

Black Swan Marches On – Kalgoorlie Battery Hub Takes Shape

Black Swan Production Plan – Maximum Nickel

POS has determined the most economically attractive production scenario at the Black Swan project is to and ‘fill the mill’ and maximise nickel (Ni) concentrate production. POS has updated progress on the project, with commissioning aimed for Q2CY23.

Black Swan Exploration – Still More Opportunity

The recently completed Silver Swan (SS) drilling programme was designed to infill drill the known resource to upgrade it and to look for extensions. The Tundra Mute prospect within SS has returned some outstanding results. An updated JORC resource is due for release imminently. An EM platform hole is currently being drilled below Tundra Mute looking for depth extensions to Silver Swan.

Lake Johnston and Windarra add Additional Options

POS’s Lake Johnston project also presents the possibility of a low-capital-cost and relatively fast mine and mill refurbishment, adding a further production option for POS to deliver Ni to higher levels of payability and into a stronger Ni market driven by battery demand. With the 1.1Mtpa Black Swan mill in operation, the option to process ore from the Mt Windarra deposit opens up, with ore being trucked to Black Swan.

Kalgoorlie Battery Hub – Feds Tip in A\$120m

Australian company Pure Battery Technologies (PBT) is looking to build an integrated nickel-manganese-cobalt battery material refinery hub in the Kalgoorlie region. POS has an MoU in place with PBT to study how the two companies can work together. The Federal Government have granted PBT in partnership with POS A\$119.6m towards the refinery project, a significant boost to its development and a major support for POS as a preferred supplier. We see several potential opportunities opening up for POS as a result of this agreement.

Nickel Market – Desperate for Supply

The Ni market has recently experienced chaotic activity in pricing and trading, causing the LME to temporarily suspend trading last month. The LME is working towards normalising the market, with prices remaining elevated. Underlying fundamentals in Ni remain extremely strong, with additional demand from batteries putting pressure on supply. While current prices seem unlikely to persist longer term, we see the market stabilising at significantly higher levels than those seen at the start of 2022.

Valuation Lifted to A\$0.24 from A\$0.22 – Ni Revision Outweighs Higher Opex + Capex and Slight Delays

As a result of the updated Black Swan projects timeline, we have updated our Black Swan mill production forecasts incorporating the minor delays to the start of the project, and have also revised opex and capex upwards. Additionally, we have increased our Ni and AUD/USD forecasts. The resulting change in our estimates has increased our valuation to A\$0.24 (fully diluted). We see further upside from Silver Swan resource infill and extensions as well as a revised Southern Terrace program. Disappointing Silver Swan resource upgrade and infill results, further Southern Terrace exploration disappointment and further delays to the ‘fill-the-mill’ strategy 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 and Silver Swan adding high-grade Ni tonnes.

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

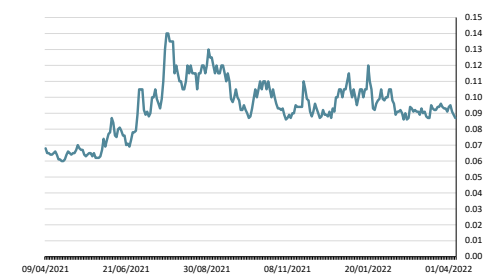
| | |
|-----------------------|----------|
| Stock | ASX: POS |
| Price | A\$0.09 |
| Market cap | A\$264m |
| Valuation (per share) | A\$0.24 |

Next steps

2Q CY22: Metallurgical testing

2Q CY22 Silver Swan Resource Upgrade

POS share price – 1 year



Source: FactSet.

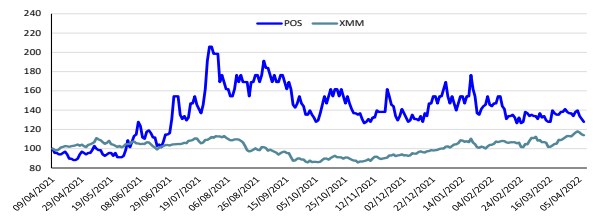
Michael Bentley

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

MARKET DATA 12 April 2022

| | | |
|-------------------------------------|-----|-----------|
| Price | \$ | 0.09 |
| 52 week high / low | \$ | 0.14-0.05 |
| Valuation (diluted) | \$ | 0.25 |
| Market Capitalisation | \$m | 266.6 |
| Enterprise Value | \$m | 259.1 |
| Shares on issue (basic) | m | 3064.0 |
| Options / Performance shares | m | 8.0 |
| Other equity (assumed issue FY2023) | m | 90.9 |
| Potential shares on issue (diluted) | m | 3162.9 |

