

# **ASX ANNOUNCEMENT**

21<sup>st</sup> January, 2008

## Musgrave Nickel Project Update

The current drilling program within EL3368 is targeting Voisey's Bay style magmatic nickelcopper sulphide mineralisation in the Mt Harcus and Mt Moulden Prospect areas. The Company owned diamond drill rig has completed eight cored boreholes and a ninth is currently underway. A total of 3,188.5 metres of drilling has been completed to date.

Hole_ID	MGA Co	ordinates	Dip	Azimuth	Depth	Prospect
DD07HAR001	570844mE	7024829mN	-60°	90°	266.41m	Harcus
DD07HAR002	570800mE	7023800mN	-55°	270°	449.94m	Harcus
DD07HAR003 (extension of RC06HAR011)	570503mE	7024828mN	-60°	90°	<i>Commenced at 150.5m</i> 150.5 – 776.16m	Harcus
DD07HAR004	568400mE	7034970mN	-55º	0°	195.56m	Harcus NW
DD07HAR005	568300mE	7035600mN	-90º	-	198.23m	Harcus NW
DD07HAR006	571140mE	7023100mN	-55°	270°	421.31m	Harcus
DD07HAR007	571150mE	7026200mN	-55°	270°	534.57m	Harcus
DD07HAR008 (in progress)	570950mE	7027150mN	-55°	290°	135m (current depth)	Harcus
DD07MTM001	520011mE	7055905mN	-90°	-	361.82m	Moulden

### Summary of drilling:

Five holes have been completed (with a sixth currently underway) to test a variety of targets along the 7km strike length of the Harcus Intrusion. Two holes have been completed to test coincident electromagnetic, magnetic and gravity anomalies at the Harcus North West Prospect. A single stratigraphic hole was drilled at the Moulden Prospect to investigate the large regional scale magnetic anomaly.

Three of the drill holes (2 at Harcus and 1 at Moulden) were completed as part of a collaborative PACE funding program with the South Australian Government.

Drilling at the Harcus and Harcus North West Prospects intersected variable quantities of disseminated sulphide within the mafic intrusive rocks. The most abundant sulphide intersections

have been observed in holes DD07HAR001 and DD07HAR007 (Harcus Prospect). These intersections occur as fine to coarse primary disseminations within gabbroic rocks of the Giles Complex. The sulphide mineralisation is dominated by pyrrhotite (iron sulphide) accompanied by accessory chalcopyrite (copper sulphide) and pentlandite (nickel sulphide).



Disseminated sulphides DD07HAR007 (482.5-483.5m)

The stratigraphic hole drilled at Moulden intersected a flat lying sequence of granulite gneiss in a location central to a 10x15km anomalous magnetic feature that has previously been regarded as a large mafic – ultramafic intrusion. The stratigraphic knowledge gained from the drilling of this borehole gives better definition for the distribution of mafic rocks in outcrop across the north east portion of the Moulden Block and will assist in a better understanding of the magnetic signatures of bedrock lithologies across the region.

#### **Geochemical Assay Results**

Geochemical assays have been returned for all completed boreholes (DD07HAR001–7 and DD07MTM001). Maximum geochemical values from the boreholes are as follows:

DD07HAR001	Ni: 254 ppm	S: 1.66%	Cr: 837 ppm
	Cu: 2030 ppm	Pt: 50 ppb	Ti: 1.18 %
	Co: 107 ppm	Pd: 60 ppb	V: 1085 ppm
DD07HAR002	Ni: 348 ppm	S: 1.09%	Cr: 1070 ppm
	Cu: 774 ppm	Pt: - ppb	Ti: 1.00 %
	Co: 81 ppm	Pd: 140 ppb	V: 825 ppm
DD07HAR003	Ni: 260 ppm	S: 0.24%	Cr: 303 ppm
	Cu: 423 ppm	Pt: 40 ppb	Ti: 0.74 %
	Co: 63 ppm	Pd: 60 ppb	V: 569 ppm
DD07HAR004	Ni: 371 ppm	S: 0.26%	Cr: 407 ppm
	Cu: 307 ppm	Pt: 6 ppb	Ti: 0.25 %
	Co: 65 ppm	Pd: 6 ppb	V: 161 ppm
DD07HAR005	Ni: 313 ppm	S: 0.09%	Cr: 571 ppm
	Cu: 108 ppm	Pt: 4 ppb	Ti: 0.32 %
	Co: 57 ppm	Pd: 3 ppb	V: 232 ppm
DD07HAR006	Ni: 305 ppm	S: 0.21%	Cr: 1260 ppm
	Cu: 376 ppm	Pt: 3 ppb	Ti: 0.83 %
	Co: 643 ppm	Pd: 4 ppb	V: 451 ppm

DD07HAR007	Ni: 473 ppm	S: 2.87%	Cr: 974 ppm
	Cu: 3890 ppm	Pt: 50 ppb	Ti: 1.13 %
	Co: 128 ppm	Pd: 40 ppb	V: 745 ppm
DD07MTM001	Ni: 60 ppm	S: 0.43%	Cr: 237 ppm
	Cu: 73 ppm	Pt: - ppb	Ti: 2.05 %
	Co: 46 ppm	Pd: - ppb	V: 414 ppm

The geochemical results confirm the presence of elevated copper and nickel in holes DD007HAR001 and DD07HAR007. The best intercepts include;

- DD07HAR001 (42-43m): 1m @ 0.2% Cu, 254 ppm Ni
- DD07HAR001 (88-93m): 5m @ 0.13% Cu, 158 ppm Ni
- DD07HAR007 (482.1-484.5m): 2.4m @ 0.31% Cu, 318 ppm Ni

Zones of elevated chrome and nickel have also been noted associated with cross cutting mafic dykes that are significantly younger than the prospective Giles Complex rocks. The geochemical results do not indicate any platinum group elements (PGE's) associated with the intrusive bodies.

Drilling activities are scheduled to recommence during the first week of February with drilling at the Harcus Prospect to be completed. The drill rig will then be moved to the Moulden NE Prospect to test a number of gravity targets that were identified by surveying in May 2007.

Down-hole electro magnetic surveys of the sulphide bearing drill holes at the Harcus Prospect are also scheduled to be undertaken.

The information in this report that relates to Exploration Results and Mineral Resources 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.

#### For further information please contact:

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**Note:** Additional information on PepinNini Minerals Limited can be found on the website: <u>www.pepinnini.com.au</u>





EL3368(Moulden Block): Drilling Program Status (January 2008)