



ASX ANNOUNCEMENT

29th August, 2007

Musgrave Nickel Project Update

Drilling operations have commenced within EL3368 targeting Voisey's Bay style magmatic nickel-copper sulphide mineralisation in the Mt Harcus and Mt Moulden Prospect areas. The Company owned diamond rig was mobilised to the Project area and commenced drilling activities on 16th July 2007. Two holes have been completed and a third is currently underway. A combined total of approximately 999m of core drilling has been completed to date.

Summary of drilling to date:

Hole_ID	MGA Coordinates		Type	Dip	Azimuth	Depth
DD07HAR001	570844mE	7024829mN	DD	-60°	90°	0 to 266.41m
DD07HAR002	570800mE	7023800mN	DD	-55°	270°	0 to 449.94m
DD07HAR003 (extension of RC06HAR011)	572029mE	7023752mN	DD	-60°	90°	<i>Commenced at 150.5m</i> 150.5 - 435m (In Progress)

Sulphide-bearing mafic rocks have been intersected in all three holes drilled at the Harcus Prospect. The primary sulphides are hosted within gabbroic intrusive rocks of the Giles Complex. The sulphide mineralisation occurs as fine to coarse disseminations with occasional blebby occurrences and is dominated by pyrrhotite (iron sulphide) but is accompanied by accessory chalcopyrite and possible pentlandite. Samples are currently being prepared for geochemical and petrological examination.

Borehole DD07HAR001 was drilled adjacent to the sulphide intersection made during the reverse circulation drilling program in 2006. The core confirmed the previously intersected sulphide occurrences with accumulations of disseminated sulphide noted in zones between 16m and 21m, 42m and 45m and 92.5m and 93m depths. The eastern contact of the intrusion against the metamorphic country rocks has also been defined at a depth of 237m (down hole).



Borehole DD07HAR001 (Disseminated Sulphide in Gabbro at 42.0m depth)

Borehole DD07HAR002 was drilled to a depth of 449.94m to test beneath the northern end of a soil auger Cu-Ni anomaly and also to intersect the contact of the intrusion. The hole intersected disseminated sulphide occurrences within gabbroic rocks from 312m to 327m. This zone is adjacent to a transition contact zone between the mafic intrusion and the metamorphic country rocks. The western contact of the intrusion was defined at the depth of 338m (down hole). The upward continuation of the sulphide occurrence in this hole may explain the source of the surface Cu-Ni anomalism being tested.

Borehole DD07HAR003 is in the process of being drilled and is intended as a stratigraphic hole through the Marcus Intrusion as part of the 2006 PACE 4 collaborative funding program with the South Australian Government. The hole extends borehole RC06HAR011 which was drilled to a depth of 151m in 2006. DD07HAR003 is currently at a depth of ~435m with a planned depth of ~800m (down hole). The hole has intersected mafic rocks from 151m to 420m with some disseminated sulphide zones between 245-295m depth. The hole is intended to test the strong magnetic and gravity properties within the intrusive rocks at this location. Magnetic minerals within the gabbro probably account for the magnetic anomalism, although further petrophysical tests are required on rock samples to confirm this. No source rock has yet been intersected to account for the gravity anomalism. This is increasingly encouraging for the remaining target zone of the hole.

Core samples of the three holes are currently being cut and prepared for submission to a laboratory for geochemical analysis.



