions	46.4	48.2	57.9	57.9	57.9
Non-Current liabilities	70.7	48.2	58.4	123.1	160.0
Total Liabilities	76.5	78.4	204.7	269.3	306.3
Share Capital	228.8	228.8	238.3	266.3	276.3
Reserves	0.0	0.0	0.3	0.3	0.3
Accumulated losses	(154.7)	(167.5)	(178.5)	(188.6)	(164.4)
Total Equity	74.1	61.3	60.1	78.0	112.2

CASH FLOW \$Am	FY19A	FY20A	FY21A	FY22E	FY23E
Operating Revenue	-	-	0.6	-	101.6
Sundry receipts	0.1	0.6	-	-	-
Payments to suppliers and employees	(10.2)	(12.0)	(10.3)	(4.0)	(57.0)
Interest received	0.6	1.4	0.2	0.1	0.1
Tax Paid	-	-	-	-	-
Operating cash flow	(9.4)	(10.0)	(9.5)	(3.9)	44.7
Payments for PPE	(0.2)	(0.1)	(0.2)	(65.1)	(55.0)
Proceeds from sale of PPE	0.0	-	-	-	-
Exploration and evaluation expenditure	(2.2)	(3.1)	(11.6)	(20.0)	(5.0)
Payments for term deposits	(35.0)	35.0	-	-	-
Investing cash flow	(37.4)	31.7	(11.9)	(85.1)	(60.0)
Proceeds from the issue of shares	70.9	-	9.5	28.0	10.0
Proceeds (Repayments) borrowings	-	-	(0.1)	64.6	37.0
Repayment of borrowings	(0.0)	-	(25.1)	-	-
Interest paid	(1.0)	(1.7)	(0.2)	(3.3)	(6.0)
Financing cash flow	69.9	(1.7)	(15.9)	89.4	41.0
Net Increase/Decrease	23.1	20.1	(37.3)	0.3	25.7
Cash at Beginning Year	2.0	25.1	45.2	7.9	8.2
Final Cash Balance	25.1	45.2	7.9	8.2	33.9

Source: POS, MST estimates.

‘Fill the Mill’ – Black Swan 1.1Mtpa Plant Upgrade Maximises Nickel

POS Plans to Refurbish 1.1Mtpa Plant for Lower-Grade Ore Processing

POS engaged GR Engineering Services (GRES) to complete a scoping study reviewing the estimated capital cost for the refurbishment and operation of three potential processing plant configurations at Black Swan. The study indicated that both high- and low-grade processing plants could be refurbished at a relatively low cost and in a relatively short time frame.

What options did the scoping study explore?

- **Option 1 – 150ktpa plant (the original Silver Swan high-grade circuit) with contract crushing**
capex of A\$13.4m and opex of A\$91.60/tonne
- **Option 2 – 150ktpa plant with the secondary and tertiary crusher refurbished**
capex of A\$15.9m and opex of A\$79.09/tonne
- **Option 3 – 1.1Mtpa plant (the original 2Mtpa Black Swan plant for treating low-grade disseminated open pit ore) derated to process 1.1Mtpa of lower-grade ore**
capex of \$22m and opex of A\$29.39/tonne

GRES advised that each plant configuration refurbishment would take approximately six months to complete based on their current forward order book.

POS focuses on Option 3 – 1.1Mtpa plant upgrade

POS reviewed the options presented by the Scoping Study, with all options being attractive. POS will now focus on the refurbishment of the 1.1Mtpa processing circuit and fill that plant by a combination of ore sources, including the underground high-grade, to maximise nickel concentrate production. POS considers this the most economically attractive production scenario given:

- large resource base of 200kt Ni
- low estimated refurbishment capex of the larger low-grade plant, circa \$22m
- low estimated operating expenditure compared to the other options
- the same short time frame for the larger low-grade plant refurbishment and mining ramp up as other options
- attractive payment terms of Ni in concentrates globally
- positive outlook for the Ni price.

POS is now focused on maximising Ni units from Black Swan which means the focus is feeding that plant with a combination of open pit and underground ore and Silver Swan tailings to improve concentrate quality (specifically the Fe:MgO ratio¹).

Targeting FID by May 2022 and mill commissioning by December 2022

The indicative timetable for studies, development, commissioning and ramp up of the 1.1Mtpa mill and mining targets FID in May 2022 and aims to produce first concentrate in December 2022.