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



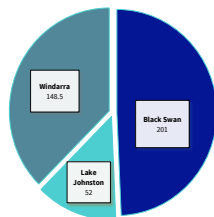
| INVESTMENT FUNDAMENTALS | FY21A | FY22E | FY23E | FY24E |
|------------------------------------|-------------------|---------------|---------------|--------------|
| Reported NPAT | \$m (10.9) | (7.9) | (6.2) | 91.8 |
| Underlying NPAT | \$m (10.9) | (7.9) | (6.2) | 91.8 |
| EPS Reported (undiluted) | € -0.36 | -0.26 | -0.20 | 3.00 |
| EPS Underlying (undiluted) | € -0.36 | -0.26 | -0.20 | 3.00 |
| Underlying EPS growth | % 15% | 28% | 21% | -1583% |
| P/E Reported (undiluted) | x n/m | n/m | n/m | 2.9 |
| P/E Underlying (undiluted) | x n/m | n/m | n/m | 2.9 |
| Operating cash flow / share | € (0.31) | (0.16) | 0.19 | 3.91 |
| Price to operating cash flow | x n/m | n/m | 45.85 | 2.22 |
| Free cash flow | \$m (21.4) | (24.9) | (80.1) | 54.8 |
| Free cash flow per share | € (0.7) | (0.8) | (2.6) | 1.8 |
| Price to free cash flow | x n/m | n/m | n/m | 4.9 |
| Free cash flow yield | % -8.0% | -9.3% | -30.0% | 20.6% |
| Book value / share | € 1.96 | 2.62 | 2.74 | 5.74 |
| Price to book (NAV) | x 4.4 | 3.3 | 3.2 | 1.5 |
| NTA / share | € 1.96 | 2.62 | 2.74 | 5.74 |
| Price to NTA | x 4.4 | 3.3 | 3.2 | 1.5 |
| Year end shares | m 2,809 | 3,064 | 3,155 | 0 |
| Market cap (Spot) | \$m 266.6 | 266.6 | 266.6 | 266.6 |
| Net debt / (cash) | \$m (7.4) | (10.5) | 63.6 | 15.8 |
| Enterprise value | \$m 259 | 256 | 330 | 282 |
| EV/Sales | x 351.14 | n/m | 17.62 | 1.28 |
| EV/EBITDA | x n/m | n/m | 57.8 | 2.4 |
| EV/EBIT | x n/m | n/m | n/m | 2.86 |
| Net debt / EV | x -0.03 | -0.04 | 0.25 | 0.06 |
| Gearing (net debt / EBITDA) | x n/m | n/m | 11.14 | 0.13 |

| PROFIT AND LOSS \$Am | FY21A | FY22E | FY23E | FY24E |
|---------------------------------|---------------|--------------|--------------|--------------|
| Sales | 0.7 | - | 18.7 | 220.8 |
| COGS | - | - | (7.9) | (95.8) |
| Gross profit | 0.7 | - | 10.8 | 125.0 |
| Other income | - | - | - | - |
| Other operating costs | (10.8) | (5.0) | (5.1) | (5.2) |
| EBITDA | (10.0) | (5.0) | 5.7 | 119.8 |
| Depreciation & amortisation | (0.4) | (3.0) | (8.0) | (21.1) |
| EBIT | (10.4) | (8.0) | (2.3) | 98.7 |
| Interest | (0.5) | 0.1 | (3.9) | (6.9) |
| Tax | - | - | - | - |
| NPAT | (10.9) | (7.9) | (6.2) | 91.8 |
| Adjustments & Significant items | - | - | - | - |
| Underlying NPAT | (10.9) | (7.9) | (6.2) | 91.8 |

| BALANCE SHEET \$Am | FY21A | FY22E | FY23E | FY24E |
|--|--------------|--------------|--------------|--------------|
| Cash at bank | 7.9 | 10.5 | 17.3 | 103.9 |
| Other assets | 0.04 | 0.04 | 0.04 | 0.04 |
| Receivables | 0.9 | 0.9 | 0.9 | 0.9 |
| Current assets | 8.9 | 11.4 | 18.2 | 104.8 |
| PP&E (with accum dep) | 24.6 | 21.6 | 94.6 | 133.5 |
| Exploration and evaluation expenditure | 87.4 | 107.4 | 112.4 | 117.5 |
| Other assets | 4.1 | 4.1 | 4.1 | 4.1 |
| Non current assets | 116.1 | 133.2 | 211.1 | 255.1 |
| Total Assets | 125.0 | 144.6 | 229.3 | 359.9 |
| Trade and Payables | 2.6 | 2.6 | 2.6 | 2.6 |
| Employee benefits | 0.1 | 0.1 | 0.1 | 0.1 |
| Provisions | 3.5 | 3.5 | 3.5 | 3.5 |
| Borrowings | 0.1 | 0.1 | 0.1 | 0.1 |
| Current liabilities | 6.4 | 6.4 | 6.4 | 6.4 |
| Loans and borrowings | 0.5 | - | 80.9 | 119.7 |
| Convertible note derivative | - | - | - | - |
| Provisions | 57.9 | 57.9 | 57.9 | 57.9 |
| Non-Current liabilities | 58.4 | 57.9 | 138.8 | 177.6 |
| Total Liabilities | 64.8 | 64.3 | 145.2 | 184.0 |
| Share Capital | 238.3 | 266.3 | 276.3 | 276.3 |
| Reserves | 0.3 | 0.3 | 0.3 | 0.3 |
| Accumulated losses | (178.5) | (186.4) | (192.5) | (100.7) |
| Total Equity | 60.1 | 80.2 | 84.1 | 175.9 |

| PRODUCTION AND PRICING | FY21A | FY22E | FY23E | FY24E |
|---------------------------------|-------|-------|-------|-------|
| Nickel Production tonnes | | | | |
| Black Swan | - | - | 966 | 9,655 |
| AUD/USD | - | - | 0.75 | 0.75 |
| Price | | | | |
| Nickel US\$/lb | - | - | 11.00 | 11.00 |

