

16th December 2014

Lake Johnston Restart Feasibility Study

Highlights

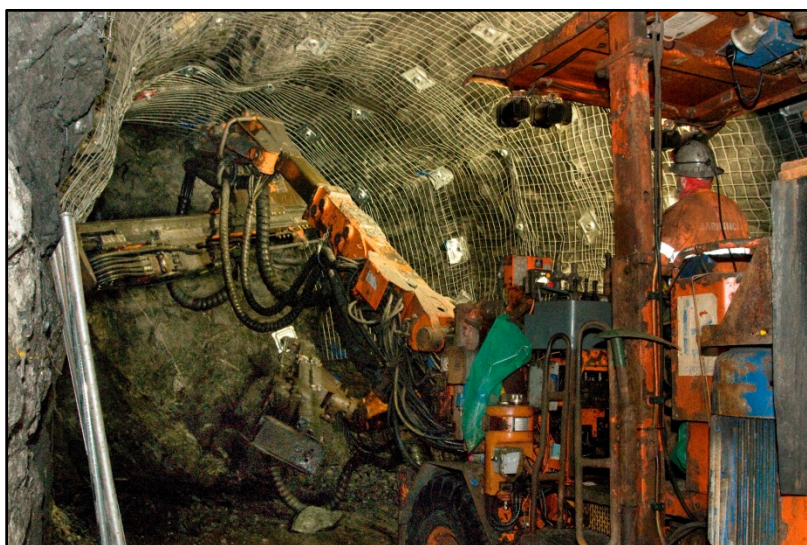
- Nickel Operations interim bankable feasibility study for Lake Johnston has been completed one month after acquisition completion
- Lake Johnston is planned as Poseidon's second production project in 2015 after Windarra. Black Swan is planned to be restarted after Lake Johnston
- Initial mineral resource for the Lake Johnston, Maggie Hays deposit, has been announced as 3.8 million tonnes @ 1.41% nickel for 53,100 tonnes nickel
- Substantial activity underway to develop the geological model of Maggie Hays. Poseidon has recently identified a large volume of data not included in the resource/reserve block model particularly in the high grade north shoot. Further resource updates likely in Q1 2015.
- Capital cost for plant and infrastructure refurbishment to operating condition estimated to be A\$6.8m including contingency and management costs (see page 4)
- Underground mine refurbishment costs to allow operations restart to be circa A\$1.5m
- Tailings storage facility capacity extension currently under competitive tender with offers received in line with budget
- Key operational licences and permits remain in place and have been transferred to Poseidon
- Operating cost projected to be A\$6.70/lb on a payable all in cost including sustaining capital (equivalent to C1 cost of US\$4.33/lb versus current LME price of A\$9.07/lb)
- Operating costs will be finalised when resource modelling has been updated.
- Schedule to restart operations has been confirmed as under 6 months from initiation which is in line with previous guidance
- Good quality smeltable grade concentrate well understood from recent operations and is expected to be as follows:
 - 13-14% nickel, 6:1 Iron to MgO ratio, 10 ppm arsenic

Poseidon Nickel Limited (ASX:POS) (“Poseidon” or “the Company”) is pleased to announce that the Lake Johnston Nickel Operation ‘Restart Bankable Feasibility Study’ (BFS) is well progressed and is announcing the interim results. Poseidon Nickel initiated major work toward an early operational restart upon signing the Lake Johnston Asset Sales Agreement (ASA) with Norilsk Nickel Australia (Norilsk) in early September 2014. However, some work was restricted until the final purchase of the operation in November 2014. This update summarises the significant progress towards, and generally past a BFS level of study.

Poseidon considers Lake Johnston to be a near-term production project, with relatively straight forward restart requirements given that the Lake Johnston project was operating up to April 2013 and has been actively cared for and maintained since closure. It has a significant current resource and excellent advanced exploration targets from both the Maggie Hays and Emily Ann mines. The Project has a modern 1.5 Mtpa treatment plant and large ground position, with numerous near mine and regional life extension exploration targets identified by Poseidon.