Drilling Borehole DD07HAR001

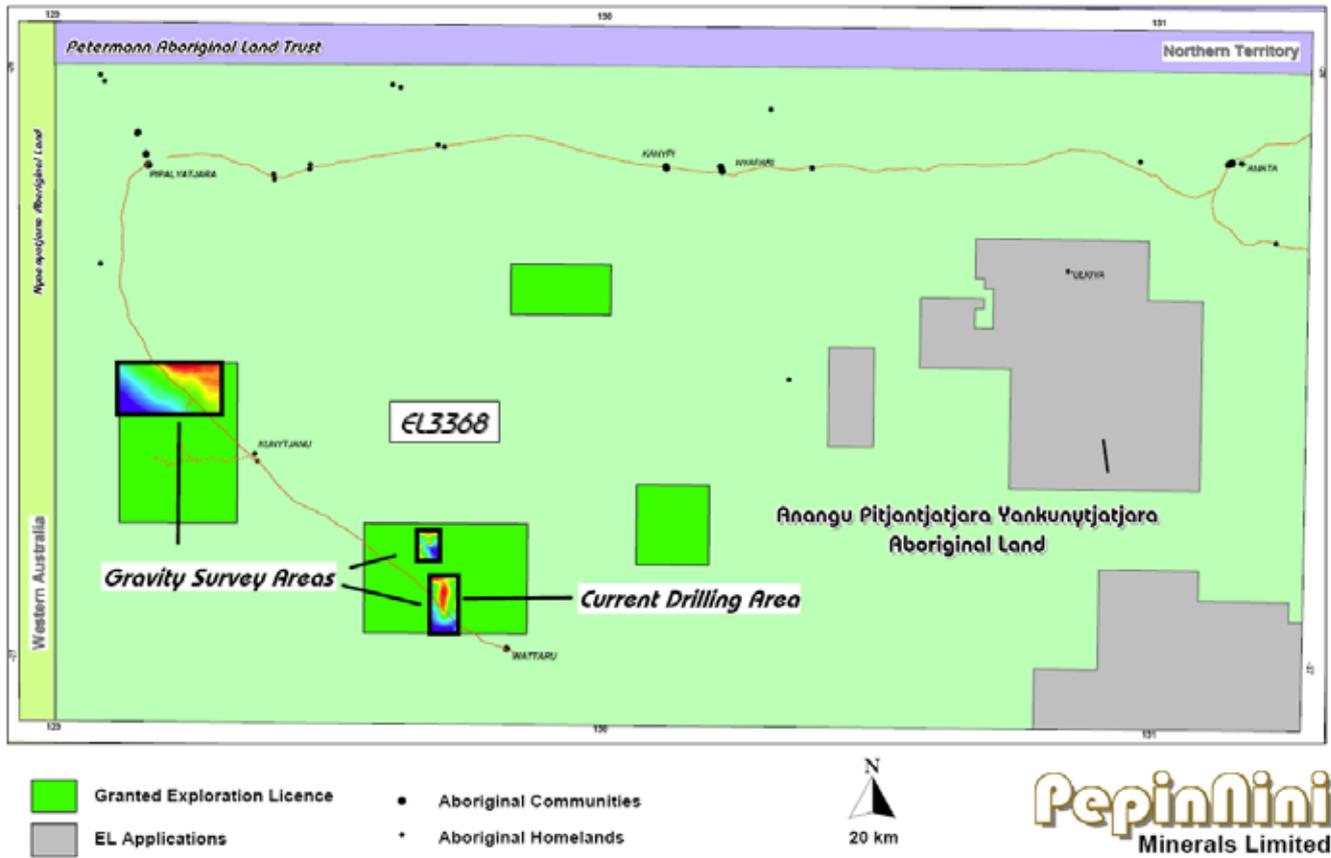
Gravity Survey (May-June 2007)

Gravity Surveying was undertaken across three prospect areas within EL3368 during May and June 2007. Three prospect areas (Moulden NE, Harcus and Harcus NW) were covered in detail with a total of 1,017 gravity stations being recorded.

Gravity surveying across the Moulden NE Prospect intended to follow-up interesting gravity features present in the wide spaced regional historic data and identified a very strong gravity gradient of >36 mGals across an 11km long profile. The data suggests a large dense and deeply seated bedrock source. Processing and filtering of the data has identified three distinct gravity anomalies (M1-M3) within the survey area.

Gravity Surveying across the Harcus Prospect identified a significant >6mGal gravity anomaly coincident with the mapped mafic intrusion and magnetic anomaly. The gravity data indicates a significant body of contrasting high density rocks which have not been encountered during the drilling thus far. Density measurements of drill samples indicate that the background metamorphic rocks vary in density from 2.4-2.6 g/cm³ and that the mafic rocks intersected so far have a density varying between 2.8-3.1 g/cm³. A conservative geophysical assessment of the gravity data suggests the source rocks to the anomaly should exceed a density of 3.5 g/cm³.

Gravity surveying across the Harcus NW Prospect has identified a discrete 3 mGal anomaly approximately 1km in diameter which is coincident with a strong negative magnetic feature interpreted as Giles Complex Intrusive rocks and a probable bedrock EM conductor detected by ground EM surveying in 2006. This feature is a priority target which will be drill tested as soon as practicable.



