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GROUP MINERAL RESOURCES STATEMENT

Following the successful completion of the merger between Horizon Minerals Limited (ASX:HRZ, the Company) and Poseidon Nickel Limited (formerly ASX:POS), the Company is pleased to provide a consolidated statement of group Mineral Resources as of 31 March 2025.

HIGHLIGHTS

- Mineral Resources currently stand at:
  - 1.8Moz gold [1]
  - 20.2Moz silver, 104kt zinc [2]
  - 422kt nickel and 7,800t cobalt [3]
- Gold Mineral Resources are underpinned by the large cornerstone Boorara and Burbanks assets
- Changes to the Companies Mineral Resources include:
  - Addition of 422kt Nickel from the acquired Poseidon assets. [4]
- Large Gold Mineral Resource base and ongoing studies pave the way for a development profile aiming at sustained gold production and continuous cashflows

HORIZON MINERALS GOLD MINERAL RESOURCE ESTIMATE [1]

	Measured			Indicated			Inferred			Total		
	Mt	Au g/t	Oz	Mt	Au g/t	Oz	Mt	Au g/t	Oz	Mt	Au g/t	Oz
Total	1.31	1.34	56,300	16.48	1.82	963,081	12.74	1.90	778,373	30.37	1.84	1,797,764

- The acquired Nickel Mineral Resources are mine ready for the next upswing in the Nickel price. The acquired assets include infrastructure important to the development plans of Horizon as a gold producer.

HORIZON MINERALS NCKEL MINERAL RESOURCE ESTIMATE[3]

	MEASURED			INDICATED			INFERRED			TOTAL		
	Kt	Ni%	Ni (t)	kt	Ni%	Ni (t)	kt	Ni%	Ni (t)	kt	Ni%	Ni (t)
Total	1,475	0.84	13,200	23,600	0.98	233,500	17,000	1.03	176,000	42,100	1.00	422,700

Commenting on the Group MRE upgrade, Chief Executive Officer Mr Grant Haywood said:

"It is very pleasing to have completed the merger with Poseidon Nickel bringing in the surface infrastructure including the Black Swan plant to refurbish and convert to a gold plant, but also the substantial Nickel resource base. We also look forward to increasing our gold resources through further M&A opportunities and organically through drilling which will commence this current June 2025 quarter".

[1] See Mineral Resource Table and Confirmations on Page 44. [2] see Mineral Resource Table and Confirmations on Pages 46. [3] see Mineral Resource Table Pages 47 and JORC Table 1 summaries pp 50. [4] see ASX Disclosures pp 4 and Mineral Resource Table Page 47.

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Overview

Horizon Minerals Limited (ASX: HRZ) ("Horizon" or the "Company") is pleased to provide an updated Mineral Resource Statement for the Company's projects located near Kalgoorlie-Boulder in the heart of the Western Australian goldfields (Figure 1). In addition, following the merger with Poseidon Nickel Limited, the Company adds the Black Swan, Lake Johnston and Windarra nickel resources and associated infrastructure to the Resource portfolio (Figure 1, Figure 2).

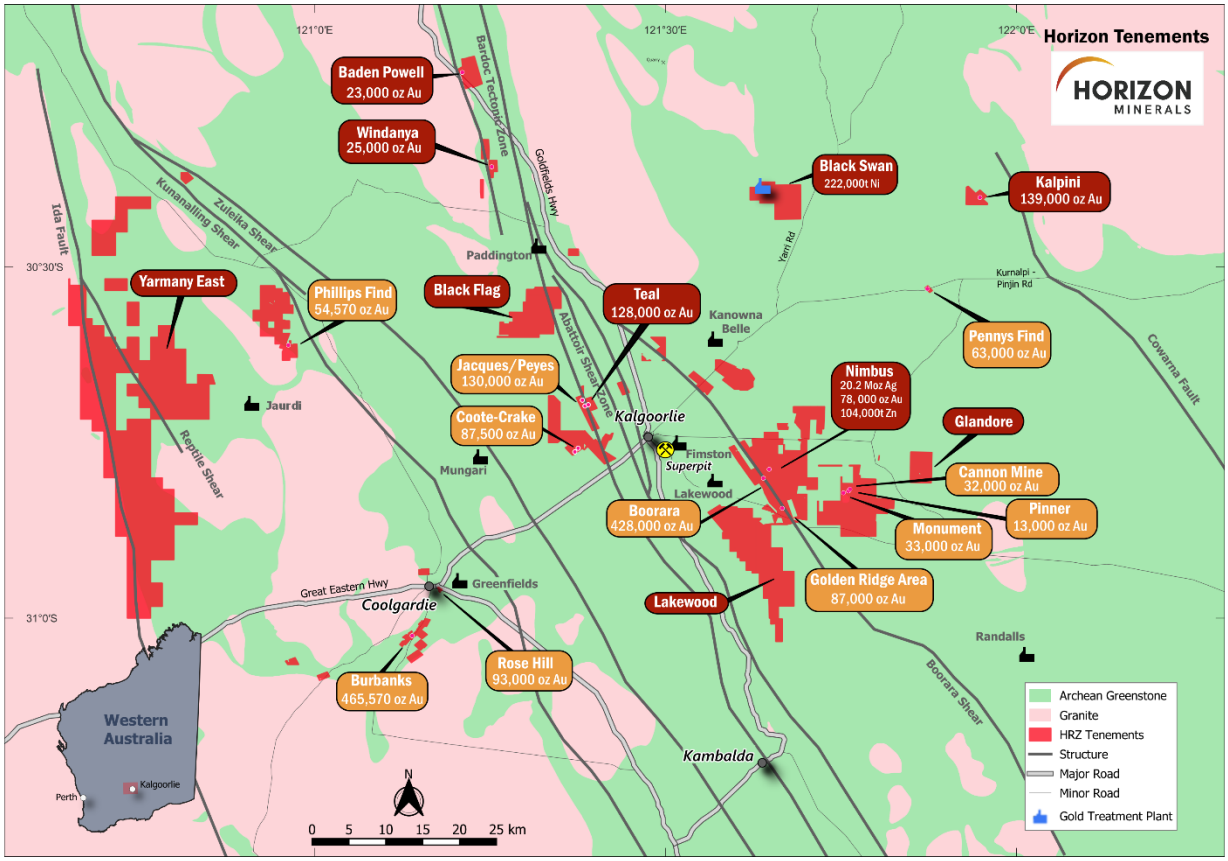


Figure 1 - Kalgoorlie Project Area Locations and Surrounding Infrastructure

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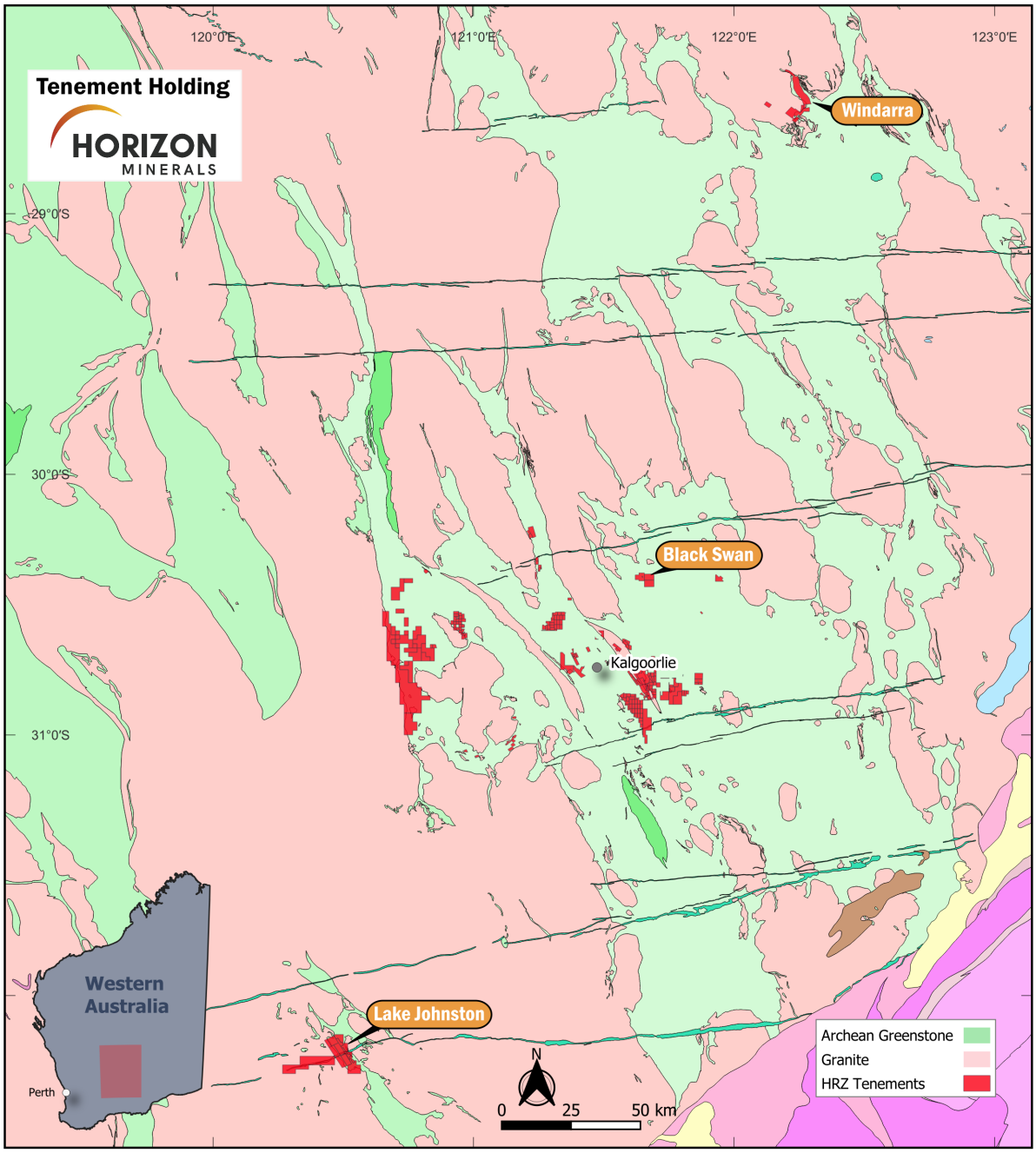


Figure 2 - Regional Nickel Assets

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Authorised for release by the Board of Directors

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Black Swan Project

Black Swan and Black Swan Stockpiles

GEOLOGY

Black Swan is located within the Boorara Domain of the Kalgoorlie Terrane. The mineralisation at Black Swan occurs within the Black Swan Komatiite Complex, a lens of thin olivine cumulate and spinifex textured komatiitic flows within an envelope of intermediate felsic lava and associated volcanoclastic rocks (Hicks, 1998). Black Swan is one of several nickel sulphide deposits in the Black Swan Komatiite Complex, which includes Black Swan, Silver Swan, Cygnet and Black Duck.

ASSUMPTIONS AND METHODOLOGY

This Mineral Resource estimate for the Black Swan Project is based on a number of factors and assumptions:

- A selection of available drilling data as of 9 July 2014 was used for the Mineral Resource estimate. The data was restricted to drilling in the vicinity of the existing Black Swan Open Pit. The drilling data was collected over several decades by numerous operating companies.
- Statistical and geostatistical analyses were carried out on drilling data composited to 2 m downhole intervals. This included variography to model the spatial continuity of the grades within each domain.
- The Ordinary Kriging interpolation method was used for the estimation of Ni, As, Fe, MgO, and S using variogram parameters defined from the geostatistical analysis.
- The influence of high grade values for Ni and As were spatially restricted in the Talc domain during estimation to ensure grades at depth were not overstated within the domain.
- The Mineral Resource estimation approach has assumed that mining will take place using an open pit, bulk mining method.
- A Lerch-Grossman pit shell was used to constrain the depth of the extent of the Mineral Resource classification and reporting of the Mineral Resource. The pit shell was constructed using a US$14.6/lb Ni price, mining costs of approximately $7/t mined, processing and administration costs of approximately A$25/t milled, and a revenue factor of 1.5 to allow for potential increases in nickel price. Nickel recovery was based on ore type and metallurgical recoveries reported by previous owners of the Black Swan plant.
- Mineral Resource classification was based principally on geological confidence, drill hole spacing and grade continuity from available drilling data.

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MINERAL RESOURCE STATEMENT

Source	Indicated			Inferred			Total		
	Mt	Ni %	Ni kt	Mt	Ni %	Ni kt	Mt	Ni %	Ni kt
Black Swan	8.4	0.70	59.1	20.7	0.54	111.9	29.1	0.59	170.9
Stockpiles	1.2	0.49	5.9	0.4	0.53	1.9	1.6	0.50	7.8
Total	**9.6**	**0.68**	**64.9**	**21.1**	**0.54**	**113.8**	**30.7**	**0.58**	**178.7**

Table 1- Black Swan Open Pit Mineral Resources at 0.4% Ni cut-off grade as at 22 July 2014

The Mineral Resource estimate was classified in accordance with guidelines provided in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012). The classification was based principally on geological confidence, drill hole spacing and grade continuity from available drilling data.

Table 1 above summarises the Mineral Resources for Black Swan and associated stockpiles. The mineralisation models and block reporting cut-off grades used in the *in situ* resource estimate for Black Swan 0.4% Ni. For mine planning purposes, ore loss and dilution should be considered.

THE JORC CODE ASSESSMENT CRITERIA

The JORC Code (2012) describes a number of criteria, which must be addressed in the Public Report of Mineral Resource estimates for significant projects. These criteria provide a means of assessing whether or not parts of or the entire data inventory used in the estimate are adequate for that purpose. The resource estimate stated in this document was based on the criteria set out in Table 1 of that Code. These criteria are discussed in Appendix A.

COMPETENT PERSON'S STATEMENT

The information in this report which relates to the Mineral Resource is based on information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd, and Member of the Australasian Institute of Mining and Metallurgy. Andrew Weeks has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012).

Silver Swan

GEOLOGY AND GEOLOGICAL INTERPRETATION

The Silver Swan Massive (SSM) deposit comprises four narrow, high grade nickel sulphide mineralised shoots, located along the basal ultramafic contact of the Black Swan Komatiite (BSK). The BSK is a large extrusive ultramafic flow that can be traced over a 3,500m strike length and extends at least 1,600m below surface. The width of the BSK varies from 150 to 600m in the central area of the flow, which narrows significantly along strike north and south of the central portions of the flow.

The four shoots that were assessed for this MRE are Goose, Peking Duck, Fledgling-Canard and Tundra-Mute (Figure 1). There is remnant mineralisation located within the Goose shoot, and the

top 15m of the Fledgling-Canard shoot has also been mined. The Peking Duck and Tundra-Mute shoots are unmined, other than some limited development in the upper portions of Tundra-Mute.

Within the Black Swan stratigraphy there are several late felsic to intermediate intrusive unites, typically described as porphyritic dykes which have stoped out the mineralisation. These have been depleted from the mineralisation by resetting the density to 0.00. As with the previous estimates, these have been modelled to ensure that any mineralisation is suitably accounted for.

The BSK hosts both disseminated nickel sulphide (Black Swan Disseminated - BSD), and massive sulphide nickel mineralisation (Silver Swan - SSM, White Swan - WSM, Cygnet - CM, Gosling - GM and Golden Swan - GSM). The SSM mineralisation is the most significant massive sulphide accumulation within the BSK, extending from 195m to 1,550m below surface and consisting of a series of narrow, variably sized vertical shoots.

As a function of the depth of the SSM and the location of the available drilling locations, the majority of the 2019 and earlier drilling was drilled at very acute intersection angles to the mineralisation. The 2020 and 2021 drilling aimed at improving the drillhole intersections and providing infill data for the 2019 MRE (*Silver Swan Resource Upgrade and Black Swan Underground RC Drilling* - ASX Announcement 5 August 2019).

The 2020 and 2021 drilling programmes predominantly tested the Tundra-Mute shoot, with only a very limited number of drillholes testing the Fledgling-Canard and Peking-Duck shoots, and no additional drilling into the Goose shoot.

Following completion of the exploration drilling in the last quarter of 2021, the interpretations were updated. The 2022 updated interpretations were prepared by Snowden Optiro, primarily using the logged lithology codes identifying the predominantly massive sulphide lithologies, combined with rock geochemistry.

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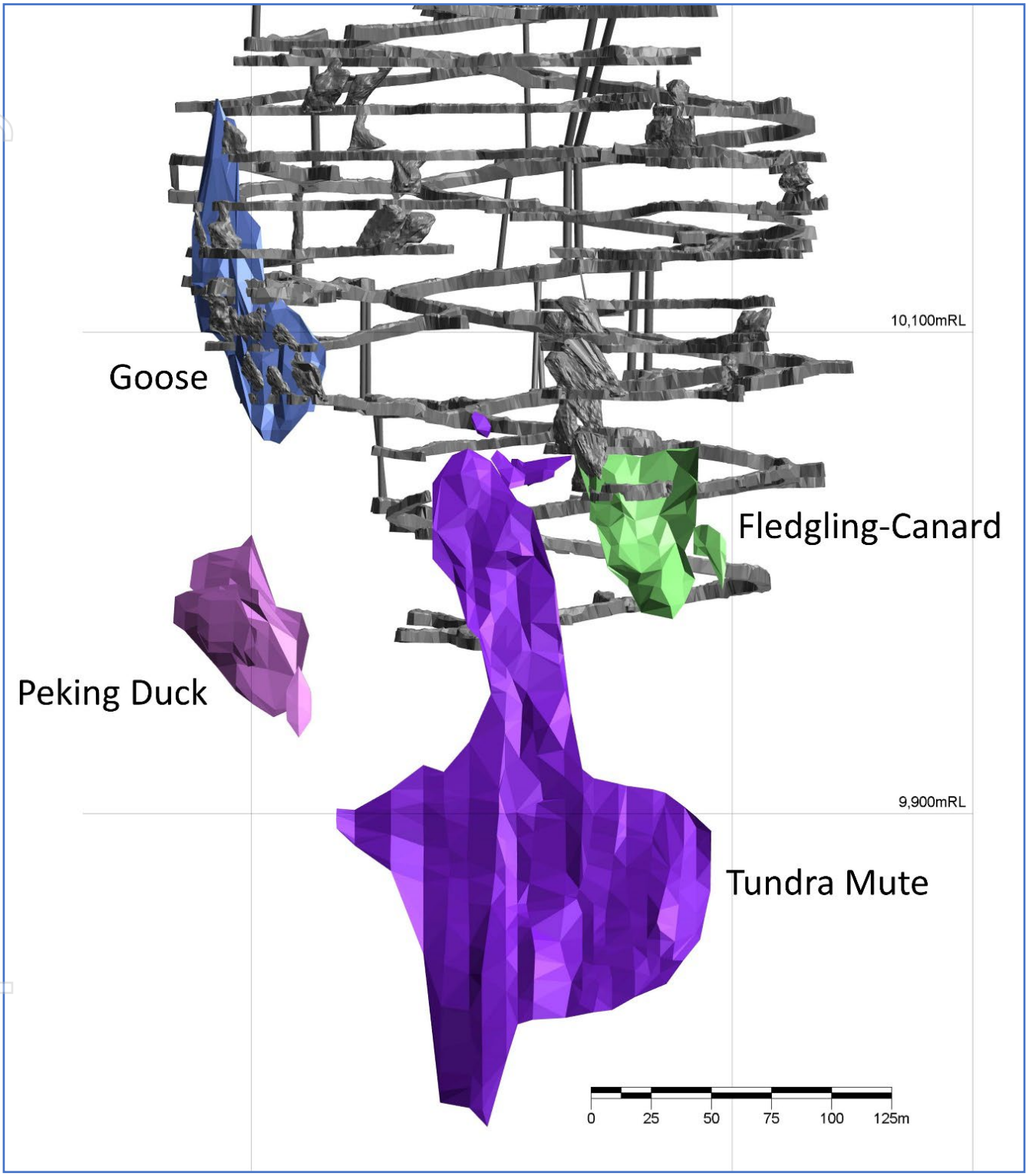


Figure 3: Long section looking West showing simplified layout of the Silver Swan Deposits.

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DRILLING TECHNIQUES

The pre-2020 drillhole downhole surveys were completed using a range of surveying methods ranging from acid etch for the very early (1960 and 1970s) drilling, through to north seeking gyro/REFLEX tools. As a consequence of the previous mining at Silver Swan, there is confidence in the downhole survey data. This confidence is further supported by the observation by the Poseidon team that the 2020 and 2021 drilling program intersected the mineralisation extremely close to the target depths predicted from the 2019 estimate.

The Silver Swan MRE update is based on the 38 holes of the exploration and resource drilling program undertaken by Poseidon in 2021. Drilling was conducted by Webdrill using a Diamec Smart 6 Mobile Carrier rig. The holes were drilled in NQ2 and the core was orientated using the Trucore Orientation Tool and surveyed using the DHS DeviGyro OX tool.

Figure 4 - Long section showing historic and recent drilling around Silver Swan Deposits. The 2021 programme is shown as thicker drill traces.show the 2021 and historical drilling that was used as the basis for this MRE.

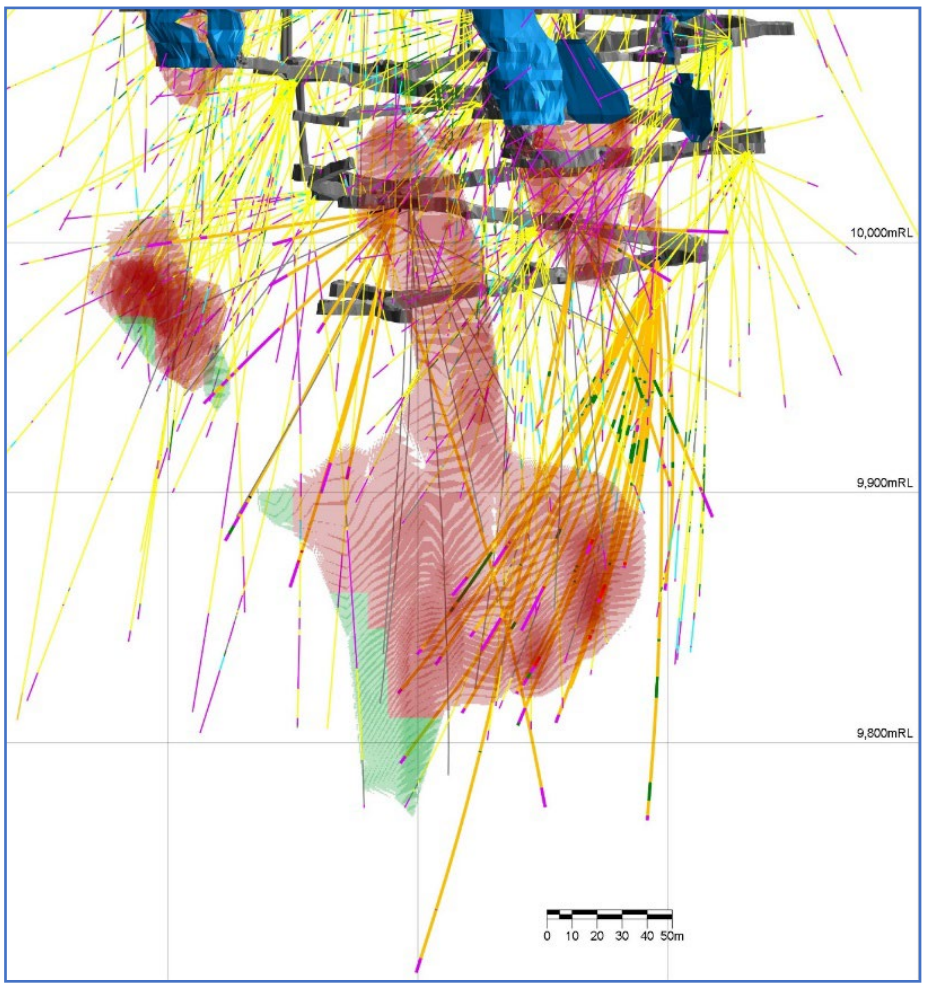


Figure 4 - Long section showing historic and recent drilling around Silver Swan Deposits. The 2021 programme is shown as thicker drill traces.

