



ASX ANNOUNCEMENT

5 February 2007

Musgrave Nickel Project Update

A broad coherent zone of anomalous copper and nickel in soil has been identified by soil sampling across the Harcus mafic-ultramafic intrusion located within EL 3368 in the Musgrave Province of South Australia.

The results from the recently completed soil auger sampling survey show a primary anomalous region covering approximately 1.4km of the 7km long Harcus Intrusion. The anomalous zone is an average 250-300m in width and represents a large and easily accessible target within the intrusion that is potentially related to massive nickel-copper sulphide mineralisation.

A narrow linear anomaly of elevated nickel and copper also extends approximately 800m to the north of the main anomalous zone indicating a potential mineralised layer within the intrusive body. This weaker zone of soil anomalism is proximal and approximately 250 metres from mixed sulphides intersected during shallow RC drilling of the intrusion in May 2006.

Summary of recently completed field operations

Extensive ground magnetic surveying and soil auger sampling was undertaken during November 2006 as part of continuing exploration of the Harcus layered mafic-ultramafic intrusion. Eighty three kilometres of ground magnetic surveying was undertaken and five hundred and seventy four hand auger soil samples were collected as part of this program.

The magnetic data has provided improved resolution of the contacts and varied internal features of the intrusion and the soil geochemistry has highlighted a significant section of the intrusion where copper and nickel geochemistry is anomalous.

The results provide good target definition to focus continued drill testing as part of the follow-up strategy testing the occurrence of mixed massive and disseminated sulphides encountered in reverse circulation drilling during 2006.

Initial drilling of the intrusion in May 2006 encountered mixed sulphides in four RC boreholes. The sulphide in these holes is dominated by pyrrhotite with significant amounts of chalcopyrite. The maximum assay result of 0.46% Cu and 0.13% Ni provided encouragement for potential nickel-copper sulphide mineralisation within the Harcus Intrusion.

Proposed Drilling

At least ten deep diamond drill holes are planned to test beneath the geochemical and ground magnetic anomalies. The holes will also test extensions to the massive sulphide occurrence intersected by reverse circulation drilling during 2006.

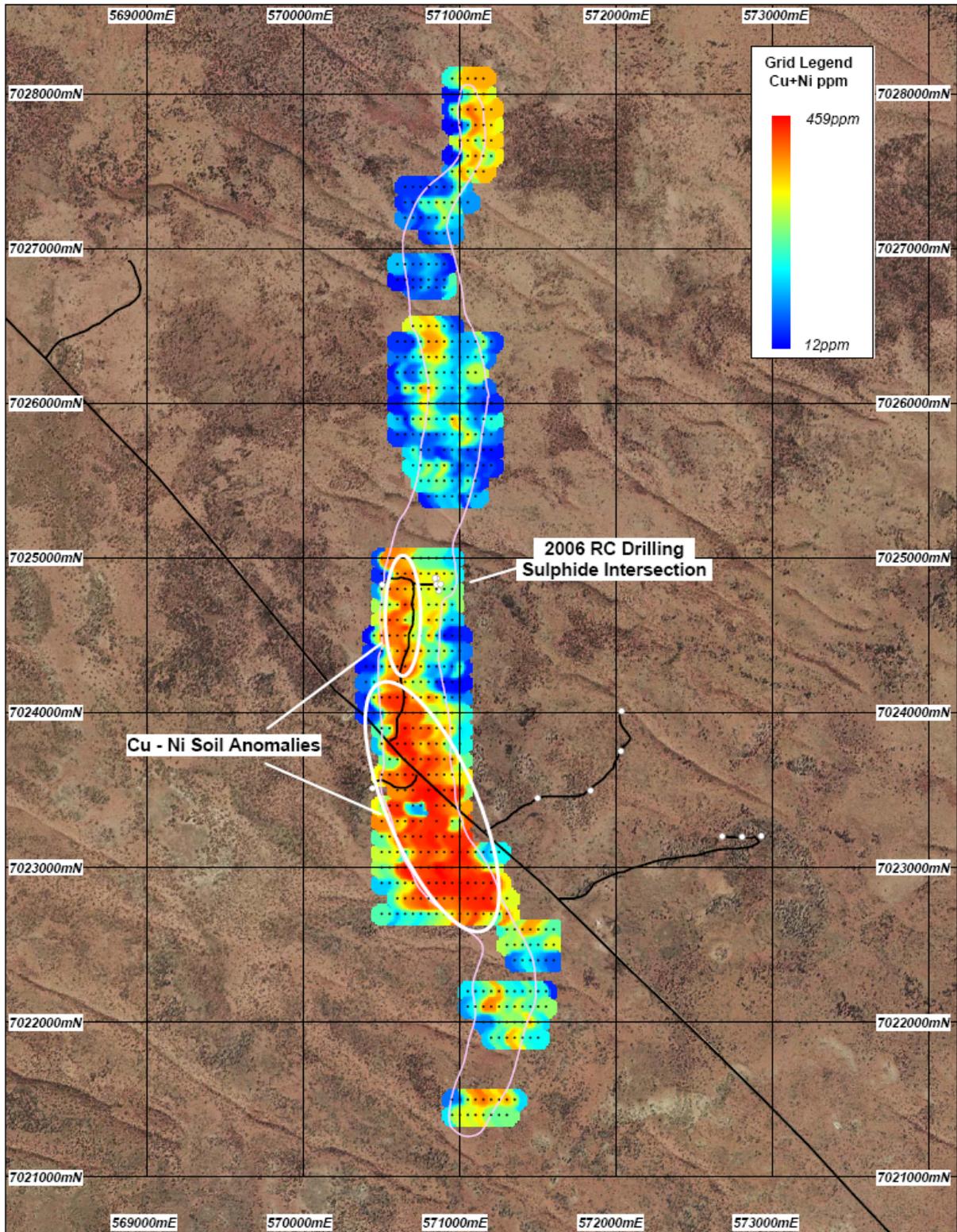
The information in this report that relates to Exploration Results is based on information compiled by Norman Kennedy BSc MAusIMM. Norman Kennedy is the Managing Director of PepinNini Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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". Norman Kennedy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information please contact:

