



ASX ANNOUNCEMENT

5th March, 2008

Musgrave Nickel Project Update

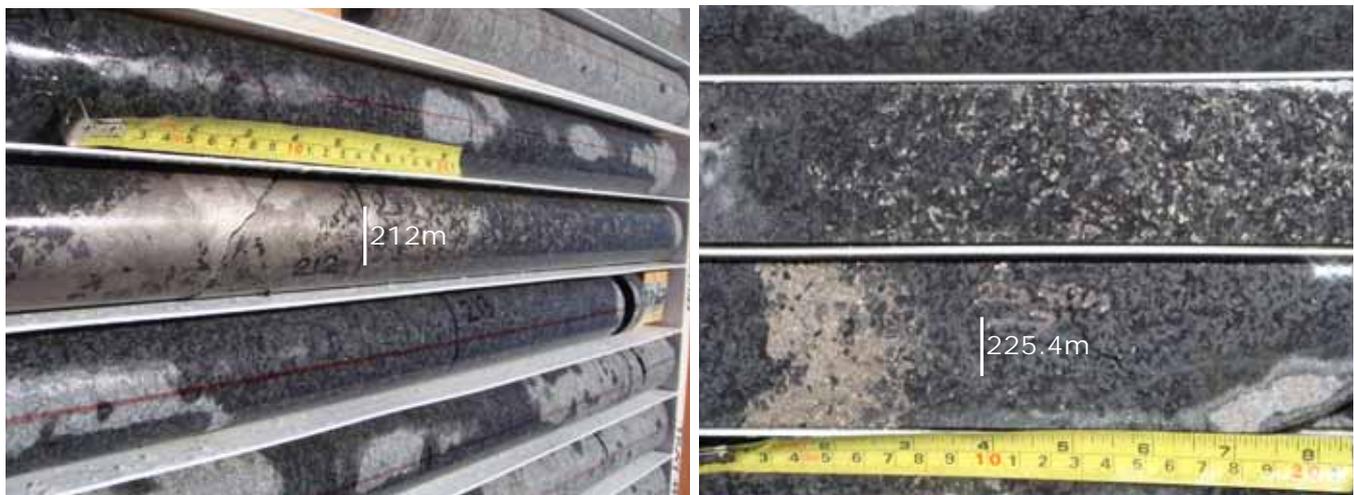
PepinNini Minerals is currently undertaking exploration programs designed to target Nickel Copper Sulphide mineralisation in three granted exploration licences covering approximately 4,905 sq. kms of the Musgrave Province of South Australia.

Exploration Licence EL3368 - Mt Harcus

Drilling operations recommenced at the Harcus Intrusion on 6th February targeting Voisey's Bay style magmatic nickel-copper sulphide mineralisation. Borehole DD07HAR008 has been extended to a depth of 410metres and borehole DD08HAR009 located at the northern extremity of the 7 kilometre long intrusion has been completed to a depth of 420 metres. The Company owned diamond drill rig has been moved to the Moulden NE Prospect to test three gravity targets that were identified by surveying in May 2007.

Borehole DD07HAR008 intersected variable quantities of massive and disseminated sulphide mineralisation with the most concentrated sulphide intervals occurring between the depths of 211 metres and 225metres. The intersection of massive sulphides is encouraging and confirms the potential for concentrated accumulations of mineralisation.

Core samples have been dispatched to a laboratory for analysis and down-hole electro magnetic (DHEM) surveys of drill holes at the Harcus Prospect have been completed and the data is currently being assessed.