It is anticipated that the restart of operations at Lake Johnston will follow initial ore sales from Windarra. Offtake negotiations for Lake Johnston are well advanced with several interested parties. The restart of Lake Johnston will be financed from a combination of existing cash, sales revenue from Windarra and potentially with some debt for working capital purposes. MD & CEO David Singleton said, “Lake Johnston has an exciting resource potential with several zones of greater than 4% nickel in the mineralised resource. The quality of the existing infrastructure is excellent and as a result, production could be restarted very quickly. However, we believe that there are clear options to improve the mining methodologies and approach to reduce costs and improve nickel recovery. We will be working as fast as possible in this area during the first quarter of next year.”

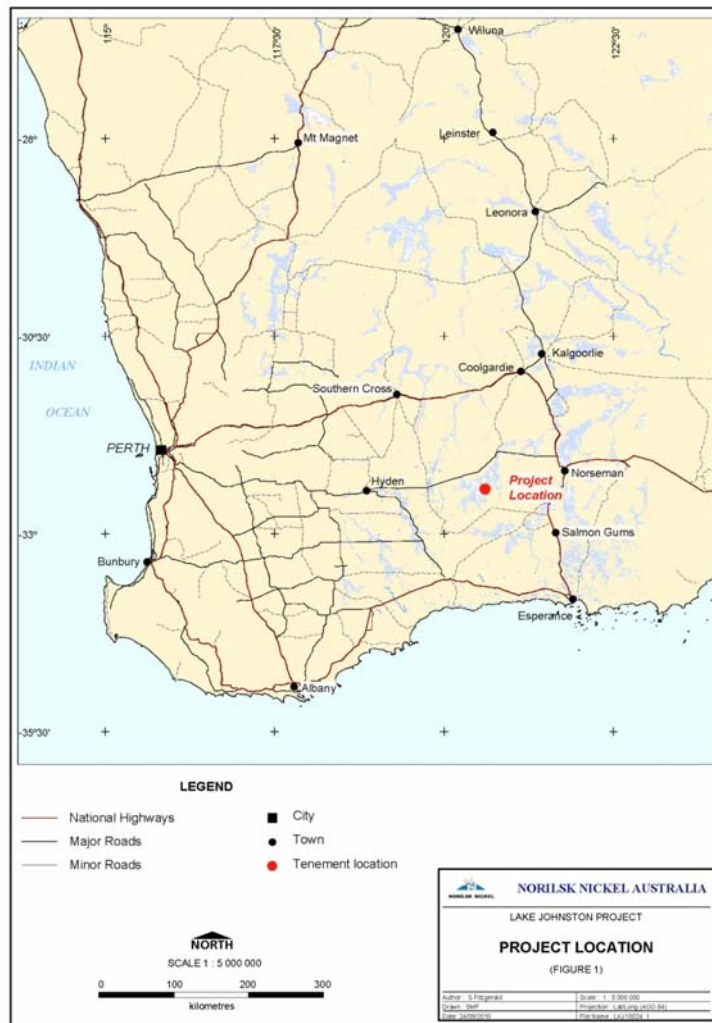
Upon entering the agreement in September 2014 for the purchase of Lake Johnston, Poseidon immediately initiated definition of the necessary work required to restart the operation. A number of consultants, engineers and other specialists have been engaged to fast track the restart. The individual deliverables are being consolidated into a final Bankable Feasibility Study for the Lake Johnston Nickel Operation restart. This work has been substantially progressed and the bulk of the deliverables have already progressed to, or past a BFS level of detail. The key activities that are well progressed or completed are provided above in the ‘Key Achievements’ section in Annex 1.



Previous underground operations at Lake Johnston



Lake Johnston Operation showing the milling circuit in the foreground and the crushing circuit in the background



Lake Johnston Project has straightforward road access from Perth, Kalgoorlie and Esperance

Engineering

The Lake Johnston processing plant has a demonstrated operating history and is suited to processing the local ores. It has successfully processed a range of feeds from the Emily Ann and Maggie Hays underground mines as well as from Western Areas and some Silver Swan ores. There is no intention to update the process design or modify the processing plant. The target throughput on restart is 900 ktpa versus the maximum demonstrated capacity of the plant of 1.4 – 1.5 Mtpa.

Plant refurbishment & Project Implementation Plan

The Rapallo Group, including their mining division 'Rock Team', were engaged by Poseidon to develop a Project Implementation Plan (PIP) for the restart of the LJO. It is based on multiple site visits and is well supported by Rapallo's previous involvement in the refurbishment and restart of the operation in 2011. This was done on behalf of the previous owner when Rapallo was responsible for scoping, estimating and project managing an \$8.2M refurbishment program prior to the restart. The knowledge gained from, and used in, that program formed the basis of the Rapallo estimate and PIP.