¹ A high Fe:MgO ratio (>3.5) is important to the Ni smelting process and is highly sought after by Ni smelters for blending purposes.

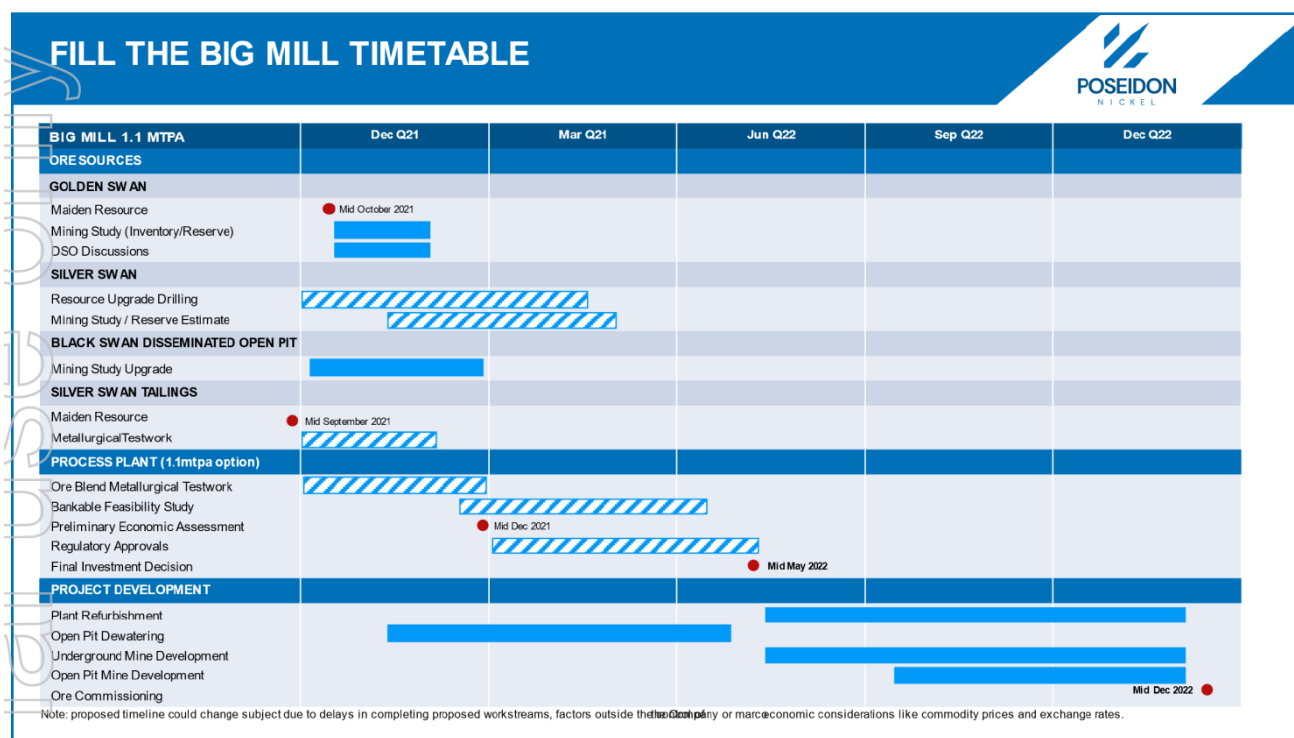
Next Steps

The following workstreams are underway:

- updating the Black Swan open pit study including determining the optimal pit shell and production rate and estimated capital and operating costs
- delivering a maiden resource from Golden Swan and converting it to a reserve
- undertaking further drilling at Silver Swan to convert additional resource to reserve
- undertaking metallurgical test work on blending all the various ore sources to determine the optimum feed blend and typical concentrate specifications
- seeking indicative offtake terms for the quality and quantity of Ni concentrate expected to be produced
- seeking financing proposals for the debt component of the restart capital
- completing a full Bankable Feasibility Study.

Exhibit 2 shows the timing of the above workstreams in order to achieve production by December 2022.

Exhibit 2 – Black Swan timetable



Source: POS.

Options Opened Up – Grade, Quality and Windarra

High-Grade Ore from Silver Swan and Golden Swan – Potential Concentrator Input

The refurbishment of the Black Swan concentrator also opens up options for POS given the high-grade Ni available from both the Silver Swan and Golden Swan deposits.