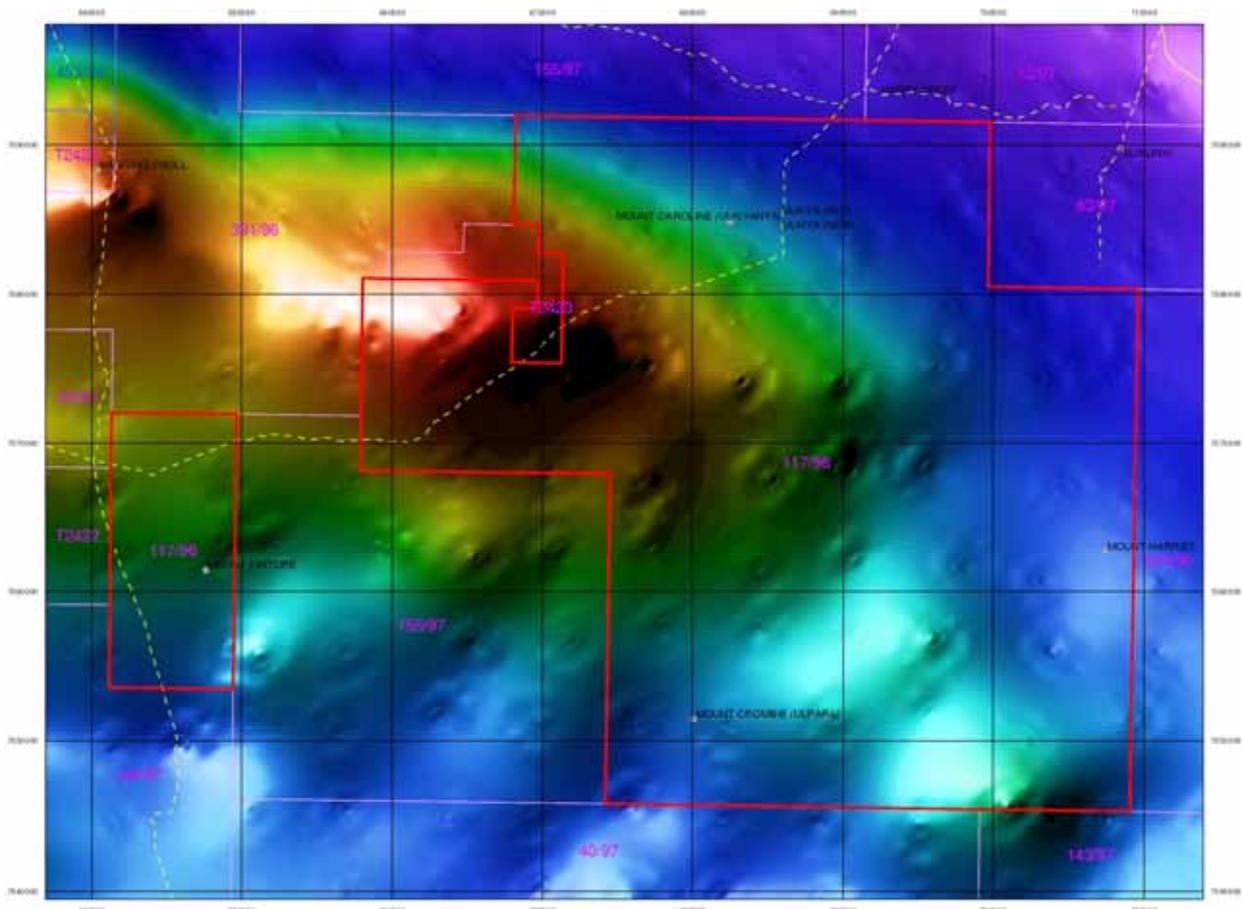
Massive and disseminated sulphides Borehole DD07HAR008

Exploration Licence EL4048 – Mt Caroline

EL4048 covering approximately 1,916 km² was granted to PepinNini Minerals on 25th February, 2008. The Caroline Intrusion is a large layered mafic/ultramafic intrusion belonging to the Giles Complex with potential for significant nickel copper sulphide mineralisation and platinum group metals similar to the Voisey's Bay and Platreef styles of mineralisation and will be the initial target investigated by the Company within the Mt Caroline tenement.

Airborne EM (Tempest) covering part of the Caroline Intrusion reveals shallow bedrock conductors possibly representing sulphide mineralisation in the ultrabasic Giles Complex. Four discrete magnetic targets interpreted to represent concealed mafic-ultramafic bodies and one magnetic ring feature interpreted to represent a possible kimberlite target are also proposed to be investigated by drilling.