It is the opinion of Rapallo that the project is in better condition under the current Care & Maintenance team than it was when inspected prior to the 2011 refurbishment. However, it is evident that there was a limited maintenance budget for plant and equipment resulting in the deferment of some activities which will now require action prior to restart.

Major scopes of work identified include, but are not limited to, the following:

- Occupational Health & Safety obligations to repair hazardous access platforms (including hand-railing) and installation of conveyor spill guarding due to revised legislation
- Site-wide Electrical, Control & Instrumentation refurbishment and re-commissioning
- Crushing & Screening plant servicing and recommissioning
- Concentrate Thickener re-coating
- Larox filter re-commissioning (currently underway)
- Pump servicing and/ or rebuild (site-wide)
- Valve and actuator servicing, rebuild or replacement
- Camp refurbishment
- Refurbishment of underground drives where required

A summary of the initial budget estimate for undertaking these works is presented as follows:

Item	Estimated cost
Asset audit and detailed work scopes	\$169,750
Process plant refurbishment	\$3,950,041
Mine refurbishment (less management)	\$1,482,260
Infrastructure refurbishment	\$691,390
Project management	\$1,169,148
Project contingency	\$851,895
Total cost estimate	\$8,314,484

This estimate is based on the minimum requirements to re-start the plant assuming no major problems are discovered upon more detailed inspection of the plant. Certain risk costs have been considered separately from the above budget estimate.

These costs relate to items of plant and equipment that may require replacement or extra work upon detailed inspection of the site.

The accuracy of the budget estimate is $\pm 15\%$ when benchmarked against AusIMM standards so are within a BFS level of study. Since the estimate was issued, further work has been undertaken by Rapallo in order to reduce or at least defer some of these costs but the revised estimate has not yet been issued.

Operating Cost Estimate

An operating cost has been estimated by Simulus using a variety of data sources including recent tendered mining cost rates for Windarra, historic and contractor updated costs for Lake Johnston and using industry metrics. The operating cost should however be considered as preliminary until such a time as a new and detailed mining schedule is developed. Factors associated with grade variations in different areas of Maggie Hays and differing mining costs for these areas will be able to be modelled more accurately when the mining sequence is fully developed.

The operating cost is projected to be A\$6.70/lb on a payable basis including all sustaining capital costs and operating costs (C1 cost of US\$4.33/lb). This operating cost compares favourably with the current spot LME nickel price of A\$9.07/lb.

Mineral Resource Estimate

An updated Mineral Resource Estimate has been completed by Golder Associates for Poseidon using all available assay data as of November 2010. The resource update is for the Maggie Hays deposit only and has been separately published to the market. The Mineral Resource estimate was classified in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition).

The classification was based principally on geological confidence, drill hole spacing and grade continuity from available drilling data. The table below summarises the Mineral Resources for Maggie Hays. The mineralisation models and block reporting cut-off grades used in the in situ resource estimate for Maggie Hays is 0.8% Ni. For mine planning purposes, ore loss and dilution should be considered.

Source	Indicated			Inferred			Total		
	Mt	Ni %	Ni kt	Mt	Ni %	Ni kt	Mt	Ni %	Ni kt
Zone 13	0.2	3.57	6.6	-	-	-	0.2	3.57	6.6
Disseminated and Suture Zone	1.8	1.18	21.3	0.4	1.06	3.9	2.2	1.15	25.2
North Shoot	-	-	-	1.4	1.52	21.3	1.4	1.52	21.3
Total	2.0	1.40	27.9	1.8	1.43	25.2	3.8	1.41	53.1

Mineral Processing and Metallurgical Testwork

The existing nickel concentrator is a conventional operation consisting of three stage crushing and crushed ore storage. Crushed ore is milled in a 4.5 MW primary ball mill operating in closed circuit with hydrocyclones, cyclone underflow reports to flash flotation. The flotation circuit also incorporates rougher, rougher scavenger and scavenger stages, regrind on the rougher concentrate, three stages of cleaning and a further three stages of recleaning. Products are thickened and filtered before bagging or containerising for transport. Tailings are thickened and pumped to the TSF.

