

EIS GRANT AWARDED FOR LAKE JOHNSTON NICKEL DRILLING AND LITHIUM REVIEW UNDERWAY

HIGHLIGHTS

- Exploration Incentive Scheme grant awarded to assist with cost of testing the highly prospective and underexplored Western Ultramafic Unit for new nickel sulphides
- The proposed 15,000m drill program aims to delineate and vector towards channel features along the basal contact of the Western Ultramafic Unit, the prime geological setting where nickel sulphides can accumulate
- The grant will co-fund 50% of drilling and mobilisation costs up to a maximum of \$180,000
- Lithium opportunities at Lake Johnston are being reviewed after approaches by third parties
- Previous rock chip sampling of pegmatites identified Li₂O mineralisation towards the northeast of the Lake Johnston tenement package indicating prospectivity for lithium

Poseidon Nickel Limited (ASX: POS, “the Company”) is pleased to announce that its application for a Western Australian State Government grant under the Exploration Incentive Scheme (EIS) for the planned drilling program on the Western Ultramafic Unit at Lake Johnston has been successful with a grant of \$180,000 being awarded.

Managing Director and CEO, Peter Harold, commented, “*the Company is delighted to receive the EIS grant from the WA State Government which will assist us to explore the highly prospective Western Ultramafic Unit within the Lake Johnston Project. Historically, the nickel exploration mindset at Lake Johnson was heavily focused on the Central Ultramafic Unit as it hosts both the Maggie Hays and Emily Ann nickel mines. The Western Ultramafic unit prospectivity is underpinned with promising reconnaissance nickel drill intersections along its approximately 18km of strike and remains underexplored.*

Planning for the initial program is well advanced and we anticipate commencing the program in early 2023. We are also assessing the lithium potential on our tenements following a number of approaches by third parties and a review of the previous lithium exploration activities carried out by Poseidon.”

Exploration Incentive Scheme Grant

Offered under Round 26 of the Western Australian State Government’s co-funded Exploration Incentive Scheme (EIS), the grant awarded to Poseidon will reimburse the Company for up to 50% of direct drilling costs and 50% of mobilisation costs (capped at \$5,000), up to a combined maximum of \$180,000 towards the cost associated with the planned Western Ultramafic exploration program.

The scheme is designed to support exploration activity in underexplored areas with valid geological methodology. The grant application process is highly competitive with numerous applications. Submissions are assessed by an expert panel of officers moderated by independent industry representatives with only 38 EIS grants offered in Round 26.

Western Ultramafic Unit

Background

The Lake Johnston Project is located 190km south-west of Kalgoorlie in Western Australia and contains two historical underground nickel sulphide mines, Emily Ann and Maggie Hays, a 1.5Mtpa processing plant, 200-person village, airstrip, tailings facility and associated infrastructure. Approximately 1.5 million tonnes of ore was mined from Emily Ann at an average grade of 3.8% nickel delivering 57,000 contained tonnes of nickel in concentrate between 1998 and 2007. Mining of the Maggie Hays deposit, with an initial resource of 12.3 million tonnes at 1.5% nickel for 182,000 contained nickel, began in 2008 before the mine and processing plant were placed under care and maintenance in 2013 due to the historically low nickel price (refer to ASX announcements *“Lake Johnston Plant Capital and Operating Cost”* dated 21 February 2022). A resource of 52,000 tonnes nickel averaging 1.49% nickel remains at Maggie Hays.

The Emily Ann and Maggie Hays nickel deposits are hosted within the Central Ultramafic Unit which has been the focus of extensive exploration by previous owners. Historically, the Emily Ann deposit was considered a structurally deformed komatiite deposit. Exploration undertaken by Poseidon has successfully identified and tested a geological model indicating that Emily Ann is hosted within a shallow intrusive peridotite body that has been confined shallowly by the presence of a banded iron formation (BIF) unit. Intersections of nickel sulphide mineralisation were discovered and interpreted as the feeder zone to the intrusive, known as Abi Rose (refer to ASX announcements *“More Nickel Sulphides Intersected at Abi Rose”* dated 22 November 2018 and *“Significant High Grade Nickel Intersection at Emily Ann North”* dated 25 January 2016).

