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POSEIDON NICKEL

ASX Announcement
14 February 2024

EXCITING NEW EXPLORATION TARGETS AT WINDARRA

KEY POINTS

- **Two new exciting high priority embayed basal contact channel structures revealed from recent geological assessment**
- **A total of six prospective channel structure trends now identified along the basal contact**
- The stage 1 assessment covered 10km of the 21km basal contact strike between Mt Windarra and Cerberus
- **The two newly identified channel structures, NW05 and NW04** are both considered highly prospective, given:
  - The recognition of a thick high magnesium basal flow unit overlying these embayed channel structures
  - Resampling of diamond hole NMD0011 in NW05 returned **mineralisation on the basal contact** which confirms the critical process that nickel sulphides are accumulating at the base of the fertile ultramafic
  - Historical surface geochemistry shows elevated coincident Ni:Cu pointing to "potential gossans" at the surface projections from both channel structures
  - Field mapping supports the updated basal interpretation, including the embayed positions
- **NW05 and NW04 are poorly drill tested with the potential for shallow mineralisation**
- High priority exploration programs are being planned for NW05 and NW04 including additional soils and reconnaissance drill lines
- Stage 2 geological assessment of the ground between Windarra South to Cerberus will be undertaken on the remaining 11km to complete the assessment of the underexplored basal contact strike at Windarra

Poseidon Nickel (ASX: POS, "the Company") is pleased to provide an update following a detailed review of the exploration potential at Windarra.

CEO, Craig Jones, commented: *"Over the last 12 months, the Company has engaged a number of specialist exploration consultants, working in conjunction with the Poseidon geological team, to advance several quality greenfields nickel and lithium targets at Lake Johnston. This collaboration has also greatly re-rated the nickel potential at Windarra with two new targets identified and re-assessment of existing targets. These programs are aligned with the Company's strategic objectives for targeted exploration within its highly prospective tenement portfolio.*

In regards to Windarra, it's important to note that the nickel sulphide prospectivity is underpinned by its large nickel endowment consisting of 114kt nickel tonnes in ore historically mined, and 148kt of nickel within the existing mineral resources.

The recently completed stage one geological assessment focussed on modelling the basal contact and characterising the overlying ultramafic rocks.

The assessment has identified new windows of opportunity along the extensive 21km of preserved basal contact strike, where only 10km has been meticulously assessed and validated to date. The assessment included creating a detailed basal contact model which has been confirmed by the on ground observation of the surface expressions of the preserved contacts and evidence of fertile ultramafics is exciting to see.

Most importantly the results of the assessment identified two new prospective target positions called NW05 and NW04 and rerated the prospectivity of the four previously identified Windarra targets.

There is a great opportunity for further low-cost exploration techniques to expand on the exploration model prior to deeper drilling where there has been limited exploration, leaving a large window for new resources to be discovered.

The Company looks forward to advancing these channel targets to the next stage with the planning of work programs well underway."

WINDARRA

BACKGROUND

Western Mining Corporation (WMC) ceased its mining and processing operations at Mt Windarra in the mid 1990's. Despite WMC producing over 114kt of contained nickel from two ore bodies (Mt Windarra and South Windarra) and the existing resources of 148kt contained nickel, the Windarra Project is considered to be under-explored. Less than 4km of the 21km belt has had focused and detailed exploration activities completed and there is significant potential to grow the nickel resources through further exploration based on the outcomes of the Stage 1 assessment (refer Figure 1).

EXPLORATION REVIEW

The Windarra Project review was undertaken by Mark Muller from Muller Geological Services Consultancy (MGSC) in conjunction with Poseidon's geologists. Mark has a wealth of nickel mining experience. He has a proven track record of nickel sulphide discoveries and was a co-recipient of the 2020 AMEC Prospector of the Year award for the Cassini nickel discovery along with Peter Muccilli (Non-Executive Director for Poseidon), Tanh Doan and Robert Hartley.

The objective of the assessment was to undertake a belt scale review across the tenements and recommend follow up work programs.

The stage one geological assessment has focussed on the basal contact between the Mt Windarra mine and the Cerberus prospect, representing 10km of the total 21km of the belt (Figure 1). The greenfields assessment incorporated information gained from relogged drillholes, lithogeochemical verification, geophysical reviews, field checks and resampling programs.

High-grade komatiite hosted nickel sulphides is a well understood geological model with key exploration criteria required to progress to a discovery (refer Figures 2 and 3). The accumulation and best development for nickel sulphides occurs at the base of thick high magnesium lava channels as it flows over an older rock unit beneath. This critical horizon is called the basal contact and is a prime exploration target due to the likelihood of the settling of the heavier massive nickel sulphides along the contact. To pinpoint this stratigraphic horizon, the desired setting requires both the careful recording of the characteristics in the overlying ultramafic rocks and the validation of the geological rock units present. If the geological logging of holes is misinterpreted or if the fertile lithogeochemical indicators are not observed, the important vectors to mineralisation are missed resulting in incorrect decisions for exploration targeting.