Resources (kt) by Asset



| 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 |

| CASH FLOW \$Am | FY21A | FY22E | FY23E | FY24E |
|--|---------------|---------------|---------------|---------------|
| Operating Revenue | 0.6 | - | 18.7 | 220.8 |
| Sundry receipts | - | - | - | - |
| Payments to suppliers and employees | (10.3) | (5.0) | (13.0) | (101.0) |
| Interest received | 0.2 | 0.1 | 0.1 | 0.2 |
| Tax Paid | - | - | - | - |
| Operating cash flow | (9.5) | (4.9) | 5.8 | 119.9 |
| Payments for PPE | (0.2) | - | (80.9) | (60.0) |
| Proceeds from sale of PPE | - | - | - | - |
| Exploration and evaluation expenditure | (11.6) | (20.0) | (5.0) | (5.1) |
| Payments for term deposits | - | - | - | - |
| Investing cash flow | (11.9) | (20.0) | (85.9) | (65.1) |
| Proceeds from the issue of shares | 9.5 | 28.0 | 10.0 | - |
| Proceeds (Repayments) borrowings | (25.2) | (0.5) | 80.9 | 38.8 |
| Interest paid | (0.2) | - | (4.0) | (7.0) |
| Financing cash flow | (15.9) | 27.5 | 86.9 | 31.8 |
| Net Increase/Decrease | (37.3) | 2.6 | 6.8 | 86.6 |
| Cash at Beginning Year | 45.2 | 7.9 | 10.5 | 17.2 |
| Final Cash Balance | 7.9 | 10.5 | 17.2 | 103.8 |

Source: POS, MST estimates.

Black Swan Restart – Working From Many Angles

POS remains focused on commissioning the 1.1Mtpa capacity Black Swan concentrator. POS has been able to make significant headway on the project despite challenges, which have included global supply issues, WA-specific COVID problems, a general tight labour market and mining industry labour shortages and backlogs. The re-start is now targeted for Q2CY23 (vs Q1CY23 previously).

Black Swan Still Looks Strong, Despite Delayed Start

Despite the delay to the project delivery, caused chiefly by external forces, the Black Swan project remains economically attractive given its large available resource, the low cost and still relatively short time required to refurbish the mill, higher levels of payability and a stronger Ni market driven by battery demand.

Progress: Current Status of Black Swan Workstreams

Significant workstreams have been completed at Black Swan, with others in progress. Exhibit 2 shows the timing of these workstreams required in order to achieve production by Q2CY23.

Completed workstreams

- Rehabilitation of the final 150m stretch of the Silver Swan decline
- Studies on dewatering the Black Swan pit
- In-fill resource drilling within the Silver Swan Channel
- Silver Swan Tailings maiden resource
- Five-year water access agreement signed with Norton Gold Fields
- Golden Swan maiden resource

In-progress workstreams

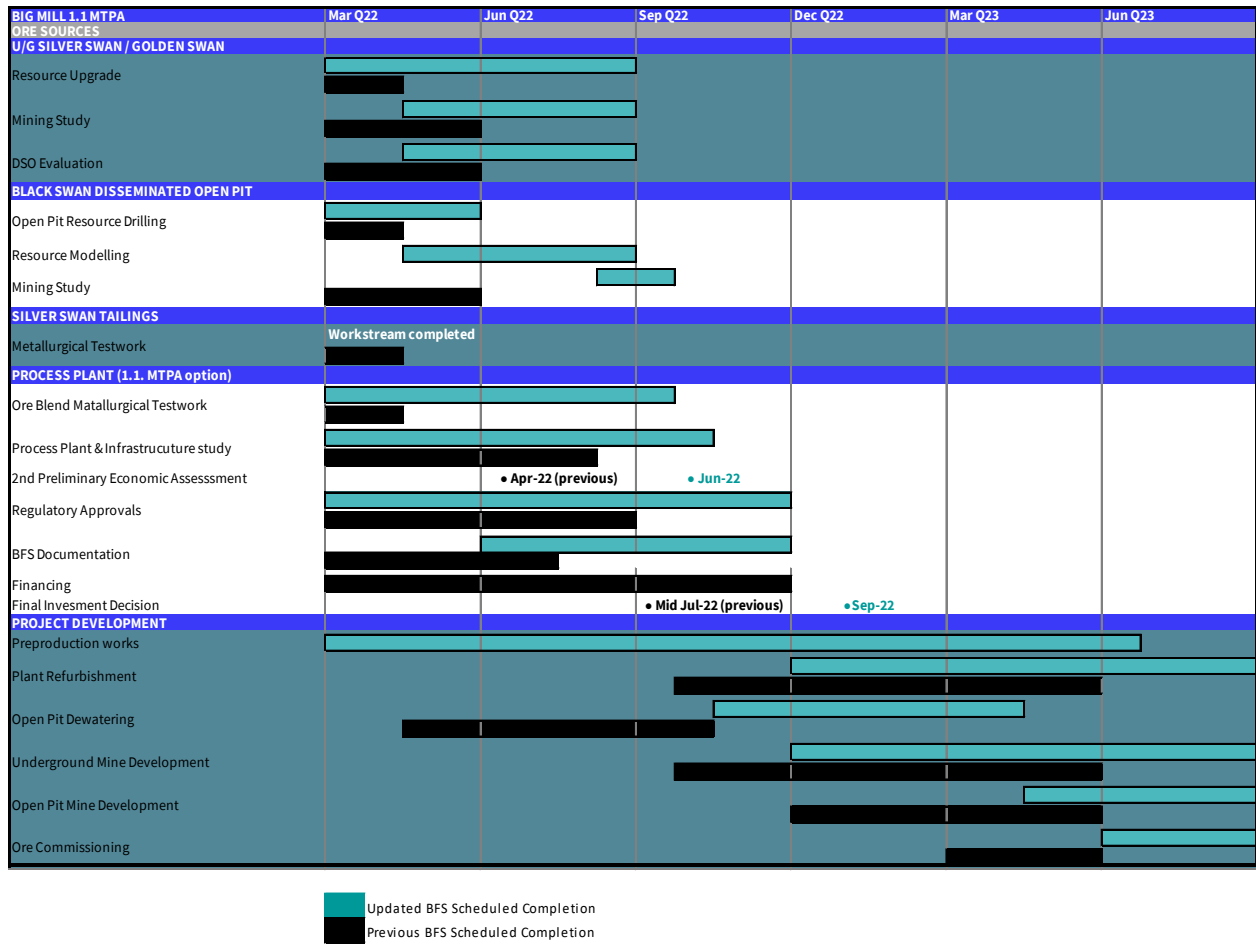
- Updating the Silver Swan and Black Swan Disseminated (BSD) resources to JORC Indicated classification
- Mining studies to convert the resources to reserves for Silver Swan, Golden Swan and BSD
- Metallurgical test work on blending the various ore sources to determine the optimum feed blend
- Environmental and development approvals for the mining activities and infrastructure requirements
- Discussions with PBT in relation to finalising a definitive agreement
- Offtake and financing discussions; and
- Completing the Bankable Feasibility Study (BFS)