The concentrator is suited to processing the Life of Mine ores. No changes to the Lake Johnston processing flowsheet are deemed necessary. As a result the required updates to process engineering are minimal. The existing engineering documentation for the 2006 major expansion remains adequate for the restart. An extensive operating history eliminates the need for any supplementary metallurgical testwork. The existing operations documentation including operating manuals, metallurgical accounts, laboratory procedures and so on surpass the level of detail required of a BFS level of study and only minor modifications would be undertaken during operations by the new operations group.

Infrastructure

In addition to the Maggie Hays and Emily Ann underground mines there is significant infrastructure at Lake Johnston including, tailings storage facilities covering approximately 42 hectares, the Windy Hill accommodation camp (140 person capacity), offices, workshops and associated support facilities and an airstrip. Much of it is operational as it has been used to support the ongoing care and maintenance activities.

Tailings

Lake Johnston incorporates two paddock tailings storage facilities (TSF1 & TSF2), the first of which has reached capacity. The existing Lake Johnston TSFs were inspected by Golder in September 2014 and found to be in a safe and stable condition. The works required to recommission the TSFs are minimal, but the TSFs currently have limited available storage capacity. A design has been developed and approval is being sought from the Department of Environmental Regulation (DER) to raise TSF2 by 4 metres to provide capacity for about 2 years of tailings generation at the expected production rates. The application has been submitted. Poseidon with help from Golder is supporting the application with follow-up technical questions from the Department, particularly in relation to seepage controls. This lift had previously been approved by the DER but was amended in the final year of operation because of the pending closure of the operation.

The tender process for fixed price costings for the tailings work is now well advanced and will be additional to those stated. Due to the tender process, Poseidon cannot state budget numbers at this time for confidentiality reasons. Tailings storage and approvals are not considered to be a risk to the operation to the proposed restart schedule.

Product Quality

Mining will restart in the Maggie Hays underground mine, therefore the plant feed characteristics are well understood and the final nickel concentrate will reflect historical product grades. The concentrate has a relatively high nickel grade but more importantly, a low arsenic grade which makes it attractive to smelters as it allows for blending of other concentrates with low to moderate levels of As. The Lake Johnston concentrate shipment assays post the 2011 restart, show Nickel grade of circa 13 – 14% is well above the

minimum smeltable quality nickel grade level of 10% and the level of Arsenic is below 10 ppm (after plant operation was stabilised). Other important concentrate specifications such as iron, sulphur and magnesia are all at good levels.

Native Title & Aboriginal Heritage

Native Title and Aboriginal Heritage assessments were undertaken by on behalf of Poseidon. The assessments have determined that the Lake Johnston project has existing native title agreements in place with the Ngadju People that manage both Aboriginal heritage and native title approvals for the majority of the Lake Johnston tenement package (21 of 25 tenements see Annex 2). These agreements have been assigned to Poseidon pursuant to the terms of the ASA.

The review identified no issues with the existing native title agreements and confirmed the relations between the previous owner and the native title party are not in dispute.

If the Poseidon Nickel Lake Johnston re-start remains within the previous owner's approvals as is the intent, then no new native title or Aboriginal heritage approvals will be required. Any new tenement applications within the Ngadju determination area will need to be dealt with in accordance with the agreements that are in place with the Ngadju. No significant risks are considered with respect to native title and Aboriginal heritage.

Environmental

An environmental assessment was undertaken by MBS Environmental on behalf of Poseidon. No significant risks are considered with respect to the environmental aspects of a project restart.

The assessments have determined that the Lake Johnston project:

- Has an existing mining tenure transferred on to Poseidon pursuant to the ASA.
- Adequate baseline surveys characterise the local environment, and assess impacts from the development and operation of the mines. They remain valid and typically would not need to be updated.
- No additional environmental impact assessment or primary environmental approvals are required as there are no proposed modified mining, processing or ancillary infrastructure or operations changes as part of the restart.
- The secondary environmental approvals including clearing, onsite power generation, mine dewatering and water supply remain valid meet the requirements of a restarted LJO.
- Initial compliance assessments show that LJO has generally been developed, operated, cared for and maintained in accordance with the relevant Acts and regulatory instruments including annual, TSF and Annual Environmental reporting. Poseidon will complete further compliance auditing prior to recommencement of operations.
- The main waste streams of tailings, TSF seepage to groundwater, mine water discharge to Lake Hope North, treated sewerage, power generation emissions and inert and food wastes are permitted.
- Stakeholder consultation and engagement has been adequate and Poseidon have appropriately initiated engagement with the key groups as part of the restart.
- Statutory reporting obligations are being met.
- The intention is to recommence operations at Lake Johnston with no substantial changes or further development, apart from a 4 metre raise of TSF2. As this is within the existing disturbed footprint and Mining Act approvals, no new Clearing Permit or Mining Proposal should be required. As discussed in the tailings section, Poseidon have re-amended the TSF lift application and are working with the DER to resolve TSF seepage concerns.
- In respect to sustainability, the site is in an area of greater significance for biodiversity than many projects however Poseidon intends to operate within the existing approved footprint of the project and according to existing approved measures for the protection of the surrounding environment, consequently there should be no substantial further impact to biodiversity.
- In respect to mine closure LJO is a quite conventional site with a small disturbance footprint (due to the underground mining methods) that should present no particular problems for closure and rehabilitation – with the potential exception of the TSFs. Closure costs were generated by Sinclair, Knight, Merz (SKM) for Norilsk in 2013. Como Engineers is currently in the process of updating these closure costs on behalf of Poseidon.

Legal

Land access and tenure for exploration and mining is granted through tenements issued under the Mining Act 1978 (Mining Act). The Department of Mines and Petroleum (DMP) database (MTO) [1] lists 24 'live' tenements held by the current operator, Lake Johnston Pty Ltd (LJPL), a subsidiary of Norilsk. One Exploration Licence shows an expiry date of September 2014, although an extension of term has been submitted but otherwise all tenements are current. . All tenements are being transferred to Poseidon Nickel.

Historical Overview

The Lake Johnston Nickel Operation (LJO) is located approximately 540 kilometres east of Perth, Western Australia, in the Lake Johnston greenstone belt, and hosts the Maggie Hays and Emily Ann underground nickel mines. In 1995 the Maggie Hays North Deposit was opened and in 1997, Emily Ann was discovered. Development of Emily Ann began in 2001 and continued until the mine closed in 2007. Production was replaced by Maggie Hays where development had started in 2006. Operations were suspended in early 2009 because of various economic factors including the Global Financial Crisis.

The Maggie Hays underground mine is located 3 kilometres south of the Emily Ann Concentrator. The original flotation style concentrator commenced commercial production in 1998. The operations utilised an on-site conventional nickel sulphide concentrate plant that was upgraded from around 500 ktpa to 1.5 Mtpa as part of the Maggie Hays Upgrade Project, which was commissioned in the fourth quarter of 2006. LionOre sold Lake Johnston along with several other assets to Norilsk in June 2007 who have subsequently sold Lake Johnston to Poseidon Nickel in September 2014.