Mr Norman Kennedy
Chairman and Managing Director, PepinNini Minerals Limited
Phone: (02) 9417 6212

Note: Additional information on PepinNini Minerals Limited can be found on the website:
www.pepinnini.com.au

Mt Marcus EL3368: Auger Soil Sampling - Cu+Ni

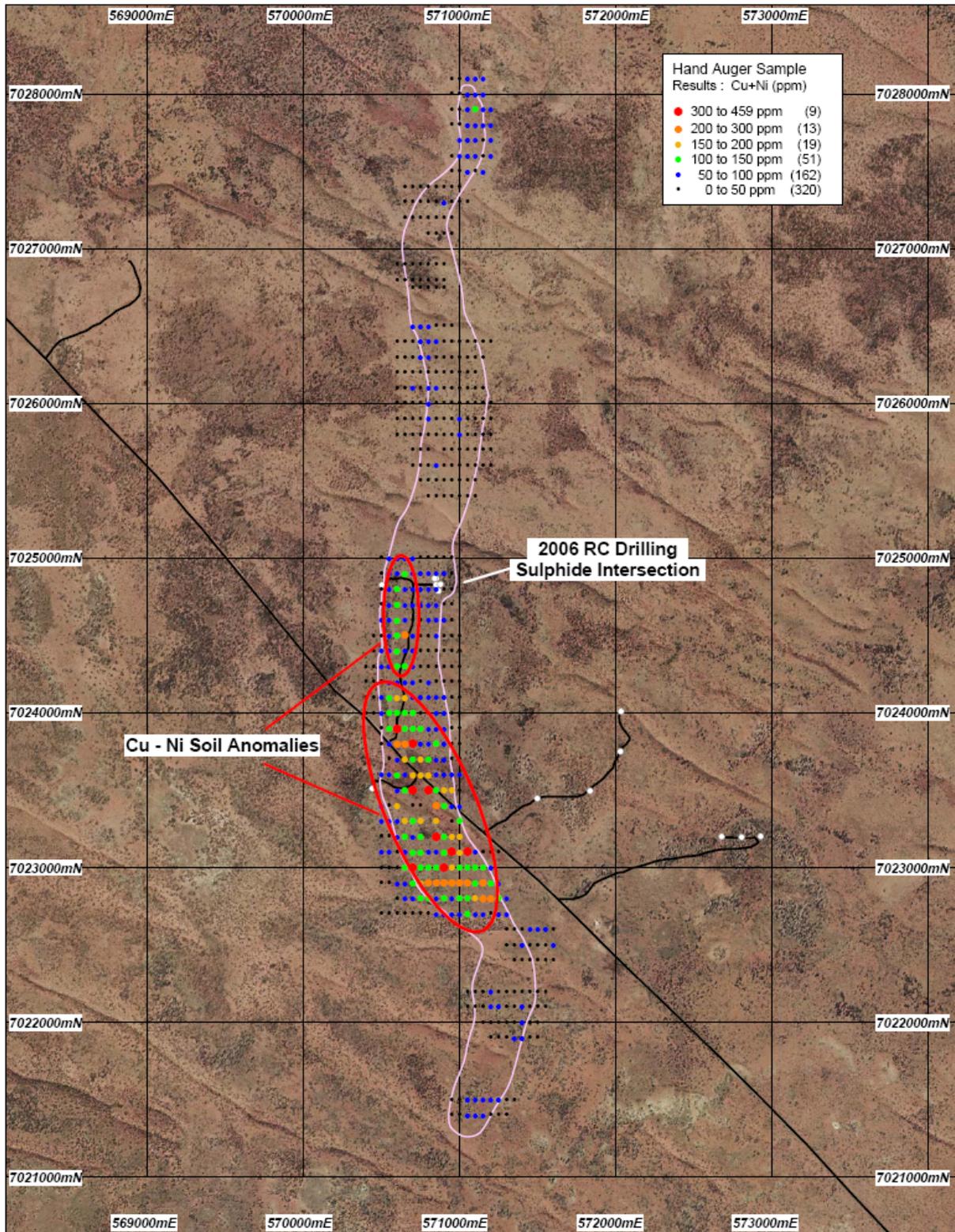


- Reverse Circulation Drill Hole
- Soil Auger Samples (n=574)
(coloured by Cu-Ni)