Timing: Targeting Black Swan Re-Start in Q2CY23 – Nudged Back from Q1CY23

Due to the external pressures mentioned above, and particularly due to the slow turnaround in assays in WA, the projected delivery of the BFS and the projected commissioning of the project have been pushed back by approximately three months.

The BFS is now due for delivery in September 2022 (versus June 2022 previously) with POS aiming to deliver FID at the same time (versus mid-July 2022 previously). As a result, the commissioning of first ore from Black Swan has been pushed out to Q2CY23 (versus Q1CY23 previously).

Exhibit 2 – Black Swan timetable – revised vs previous



Source: POS.

Exhibit 3 – Black Swan total resource – over 200kt contained Ni

| Nickel Sulphide Resources | Mineral Resource Category | | | | | | | | |
|---------------------------|---------------------------|-----------|---------------|---------------|-----------|----------------|---------------|-----------|----------------|
| | INDICATED | | | INFERRED | | | TOTAL | | |
| | Tonnes (Kt) | Ni% Grade | Ni Metal (t) | Tonnes (Kt) | Ni% Grade | Ni Metal (t) | Tonnes (Kt) | Ni% Grade | Ni Metal (t) |
| Black Swan | 9,600 | 0.68 | 65,000 | 21,100 | 0.54 | 114,000 | 30,700 | 0.58 | 179,000 |
| Silver Swan | 108 | 9.4 | 10,130 | 61 | 9.7 | 5,900 | 168 | 9.5 | 16,030 |
| Golden Swan | 111.6 | 4.7 | 5,200 | 48.4 | 2.2 | 1,050 | 160 | 3.9 | 6,250 |
| Silver Swan Tailings | - | - | - | - | - | - | 674.9 | 0.92 | 6,201 |
| TOTAL | 9,820 | | 80,330 | 21,209 | | 120,950 | 31,703 | | 207,481 |

Source: POS.

Understanding of Black Swan Low-Grade Resource to Further De-risk Black Swan

In order to further de-risk the Black Swan ‘fill-the-mill’ strategy, POS is working to understand the distribution of the more metallurgically favourable serpentinite ore below the existing Black Swan open pit. The current Serpentinite Model was developed by a previous owner of Black Swan over 10 years ago, on limited information, and is not well defined. Most of the Black Swan disseminated resource beneath the pit is in the Inferred Resource category.

The planned diamond drilling underneath the Black Swan pit has been completed. The program has drilled 24 holes for 5,144m and has added significantly to the understanding of the widespread mineralisation within Black Swan. Modelling is currently underway to delineate the serpentinite and talc altered parts of the orebody. Assays will be applied to this model as they become available to support the JORC resource update. POS aims to release the new resource estimation during the June quarter CY22.

High-Grade Resource Adds Quality and Boosts Outcomes for Black Swan

The high-grade resource is an important part of the Black Swan restart strategy. The high-grade ore from Silver Swan and Golden Swan can be blended with the lower-grade Black Swan ore, potentially providing a number of positive outcomes for the Black Swan project:

- enhancing concentrate quality, as the high-grade ore less MgO than the low-grade Black Swan ore. Higher-quality concentrates attract higher ‘payability’ rates and are more in demand as they are used to blend with lower-grade and higher MgO concentrates
- increasing tonnes: adding higher-grade ore increases the contained Ni in the concentrate and the metallurgical recoveries are better
- lowering costs: adding in higher-grade ore increases total Ni contained and could lower the overall cost per unit of Ni.

Metallurgical Testing – Optimising the Final Concentrate Product

POS will process ore from four key sources within the Black Swan project. The key metallurgical testing results have been promising for all sources and show that blending of the ores can be beneficial for the final concentrate product.

Silver Swan Tailings (SST)

The testwork characterised the response of the SST to conventional sulphide flotation techniques, in isolation and as a mixture with the BSD ore.

The key result was that mixing 7.5% by weight of SST with the BSD ore improves the Fe:MgO ratio significantly, to within generally accepted guidelines for smelters. The Fe:MgO ratio can be improved even further with more SST added but at the expense of Ni grade in the final concentrate.

The 7.5% modelled concentrate specification was provided to potential offtakers as part of the process to seek indicative offtake terms. The preliminary market approach received a strong level of interest from potential customers and offtake partners, indicating saleability of the concentrate product.

Black Swan Disseminated Ore

The low-grade orebody is more complex than the Golden Swan and Silver Swan orebodies and requires additional metallurgical testing. The serpentinite part of the orebody is more metallurgically favourable ore and is considered a key to the blending of the Black Swan ores. Several tests have been performed on the ore including regrinding. Results so far have been satisfactory with concentrate levels of 31%. Testing is 50% complete and has been slowed due to lab result delays. Metallurgical tests are being run in parallel with engineering studies.

Silver Swan and Golden Swan Underground

Preliminary results received to date indicate the high-grade Silver Swan and Golden Swan underground ore is responding well to conventional flotation tests and is in line with expectations.

Silver Swan Drilling – Tundra-Mute Hits Some Good Stuff

The Silver Swan program is designed to infill drill the current resource to upgrade existing inferred resources to indicated status and to look for extensions. Three areas at the base of the Silver Swan Channel were targeted in this current drill program, using two underground diamond drill rigs. These deposits, known as Tundra-Mute, Peking Duck and Fledgling-Canard, collectively contain 16kt Ni contained averaging 9.5% Ni in Indicated and Inferred mineral resources.

Tundra-Mute: Standout Results – More Drilling to be Performed

Drilling – several very high-grade intersections

Tundra-Mute has proved to be the key prospect for Ni prospectivity within Silver Swan.

First assays received from Tundra-Mute included some highly encouraging high-grade results:

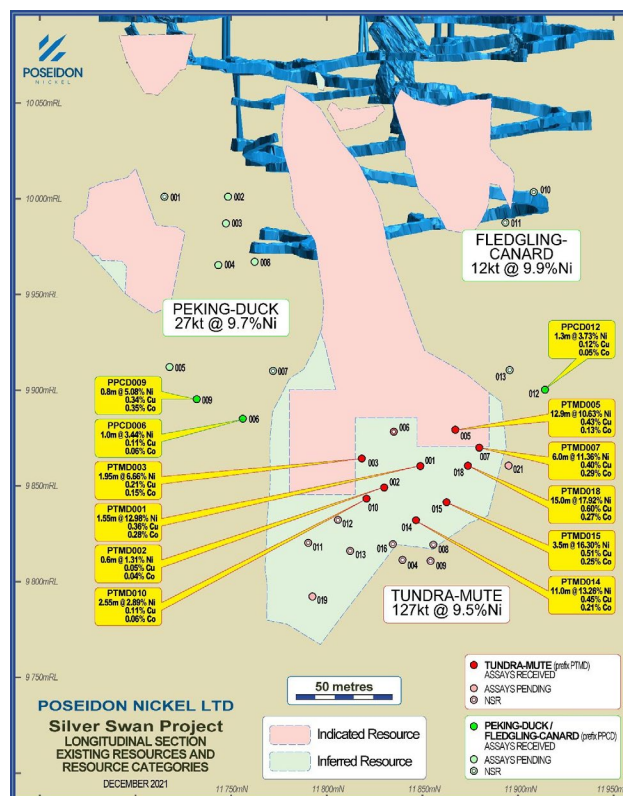
- **1.55m @ 12.98% Ni** from 259.6m
- **0.6m @ 1.31% Ni** from 273.4m
- **1.95m @ 6.66% Ni** from 251.2m

Subsequent drilling results from Tundra-Mute included further strong results:

- **15m @ 17.92% Ni** from 265m
- **12.9m @ 10.63% Ni** from 241.1m
- **11m @ 13.26% Ni** from 288m
- **6m @ 11.36% Ni** from 257m
- **3.5m @ 16.30% Ni** from 287.9m

The results from the Tundra-Mute drilling will add further high-grade resource to Silver Swan.

Exhibit 4 – Silver Swan drilling results



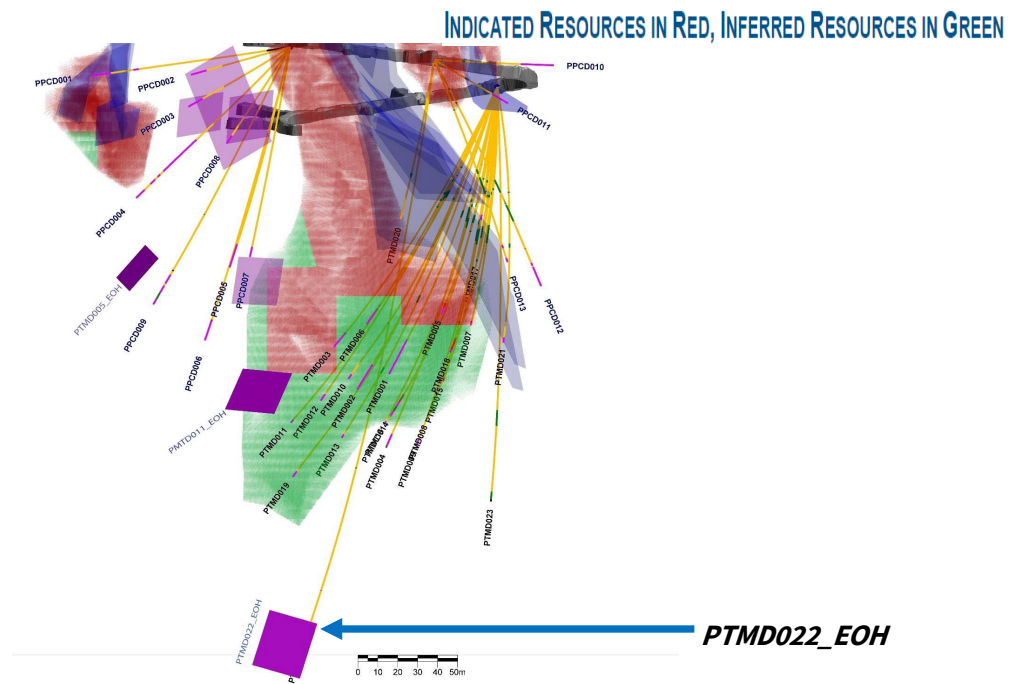
Source: POS.

