

ASX ANNOUNCEMENT

22nd October, 2008

Positive Initial Geochemical Results for Mt Caroline EL 4048 Musgrave Province South Australia

As previously announced PepinNini Minerals has acquired a vacuum drilling rig to undertake regional geochemical bedrock sampling with the aim of defining prospective mineral exploration targets beneath a thin veneer of alluvial cover within the Company's tenements located in the Musgrave Province of South Australia. Analytical results for the first batch of 145 regional bedrock geochemical samples drilled by the vacuum rig within EL 4048 have returned anomalous values of silver (up to 25.5ppm), lead (up to 23ppm), zinc (up to 1,240ppm), nickel (up to 510ppm), copper (up to 115ppm), cobalt (up to 195ppm), molybdenum (up to 14ppm) and strontium (up to 1,040ppm). The assay values are notably higher than results previously reported for regional geochemical samples collected in the Musgrave Province of South Australia. The Company is awaiting results from an additional 179 samples drilled across the Caroline Intrusion.

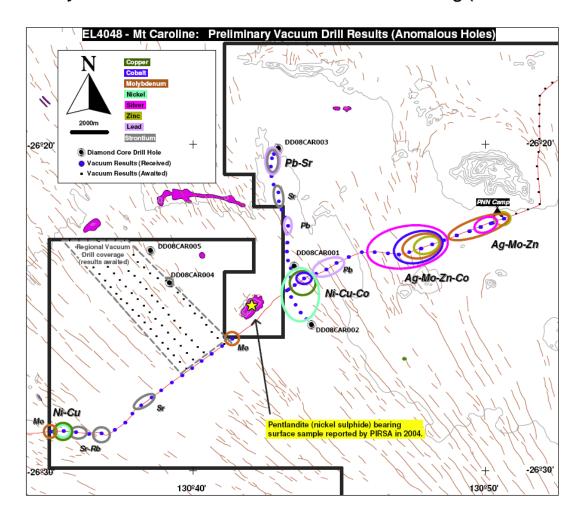
A number of distinct priority targets have been defined from the initial results as shown on the following plans and each will be systematically investigated by more detailed grid drilling to ascertain if a coherent anomaly exists the size of which may represent an economically viable target. The initial results are very encouraging and endorse the vacuum drilling technique as an appropriate method to define prospective mineral exploration targets under shallow cover in the Musgrave Province environment. The Company has an ongoing program of approximately 1500 vacuum holes approved within EL4048 Mt Caroline and EL3536 Pine Ridge.

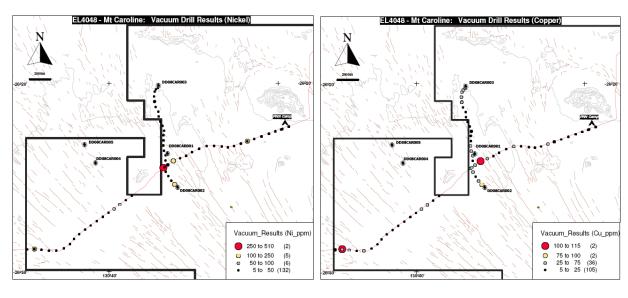


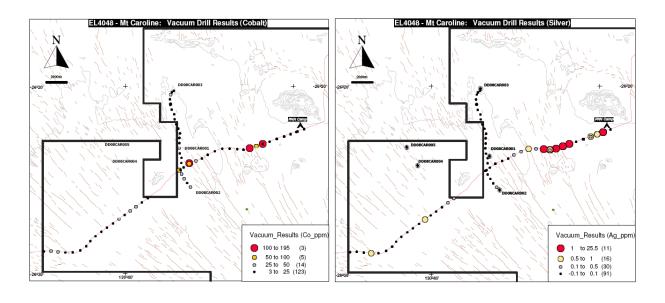


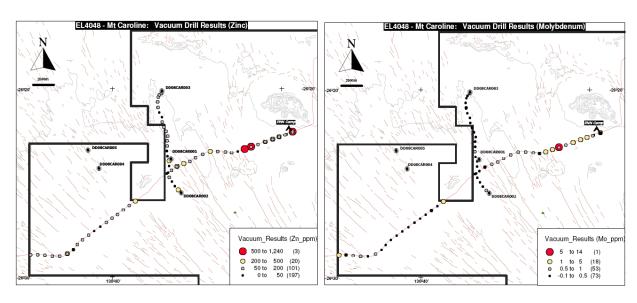
Company vacuum rig collecting bedrock geochemical samples within EL 4048 Mt Caroline

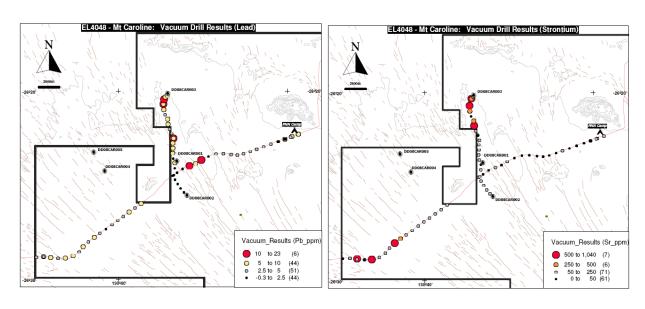
Summary of Anomalous Results From Vacuum Drilling (Holes VC001-62)

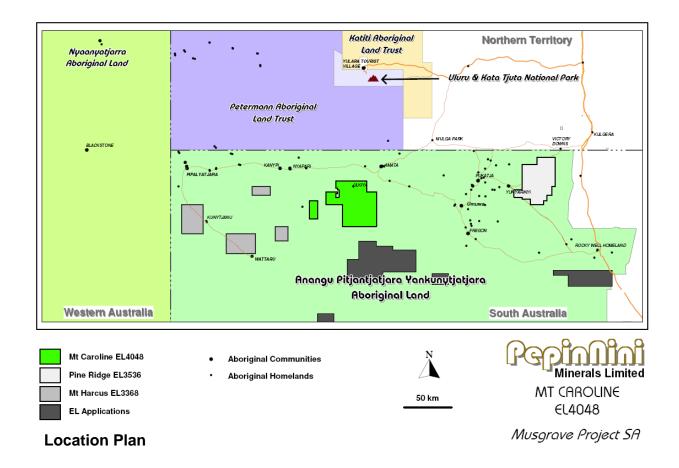












The information in this report that relates to Exploration Results is based on information compiled by Norman Kennedy BSc MAusIMM. Norman Kennedy is the Chairman and Managing Director of PepinNini Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type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