



Gigante: the first step to getting a comprehensive view of the Gulf of Mexico



Chris Corona

Alex Birch-Hawkins

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Thinking about Mexico?



Discussion

- Brief History
- Purpose of Gigante
- Gigante Regional 2D Seismic Program
- Gigante Multibeam, Seeps and Coring Program
- Gigante PSDM Structural Interpretation and Geology
- Summary



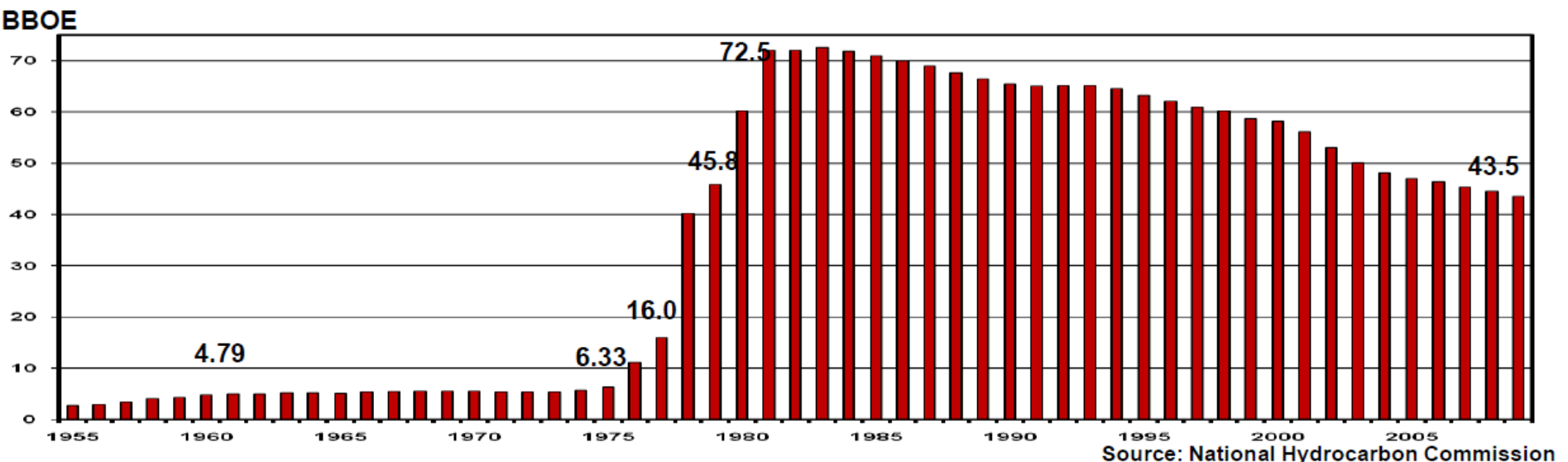
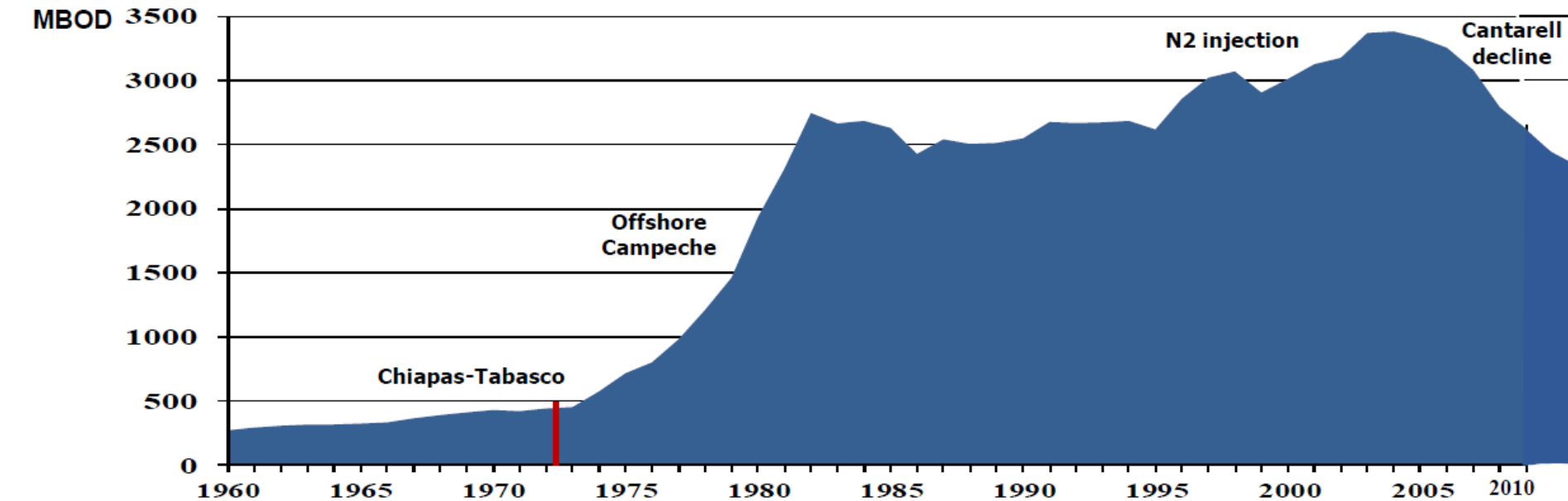
Brief History



History

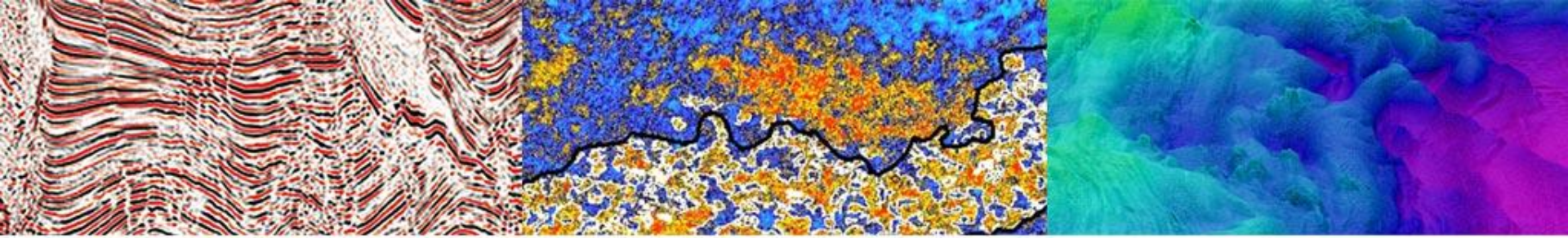
- Since 1938 Mexico has not allowed foreign investment from Exploration Companies
- In the past decade due to diminishing production in the Cantarell field, Mexico's production has been on a rapid decline

The History After the Big Discoveries



History

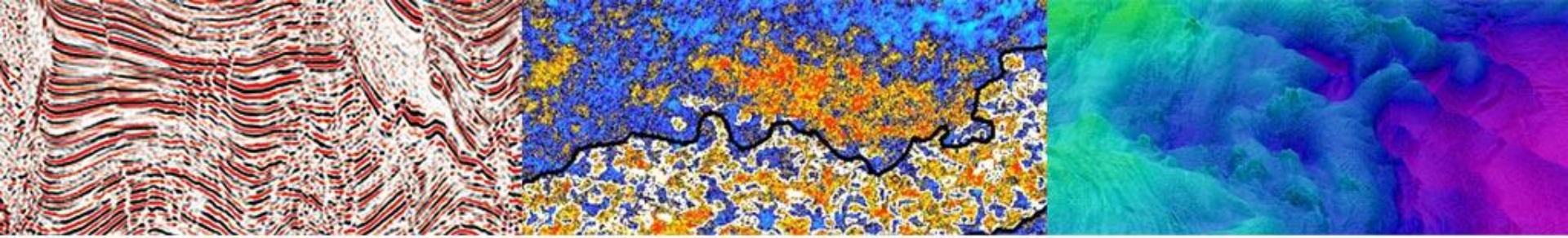
- Since 2003 PEMEX has increased their exploration effort and drilled some successful wells but the decline continues
- Recent large discoveries in the Perdido Fold Belt can help declining production but PEMEX needs assistance to develop these fields in a timely manner
- Because of the above factors, in December 2013, the Mexican Congress voted to allow foreign investment into the country to develop it's natural resources.