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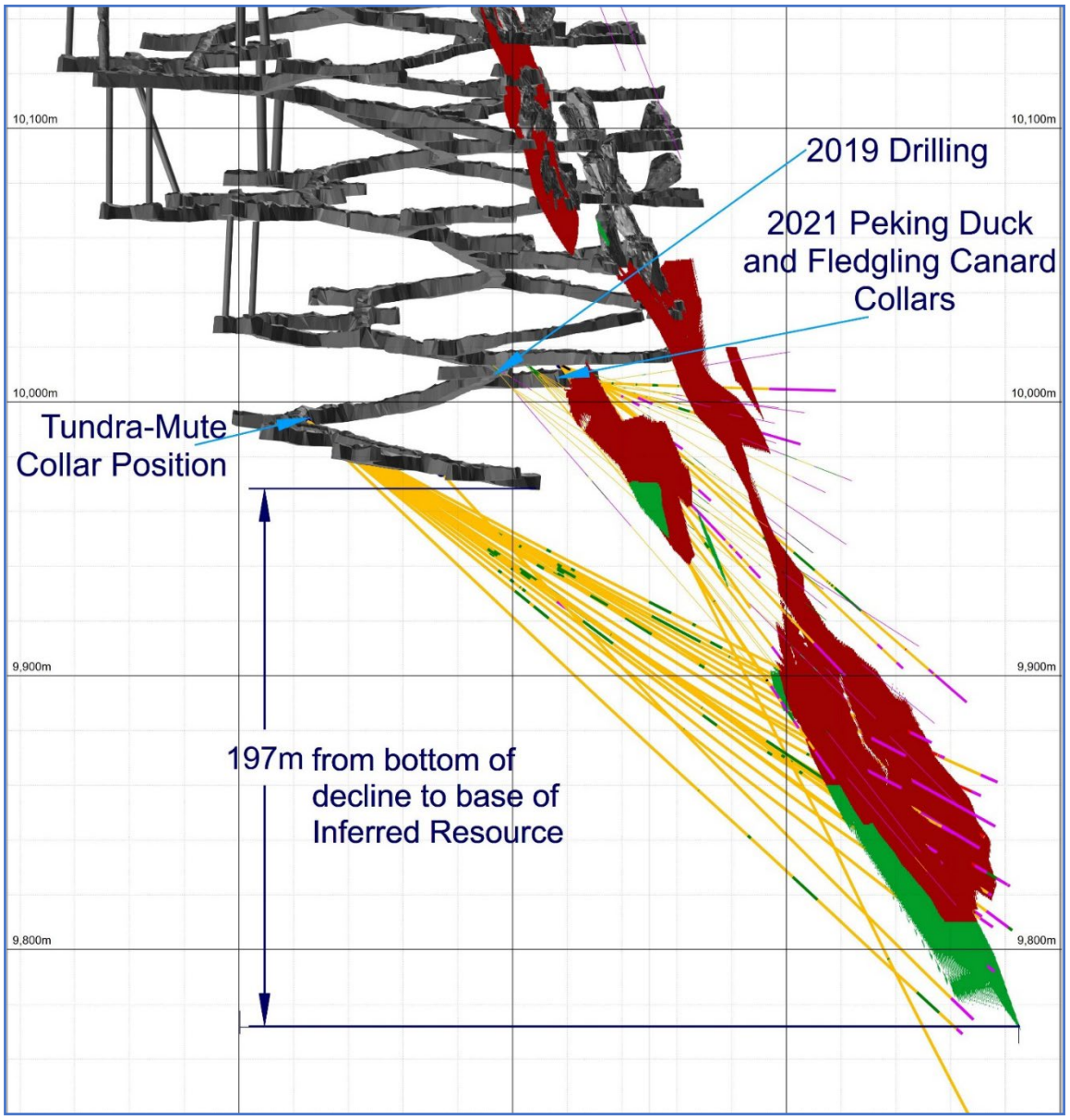


Figure 5 - Cross section looking North showing 2019 and 2021 program collar locations and improved drilling angles for 2021 Tundra-Mute program

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SAMPLING AND SUB-SAMPLING TECHNIQUES

The Silver Swan mineralisation was identified visually using the presence, texture and proportion of nickeliferous sulphide material, and lithology. Samples were divided into logged domains, with no individual sample being greater than 1.2m or less than 0.2m. Core samples are sawn and were sampled as half core, unless duplicates were taken, which required samples to be quarter core. All sampling was as diamond core. Certified Reference Material (CRM) standards and blank samples were submitted at nominal rate of 1 in 20 (achieved rate was 1 in 14 for the CRMs).

SAMPLE ANALYSIS METHOD

The pre-2020 assay data was generated by a range of techniques, predominantly x-ray fluorescence (XRF) or ICP-MS and ICP-OES. No details of the historical sample preparation are available; however, as noted, the previous mining successfully exploited the deposit for a number of years and hence there is confidence in the historical analytical data.

All Silver Swan core samples submitted for assay in 2021 were analysed by the ICP-OES method, which is a total analytical technique and considered appropriate for the style of mineralisation. For the 2021 drilling programme, samples were dispatched to SGS in Perth. Post sample receipt and drying, sample preparation consisted of crushing and pulverisation, followed by four acid digest. The SGS ICP-OES technique code was ICP41Q. Each sample was analysed for a total of eleven elements, including nickel, copper, cobalt, arsenic and sulphur.

ESTIMATION METHODOLOGY

Snowden Optiro prepared the interpretations primarily based upon the logged lithology (massive and semi-massive sulphide) in combination with the available geochemistry.

The interpretations were used to flag the samples, from which 1.0 m length-density weighted composites were created, which were used for estimation. Only arsenic required the use of top-cuts, primarily to restrict the impact of extreme grades. However, the top-cuts applied for arsenic were primarily to restrict the influence of the extreme values. As arsenic is a deleterious element, the top-cuts were kept relatively optimistic to minimise the risk of artificially lowering the expected arsenic for mine planning and scheduling purposes.

All boundaries were treated as hard for the purposes of estimation. Ordinary kriging (OK) was selected as the preferred estimation technique because of the low variance/CV, low nugget structures, and minimal skew exhibited in the respective grade distributions. Variography was prepared for all variables using the data from Tundra-Mute Domain 204 exclusively, as this was the only domain with a sufficient number of samples. A three-pass search strategy was used, with the first pass search ranges of 30m x 15m x 5m in the plane of the mineralisation. A parent block size of 2.0mE x 5mN x 5mRL was used.

CUT-OFF GRADE

The Mineral Resource was interpreted using the massive nickel sulphide texture and stratigraphic position of the mineralisation. The Mineral Resource has been reported using a cut-off grade (COG) of 1.0% nickel which reflects a nominal mining cut-off.

The grade distribution at 1% COG is shown in Figure 4.

MINERAL RESOURCE

Area	Silver Swan Resource - April 2022														
	Indicated					Inferred					Total				
	kt	Ni %	As ppm	Co ppm	Ni metal (t)	kt	Ni %	As ppm	Co ppm	Ni metal (t)	kt	Ni %	As ppm	Co ppm	Ni metal (t)
Tundra-Mute	99	8.7	2,990	1,720	8,625	6	5.9	1,500	770	370	105	8.6	2,900	1,660	8,995
Peking Duck	26	9.6	2,830	1,770	2,520	2	6.7	1,500	1,070	120	28	9.5	2,740	1,720	2,640
Fledgling-Canard	12	9.5	2,290	1,250	1,120						12	9.5	2,290	1,250	1,125
Goose	2	10.2	3,990	3,160	185						2	10.2	3,990	3,160	185
Total resource	**138**	**9**	**2,910**	**1,700**	**12,450**	**8**	**6**	**1,500**	**840**	**490**	**146**	**9.5**	**3,060**	**1,650**	**12,940**

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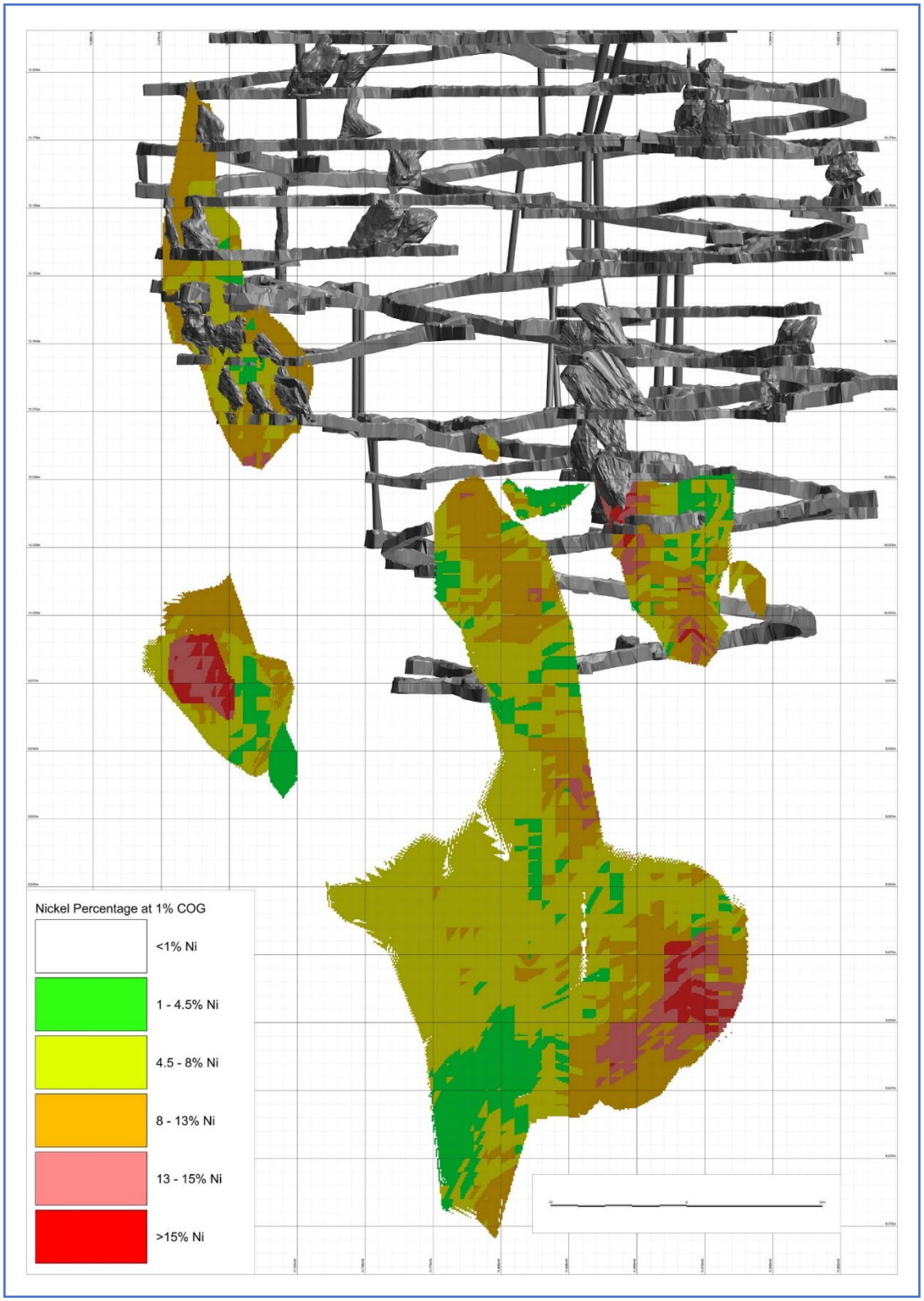


Figure 6: Silver Swan Ni grade distribution at 1% COG

RESOURCE CLASSIFICATION AND REASONABLE PROSPECTS OF EVENTUAL ECONOMIC EXTRACTION

The Mineral Resource has been classified into Indicated and Inferred categories following the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (the JORC Code). No Measured Mineral Resources have been defined. The classification criteria were assigned based on the robustness of the input data, the drillhole spacing, geological confidence and grade continuity. The classification reflects the Competent Person's views of the deposit.

The Indicated Mineral Resource is of a moderate confidence. These areas are considered to have a moderate to high confidence in the geological interpretation, are considered well informed and are supported by a nominal drill spacing less than 20mN x 20mRL, with suitable drillhole intersection angles, and where grade and geological continuity can be assumed.

The Inferred Mineral Resource is of a low confidence. These areas are considered to have a low or variable confidence in the geological interpretation, are considered poorly informed supported by a nominal drill spacing greater than 20mN x 20mRL, and/or with increasingly acute drillhole intersection angles, and where grade and geological continuity is implied but cannot be assumed.

Reasonable prospects for eventual economic extraction (RPEEE) have been demonstrated by the previous underground mining of the Cygnet, Gosling and Silver Swan orebodies, which are of comparable volumes and grade and at similar depths and are spatially adjacent to Golden Swan. RPEEE considerations meant that only hanging wall mineralisation adjacent to the contact mineralisation was considered a Mineral Resource. The current price of Nickel is not favourable for the economic extraction of the resource, however, the cyclical nature of metal prices has been demonstrated historically, so it is expected that there is a reasonable prospects for eventual economic extraction in the future.

The distribution of Indicated and Inferred resources at Silver Swan is shown in Figure 5.

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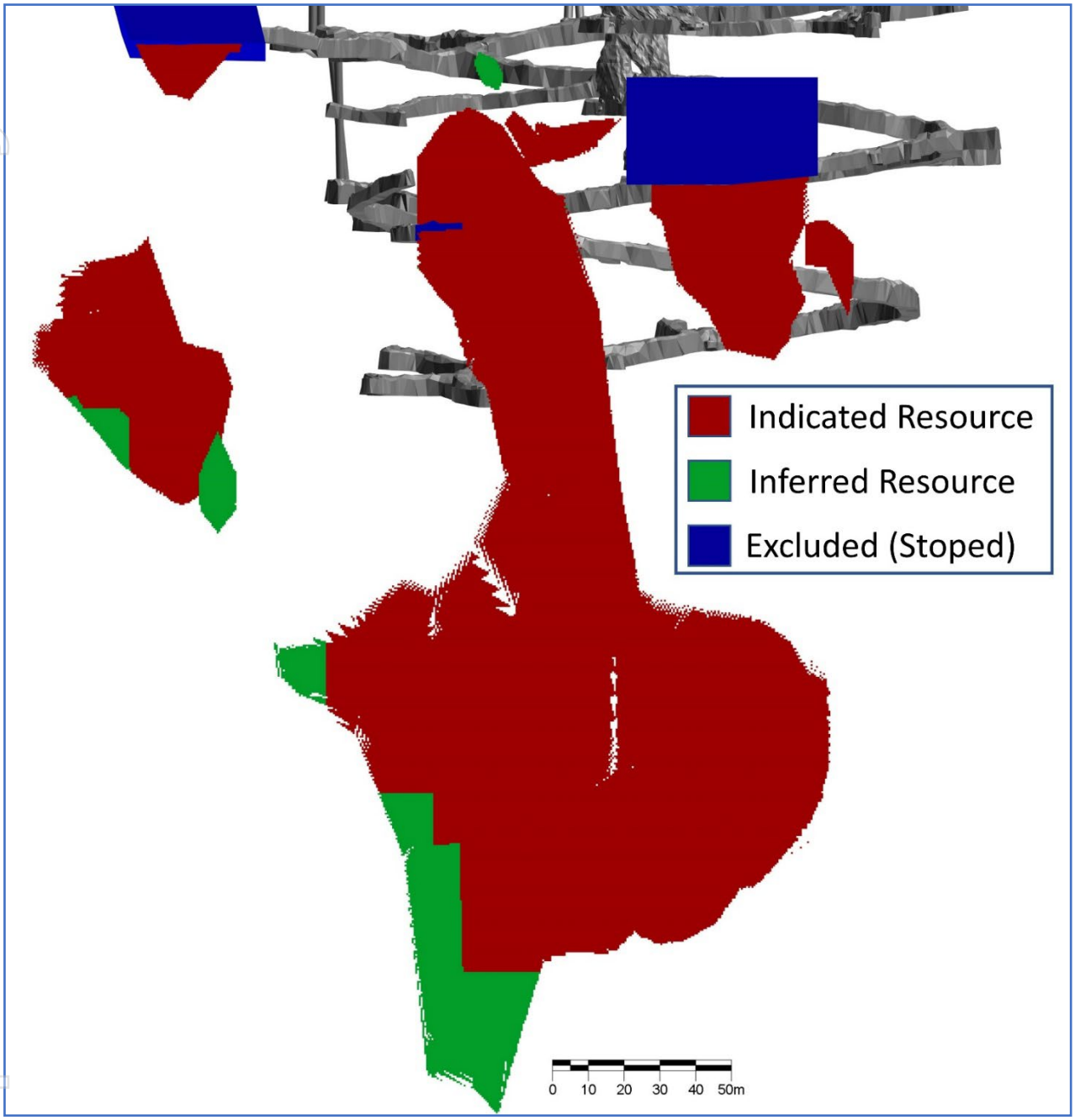


Figure 7: Silver Swan 2022 Resource Categories

COMPETENT PERSON'S STATEMENT

The information in this report that relates to Exploration Targeting and Results is based on, and fairly represents, information compiled and reviewed by Mr Andrew Pearce, who is an employee of Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

The information in this report which relates to the Silver Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Andrew Pearce, Exploration Manager, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and

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Mr Ian Glacken who is a full time employee of Snowden Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy.

Mr Pearce and Mr Glacken have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Pearce and Mr Glacken consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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Golden Swan

GEOLOGY

The Golden Swan nickel sulphide deposit is located within the Black Swan Komatiite complex, 450m south of the high-grade Silver Swan massive sulphide deposit. Mineral Resources at Golden Swan have been estimated for three contact (C10460, C10360 and C10300) and two hanging wall mineralised lenses (U10450 and U10370). The contact mineralisation which consists predominantly of massive to semi-massive sulphide, is developed on the contact between an underlying felsic volcanic unit referred to as the Southern Terrace and the overlying Black Swan komatiite (host to the Black Swan disseminated sulphide deposit). Within the overlying Black Swan komatiite succession, minor disseminated/blebby nickel sulphide lenses (hanging wall mineralisation) have been developed adjacent to two of the contact mineralisation lenses (Figure 1). The entire stratigraphy has been intruded by late-stage felsic porphyry dykes, none of which have been observed to date to impact the Golden Swan deposit.

The three contact mineralised lenses at Golden Swan strike north-south, dip steeply east to vertical, with highly variable horizontal widths between 2.0 to 3.6 m. The uppermost lens (C10460) develops approximately 880 m below surface and extends 50 m along strike and 40 m vertically. The second lens (C10360) develops approximately 960 m below surface and extends 70 m along strike and 85 m vertically. The third lens (C10300) commences 1,000 m) below surface and extends for 40 m along strike and 35 m vertically.

The hanging-wall mineralisation occurs as two discrete disseminated sulphides lenses (Figure 1), developed between approximately 0 to 10 m in the hanging-wall (to the east) of the C10460 and C10360 contact lenses. The upper hanging-wall lens (U10450) adjacent to the C10460 lens, commences 900 m below surface, is 65 m along strike, 35 m vertically and has 2.8 m average horizontal width, dipping steeply to the east. The lower hanging-wall lens adjacent to the C10360 lens commences 950 m below surface, is 110 m along strike, 100 m vertically and has 2.6 m horizontal width. The upper two-thirds of the lens dips steeply to the west, and the lower third flattens out with depth to a moderate easterly dip.

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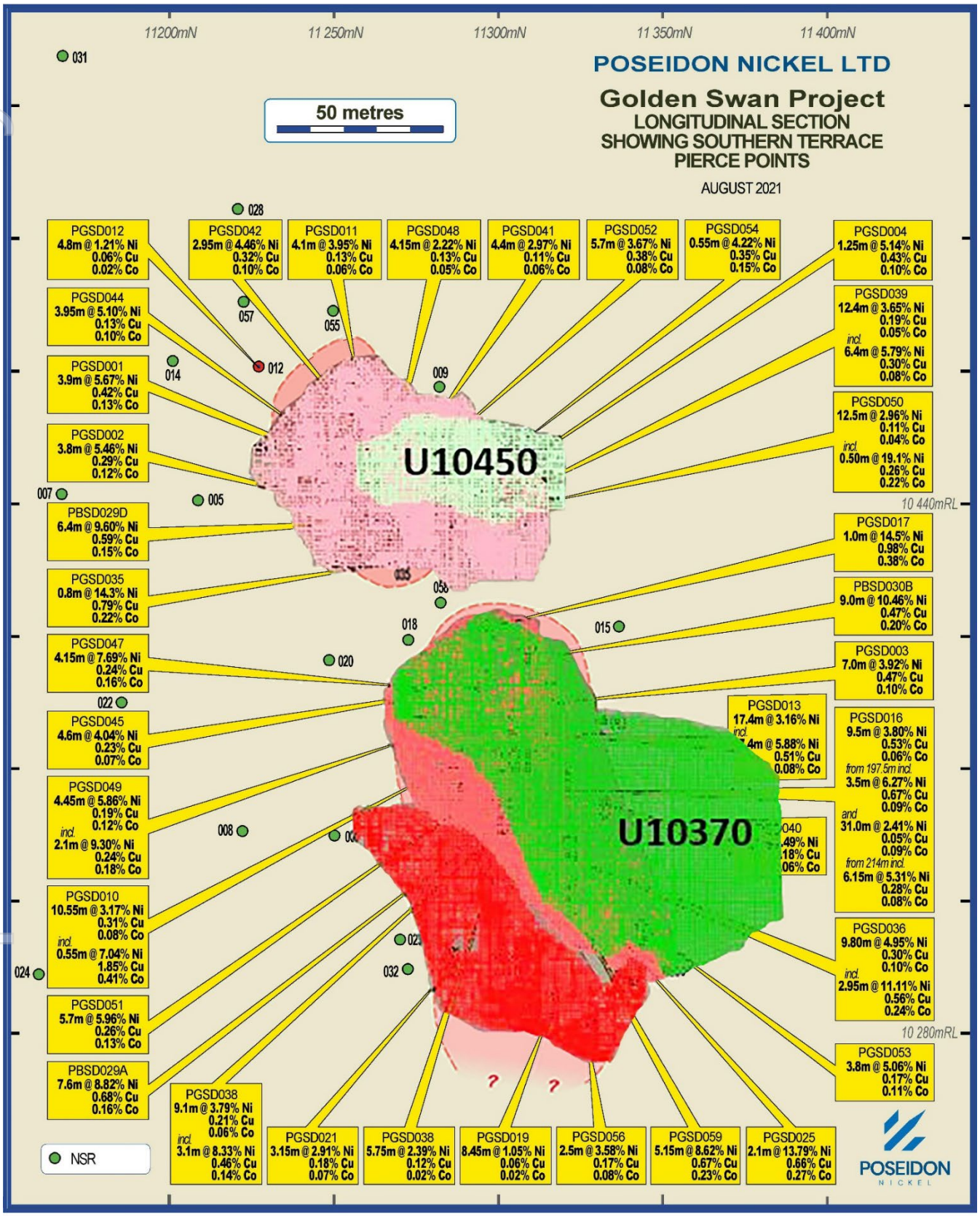


Figure 8 -Mineral Resource shapes overlying modelled shapes - Contact Mineralisation.

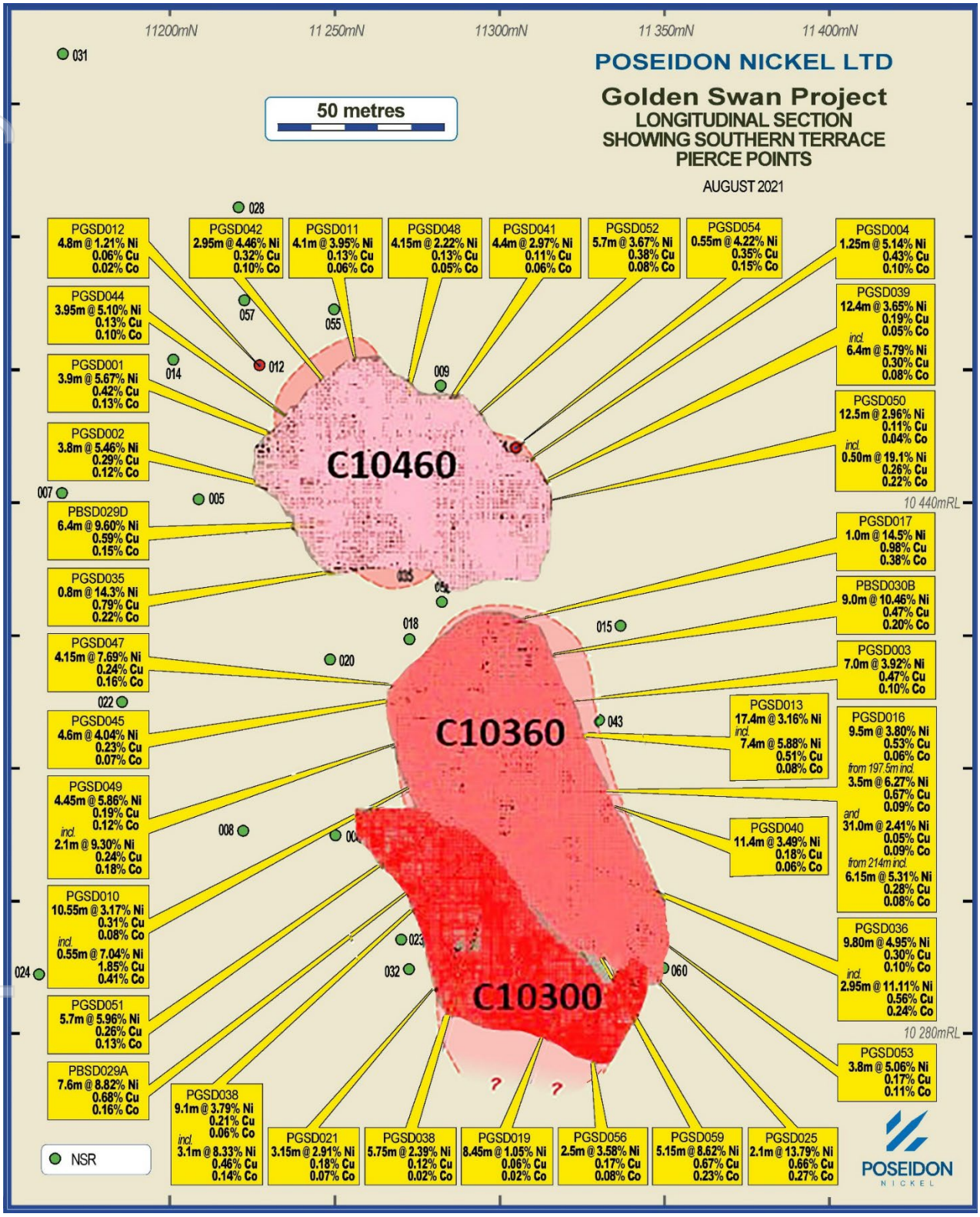


Figure 9 - Mineral Resource shapes overlying modelled shapes - Hangingwall mineralisation overlying Contact Mineralisation pods.

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The C10460 and C10360 lenses have a mix of massive/semi-massive and matrix/disseminated sulphide mineralisation. To constrain the two styles of mineralisation, a categorical indicator (CI) approach within the two lenses was implemented. This provided 3 dimensionally consistent sub-domains within each of the two lenses. The CI approach used a grade indicator of 5% sulphur, and a 50% probability threshold to differentiate massive/semi-massive and the matrix/disseminated mineralisation styles. The CI approach was not required for the C10300 lens as there was no mix of massive/semi-massive and matrix/disseminated style mineralisation.