500m
(1:30,000)

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Mt Marcus EL3368: Auger Soil Sampling - Cu+Ni

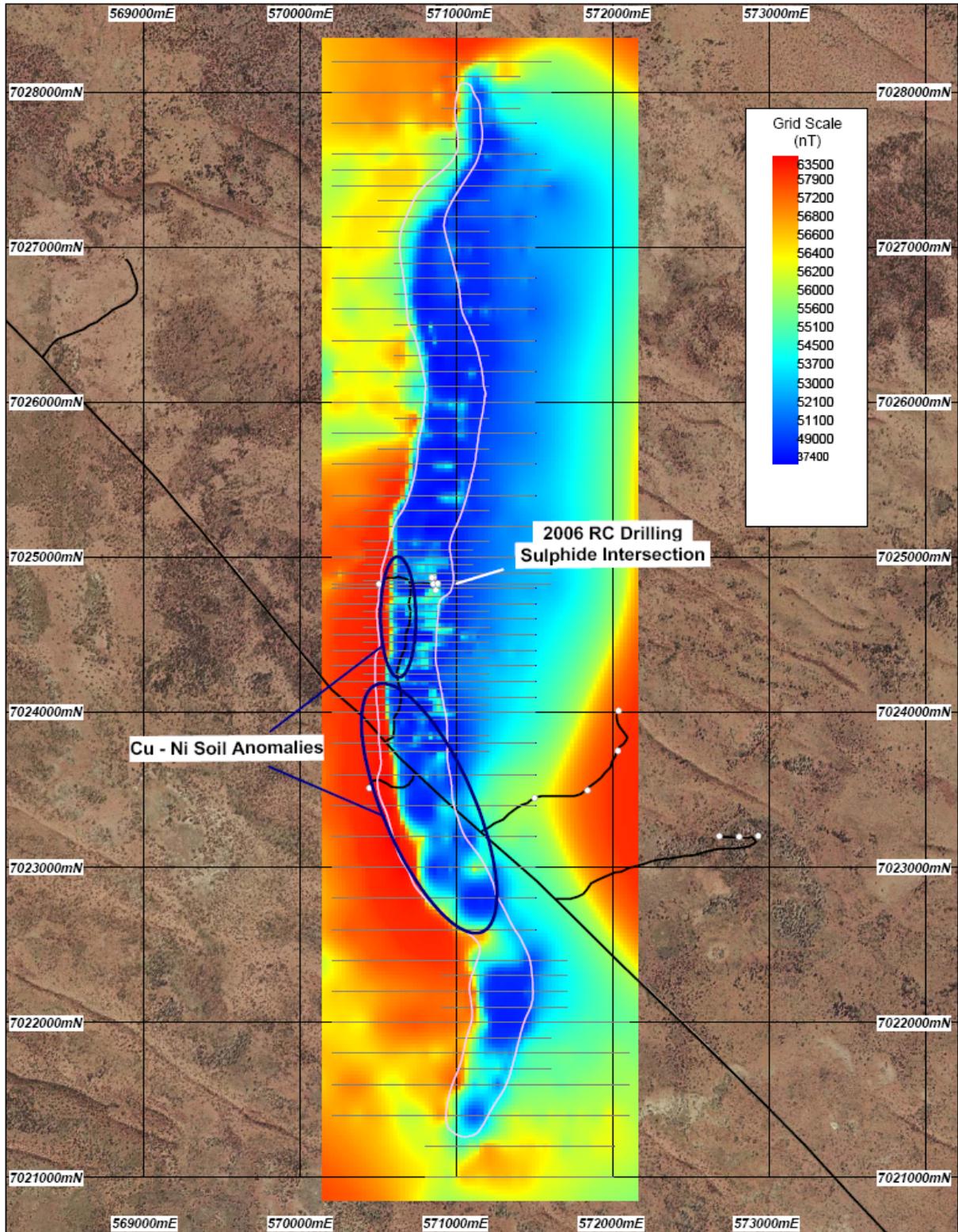


- Reverse Circulation Drill Hole
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500m
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Mt Marcus EL3368: Ground Magnetic Survey



- Reverse Circulation Drill Hole
- Ground Magnetic Profiles

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