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Getting more from your potential field data Offshore Angola & Brazil, a case study

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With over 76 thousand kilometres, and 160 thousand kilometres of 2D and 3D gravity coverage respectively available for this study, the volcanic passive margin of offshore Angola, represents one of the most complete and unexplored data sets currently available. Add to this a comprehensive coverage of 2D, but limited 3D magnetic data, the area is an ideal target to demonstrate the use of potential field at the frontier, through to the prospect stage. Likewise offshore Brazil has 200 thousand kilometres of combined gravity and magnetic data also available for this study.

This paper will not only focus on traditional techniques such as structural mapping and depth to basement estimates, but by using sophisticated 3D inversion techniques, we will also show more novel concepts, such as:

- Moho depth estimation
- Geothermal heat flow modelling
- Structural indices
- Fault plane angles and decollement surfaces
- Generation of minimum and maximum salt isopachs.
- Maturation estimates.