



ORAL PRESENTATION

Unlocking Hidden Plays in and Around Sarawak with FTG Gravity Data

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High resolution airborne Full Tensor Gravity Gradiometry (FTG) data acquired across the Sarawak Basin area, from Tatau in the west to Balingian and Tinjar in the east and Luconia in the north, facilitate the regional mapping perspective of the primary geological trends influencing the location and prospectivity of both known producing structures and the presence of others.

The Luconia carbonates reveal a clear definitive response in FTG data facilitating direct mapping of presence and assessment of compositional complexity. Intermediate and longer wavelength anomalies point to a variable sub-carbonate geological complexity, from the presence of basins to a shallowing basement. Balingian carbonates are less expressive and the FTG signal changes to the southeast, pointing to the presence of deeper kitchen areas where source rocks potentially reside. Fault patterns are evident in the data and lead to an increased understanding of the direction of migration for hydrocarbons from deeper source rocks to their carbonate build-up hosts. FTG data facilitates clear imagery associated with sub-carbonate geology, locating Top Basement and overlying basins.

The Tinjar and East Balingian areas offer an additional but equally exciting set of plays in the form of closed anticlinal structures. FTG identifies these with a characteristic anomaly pattern making it a must-have technology for the exploration tool kit. Known oil fields in the offshore have an associated FTG response that is used to calibrate potential for new plays in the onshore Tinjar area. Supporting geochemical, seismic and resistivity data facilitate a ranking mechanism when prioritising targets.

This paper will show and describe FTG's imaging of key structures and potential for new leads across the Sarawak area.