ESTIMATION

Kriging neighbourhood analysis using the variography for the contact mineralisation was undertaken to optimise the parent block size, and a three-pass search strategy was employed for all domains. For the contact mineralisation the first estimation pass searched 65 m x 65 m x 7.5 m. The second search pass doubled the search distance, and the final search pass doubled the distance again. Passes one and two used between 6 and 20 samples, and the third pass used between 4 and 12 samples. Within the two contact lenses (C10460 and C1036) which were based upon the CI sub-domains, a restriction of 4 samples per drillhole was used. No such restriction was applied to the C10300 lens.

For the hanging-wall mineralisation the first estimation pass searched 32.5 m x 32.5 m x 7.5 m. The second search pass doubled the search distance, and the final search pass doubled the distance again. Passes one and two used between 6 and 20 samples, and the third pass used between 4 and 12 samples. No restriction on the number of samples per drillhole was used for the hanging-wall mineralisation.

Block grades for nickel, cobalt, copper, iron, magnesium oxide, sulphur, arsenic and measured density were estimated using Ordinary Kriging into mineralisation lenses, with lenses C10460 and C10360 using the CI sub-domains. All boundaries were treated as hard.

The Mineral Resource estimate has been validated both visually and statistically. For all estimated lenses, block model grades (domain and global) have been validated against the de-clustered and top-cut input composite grades. Swath plots in northing, easting and elevation directions were also examined, and a visual comparison of the input composite grades against the estimated block grades was completed in cross-section.

CLASSIFICATION

The Mineral Resource has been classified into Indicated and Inferred categories following the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (the JORC Code). No Measured Mineral Resources have been defined. The classification criteria were assigned based on the robustness of the input data, the drill hole spacing, geological confidence and grade continuity. The classification reflects the Competent Person's views of the deposit.

Reasonable prospects for eventual economic extraction (RPEEE) have been demonstrated by the previous underground mining at the Cygnet and Silver Swan prospects, which are of comparable

volumes and grade and at similar depths and are spatially adjacent to Golden Swan. RPEEE considerations meant that only hanging wall mineralisation adjacent to the contact mineralisation was considered a Mineral Resource. The current price of Nickel is not favourable for the economic extraction of the resource, however, the cyclical nature of metal prices has been demonstrated historically, so it is expected that there is a reasonable prospects for eventual economic extraction in the future.

Indicated Resources have been assigned to mineralisation domains where the drill hole spacing is well informed (spacing less than 25 m in northing and elevation), where the mineralisation correlates with the ultramafic stratigraphy (i.e. higher grades at the stratigraphic footwall with disseminated sulphides reducing away from the basal position), and where the grade and geological continuity can be assumed.

MINERAL RESOURCE

Type	DOM	Class	Volume m^3	Density t/m^3	Tonnes	Ni %	Co ppm	Cu %	Fe %	S %	MgO %	As ppm	Ni Tonnes
Contact	C10300	Indicated	5,443	3.04	16,566	1.74	411	0.09	11	4.1	20.3	467	288
		Inferred	348	2.96	1,031	1.82	332	0.08	9.6	3.7	16.6	351	19
		Ind + Inf	**5,791**	**3.04**	**17,597**	**1.74**	**406**	**0.09**	**10.9**	**4**	**20.1**	**460**	**306**
	C10360	Indicated	15,464	3.5	54,057	6.05	1,232	0.47	21.8	13.5	15.4	410	3,272
		Inferred	1,887	3.47	6,547	5.3	1,197	0.37	22.7	15.6	15.3	532	347
		Ind + Inf	**17,350**	**3.49**	**60,604**	**5.97**	**1,228**	**0.46**	**21.9**	**13.8**	**15.4**	**423**	**3,618**
	C10460	Indicated	12,615	3.25	41,001	4.02	705	0.24	15.7	8.3	20	321	1,649
		Inferred	379	3.25	1,231	3.85	691	0.19	15.7	7.9	19.3	435	47
		Ind + Inf	**12,994**	**3.25**	**42,232**	**4.02**	**704**	**0.24**	**15.7**	**8.3**	**20**	**324**	**1,696**
	Combined	**Indicated**	**33,521**	**3.33**	**111,624**	**4.67**	**916**	**0.33**	**17.94**	**10.2**	**17.8**	**386**	**5,208**
		Inferred	**2,614**	**3.37**	**8,809**	**4.69**	**1,025**	**0.31**	**20.19**	**13.1**	**16**	**497**	**413**
		Ind + Inf	**36,135**	**3.33**	**120,433**	**4.67**	**924**	**0.33**	**18.1**	**10.4**	**17.7**	**394**	**5,621**
H/W	U10370	Inferred	12,833	3.04	38,976	1.62	306	0.08	8	3.2	26.9	145	630
	U10450	Inferred	219	2.97	649	1.01	222	0.06	6.7	1.7	31	44	7
	Combined	**Inferred**	**13,052**	**3.04**	**39,625**	**1.61**	**305**	**0.08**	**8**	**3.2**	**26.9**	**143**	**636**
All		Indicated	33,521	3.33	111,624	4.67	916	0.33	17.9	10.2	17.8	386	5,208
		Inferred	15,666	3.09	48,434	2.17	436	0.12	10.2	5	25	208	1,049
		Ind + Inf	**49,187**	**3.25**	**160,058**	**3.91**	**771**	**0.27**	**15.6**	**8.6**	**20**	**332**	**6,257**

COMPETENT PERSON STATEMENTS

The information in this report that relates to Exploration Targeting and Results is based on, and fairly represents, information compiled and reviewed by Mr Andrew Pearce, who is an employee of Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

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The information in this report which relates to the Golden Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Andrew Pearce, Exploration Manager, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Ian Glacken who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy.

Mr Pearce and Mr Glacken have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Pearce and Mr Glacken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Silver Swan Tailings

MINERAL RESOURCE SUMMARY

The Company undertook a sonic drilling programme over the Silver Swan Tailings (SST) impoundment in 2018, with the aim of delineating a Mineral Resource for subsequent treatment. A Block Model was generated by the Company in 2018. In August 2021, Poseidon engaged Optiro Pty Ltd (Optiro) to review the Block Model, the drilling QAQC and carry out a site visit to the SST. The Block Model was validated against the drilling for the key elements and the QAQC data was processed.

Optiro endorsed the Block Model as being representative of the drilling and has reported and classified the tailings according to the JORC Code (2012) as a Measured Mineral Resource. The Mineral Resource estimate for the SST is documented in Table 1.

Table 1: Measured Resource tabulation of the Silver Swan Tailings

Zone	Tonnes	Ni%	Ni t	Cu%	Co ppm	Fe%	MgO%	As%	S%	Density
1	280,600	0.75	2,118	0.02	283	16.7	8.81	0.04	7.56	2.84
2	394,365	1.04	4,082	0.06	967	26.1	4.71	0.17	13.56	3.09
Total	**674,964**	**0.92**	**6,201**	**0.04**	**683**	**22.2**	**6.42**	**0.11**	**11.06**	**2.98**

Notes:

1. Due to the nature of tailings no reporting cut-off grade has been applied.
2. Mining of the tailings entails the removal of approximately 1m of high MgO and low nickel overburden as waste material.

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Introduction and data collection

Poseidon carried out a resource definition drilling programme of Cell 1 of the Silver Swan Tailings, located at the Black Swan mine site, approximately 50 km north of Kalgoorlie. The programme was carried out in early 2018 using sonic drilling on an approximate offset 40 m by 40 m drilling pattern (Figure 1). The programme comprised 57 vertical holes, of which 12 were drilled for metallurgical testing and were not assayed. Details of the hole collars and depths are presented in Appendix A. The holes were drilled with a sonic rig (Figure 2 (left)). Sonic drilling is ideally suited to tailings evaluation as there is no injection of water or other drilling fluids and no use of compressed air to disturb the tailings. The rig generates a solid tube of tailings which is collected in a plastic sleeve (Figure 2 (right)). The sleeve helps to retain moisture for subsequent determinations. Typically, half 'core' is submitted for assay using conventional XRF with a fused borate disk.

Quality Assurance/Quality Control (QAQC) and assaying

QAQC was carried out on the drilling. This included the insertion of standards (Certified Reference Materials, or CRMs) in the resource definition samples. The standards were inserted at a rate approximating one in ten, which is above industry levels. The Competent Person reviewed the performance of the CRMs for nickel and notes that all the standards for nickel assay are within one standard deviation of the certified value. While there is either a consistent high or low bias associated with each of the seven CRMs used, this is not significant.

The other QAQC tool applied was the use of pulp duplicates with 12 duplicates, an insertion rate of 4.5%, which is at expected industry levels. Analysis of the duplicate nickel values by the Competent Person shows excellent precision. It is noted that analysis of the second half of the sonic 'core' would have produced a much better test of the sample preparation.

Sample preparation and assaying was carried out by Bureau Veritas in Perth, using XRF of a fused disk. The following analytes were assayed by XRF:

Al_2O_3, As, CaO, Cu, Fe, MgO, MnO, Ni, S, SiO_2. Silver (Ag) and cobalt (Co) were determined by Laser Ablation Inductively Coupled Spectrometry.

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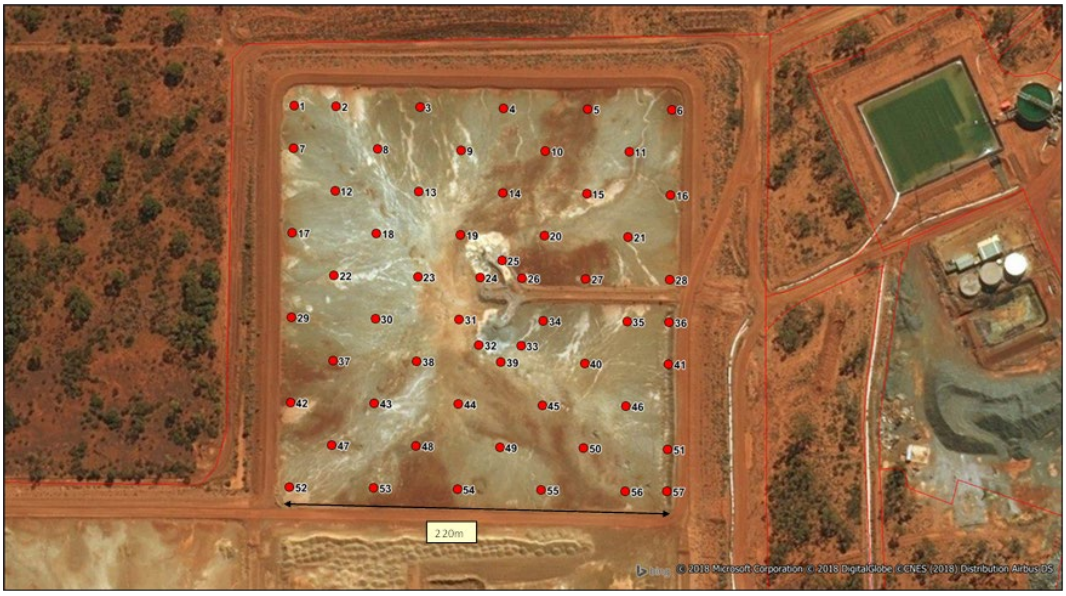


Figure 1: Plan view of 2018 sonic drilling showing collars for resource definition and metallurgical holes



Figure 2: Sonic rig drilling on SST dam (left) and example of sonic 'core' (right)

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Moisture and specific gravity determination

Poseidon carried out moisture determinations for the resource definition samples onsite at the Black Swan mine. This involved bagging the half 'core' samples as soon as possible after drilling and logging, weighing them, and then drying in a small temperature-controlled oven. The weight after drying was recorded and the moisture content determined by calculating the difference of the wet and dry weights as a proportion of the wet weight. Moisture contents of the resource definition samples varied between 4% and 18% with an average of 10% (93 readings). The metallurgical samples, which were analysed by ALS, also had moisture determined, using the same approach. The metallurgical moisture samples (75) had values between 1% and 24.8%, with an average of 11.4%. While the metallurgical moisture determinations are both higher on average and more variable, the difference is not believed to be material, and both sets of measurements have been interpolated into the block model.

Dry in-situ specific gravity (SG), or bulk density determinations, were carried out by ALS on the metallurgical samples. 5-10 cm sections of each metre of 'core' were taken for SG determinations. 73 measurements were taken, with an average of 3.16 t/m^3. The material from Silver Swan, which was treated to generate the tailings, was largely massive sulphide, with an in-situ rock density well over 4 t/m^3. In the model, the in-situ SG (the dry bulk density) was derived by adjusting the measured SG by the interpolated moisture content.

Details of Mineral Resource Estimate

The Silver Swan Tailings dam was divided into three zones based on the chemistry of the drilling samples. These zones are shown in a typical cross-section through the block model in Figure 3. The top zone, called Zone 3, represents the top metre (approximately) of the tailings. The samples in Zone 3 are characterised by relatively high MgO, low Fe, low Ni and S and low Co and reflect partially the results of surface oxidation and partly a lower-grade feed source. Zone 1, below the surface zone, has samples with moderate nickel, lower Fe, and lower Co, and reflects tailings from the Silver Swan orebody, but with relatively high nickel recovery (hence lower tailings grade). The lowest zone, which contains just under half the total tonnage, also represents tailings from the higher grade, massive sulphide portions of Silver Swan and is characterised by high Ni, Co and Fe, and very low MgO. Zone 2 reflects lower metallurgical recoveries during the earlier part of mining at Silver Swan, and has a small, oxidized layer at its top, reflecting a pause in tailings deposition. These different levels of nickel recovery and ore type are reflected in the in-situ SG measurements, with the top (Zone 3) layer having the lowest average density and the bottom (Zone 2) layer having the highest average density.

The block model was generated using Surpac software, with a parent block size of 12.5 mN by 12.5 mE by 1 m RL, with sub-celling to a factor of eight for volume filling. Separate solids were defined for each of the three estimation zones with sub-celling on the zone boundaries.

Estimation, using an inverse distance squared interpolator, was carried out from the composited sample data for Ni, Cu, Co, As, MgO, Fe, S, Al_2O_3, CaO, MnO, SiO_2, moisture, and in situ (dry) SG. A perspective view of the block model is given as Figure 4, which also shows the resource definition

samples and the metallurgical holes. Top cuts were only applied to two variables: cobalt in Zone 1(at a level of 500 ppm, affecting 3 samples) and SG (at a level of 3.8 t/m^3, affecting one sample).

The Competent Person carried out validation of the block model against the informing drill-hole samples for the key variables of interest (Ni, Cu, As, MgO, moisture and in situ SG) by domain, both on a whole-of-domain basis and as profile (swath) plots. In all cases there was less than 5% difference between the composited sample grades and the block model grades, indicating good reproduction in the model. Figure 5 is an example of a slice validation for Ni% in Zone 2, comparing 20 m slices in the E-W direction with the average grades from the drill-holes in the same slice. For this domain the overall nickel block model grade is 1.04% Ni and the average sample grade 1.05% Ni.

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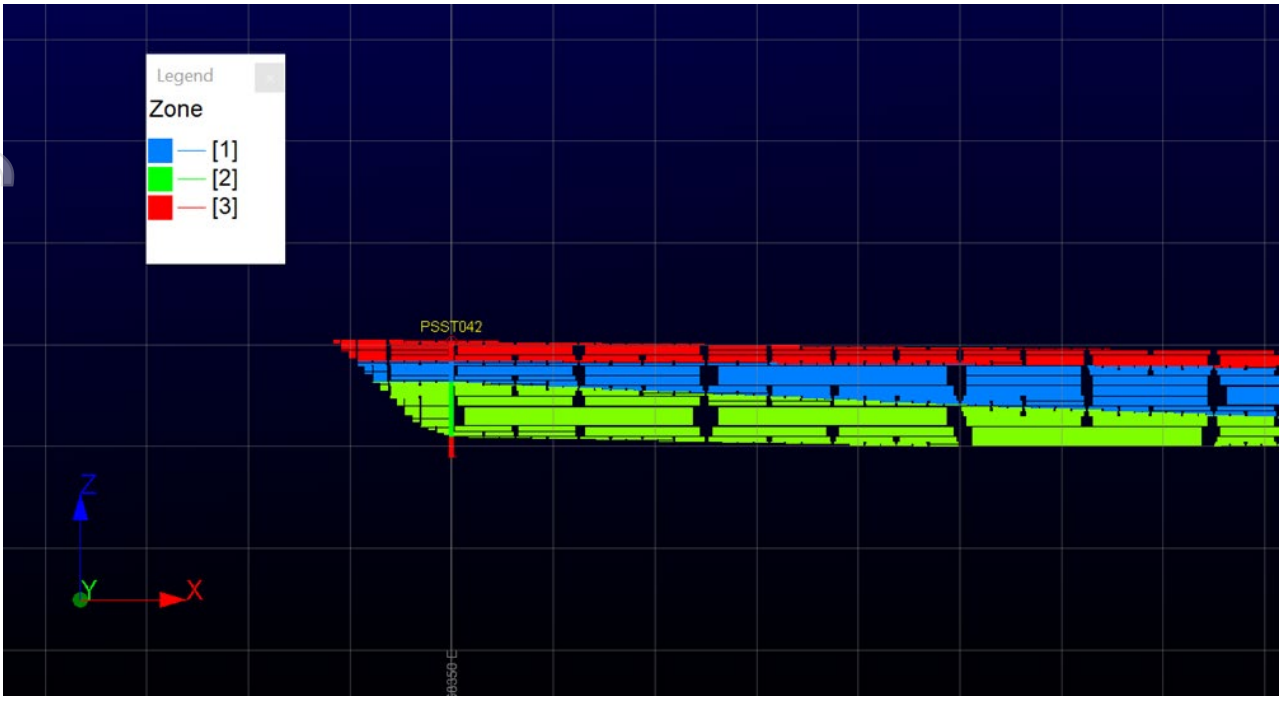


Figure 3: East-west section, looking north, showing the three estimation zones (grid squares are 5 m)

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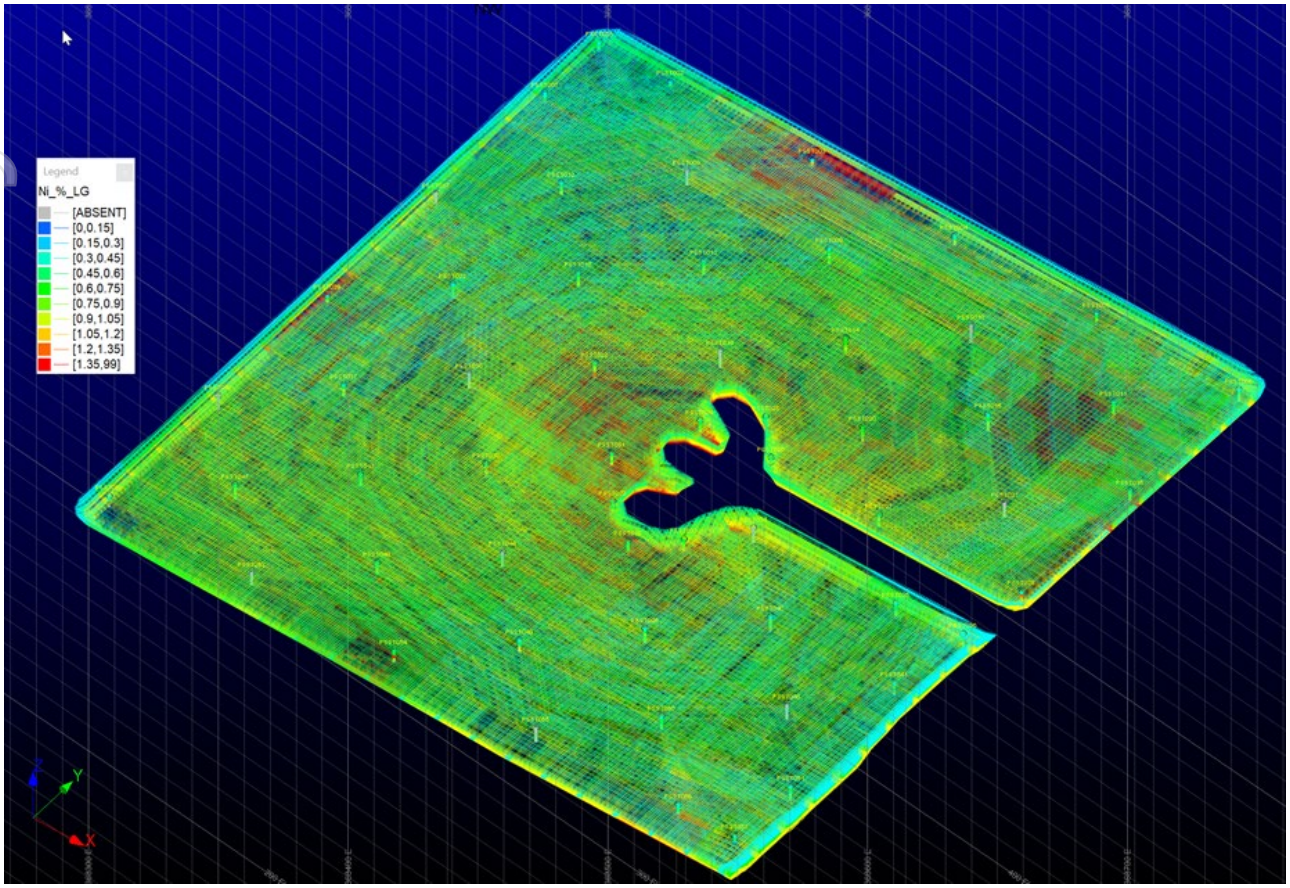


Figure 4: Block model view, looking northwest, coloured on estimated nickel grade together with drilling

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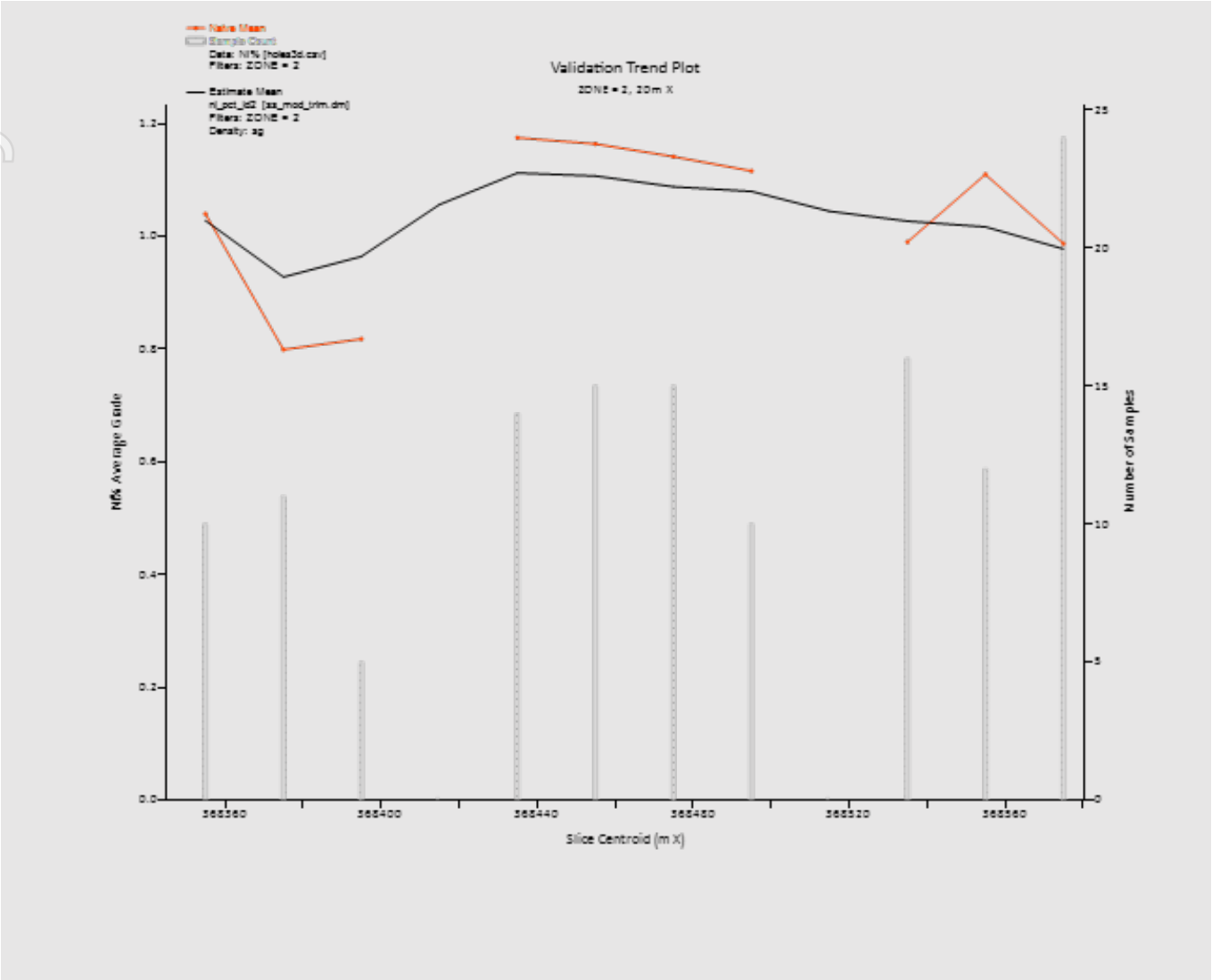


Figure 5: Example of slice (swath) validation for Ni in Zone 2, comparing sample and block grades by 25 m increment in the E-W direction

Reasonable Prospects of Eventual Economic Extraction (RPEEE)

Poseidon is considering removing the top zone of the SST (Zone 3), which is approximately 1 m in thickness, since it is much higher in MgO content, with an average grade of 19%, with a low nickel grade (0.4%). Importantly, the Fe:MgO ratio in-situ is low at 0.5:1. Once this top metre has been removed, the underlying material has an Fe:MgO ratio in-situ such that it can be blended in with fresh material to be mined from the Black Swan pit, material from the recommencement of mining in the lower levels of Silver Swan and potentially with material from Poseidon's Golden Swan mineralisation, which has yet to have a declared Mineral Resource.