Prospectivity

The Western Ultramafic Unit is interpreted to represent the extruded portion of the intrusive body that has breached the BIF unit. The stratigraphic contact position that is located between the extrusive komatiite and the underlying BIF unit is named the basal contact. As the extrusive lavas flow over the basal contact, melting and assimilating of the sulphidic BIF unit occurs, which is conducive for the formation of nickel sulphide. It is within the channelised, embayed positions of the extrusive ultramafic unit as it flows along the basal contact is where nickel sulphides can accumulate to form massive sulphides deposits. Thus, finding the channelised flows along the Western Ultramafic basal contact is a key exploration target of the proposed reverse circulation (RC) drill program. All the stratigraphic units have subsequently been deformed and overturned over the length of the Company's tenement portfolio at Lake Johnson, refer to Figure 1.

The basal contact of the Western Ultramafic is considered a high priority target for potential economic nickel sulphide mineralisation. Although sparsely drilled with a distinct lack of effective drilling in the near surface environment, historical nickel sulphide intersections drilled by previous explorers throughout the belt prove the fertility of the unit and have had little follow-up, refer Figure 1. Coupled with this, ground EM has failed to produce distinct conductive responses as the BIF response has swamped the data.

Exploration activities planned

A systematic RC drill program totalling 15,000 metres has been planned at regular 400m line spacing to test the basal contact position in fresh rock with planned hole depths to 100 metres. This drilling program will assist in mapping the basal contact and delineate geochemical vectors towards nickel sulphide mineralisation. A Program of Works (PoW) for the drilling has been approved by the relevant department and the Company plans to commence the program in early 2023.

