

## **A GRAVITY HIGH IN DARVEL BAY**

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A gravity survey was carried out along the coastlines of Darvel Bay and many of the islands (e.g. Sakar, Tabauwan, Silumpat) in the Bay. In addition stations were located along the road from Kunak to Lahad Datu. The resulting Bouguer anomaly map shows a broad gravity high of at least 60 mgal which strikes west northwest with its maximum on the southern coast of Pulau Sakar. The anomaly narrows and decreases where it comes ashore and may continue along the Siam-Beeston Complex.

This large positive anomaly suggests that there is an extensive ultramafic body beneath Darvel Bay. The gravity anomaly can best be modelled as a 3 to 5 km thick slab of ultramafic rock under the Bay with amphibolites on its northern and southern edges dipping away from the Bay. This model is consistent with a folded structure which brings upper mantle rocks to the surface. It is unlikely that there is a significant thickness of Chert-Spillite Formation beneath Darvel Bay, although the gravity data would permit a thickness of up to a few hundred metres.

\*Now at: Geoterrax Ltd., 2060 Walkley Road, Ottawa, Ontario, Canada K1G 3P5.