The high-grade ore from Silver Swan and Golden Swan can be blended with the low-grade Black Swan ore, in order to:

- increase the input grade to the concentrator
- increase the quality of output
- lower costs per pound of Ni and increase payability
- manage the all-important Fe:MgO ratio.

Option to Process Nickel from Windarra Nickel Project

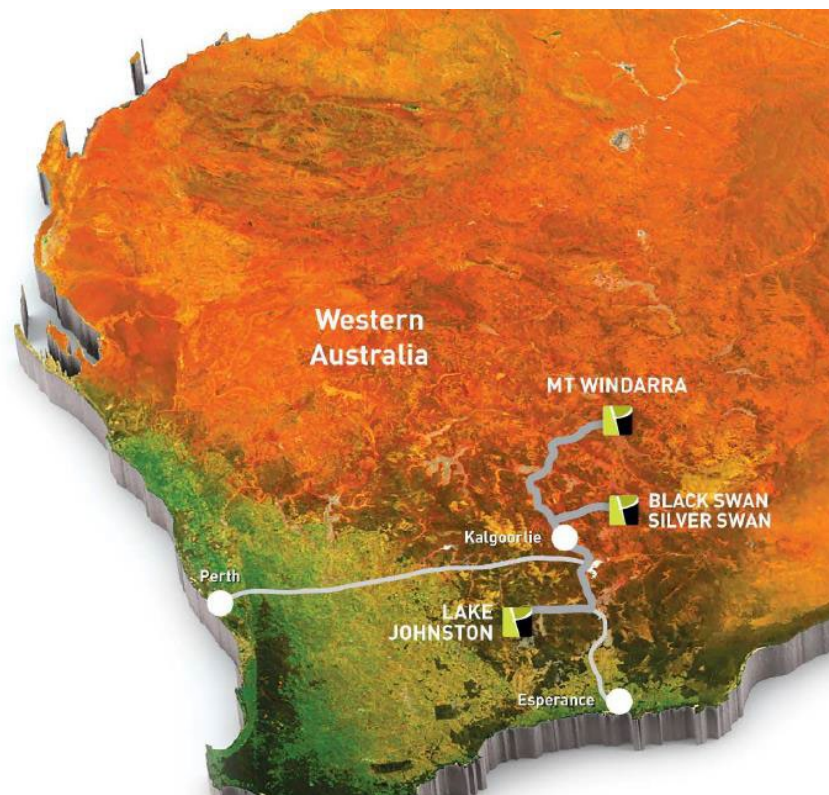
The Windarra Nickel project sits some 250 km due north of Black Swan in WA's Mt Margaret Goldfields, about 25 km west of Laverton. The project, in a well-established mining precinct, is well serviced by regional infrastructure with a skilled labour and contracting workforce available. Since 2008, POS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

The Windarra deposit consists of three broad geologically based mineralised areas: Mt Windarra, South Windarra and Cerberus. There is a more recent exploration focus lying 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 1.1Mtpa Black Swan mill in operation, the option to process ore from the Windarra deposit opens up, with ore being trucked to Black Swan.

Exhibit 3 – Location of Mt Windarra relative to Black Swan



Source: POS.

Golden Swan Exploration – Maiden Resource Set for October 2021

New Exploration and Resource Drilling: High-Grade Results Show Potential

The resource definition drilling program commenced on 28 April 2021, with the aim of increasing confidence in the continuity of the Golden Swan mineralisation. The programme completed on 31 July with 60 holes for 15,968m. These high-grade results are very promising and show the potential of POS' maiden resource definition (see Exhibit 4).

Exhibit 4 –Golden Swan drilling results – significant nickel intersections at strong grades

Hole ID	From (m)	Interval (m)	Ni%	Hole ID	From (m)	Interval (m)	Ni%
PGSD001	169.85	3.90	5.67	PGSD021	260.35	5.65	1.97
including	169.85	3.05	6.72	including	260.35	3.15	2.91
including	170.45	0.70	7.31	including	260.35	0.40	8.06
PGSD002	171.50	3.80	5.46	and	276.00	7.00	1.22
including	172.05	2.25	6.65	including	277.00	4.00	1.48
including	172.05	0.35	11.30	PGSD025	246.30	2.10	13.79
PGSD003	179.55	7.00	3.92	including	246.30	1.30	12.07
including	180.15	4.85	4.55	and	247.60	0.80	16.50
PGSD004	177.60	4.40	2.04	and	279.00	14.00	1.16
including	177.60	1.25	5.14	PGSD033	189.35	2.75	1.18
PGSD008	260.30	0.70	1.44	and	216.85	12.15	0.94
PGSD011	167.90	4.10	3.95	including	219.25	4.75	1.18
including	167.90	2.40	5.88	and	239.00	8.00	1.35
including	167.90	0.60	15.20	including	241.00	5.00	1.70
PGSD013	181.20	17.40	3.16	PGSD031	250.20	1.65	2.27
including	181.60	7.40	5.88	PGSD036	216.20	9.80	4.95
including	181.60	5.40	6.97	including	216.20	2.95	11.11
including	181.60	3.40	8.18	including	216.20	0.60	8.15
including	181.60	0.30	13.80	and	216.80	0.95	14.90
PGSD012	218.00	4.80	1.21	and	217.75	0.40	15.80
including	218.00	0.20	4.27	and	262.75	3.25	1.12
PGSD012	191.45	10.55	3.17	including	262.75	0.20	6.26
including	191.45	6.45	4.40	PGSD040	221.00	18.00	2.74
including	191.45	3.25	5.57	including	222.40	11.40	3.49
including	191.45	1.55	6.44	including	222.40	2.60	4.97
including	191.45	0.55	7.04	PGSD041	171.60	4.40	2.97
and	243.60	3.40	1.03	including	171.60	1.80	5.48
including	243.60	0.55	3.07	including	171.60	0.50	9.66
PGSD016	197.50	9.50	3.80	PGSD038	204.40	9.10	3.79
including	197.50	6.70	4.86	including	204.40	3.10	8.33
including	198.50	3.50	6.27	including	204.40	0.60	10.50
including	200.00	1.00	7.42	and	205.00	0.70	16.60
and	214.00	31.00	2.41	and	247.25	5.75	2.39
including	219.25	13.75	3.91	including	247.25	0.75	8.69
including	221.00	6.15	5.31	and	272.00	3.00	3.30
including	222.00	4.00	5.69	including	272.90	1.00	7.03
PGSD017	182.30	1.00	14.50	PGSD039	181.60	17.60	2.86
PGSD019	269.55	8.45	1.05	including	181.60	12.40	3.65
including	270.30	2.70	1.37	including	181.60	6.40	5.79
PGSD027	302.00	3.00	1.02	including	181.60	0.50	16.70
including	303.50	0.90	1.00	and	182.60	0.45	17.70
PGSD023	279.00	5.00	0.65	PGSD049	187.00	4.45	5.86
including	283.00	1.00	1.11	including	187.00	2.10	9.30
PGSD053	245.60	3.80	5.06	including	187.00	0.90	15.00
including	245.60	0.60	12.00	and	191.20	0.25	12.30
and	262.90	3.10	2.21	PGSD049	187.00	4.45	5.86
including	262.90	0.30	8.59	including	187.00	2.10	9.30
PGSD054	182.70	0.55	4.22	including	187.00	0.90	15.00
PGSD056	270.50	2.50	3.58	and	191.20	0.25	12.30
including	270.50	0.45	7.90	PGSD059	227.35	5.15	8.62
				and	228.00	1.00	7.32
				and	229.00	0.50	13.10
				and	229.50	0.50	14.70
				and	230.00	0.385	16.10

Source: POS.

Southern Terrace – More Potential Upside

This highly prospective opportunity could host further undiscovered massive sulphide trends along its path and requires further testing. POS is setting up for further testing of the Southern Terrace now that the resource drilling is complete.

Golden Swan Maiden Resource October 2021

POS expects to report a maiden resource by mid-October 2021.

Silver Swan Tailings – Adds More Nickel

POS has declared a maiden resource from the Silver Swan tailings for 6,200 tonnes of contained Ni. Combining the Silver Swan tails with the Black Swan ore feed significantly improves the marketability of the Black Swan concentrate product. Measured resource provides six plus years of mining inventory for blending.

Key results from metallurgical testwork included:

- Ni recovery of 48%
- Fe:MgO ratio >10:1.