Along with the sonic resource definition drilling carried out in 2018, Poseidon generated four composites from the 12 metallurgical holes drilled at the same time. The metallurgical composites were selected to represent the four quadrants of the SST dam to assess any potential for variability

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in the flotation test results. The flotation testwork, carried out by ALS in Perth in 2018, demonstrated an approximate nickel recovery of around 48% to a rougher flotation concentrate, with excellent repeatability in the results between the metallurgical composites. Importantly, the iron to MgO (Fe:MgO) ratio in the rougher flotation concentrate was 10:1, which is due to the high iron and low MgO in Zones 1 and 2 of the tailings. The detailed mineralogy completed at ALS in 2018 confirmed the flotation of pyrrhotite and pyrite (iron sulphides), along with nickel sulphide (primarily as pentlandite) while the majority of the MgO was rejected to the flotation tailings.

Poseidon intends to 'co-process' (blend) the SST (at a relatively low proportion) with the higher MgO Black Swan disseminated material to increase the Fe:MgO ratio in the final combined flotation concentrate. Given the relatively low cost of recovering the tailings, noting the SST are already at the required grind size for flotation, and the relatively low cost to reclaim and transport the SST to the plant (only 300m), there are Reasonable Prospects of Eventual Economic Extraction, allowing the SST to be classified as a Mineral Resource according to the guidelines of the JORC Code (2012).

Classification and reporting

The resource definition drilling is on an approximate 40m offset grid spacing. Preliminary variography carried out by the Competent Person for nickel in Zone 2 indicates isotropic continuity in the horizontal plane with ranges of around 100m, i.e., more than twice the nominal drill spacing. Given the good QAQC (precision and accuracy) in the data and the excellent validation between the model and the informing samples, the Competent Person is satisfied to classify Zones 1 and 2 of the SST as a Measured Resource under the JORC Code guidelines.

The resource tabulation is presented below in Table 2. Given the nature of the tailings no reporting cut-off grade has been applied.

Table 2: Measured Resource tabulation of the Silver Swan Tailings at zero nickel cut-off grade

Zone	Tonnes	Ni%	Ni t	Cu%	Co ppm	Fe%	MgO%	As%	S%	Density
1	280,600	0.75	2,118	0.02	283	16.7	8.81	0.04	7.56	2.84
2	394,365	1.04	4,082	0.06	967	26.1	4.71	0.17	13.56	3.09
Total	**674,964**	**0.92**	**6,201**	**0.04**	**683**	**22.2**	**6.42**	**0.11**	**11.06**	**2.98**

Notes::

1. Due to the nature of tailings no reporting cut-off grade has been applied.
2. Mining of the tailings entails the removal of approximately 1m of high MgO and low nickel overburden as waste material.

COMPETENT PERSON'S STATEMENTS:

The information in this report that relates to the Silver Swan Tailings Mineral Resource is based on, and fairly represents information complied by Mr Ian Glacken, who is a full-time employee of Optiro Pty Ltd, an independent consultant to Poseidon Nickel Ltd

The information in this report that relates to Golden Swan Exploration Targeting and Results is based on, and fairly represents, information compiled and reviewed by Mr Andrew Pearce, who is an employee of Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

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

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

Mr Pearce, Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan all have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan have consented to the inclusion in the report of the matters based on their information in the form and context in which it appears.

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Lake Johnston Project

Maggie Hayes

LAKE JOHNSTON MINERAL RESOURCE ESTIMATION

Following the completion of the Lake Johnston Project acquisition from OJSC MMC Norilsk Nickel ("Norilsk Nickel") in November 2014, Poseidon announced an initial JORC 2012 compliant resource statement. Poseidon engaged Golder Associates Pty Ltd (Golder) to re-estimate and update the Maggie Hays Mineral Resource as Golder had carried out the previous estimate as well as previous reviews of historical resource estimation work for Norilsk Nickel. Accordingly, Golder was familiar with the drill database and previous resource work.

The Mineral Resource was classified in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The classification was based principally on geological confidence, drill hole spacing and grade continuity from available drilling data and underground mapping. Golder has consented to the release of the attached Mineral Resource statement (Table 1) and Attachment A as required under the JORC Code, 2012 Edition.

The Maggie Hays Mineral Resource has been reported at a 0% nickel cut-off grade for massive sulphide domains, with a 0.8% nickel cut-off grade applied for disseminated domains to best reflect the potentially economic mineralisation within the Mineral Resource. For mine planning purposes, ore loss and dilution should be considered.

MAGGIE HAYS RESOURCE ASSUMPTIONS AND METHODOLOGY

The Maggie Hays Mineral Resource estimate is shown in Table 1 and has been classified and reported in accordance with the JORC Code, 2012 Edition guidelines. The Mineral Resource has been estimated using Ordinary Kriging, taking into account the following criteria:

- A selection of available drilling data as of 6 February 2015 was used for the Mineral Resource estimate. The data was restricted to drill holes that were of high confidence in position, and intersected mineralisation at appropriate angles. The drilling data was collected over several decades by numerous operating companies. Recent corrections by POS have been made to the database to correct the spatial positioning of holes that had previously been deemed as inaccurate. Therefore this resource update includes samples that previous estimates excluded.
- Statistical and geostatistical analyses were carried out on drilling data composited to 2m downhole intervals for disseminated ore and host rock domains. Drilling data was composited to 1 m downhole intervals for narrow, massive, sulphide mineralisation. The analyses included variography to model the spatial continuity of the grades within each domain.
- The Ordinary Kriging interpolation method was used for the estimation of Ni, As, Co, Cu, Fe, MgO and S using variogram parameters defined from the geostatistical analysis. Estimates

of components other than Ni are not as reliable due to missing and unassayed sample intervals, hence the Mineral Resource relates to Ni mineralisation only.

- Mineral Resource classification was based principally on geological confidence, drill hole spacing and grade continuity from available drilling data and underground mapping.

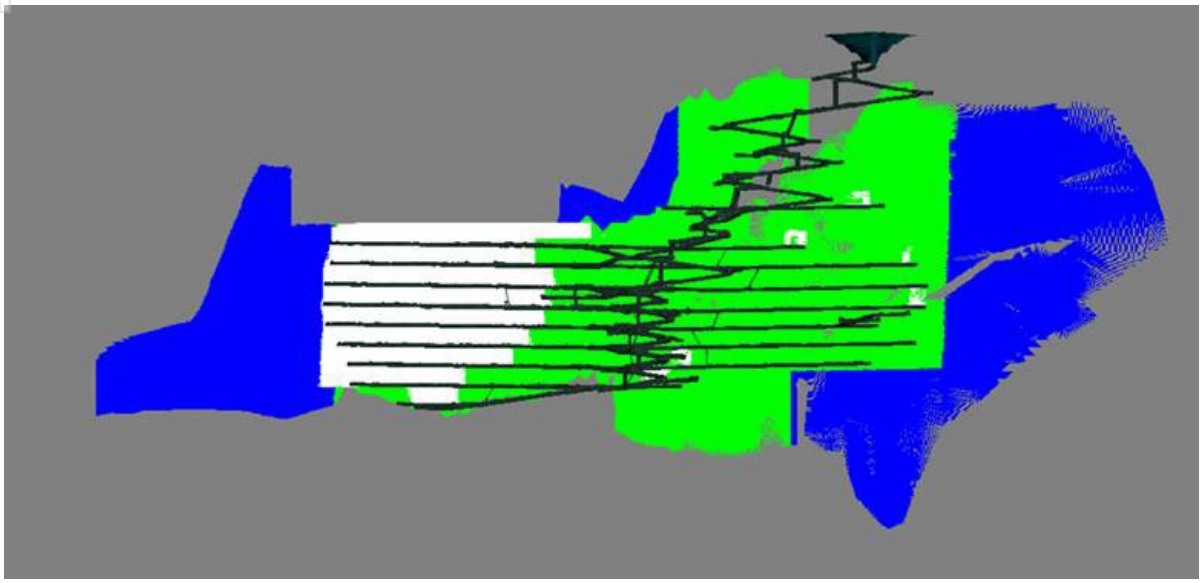


Figure 10 - Maggie Hays Long-Section (Looking West), location of JORC Resources (green=Indicated, blue=Inferred), existing mining infrastructure (black) and mined out stope blocks (white)

GEOLOGY AND GEOLOGICAL INTERPRETATION

The Maggie Hays deposit is located approximately 500km east of Perth in the Southern Cross Province in the Archean Yilgarn Craton. Mineralisation is hosted in intrusive ultramafic rocks of the Lake Johnston Greenstone Belt. Disseminated and massive sulphides are hosted by the Central Ultramafic Unit, and massive and stringer sulphides by felsic volcanic rocks.

Maggie Hays, along with the Emily Ann deposit, form the Lake Johnston Operation (LJO).

Golder created sections through the disseminated mineralisation wireframes that were developed during the period the mine was in operation. The sections were then re-interpreted and snapped to drill holes using assay grades and lithological logging as a guide.

The North Shoot mineralisation was re-interpreted by Poseidon using the updated survey information for drill holes and utilising the corrected underground face mapping positioning. Poseidon interpreted the North Shoot to be a single unit of massive sulphide containing some splayed lenses. Due to the re-positioning of drill holes and face mapping from updated survey information, North Shoot mineralisation is considered of higher confidence than in previous estimates. In these areas, where drill hole information and development drive face mapping exist, the resource category status was updated to Indicated. Areas of the North Shoot where drilling is still wide-spaced and no development drives exist; these areas retained their Inferred resource category status.

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Another massive sulphide mineralisation zone was also modelled by Poseidon south of the North Shoot in an area known as the Suture Zone. The sections were interpreted and snapped to drill holes using assay grades and lithological logging as a guide.

The geological interpretation is validated by drilling, underground chip sampling, geological mapping and mining activity.

SAMPLING AND SUB-SAMPLING TECHNIQUES

Diamond drill core and reverse circulation (RC) drilling were used to obtain samples. Diamond core has been split on lithological contacts for sampling purposes. Sampling protocols are not known for individual campaigns of drilling, however historical reports refer to a combination of quarter, half and whole core analysis. Sampling technique documentation has not been sighted by Golder, but it is recorded in the drilling database that sampled core includes quarter, half and full core sampling. Poseidon re-sampling included quarter and half core analysis.

DRILLING TECHNIQUES

Poseidon supplied Golder with an Access Database and Golder created a drill hole database for use in the resource estimate. The database includes 1092 drill holes, which comprise of diamond drilling core and RC chip sampling. The estimation utilised only those holes of sufficient confidence, therefore 989 drill holes were used for estimation purposes. The database was compiled using information outlined in previous estimation work by McDonald Speijers, which identified the provenance of drill holes and the likely accuracy, and utilising updated survey information checked and updated by Poseidon. It is not known if core was oriented.

SAMPLE ANALYSIS METHOD

Assays are by four acid digest and OES finish method and four acid digest with AAS finish.

CRITERIA USED FOR CLASSIFICATION

Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

The classification of Mineral Resources was completed by Golder based on geological confidence, drill hole spacing and grade continuity. The Competent Person is satisfied that the result appropriately reflects his view of the deposit.

Continuous zones meeting the following criteria were used to define the resource class:

<u>Indicated Resource</u>

- Two or more drill holes no further than 40 m apart confirming grade continuity.
- Underground development and mapping confirming the relative positioning of the mineralised domains

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Inferred Resource

- Single drill holes or large spatial separation between drill holes (more than 40 m).

ESTIMATION METHODOLOGY

Mineralisation was estimated within domains defined by lithological and assay information. Statistical analysis of sample data in the composite file was used for estimation purposes. The block size is 5 m (X) by 10 m (Y) by 5 m (Z). The sub-block size is 0.625 m (X) by 1.25 m (Y) by 0.625 m (Z) to achieve acceptable resolution of geological domains.

Using parameters derived from the modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades for Ni, As, Cu, Co, Fe, MgO and S. The estimation was conducted in three passes for Ni with the search size increasing for each pass. In some domains, where blocks had not been filled after three passes, a fourth pass was used to fill the remaining blocks. Estimation for the remaining components was estimated in two passes. If blocks were still not filled after the second pass, then a default around the average grade was applied. These secondary components are not included in the Mineral Resource. All grade estimates were made to the parent cell size. The model was validated visually and statistically using swath plots and comparisons to sample statistics.

Areas of depleted mine workings were removed from the model in order to yield the final Mineral Resources.

CUT-OFF GRADE AND BASIS FOR SELECTED CUT-OFF GRADE

No high-grade cuts were applied by Golder in the estimation of Ni grades, but spatial constraining was used to limit the influence of high grade sample intersections in “waste” domains to prevent excessive extrapolation of ore grade mineralisation. Reporting at cut-off grades of 0.8% Ni for disseminated mineralisation is consistent with previous analysis of breakeven cut-off grades. Massive sulphides form distinct units where application of cut-off grade is not appropriate.

MINING AND METALLURGICAL METHODS, PARAMETERS AND OTHER MATERIAL MODIFYING FACTORS

Golder assumed any future mining would likely continue with sub-level caving of disseminated mineralisation and a form of stoping for North Shoot massive sulphides.

The block model uses a parent cell size of 5 m (X) by 10 m (Y) by 5 m (Z), Sub-block size is 0.625 m (X) by 1.25 m (Y) by 0.625 m (Z). These were primarily determined by data availability and the dimensions of the mineralisation. As grade estimates were made to the parent cell size, this defines the effective selectivity of the Mineral Resource estimate.

The extent of the existing mining voids was based on surveyor’s pickups of the southern sub-level cave and North Shoot stopes. The most conservative approach was taken, with the greatest extent of the sub-level cave depleted in the model.

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MINERAL RESOURCE

Table 2 - Lake Johnston Mineral Resource as at 20th February 2015 (using 0% nickel cut-off grade for massive sulphide domains, with a 0.8% nickel cut-off grade applied for disseminated domains)

Nickel Sulphide Resources	Cut Off Grade	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
LAKE JOHNSTON PROJECT										
Maggie Hays- North Shoot	0.80%	800	1.86	14,700	400	1.31	5,900	1,200	1.66	20,600
Maggie Hays- SLC Disseminated	0.80%	100	1.36	800	400	1.02	4,200	500	1.06	5,000
Maggie Hays- SLC Massive	0.00%	100	3.82	3,800	-	-	-	100	3.82	3,800
Maggie Hays- Suture Zone Disseminated	0.80%	1500	1.13	16,900	-	-	-	1,500	1.13	16,900
Maggie Hays- Suture Zone Massive	0.00%	200	3.27	5,700	-	-	-	200	3.27	5,700
TOTAL										
Total Ni Resources	**~0.8%**	**2,600**	**1.6**	**41,900**	**900**	**1.17**	**10,100**	**3,500**	**1.49**	**52,000**

OTHER INFORMATION

The Lake Johnston concentrator has a capacity of approximately 1.5 Mtpa based on historically demonstrated mill capacity. The concentrator was shutdown in April 2013 by Norilsk before being placed into care and maintenance. Poseidon Nickel is planning to operate the concentrator at approximately 1.0 Mtpa throughput rates with ore supplied initially from Maggie Hays underground operations, the disseminated caved ore, North zone and potentially the suture zone. The plant will be refurbished and minor modifications to the flowsheet and reagents will be made to allow for the reduced throughput. A scope and cost for this refurbishment has been generated as part of the Study.

The plant is an existing and proven concentrator with a demonstrated capacity to process nickel sulphide ores from Maggies Hays and Emily Anne. The metallurgical process is conventional, well understood and has many years of operational experience to support the flotation response of the Lake Johnston pentlandite and millerite ore. An assessment of the concentrate produced at Lake Johnston confirmed that a quality smeltable highly sort after concentrate was typically produced with no expected penalties.

The site has a large number of approvals issued under the Mining Act and Environmental Protection Act. Approvals remain current for the project and can be transferred to Poseidon as part of the change in ownership. Environmental impacts were assessed as part of obtaining the above approvals. No significant impacts are considered to result from the project. Geochemical characterisation studies have been conducted on Lake Johnston waste rock and tailings. Lake Johnston waste rock and tailings were both determined to be Potentially Acid Forming (PAF) similar to Windarra.

Project land disturbance appears to be within approved amounts. No additional land disturbance beyond approved amounts will be required for waste rock and tailings management. Works for the tailings storage facility tails lift were commenced prior to the project being placed on care and maintenance. These works were not completed and, as such, certification of the works by the Department of Environment Regulation (DER) could not be obtained. The Works Approval authorising construction of the 4 metre tailings embankment raise has since been resubmitted to the regulator.

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COMPETENT PERSON'S STATEMENT

The information in this report which relates to the Maggie Hays Mineral Resource is based on information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd, and Member of the Australasian Institute of Mining and Metallurgy. Andrew Weeks has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012).

Windarra Project

Mt Windarra

MT WINDARRA RESOURCE ASSUMPTIONS AND METHODOLOGY

The Mt Windarra Mineral Resource estimate is shown in Table 1 and has been classified and reported in accordance with the JORC 2012 guidelines. The Mineral Resource has been estimated using Ordinary Kriging, taking into account the following criteria:

- The drillhole database was supplied in Microsoft Access format which included collar, survey, assay and geology tables, as of 25 February 2014. The database was reviewed by Optiro to ensure validity and was deemed adequate to support the resource estimate which was carried out in Surpac. A total of 166 holes were used in the estimate.
- Mineralisation envelopes were supplied as Surpac wireframe models. These were constructed by Poseidon using a cut-off grade of 0.75% nickel for shoots A, B, C, F, G and H and a cut-off grade of 0.45% for shoot D (Figure 1). Optiro ensured that all the mineralisation wireframes were snapped to the drillholes and that all of the mineralisation was captured.
- All other development, mining, stope and geology wireframes used in the coding of the block model were supplied (Figure 1).
- Information was also utilised from previous studies completed by Optiro at the Windarra Nickel Project.
- A QAQC data review was undertaken by Maxwell Geoservices, with no major issues identified with the data. Minor standard and blank switches were identified in the laboratory data which requires follow-up and regular monitoring by Poseidon personnel.
- Compositing was undertaken to 1m lengths and a multi-element analysis completed to determine the correlations between nickel and other elements. In domains with insufficient numbers of composites and where a strong correlation existed between nickel and the minor elements, the nickel variograms were used to estimate the minor elements.

- The resource estimation was undertaken in Surpac software using Ordinary Kriging, and classified according to JORC 2012.
- Optiro also completed a multi-element ordinary kriged estimate for several ore shoots at Mt Windarra. Previous multi-element resource estimates undertaken by Optiro had limited data available for the estimation of the minor elements (cobalt, arsenic, magnesium oxide, iron, and sulphur).

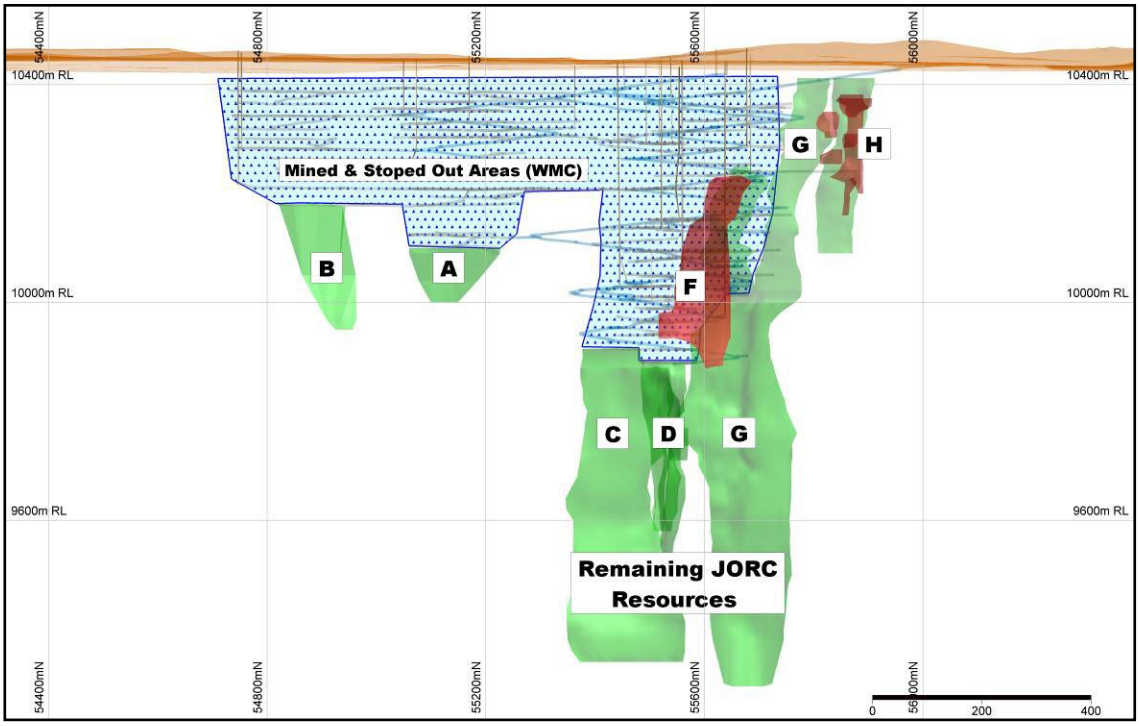


Figure 11 - Mt Windarra Long-Section (Looking West) showing Location of JORC Resources and Existing Mining Infrastructure

Recent drilling undertaken by Poseidon has been analysed for a full suite of multi-elements, providing Optiro with more data for estimation. Optiro recommends that Poseidon continues to analyse all new samples for a full multi-element suite, thereby continuing to increase the minor element dataset available for estimation.

GEOLOGY AND GEOLOGICAL INTERPRETATION

The Windarra region forms part of the Mt Margaret Goldfield. Mafic and ultramafics, metavolcanics and intrusives form important members of the Windarra greenstone belt. A major granitoid pluton has intruded the stratigraphy and has locally stoped out the main BIF. Mafic-ultramafic and BIF xenoliths thought to be stratigraphically equivalent to the Windarra sequence occur within the granites in the region.

Bedrock consists of granite or granite gneiss, enclosed by north to northwest trending belts of metavolcanics, metasediments and intrusive rocks. Mafic dykes with an east-west strike are abundant in the region and cross-cut the greenstone, granite and granite gneisses. Regional trends

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are predominantly north-west but the main BIF horizon traces the regional Mt Margaret Anticline to South Windarra where the trend is more east-west.

Economic nickel mineralisation in the Mt Windarra area is hosted at the base of the Windarra Ultramafics, a 100–300m thick sequence of ultramafic (komatiite) lava flows, overlain by basalts. The Windarra Ultramafics host four significant nickel deposits, two of which have previously been mined, the Mt Windarra underground mine and the South Windarra open-pit and underground mine. The third discovery was at Woodline Well which has a small near surface oxide deposit which may contain a deeper sulphide extension. The latest and most significant discovery made by Poseidon Nickel was at Cerberus.

Nickel mineralisation at Mt Windarra is restricted to the sulphide zones at the base of the olivine cumulate ultramafic sequence. Massive sulphides form the dominant ore type and the non-massive sulphide mineralisation can be sub-divided into three different textural types: matrix (25-40% sulphide), blebby (20-30% sulphide) and disseminated (between 5-25% sulphide).

The nickel tenor of sulphides in the ultramafic rocks is normally 8 to 16%, and invariably higher in the disseminated ores than the massive sulphides. The massive ore in A and B shoots rarely assays more than 8% nickel, whereas in the E-C-D and F shoots it may assay up to 12%.

In the primary ore, pyrrhotite, pentlandite, pyrite and chalcopyrite are the most common sulphide phases, in decreasing order of abundance. The pyrrhotite to pentlandite ratio varies from 1:1 in disseminated ore, to up to 8:1 in the matrix hosted ore. The average nickel to copper ratio is 9:1 for most ore types, though may be as low as 4:1 in the copper rich basal matrix hosted ore and remobilised massive sulphide stringers.

The Mt Windarra orebody consists of eight distinct, steeply dipping shoots named: A, B, C, D, E, F, G and H Shoot. These shoots vary from 2m up to 20m in thickness; have a strike length of between 50m and 350m and a down dip extent of greater than 900m.

SAMPLING AND SUB-SAMPLING TECHNIQUES

All sampling for resource estimation at Windarra Nickel Project (WNP) is based on diamond drill core. Sample selection is based on geological core logging and sampled to geological contacts. Assay samples are typically 1m in length but may vary in length from a minimum of 0.2m and a maximum length of 1.2m according to geological boundaries. All core selected for sampling is cut into half core using a CoreWise automated core saw and sampled for assaying by on site field technicians. WMC used a manual brick saw. Where possible all cut samples are selected from the same side of the downhole orientation mark to ensure the core is not “selectively sampled”. Nickel mineralisation is very coarse and represents a large proportion of the material therefore weigh vs. grain size is not an issue.

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DRILLING TECHNIQUES

Drilling at Windarra Nickel Project (WNP) was initially completed by Poseidon NL then subsequently Western Mining Corporation (WMC) from 1969 to 1992. Poseidon Nickel Limited (Poseidon) recommenced drilling in 2006. No activity took place between the period 1992 to 2006.

Diamond drilling at WNP is typically NQ2 size. Occasionally BQ and HQ size holes have been drilled. WMC used downhole orientation methods such as the Core-stub Spear and the Craelius System. The entire core from 2006 onwards was orientated using the 2IC EzyMark orientation tool in surface holes and Reflex ACTII RD downhole tools in underground holes.

CRITERIA USED FOR CLASSIFICATION

Classification of the resource models are based primarily on drill density and geological understanding in conjunction with increased confidence from historic mining and grade control drill data. The classification takes into account the relative contributions of geological and data quality and confidence, as well as grade confidence and continuity.

The classification reflects the view of the Competent Person.

SAMPLE ANALYSIS METHOD

The majority of the historic samples were analysed by Analabs in Perth and grade control samples were analysed by the Windarra onsite laboratory. Samples were dissolved in a mixed acid digest and analysed using an AAS finish. Poseidon samples have been analysed by Ultratrace and Quantum Analytical laboratories in Perth.

The laboratory process for Poseidon samples involve: sorting, drying, & crushing to nominal 10mm, then up to 3kg is pulverised to 75um (LM5). A 0.5g sample charge is mixed with Lithium Borate flux and fused at 1080oC. The melt is dissolved in HCl acid and analysed using ICP-OES finish (15 elements).

Reference standards and blanks are routinely inserted into every batch of samples at a rate of 1 in every 25 samples. Poseidon's inserted standards in general showed results within expected ranges with minor biases observed in 2 batches of standards. The calculated means for Lab standards are very close to expected for the majority of standards and are within industry expectations. Laboratory repeat checks and original samples correlated very well.

Monthly QAQC reports are compiled by Maxwell Geoservices. The QAQC results indicate that the assays used for resource estimation at WNP are a fair representation of the material that has been sampled.

ESTIMATION METHODOLOGY

Nickel and copper grades in Shoots A and B were estimated using a ID2 algorithm. No variography was carried out on Shoots A and B. A search ellipse of 4 m(x) by 20 m(y) by 40m (z) and a minimum of 2 and a maximum of 16 samples were used in the estimation process. All the other shoots used

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were estimation using Ordinary Kriging (OK) within Surpac or Datamine software. Shoots C, D and F had eight elements estimated by OK; nickel, copper, cobalt, arsenic, magnesium, magnesium oxide, iron and sulphur. Shoots G and H had a total of 17 elements estimated using a combination of OK, average grade assignment and via regression equations. The drilling grid spacing is approximately 40 m by 40 m. All samples were composited to 1 m downhole intervals. The composites for shoots C, D, F, G and H were density-weighted.

Variogram orientations were largely controlled by the strike of mineralisation and downhole variography. Variograms for estimation were determined individually for each element. Where there was poor variograms, correlated elements used the Ni variogram. Local search domains were established within individual shoots to reflect the different orientations. Other estimation parameters, such as search distance, minimum and maximum sample numbers varied between shoots. KNA was carried out on individual shoots to give optimum estimation parameters.

The March 2014 Mineral Resource estimates were compared to those of May 2013 (C and F shoots) and April 2012 (D Shoot). Overall there has been an increase of 8% in tonnes and a decrease of 11% in nickel grade in the March 2014 resource update; this is due to the lower mean grade of the recent drilling. The decrease in nickel metal of the resource is 4%.

The April 2012 Mineral Resource estimates were compared to those of 2007/2008 (G shoot). Overall there was an increase in tonnes of 3% and a decrease of 3% in nickel grade in the April 2012 resource update. This is possibly due to the change from ID2 to OK. There was an increase in nickel metal content of 3%. The A and B Shoot estimates were completed in 2007 by Poseidon. The resource model has not been compared to any reconciliation data.

No assumptions have been made regarding recovery of any by-products. As was the only deleterious element estimated. The block model dimensions and parameters were based on the geological boundaries and average drill grid spacing. Sub-blocks were used to ensure that the block model honoured the domain geometries and volume. Block estimates were controlled by the original parent block dimensions.

For Shoots A and B the individual parent block dimensions were 2 mE by 20 mN by 20 mRL with sub-blocking allowed. All of the other shoots had individual parent block dimensions of 5 mE by 25 mN by 25 mRL, with sub-blocking allowed. Estimation into parent blocks used a discretisation of 2 (X points) by 5 (Y points) by 5 (Z points) for Shoots C, D and F. Discretisation of 3 (X points) by 3 (Y points) by 3 (Z points) was used for G Shoot and 3 (X points) by 8 (Y points) by 5 (Z points) was used for H Shoot to better represent estimated block volumes.

No selective mining units were assumed in this estimate. Multi-element analysis was conducted on the density weighted composites. There was a strong correlation between nickel and cobalt, nickel and iron and nickel and sulphur. In some cases there was also a strong correlation between copper and cobalt. Drillhole sample data was flagged using domain codes generated from three dimensional mineralisation domains. Sample data was composited to a one metre density weighted downhole length.

Mineralisation domains for each shoot were treated as hard boundaries, while orientation domains were treated as soft boundaries in the estimation process. Top cuts were established by investigating univariate statistics and histograms of sample values by domain. A top cut level was selected if it reduced the sample variance and did not materially change the mean value. Model validation was carried out, including visual comparison between density weighted composites and estimated blocks; check for negative or absent grades; statistical comparison against the input drill hole data and graphical plots.

CUT-OFF GRADE AND BASIS FOR SELECTED CUT-OFF GRADE

There is a high level of confidence in the geological interpretation of all WNP resources due to the extensive historical operating experience and records kept by WMC, as well as the readily identifiable stratigraphic control on mineralisation. Wireframes have been used to constrain the estimation and are based on drillhole intercepts and geological boundaries. Wireframes for Shoots A and B have a 1.0% Ni cut-off grade, C and F have a 0.75% Ni cut-off grade, D has a 0.45% Ni cut-off grade and G and H have been constructed to a 0.8% Ni cut-off grade for shape consistency. A minimum width of 1 m has been used to encapsulate the entire mineralised body. The edges of the resource shapes may be narrower than minimum mining widths, meaning that a small proportion of the shape is unlikely to be mineable; however, the inclusion adds to the ore/waste discrimination of the Reserve process.

MINING AND METALLURGICAL METHODS, PARAMETERS AND OTHER MATERIAL MODIFYING FACTORS

No minimum mining assumptions are made during the resource wire framing or estimation process. Mining parameters, including minimum width assumptions are applied during the conversion to Ore Reserves. The mining process will be Sub-Level Caving (SLC) which includes internal dilution and is included during the resource estimation process.

No metallurgical factors or assumptions are made during the resource estimation process as this is addressed during conversion to Ore Reserve. The resource estimation block model has been populated with multi-element data which is required for the metallurgical analysis during the Ore Reserve process.

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MINERAL RESOURCE

Table 3 - Mt Windarra Mineral Resource on 16 July 2014 (at 0.9% nickel cut-off grade)

Nickel Sulphide Resources	Cut Off Grade	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
WINDARRA PROJECT										
A Shoot	0.90%	-	-	-	85	2.19	2,000	**85**	**2.19**	**2,000**
B Shoot	0.90%	-	-	-	69	1.52	1,000	**69**	**1.52**	**1,000**
C Shoot	0.90%	434	1.75	7,500	1,515	1.9	29,000	**1,949**	**1.86**	**36,500**
D Shoot High Grade	0.90%	-	-	-	52	2.27	1,000	**52**	**2.27**	**1,000**
D Shoot Disseminated	0.90%	-	-	-	495	1.28	6,500	**495**	**1.28**	**6,500**
F Shoot	0.90%	178	1.5	2,500	126	1.56	2,000	**304**	**1.53**	**4,500**
G Shoot Upper	0.90%	282	1.29	3,500	31	1.22	500	**313**	**1.28**	**4,000**
G Shoot Lower	0.90%	-	-	-	1,063	1.46	15,500	**1,063**	**1.46**	**15,500**
H Shoot	0.90%	28	1.87	500	-	-	-	**28**	**1.87**	**500**
TOTAL										
Total Ni Resources	0.90%	**922**	**1.56**	**14,500**	**3,436**	**1.66**	**57,000**	**4,358**	**1.64**	**71,500**

COMPETENT PERSON'S STATEMENT

The information in this report that relates to the Windarra Nickel Project, Mineral Resources is based on information compiled by Neil Hutchison, General Manager of Geology at Poseidon Nickel, who is a Member of The Australian Institute of Geoscientists and Ian Glacken who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy.

Mr Hutchison and Mr Glacken have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Hutchison and Mr Glacken consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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Horizon Minerals Limited – Summary of Gold Mineral Resources

Project	Cutoff	Measured			Indicated			Inferred			Total		
	Au ppm	Mt	Au ppm	Ounces	Mt	Au ppm	Ounces	Mt	Au ppm	Ounces	Mt	Au ppm	Ounces
Boorara OP	0.5	1.12	1.22	43,700	6.85	1.28	281,100	2.56	1.26	103,500	10.53	1.27	**428,300**
Burbanks OP	0.5				1.43	2.02	92,800	3.43	1.86	204,900	4.86	1.90	**297,700**
Burbanks UG	2.5/2.0				0.12	4.26	16,700	1.07	4.39	151,200	1.19	4.38	**167,900**
Phillips Find OP	0.5				0.54	2.40	41,700	0.19	2.09	12,700	0.73	2.32	**54,400**
Phillips Find UG	2							0.00	2.27	208	0.00	2.27	**208**
Golden Ridge	1				0.48	1.82	27,900	0.05	1.71	2,800	0.53	1.81	**30,700**
Golden Ridge North	0.8				0.65	1.15	24,300	0.77	1.30	32,300	1.43	1.23	**56,600**
Cannon UG	1				0.19	4.80	28,600	0.05	2.28	3,500	0.23	4.29	**32,100**
Monument	0.5							0.92	1.11	32,800	0.92	1.11	**32,800**
Pinner	0.5				0.06	1.02	2,100	0.27	1.25	10,800	0.33	1.21	**12,800**
Pennys Find	1.5				0.31	5.19	51,000	0.12	3.02	12,000	0.43	4.57	**63,000**
Kalpini	0.8				1.40	2.41	108,600	0.47	2.03	30,700	1.87	2.31	**139,300**
Rose Hill UG	2				0.33	4.49	47,100	0.18	4.78	27,800	0.51	4.60	**74,900**
Rose Hill OP	0.5	0.19	1.96	12,300	0.09	2.05	6,100				0.29	1.99	**18,300**
Jacques-Peyes	0.8				0.97	2.59	80,700	0.77	1.98	49,200	1.74	2.32	**129,800**
Teal	1				1.01	1.96	63,700	0.80	2.50	64,500	1.81	2.20	**128,100**
Crake	0.8				1.33	1.47	63,100	0.08	1.27	3,400	1.42	1.46	**66,500**
Coote	1							0.42	1.54	21,000	0.42	1.54	**21,000**
Capricorn	0.5							0.66	1.20	25,500	0.66	1.20	**25,500**
Baden Powell	0.5							0.60	1.20	23,000	0.60	1.20	**23,000**
Total		**1.31**	**1.33**	**55,900**	**15.75**	**1.85**	**935,300**	**13.43**	**1.88**	**811,600**	**30.49**	**1.84**	**1,802,900**

Confirmation

The information in this report that relates to Horizon's Mineral Resources estimates is extracted from and was originally reported in Horizon's ASX announcements:

- "Updated Boorara Mineral Resource Delivers a 34% Increase in Gold Grade" (Boorara) 27 April 2021,
- Group Mineral Resource Statement – Amended",". (Burbanks, Phillips Find) 1 August 2024,
- "High Grade Drill results and Resource Update for Rose Hill", (Rose Hill, Golden Ridge) 4 February 2020,
- "Maiden Resources for Monument and Golden Ridge North" (Golden Ridge North), 19 July 2023,
- "Investor Presentation June 2022", (Cannon) 31 May 2022,

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- “Group Mineral Resource Statement – Amended”,”. (Monument, Pinner) 1 August 2024,
- “Pennys Find Resource Update”, (Pennys Find) 29 December 2023,
- “Kalpini Gold Project Mineral Resource Update” (Kalpini) 28 September 2021,
- “Jacques Find- Peyes Farm Mineral Resource update” (Jaques-Peyes) 15 September 2021,
- “Intermin’s Mineral Resources Grow 30% to over 560,000 Ounces”, (ASX:IRC) (Teal) dated 19 September 2018,
- “Updated Crake Resource improves in quality” (Crake) 7 September 2021,
- “Gold resources increase to 1.24moz” (Coote, Capricorn, Baden Powell) dated 28 September 2022,

each of which is available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person’s findings in relation to those Mineral Resources estimates or Ore Reserves estimates have not been materially modified from the original market announcements.

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ASX ANNOUNCEMENT

Horizon Minerals Limited – Summary of non-Gold Mineral Resources

Silver Zinc Resource

Nimbus All Lodes (bottom cuts 12 g/t Ag, 0.5% Zn, 0.3g/t Au) - Includes Stockpiles

Category	Tonnes	Grade	Grade	Grade	Ounces	Ounces	Tonnes
	Mt	Ag (g/t)	Au (g/t)	Zn (%)	Ag (Moz)	Au (koz)	Zn (kt)
Measured Resource	3.62	102	0.09	1.2	11.9	10	45
Indicated Resource	3.18	48	0.21	1	4.9	21	30
Inferred Resource	5.28	20	0.27	0.5	3.4	46	29
Total Resource	**12.08**	**52**	**0.2**	**0.9**	**20.2**	**77**	**104**

Nimbus high grade silver zinc resource (500g/t Ag bottom cut and 2,800g/t Ag top cut)

Category	Tonnes	Grade	Grade	Ounces	Tonnes
	Mt	Ag (g/t)	Zn (%)	Ag (Moz)	Zn (kt)
Measured Resource	0	0	0	0	0
Indicated Resource	0.17	762	12.8	4.2	22
Inferred Resource	0.09	797	13	2.2	11
Total Resource	**0.26**	**774**	**12.8**	**6.4**	**33**

Nickel Sulphide Resources

	Cut Off Grade	MINERAL RESOURCE CATEGORY											
		MEASURED			INDICATED			INFERRED			TOTAL		
		Tonnes kt	Ni%	Ni t	Tonnes kt	Ni%	Ni t	Ni kt	Ni%	Ni t	Tonnes kt	Ni%	Ni t
BLACK SWAN PROJECT													
Black Swan	0.40%	800	0.78	7,000	15,100	0.73	111,000	10,400	0.69	71,000	26,300	0.72	189,000
Silver Swan	1.00%	-	-	-	138	9.00	12,450	8	6	490	146	8.80	12,940
Golden Swan	1.00%	-	-	-	112	4.70	5,200	48	2.2	1,050	160	3.90	6,250
Silver Swan Tailings	NA	675	0.92	6,200	-	-	-	-	-	-	675	0.92	6,200
Stockpiles	0.40%	-	-	-	1,200	0.49	5,900	400	0.53	1,900	1,600	0.50	7,800
LAKE JOHNSTON PROJECT													
Maggie Hays	0.80%	-	-	-	2,600	1.60	42	900	1.17	10,100	3,500	1.49	52,000
WINDARRA PROJECT													
Mt Windarra	0.90%	-	-	-	922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500
TOTAL													
Total Ni, Co, Cu Resources		**1,475**	**0.84**	**13,200**	**20,100**	**0.98**	**148,600**	**15,200**	**1.03**	**142,000**	**36,700**	**1.00**	**345,700**

The Total Nickel sulphide resource includes 18,300t Co metal.

Confirmation

Horizon Minerals Ltd resources at Mt Thirsty were originally reported by Greenstone Resources (GSR) in “Mt Thirsty Mineral Resource Increases by Over 145%”, on 26 April 2023.

Nimbus

The information is this report that relates to Horizon’s Mineral Resources estimates on the Nimbus Silver Zinc Project was originally reported Horizon’s ASX announcements:

- “Nimbus Silver Update” (Nimbus, Nimbus Expl Trgt) 28 August 2024

which is available at www.asx.com.au.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person’s findings in relation to those Mineral Resources estimates have not been materially modified from the original market announcements.

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Mt Thirsty

The Mt Thirsty Ni-Co resource has been removed from the company's resource listing due to material changes in the market price of Nickel affecting the Nickel equivalent reporting used and consequently the reasonable expectation of economic extraction.

Windarra – South Windarra and Cerebus Nickel Resources

The South Windarra and Cerebus Nickel Resources been removed from the company's resource listing. The resources were previously reported under the guidelines of JORC 2004. Horizon is yet to confirm that the resource estimates and reporting follow the guidelines of JORC 2012.

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Forward Looking and Cautionary Statements

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as “planned”, “expected”, “projected”, “estimated”, “may”, “scheduled”, “intends”, “anticipates”, “believes”, “potential”, “could”, “nominal”, “conceptual” and similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company’s actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain any additional mine licenses, permits and other regulatory approvals required in connection with mining and third party processing operations, competition for among other things, capital, acquisition of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rate, currency and interest fluctuations, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, the ability to secure adequate financing and management’s ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward looking statements will prove to be correct.

Statements regarding plans with respect to the Company’s mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code (2012) and the current ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward looking statements in the announcement, including with respect to any production targets and financial estimates, based on the information contained in this and previous ASX announcements.

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HORIZON MINERALS LTD

Appendix 1 – JORC Table 1
Project Black Swan – Prospect Black Swan
JORC Code (2012) Table 1, Section 1, 2 and 3

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) guidelines for the reporting of Mineral Resources.

SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg*	Reverse circulation and diamond drilling have been used to obtain samples. Sampling is a mixture of full core, half core, quarter core and chip sampling. Generally, 1 m samples or smaller have been used for exploration drilling, whilst grade control drilling in the Black Swan pit is on 2 m sample lengths. Samples have been obtained from drilling carried out on the tenements since 1968, incorporating several lease owners. Sampling protocols from drilling between 1968 and 1991 have not been well documented. Diamond drilling sampling protocol since 1995 has followed accepted industry practice for the time, with all mineralised core sampled and intervals selected by geologists to ensure samples did not cross geological or lithological contacts. Core was halved, with a half quartered, with one quarter core sent for assay, half core kept for metallurgical testing, and the remaining quarter core retained for geological reference. Samples from reverse circulation drilling were collected using cone splitters, with field splits taken every 20 samples.

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SECTION 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
	submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Diamond and reverse circulation drilling are the primary methods by which drilling has been conducted. The majority of diamond core is NQ, the rest being HQ size. Core orientation was carried out using either spear marks and the Ezimark system.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	Core recovery and presentation has been documented as being good to excellent, with the exception of one hole used in the estimation, BSD189, which suffered significant core rotation, but little loss, within the oxide zone. Due to the good to excellent core recovery, Golder has no reason to believe that there is bias due to either sample recovery or loss/gain of fines.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	Much of the drill core has been oriented prior to the core being logged. Recent data was electronically captured and uploaded in to the site Acquire® geology SQL database. Golder has been provided with no record of core photography, nor the extent to which drilling was logged geologically.
Sub-sampling techniques and	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	Early diamond core is assumed to have been chisel cut, whilst most core was cut using a core saw, with either half or quarter core used for sampling.

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SECTION 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
sample preparation	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	RC samples were collected by use of a cone splitter, with duplicates collected every 20 samples. Later resource and grade control drilling was crushed to <3 mm and then split to 3 kg lots, then pulverised. This is appropriate given the sample interval and mass.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Pulps were prepared by acid digest and analysed by ICP-OES using standard laboratory practices. Both independent and laboratory internal QAQC were used. Site specific standards were derived from two RC drill holes specifically designed for the purpose and prepared by ORE Pty Ltd in Melbourne. Analysis for these standards was for Ni, As, Fe and Mg. For RC grade control drilling, blank samples were inserted 1 in 50 and 1 in 19 samples as standard. Standard samples have a well-defined margin of error suitable for the deposit. No external laboratory checks were conducted for drill samples.

SECTION 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	Logging and assay data is electronically captured and up loaded in to the site Acquire® geology SQL database.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	All collar surveys were completed to an accuracy of ±10 mm. A local grid based on seven known AMG references was created. The Department of Land Information (formerly the Department of Land Administration) benchmark UO51 on the Yarri Road opposite 14 Mile Dam was used to tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000 m was adopted for the Black Swan project. All Black Swan diamond drill holes have been routinely surveyed—generally every 30 m or less. In the case of the some early drill holes, however, only the hole dip component was measured, using the acid vial method. All subsequent diamond drill holes have been surveyed using Eastman single shot down hole survey instruments.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Surface drilling used a spacing of 20 m to 50 m across strike and approximately 50 m along strike. In pit drilling is on a 10 m by 10 m staggered pattern. Underground drill data was also used in the estimate. Sample data was composited to 2 m.
Orientation of data in relation to	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the*	Drill hole orientation was dominantly perpendicular to geological continuity and befits the requirements of resource estimation.

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SECTION 1 Sampling Techniques and Data *(Criteria in this section apply to all succeeding sections)*		
Criteria	**JORC Code Explanation**	**Commentary**
geological structure	*extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	
Sample security	• *The measures taken to ensure sample security.*	There are no documented details available for sample security.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Examination of duplicate, blank and standard data does not highlight any material bias or systematic error.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Exploration Results are not being reported

Section 3 Estimation and Reporting of Mineral Resources *(Criteria listed in section 1, and where relevant in section2, also apply to this section*		
Criteria	**JORC Code explanation**	**Commentary**
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection*	Logging and assay data has been electronically captured and uploaded in to the site Acquire® geology SQL database. The database is in excellent condition. It is very clean and contains few errors, but does not contain sample and assay quality control information.

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Section 3 Estimation and Reporting of Mineral Resources *(Criteria listed in section 1, and where relevant in section2, also apply to this section*		
Criteria	**JORC Code explanation**	**Commentary**
	and its use for Mineral Resource estimation purposes. • *Data validation procedures used.*	Golder has seen no evidence of validation of drill hole data.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	Golder did not conduct a site visit as Black Swan has a long history of exploration and has been an operating mine, with both open pit and underground mining operations taking place.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	The geological interpretation is validated by drill and mining activity, as well as in-pit mapping. Where possible, estimation has been restricted to lithologies controlling and surrounding mineralisation. The geological domaining is based on data from previous resource estimates completed by Norilsk Nickel Pty Ltd and Gipronickel that have been reviewed by Golder previously, and for this resource estimate. The interpretation for this Mineral Resource estimate relies solely upon data from drilling, and not on mapping or surface sampling.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The mineralisation associated with the Black Swan deposit runs along a strike length of approximately 250 m north-south and approximately 100 m east-west. Drilling has intercepted Ni mineralisation at up to 600 m below surface.

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Section 3 Estimation and Reporting of Mineral Resources *(Criteria listed in section 1, and where relevant in section2, also apply to this section*		
Criteria	**JORC Code explanation**	**Commentary**
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.*	Mineralisation was estimated within domains defined by lithological information and statistical analysis of sample data in the composite file was used for estimation purposes. The block size is 12.5 m (X) by 25 m (Y) by 5 m (Z). The sub-block size is 3.125 m (X) by 12.5 m (Y) by 2.5 m (Z). High-grade restraining was applied to As and Ni in one domain, based on data analysis of assayed samples. The high grade samples were used only in the estimation of blocks within a 25 m radius of the high grade sample. Using parameters derived from the modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades for Ni, As, Fe, MgO and S. The estimation was conducted in three passes with the search size increasing for each pass. In some domains, where blocks had not been filled after three passes, a fourth pass was used, with samples from outside the domain of interest used to fill the remaining blocks. The model was validated visually and statistically using swath plots and comparison to sample statistics.

Section 3 Estimation and Reporting of Mineral Resources *(Criteria listed in section 1, and where relevant in section2, also apply to this section*		
Criteria	**JORC Code explanation**	**Commentary**
	• *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Density measurements were performed using the immersion technique. The density was calculated as a wet density even though core was often left to dry for some time. In some sampling programmes a representative section of core was used for measurements, rather than the entire core. Therefore a 5% moisture factor was applied to the Specific Gravity (SG) values used in the resource estimate.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The resource model is constrained by assumptions about economic cut-off grades. The Mineral Resources were reported using a cut-off grade of 0.4% Ni which was applied on a block by block basis.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may*	The block model uses a parent cell size of 12.5 m (X) by 25 m (Y) by 5 m (Z), primarily determined by data availability and the dimensions of the mineralisation.

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Section 3 Estimation and Reporting of Mineral Resources *(Criteria listed in section 1, and where relevant in section2, also apply to this section*		
Criteria	**JORC Code explanation**	**Commentary**
	not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	Metallurgical recovery of nickel was assigned based on data calculated by the Black Swan mill whilst mining operations were in progress.
Environmen-tal factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not*	As the project has previously been mined, there are existing waste storage facilities and environmental considerations are not expected to pose any issues to the resumption of mining activity.

Section 3 Estimation and Reporting of Mineral Resources *(Criteria listed in section 1, and where relevant in section2, also apply to this section*		
Criteria	**JORC Code explanation**	**Commentary**
	always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Bulk density estimates were calculated from core obtained from drilling programmes. Golder applied a moisture factor of 5% to account for the bulk density measurements being based on wet core, and that in some drilling programmes, selected portions of core being used to represent the whole, rather than all core being measured for bulk density.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie*	Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The classification of Mineral Resources was completed by Golder based on geological confidence, drill hole spacing and grade continuity. The Competent Person is satisfied that the result

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Section 3 Estimation and Reporting of Mineral Resources *(Criteria listed in section 1, and where relevant in section2, also apply to this section*		
Criteria	**JORC Code explanation**	**Commentary**
	relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	appropriately reflects his view of the deposit. Continuous zones meeting the following criteria were used to define the resource class: <u>Indicated Resource</u> • Blocks that were estimated with samples with an average of less than 30 m distance from blocks. • Number of drill holes confirming grade continuity. <u>Inferred Resource</u> • Blocks that were estimated with samples with an average of less than 50 m distance from blocks. • Limited number of drill holes. Mineral Resource classification was restricted to a Lerch-Grossman pit shell using a potential future nickel price. This was combined with the accuracy of the estimate ascertained by geological confidence, drill hole spacing and grade continuity from available drilling data.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	This Mineral Resource estimate is based on data from previous resource estimates completed by Norilsk Nickel Pty Ltd and Gipronickel that have been reviewed by Golder previously, and for this resource estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical*	The relative accuracy is reflected in the resource classification discussed above that is in line with industry acceptable standards. This is a Mineral Resource estimate that includes knowledge gained from mining and milling recovery data during production.

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Section 3 Estimation and Reporting of Mineral Resources *(Criteria listed in section 1, and where relevant in section2, also apply to this section*		
Criteria	**JORC Code explanation**	**Commentary**
	procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	

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Project Black Swan – Prospect Silver Swan
JORC Code (2012) Table 1, Section 1, 2 and 3

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) guidelines for the reporting of Mineral Resources.