Purpose of GIGANTE (hee-gon-tay)

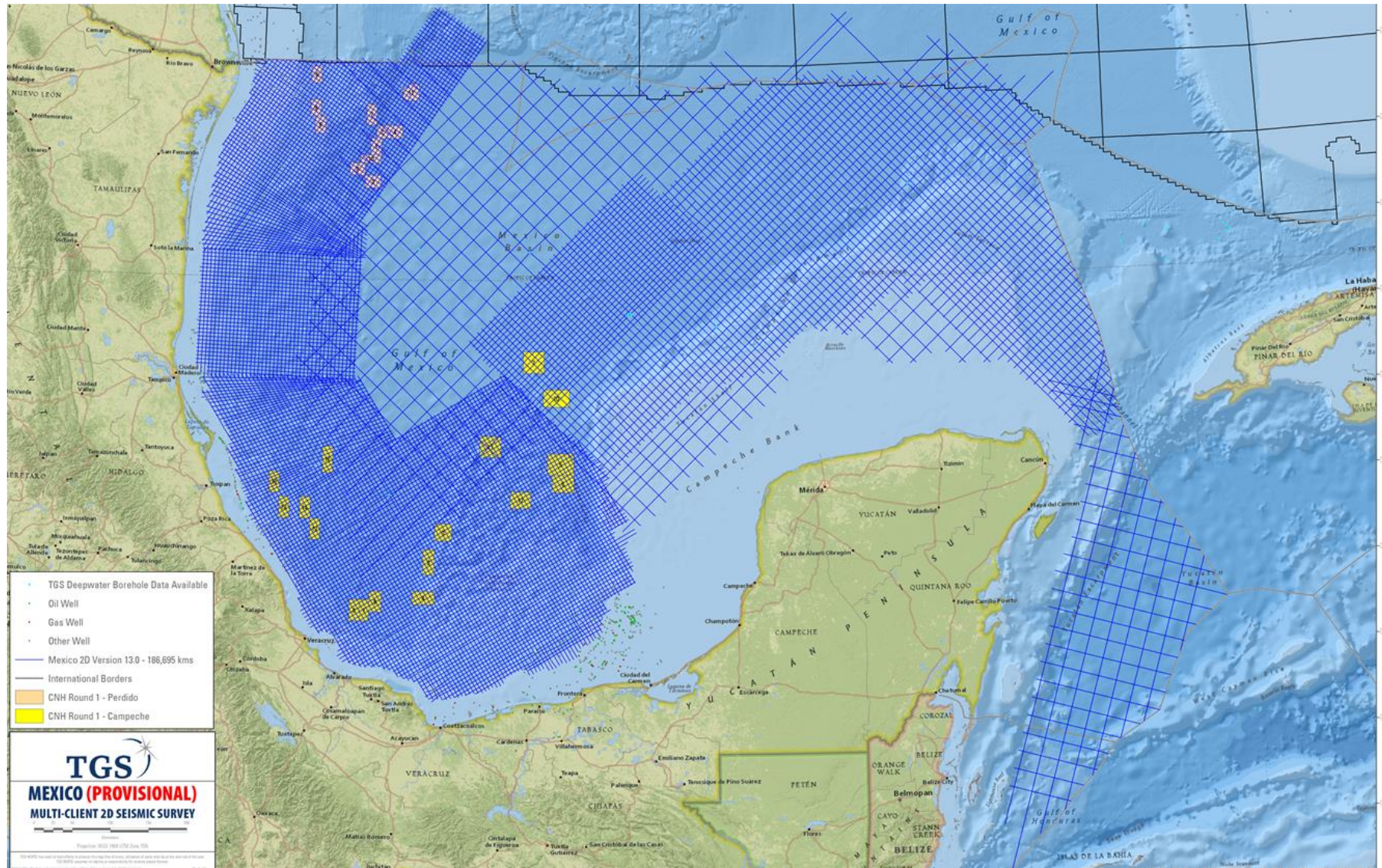
The Purpose of Gigante

- Create a regional grid with consistent Acquisition and Processing parameters covering the entire MGOM (Mexican Gulf of Mexico)
- Tie lines of the Gigante grid into the TGS US GOM regional grids to provide a comprehensive understanding of the entire GOM basin
- Have additional available products such as Structural Interpretations, gravity and magnetic data
- Assess prospectivity through bathymetry data, Cores and Geochemical Analysis
- Generally, to Create a comprehensive suite of products to facilitate the understanding of the entire GOM Basin