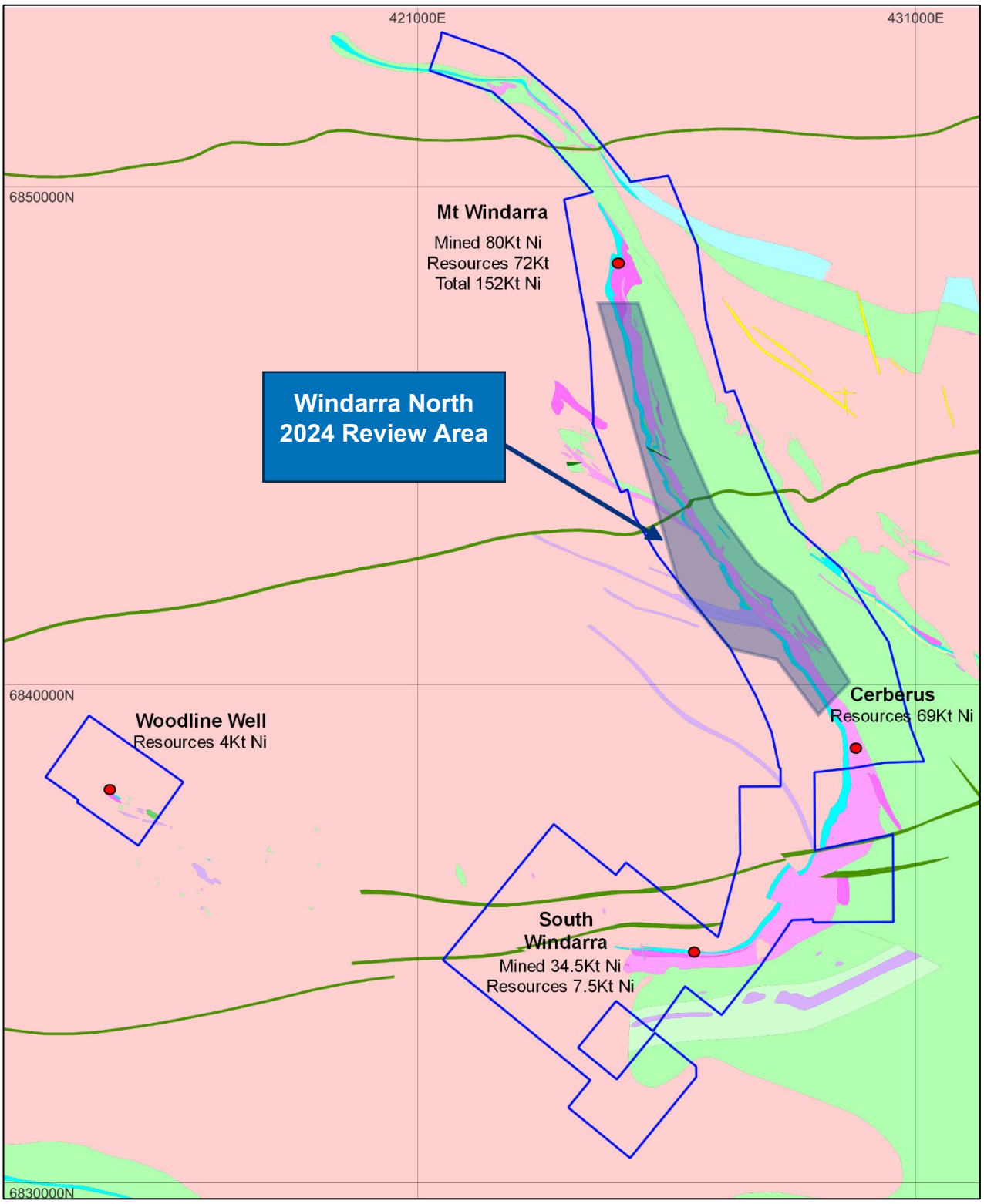


FIGURE 1: LOCATION PLAN OF THE WINDARRA PROJECT SHOWING THE EXISTING MINE PRODUCTION AND CURRENT RESOURCES

The assessment incorporated a number of work streams, including a meticulous data integrity review which combines data validation, lithogeochemical correlation and verification of all logged geological units in the study area.

The data validation and verification of existing diamond drill core totalled 10.5km resulting in 673 geological logged intervals that needed to be corrected. Corrected logging and other datasets were then used to

create a detailed basal contact model that was generated on 50m sections covering the area between Mt Windarra and Cerberus and 1.2km deep.

The key outcome of this re-logging was the identification of numerous thin mafic and intermediate volcanic units, once thought to be part of cyclical ultramafic flows, were actually late stage mafic and intermediate intrusive dykes. The geological recognition has rerated the prospectivity of several targets from non-prospective ultramafic flanking units, to prospective thickened high magnesium basal flows that are intruded by late stage dykes. These same intrusive dykes were extensively mapped at both Mt Windarra and South Windarra mines and were identified in the recent field mapping trip.

