

16 June 2010

Company Announcements Officer
ASX Limited
Exchange Centre
Level 4, 20 Bridge Street
SYDNEY NSW 2000

Dear Sir

Re: POSEIDON IDENTIFIES NEW PROSPECTIVE NICKEL TARGETS AT WINDARRA

We enclose herewith a copy of an announcement in relation to the above.

Yours faithfully



David P.A. Singleton
MANAGING DIRECTOR &
CHIEF EXECUTIVE OFFICER

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CORPORATE DIRECTORY

Director / Senior Management

David Singleton	Managing Director & Chief Executive Officer
Andrew Forrest	Non-Executive Chairman
Geoff Brayshaw	Non-Executive Director
Richard Monti	Non-Executive Director
Chris Indermaur	Non-Executive Director
Ross Kestel	Company Secretary

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Home Exchange

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

ASX Announcement

16 June 2010

Poseidon Identifies New Prospective Nickel Targets at Windarra

HIGHLIGHTS:

- **Seven new highly prospective lava channels identified at 100%-owned Windarra Nickel Project**
- **Lava channels identified through ongoing exploration work and geochemical analysis, with surface geology providing clear confirmation of results:**
- **Poseidon will commence a drilling programme immediately at the most prospective lava channels to further define the new target.**
- **This breakthrough further establishes Poseidon's Windarra Project as one of the largest undeveloped nickel sulphide projects in Australia;**

Poseidon Nickel Limited (ASX: POS) ("Poseidon") has identified seven new highly prospective lava channels at its 100%-owned Windarra Nickel Project, located 250km north west of Kalgoorlie, Western Australia.

The objective of Poseidon's exploration programme was to identify further nickel sulphide hosting lava channels similar to that hosting the Cerberus deposit discovered in 2008. The exploration work has been focussed on comparing the Cerberus geochemical signature with other prospective zones along the Windarra Belt. The identified lava channels exhibit elevated nickel-copper ratios associated with MgO rich rocks (which are depleted in TiO₂), similar to those found at surface at Cerberus

Poseidon's Managing Director, David Singleton, said that the recent discovery of Cerberus further establishes the Windarra Project as one of the largest undeveloped nickel sulphide deposits in Australia, with a JORC resource of 97,331 tonnes Ni.

"The identification of the lava channels is the successful culmination of intensive work for which our geologists should be justifiably proud. When the results confirmed our originally held beliefs on the prospectivity of the belt, we immediately set about engaging drilling companies for the next stage of work.

"We expect to publish drilling results within the next quarter," said Mr Singleton.

Windarra Project nickel-hosting lava channels

Exploration of the Windarra Nickel Belt over the last three years resulted in the discovery of the high grade Cerberus nickel deposit which contains a resource of 1m tonnes at 2.45% nickel to date.

Knowledge gained by this discovery led to the indication that other potential nickel-hosting lava channels are believed to occur between the known mines at Mt Windarra and South Windarra. During the last 6 months, Poseidon has been actively seeking to identify other lava channel positions thought to exist in the Windarra Belt by using the Cerberus geochemical signature as a tool and mapping visible surface geology.

Recent soil sampling used a sampling sensitivity 100 times greater than previously employed and utilised multi-element analysis. Detailed geochemical interpretation was completed on both the modern and historical data sets resulting in the recognition that certain path-finder ratios of Ni, Cu, MgO and TiO₂ were indicative of the chemistry associated with the definition of lava channels within the Windarra Nickel Belt.

This work has resulted in 7 prospective lava channels being identified (Figure 1) and detailed field geology has confirmed the physical characteristics of the lava channels, such that they can now be seen as well as mapped (see Figure 2).

As previously predicted, the lava channels are typically 1.5 km to 2 km apart. The presence of a lava channel at Windarra is believed to be essential to the formation of a nickel sulphide resource but does not guarantee it. As a result, the identified channels will now be drilled and tested with Down Hole Electromagnetics (DHEM) as used during the Cerberus discovery. DHEM will greatly assist in finding nickel sulphide deposits of mineable grade as it is capable of identifying an electromagnetic sulphide source up to 50 metres from a drill hole.