Gigante Regional 2D Seismic Program

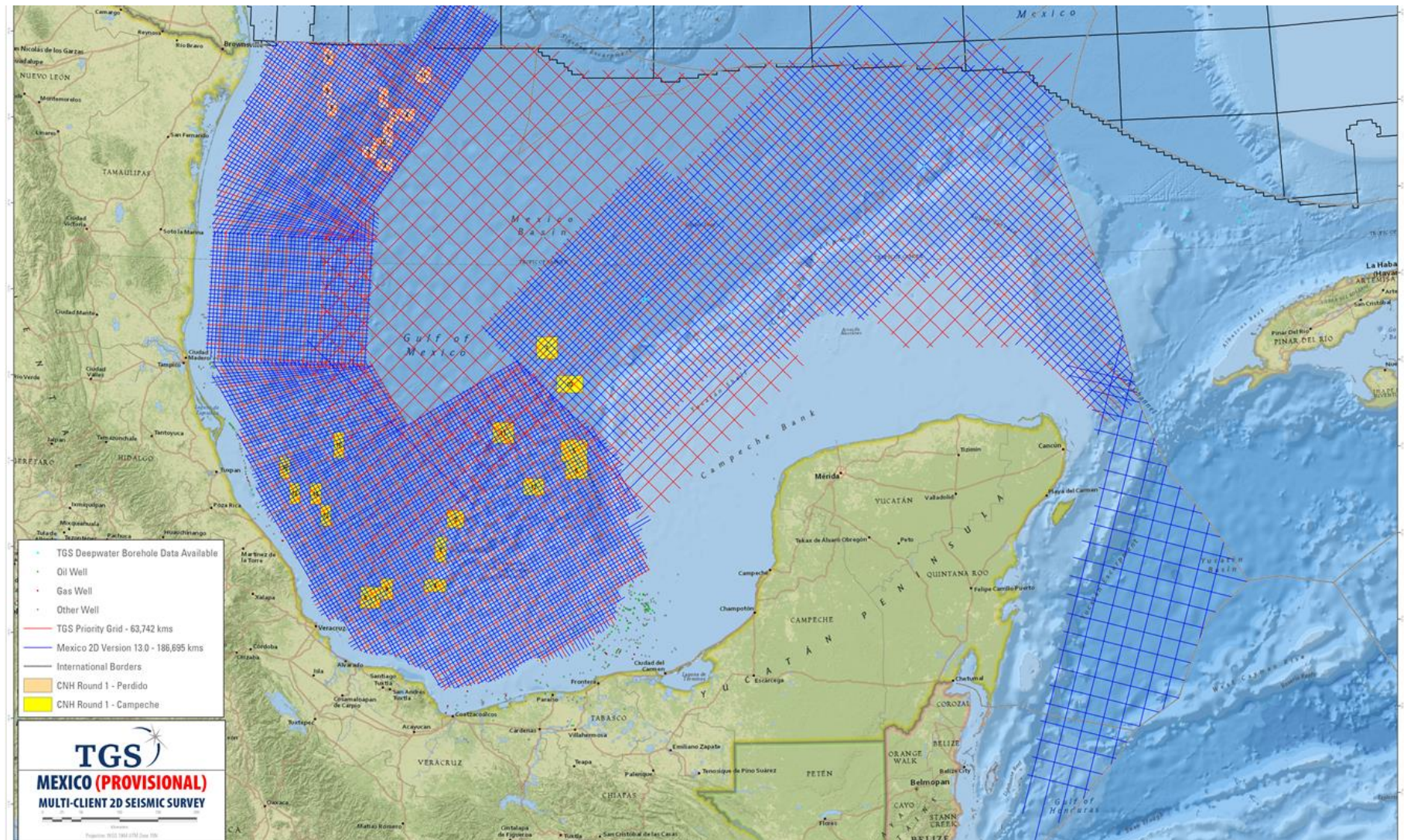
Gigante Regional 2D Survey



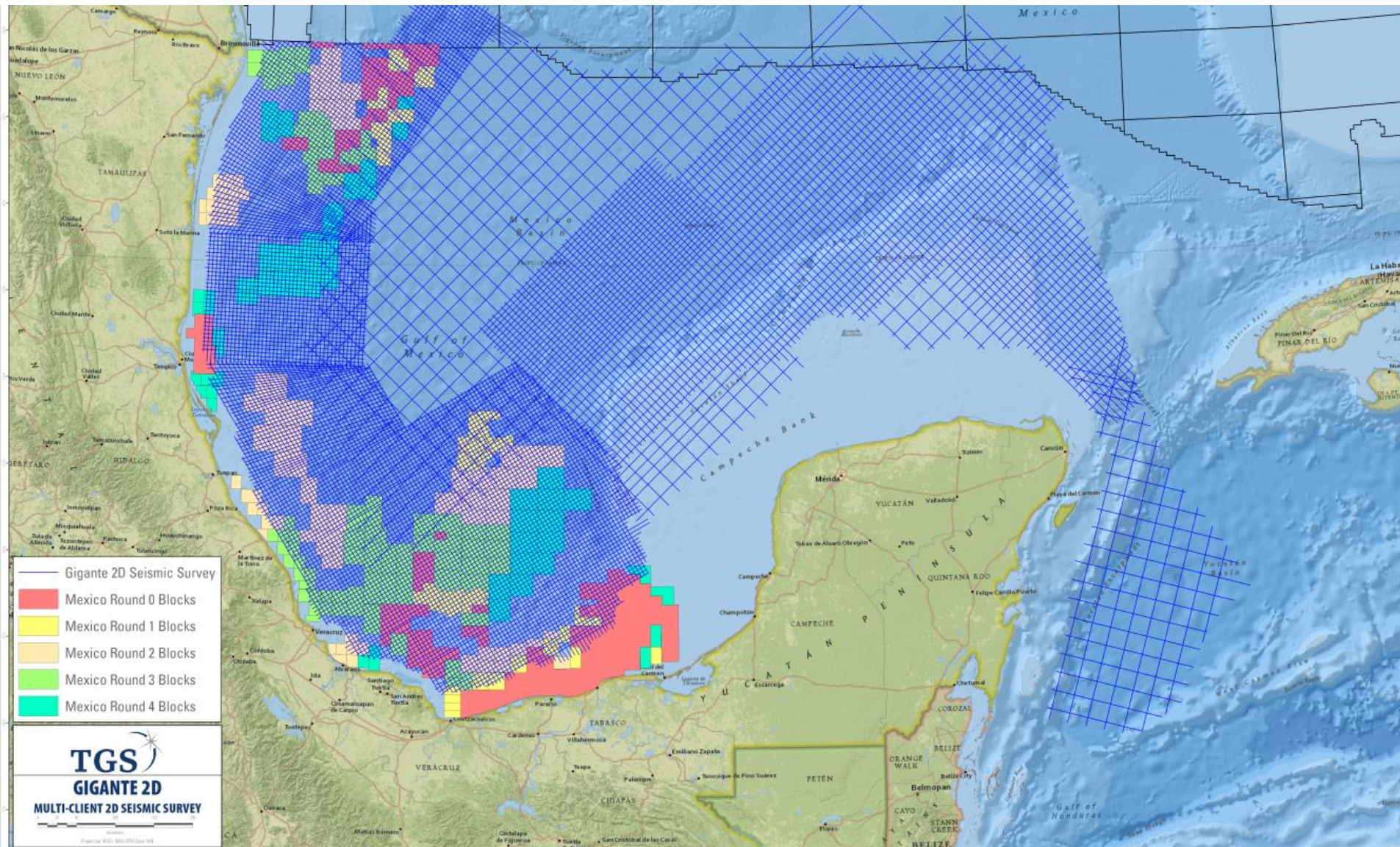
General Info on Gigante 2D Seismic Survey

- Survey Size: ~ 186,250 km
- Ties into TGS US GOM Regional Grids
- Acquisition: 5 Seabird Vessels: Osprey, Hawk, Northern , Harrier and Aquila starting in late October
- Acquisition Expected Completion: Q2 of 2016
- Processing Deliverables: Fast Track PSTM, PSTM, KPSDM and RTM
 - Fast Track PSTM lines available mid September
 - Processing accelerated over priority grid and announced future rounds
- Processing Completion: Q3 2017 with intermediate products available sooner in areas of high interest

Gigante Priority Grid ~ 60,000 km

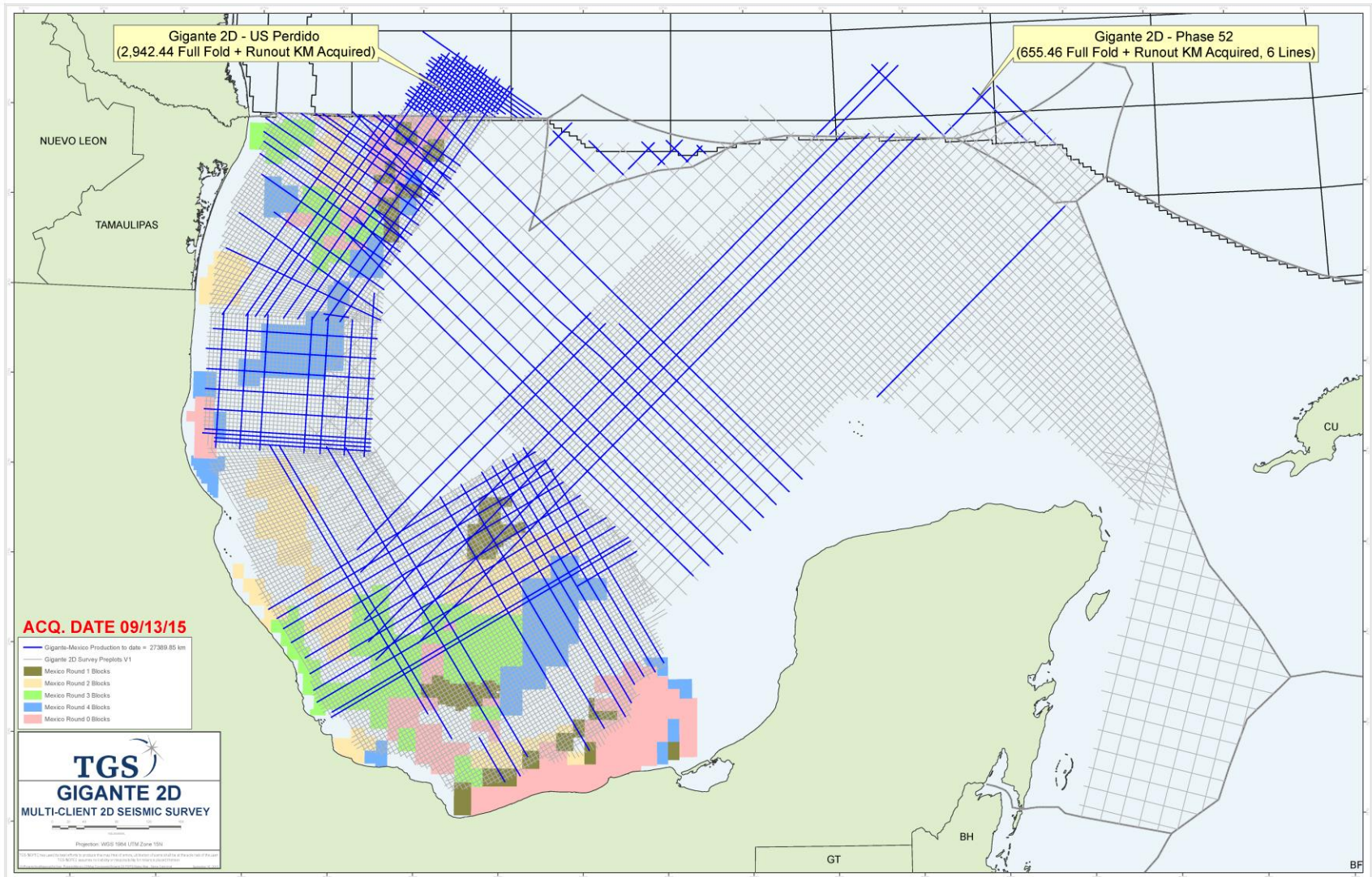


Concessions for Upcoming Rounds

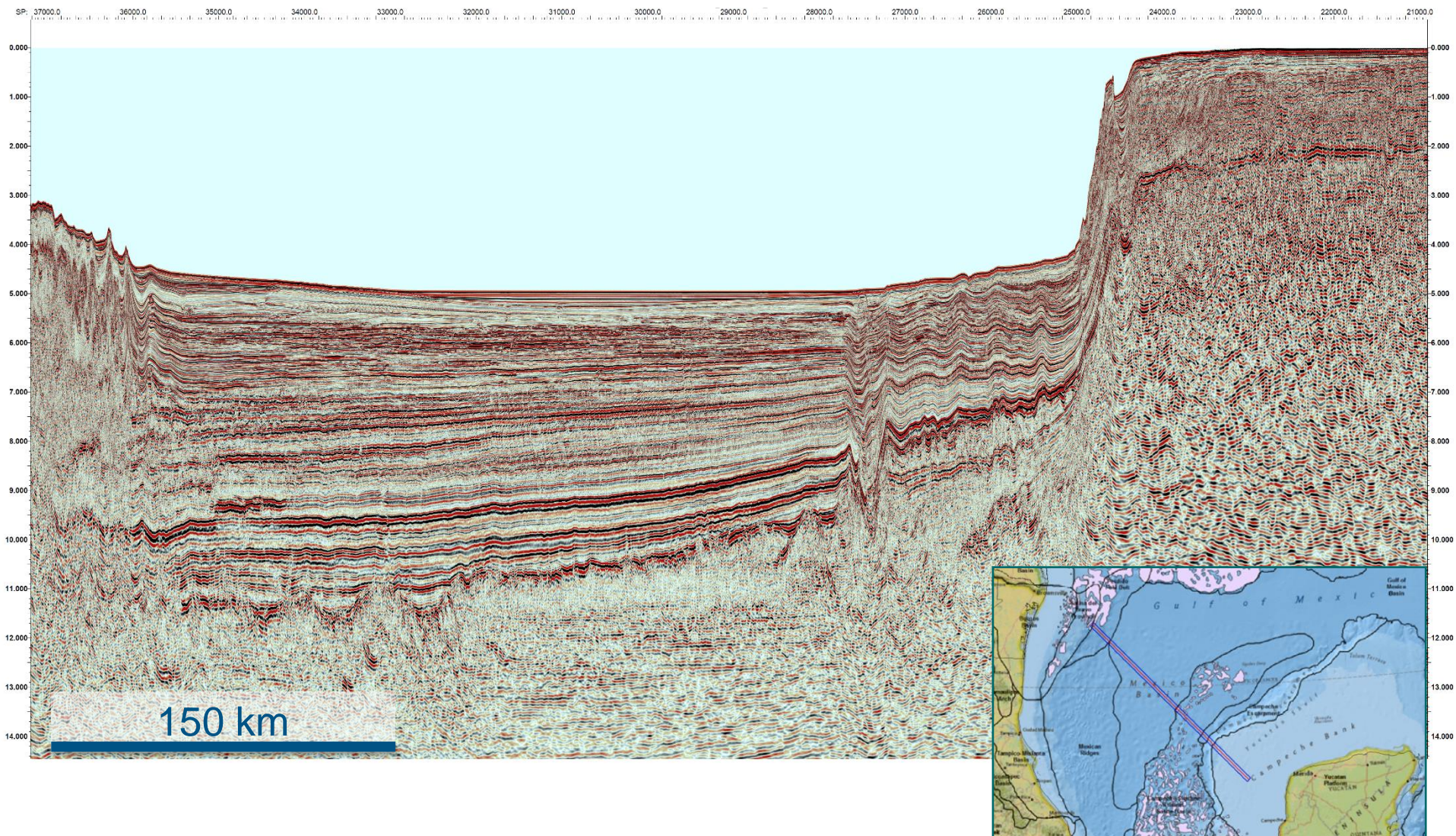


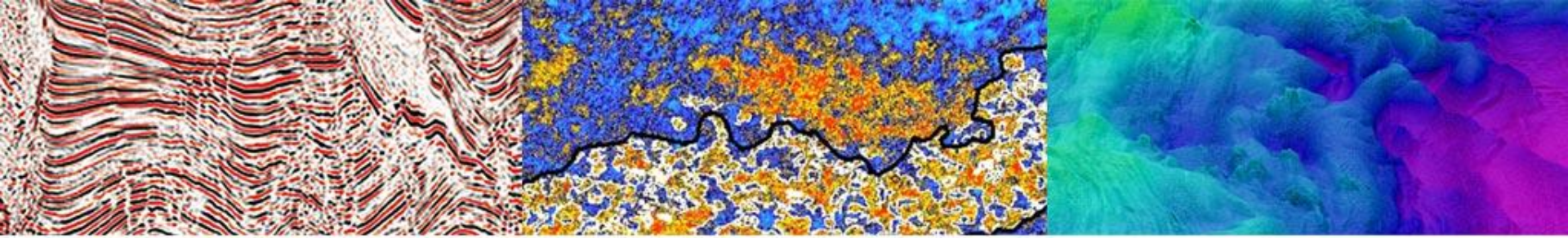
Acquisition Status as of Sept. 16

~ 30,713 km



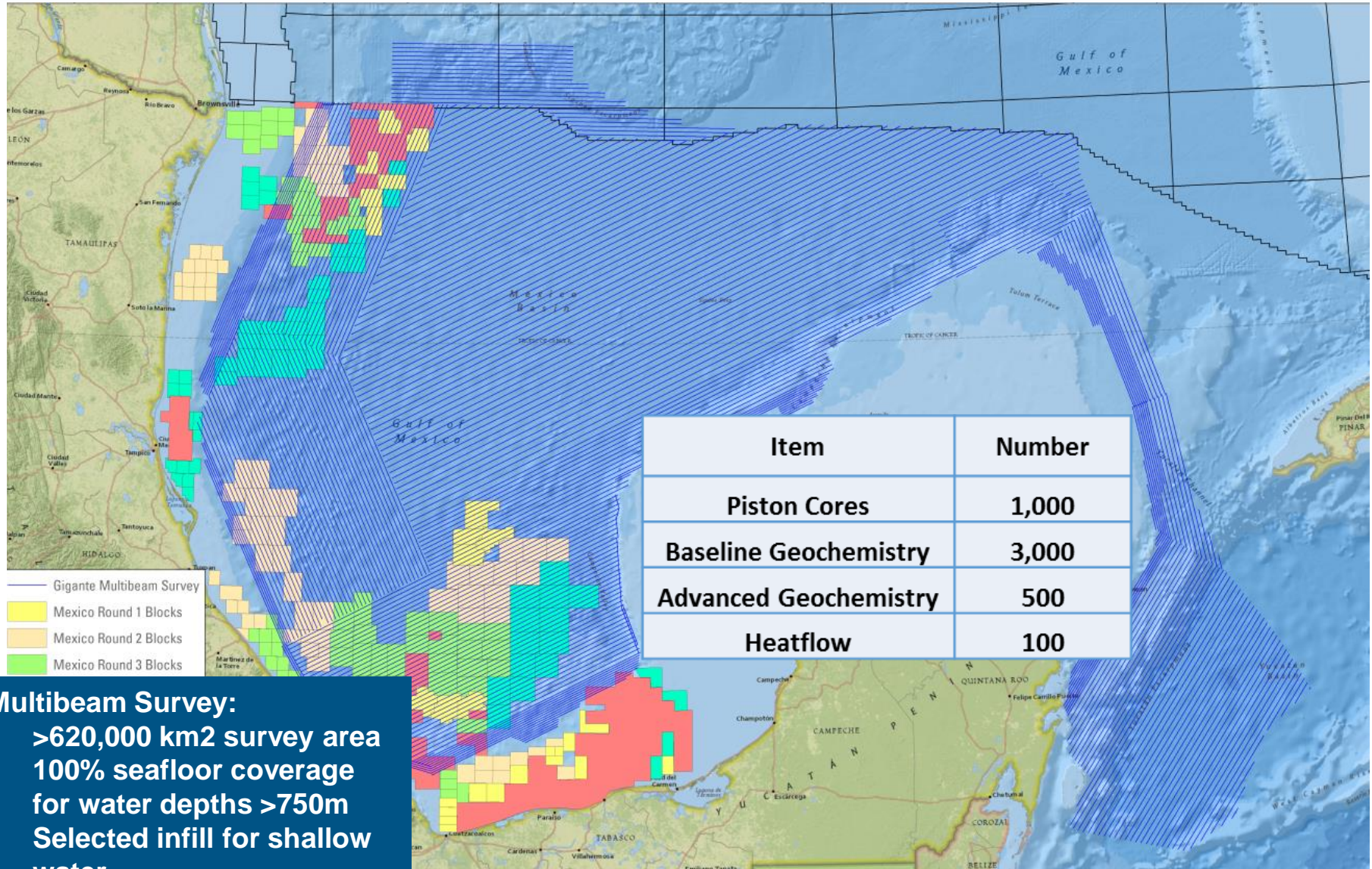
First PSTM Line 198





Gigante Multibeam/Core/GeoChem Program

Gigante Multibeam Map



Multibeam Survey:

- >620,000 km² survey area
- 100% seafloor coverage for water depths >750m
- Selected infill for shallow water
- Local 2X coverage in areas of high interest

Info on Gigante Multibeam/Core/Geochem

- Survey Size: ~ 620,000 sq km,
- Project Management: Oro Negro Exploration (ONE)
- Acquisition: Fugro for the multibeam; TDI Brooks for the cores
- Acquisition Timing: ~ 13 months; Multibeam start up in Oct 2015
Coring in Dec 2015
- Processing: MB Delivered monthly by area ~ 30 days after completion
- Processing Timing: Completion expected in Oct of 2016



Gigante 2D Regional Interpretation



Gigante 2D Interpretation Project

1. Input Data:

- Well / horizons tied from US GOM well tie update
- Fast Track review of Gigante PSTM
- ~60 wells from Mexican side of the Gulf (subject to availability)
- Gigante 2D PSDM data

2. Scope

- Interpretation of ~60 wells (subject to availability)
- Tie interpreted wells to the seismic data
- Detailed interpretation of up to 10 horizons across the Gigante 2D regional grid

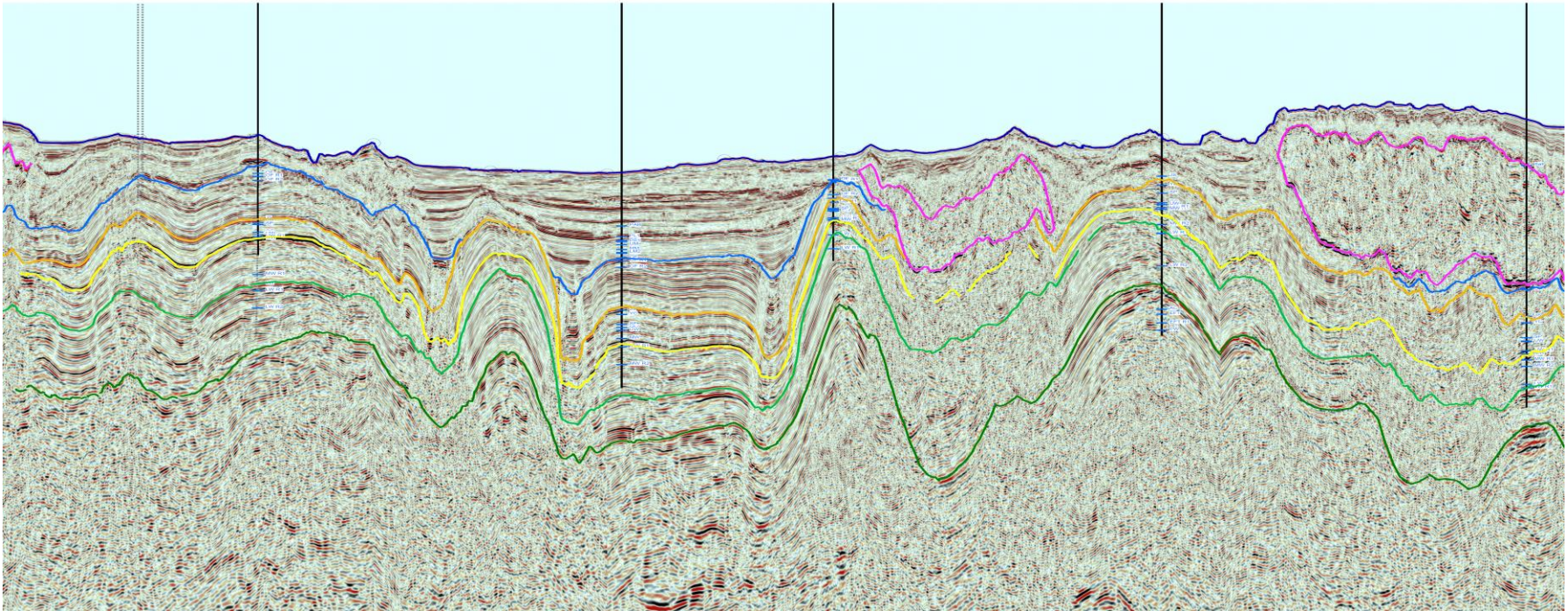
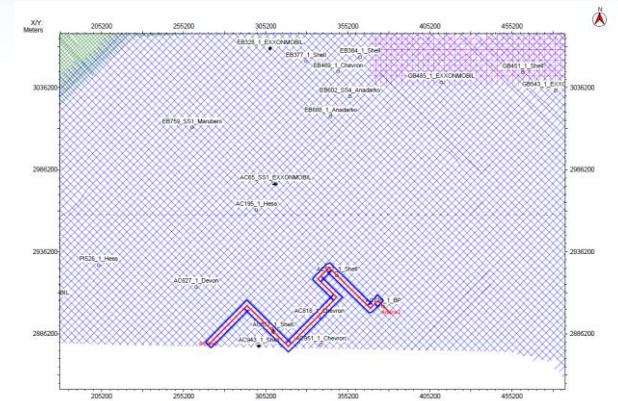
3. Deliverables

- 10 interpreted horizons and faults
- Regional grids
- Regional report or detailed reports depending on level of seismic licensed

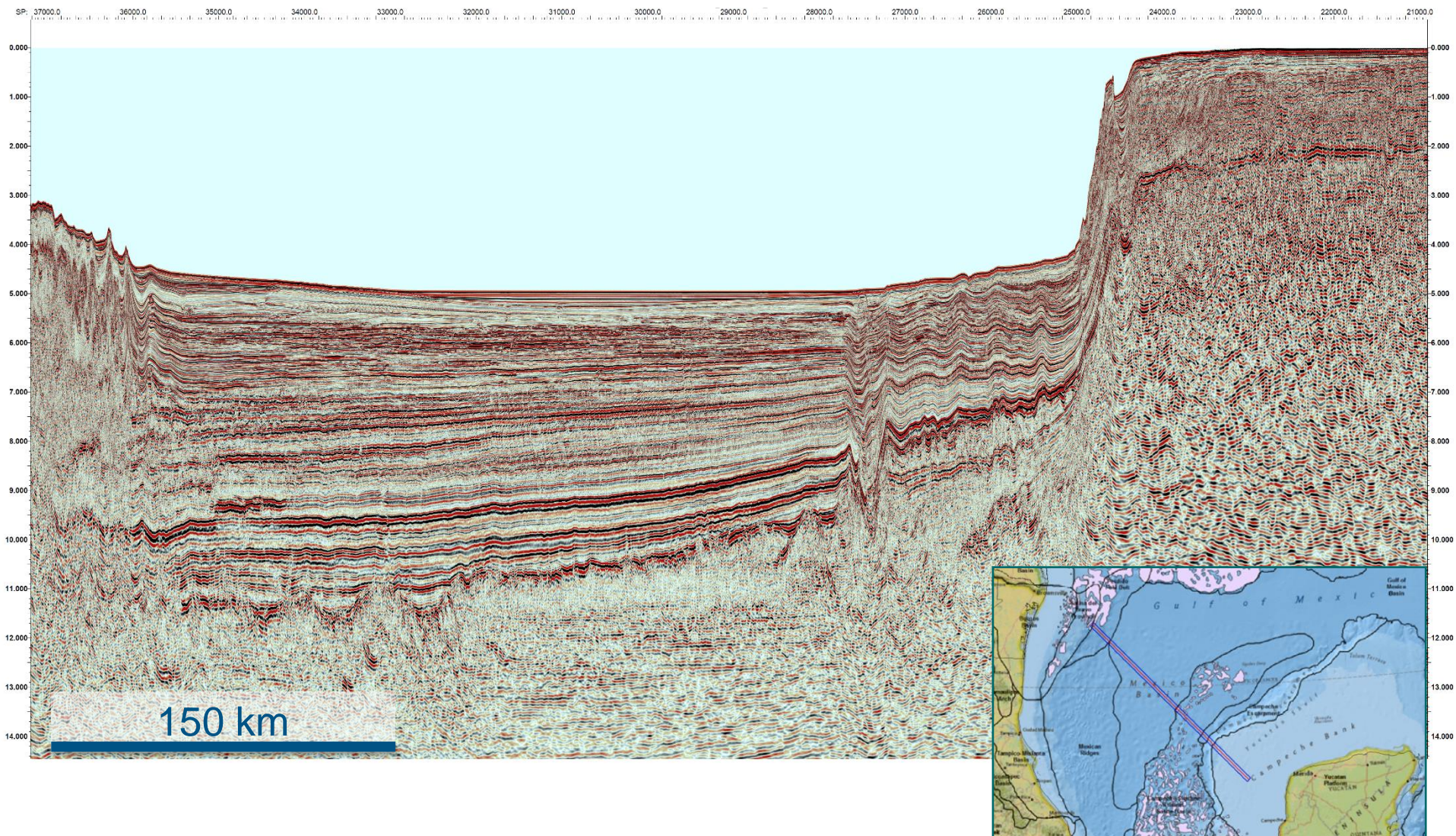
US GOM – Well tie update

Objective:

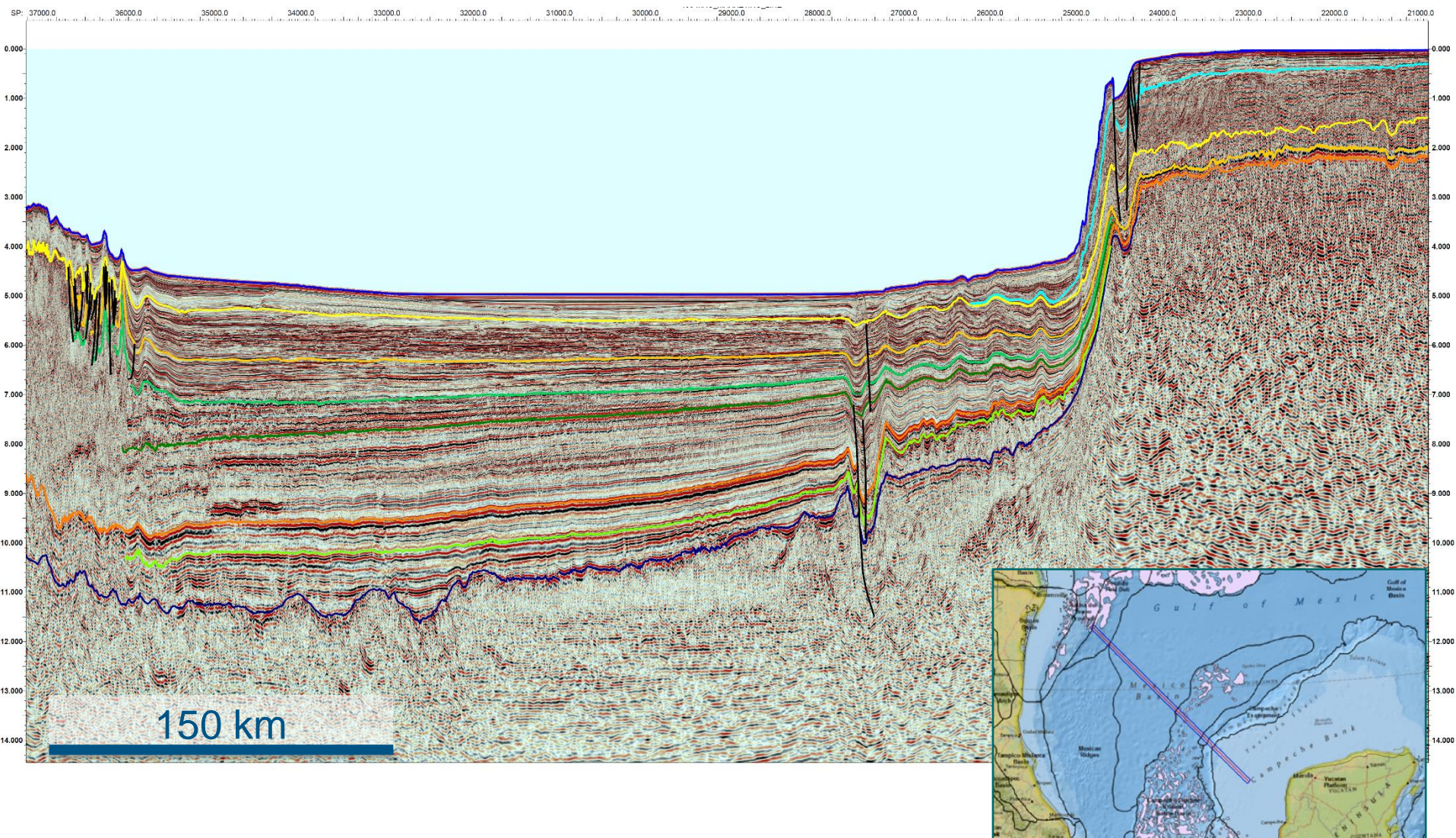
- Tie 21 wells to phase 45 seismic survey (depth) and Perdido US (TWT)
- Seed interpretation across 5 arbitrary lines