Results support the concept to ‘co-process’ Silver Swan tailings with Black Swan Disseminated open pit ore to increase the Fe:MgO ratio, thereby improving product marketability. Results showed that a low proportion of the Silver Swan tailings were required to be ‘co-processed’ (<10%), and that there was an opportunity to improve on the Fe:MgO ratio further by incorporating a cleaner flotation stage.

Silver Swan Resource Drilling – Targeting More High-Grade Ni

The Silver Swan deposit currently has a resource of 16.1kt of Ni and a reserve of 6.8kt of Ni.

POS will conduct infill resource drilling with an aim to increase the high-grade reserve of Ni available to the Black Swan mil.

POS is also conducting a resource extension programme at Silver Swan in order to add further high-grade Ni to the project’s resource inventory.

\$22m Placement and \$6m SPP – Hitting the Accelerator

In early August, POS completed a \$22m in an oversubscribed placement at an issue price of 11 cents per share. This price represented a 10% discount to the 10-day volume weighted average share price (VWAP) and an 18.5% discount to the last closing price before the trading halt.

POS also received strong support for an SPP which received applications totalling approximately \$13.5m, well in excess of the targeted \$3m. As a result of the oversubscription, POS exercised its discretion under the terms of the SPP to accept a total of \$6m in applications for the issue of approximately 54.5m new shares.

Post placement and SPP, the company is very strongly positioned and has approximately \$30m in cash.

The capital raised will be utilised for:

- exploration drilling at Golden Swan to explore the Southern Terrace and parallel structures
- resource drilling at Silver Swan to convert existing mineral resources to ore reserves
- undertaking mining and production studies for the recommencement of operations at Black Swan
- reviewing exploration and development potential of Lake Johnston and Windarra
- drilling to immediately commence as the company sources additional drill rigs to further accelerate its proposed program of works.

Nickel Market: EV Batteries the Key Driver of Demand, Price Upside

Battery-Related Demand to Play Increasing Role in Overall Ni Demand

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. Despite the adverse economic conditions encountered in 2020, EV battery sales exceeded all expectations. 2020 saw EV batteries consume around 200,000 tonnes of Ni, with well over 300,000 expected this year. The total Ni demand is around 2.4mt. Market consensus appears to be that by 2030, battery-related demand for Ni will be around 1.7mt, or 35% of total forecast Ni demand.

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. Ni demand from the battery sector could account for as much as 35% of the total Ni market within the next decade. The Ni market is likely to encounter significant supply deficits over this time and we expect prices to rise, incentivising new production capacity. A recent announcement by Jaguar, outlining how the Land Rover-owned business will be all-electric by 2025, demonstrates the scale growth Ni will likely encounter in the near future. The UK's goal 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.

BHP's view on Ni supports this view, with its Chief Commercial Officer stating: '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.

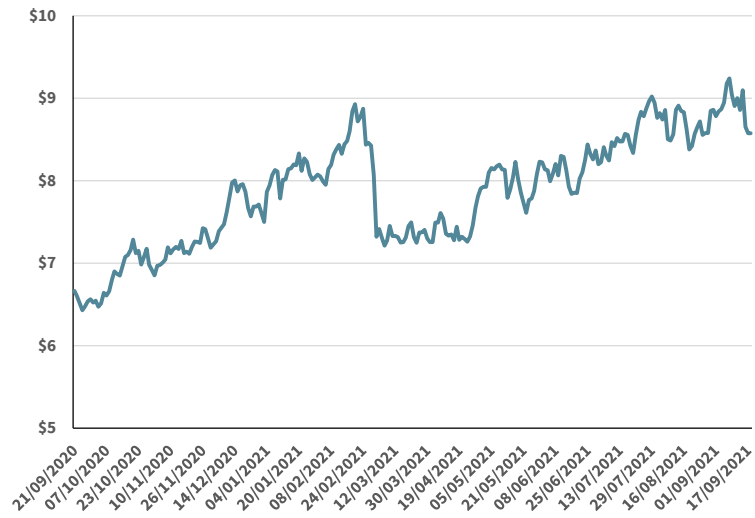
BHP's recently agreed with Tesla for long-term supply of some 18,000 tonnes of Ni per year. Tesla has acted early to secure significant volumes of Ni to fuel its lithium-ion battery demand, with an estimated 50% of Tesla's battery chemistry to be high-Ni cathode. POS's Ni inventory is high quality with low-impurity and could potentially form an important part of the EV market supply chain.