Down hole electro magnetics – further potential at Tundra-Mute identified

Further to the drilling, eight drill holes were surveyed using a down hole electro magnetic (DHEM) probe. Historically, DHEM plates are indicative of Ni massive sulphides in the Black Swan precinct. The survey highlighted seven plates with a conductance of >15,000 Siemens, which is considered highly conductive. Three plates were identified by POS to conduct further work on, and from those a standout EM plate was selected for additional drilling.

PTMD022_EOH is a newly identified EM plate down plunge of the Silver Swan mines, and is greater than 70m from any other drilling. Drilling stops quickly after passing the footwall contact due to ground conditions limiting the full effectiveness of the platform EM hole. POS believes that this hole could identify a new area below the current Silver Swan resource and extension could build additional high-grade mine inventory.

Exhibit 5 – Tundra-Mute DHEM results – highlighting new exploration hole to plate PTMD022_EOH



Source: POS.

Southern Terrace: Drilling Paused – Revisiting a Further Program

POS has conducted sufficient work on the Southern Terrace to believe it has the potential to host more mineralisation. The Southern Terrace is ‘greenfield’ exploration, and although highly prospective is higher risk than drilling within and around existing resources. The DHEM methodology applied within the broader Black Swan Ni province has successfully defined Golden Swan. Although this has not been successful at first attempt at the Southern Terrace, POS believes further use of this technique and other geochem and geophysical methods may well lead to the successful discovery of further massive sulphides at the Southern Terrace.

The latest drill information is being reviewed and different target generation methods are being considered to aid future drilling programs.

Lake Johnston and Windarra – Further Options for POS

Lake Johnston: Low-Capex Restart – Just Like Black Swan

The Lake Johnston plant started operating in 1998, treating ore from the Emily Ann underground Ni mine. 1.5m tonnes of ore was 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 1.5 million tonnes per annum (mtpa) 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 refurbished in 2011 before being 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 water is currently ~60m from surface.

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

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.

POS engaged GR Engineering (GRES) (the same organisation who 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 \$31 million and this would take approximately seven months to complete. The operating cost for the process plant is estimated at approximately \$36 per tonne of ore based on a throughput rate of 0.9 million tonnes per annum. The project also has a 200-person village, tailings dam and airstrip.

POS plans to conduct an aggressive exploration programme to increase the Lake Johnston resources and a 15,000m RC program is scheduled to commence in the June quarter on the highly prospective Western Ultramafic. The addition of Lake Johnston to POS production profile would go towards POS corporate strategy of producing >15,000t of Ni in concentrate per annum.

Windarra: 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.

Kalgoorlie Battery Hub – Feds Tip in A\$120m

POS and Pure Battery Technologies (PBT) Sign MOU

In July 2021, POS and PBT entered into a Memorandum of Understanding (MoU) whereby both parties would evaluate the establishment of a regional precursor Cathode Active Material (pCAM) refining hub. PBT is an Australian-based company with an international Ni and cobalt refining company with operations based in Germany. It is advancing its plan to establish a refinery in Kalgoorlie to produce pCAM battery metal products.

Terms of the agreement

Under the terms of the agreement, PBT will provide its in-house technology and expertise. POS will provide typical specifications and anticipated production volumes of Ni concentrate from POS's projects as potential base feed for the proposed refinery.

The ultimate objective is for the parties to definitively detail how they can work together to fund and develop a regional supply chain from mine to concentrate, to an intermediate mixed nickel-cobalt-hydroxide product that will be further refined in PBT's refinery for the battery markets.

The Federal Government grants PBT A\$119.6m

On 16 March 2022, the Federal Government announced over \$243m in support for four projects under the Collaboration Stream of the Modern Manufacturing Initiative, aiming to cement Australia's place in the rapidly growing critical minerals, electric vehicle and battery markets. This includes \$119.6m for PBT, in partnership with POS. PBT's \$399m pCAM Hub is in Kalgoorlie WA. This is a serious commitment from the Federal Government and a major boost to PBT in partnership with POS.

Deal Could Open Up Benefits and Opportunities for POS

Volume and margin opportunities

Batteries are a key growth area for Ni, and POS concentrates are of interest to battery producers, and in particular PBT. This deal thus opens up volume and margin opportunities for POS.

Premium for higher-quality concentrate

It is also notable that there will be a premium paid for higher-quality concentrate going into the battery industry, which POS has the capacity to supply.

Location advantage

The PBT project is in Kalgoorlie, only 50 km from Black Swan, giving POS a strong advantage as a supplier.

Potential funding tailwinds

The agreement with PBT and the federal funding of PBT's refinery may also benefit POS from a funding perspective, providing a vote of confidence in the product that could make future funding easier to obtain.

Nickel Market: Short Squeeze Drives Huge Price Action; Long Term Looks Strong as Batteries Play Increasing Role

Recent History: A Huge Shake-up in the Nickel Market

Ni is traded on the London Metal Exchange (LME) and over the past decade has traded roughly between US\$4.50/lb and US\$9.00/lb. After suspension of trading in early March, the LME Ni market is once again trading, with prices currently at ~US\$15/lb.