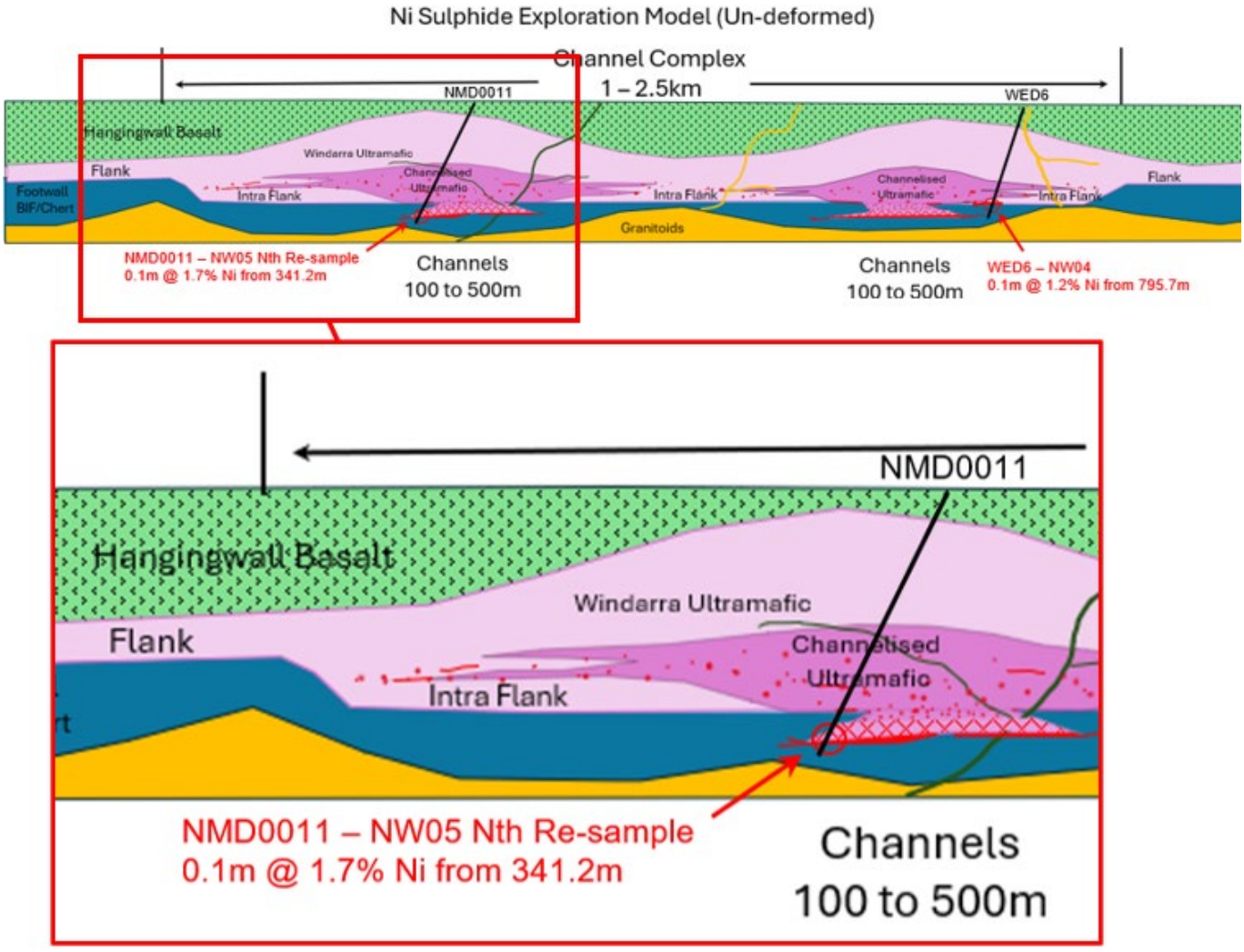
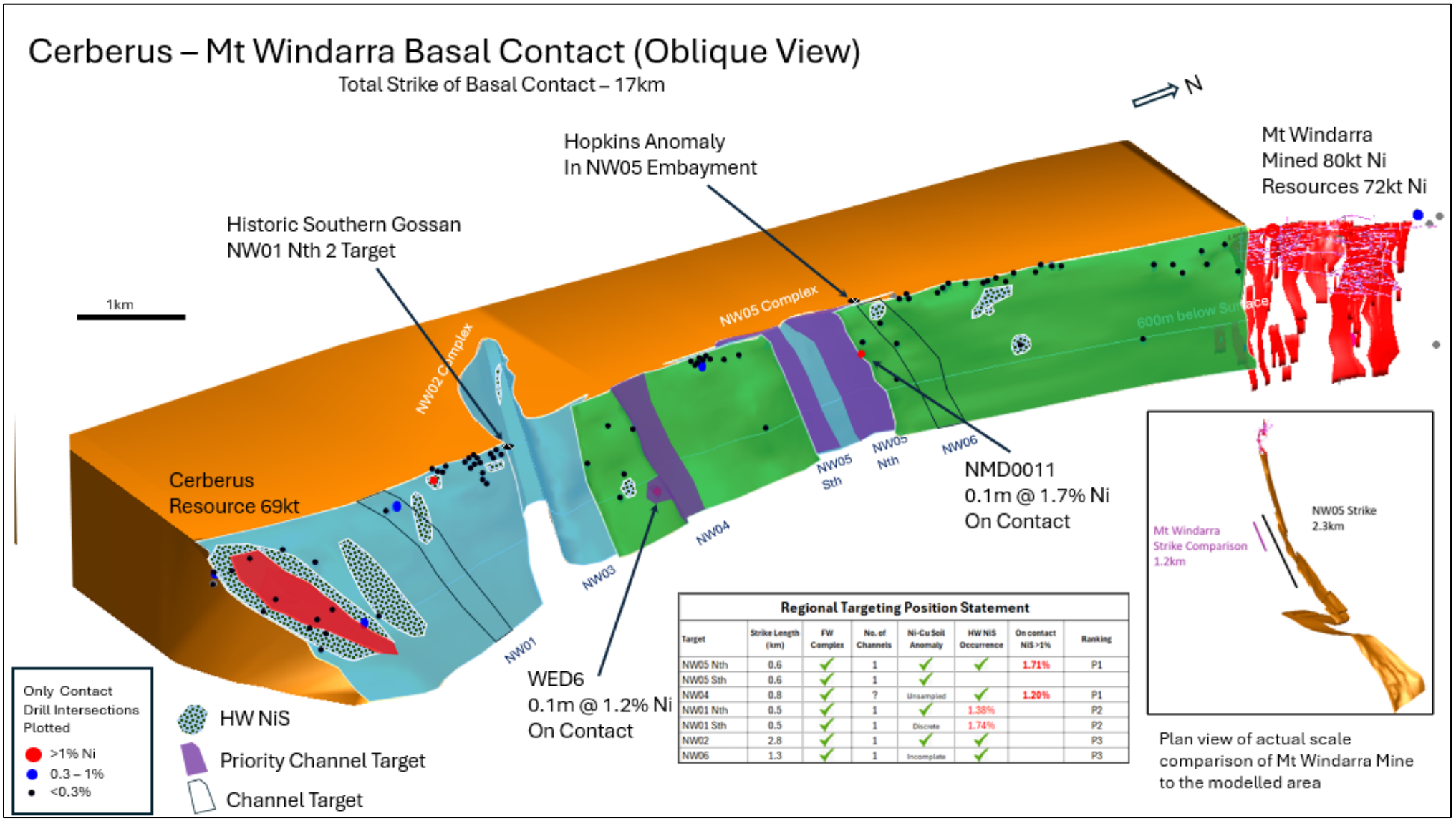