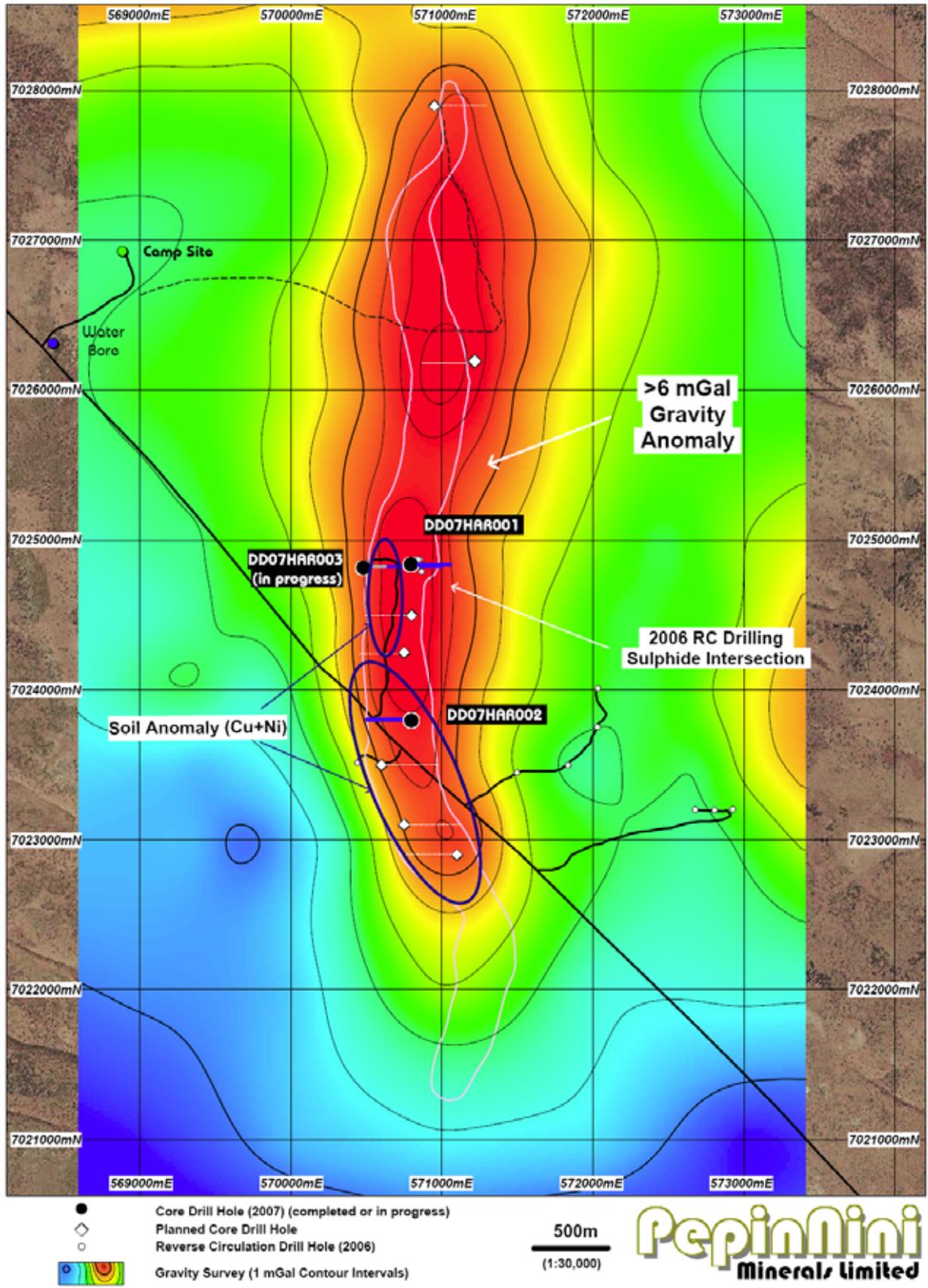
The information in this report that relates to Exploration Results is based on information compiled by Norman Kennedy BSc MAusIMM. Norman Kennedy is the Managing Director of PepinNini Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under 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:

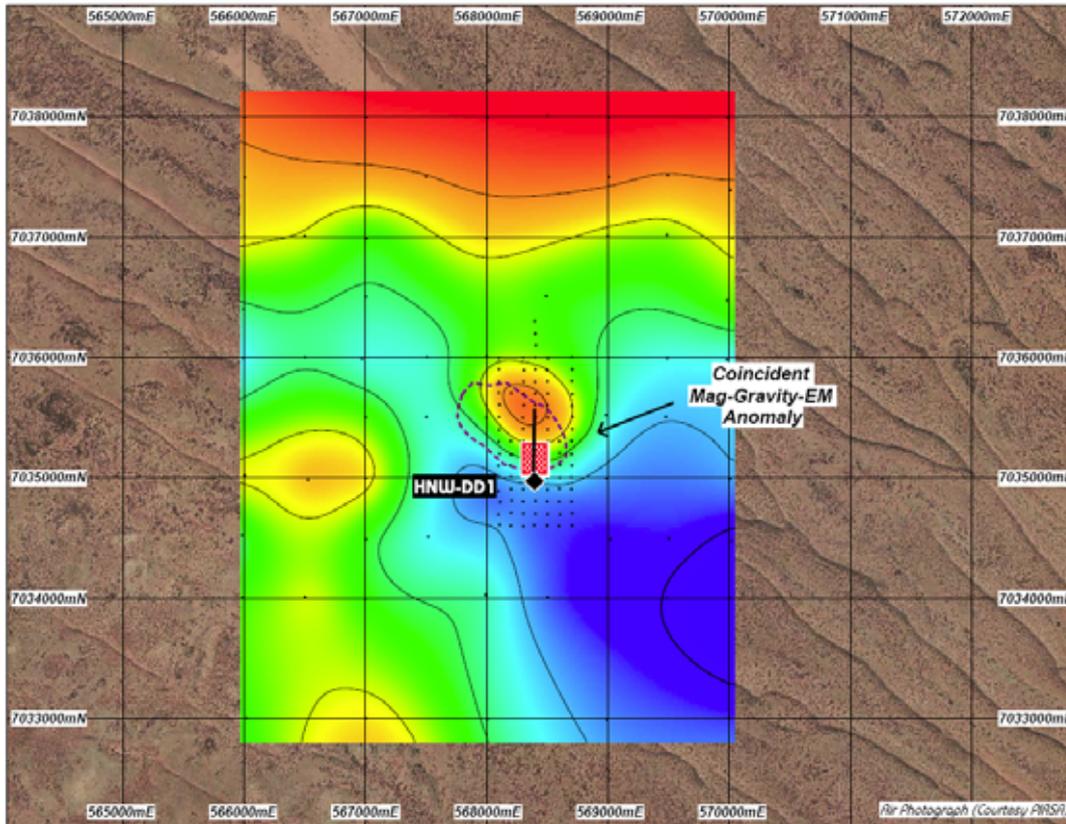
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Note: Additional information on PepinNini Minerals Limited can be found on the website:
www.pepinnini.com.au

Mt Harcus EL3368: Drilling Program Status (August 2007)



Mt Harcus EL3368: Harcus NW Prospect - Proposed Drilling (2007).

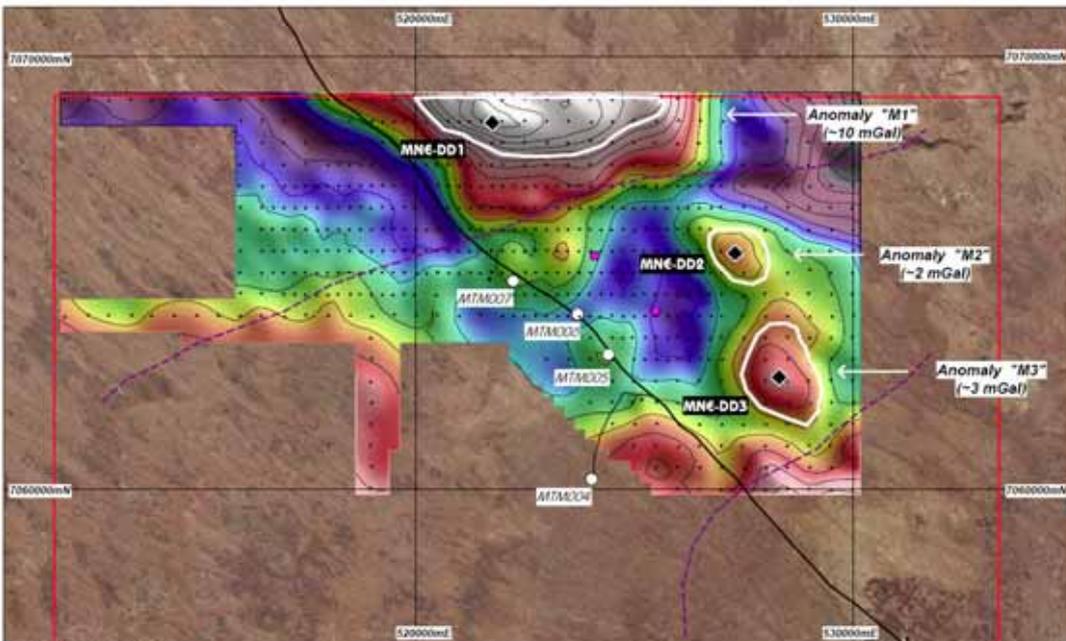


GDA94 - MGA Zone 52

- Gravity Station (June 2007)
- Ground EM Conductor
- ◆ Proposed Drill Hole
- 500m
- Interpreted Giles Complex Intrusion (Intense Magnetic Low)
- Bouguer Anomaly Gravity (1 mGal Contour Interval)
- (1:40,000)

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EL3368 (Mt Moulden Block): Moulden NE Prospect - Gravity Survey.



GDA94 - MGA Zone 52

- EL 3368 (Mt Moulden Block)
- Gravity Station (June 2007)
- ◆ Proposed Drill Hole
- 1000m
- 1st Order Residual Filter Gravity
- Interpreted Giles Complex (Paranapa Intrusion)
- BC Hole 2006

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