Russia invades Ukraine, prompting buyers to seek alternative sources

Russia’s invasion of Ukraine in late February shook the Ni market, as Russia is the world’s third-largest Ni supplier. The invasion saw Ni buyers looking for alternatives to Russian sources. The Ni price moved sharply higher in the week after Russia’s invasion.

Prices spike in early March

In early March the Ni market unravelled, with prices rising in huge leaps, hitting a US\$45/lb high on a 250% price spike in little more than 24 hours. The market was chaotic and billions of dollars in losses were accumulated for those with a short position in the market, leading the LME to suspend trading for the first time in 30 years. So what happened?

The spike drove a ‘short squeeze’ which drove prices higher. This is when traders who previously bet on a drop in the price are put in an ever-tighter financial position by rising prices, as they are forced to buy into the market to cover their short position. Other participants may also push up prices in anticipation of that short covering.

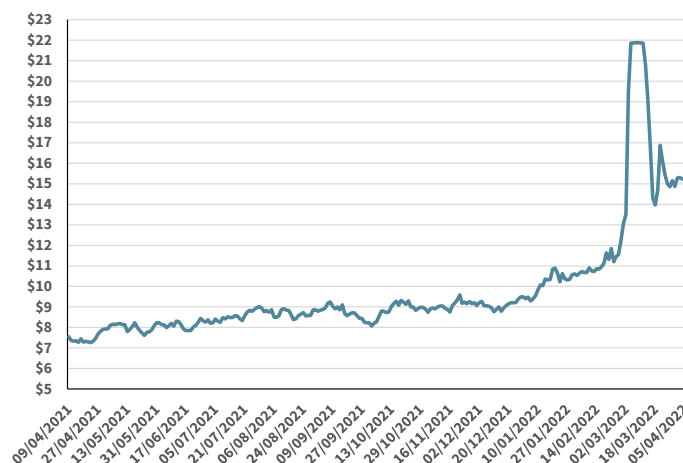
The short squeeze focused on Chinese production and trading company Tsingshan, which was planning to bring 850kt of nickel matte into the market in 2022 and took a position that the price would go down as a result. On the other side of the market was Glencore, with half the ownership of the Ni on the LME.

On 7 March, the Ni price began to rise sharply, surging from \$13.50/lb to more than \$23/lb, creating a large amount of margin calls. Tsingshan’s were roughly \$3 bn and its obligations were much larger than its cash and bank credit. Some of Tsingshan’s bankers started to buy back Ni contracts, sending the price of Ni spiralling ever higher.

LME suspends trade

On 8 March the LME suspended trading, saying that the day’s price movements ‘created a systemic risk to the market’. The decision meant traders wouldn’t need to pay margin calls on the basis of the \$35/lb Ni price. Effectively, it rewound the market to the moment when prices closed on 7 March at \$21.80/lb. Tsingshan’s short position has now racked up billions of dollars in losses. The company’s bankers have agreed to support the company going forward.

Exhibit 6 – Ni price chart: 1 year (US\$/lb)



Source: FactSet.

Going Forward: Battery-Related Demand to Play Growing 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 general adverse economic conditions encountered in 2020 as a result of COVID-19, 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. 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 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.

BHP has recently signed an agreement with Tesla for the 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 and low-impurity, and could potentially form an important part of the EV market supply chain.

BHP's deal with Tesla can be seen as positive 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.

Impact on POS: Its 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.

POS's MOU with PBT demonstrates the potential for POS to supply into the battery market.

Valuation: A\$0.24 (Previous A\$0.22): Timing, Pricing, FX Rates – We’ve Needed to Change a Few Things

Valuation Methodology: SOTP with Risked NPV

After reviewing our assumptions, we value POS at A\$0.24, up from A\$0.22 previously. We use a sum-of-the-parts methodology, valuing Black Swan, Windarra Gold and Lake Johnston on a risked NPV basis (see Exhibit 7). We have incorporated Windarra Nickel into the Black Swan production model.

Black Swan Valuation Forms Bulk of Valuation

We assume concentrator option. Our valuation is based on POS adopting the Black Swan low-grade concentrator model inclusive of the Silver Swan current resource. We have assumed a 20-year low-grade mine life in this model and have now included the Golden Swan resource and Silver Swan tailings in our model. We have also included the option of processing Windarra Nickel through the Black Swan mill. We have not included any Silver Swan resource infill and extensional drilling resource and reserve increase or Southern Terrace success in our valuation at this stage.

Upside potential from Silver Swan/Southern Terrace exploration. We see several potential scenarios for share price upside beyond our valuation, driven primarily by exploration success at Silver Swan and Southern Terrace.

Exhibit 7 – Valuation summary

| VALUATION | Current Valuation | | | Previous Valuation | Valuation Methodology |
|-----------------------------------|-------------------|----------------|--------------------------------------|--------------------------------------|------------------------|
| | A\$m | Risk Weighting | EQUITY VALUE A\$/SHARE FULLY DILUTED | EQUITY VALUE A\$/SHARE FULLY DILUTED | |
| Equity Valuation of Black Swan | \$541.6 | 100% | \$0.17 | \$0.18 | Risked NPV |
| Equity Valuation of Lake Johnston | \$302.5 | 50% | \$0.05 | \$0.03 | Risked NPV |
| Equity Valuation of Windarra Gold | \$30.2 | 100% | \$0.01 | \$0.01 | Risked NPV |
| EQUITY VALUE PROJECTS | \$874.3 | | \$0.24 | \$0.22 | |
| Add: Cash | \$21.9 | | \$0.01 | \$0.02 | At 31 December 2021 |
| EQUITY VALUE PRE SG&A | \$896.2 | | \$0.25 | \$0.23 | |
| SG&A | -\$31.7 | | -\$0.01 | -\$0.01 | NPV of Corporate Costs |
| EQUITY VALUE | \$864.5 | | \$0.24 | \$0.22 | |

Source: MST estimates.