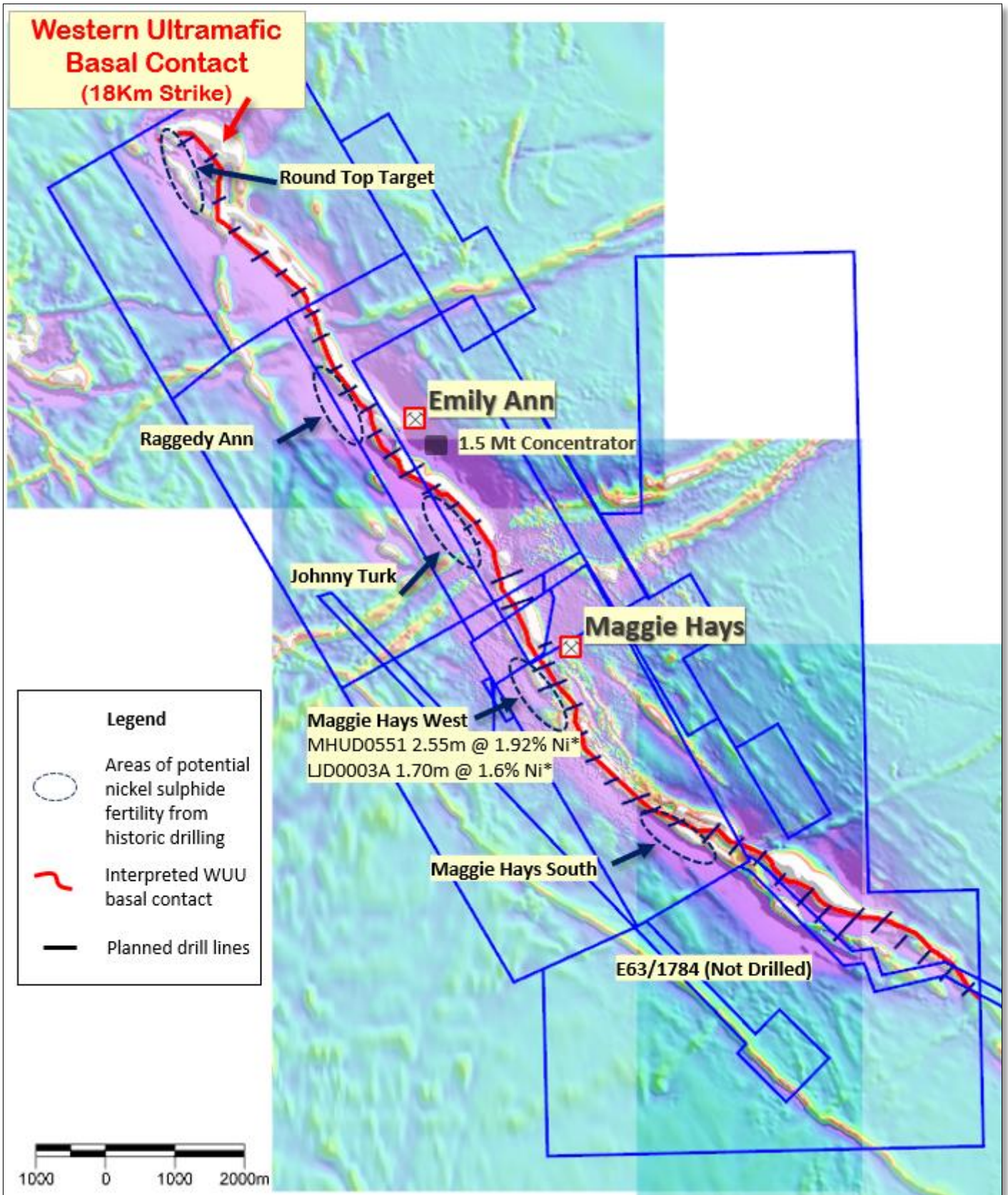


FIGURE 1: INTERPRETED BASAL CONTACT POSITION OF THE WESTERN ULTRAMAFIC OVERLAYING MAGNETICS WITH HIGHLIGHTED AREAS OF POTENTIAL NICKEL SULPHIDE FERTILITY IDENTIFIED FROM HISTORIC DRILLING CONDUCTED BY PREVIOUS OWNERS, AND NOT PUBLICLY REPORTED. BASAL CONTACT TO BE TESTED IN UPCOMING 15,000M RC DRILL PROGRAM.

** REFER TO ASX ANNOUNCEMENT "NEW MINERALISED ZONE IDENTIFIED AT LAKE JOHNSTON" DATED 18TH FEBRUARY 2015*

Lithium Opportunity

Running in parallel to the Western Ultramafic drill program, Poseidon is reviewing the lithium potential at Lake Johnston following approaches from third parties. Previous work has provided a good foundation into the understanding of the fractionation of pegmatites in an area previously identified which supports ongoing targeting activities. As part of the work completed, rock chip sampling of pegmatites identified Li₂O mineralisation towards the northeast of the Lake Johnston tenement package indicating prospectivity for lithium in the area (refer to ASX announcements “High Grade Lithium Bearing Pegmatites Located at Lake Johnston” dated 23 May 2016).

This announcement has been authorised for release by the Poseidon Board of Directors.



Peter Harold

Managing Director and CEO

28 October 2022

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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 around 400,000 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. 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 Windarra, Black Swan and the Lake Johnston 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 and the Abi Rose mineralisation at Lake Johnston.

Black Swan will be the first project to restart followed by Lake Johnston and then Windarra, subject to favourable Feasibility Studies, appropriate project financing structures being achieved, the outlook for the nickel price remaining positive and all necessary approvals being obtained.

The Company has completed a Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield and has entered into a Heads of Agreement with Green Gold Projects whereby Green Gold will develop the project and Poseidon can retain an 8% free carried interest, subject to certain conditions precedent being satisfied.

COMPETENT PERSON STATEMENTS:

The information contained within this announcement is extracted from the reports titled “High Grade Lithium Bearing Pegmatites Located at Lake Johnston” released 23 May 2016 and “New Mineralised Zone Identified at Lake Johnston” dated 18th February 2015 which is available to view on www.poseidon-nickel.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 announcement and, in the case of Minerals Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

APPENDIX 1 - MINERAL RESOURCE STATEMENT

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	0.76	6,000	9,900	0.75	74,000	18,200	0.62	101,000	28,900	0.63	181,000	0.01	4,500	0.02	5,800
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	450	0.04	250
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	-	0.08	3,600
TOTAL																		
Total Ni, Co, Cu Resources	2004 & 2012		1,475	0.83	12,200	17,217	1.11	190,550	24,370	0.84	204,140	43,062	0.94	406,890	0.02	8,310	0.05	19,760

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

- **Black Swan Resource** as at 4 July 2022 (see ASX announcement "More Nickel in Updated Black Swan Mineral Resource" released 4 July 2022)
- **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 Resources** 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)
- **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)

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially change