

## TGS and Bain Geo: Gulf of Mexico Regional Crustal Study

TGS has partnered with Bain Geophysical Services, a worldwide expert in the integrated interpretation of gravity and magnetic data, to provide valuable interpretation products based on TGS' offshore Mexico Gigante seismic/gravity/magnetics survey, combined with public domain data sets over the entire Gulf of Mexico (GoM).

### PROJECT PHASES:

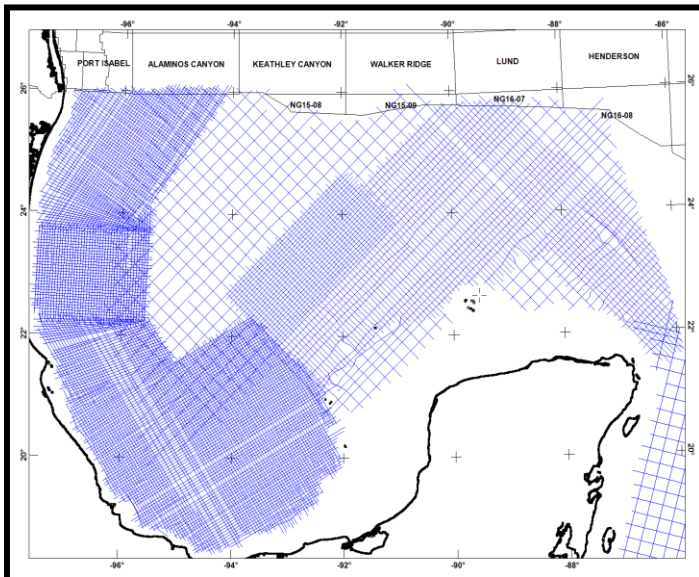
The project involved the following phases (details on each Phase are available upon request):

- **Regional Crustal Study Phases:**

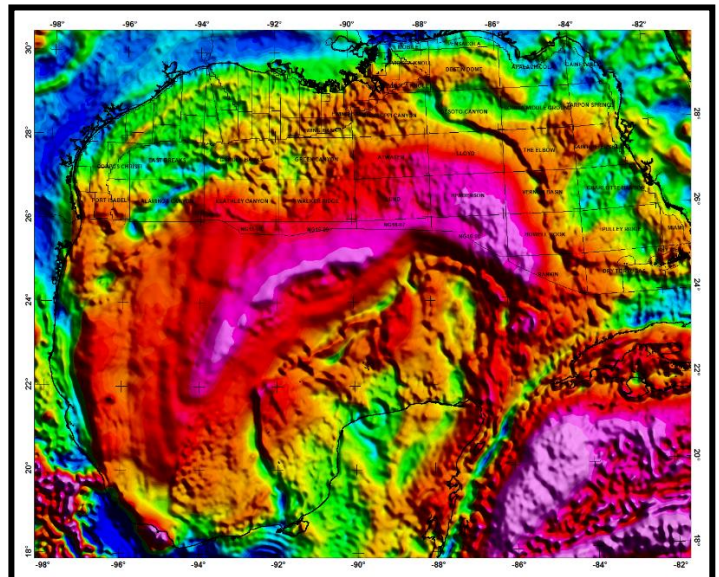
- 1) Depth to Moho, Crustal Thickness and the Limit of Oceanic Crust ((LOC/COB for Full GoM)
- 2) Depth to Magnetic/Crystalline Basement (offshore Mexico Gigante coverage only)
- 3) Basement terrane mapping from magnetic inversion (Full GoM)

### PROJECT LICENSING COSTS / ADDITIONAL INFORMATION:

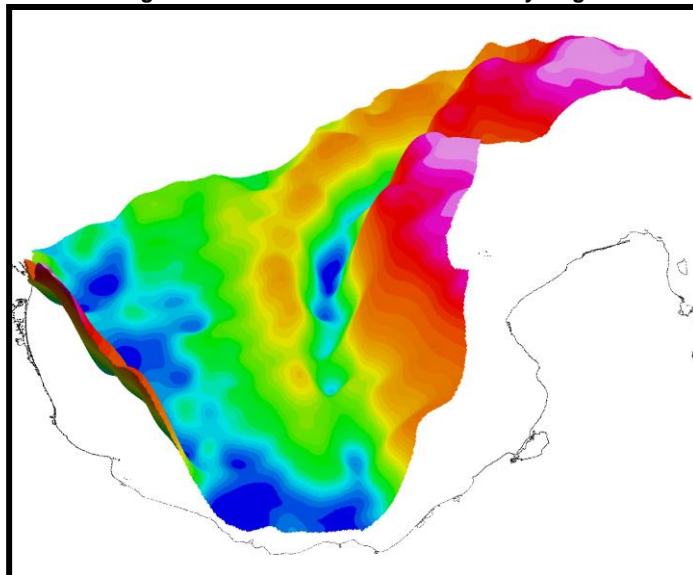
Please contact TGS Project Leader: Duncan Bate: [Duncan.Bate@tgs.com](mailto:Duncan.Bate@tgs.com), John Bain of Bain Geo: [JBain@BainGeo.com](mailto:JBain@BainGeo.com), or your TGS Sales Representative. **Results are ready for immediate delivery.**



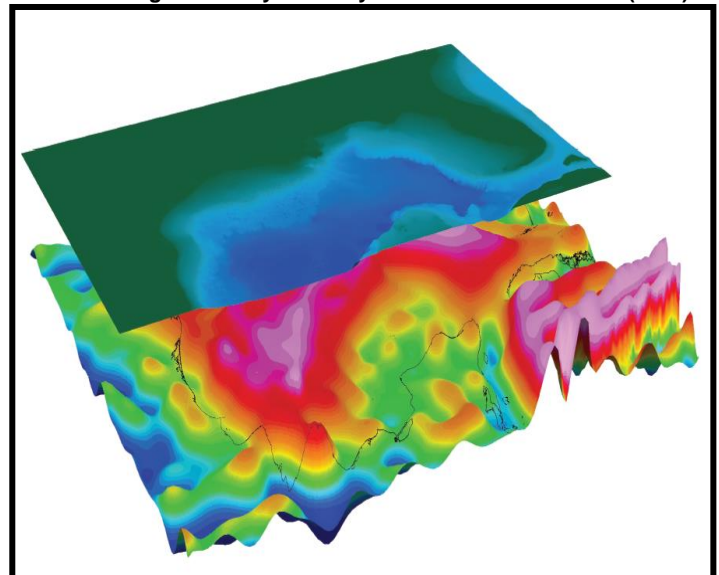
TGS Gigante Offshore Mexico Seismic/Gravity/Magnetics



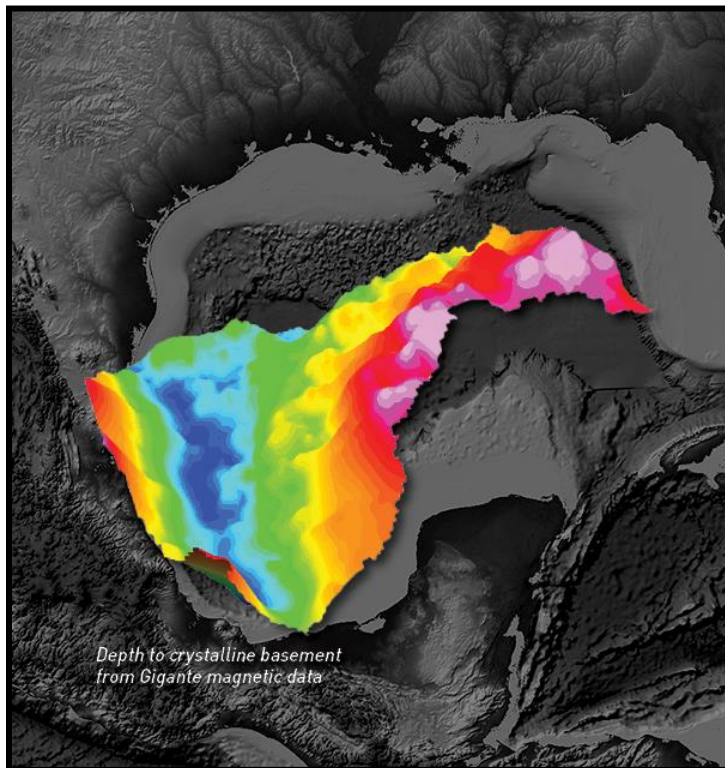
Bouguer Gravity Anomaly Over Full Gulf of Mexico (GoM)



Depth to Magnetic Basement (offshore Mexico)



Bathymetry on top of Depth to Moho (full GoM)



## Gigante Crustal Study

TGS and Bain Geophysical announce our Gulf of Mexico Crustal Study, based on seismic, gravity and magnetic data from TGS' Gigante survey. The Crustal Study results include depth to magnetic/crystalline basement and basement terrane mapping, depth to Moho, crustal thickness, and Limit of Oceanic Crust (LOC)/Continent-Ocean Boundary(COB).

For more information:



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### List of Deliverables

Grids are provided in a variety of formats, including:

- Landmark ASCII, Geosoft (.grd), LCT (.lct) and ArcView (.flt)
- Images are provided as Geotif
- Polyline files are provided as Shapefiles
- PowerPoint summary report
- All grids used WGS 84, UTM Zone 15, CM = -93°

### Phase 1: Thickness of Crust Using Gravity Inversion - Deliverables

Thickness of crust from 3-D gravity inversions are provided in two directories, separating the two various input top of crust: public domain basement (full Gulf of Mexico) and magnetic basement (Gigante area only)

- 1) Depth to top crust
- 2) Depth to Moho
- 3) Crustal thickness (thickness between top basement to Moho)
- 4) "Residual crustal thickness" (crustal thickness minus predicted volcanic melt)
- 5) Limit of Oceanic Crust (LOC, COB)

### Phases 2 and 3: Depth to Magnetic Basement / Magnetic Terrane - Deliverables

Depth to magnetic basement and magnetic basement terrane inversions are provided in two directories, separating the "Conventional Thin-Crust Model" and the "Ultra-Thin-Crust Model" results.

- 1) Depth to magnetic basement
- 2) Magnetic susceptibility from magnetic inversion (using each of the depth to magnetic basement horizons)
- 3) Terraced magnetic susceptibilities - provided as a guide for basement terranes