The testing work, described above, to date covers only (14km) of the 24km strike length at Windarra. The remaining ground is affected by transported overburden and will require more detailed work to identify the lava channels.

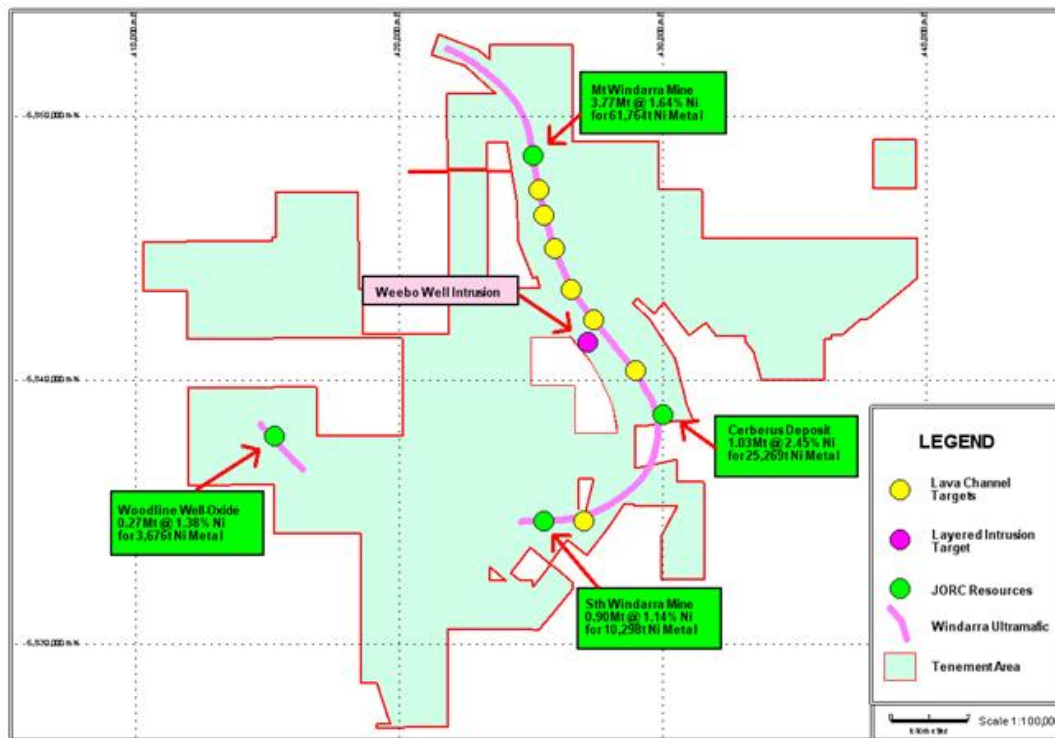


Figure 1: Tenement location plan showing lava channel and layered intrusion targets which have the potential to host nickel sulphide mineralisation.



Figure 2: Hunting for lava channels. Poseidon’s geologist have located, verified and mapped prospective komatiite lava channels within the Windarra Ultramafic Belt. Many remain untested or were insufficiently tested by WMC drilling.

In addition, Poseidon has been successful in receiving a \$150,000 grant by the State Government and the Department of Mines and Petroleum (DMP) as part of the DMP’s Exploration Incentive Scheme (EIS) co-funding programme. Under the EIS grant the DMP will pay 50% of direct drilling costs, up to a maximum value of \$150,000, for drill testing the Weebo Well Intrusion for nickel mineralisation. The Weebo Well Intrusion lies in the centre of the project area, but to the west of the Windarra Nickel Belt which hosts the current nickel deposits and targets (Figure 1).

Table 1: Windarra Nickel Project Resource Statement

Windarra Nickel Project Sulphides	Resource Category								
	Indicated			Inferred			TOTAL		
	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t
Total Sulphide	1,837,755	1.20	22,012	3,866,819	1.95	75,318	5,704,574	1.71	97,331

Note: The information in this report relates to Exploration Results and Mineral Resources based on information compiled by Mr N Hutchison who is a Member of The Australian Institute of Geoscientists. Mr Hutchison has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.’ He has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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