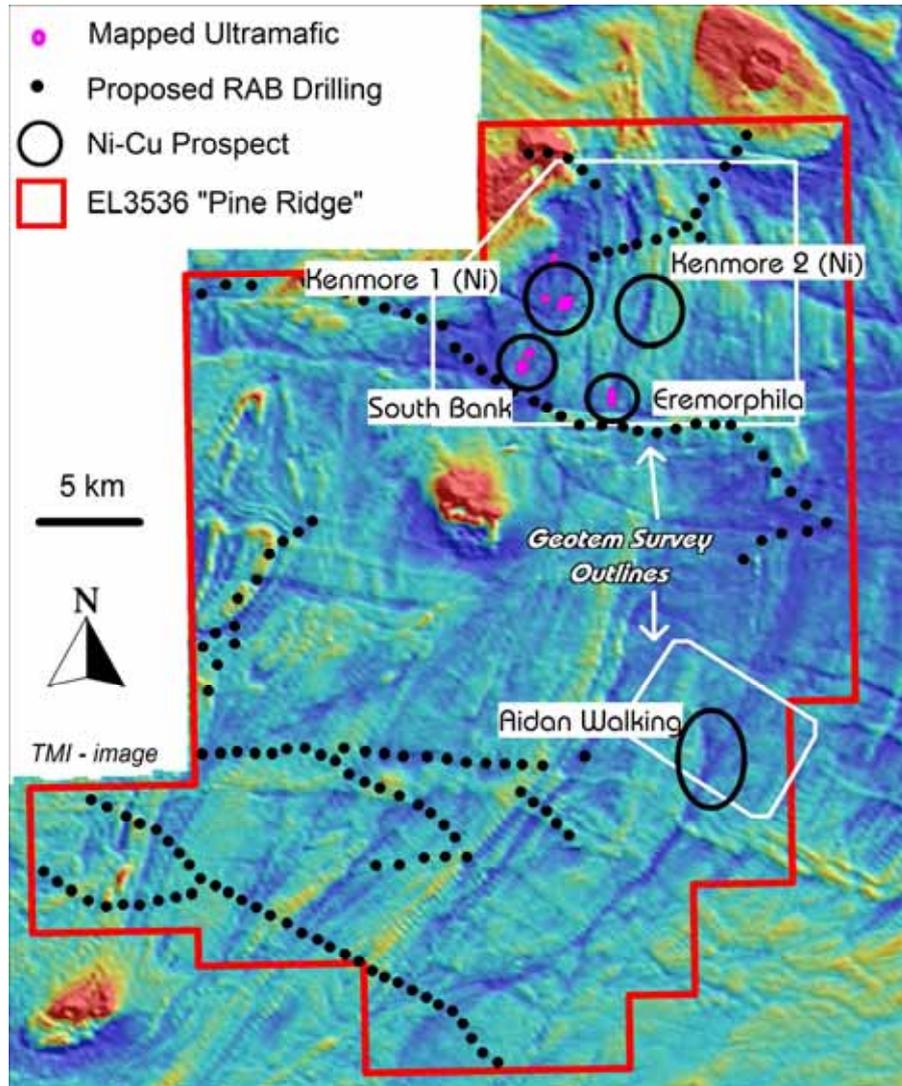
Subject to heritage clearance surveys scheduled to be undertaken early in April by the traditional owners of the area a drilling program of 11 boreholes is proposed commence in early May following the completion of the current drilling program within EL 3368. At least six boreholes comprising more than 1,500 metres of core drilling designed to provide stratigraphic information from concealed basement rocks and to investigate magnetic, electro-magnetic and gravity features associated with the Caroline Intrusion will be undertaken as part of a collaborative PACE funding program with the South Australian Government.



EL 4048 Mt Caroline – Gravity Data (courtesy PIRSA)

Exploration Licence EL3536 – Pine Ridge

A reconnaissance and mapping survey including geochemical sampling of significant parts of the Pine Ridge tenement as well as an extensive program of shallow drill holes primarily undertaken along existing tracks and fences is scheduled to commence following the completion of heritage clearance surveys by traditional owners during March, 2008. The project will also include reassessment followed by investigation by drilling of five nickel copper prospects "Kenmore 1", "Kenmore 2", "South Bank", "Eremorphila" and "Aidan Walking". previously identified by Department of Mines and Rio Tinto.



The information in this report that relates to Exploration Results is based on information compiled by Norman Kennedy BSc MAusIMM. Norman Kennedy is the Chairman and 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.

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Note: Additional information on PepinNini Minerals Limited can be found on the website:

www.pepinnini.com.au