BHP's deal with Tesla deal can be seen positively for the WA Ni market in general, but also provides long-term impetus for BHP and other suppliers into the EV supply chain to acquire nickel sulphide concentrates from third parties.

POS Ore Could Be Ideal for Nickel Ion Batteries

The Golden Swan ore has been metallurgically tested and is high quality with few impurities; it potentially would be ideal for nickel ion batteries. There is also potential, given the developing demand for Ni in the battery market for high-grade nickel sulphides destined for batteries to be subject to a price split from lower-grade nickels supplied to steel makers.

Exhibit 5 – Ni price chart: 1 year (US\$/pound)



Source: FactSet.

Valuation: A\$0.21 – Golden Swan the Key to Further Upside

Black Swan Valuation: Black Swan Concentrator Option; Upside Potential from High Grade Golden Swan Resource and Silver Swan Resource Drilling

Our current valuation is based on POS adopting the Black Swan low-grade concentrator model. We have assumed extension of low-grade mine life in this model. We have not included the for Golden Swan resource, Silver Swan tailings or Silver Swan resource infill in our valuation at this stage.

Upon definition of a resource for Golden Swan, and with an understanding of potential volumes and grades, we consider there is potential upside to our valuation.

Our Ni price assumption is US\$7.00/lb. We consider the Ni market's underlying fundamentals have improved strongly, driven by battery demand. We also consider that high-quality sulphide deposits, such as POS Black Swan, will attract a premium in the market going forward. The recent BHP/Tesla deal demonstrates the underlying demand for quality Ni.

The share count reflects the recent placement and upsized SPP.

Valuation Methodology: SOTP

We value POS at A\$0.21. We have valued POS using a sum-of-the-parts methodology, valuing Black Swan, Windarra Gold and Lake Johnston on a risked NPV basis. Windarra Nickel does not have an existing processing plant on site and, as such, we have valued Windarra on a multiple of its resource and its exploration potential. We note the potential to use the Black Swan plant for processing Windarra Nickel and await further confirmation of the plans for the processing of Ni at Windarra before incorporating it into the Black Swan production forecast. We see a number of potential scenarios for share price upside driven primarily by exploration success.

Exhibit 6 – Valuation summary

VALUATION	Current Valuation		Valuation Methodology
	A\$m	EQUITY VALUE A\$/SHARE FULLY DILUTED	
Equity Valuation of Black Swan	\$472.1	\$0.16	Risked NPV
Equity Valuation of Lake Johnston	\$74.0	\$0.03	Risked NPV
Equity Valuation of Windarra Gold	\$30.2	\$0.01	Risked NPV
Equity Valuation of Windarra Nickel	\$35.3	\$0.01	EV/Resource plus Exploration
EQUITY VALUE PROJECTS	\$611.7	\$0.20	
Add: Cash	\$30.0	\$0.01	Cash after raising
EQUITY VALUE PRE SG&A	\$641.7	\$0.21	
SG&A	-\$25.4	-\$0.01	NPV of Corporate Costs
EQUITY VALUE	\$616.3	\$0.21	

Source: MST estimates.

The current inputs into our Black Swan model are as follows:

- **Operating costs:** Our cost estimates are US\$2.80/lb in the first two years of operations and US\$2.75/lb from the third year of operations.
- **Ni price assumptions:** We believe that the Ni price will be strong over the next decade. We base this assumption on the demand from EVs and the subsequent pull through of demand for Ni to enhance battery life. We also acknowledge that the Ni price is volatile and subject to short-term swings. The current spot price is at US\$8.50/lb, substantially higher than our current forecast. We have been deliberately conservative with our base price assumption in order to take into consideration this volatility and have used US\$7.00/lb for the first two years, increasing 5% per annum subsequently.
- **Project timing:** Our start time for the project is 2HFY2023. We have assumed the majority of the capex in FY2022 and the remainder in FY2023. POS is aiming for production in December 2022.