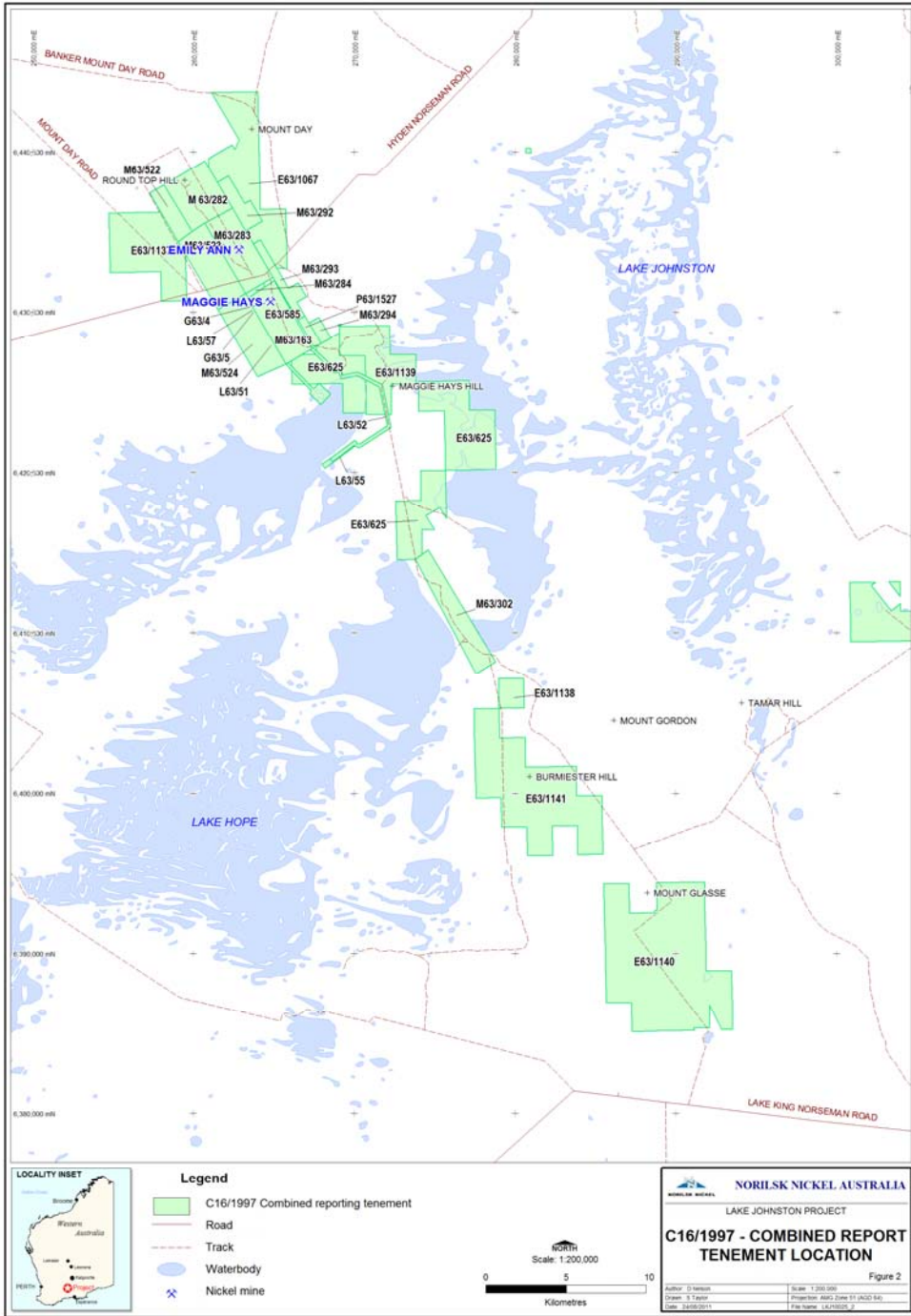
Emily Ann is an underground nickel mine and plant located on Mining Lease 63/283 which covered an area of 9.9 km². The Maggie Hays mine is located 3 kilometres south of the processing plant at Emily Ann. The Maggie Hays mine is located on Mining Lease 63/163 and covered an area of approximately 3.2 km². The tenement group, including the Maggie Hays mine, tailings storage facility, airstrip, airstrip access road, and dewatering pipeline covered an area of approximately 20.3 km². The regional tenement package covers in excess of 700 km² in the immediate Lake Johnston region (100% owned) and a further 1,000 km² in the nearby Southern Cross region (100%-owned, nickel rights only) (see Annex 2).

Annex 1

Key achievements to date

- ASA executed, plant and tenure secured and in good standing
- All regulatory approvals in place to allow mine recommencement
- JORC 2012 compliant Maggie Hays Resource Estimate Update completed
- Leapfrog software applied to drilling database and high value exploration targets identified
- Exploration program initiated by Poseidon on purchase
- JORC 2012 compliant Maggie Hays Reserve Estimate Update progressing
- Preliminary mining production schedule completed
- Tenders issued for underground mining and other mining support services engaged
- Geotechnical audit of underground mining operations review completed
- Project Implementation Plan for refurbishment of the Lake Johnston Operation completed and tenders issued
- Asset review including warehouse holdings and workshop assessment completed
- Tailings storage facility 4 metre lift Works Approval Amendment submitted and tenders for work issued
- Nickel concentrate saleable, indicative terms provided by multiple buyers, off- take agreement in final negotiation
- Environmental, native title and Aboriginal heritage assessment completed, all requirements in place
- Mine closure costs under review
- OHSE policies audited and being integrated with Poseidon policy
- Power station, camp management, IT and communications, RO systems, waste water treatment, Larox product filter refurbishment, Citect control system upgrade; design and costings completed and preferred suppliers selected and work started
- Transport, supply and sales logistics finalised
- Engaged with all key stakeholders as new owners including Western Australian Government Departments, Shire of Dundas, Shire of Esperance, Southern Port Authority (Esperance Port), the Ngadju people, Chamber of Commerce (Esperance)
- Nickel concentrate estimated at A\$4M identified by Poseidon in the process water pond to be reclaimed, filtered and sold to off take partner for early cash flow