FIGURE 2: KOMATIITE NICKEL TARGETING MODEL SHOWING THE RELATIONSHIP BETWEEN CHANNEL COMPLEX AND INDIVIDUAL CHANNELS. NW05 IS INTERPRETED TO BE A CHANNEL COMPLEX THAT MAY HOST ONE OR MORE CHANNELS. NOTE THE LOCATION OF DRILL INTERCEPT NMD0011 IN THE INTERPRETED FLANKING POSITION OF THE CHANNEL AND RETURNING INTO THE ULTRAMAFIC BENEATH. MINERALISATION OCCURS AT LOWER BASAL CONTACT

The updated basal model identified six discrete embayed channel structure targets based on drillhole coding and geological interpretations. These channel surfaces were named in order from south (Cerberus) to the north (Mt Windarra) as NW01 to NW06 (refer Figure 3). Four of the channel structural trends where historically recognised and include; the NW01 (formerly known as Crazy Diamond), NW02 (Weebo Well Embayment), NW03 (Weebo Well) and NW06 (Mt Windarra South), each with lower priority follow up work planned.



Regional Targeting Position Statement

Target	Strike Length (km)	FW Complex	No. of Channels	Ni-Cu Soil Anomaly	HW NiS Occurrence	On contact NiS >1%	Ranking
NW05 Nth	0.6	✓	1	✓	✓	1.71%	P1
NW05 Sth	0.6	✓	1	✓			
NW04	0.8	✓	?	Unsampled	✓	1.20%	P1
NW01 Nth	0.5	✓	1	✓	1.38%		P2
NW01 Sth	0.5	✓	1	Discrete	1.74%		P2
NW02	2.8	✓	1	✓	✓		P3
NW06	1.3	✓	1	Incomplete	✓		P3

FIGURE 3: OBLIQUE VIEW (LOOKING NNW) SHOWING THE MODELLED BASAL CONTACT AND ONLY ON-CONTACT DRILLHOLE INTERSECTIONS PLOTTED. INSERT IMAGE HIGHLIGHTS SCALE OF PROSPECTIVE CHANNEL COMPARED WITH HISTORICAL STRIKE LENGTH OF MT WINDARRA

NW05 CHANNEL STRUCTURE

The NW05 channel structure is interpreted to be part of a complex which is an approximately 2.3km wide embayed position bounded by basal pinch-outs to the north and south. The setting is indicative of large mineralised systems (refer Figures 2 and 3).

Diamond hole NMD0011 lithogeochemical validation against historic logging not only showed a highly prospective thick high magnesium basal flow unit was intruded by a series of thin dolerite dykes, but the basal contact was mineralised with a thin zone of massive sulphide, noted from core photos. The reported interval in NMD011 returned 1.0m @ 0.47% Ni from 341.2m, showing that the source of the Ni anomalism was likely to be from an estimated 3cm wide massive sulphide vein on the basal contact (Figure 4). Re-sampling of the now heavily oxidised material returned 0.1m @ 1.7% Ni from 341.2m as a smaller interval sample wasn't possible. Despite the narrow intercept, the result confirms the presence of nickel bearing massive sulphide along the critical basal contact within the NW05 channel complex and underscores the vital process that nickel sulphides are accumulating at the base of the fertile channel.

The conceptual position of NW05 in the komatiite targeting model for nickel is illustrated in Figure 3 and shows its importance in recent re-assay and relogging.

Within the 2.3km long NW05 channel complex, only four holes have successfully intersected and tested the basal contact, three holes, whilst containing no significant Ni occurrences, had returned thick high MgO and positive Ni/Cr ratios that indicate prospective ultramafic host rocks. The remaining hole NMD0011 returned the re-sampled 0.1m @ 1.7% Ni as described above.

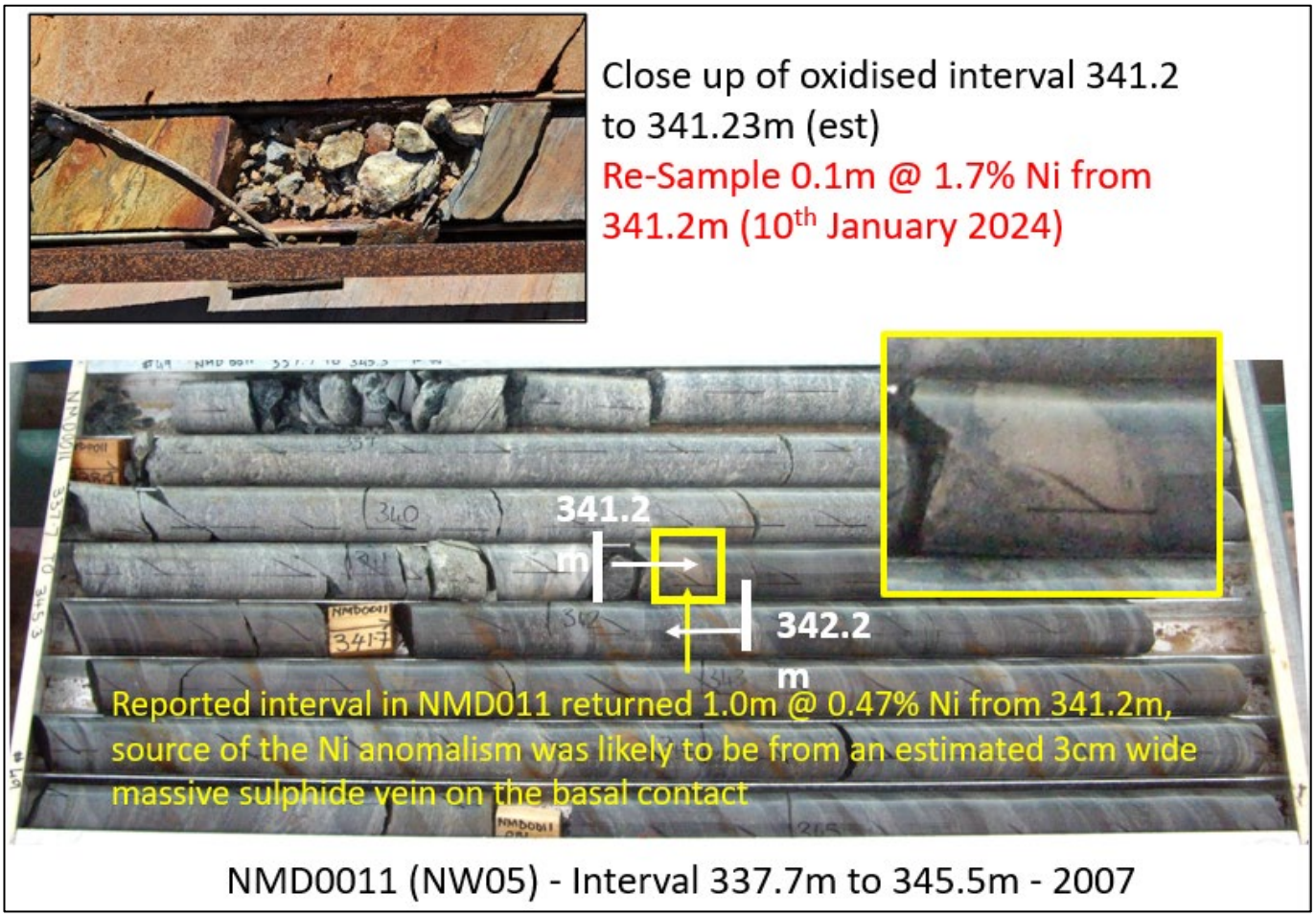


FIGURE 4: HOLE NMD0011 DRILLED IN 2007 ON THE NW05 SURFACE SHOWING MASSIVE SULPHIDE DEVELOPMENT AT THE BASE OF THE CHANNEL. INSERT IS THE SAME MASSIVE SULPHIDE THAT WAS HEAVILY OXIDISED AND RECENTLY SAMPLED.

Promising historic surface geochemistry showing elevated Ni:Cu, including WMC surface shallow reconnaissance air core (AC) and auger drill programs in 1969 - 1972 identifying “potential gossans” at the surface projections of interpreted channel structure. These holes were only assayed for nickel and copper in the End of Hole (EOH) interval and not the full pathfinder suite used in modern exploration. The NW05 includes the historic “Hopkins Anomaly”. The anomaly is based on EOH assay samples that included holes EXG3235: 1,400 ppm Ni and 1,000 ppm Cu and EXG3236: 3,350 ppm Ni and 1,200 ppm Cu (refer Figure 5). These gossan type signatures were at the time interpreted to be in an embayed feature related to a drag fold of the basal contact and thus ranked as low prospectivity. It is now interpreted that the embayed position is part of a larger channel complex, not drag folding.

Further to the review, field validation has confirmed the updated basal architectural interpretation (channel complexes and embayed channels) to within +/- 60m.

