

ASX ANNOUNCEMENT

5th May 2014



Musgrave Project Collaboration

PepinNini Minerals Ltd is pleased to announce a Research and Development (R&D) Collaboration with CSIRO for the Company's South Australian (SA) Nickel – Copper Musgrave Project. The collaboration will involve geophysical data collection and interpretation using the latest fixed wing high-moment electromagnetic system. The electromagnetic surveying system will be similar to that developed by Anglo American for regional target generation which is understood to be instrumental in the 2013 discovery of the Manchego Ni-Cu system in West Musgrave currently held by Phosphate Australia Limited(ASX: POZ). The collaboration will be managed by CSIRO and will involve expenditure by funding grant and Company contribution in the order of \$500,000.

The collaboration follows previous work(*partially funded by SA government DMITRE under PACE*) by PepinNini which led to the recent discovery of the Marrawah magmatic system, where drill testing intercepted mixed massive to disseminated sulphides within intrusive ultramafic rocks proximal to the Caroline Intrusion. The sulphides were anomalous in copper and nickel(*PepinNini ASX release 16th October, 2013*). An innovative regional exploration model derived from the re-interpretation of aeromagnetic data has highlighted a number of discrete and discordant magnetic anomalies within the Caroline and Anerinna projects (*Figure 1*) that may be reflective of “feeder-dykes” (ie the magmatic plumbing system) to larger mafic-ultramafic intrusive bodies. The application of airborne electromagnetic(EM) survey techniques should determine the presence of any conductivity responses associated with the magnetic

anomalies that may indicate accumulations of massive or semi-massive sulphide accumulations.

Todd Williams, Musgrave Project Geologist welcomed the collaboration saying “CSIRO will bring technical excellence to the Company’s R&D project aimed at deploying technical innovation to refine target mapping on the Musgrave Project”. Todd will present the conceptual model behind the collaboration at the South Australian Explorers’ Conference (SAREIC 2014) on 7th May 2014 in Adelaide.

PepinNini’s Musgrave Project is located in the far North West of South Australia adjacent to the WA and NT borders.

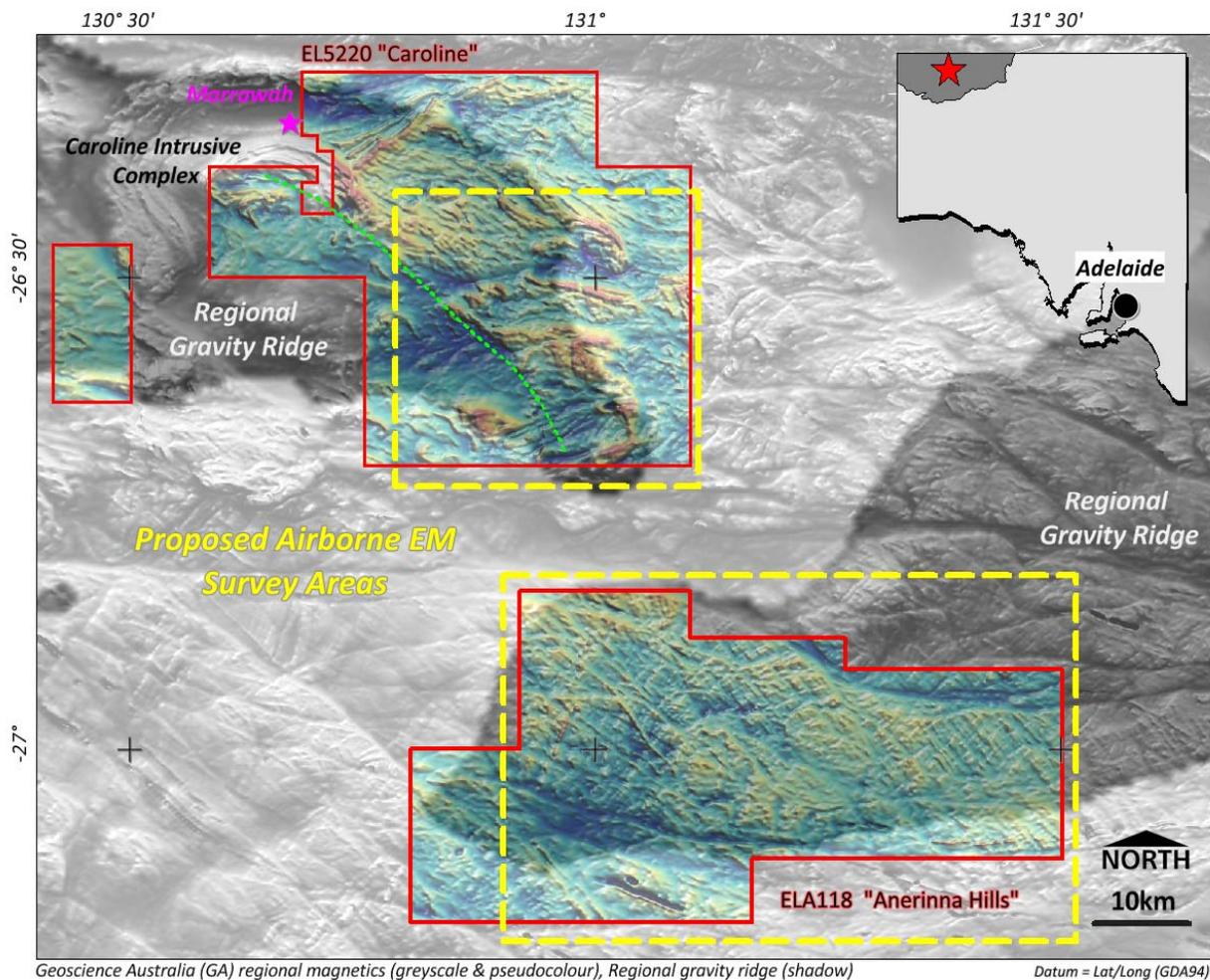


Figure 1: Proposed location of collaborative airborne electro-magnetic surveys (Caroline and Anerinna Hills)

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