Annex 2



MINERAL RESOURCE STATEMENT

Table 1: Nickel Projects Mineral Resource Statement

Nickel Sulphide Resources	JORC Compliance	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											
Mt Windarra	2012	0.90%	922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500
South Windarra	2004	0.80%	772	0.98	8,000	-	-	-	772	0.98	8,000
Cerberus	2004	0.75%	2,773	1.25	35,000	1,778	1.91	34,000	4,551	1.51	69,000
BLACK SWAN PROJECT											
Black Swan	2012	0.40%	9,600	0.68	65,000	21,100	0.54	114,000	30,700	0.58	179,000
LAKE JOHNSTON PROJECT											
Maggie Hays	2012	0.80%	2,000	1.40	27,900	1,800	1.43	25,200	3,800	1.41	53,100
TOTAL											
Total Ni Resources	2004 & 2012		16,067	0.93	149,900	28,114	0.82	230,700	44,181	0.86	380,600

Note: totals may not sum exactly due to rounding

Table 2: Gold Tailings Project Mineral Resource Statement

Gold Tailings Resources	JORC Compliance	Cut Off Grade	Mineral Resource Category								
			Indicated			Inferred			TOTAL		
			Tonnes (Kt)	Grade (g/t)	Au (oz)	Tonnes (Kt)	Grade (g/t)	Au (oz)	Tonnes (Kt)	Grade (g/t)	Au (oz)
WINDARRA GOLD TAILINGS PROJECT											
Gold Tailings	2004	NA	11,000	0.52	183,000	-	-	-	11,000	0.52	183,000
TOTAL											
Total Au Resources	2004		11,000	0.52	183,000	-	-	-	11,000	0.52	183,000

Note: totals may not sum exactly due to rounding.

ORE RESERVE STATEMENT

Table 3: Nickel Project Ore Reserve Statement

Nickel Sulphide Reserves	JORC Compliance	Ore Reserve Category		
		Probable		
		Tonnes (Kt)	Ni% Grade	Ni Metal t
WINDARRA PROJECT				
Mt Windarra	2004	498	1.78	9,000
Cerberus	2004	1,221	1.30	16,000
BLACK SWAN PROJECT				
Black Swan	2012	3,370	0.63	21,500
TOTAL				
Total Ni Reserves	2004 & 2012	5,089	0.91	46,500

Note: totals may not sum exactly due to rounding.

Notes

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.

The information in this report that relates to Ore Reserves at the Windarra Nickel Project is based on information compiled by Denis Grubic, who is a Member of The Australasian Institute of Mining and Metallurgy as well as a full time employee of Rock Team Pty Ltd.

The information in this report which relates to the Black Swan Mineral Resource and Ore Reserves is based on information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and Francois Bazin of IMC Mining Pty Ltd who are both Members of the Australasian Institute of Mining and Metallurgy.

Mr Hutchison, Mr Glacken, Mr Weeks, Mr Bazin and Mr Grubic 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 Hutchison, Mr Glacken, Mr Weeks, Mr Bazin and Mr Grubic have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This document contains Mineral Resources and Ore Reserves which are reported under JORC 2004 Guidelines as there has been no Material Change or Re-estimation of the Mineral Resource or Ore Reserves since the introduction of the JORC 2012 Codes. Future estimations will be completed to JORC 2012 Guidelines.

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

CORPORATE DIRECTORY

Director / Senior Management

David Singleton	Managing Director & Chief Executive Officer
Chris Indermaur	Non-Executive Chairman
Geoff Brayshaw	Non-Executive Director
Robert Dennis	Non-Executive Director
Ross Kestel	Company Secretary

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Home Exchange

The Company's shares are listed on the Australian Securities Exchange and the home exchange is Perth
ASX code: POS