The NW05 and NW04 field checks confirmed that the regional soil sampling and shallow AC/Auger drilling completed in 1969-1972 **did not extend over the footwall contact as the target at the time was on magnetic highs not on the footwall contact (refer Figure 5)**. Minor variations to the contact position were observed, but overall channel complex architecture has been confirmed.

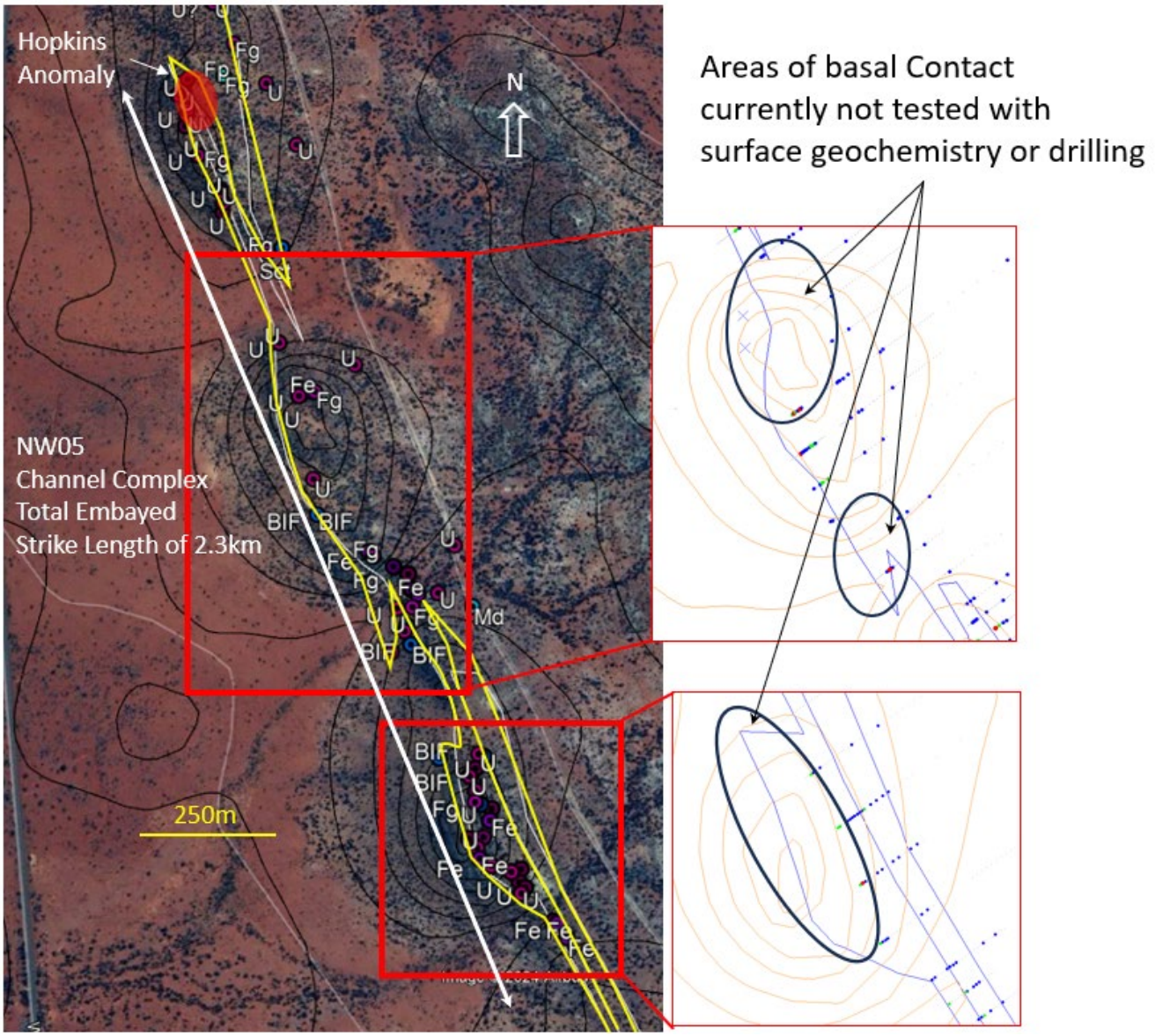


FIGURE 5: VIEW OF THE NW05 EMBAYMENT WITH DETAILED FIELD MAPPING SUMMARY IN YELLOW COMPARED WITH BASAL INTERPRETATION IN WHITE (POINT DATA REPRESENT GPS POINTS OF CONTACT OR SUB-CROPPING PICK-UPS)

Next Steps

The targets generated are significant and will require further detailed assessment prior to the designing of drill programs to test them. The plan is to undertake an initial exploration program focussing on relatively low-cost reconnaissance work including geological mapping, soil sampling and shallow AC/RC drilling to help design a more comprehensive program.

Field checks have identified a number of historic RC and diamond drill holes that did not extend far enough through the stratigraphic sequence to test the important basal contact, and are in many cases, open and available for re-entry to potentially extend the holes with diamond tails.

This initial program will aim to infill the current gaps in the Windarra dataset and clearly identify and rank the best areas for more focussed exploration.

A number of rock chip samples were also collected during the recent field validation to assist with confirming the data interpretation. These have been submitted for assay analysis and the results will significantly benefit the confirmation and validation of the new interpretation of the field.

This exploration update was authorised for lodgement by the Board of Poseidon Nickel Limited.

Craig Jones
CEO

14 February 2024

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About Poseidon Nickel Limited

Poseidon Nickel Limited (ASX Code: POS) is a nickel sulphide exploration and development company with three projects located within a radius of 300km from Kalgoorlie in the Goldfields region of Western Australia and a resource base of over 420,000 tonnes of nickel and 180,000 ounces of gold.

Poseidon's strategy is focused on the exploration and eventual restart of its established nickel operations in Western Australia with the aim of being a profitable and sustainable nickel producer. A critical element of this strategy has been to acquire projects and operations with significant existing infrastructure, large nickel resources and geological prospectivity likely to lead to resource growth through the application of modern exploration techniques.

Poseidon owns the Black Swan, Lake Johnston and Windarra Nickel Projects. In addition to the mines and infrastructure including concentrators at Black Swan and Lake Johnston, these projects have significant exploration opportunities demonstrated by the discovery of the Golden Swan Resource at Black Swan, Abi Rose and more recently the Maggie Hays West mineralisation at Lake Johnston.

The Company completed a Bankable Feasibility Study on Black Swan in November 2022 which is planned to be the first project to restart, subject to appropriate project financing structures being achieved, the outlook for the nickel price improving and all necessary approvals being obtained.

A Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield was completed in mid-2022. In December 2023 Mt Morgans entered into a trial processing agreement with Poseidon on the Lancefield gold tailings and accessing the water in the South Windarra pit.

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 Mark Muller, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Muller is a full time employee of Muller Geological Services Consultancy Pty Ltd, an independent industry consultancy providing geological services to Poseidon Nickel, and has 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 Muller consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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

FORWARD LOOKING STATEMENTS:

This release contains certain forward looking statements including nickel production targets matters that may involve risks or uncertainties and may involve significant items of subjective judgement and assumptions of future events that may or may not eventuate (Forward Statements). Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate"," continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position, and performance are also forward-looking statements. No independent third party has reviewed the reasonableness of any such statements or assumptions. None of the Company, their related bodies corporate and their respective officers, directors, employees, or advisers represent or warrant that such Forward Statements will be achieved or will prove to be correct or gives any warranty, express or implied, as to the accuracy, completeness, likelihood of achievement or reasonableness of any Forward Statement contained in this release. Except as required by law or regulation, the Company assumes no obligation to release updates or revisions to Forward Statements to reflect any changes. Recipients should form their own views as to these matters and any assumptions on which any of the Forward Statements are based and not place reliance on such statements.

APPENDIX 1 – Nickel Projects Mineral Resource Statement

Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	MINERAL RESOURCE CATEGORY															
			MEASURED			INDICATED			INFERRED			TOTAL						
			Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)
BLACK SWAN PROJECT																		
Black Swan	2012	0.4%	800	0.78	7,000	15,100	0.73	111,000	10,400	0.69	71,000	26,300	0.72	189,000	0.02	4,000	0.03	7,900
Silver Swan	2012	1.0%	-	-	-	138	9.00	12,450	8	6.00	490	146	8.80	12,940	0.16	240	0.36	530
Golden Swan	2012	1.0%	-	-	-	112	4.70	5,200	48	2.20	1,050	160	3.90	6,250	0.08	120	0.30	480
Silver Swan Tailings	2012	NA	675	0.92	6,200	-	-	-	-	-	-	675	0.92	6,200	0.07	460	0.04	270
Stockpiles	**2012**	0.4%	-	-	-	1,200	0.49	5,900	400	0.53	1,900	1,600	0.50	7,800	NA	NA	NA	NA
LAKE JOHNSTON PROJECT																		
Maggie Hays	2012	0.8%	-	-	-	2,600	1.60	41.900	900	1.17	10,100	3,500	1.49	52,000	0.05	1,800	0.10	3,400
WINDARRA PROJECT																		
Mt Windarra	2012	0.9%	-	-	-	922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500	0.03	1,200	0.13	5,700
South Windarra	2004	0.8%	-	-	-	772	0.98	8,000	-	-	-	772	0.98	8,000	NA	-	NA	-
Cerberus	2004	0.75%	-	-	-	2,773	1.25	35,000	1,778	1.91	34,000	4,551	1.51	69,000	NA	-	NA	-
TOTAL																		
Total Ni, Co, Cu Resources	2004 &2012		**1,475**	**0.84**	**13,200**	**23,600**	**0.98**	**233,500**	**17,000**	**1.03**	**176,000**	**42,100**	**1.00**	**422,700**	**0.02**	**7,800**	**0.05**	**18,300**

Note: totals may not sum exactly due to rounding. NA = Information Not Available from reported resource model.

- ***Black Swan Resource*** *as at 7 June 2023 (see ASX announcement "Updated Resource provides more Nickel at Black Swan" released 7 June 2023)*
- ***Silver Swan Resource*** *as at 27 April 2022 (see ASX announcement "Updated Silver Swan Resource underpins significant increase in high-grade Indicated resource base" released 27 April 2022)*
- ***Golden Swan Resource*** *as at 27 October 2021 (see ASX announcement "Golden Swan Maiden Resource" released 27 October 2021).*
- ***Silver Swan Tailings Resource*** *as at 15 September 2021 (see ASX announcement "Silver Swan Tailings – Maiden Resource Estimate" released 15 September 2021)*
- ***Stockpile Resource*** *as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4 August 2014)*
- ***Maggie Hays Resource*** *as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17 March 2015)*
- ***Mt Windarra Resource*** *as at 7 November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7 November 2014)*
- ***South Windarra and Cerberus Resource*** *as at 30 April 2013 (see ASX announcement "Resource Increase of 25% at Windarra Nickel Project" released 1 December 2011*

APPENDIX 2 – Drillhole Collar Location Data

TABLE 1: DRILLHOLE COLLAR LOCATION DATA AND INTERSECTIONS > 1% NI, REPORTED IN GDA 94 MGA ZONE 51

Hole ID	Collar coordinates						From	To	Downhole Interval	% Nickel	% Copper
	MGA easting	MGA northing	MGA RL	EOH depth	Dip	MAG azimuth					
Resampled Intervals											
NMD0011	426076	6844674	444	350.7	-65	220	341.2	341.28	0.1	1.7	0.09
Historic WMC + Niagara Significant Intersections (>1%)											
NMD0011	426076	6844674	444	350.7	-65	220	341.2	342.2	1.0	0.47	0.03
WED6	427925	6842734	439	820	-80	235	795.7	795.8	0.1	1.2	0.03
							796.55	797.2	0.7	1.0	0.05
WED13	428032	6842314	435	761.2	-85	246	591.45	591.65	0.2	1.0	0.09

TABLE 2: HISTORICAL 1969-1972 GEOCHEMICAL AUGER AND AIRCORE COLLAR LOCATION WITH END OF HOLE POINT ASSAY DATA, REPORTED IN GDA 94 MGA ZONE 51

Hole ID	Easting MGA	Northing MGA	RL MGA	Dip	EOH depth	Ni ppm	Cu ppm
EXG3235	425742.1	6844824	463.723	vertical	6-9m*	1400	1000
EXG3236	425744.6	6844826	463.616	vertical	6-9m*	3350	1200

*Exact EOH depths are unknown with averages used as quoted by inhouse historical reports.

APPENDIX 3 – Checklist of Assessment and Reporting Criteria

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 submarine nodules) may warrant disclosure of detailed information.*	• Drilling at Windarra Nickel Project (WNP) was initially completed by Poseidon NL then subsequently Western Mining Corporation (WMC) from 1969 to 1992. Niagara Mining Limited recommenced drilling in 2006 later changing their name to Poseidon Nickel Limited (Poseidon) in 2007. No activity took place between the period 1992 to 2006. • Sampling of diamond drill core is based on geological core logging and sampled to geological contacts. Individual assay samples typically vary in length from a minimum of 0.1m and a maximum length of 1.2m.
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 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.* • *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.*	• 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. • Core recovery is typically 100% with only minor losses in and around shear zones. • No relationship between core recovery and grade was recognised.
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.*	• All core was geologically and geotechnicaly logged. • Core is continuously logged along the entire length of the hole. • 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. • 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.

Criteria	JORC Code explanation	Commentary
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.*	• 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. • Assay samples are typically 1 m in length but may vary in length from a minimum of 0.1 m and a maximum length of 1.2 m according to geological boundaries. • 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.
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.*	• 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 1080o C. The melt is dissolved in HCl acid and analysed using ICP-OES finish (15 elements). • The resampled core was sent to Intertek to be crushed and pulverized to at least 85% of material passing 75µm or better and assayed using a four acid digest with a ICP-OES finish. • No portable analysis tools were used in the determination of assay results. • Reference standards and blanks are routinely inserted into every batch of samples at a rate of 1 in every 25 samples. • 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 database consultant.
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.*	• Significant intersections are calculated by the Chief Geologist on site and verified/reported by the Geology Manager (CP). • 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. • Assay data is imported directly from laboratory supplied digital files which are QAQC validated via DataShed then loaded into the SQL drillhole database.

Criteria	JORC Code explanation	Commentary
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.*	• 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. • 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. • 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.* • *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.*	• Holes are typically drilled on a regular grid spacing that varies according to the size and consistency of the resource being drilled. • Typical spacing is less than 30 m between drill holes for Indicated Resources. • 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.* • *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 sample orientation is considered appropriate with respect to the geology being tested. • The mineralised bodies are relatively planar and grades are typically consistent within individual resource domains so drill orientation does not introduce any significant bias.
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.
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.

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.*	• 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. • The inherited data set from WMC comprising a complete set of microfiche documents were used by Poseidon in 2006-07 to build a complete digital drill database, digital mine workings and a surface geochemical dataset (including >12,000 datapoints of Auger and Aircore end of hole samples). • The Auger/Aircore samples were assayed for nickel and copper only at the on-site WMC lab using AAS
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Komatiitic style nickel sulphide deposits.

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.*
		• The quoted drill hole information pertaining to this announcement that has not been previously reported is listed as Table 1 in Appendix 1 of this document.

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.*	• When reporting nickel assay results, a cut-off grade of 1.0% Ni has been used to create weighted averages. • No metal equivalents are used.

Criteria	JORC Code explanation	Commentary
	• *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.*	
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').*	• Nickel widths are reported as down hole lengths.
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.*	• Appropriate maps and sections related to this review have been included within the announcement.
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.*	• Resampling of historical core has been completed for this review. • Both the historical and resampled results have been reported for comparison.
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 substantive exploration data is necessary to support this announcement.
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.*	• Further field checking of interpretations are planned and includes mapping, soils and additional drilling.