Core Assumptions in our Valuation

Exhibit 7 – Core modelling assumptions

CORE ASSUMPTIONS	
Price and Currency	
AUD/ USD	0.70
Nickel Price US\$/lb	7.00
Gold Price US\$/oz	1,800
Cost and Financing	
Discount Rate Nickel Projects %	10%
Discount Rate Gold Projects %	8%
Inflation %	2.5%
Interest on Cash %	1%
Interest on Borrowings %	6%
Modelling	
Depreciation	LOM
Depreciation Rate	10.00%
Taxation Rate	30%

Source: MST estimates.

Spot Price Valuation of A\$0.28

Our spot price valuation is A\$0.28 per share using the following assumptions:

- A\$/US\$ exchange rate of 0.73
- Ni price of US\$8.50/lb
- gold price of US\$1,776/oz.

Positive Catalysts for the Share Price

Key drivers of share price upside

Southern Terrace exploration

The Golden Swan prospect is a potential high-grade Ni deposit. Continued exploration success at the Southern Terrace could enhance the project and add significant valuation upside.

Resource definition

The resource definition is a key step towards production and represents a major milestone for POS. The size and grade of the deposit will be broadly defined off this announcement.

Met test work

POS has conducted preliminary metallurgical testing on Golden Swan ore. Further testing will show the quality of the ore and the potential for it to be accepted by buyers.

Detailed mine design and reserve definition

POS will conduct a study on detailed mine plans, processing, metallurgical, economic, and other relevant factors that demonstrate that economic extraction of the ore can be justified. This is a significant step towards the approval of the project.

FID for Black Swan Mill Refurbishment

The FID for the Black Swan mill refurbishment will mark a major milestone for the steps 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 and will be a positive catalyst.

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 to develop the project 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

Exploration success at other Black Swan deposits

Silver Swan, Cygnet and Black Swan present further exploration potential beyond the highly prospective Golden Swan.

Offtake agreements for Ni production

Any agreements to purchase Ni from POS would be a positive indication of the Ni market's acceptance of the product.

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.

Gold price increase

Increased gold prices would make the Windarra gold project a higher-value project.

Risks to the Share Price and Valuation

Key risks to the share price

Disappointing Southern Terrace exploration results

As the key to exploration success, any disappointing result in the Southern Terrace exploration programme could lead to delays in the Black Swan project development.

Delay in resource definition

The resource definition is a key step towards production and represents a major milestone for POS. Any delay or deferment of this would be a negative for the stock.

Poor results from met test work

POS has conducted preliminary metallurgical testing on Golden Swan ore. Poor-quality results would decrease the possibility of a buyer adopting a DSO model with POS.

Delays or discontinuation of detailed mine design and reserve definition

As a key step in the process leading to production, any delay to this would be a negative for the stock.

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 and any delay to that will 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.

Lower gold prices

Lower gold prices may delay or cancel the Windarra gold project, reducing the valuation.

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 share price/valuation.

Other potential risks to the share price and valuation

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.

Operating cost increases

Any increase in operating costs would have a direct negative effect on valuation.

Appreciating A\$ vs US\$

An increasing A\$ against the US\$ would lead to a decreased A\$ Ni price, reducing cashflow and valuation.

Financials – Exploration at Golden Swan the Focus; Exploration Spend to Drive Value

Cash Position

The company had a cash position as at 30 June 2021 of A\$7.9m. In August 2021 POS raised A\$22m through a placement and a further \$6m through an SPP at A\$0.11 per share to raise a total of A\$28m. The cash will be utilised to fund further exploration, resource definition drilling, production and marketing studies, mine planning, reserve definition and the DSO vs concentrator FID.

Black Swan Funding and Equity

We have assumed the Black Swan project is funded predominantly by debt.

The DSO programme and/or the concentrator option could be funded in a number of ways:

- project/bank finance
- pre-sale agreement
- trader/customer finance.

We have assumed a further small equity issue of \$10m (at the current share price) as part of the funding.

Windarra Gold Funding

The Windarra gold project could also be funded in a number of ways:

- project/debt financing
- funded by a gold loan, without a need to use any of the company's cash position
- partnership agreement, with a partner taking a share in the project.

Other Financials

We have assumed that any further projects such as Lake Johnston or Windarra Nickel can be funded from Black Swan cash flow or via debt funding.

POS had, at 30 June 2021, approximately A\$38.1m in accumulated tax losses. These losses have been applied to earnings, with cash tax forecast to be paid from FY2025 going forward.

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