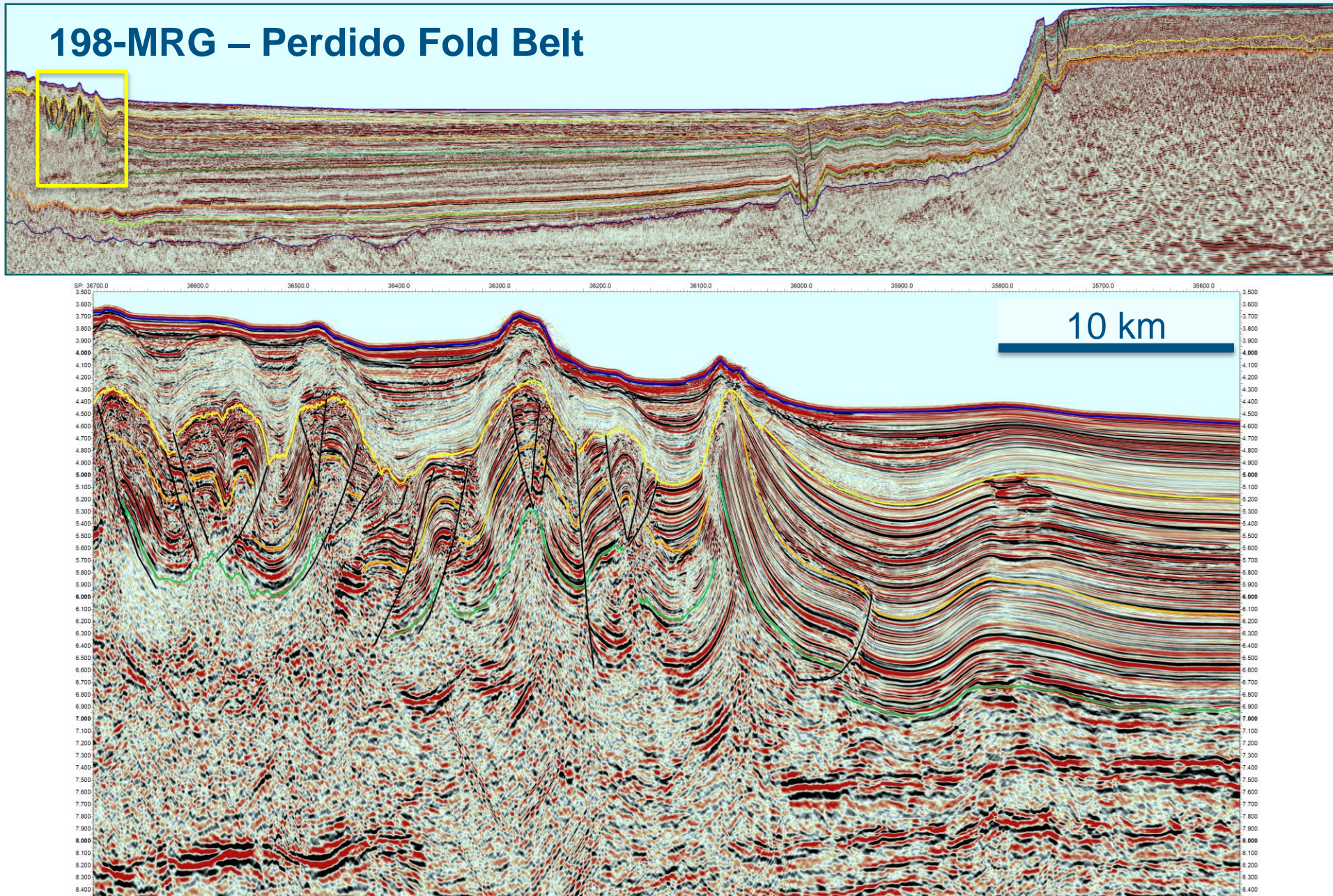
First PSTM Line 198



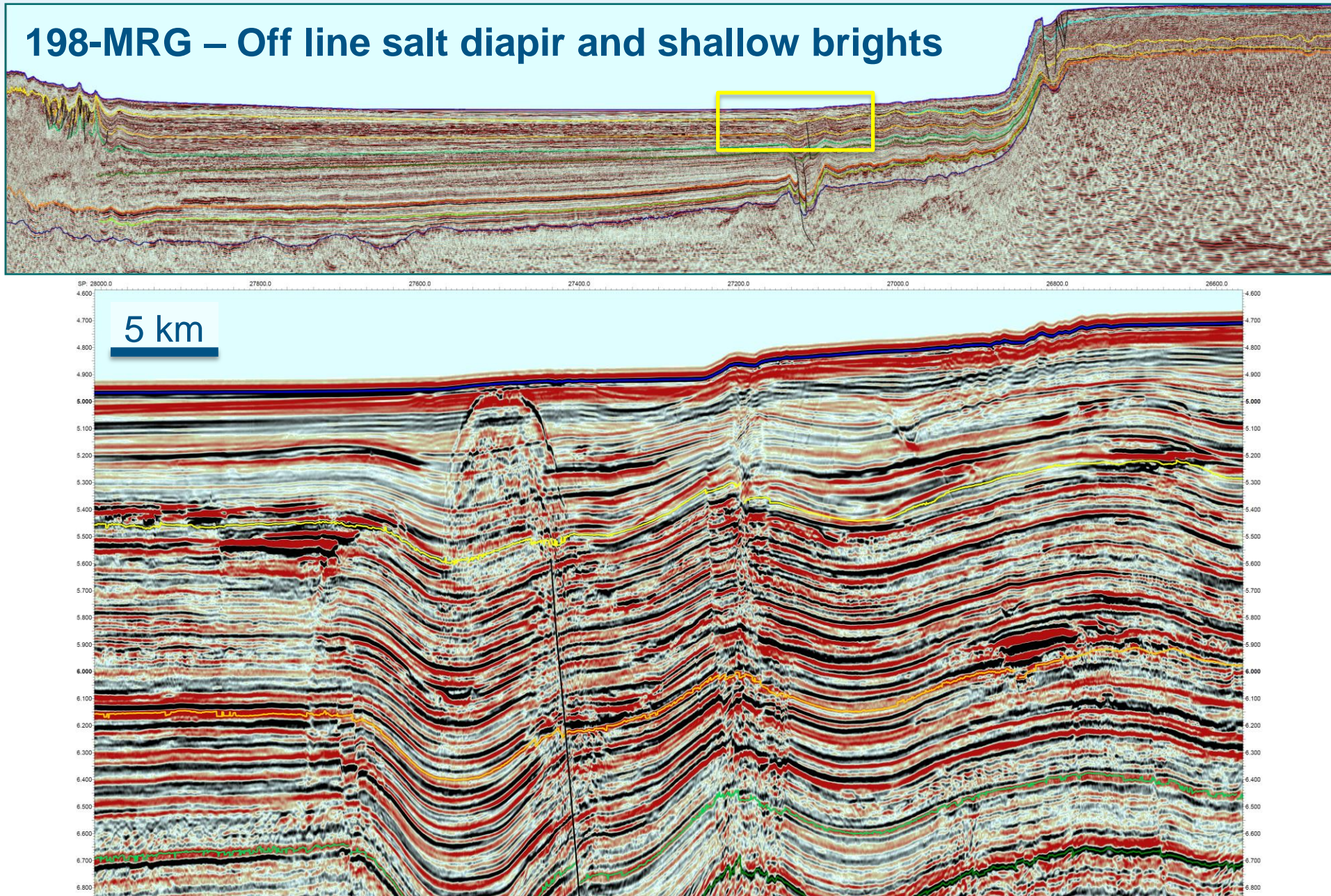
First PSTM Line 198



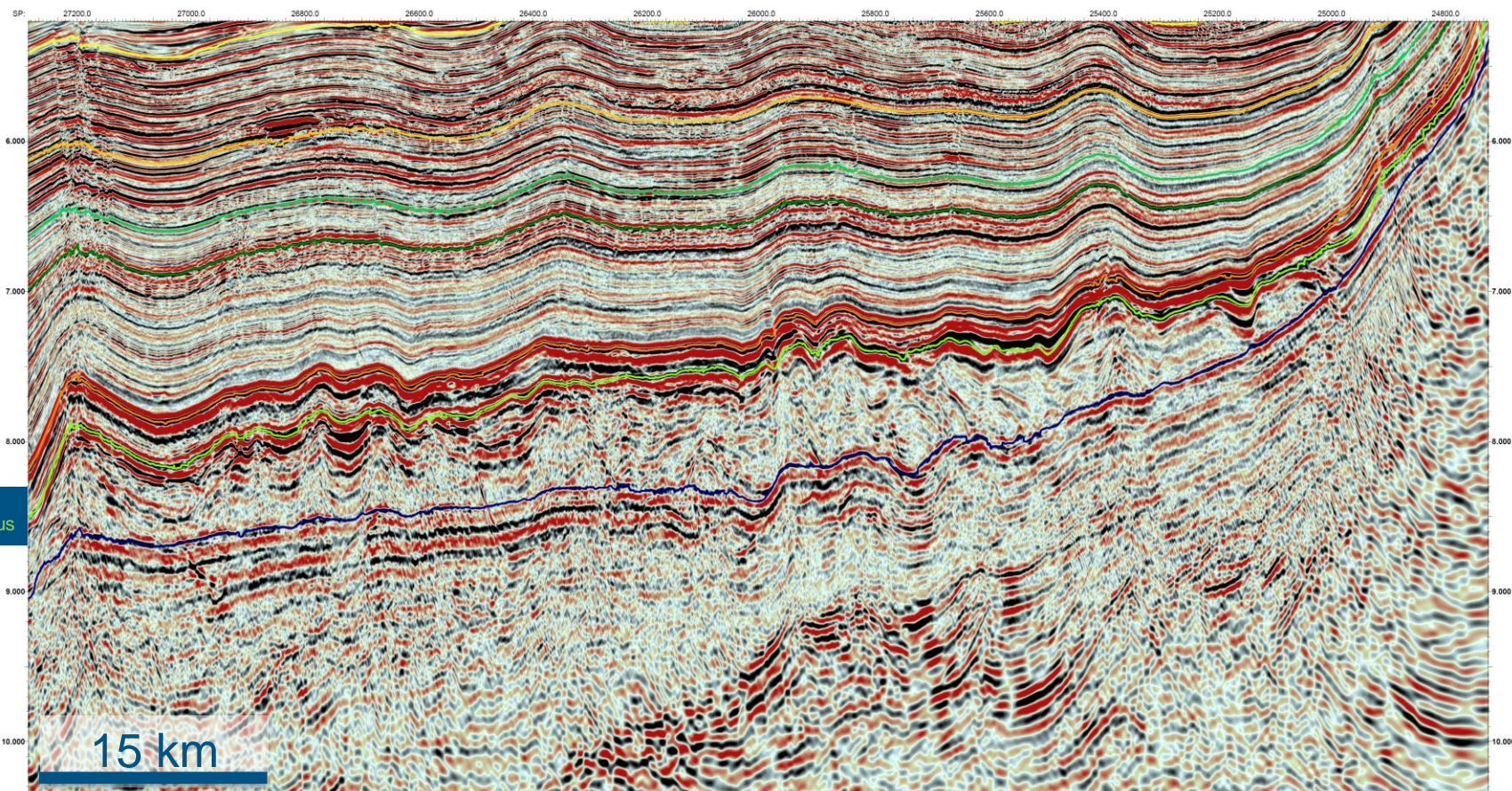
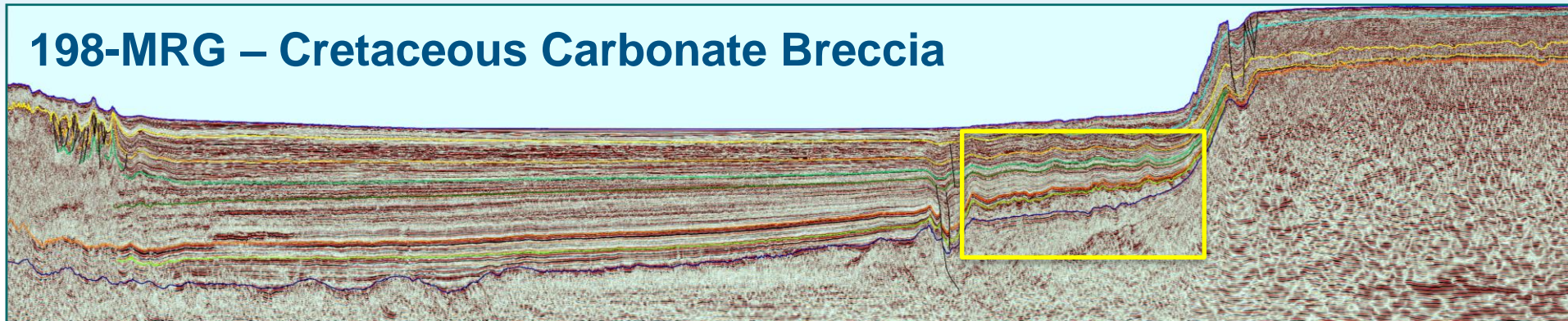
198-MRG – Perdido Fold Belt



198-MRG – Off line salt diapir and shallow brights

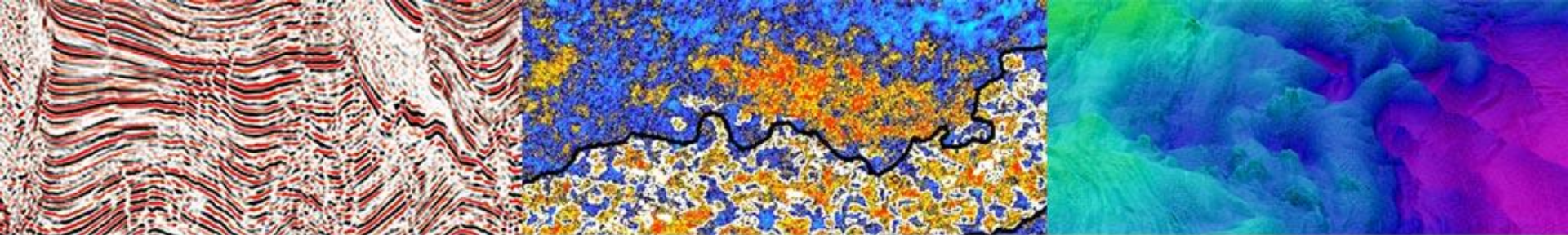


198-MRG – Cretaceous Carbonate Breccia



Summary

- Gigante is comprehensive in 2 different ways:
 - 1) Size – 186,250 km covering the entire MGOM basin.
 - 2) Products – Offers a suite products along with seismic including:
Regional Interpretation, gravity and magnetic data,
multibeam bathymetry, coring and geochemical analysis.
- Delivery and interpretation of fast track PSTM is commencing now.



Gracias