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• NQ2 core was sampled at least 10m either side of logged mineralisation by cutting the core in half using a Corewise core saw. Samples were divided into logged domains,with no individual sample being greater than 1.2m or less than 0.3m. Appropriate QAQC standards and blanks from Geostats were inserted, and duplicates taken in quarter core at selected intervals where mineralisation variability warranted it.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Drilling is conducted by Webdrill using the Diamec Smart 6 Mobile Carrier rig. The holes are drilled in NQ2 and the core was orientated using the Trucore Orientation Tool. The hole was surveyed using the DHS DeviGyro OX tool.

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Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Core was recovered via 3m core tube usedbehind drill bit, and then transferred from tube to core trays. Recovery was calculatedon the amount recovered versus the amount drilled. Depths and recovery were recorded on wooden blocks placed in the core trays by the driller at the end of every run. Lost core was also recorded in this way. Core recovery was good, even through frequent broken ground.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Core was logged into Geobank Mobile. Logging was done for Geology, structure, RQD and a check against drilling records for recovery. Holes were validated before being exported to the Geobank database. • After logging, all core was photographed inboth dry and wet images. The photographs are stored on a Perth based network drive.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Core was sampled as half core, unlessduplicates were taken which required samples to be quarter core.

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Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples were dispatched to SGS lab in Perth • After crushing and pulverizing they were analysed by 4-acid ore grade digest with ICP-OES finish
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Sampling was conducted by the logging geologists who are employees of Newexco • Data is collected using Geobank Mobile which utilises a validation function before data can be exported into the Geobank database
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All collar surveys were completed to an accuracy of ±10mm. A local grid based on known MGA references was created.The Department of Land Information (formerly the Department of Land Administration) benchmark UO51 on the Yarri Road opposite 14 Mile Dam was usedto tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000m was adopted for the Black Swan project. • All holes are surveyed using the DHS Devishot tool. Shots were take every 2 or 3m on in and out runs across the entire length of the hole at every survey interval. The tool is True North seeking and has an accuracy of +/-1 degree of dip and azimuth.In tool analysis gave an indication of whether the survey passed or failed and successive surveys were overlayed in Devi Cloud to visually check deviation between surveys with an average survey used as the base for modelling.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The holes drilled form part of a program that is intended to bring the mineral occurrence to Indicated status. The nominal spacing is 40x40m, with infill drilling to be conducted as required to comply with resource modelling requirements.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Drill core is oriented using the Trucore Ori.
Sample security	• *The measures taken to ensure sample security.*	• N/A
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews were completed during drilling

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Project Black Swan – Prospect Silver Swan
SECTION 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Black Swan open pit is centred on M27/39 and extends into M27/200. Silver Swan is wholly located on M27/200. They are located 42.5km NE of Kalgoorlie. They are registered to Poseidon Nickel Atlantis Operations Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd, following the purchase of the assets.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Silver Swan Mine was discovered by MPI Mines Ltd, then was acquired by Lion Ore in 2004. Much of the exploration drilling and development was completed by these two companies. In turn Lion Ore was taken over by Norilsk in 2007 who continued mining and developing the underground mine at Silver Swan until 2010. Poseidon Nickel purchased the operation from Norilsk in late 2014.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Silver Swan deposit is a Kambalda style komatiite hosted nickel deposit.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the*
		• The current drill hole information is listed as Table 4 in Appendix 1 of this document.

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Project Black Swan – Prospect Silver Swan
SECTION 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

	JORC Code explanation	Commentary
	basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• When reporting Silver Swan assay results, a cut-off grade of 1.0% Ni has been used.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Mineralised widths are reported as down hole lengths. • Due to the uneven nature of the Felsic footwall, true width of the reported assays cannot be stated with certainty at this time.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• No significant new discovery reported. Drilling on which this report is based have been reported previously
Balanced	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of*	• Mineralised intervals >1.0% from each assay received that are consistent with Silver Swan mineralisation for this announcement are

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Project Black Swan – Prospect Silver Swan
SECTION 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

	JORC Code explanation	Commentary
reporting	*both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	shown in Table 2. Intervals below this threshold as well as unsampled intervals are listed below the table.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• No further observations to be reported at this stage.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Resource drilling on the Black Swan deposit was commenced in FY 2021-22, and as part of that program further diamond drilling will be done in the area in order to extend the known mineralisation.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	• The historical database has been previously audited by Poseidon Nickel Ltd (POS) and a third party external consultant and was found to be in good standing. • Subsequent to the database audit, data collected by POS geologists and contractors was captured electronically. The data was checked and validated before and after being uploaded to the POS SQL drillhole database, which is managed by a third-party external consultant. • The drillhole data was supplied to Optiro as CSV format extracts from SQL drillhole database, was subsequently imported into Datamine, and checks performed to test the available data; no errors or discrepancies were identified.
	• *Data validation procedures used.*	• Basic validation steps were completed on the drillhole data supplied to Snowden Optiro. During input and desurveying in Datamine Studio RM, checks for overlapping intervals and gaps in downhole interval files, checks that assays were within expected ranges and that all data integrated as expected were undertaken, with no problems identified.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	• Snowden Optiro CP, Ian Glacken, conducted a site visit on 4 August 2021, whilst exploration drilling was being conducted for the Golden Swan prospect. Exploration of the Silver Swan and Golden Swan prospects used the same exploration and database systems and protocols.
	• *If no site visits have been undertaken indicate why this is the case.*	• A site visit has been conducted.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	• The geological interpretations have been validated by ongoing drilling and previous mining activity, including development and face mapping by the previous lease owners and hence, there is good confidence in the geological interpretations. • Estimation has been restricted to mineralised lithologies, that are based on the extensive previous mining operations.
	• *Nature of the data used and of any assumptions made.*	• Interpretations used all available drillhole data, but the estimated variables were informed by surface and underground diamond drillhole sampling exclusively.
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	• The evidence from previous mining makes large scale alternative interpretations unlikely. There is scope for local variability but the impact is considered to be only of local significance.
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	• The mineralisation is defined by nickeliferous massive sulphide lithology and texture, which was used to interpret the mineralisation for this update.
	• *The factors affecting continuity both of grade and geology.*	• Nickel is hosted within the Black Swan Komatiite Complex (BSKC), a large series of ultramafic komatiite flows. The massive sulphide Silver Swan mineralisation is located within the lower basal komatiite flow of the BSKC. Controlling factors include presence of ultramafic, location with the ultramafic stratigraphy, and the texture of the sulphide mineralisation.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource*	• The pre-mined Silver Swan mineralisation has a length of approximately 375m striking grid north-south and has been tested down dip to a length of 1,550m vertically, with a steep plunge towards the north-east. • The March 2022 update is for 10 individual sulphide lenses grouped into four mineralised areas, that range from 12 to 170m (averaging 80 m) along strike, 70 to 300m vertically (averaging 90 m), with an average thickness of 3-5m. These lenses dip at -60° to -75° towards 090°.

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Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	• Estimation was undertaken using Datamine RM Pro software (v1.11.63.0 Beta). Prior to estimation, the samples and block model were coded using domain wireframes. Length-density weighted composites were generated using a nominal 1.0 m composite length. • Estimation was within interpreted massive sulphide domains which were treated as hard boundaries. Interpolation was by ordinary kriging (OK) for nickel, arsenic, cobalt, copper, iron, magnesium oxide, sulphur and density. A top-cut was applied to arsenic only to minimise the impact of a small number of extreme values. • Parent block estimation was used, with a parent block size of 2mE by 5mN by 5mRL, using a block discretisation of X:4, Y:4, Z:4. A variable sub-block size is 0.25mE by 0.5mN by 0.5mRL was used to optimise the block filling of the wireframes because of the narrow and variable shoot geometry. • • Late, non-mineralised intrusive dykes were flagged and removed from the final Mineral Resource. • • A three-pass estimation strategy was employed as outlined below: • The first pass used a minimum of 6 and a maximum of 34 samples, using a search range of 30 m in the primary direction, 15 m in the intermediate direction and 5 m across strike for nickel. The other elements employed search distances between 40 to 55 m in the primary direction, 10 to 30 m in the intermediate direction, and 5 to 10 m across-strike. • The second pass used the same minimum and maximum number of samples, but the primary search distance was doubled. • The third pass used a minimum of 4 and a maximum of 18 samples with a search range doubled that of search pass 2. • Search passes one and two informed 99.5% of the estimate. • The maximum distance of extrapolation is 35m.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	• No check estimates have been undertaken. • The production records from those areas previously mined are not available to reconcile against the updated 2022 Mineral Resource. • The 2019 estimate was reported at a 4.5% nickel cut-off. At the same 4.5% nickel cut-off, the Indicated Mineral Resource has a 16% increase in the tonnage, a 3% increase in grade and a 19% increase in nickel metal. The Inferred Mineral Resource had a 90% reduction in tonnes, a 26% reduction in the nickel grade and 93% reduction in the contained nickel metal. These changes are the result of the Inferred Mineral Resource being upgraded to a Indicated Mineral Resource with infill drilling, and the remaining Inferred Mineral Resource being at the deeper margins of the mineralisation, with narrower mineralised widths compared to the remaining, better-informed parts of the mineralisation. • At the 2022 reporting cut-off at 1% nickel cut-off, the combined Indicated and Inferred Mineral Resource has 86% of the tonnes, at 94% of the grade for 80% of the nickel metal, compared to the 2019 Mineral Resource. This is the result of the additional drilling converting the previously lower confidence Inferred Mineral Resource located at the margins of the mineralisation being converted to higher confidence Indicated Mineral Resource.
	• *The assumptions made regarding recovery of by-products.*	• No assumptions regarding recovery of by-products have been made.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).*	• Arsenic, magnesium oxide and iron have been estimated to assist with future mine planning requirements.
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	• The parent block size is 2m (X) by 5m (Y) by 5m (Z) with drilling spaced from 5 to 40m (averaging 20m) spaced drilling in the plane of the mineralisation.
	• *Any assumptions behind modelling of selective mining units (SMU).*	• No assumptions regarding the mining SMU have been used.
	• *Any assumptions about correlation between variables.*	• There is good correlation (R> 0.85) between nickel, iron, sulphur and density. There are moderate correlations between nickel and cobalt (R=0.67) and low to no correlation between nickel and arsenic, copper and magnesium oxide.
	• *Description of how the geological interpretation was used to control the resource estimates.*	• The Mineral Resource estimate was constrained within interpretations of the nickeliferous massive sulphide lenses. These lenses were subsequently depleted for the presence of late, cross-cutting barren intrusive dykes.
	• *Discussion of basis for using or not using grade cutting or capping.*	• Grade top-cuts were applied to the arsenic grade only, to minimise the impact of a limited number of extreme grades. The top-cuts were derived using a combination of histogram, cumulative distribution and mean/variance analysis and population disintegration.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	• *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.*	• The estimates were initially validated visually in section and plan and there was good correlation between the composite and estimate. The whole of domain averages for the estimates were then compared with the naïve and declustered composite samples and again there was good correlation between the two. Swath plots were then used to test the estimate and again, there was good correlation and the sample trends had been maintained.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The density was measured with natural moisture. This approach is the same as was used during the previous operational phase. The core is fresh, non-porous and competent, and hence moisture is considered to be understood.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied*	• The Mineral Resource was interpreted using the massive nickel sulphide lithology and texture. The Mineral Resource has been reported using a cut-off grade of 1.0% nickel head grade to reflect the current Poseidon planned strategy.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• The current Silver Swan mineralisation commences approximately 1,360m below surface and is exclusively an underground Mineral Resource. • The 2019 Mineral Resource supported a positive feasibility study (announced on 18 July 2018), which demonstrated reasonable prospects for eventual economic extraction at the time. Although the feasibility study is still to be updated, successive infill exploration programs in 2019 and 2022 support the 2018 estimate and hence, the RPEEE assumption.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The prediction regarding the metallurgical amenability of the Silver Swan sulphide material has been demonstrated with the historical processing using conventional sulphide flotation processes on-site.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made*	• The project is located in a mature mining area, with established environmental legislation and practices that are industry standard. As the project has previously been mined, there are existing waste storage facilities and environmental considerations are not expected to pose any issues to the resumption of mining activity.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	• The bulk density has been measured from diamond core using the immersion method. The core is considered wet, but is also fresh, non-porous, competent and the moisture content is not considered material.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,*	• Bulk density measurements were routinely collected for all underground drill core submitted for analysis. The core is not porous. Density was obtained from all submitted samples and hence reflects all rock and alteration zones.
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Density was estimated from the composited density data.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories*	• The classification of Mineral Resources was completed by Snowden Optiro using a range of criteria, including confidence in the geological and mineralisation model, grade and geological continuity and the available drill hole spacing • The Indicated Mineral Resource is of a moderate confidence. These areas are a supported by a nominal drill spacing of less than 25mN x 25mRL with a suitable intersection angle, where grade and geological continuity can be assumed and where the estimate has been well informed. • The Inferred Mineral Resource reflects a lower confidence. These areas are supported by a nominal drill spacing of greater than 25mN x 25mRL, and where a significant number of intersections are sub-parallel to the mineralisation, or where only grade or geological continuity is implied.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	• *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*	• The relative accuracy is reflected in the resource classification discussed above and is in line with industry acceptable standards. • This is a Mineral Resource estimate that includes knowledge gained from previous mining and milling performance.
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource classification applied to the March 2022 Silver Swan massive sulphide Mineral Resource appropriately reflects the Competent Person's view of the estimate.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The March 2022 Silver Swan massive sulphide Mineral Resource has been reviewed internally by Snowden Optiro, but has not been externally reviewed.

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Project Black Swan – Prospect Silver Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate*	• The current Mineral Resource classification suitably reflects the relative accuracy of the Mineral Resource. There has been no statistical procedure undertaken to quantify the relative accuracy.
	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used*	• The March 2022 Silver Swan massive sulphide Mineral Resource is considered a global estimate, because of the sample spacing and drillhole intersection angles currently available.
	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available*	• The production records for the areas previously mined are not available.

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Project Black Swan – Prospect Golden Swan
JORC Code (2012) Table 1, Section 1, 2 and 3

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) guidelines for the reporting of Mineral Resources.

Project Black Swan – Prospect Golden Swan
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	The Golden Swan prospect has been sampled by underground diamond core that was sampled as half core, the overwhelming majority of which is NQ2 diameter core. Underground diamond drilling completed whilst the mine was operating prior to 2021 used 32 drillholes, totalling 18,286 m of drilling testing the Golden Swan stratigraphy, of which, six drillholes with a total of 4,355 m have intersected mineralisation. In 2021, 60 additional drillholes totalling 16,104 m were drilled from the dedicated drill drive, and 43 of these drillhole intersected mineralisation. The 2021 drilling was all NQ2 diameter core, which was sampled at least 10m either side of logged mineralisation, by cutting the core in half using a Corewise core saw.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Appropriate QAQC standards and blanks from Geostats were inserted, and duplicates taken as quarter core at selected intervals where mineralisation variability warranted it.

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Project Black Swan – Prospect Golden Swan
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	Mineralisation was identified visually using the presence, texture and proportion of nickeliferous sulphide material, and lithology. Samples were divided into logged domains, with no individual sample being greater than 1.2m or less than 0.3m.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	All drillholes intersecting the mineralisation were drilled after 2006 and were drilled as NQ2 diameter core. The 2021 drilling was conducted by Webdrill using the Diamec Smart 6 Mobile Carrier rig, drilling NQ2 diameter core, with the drillhole being surveyed using the DHS DeviGyro OX tool. The core was orientated using the Trucore Orientation Tool.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Total core recovery was calculated on the amount recovered versus the amount drilled. Depths and recovery were recorded on wooden blocks placed in the core trays by the driller at the end of every run. Lost core was also recorded in this way. Core recovery was good, even though frequently fractured.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Core was recovered via 3m core tube used behind the drill bit, and then transferred from tube to core trays. The 2021 drilling was completed from a dedicated drill drive which optimised the drillhole intersection angle.

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Project Black Swan – Prospect Golden Swan
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	All sampling has been from diamond core and no relationship between grade and sample recovery has been identified at Golden Swan.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	Core was logged into Geobank Mobile, with lithology, alteration, mineralogy, structure, RQD and total core recovery captured. The logging was validated before being exported to the Geobank database. The level of detail is appropriate and supports all levels of Mineral Resource estimation and future mining and metallurgical studies.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geology logging is qualitative, but RQD and recovery data was collected quantitatively. All of the core has been photographed wet and dry prior to being sampled.
	The total length and percentage of the relevant intersections logged	All of the drilled core and relevant intersections have been logged.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Core samples are sawn and were sampled as half core, unless duplicates were taken, which required samples to be quarter core.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All sampling was as diamond core.

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Project Black Swan – Prospect Golden Swan
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	For the 2021 drilling, samples were dispatched to SGS in Perth. Post sample receipt and drying, sample preparation consisted of crushing and pulverisation, followed by four acid digest. The sample preparation is considered appropriate for the variables being assayed.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Quarter core field duplicates were prepared by halving existing half core samples, at a nominal rate of 1 in 20 (achieved rate was 1 in 15).
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	The results from the field duplicates were excellent, showing extremely good repeatability between the original and duplicate samples.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are appropriate for the grain size of the sampled material.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Assaying was undertaken using ICP-OES which is considered an appropriate method for the deposit and is considered a total analytical technique.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools were used.

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Project Black Swan – Prospect Golden Swan
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	CRM standards and blank samples were submitted at nominal rate of 1 in 20 (achieved rate was 1 in 15 for the CRM). The available data exhibited good analytical accuracy.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Sampling was conducted by the logging geologists who are employees of Newexco Exploration Pty Ltd, but there has been no independent or alternative verification of significant intersections Key intercepts were viewed by Optiro onsite.
	The use of twinned holes.	No holes were designed as twinned holes, but hole PBSD0294A (drilled in wedge hole off PBSD029, March 2020) and PGSD038 (drilled in June 2021) were 5.0 m apart in 3D. PBSD029A: 3.0 m true width @ 8.3% Ni, 1543 ppm Co PGSD038: 2.8 m true width @ 7.5% Ni, 1,222 ppm Co. This provides confidence in the consistency of the mineralisation. Both holes were incorporated into the estimate.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data was collected using Geobank Mobile which utilizes a validation function before data can be exported into the Geobank database.
	Discuss any adjustment to assay data.	The only adjustment to assay data was the conversion of elemental Mg to MgO using the factor: MgO = Mg x 1.658.

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Project Black Swan – Prospect Golden Swan
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	All collar surveys were completed to an accuracy of ±10mm. All holes are surveyed downhole using the DHS Devishot tool, with measurements taken every 2 or 3m, at in and out runs across the entire length of the hole at every survey interval. The tool is True North seeking and has an accuracy of +/-1 degree of dip and azimuth. In tool analysis gave an indication of whether the survey passed or failed and successive surveys overlayed in DeviCloud to visually check deviation between surveys with an average survey
	Specification of the grid system used.	The collar position and downhole surveys were collected on a local grid based on known MGA references, which was used for the previous mining. The Department of Land Information (formerly the Department of Land Administration) benchmark UO51 on the Yarri Road opposite 14 Mile Dam was used to tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000m was previously adopted for the Black Swan project.
	Quality and adequacy of topographic control.	Existing topographic controls are considered adequate.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal drillhole spacing is 15 to 20 mN x 15 to 20 mRL, with occasional drilling infilling as required.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The data spacing and distribution is relatively uniform and is considered sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource and Ore Reserve estimation and classification.
	Whether sample compositing has been applied.	All sampling has been done as individual drillholes and no sample compositing has been applied.

Project Black Swan – Prospect Golden Swan
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Considering the style of mineralisation and mineralised geometry, the orientation of the sampling is not considered to have introduced a sampling bias.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The orientation of the drilling/sampling and the mineralisation is not related.
Sample security	*The measures taken to ensure sample security.*	Sampling was conducted on-site by the logging geologists who were employees of Newexco Exploration Pty Ltd, an independent exploration consultancy. No specific sample security measures were taken during sample dispatch and transport to Perth. On arrival at the laboratory, the laboratory reconciled submitted and received samples.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits or reviews were completed during drilling.

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Project Black Swan – Prospect Golden Swan
Section 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Black Swan Project, which hosts the Golden Swan prospect, is located 42.5km NE of Kalgoorlie. The tenement is registered to Poseidon Nickel Atlantis Operations Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd, following the purchase of the assets. The Black Swan open-pit is centred on M27/39 and extends into M27/200. Historical royalties of 3% NSR exist over the minerals produced.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	Tenement M27/39 is currently in good standing and is due to expire in 2028. Tenement M27/200 are currently in good standing and is due to expire in 2037. At the time of reporting there are no known impediments to obtaining a licence to operate.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Silver Swan Mine was discovered by MPI Mines Ltd, then was acquired by Lion Ore in 2004. Much of the exploration drilling and development was completed by these 2 companies. In turn Lion Ore was taken over by Norilsk in 2007 and continued mining and developing the underground mine at Silver Swan. Poseidon Nickel purchased the operation from Norilsk in late 2014.
Geology	Deposit type, geological setting and style of mineralisation.	The Golden Swan deposit is a Kambalda style komatiite hosted nickel deposit.

Project Black Swan – Prospect Golden Swan
Section 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	The Golden Swan drillhole information has previously been reported in the following ASX releases: • ASX release, 31/08/2021, "*Final Assays Received for Golden Swan*" • ASX release, 16/08/2021, "More High Grade Nickel at Golden Swan" • ASX release, 09/08/2021, "More High Grade Nickel at Golden Swan" • ASX release, 27/07/2021, "Latest Drilling and Assay Results add to Golden Swan" • ASX release, 06/07/2021, "Golden Swan Drilling and DHEM Update" • ASX release, 16/06/2021, "Further Golden Swan Drilling Results Add To High Grade Continuity" • ASX release, 09/06/2021, "Initial Golden Swan Drilling Results Demonstrate High Grade Continuity" • ASX release, 29/04/2021, "Golden Swan Drill Drive Completed and Resource Definition Drilling Underway". • ASX release, 18/03/2021, "Golden Swan Development Update" • ASX release, 09/12/2020, "Golden Swan Drill Drive Underway". • ASX release, 25/11/2020, "Assays confirm more high-grade nickel at Golden Swan". • ASX release, 19/11/2020, "Golden Swan and Southern Terrace continues to grow". • ASX release, 1/10/2020, "EM Surveys Extends Golden Swan Potential" • ASX release, 18/08/2020, "Golden Swan assays confirm exceptional drillhole intersection". • ASX release, 05/08/2020, "Second Golden Swan Massive Sulphide Intersection". • ASX release, 14/0842020, "Exceptional Grades Received at Golden Swan and Windarra Gold Tailings Update" • ASX release, 26/03/2020, "New Massive Sulphide Intersection in Golden Swan EM Anomaly"
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	When reporting Golden Swan assay results, a minimum cut-off grade of 0.5% Ni has been used, with no cutting of high grades applied.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	The Golden Swan drillhole intercepts have previously been reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been reported.

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Project Black Swan – Prospect Golden Swan
Section 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Mineralised widths are reported as down hole lengths. Due to the apparent variability of the Southern Terrace mineralisation, true width cannot be stated with certainty at this time.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Maps and sections have been supplied with previous ASX releases relating to disclosure of drillhole results: • ASX release, 31/08/2021, "*Final Assays Received for Golden Swan*" • ASX release, 16/08/2021, "More High Grade Nickel at Golden Swan" • ASX release, 09/08/2021, "More High Grade Nickel at Golden Swan" • ASX release, 27/07/2021, "Latest Drilling and Assay Results add to Golden Swan" • ASX release, 06/07/2021, "Golden Swan Drilling and DHEM Update" • ASX release, 16/06/2021, "Further Golden Swan Drilling Results Add To High Grade Continuity" • ASX release, 09/06/2021, "Initial Golden Swan Drilling Results Demonstrate High Grade Continuity" • ASX release, 29/04/2021, "Golden Swan Drill Drive Completed and Resource Definition Drilling Underway". • ASX release, 18/03/2021, "Golden Swan Development Update" • ASX release, 09/12/2020, "Golden Swan Drill Drive Underway". • ASX release, 25/11/2020, "Assays confirm more high-grade nickel at Golden Swan". • ASX release, 19/11/2020, "Golden Swan and Southern Terrace continues to grow". • ASX release, 1/10/2020, "EM Surveys Extends Golden Swan Potential" • ASX release, 18/08/2020, "Golden Swan assays confirm exceptional drillhole intersection". • ASX release, 05/08/2020, "Second Golden Swan Massive Sulphide Intersection". • ASX release, 14/0842020, "Exceptional Grades Received at Golden Swan and Windarra Gold Tailings Update" • ASX release, 26/03/2020, "New Massive Sulphide Intersection in Golden Swan EM Anomaly"

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Project Black Swan – Prospect Golden Swan
Section 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Mineralisation characteristic of the overlying non-mineralised Black Swan flows are not included, other than where they directly contact the Golden Swan mineralisation.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	There is no other exploration data or information available.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Resource drilling on the Golden Swan deposit was completed in FY 2021-2022, and as part of that programme, further diamond drilling will be done in the area known as the Southern Terrace in order to extend the known mineralisation of the Golden Swan deposit.

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Project Black Swan – Prospect Golden Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	The drillhole data is captured electronically by Poseidon Nickel Ltd (POS) geologists. The data is checked and validated before and after being uploaded to the POS SQL drillhole database, which is managed by a third-party external consultant. The drillhole data was supplied to Optiro as CSV format extracts from SQL drillhole database. The CSV data was then imported into Datamine, and checks performed to test the available data; no errors or discrepancies were identified.
	Data validation procedures used.	Validation steps were completed on the drillhole data supplied to Optiro. During input and desurveying in Datamine Studio RM, checks for overlapping intervals and gaps in downhole interval files, checks that assays where within expected ranges, that the end of hole depths matched logged/sample data, there were no FROM-TO discrepancies in the downhole data, the rate of change of the down hole surveys were with expected ranges. After importing the data, the logged lithology/alteration were within expected assay ranges, logging was spatially consistent, and no material discrepancies were identified.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Optiro CP Ian Glacken conducted a site visit on the 04th of August, whilst exploration drilling was still underway.
	If no site visits have been undertaken indicate why this is the case.	A site visit has been undertaken.

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Project Black Swan – Prospect Golden Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	As a function of the tight spaced drillhole spacing (nominally 10 mN x 10 mRL) and relatively consistent geology in the mineralisation, there is good confidence in the geological interpretations. Estimation has been restricted to mineralised lithologies and domains consistent with the extensive previous mining operations.
	Nature of the data used and of any assumptions made.	All diamond drillholes that tested the stratigraphy were used to inform the interpretations and estimate. This includes holes drilled when the mine was previously in production and which matched the drilling from the 2021 campaign.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The evidence from the previous mining operation makes large scale alternative interpretations unlikely. There is scope for very localised variability, but the impact is considered to be only of very local significance.
	The use of geology in guiding and controlling Mineral Resource estimation.	Initial mineralised envelopes were prepared based on the ultramafic stratigraphy (whether located at the felsic-ultramafic contact or ultramafic hangingwall stratigraphy), nickeliferous sulphide texture (massive/semi-massive and disseminated sulphides), in combination with nickel and sulphur grades. Within the contact mineralisation, the mineralisation was categorised as either dominantly massive/semi-massive or dominantly disseminated sulphides using a 5.0% sulphur indicator and a 50% probability threshold. Estimation was then undertaken within the contact domain and sulphide category. The ultramafic domains have a consistent disseminated sulphide texture and were estimated on a domain basis exclusively.

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Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	The factors affecting continuity both of grade and geology.	Nickel is hosted within the Black Swan Komatiite Complex, a large series of ultramafic komatiite flows. The massive sulphide Golden Swan mineralisation is located within the basal komatiite flow of the Black Swan Complex. Controlling factors include presence of ultramafic host, location within the ultramafic stratigraphy, and the texture of the sulphide mineralisation.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource*	There are three contact massive sulphide domains: •C10460 – located on the basal ultramafic contact, dipping 70-75° to vertical towards 110°, approximately 50 m along strike, 40 m vertically, averaging 3.2 m horizontally and with the top of the mineralisation located approximately 880 m below surface. •C10360 – located on the basal ultramafic contact, dipping 70-75° to vertical towards 110°, approximately 70 m along strike, 85m vertically, averaging 3.6 m horizontally and with the top of the mineralisation located approximately 960 m below surface. •C10300 – located on the basal ultramafic contact, has a near vertical dip with variable dip directions flipping between 095° and 275°. This mineralisation is approximately 40 m along strike, 35m vertically, averaging 2.1 m horizontally and with the top of the mineralisation located approximately 1,000m below surface. In addition there are two hangingwall ultramafic domains adjacent to the contact mineralisation, but located entirely within the ultramafic stratigraphy: •U10450 – is adjacent to but approximately 5 m to the east of the C10460 domain, the U10450 domain dips at 80° towards 110°. This domain is approximately 60 m along strike, 25m vertically, averaging 2.5 m horizontally, and with the top of the mineralisation located approximately 895m below surface. •U10370– is adjacent to, but approximately 0 to 5 m to the east of the C10360 domain, the U10370 domain dips at 65° towards 095°. This domain is approximately 65 m along strike, 50 m vertically, averaging 2.6 m horizontally, and with the top of the mineralisation located approximately 960m below surface.

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Project Black Swan – Prospect Golden Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	Estimation was undertaken using 1.0 m composite samples. The grades of variable populations exhibited low variability and did not require top-cutting. As a function of the low variability ordinary kriging was selected as the preferred estimation technique, which is considered appropriate. A dynamic anisotropy search strategy was used to control the search direction and a three-pass search neighbourhood adopted for the estimate. The contact mineralisation used a search distance of 65 m in the plane of the mineralisation and 7.5 m across. The ultramafic mineralisation used a search distance of 32.5 m in the plane of the mineralisation and 7.5 m across. The search distance was doubled for the second pass and quadrupled for the last estimation pass, with the first pass informing 95% of the Mineral Resource. All domains used a minimum of 6 and a maximum of 20 samples for search passes 1 and 2. The third search pass used a minimum of 4 and a maximum of 12 samples, which informed less than 0.5% of the mineralisation. For the C10460and C10360 contact mineralisation, a maximum of 4 samples per drillhole was used. The other domains had no such restriction applied. Within the contact mineralisation the maximum distance of extrapolation is 44 m and within the ultramafic domain the maximum distance of extrapolation is 55 m. Estimation was completed using Datamine RM software (v1.6.87.0),
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	This is a maiden Mineral Resource estimate and no alternative check estimates are available; there has been no production as yet from the Mineral Resource.
	The assumptions made regarding recovery of by-products.	There are no assumptions about the recovery of by-products.

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Project Black Swan – Prospect Golden Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Nickel, cobalt, copper and density were estimated. Iron, sulphur, arsenic and magnesium oxide have been estimated to assist with future mine planning assessment.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The parent cell size was reviewed using Kriging Neighbourhood Analysis and the final parent block size of 5.0 mN x 1.25 mE x 5.0 mRL was selected. This compares to average drillhole spacing of 10 mN x 10 mRL with samples spaced 1.0 m downhole. The first pass search was 65 m along strike and down dip.
	Any assumptions behind modelling of selective mining units.	No assumptiosn regarding the mining SMU have been used.
	Any assumptions about correlation between variables.	For the contact mineralisation there is good positive correlations (R > 0.8) between nickel and cobalt, iron, sulphur, and density, and a good correlation with magnesium oxide. The nickel correlation with copper is poor to moderate (R >0.49) while there is no correlation between nickel and arsenic. For the hangingwall ultramafic mineralisation, there are moderate to good positive correlations (R > 0.75) for nickel, cobalt, copper, iron and sulphur. However, the correlation between these elements and density, magnesium oxide and arsenic is variable, ranging from poor to moderate at best.
	Description of how the geological interpretation was used to control the resource estimates.	The Mineral Resource estimate was constrained within interpretations of the nickeliferous contact or ultramafic lenses. The massive/semi-massive sulphide contact mineralisation was then categorised as either massive/semi-massive or disseminated sub-domains within that lens, and are located along the contact between the meta-sediment and ultramafic contact. The ultramafic mineralisation is disseminated nickel sulphides wholly contained within the ultramafic lithology.

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Project Black Swan – Prospect Golden Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	Discussion of basis for using or not using grade cutting or capping.	Following a review of the histogram, cumulative distribution, mean/variance analysis combined with all domain and grade/variables having low variances and coefficients of variance, no caps or top-cuts were required.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	The estimates were initially validated visually in section and plan and there was good correlation between the composite and estimate. The whole of domain averages for the estimates were then compared with the naïve and declustered composite samples and again there was good correlation between the two. Swath plots were then used to test the estimate and again, there was good correlation and the sample trends had been maintained.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The density was measured with natural moisture. This approach is the same as was used during the previous operational phase, with the core being fresh, non-porous and competent.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied*	The Mineral Resource was interpreted using the massive nickel sulphide texture and stratigraphic position of the mineralisation. The Mineral Resource has been reported using a cut-off grade of 1.0% nickel which reflects a nominal cut-off.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The current Golden Swan mineralisation commences approximately 880 m below surface and is exclusively an underground Mineral Resource and is amenable to narrow vein mining methods.

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Project Black Swan – Prospect Golden Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	It has been assumed that the previous successful mining and treatment of the Silver Swan, Cygnet and Black Swan material implies the Golden Swan material will be amenable with the historical processing using conventional sulphide floatation processes.
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made*	Golden Swan mineralisation is located within the previously mined Black Swan Project, which operated within established environmental legislation and practices that are industry standard. As the project has previously been mined and treated, the existing waste storage facilities, procedures and environmental considerations are not expected to pose any issues to the resumption of mining.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	The bulk density (and specific gravity) has been measured from diamond core using the immersion method. The density measurements contain natural moisture, is fresh, not-porous, competent and the natural moisture content is not considered material. Only measured density values were used for the estimation of density.

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Project Black Swan – Prospect Golden Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	Bulk density measurements were routinely collected for all underground drill core submitted for analysis. The core is not porous, and porosity is negligible. Density was obtained from all submitted samples and hence, reflects all rock and alteration zones.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	As a function of the moderate to good nickel-density correlation, density was estimated from the composited core density data using the same estimation domains and parameters as the nickel grade.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories*	The classification of Mineral Resources was completed by Optiro using a range of criteria, including confidence in the geological and mineralisation model, grade and geological continuity and the available drillhole spacing. The Indicated Mineral Resource is of a moderate confidence. These areas are considered to have a moderate to high confidence in the geological interpretation, are considered well informed supported by a nominal drill spacing less than 20 mN x 20 mRL, with suitable drillhole intersection angles, and where grade and geological continuity can be assumed. The Inferred Mineral Resource is of a low confidence. These areas are considered to have a low or variable confidence in the geological interpretation, are considered poorly informed supported by a nominal drill spacing greater than 20 mN x 20 mRL, and/or with increasingly acute drillhole intersection angles, and where grade and geological continuity is implied but cannot be assumed.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The classification has taken into account of all relevant factors and is in line with industry acceptable standards.

Project Black Swan – Prospect Golden Swan
Section 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource classification applied to the September 2021 maiden Golden Swan Mineral Resource appropriately reflect the Competent Person's view of the deposit.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	The September 2021 maiden Golden Swan Mineral Resource has been reviewed internally by Optiro Pty Ltd, but has not been externally reviewed.
	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate	The current Mineral Resource classification suitably reflects the relative accuracy of the Mineral Resource. No statistical procedure has yet been undertaken to quantify the relative accuracy.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used	The September 2021 maiden Golden Swan Mineral Resource is considered a global estimate.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	There has been no mining of the Golden Swan mineralisation.

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Project Black Swan – Prospect Silver Swan Tilings
JORC Code (2012) Table 1, Section 1, 2 and 3

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) guidelines for the reporting of Mineral Resources.

Project Black Swan – Prospect Silver Swan Tailings
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

JORC Code Explanation	Commentary
Sampling techniques	
Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	The sampling was sonic drilling, which does not use either water or compressed air to preserve the integrity of the sample. Sonic drilling produces a tube of 'core' which is collected in a plastic sleeve. Sonic drilling was used to extract 1 m runs of solid tailings material as a 'core' which was collected in a plastic sleeve and stored in core trays.
Drilling techniques	
Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Sonic drilling to maximise recovery and minimise disturbance of the tailings material.
Drill sample recovery	
Method of recording and assessing core and chip sample recoveries and results assessed. *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	Every run of 'core' was logged and the recovery noted. The nature of the drilling maximises tailings recovery. Whole 'core' samples were recovered and carefully cut in half with a bladed tool. Half 'core' was retained. There is no relationship between recovery and grade.

Project Black Swan – Prospect Silver Swan Tailings
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

JORC Code Explanation	Commentary
Logging	
Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* *The total length and percentage of the relevant intersections logged.*	Geological logging (colour, degree of oxidation, moisture content) was recorded for each sample metre. The logging is qualitative. Every sample for every hole (resource definition and metallurgical holes) was logged.
Sub-sampling techniques and sample preparation	
If core, whether cut or sawn and whether quarter, half or all core taken. *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Half of the sonic 'core' was taken. Core drilling used. The sonic 'core' samples were halved and bagged. The samples were weighed before and after drying. The dry samples were delivered to the assay laboratory where they were crushed and pulverised, before a small aliquot was split off for XRF and Laser Ablation/ICPOES assay (silver and cobalt). The sample recovered is homogeneous and thus half core samples taken at random are representative of the whole. The sample sizes are appropriate for the analytes; the grain size is fine (< 40 micron) as the material is tailings, thus there are no issues with sample mass.
Quality of assay data and laboratory tests	
The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	XRF, using a fused disk, was carried out for a suite of analytes. Laser Ablation, followed by ICPOES, was used for silver and cobalt. Both techniques provide a total assay. A handheld XRF was only used for initial assay determination in the field; all handheld assays were replaced by fused disk XRF assays. CRMs were inserted at a rate of 1 in 10; pulp repeats were inserted at a rate of approximately 1 in 25. Collectively these demonstrate good accuracy and precision.

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Project Black Swan – Prospect Silver Swan Tailings
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

JORC Code Explanation	Commentary
Verification of sampling and assaying	
The verification of significant intersections by either independent or alternative company personnel. *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	No twinning was carried out, but duplicate samples were submitted. No twinned holes were drilled. Logging and sampling information was collected using a toughened data entry computer and stored in an Access database. The database has been verified and no issues noted. No adjustments were carried out.
Location of data points	
Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Collars were picked up with a DGPS. As the holes are shallow (most less than 6 m in depth) and all vertical, no downhole surveying was used. MGA 94 Zone 51. The surface, pre-existing surface and walls of the Cell 3 tailings dam was accurately surveyed, thus there is good 3D topographic control on the tailings volume.
Data spacing and distribution	
Data spacing for reporting of Exploration Results. *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	Resource definition drilling was on an approximate 40 m offset grid. Variogram analysis shows that the range of influence for nickel is at least twice the drill spacing in the X and Y dimensions. Sample compositing has not been carried out as most of the samples were collected on 1 m increments.
Orientation of data in relation to geological structure	
Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	The tailings were deposited horizontally and the sampling is vertical. The tailings have horizontal control, reflecting the time-based nature of deposition.
Sample security	
The measures taken to ensure sample security.	Samples were collected and transported to the POS Mine Office less than 500 m away by POS personnel, and thence delivered to assay laboratories in Kalgoorlie, also by POS personnel.
Audits or reviews	
The results of any audits or reviews of sampling techniques and data.	No audits or reviews of sampling techniques were carried out. A recent review by the Competent Person shows that the samples were stored and processed appropriately.

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Project Black Swan – Prospect Silver Swan Tailings
SECTION 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

JORC Code Explanation	Commentary
Mineral Tenement and Land Tenure Status	
Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The Black Swan mine-site and the tailings Cell 1 sit on granted Mining Lease M27/200, owned by Poseidon Nickel Limited. The tailings are on a granted Mining Lease with no issues regarding security of tenure.
Exploration Done by Other Parties	
Acknowledgment and appraisal of exploration by other parties.	No exploration has been carried out by other parties
Geology	
Deposit type, geological setting and style of mineralisation.	The tailings are from mining of the high-grade underground massive nickel sulphide Silver Swan orebodies. Tailings from the lower-grade Black Swan open pit were deposited in a different Cell.
Drill Hole Information	
A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: *easting and northing of the drill hole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *dip and azimuth of the hole* *down hole length and interception depth* *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from*	See the attached tabulation of the drillhole collars (Appendix A).

Project Black Swan – Prospect Silver Swan Tailings
SECTION 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

JORC Code Explanation	Commentary
the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data Aggregation Methods	
In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Assays have been collected for every sample in the resource definition holes. No grade cutting has been applied. No aggregation has been employed. No metal equivalent values have been used.
Relationship Between Mineralisation Widths and Intercept Lengths	
These relationships are particularly important in the reporting of Exploration Results. *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	The holes have been drilled normal to the deposition of the tailings, i.e. vertically.
Diagrams	
Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views	The attached report contains a plan view of all of the collars.
Balanced Reporting	
Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades	No assays have been reported in the associated documentation.

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Project Black Swan – Prospect Silver Swan Tailings
SECTION 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

JORC Code Explanation	Commentary
and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
Other Substantive Exploration Data	
Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other exploration data is relevant to the evaluation of the Silver Swan tailings.
Further work	
The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	No further work, other than mining of the tailings, is planned.

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Project Black Swan – Prospect Silver Swan Tailings
SECTION 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

JORC CODE Explanation	Commentary
Database integrity	
Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. *Data validation procedures used.*	The database was reviewed by the Competent Person, and apart from one incorrect moisture calculation, no errors were noted. Observation of the database and viewing of the remnant half 'core' samples; three-dimensional viewing of the holes with respect to the surveyed tailings volumes.
Site visits	
Comment on any site visits undertaken by the Competent Person and the outcome of those visits. *If no site visits have been undertaken indicate why this is the case.*	The Competent Person visited the tailings facility on 3 August 2021 and checked the collar positions of some of the holes, finding no errors. The remnant half 'core' was viewed.
Geological interpretation	
Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	The interpretation of the three zones is based upon colour and degree of oxidation and corresponds to the sulphide content of the associated mineralisation. The three zones are readily apparent in core photos and in remnant samples. The composited sonic drilling data was used in its entirety; samples were coded into one of the three estimation zones or as being below the base of the tailings (as defined by a basal liner). There are no alternative interpretations. The three zones have been defined on the sulphide content, nickel, iron and MgO values in the tailings, and reflect three distinct populations.
Dimensions	
The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The tailings dam (Cell 1) is approximately 220 m square, with a depth of up to 7 m.
Estimation and modelling techniques	
The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	Inverse distance squared interpolation has been applied for Ni%, Al_2O_3%, CaO%, As%, Co ppm, Cu%, Fe%, MgO%, MnO%, S%, SiO2%, moisture %, and in situ Specific Gravity (t/m^3). The cell size was 12.5 mN by 12.5 mE by 1 mRL, with sub-celling down to an eighth of the parent block size. Estimation was into parent cells using Surpac software. There are no check estimates. No assumptions have been made in the reporting of the Mineral Resource about the recovery of by-products. The main deleterious element estimated is arsenic. The average drill spacing is an offset 40 m by 40 m grid. No assumptions have been made regarding the selective mining unit, as the concept is not relevant for tailings recovery.

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Project Black Swan – Prospect Silver Swan Tailings
SECTION 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

JORC CODE Explanation	Commentary
The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	No assumptions have been made regarding the correlation between variables. Three estimation domains were used, based upon nickel grade, MgO and iron grades, also the colour and level of oxidation of the tailings 'cores'. Samples were coded separately into each of the three domains and hard estimation boundaries were applied. Grade cutting was only applied to cobalt assays in zone 1, affecting 3 samples, and dry SG, affecting one sample. The main variables of interest remain uncut. The model was compared to the informing drillhole samples per domain for nickel, sulphur, arsenic, iron and MgO. In all cases the average grades of the samples were within 5% of the volume and density-weighted model grades. Visual validation and validation via swath plots was also carried out.
Moisture	
Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Moisture measurements were taken, both for the resource definition samples and for the metallurgical samples, and the moisture percentage was estimated into each block. The moisture was determined by weighing the freshly drilled sample (half core) and the sample after drying at 80C or less.
Cut-off parameters	
The basis of the adopted cut-off grade(s) or quality parameters applied	Because of the non-selective nature of tailings recovery not reporting cut-off grade has been applied.
Mining factors or assumptions	
Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous.	Zone 3, which is the top zone containing partially-oxidised, low nickel, High MgO and low iron material, has not been reported and it is envisaged that this will be scraped off and deposited elsewhere before the underlying tailings are mined. Potential mining methods include mechanical excavation, which is highly probable, or sluicing. The underlying Zones (1 and 2) have been reported in their entirety.

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Project Black Swan – Prospect Silver Swan Tailings
SECTION 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

JORC CODE Explanation	Commentary
Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	
The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Pilot metallurgical testing of four composites generated from the 2018 sonic drilling has been considered in the derivation of the criteria for Reasonable Prospects of Eventual Economic Extraction.
Environmental factors or assumptions	
Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	It is assumed that the overlying (Zone 3) material will be scraped off and redeposited in a suitable storage facility. It is estimated that there is approximately 140,000t of this material.
Bulk density	
Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	The metallurgical samples were subject to dry specific gravity determinations at ALS in Perth as part of the testing process, resulting in 73 samples with specific gravity results between 2.64 and 4.13. Bulk density measurements were carried out on dried 10 cm segments of whole sonic 'core'. The reported tonnage is derived from the in-situ bulk density corrected for the interpolated moisture in each block.

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Project Black Swan – Prospect Silver Swan Tailings
SECTION 3 Estimation and Reporting of Mineral Resources
(Criteria in this section apply to all succeeding sections)

JORC CODE Explanation	Commentary
Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	
The basis for the classification of the Mineral Resources into varying confidence categories Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	The entire tailings has been classified as a Measured Resource on the basis of excellent reproducibility of grades in the model, good QAQC on the sonic samples, and good continuity of nickel as measured by the variogram. The classification has taken into account all relevant factors. The classification reflects the Competent Person's view of the deposit.
Audits or reviews	
The results of any audits or reviews of Mineral Resource estimates. Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	The Competent Person has reviewed the Mineral Resource estimated by POS staff in 2018 and takes full responsibility for the results. The grades are accurate at the global level, i.e. assuming that the entire tailings dam (apart from the top metre) is removed and treated. It would not be appropriate to assign grades other than at the domain level. The estimate refers to the global TSF tonnage. No production data is available.

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Project Lake Johnston – Prospect Maggie Hayes
JORC Code (2012) Table 1, Section 1, 2 and 3

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) guidelines for the reporting of Mineral Resources.

Project Lake Johnston – Prospect Maggie Hayes
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

JORC Code explanation	Commentary
Sampling techniques	
Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	Diamond drill core and reverse circulation (RC) drilling were used to obtain samples. Diamond core has been split on lithological contacts for sampling purposes. Sampling protocols are not known for individual campaigns of drilling, however historical reports refer to a combination of quarter, half and whole core analysis. Assays are by four acid digest and OES finish method and four acid digest with AAS finish. Historical Genalysis (Intertek) assaying was completed using four acid digest with AAS finish. Samples collected by Poseidon during 2015 were analysed by SGS Laboratories using Sodium Peroxide Fusion digest with AES finish.
Drilling techniques	
Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or	Golder created a drill hole database for use in the resource estimate. The database includes 1092 drill holes, which comprise of diamond drilling core and RC chip sampling. The estimation utilised only those holes of sufficient confidence, therefore 989 drill holes were used for estimation purposes.

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Project Lake Johnston – Prospect Maggie Hayes
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

JORC Code explanation	Commentary
standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	The database was compiled using information outlined in previous estimation work by McDonald Speijers, which identified the provenance of drill holes and the likely accuracy, and utilising updated survey information checked and updated by Poseidon. It is not known if core was oriented.
Drill sample recovery	
Method of recording and assessing core and chip sample recoveries and results assessed. *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	Drilling recovery is not recorded in databases.
Logging	
Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* *The total length and percentage of the relevant intersections logged.*	A sophisticated hierarchical lithological coding system based on observed properties was used for geological logging. Lithologies are recorded separately and an abbreviated code for plotting sections included. Mineralisation and structural data was recorded in separate tables.
Sub-sampling techniques and sample preparation	
If core, whether cut or sawn and whether quarter, half or all core taken. *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*	Sampling technique documentation has not been sighted by Golder, but it is recorded in the drilling database that sampled core includes quarter, half and full core sampling. Preparation techniques are not known for the samples processed prior to 2015.

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Project Lake Johnston – Prospect Maggie Hayes
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

JORC Code explanation	Commentary
For all sample types, the nature, quality and appropriateness of the sample preparation technique. *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	2015 Poseidon sampling was completed on diamond drill core. Sampling was completed on lithological contacts. Half core sampling was completed on holes not previously sampled. When resampling, quarter core was taken.
Quality of assay data and laboratory tests	
The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	There are records of laboratory assay repeats, standards and duplicates, though the percentage of standards in not known. Golder has relied on the assessment of assay quality by previous practitioners, principally as described in the McDonald Speijers (2008) Mineral Resource report.
Verification of sampling and assaying	
The verification of significant intersections by either independent or alternative company personnel. *The use of twinned holes.*	Underground workings have intersected significant mineralisation intervals. Underground drives and development faces have been mapped by geologists to aid the interpretation of lithology contacts and mineralised lodes. The accuracy of these maps have been investigated by Poseidon and, where possible, updated to correctly position the underground face mapping.

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Project Lake Johnston – Prospect Maggie Hayes
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

JORC Code explanation	Commentary
Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. *Discuss any adjustment to assay data.*	
Location of data points	
Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Mine workings have been surveyed by employees of the various owning companies during underground mining development. Long surface drill holes of uncertain survey positions were systematically replaced with underground drilling to improve spatial accuracy of sample locations and domain boundary positions. Local mine grid coordinates were used for the estimation. Drill holes used in the database have been checked for location validity, and where required and possible, surveys have been updated to reflect their true position within the ore body. This work was undertaken by Poseidon using a range of validation techniques.
Data spacing and distribution	
Data spacing for reporting of Exploration Results. *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	Drill spacing was used as a factor in establishing the degree of confidence in the estimate, influencing the Ore Reserve classification. Golder composited drilling data to 2 m downhole composite intervals for disseminated ore and host rock domains. Drilling data was composited to 1 m downhole intervals for narrow, massive sulphide mineralisation.
Orientation of data in relation to geological structure	
Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Where drilling intersected mineralisation at high angles, the holes were not included in the database used in the estimation.

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Project Lake Johnston – Prospect Maggie Hayes SECTION 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)	
JORC Code explanation	**Commentary**
If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Most holes drilled from surface, which have some uncertainty in spatial positioning, were replaced with underground drilling, or have had the survey positioning checked for validity and have had the spatial positioning updated where possible.
Sample security	
The measures taken to ensure sample security.	There are no documented details available for sample security.
Audits or reviews	
The results of any audits or reviews of sampling techniques and data.	There are no documented reviews of audit or review for sampling.

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Project Lake Johnston – Prospect Maggie Hayes
SECTION 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section)

JORC Code Explanation	Commentary
Mineral Tenement and Land Tenure Status *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	Maggie Hays Mine is situated on M63/163 and the plant is located on M63/283 which are located 190km SW of Kalgoorlie. Both tenements are registered to Poseidon Nickel Olympia Operations Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd. A long standing Native Title Agreement (since 1997) exists with the Ngadju People and will be continued by Poseidon Nickel. The tenements are located within the buffer zone of the Bremer Range Priority Ecological Community and within the Proposed Nature Reserve 82. Lake Johnston Plant commenced operation in 2001 and there are no known impediments to continue operating in this area. There are no royalties or other interests held.
Exploration Done by Other Parties *Acknowledgment and appraisal of exploration by other parties.*	LionOre Australia and Norilsk Nickel Australia previously completed exploration, drilling and mining of the Lake Johnston project until Poseidon's acquisition in late 2014.
Geology *Deposit type, geological setting and style of mineralisation.*	Nickel mineralisation at Maggie Hays is interpreted as an intrusive style ultramafic body, not extrusive Kambalda style lava flows. Nickel mineralisation occurs as disseminated sulphides and lenses of massive sulphide
Drill hole information	Holes used are surface or underground diamond drill holes diamond and RC drill holes.
Data aggregation methods	N/A
Relationship between mineralisation widths and intercept lengths	N/A
Diagrams	See body of report.
Balance reporting	The reporting is factual & balanced. Where Poseidon or Golder has made assumptions and/or interpreted data, these are clearly identified.
Other substantive exploration data	The modelling supports the vast drilling database that was acquired with the purchase of the Lake Johnston Project. Historical assessments and estimations by other consultants or previous owners have been used to guide certain aspects of this resource update and are identified in the detailed resource estimation report.
Further work	Poseidon are undertaking a range of resource definition and mine planning programmes in addition to this resource update.

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Project Lake Johnston – Prospect Maggie Hayes
SECTION 3 Estimation and Reporting of Mineral Resources
(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

JORC Code Explanation	Commentary
Database integrity	
Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. *Data validation procedures used.*	Logging and assay data has been uploaded in to an Access database. Some of this data is believed to have been transcribed from previous spreadsheets. The database has some errors, data inaccuracies and omissions. In these instances, information was not used for the Mineral Resource estimate. It does not contain sample and assay quality control information. Golder has seen no evidence of validation of drill hole data, however, underground workings have intersected mineralisation as drilled.
Site visits	
Comment on any site visits undertaken by the Competent Person and the outcome of those visits. *If no site visits have been undertaken indicate why this is the case.*	Golder undertook a site visit in August 2014 to view the surface and underground workings and infrastructure. The further visit was conducted in January 2015.
Geological interpretation	
Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.*	Golder created sections through the disseminated mineralisation wireframes that were developed during the period the mine was in operation. The sections were then re-interpreted and snapped to drill holes using assay grades and lithological logging as a guide. The North Shoot mineralisation was re-interpreted by Poseidon using the updated survey information for drill holes and utilising the corrected underground face mapping positioning. Poseidon interprets the North Shoot to be a single unit of massive sulphide containing some splayed lenses. Due to the re-positioning of drill holes and face mapping from updated survey information, North Shoot mineralisation is considered of higher confidence than in previous estimates. In these areas, where drill hole information and development drive face mapping exist, the resource category status was updated to Indicated. Areas of the North Shoot where drilling is still wide-spaced, and no development drives exist retained their Inferred resource category status. Another massive sulphide mineralisation zone was also modelled by Poseidon south of the North Shoot in an area known as the Suture Zone. The sections were interpreted and snapped to drill holes using assay grades and lithological logging as a guide.

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The factors affecting continuity both of grade and geology.	Underground mapping was conducted and is believed to have been used in the construction of original wireframes. Wireframe locations were honoured where supported by drilling data. The geological interpretation is validated by drilling, underground chip sampling, geological mapping and mining activity.
Dimensions	
The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The Mineral Resource associated with the Maggie Hayes deposit runs along a strike length of approximately 1000 m north-south and approximately 450 m east-west in a series of thin lenses. Drilling has intercepted Ni mineralisation at up to 600 m below surface. The deposit is split between, the 'North Shoot' mineralisation, disseminated and massive southern Cave Zone, with a disseminated and massive sulphide Suture Zone connecting the north and south areas.
Estimation and modelling techniques	
The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).*	Mineralisation was estimated within domains defined by lithological and assay information. Statistical analysis of sample data in the composite file was used for estimation purposes. The block size is 5 m (X) by 10 m (Y) by 5 m (Z). The sub-block size is 0.625 m (X) by 1.25 m (Y) by 0.625 m (Z) to achieve acceptable resolution of geological domains. Using parameters derived from the modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades for Ni, As, Cu, Co, Fe, MgO and S. The Ni estimation was conducted in three passes with the search size increasing for each pass. In some domains, where blocks had not been filled after three passes, a fourth pass was used to fill the remaining blocks. All grade estimates were made to the parent cell size. Estimation for the remaining components was made in two passes. If blocks were still not filled after the second pass, then a default around the average grade was applied. These secondary components are not included in the Mineral Resource. The model was validated visually and statistically using swath plots and comparisons to sample statistics. The estimation smoothing effect was validated globally for the main mineralised domains against a Discrete Gaussian change of support model. Areas of depleted mine workings were removed from the model in order to yield the final Mineral Resources.

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In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	
Moisture	
Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Golder used default assumed densities for each domain, taking into account the rock type, mineralisation and information from previous work by McDonald Speijers. These densities assume a dry density and do not include moisture
Cut-off parameters	
The basis of the adopted cut-off grade(s) or quality parameters applied.	No high-grade cuts were applied by Golder in the estimation of Ni grades, but spatial constraining was used to limit the influence of high grade sample intersections in "waste" domains to prevent excessive extrapolation of ore grade mineralisation. Reporting at cut-off grades of 0.8% Ni for disseminated mineralisation is consistent with previous analysis of breakeven cut-off grades. Massive sulphides form distinct units where application of cut-off grade is not appropriate.
Mining factors or assumptions	
Assumptions made regarding possible mining methods, minimum mining	Golder assumed any future mining would likely continue with sub-level caving of disseminated mineralisation and a form of stoping for North Shoot massive sulphides.

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dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The block model uses a parent cell size of 5 m (X) by 10 m (Y) by 5 m (Z), Sub-block size is 0.625 m (X) by 1.25 m (Y) by 0.625 m (Z). These were primarily determined by data availability and the dimensions of the mineralisation. As grade estimates were made to the parent cell size, this defines the effective selectivity of the Mineral Resource estimate. The extent of the existing mining voids was based on surveyor's pickups of the southern sub-level cave and North Shoot stopes. The most conservative approach was taken, with the greatest extent of the sub-level cave depleted in the model.
Metallurgical factors or assumptions	
The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	The Lake Johnston concentrator has a capacity of approximately 1.5 Mtpa based on historically demonstrated mill capacity. The concentrator was shutdown in April 2013 by Norilsk before being placed into care and maintenance. Poseidon Nickel is planning to operate the concentrator at approximately 1.0 Mtpa throughput rates with ore supplied initially from Maggie Hayes underground operations, the disseminated caved ore, North zone and potentially the suture zone. The plant will be refurbished and minor modifications to the flowsheet and reagents will be made to allow for the reduced throughput. A scope and cost for this refurbishment has been generated as part of the study. The plant is an existing and proven concentrator with a demonstrated capacity to process nickel sulphide ores from Maggie Hays and Emily Anne. The metallurgical process is conventional, well understood and has many years of operational experience to support the flotation response of the Lake Johnston pentlandite and millerite ore. An assessment of the concentrate produced at Lake Johnston confirmed that a quality smeltable highly sort after concentrate was typically produced with no expected penalties.
Environmental factors or assumptions	
Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing	As the project has previously been mined, there are existing waste storage facilities and environmental considerations are not expected to pose any issues to the resumption of mining activity. The site has a large number of approvals issued under the *Mining Act* and *Environmental Protection Act*. Approvals remain current for the project. Environmental impacts were assessed as part of obtaining the above approvals. No significant impacts are considered to result from the project.

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operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Geochemical characterisation studies have been conducted on Lake Johnston waste rock and tailings. Lake Johnston waste rock and tailings were both determined to be Potentially Acid Forming (PAF) similar to Windarra. Project land disturbance appears to be within approved amounts. No additional land disturbance beyond approved amounts will be required for waste rock and tailings management. Works for the tailings storage facility tails lift were commenced prior to the project being placed on care and maintenance. These works were not completed and, as such, certification of the works by the Department of Environment Regulation (DER) could not be obtained. The Works Approval authorising construction of the 4 metre tailings embankment raise has since been resubmitted to the regulator.
Bulk density	
Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Density measurements were largely made using the water immersion technique. However, the database does not contain information on the origin of density measurements and there are some conflicting points on the provenance of density measurements in the database tables. Based on previous work done by McDonald Speijers, and knowledge of the area, Golder applied default densities for each geological unit.
Classification	
The basis for the classification of the Mineral Resources into varying confidence categories. *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations,*	Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The classification of Mineral Resources was completed by Golder based on geological confidence, drill hole spacing and grade continuity. The Competent Person is satisfied that the result appropriately reflects his view of the deposit.

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reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Continuous zones meeting the following criteria were used to define the resource class: <u>Indicated Resource</u> • Two or more drill holes spaced no further than 40m apart confirming grade continuity. • Underground development and mapping confirming the relative positioning of the mineralised domains. <u>Inferred Resource</u> • Single drill holes or large spatial separation between drill holes (more than 40 m).
Audits or reviews	
The results of any audits or reviews of Mineral Resource estimates.	This Mineral Resource estimate is based on data and information from previous resource estimates completed by McDonald Speijers and Golder.
Discussion of relative accuracy/confidence	
Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	The relative accuracy is reflected in the Mineral Resource classification discussed above. This Mineral Resource estimate includes knowledge gained from mining recovery data during production.

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These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

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Project Windarra – Prospect Mt Windarra
JORC Code (2012) Table 1, Section 1, 2 and 3

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) guidelines for the reporting of Mineral Resources.

Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Drilling at Windarra Nickel Project (WNP) was initially completed by Poseidon NL then subsequently Western Mining Corporation (WMC) from 1969 to 1992. Poseidon Nickel Limited (Poseidon) recommenced drilling in 2006. No activity took place between the period 1992 to 2006.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	All tools are regularly serviced to manufactures specifications.

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Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	All sampling for resource estimation at Windarra Nickel Project (WNP) is based on diamond drill core. Sample selection is based on geological core logging and sampled to geological contacts. Individual assay samples typically vary in length from a minimum of 0.2m and a maximum length of 1.2m.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Diamond drilling at WNP is typically NQ2 size. Occasionally BQ and HQ size holes have been drilled. WMC used downhole orientation methods such as the Core-stub Spear and the Craelius System. The entire core from 2006 onwards was orientated using the 2IC EzyMark orientation tool in surface holes and Reflex ACTII RD downhole tools in underground holes.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	All recovered diamond core has been meter marked by on site field technicians and/or geologists. Any core loss is determined and recorded as part of the geological logging process.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Core recovery is typically 100% with only minor losses in and around shear zones with rare loss in mineralised zones.

Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No relationship exists between core recovery and grade.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	All core is geologically and geotechnical logged to a standard appropriate for mineral resource estimation purposes.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Core is logged onto Toughbook computers using FieldMarshal software using validated coding. The data is checked in Micromine then loaded into Poseidon's SQL Server database via DataShed which is managed and maintained by Maxwell Geoservices. All core from 2006 is photographed dry and wet. No photo records exist for WMC core, however core from several holes was preserved at the Joe Lord Core library in Kalgoorlie
	The total length and percentage of the relevant intersections logged	Core is continuously logged along the entire length of the hole.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	All core selected for sampling is cut into half core using a CoreWise automated core saw and sampled for assaying by on site field technicians. WMC used a manual brick saw.

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Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Assay samples are typically 1 m in length but may vary in length from a minimum of 0.2 m and a maximum length of 1.2 m according to geological boundaries.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Where possible all cut samples are selected from the same side of the downhole orientation mark to ensure the core is not “selectively sampled”.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Not routinely completed
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Nickel mineralisation is very coarse and represents a large proportion of the material therefore weigh vs. grain size is not an issue.

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Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The majority of the historic samples were analysed by Analabs in Perth and grade control samples were analysed by the Windarra onsite laboratory. Samples were dissolved in a mixed acid digest and analysed using an AAS finish. Poseidon samples have been analysed by Ultratrace and Quantum Analytical laboratories in Perth. The laboratory process for Poseidon samples involve: sorting, drying, & crushing to nominal 10mm, then up to 3kg is pulverised to 75um (LM5). A 0.5g sample charge is mixed with Lithium Borate flux and fused at 1080°C. The melt is dissolved in HCl acid and analysed using ICP-OES finish (15 elements).
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable – chemical assaying applied.

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Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Reference standards and blanks are routinely inserted into every batch of samples at a rate of 1 in every 25 samples. Poseidon's inserted standards in general showed results within expected ranges with minor biases observed in 2 batches of standards. The calculated means for Lab standards are very close to expected for the majority of standards and are within industry expectations. Laboratory repeat checks and original samples correlated very well. Monthly QAQC reports are compiled by Maxwell Geoservices. The QAQC results indicate that the assays used for resource estimation at WNP are a fair representation of the material that has been sampled.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intersections are calculated by the Chief Geologist on site and verified/reported by the Geology Manager (CP).
	The use of twinned holes.	Numerous historic drill holes were checked with twinned holes but no twinning has occurred during recent drilling as adjacent drill holes at WNP support each other very well geologically and analytically
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Assay data is imported directly from laboratory supplied digital files which are QAQC validated via DataShed then loaded into the SQL drillhole database.

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Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	No adjustments to assays are made.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	WMC holes progressed from downhole survey methods such as acid tubes to Eastman Single Shot Cameras from 1971 then to multi-shot orientation tools by the 1980's. Underground drill hole collar dips and azimuths were historically setup by WMC mine surveyors. Poseidon uses DHS's digital Azimuth Aligner gyroscope system. Mine workings have been digitized from the WMC survey master level plans completed by the authorized mine surveyor.
	Specification of the grid system used.	All historic and modern surveying is completed in local mine coordinates which are then converted to MGA GDA94 Zone 51 and stored in the database.
	Quality and adequacy of topographic control.	All underground and most surface hole collars are located by mine surveyors using Total Station control and surveyed control points which are tied into surveyed trig points. Surface holes have more recently been surveyed using real time DGPS instruments.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	WNP resource estimation holes are typically drilled on a regular grid spacing that varies according to the size and consistency of the resource being drilled.

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Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Typical spacing is less than 30 m between drill holes for Indicated Resources.
	Whether sample compositing has been applied.	No sample compositing is undertaken as all samples are logged and analysed in full.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The mineralised bodies are relatively planar and grades are typically consistent within individual resource domains so drill orientation does not introduce any significant bias.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Underground drill holes can have varying intersection angles from 90° to not less than 15° to contacts with the majority not being less than 30°.
Sample security	*The measures taken to ensure sample security.*	Core is delivered directly to the core yard which is separated from the main mine area and is manned by Poseidon personnel. All sampled core is bagged and wire-tied closed then placed in a large bulka bag which is also wire-tied closed. This is couriered direct to the labs were it is inspected before opening by lab staff. Sample security is considered adequate.

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Project Windarra – Prospect Mt Windarra
SECTION 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	All Mineral Resource data is audited by consultants Maxwells Geoservices and Optiro. Independent Consultants Behre Dolbear Australia (BDA) completed an extensive independent technical review of the WNP which included site visits. Sampling techniques and data quality is considered adequate.

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Project Windarra – Prospect Mt Windarra
SECTION 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	Mt Windarra is situated on a Special Act Lease M38/261SA which is under "Agreement" with the State Government. There is a 1% revenue royalty due to BHPB if the nickel product is not sold to/treated by BHPB. There are no material issues at Mt Windarra. Poseidon owns 100% of M38/261SA which is in good standing and has no overriding encumbrances.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Refer to Section 1 (above)
Geology	*Deposit type, geological setting and style of mineralisation.*	Refer to Section 3 (below)

Project Windarra – Prospect Mt Windarra
SECTION 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* *easting and northing of the drill hole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *dip and azimuth of the hole* *down hole length and interception depth* *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	No new Exploration Results have been reported.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No new Exploration Results have been reported.

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Project Windarra – Prospect Mt Windarra
SECTION 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	No new Exploration Results have been reported.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	No new Exploration Results have been reported.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	No new Exploration Results have been reported.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	No new Exploration Results have been reported.

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Project Windarra – Prospect Mt Windarra
SECTION 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Poseidon expects to undertake further resource definition, mine planning/geotechnical and grade control drilling at Mt Windarra.

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Project Windarra – Prospect Mt Windarra SECTION 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section)		
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	All WNP drill holes and resource samples are logged onto Toughbook computers using FieldMarshal software with validated coding restricting incorrect data entry. The data is checked in Micromine then loaded into Poseidon's SQL Server database and validated via DataShed which is managed and maintained by Maxwell Geoservices. Assay data is imported directly from laboratory supplied digital files which are QAQC validated via DataShed then loaded into the SQL drillhole database to ensure there are no transcript errors. WMC data was recorded on paper drill logs which were stored on microfilm. Logs were printed and entered manually into excel spreadsheets then imported into the Poseidon Datashed database. The data was validated against library tables during the import. CSA Australia completed an audit of the historical data in the database, which resulted in the location of missing &/or uncertain data and correcting it.
	Data validation procedures used.	Validation checks were undertaken on the data. See above.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	The geology competent person has been with Poseidon for 7 years and is intimately involved in the WNP taking regular trips to site and going on FIFO roster during drilling programs. Representatives of Maxwell Geoservices, BDA and CSA have all visited the site.

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Project Windarra – Prospect Mt Windarra SECTION 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section)		
	If no site visits have been undertaken indicate why this is the case.	Not applicable
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	There is a high level of confidence in the geological interpretation of all WNP resources due to the extensive historical operating experience and records kept by WMC, as well as the readily identifiable stratigraphic control on mineralisation. Wireframes have been used to constrain the estimation and are based on drillhole intercepts and geological boundaries. Wireframes for Shoots A and B have a 1.0% Ni cut-off grade, C and F have a 0.75% Ni cut-off grade, D has a 0.45% Ni cut-off grade and G and H have been constructed to a 0.8% Ni cut-off grade for shape consistency.
	Nature of the data used and of any assumptions made.	The mineralisation is generally quite planar with minor structural overprints and drill intercepts clearly define the shape of the mineralised body with limited options for large scale alternate interpretations.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	Not applicable
	The use of geology in guiding and controlling Mineral Resource estimation.	Wireframes are used to constrain the estimation and are based on drill hole intercepts and geological boundaries.
	The factors affecting continuity both of grade and geology.	Wireframes have been constructed to various nickel cut-off grades for shape and geological consistency.

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Project Windarra – Prospect Mt Windarra
SECTION 3 Estimation and Reporting of Mineral Resources
(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource*	The mineral resource at WNP comprises seven mineralised "shoots" (A, B, C, D, F, G & H Shoots) which have a total strike length of 1200 m and extend vertically from 45 m below surface (Upper G Shoot) to an open depth of 1125 m below surface (C & G Shoot). Four of the "shoots" (A, B, C & D Shoots) have been historically mined to a depth of 550 m below surface and continue from this depth to 1125 m.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	Nickel and copper grades in Shoots A and B were estimated using a ID^2 algorithm. No variography was carried out on Shoots A and B. A search ellipse of 4 m (x) by 20 m (y) by 40m (z) and a minimum of 2 and a maximum of 16 samples were used in the estimation process. All the other shoots used were estimation using Ordinary Kriging (OK) within Surpac or Datamine software. Shoots C, D and F had eight elements estimated by OK; nickel, copper, cobalt, arsenic, magnesium, magnesium oxide, iron and sulphur. Shoots G and H had a total of 17 elements estimated using a combination of OK, average grade assignment and via regression equations. The drilling grid spacing is approximately 40 m by 40 m. All samples were composited to 1 m downhole intervals. The composites for shoots C, D, F, G and H were density-weighted. Variogram orientations were largely controlled by the strike of mineralisation and downhole variography. Variograms for estimation were determined individually for each element. Where there was poor variograms, correlated elements used the Ni variogram. Local search domains were established within individual shoots to reflect the different orientations. Other estimation parameters, such as search distance, minimum and maximum sample numbers varied between shoots. KNA was carried out on individual shoots to give optimum estimation parameters.

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Project Windarra – Prospect Mt Windarra SECTION 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section)		
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	The March 2014 Mineral Resource estimates were compared to those of May 2013 (C and F shoots) and April 2012 (D Shoot). Overall there has been an increase of 8% in tonnes and a decrease of 11% in nickel grade in the March 2014 resource update; this is due to the lower mean grade of the recent drilling. The decrease in nickel metal of the resource is 4%. The April 2012 Mineral Resource estimates were compared to those of 2007/2008 (G shoot). Overall there was an increase in tonnes of 3% and a decrease of 3% in nickel grade in the April 2012 resource update. This is possibly due to the change from ID^2 to OK. There was an increase in nickel metal content of 3%. The A and B Shoot estimates were completed in 2007 by Poseidon. The resource model has not been compared to any reconciliation data.
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding recovery of any by-products.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	As was the only deleterious element estimated.

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Project Windarra – Prospect Mt Windarra
SECTION 3 Estimation and Reporting of Mineral Resources
(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The block model dimensions and parameters were based on the geological boundaries and average drill grid spacing. Sub-blocks were used to ensure that the block model honoured the domain geometries and volume. Block estimates were controlled by the original parent block dimensions. For Shoots A and B the individual parent block dimensions were 2 mE by 20 mN by 20 mRL with sub-blocking allowed. All of the other shoots had individual parent block dimensions of 5 mE by 25 mN by 25 mRL, with sub-blocking allowed. Estimation into parent blocks used a discretisation of 2 (X points) by 5 (Y points) by 5 (Z points) for Shoots C, D and F. Discretisation of 3 (X points) by 3 (Y points) by 3 (Z points) was used for G Shoot and 3 (X points) by 8 (Y points) by 5 (Z points) was used for H Shoot to better represent estimated block volumes.
	Any assumptions behind modelling of selective mining units.	No selective mining units were assumed in this estimate.
	Any assumptions about correlation between variables.	Multi-element analysis was conducted on the density weighted composites. There was a strong correlation between nickel and cobalt, nickel and iron and nickel and sulphur. In some cases there was also a strong correlation between copper and cobalt.
	Description of how the geological interpretation was used to control the resource estimates.	Drillhole sample data was flagged using domain codes generated from three dimensional mineralisation domains. Sample data was composited to a one metre density weighted downhole length. Mineralisation domains for each shoot were treated as hard boundaries, while orientation domains were treated as soft boundaries in the estimation process.

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Project Windarra – Prospect Mt Windarra SECTION 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section)		
	Discussion of basis for using or not using grade cutting or capping.	Top cuts were established by investigating univariate statistics and histograms of sample values by domain. A top cut level was selected if it reduced the sample variance and did not materially change the mean value.
	The process of validation, the checking process used the comparison of model data to drillhole data, and use of reconciliation data if available.	Model validation was carried out, including visual comparison between density weighted composites and estimated blocks; check for negative or absent grades; statistical comparison against the input drill hole data and graphical plots.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied*	All Windarra resource models have been modelled to a nominal wireframe cut-off grade of either 0.45%, 0.75%, 0.8% or 1.0% nickel, with a minimum width of 1 m to encapsulate the entire mineralised body. The edges of the resource shapes may be narrower than minimum mining widths, meaning that a small proportion of the shape is unlikely to be mineable; however, the inclusion adds to the ore/waste discrimination of the Reserve process.

Project Windarra – Prospect Mt Windarra
SECTION 3 Estimation and Reporting of Mineral Resources
(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	No minimum mining assumptions are made during the resource wire framing or estimation process. Mining parameters, including minimum width assumptions are applied during the conversion to Ore Reserves. The mining process will be Sub-Level Caving (SLC) which includes internal dilution and is included during the resource estimation process.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	No metallurgical factors or assumptions are made during the resource estimation process as this is addressed during conversion to Ore Reserve. The resource estimation block model has been populated with multi-element data which is required for the metallurgical analysis during the Ore Reserve process.

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Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a Greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made*	WNP is a historic brown-fields mine with a 20 year operating history and residual infrastructure remains in place. No environmental factors or assumptions are made during the resource estimation process.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	Bulk density measurements are taken using weight in air vs. weight in water gravimetric methodology
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	All drill core is in fresh rock and solid so no coatings are applied to reduce water penetration.

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	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	A nickel grade vs. density regression formula was used to assign SG values to the block model. For Shoots A, B, G and H the WMC regression formula of "SG = 1/((-0.0118*Ni%) + 0.3417)" was used. For Shoots C, D and F a fixed SG of 2.88 was applied from 0 to less than 0.8% nickel, followed by the application of the linear regression "SG = (0.132*Ni% + 2.856)"from 0.8% nickel and above.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories*	Classification of the resource models are based primarily on drill density and geological understanding in conjunction with increased confidence from historic mining and grade control drill data.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The classification takes into account the relative contributions of geological and data quality and confidence, as well as grade confidence and continuity.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The classification reflects the view of the Competent Person.

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Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	In June 2013 independent Consultants Behre Dolbear Australia (BDA) completed an extensive independent technical review of the WNP which included site visits and review of the Resource & Reserve estimates. BDA's review of the resources and reserves has been undertaken in accordance with the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, December 2004 update ("the JORC Code"). This report has been prepared in keeping with the Valmin Code for the Technical Assessment and Valuation of Mineral Assets and Securities for Independent Expert Reports as adopted by the Australasian Institute of Mining and Metallurgy in 1995 and as amended and updated in 2005 ("the Valmin Code"). The Poseidon drill results and techniques were reviewed and confirmed by Optiro as compliant to the reporting of Reserves and Resources under the JORC Code. BDA has reviewed this report and discussed the work with Optiro. The work has been competently undertaken by recognised specialists, based on geological interpretations of the various zones and shoots by Poseidon geologists. The estimation procedures are considered appropriate and are generally consistent with industry standards.
Discussion of relative accuracy/confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate*	The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. The statement relates to global estimates of tonnes and grade.

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	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used	The resource estimates are considered to be appropriate for reserve generation and scheduling on a quarterly to annual scale.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	The resulting estimates are supported by historical production.