Exhibit 8 – Core modelling assumptions

| Price and Currency | |
|---------------------------------|--------|
| AUD/ USD | 0.75 |
| Nickel Price US\$/lb (LT) | 9.00 |
| Gold Price US\$/oz | 1,900 |
| 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.

Review of Inputs – Timing, Nickel Price, Capex and Opex, AUD/USD

POS’s environment has changed in a number of ways since our last report in late 2021. The timing of the Black Swan project has been pushed out and we see risk to the capex numbers. However, we also need to account for the broader commodity environment – we think there has been a structural change in the Ni market and that higher pricing sooner needs to be taken into consideration.

Timing – assume minimal production until FY23

Black Swan has suffered some delays as flagged by POS in its latest market update, with indication of first ore from Black Swan in Q2CY23. We have taken a conservative view, assuming around 1 month’s production in FY23 (first production in May 2023) and a full year of production in FY24.

Nickel price – a more complex but also more bullish picture

The Ni market has seen a substantial shake-up in recent months. Although we do not see the current price of ~US\$15 as sustainable, we do believe that the market has structurally changed given the need for Ni as a key input to batteries. We also see recent turbulence in the Ni market as indicative of the market’s extreme tightness and tendency to experience price shocks, with the Ni price particularly volatile due to the market’s relatively small size.

We previously assumed a Ni price base of US\$7.00/lb escalating on a yearly basis. We now take a different approach, and have significantly raised our near-term Ni price assumptions as follows:

- starting FY23 at US\$11.00/lb and holding that price for two years
- tapering down to a long-term price of US\$9/lb starting in FY25
- assuming 5% pa growth from that base.

We believe this reflects the tightness of the Ni market while acknowledging that higher prices will encourage some further supply into the market over the longer term.

We also consider that high-quality sulphide deposits, such as Black Swan, will attract a premium in the market going forward. The recent BHP/Tesla deal demonstrates the underlying demand for quality Ni.

Capex and opex – up further as we see more pressure on costs

We had already increased our capex and opex estimates previously. However, as POS is in a challenging operating environment in WA and we expect further capex/opex pressure, we have increased both opex and capex by 10%.

Our cost estimates are US\$4.36/lb on a 100% basis.

Our capex assumptions are tabled in Exhibit 9. It should be noted that both capex and opex are preliminary MST estimates and will be refined further as POS comes to market with feasibility studies.

AUD/USD lifted to A\$0.75

Due to the strong commodity and rising interest rate environment, we have raised our AUD/USD exchange rate to A\$0.75 from A\$0.70.

Exhibit 9 – Capex assumptions – Black Swan restart (A\$m, FY2022)

| | |
|--|---------------------|
| Pre-Production - Silver Swan Underground | 11,000,000 |
| Pre-Production - Black Swan Processing Plant | 24,200,000 |
| Black Swan Mine Development | 5,500,000 |
| Golden Swan Mine Development | 13,200,000 |
| Windarra Mine Development | 22,000,000 |
| | \$75,900,000 |

Source: MST estimates.

Key Sensitivities

The key sensitivities for POS are the Ni price, USD and operating costs (see Exhibits 10–12).

Exhibit 10 – Ni price sensitivity (USD)

| -\$2 | -\$1 | Forecast | +\$1 | +\$2 |
|------|------|----------|------|------|
| 0.13 | 0.18 | 0.24 | 0.29 | 0.34 |

Source: MST estimates.

Exhibit 11 – AUD/USD sensitivity

| -10c | -5c | Forecast | +5c | +10c |
|------|------|----------|------|------|
| 0.28 | 0.25 | 0.24 | 0.22 | 0.20 |

Source: MST estimates.

Exhibit 12 – Operating cost sensitivity (A\$/lb)

| -\$2.00 | -\$1.00 | Forecast | \$1.00 | \$2.00 |
|---------|---------|----------|--------|--------|
| 0.31 | 0.27 | 0.24 | 0.20 | 0.16 |

Source: MST estimates.

Cross-Check: Spot Price Valuation of A\$0.45

Our spot price valuation is A\$0.45 per share using the following base assumptions:

- AUD/USD exchange rate of 0.7452
- Ni price of US\$14.72/lb.

Positive Catalysts for the Share Price

Key drivers of share price upside

Resource definition and extension for Silver Swan

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.

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.

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 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/Silver Swan exploration results

As the key to exploration success, any disappointing result in the Southern Terrace and Silver Swan exploration/resource program could lead to delays in the Black Swan project development.

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 to 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 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.

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 AUD vs USD

An increasing AUD against the USD would lead to a decreased AUD 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 on 31 December 2021 of A\$21.9m. The cash on hand will be used to fund further exploration, resource definition drilling, production and marketing studies, mine planning, reserve definition and the ‘fill the mill’ feasibility.

Black Swan Funding and Equity

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

The DSO program 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 Project – Up for Sale

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\$30m as a project in POS’s hands.

Other Financials

We have assumed that any further projects such as Lake Johnston 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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