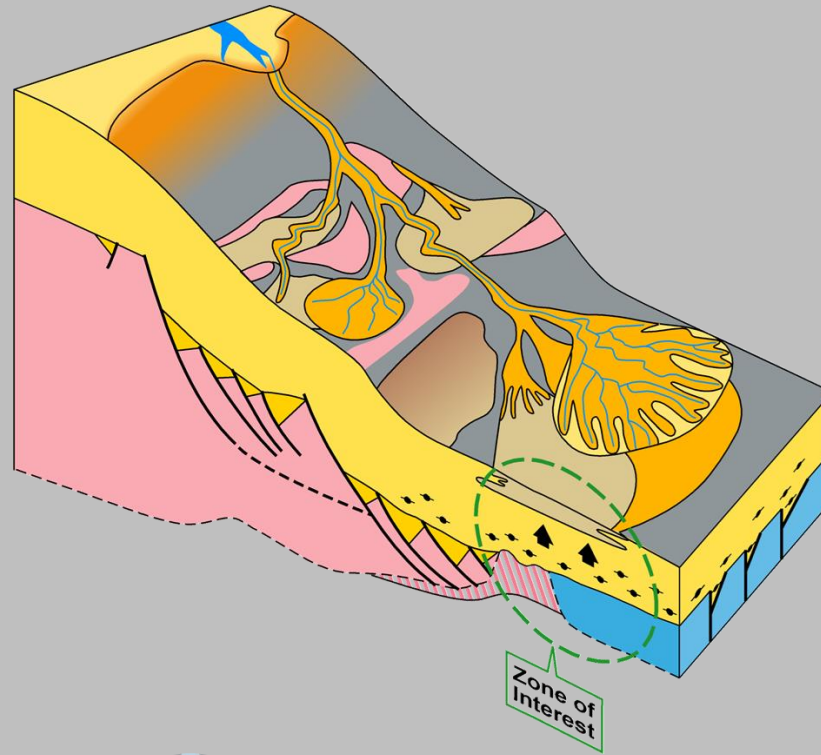




# Oceanic Crust Exploration Project (OCEP): US East Coast

## Source Rock Occurrence & Maturity in the US East Coast Distal Domain





# OCEP: US East Coast

The ***Oceanic Crust Exploration Project: US East Coast (OCEP: US East Coast)*** is a proposed petroleum exploration research study to be carried out by ***Subsurface Resource Consulting (SRC)*** and ***IGI Ltd*** in association with ***AustinBridgeporth*** and ***Weston Stratigraphic***. This study follows a similar project recently completed for the OCEP West Africa study.

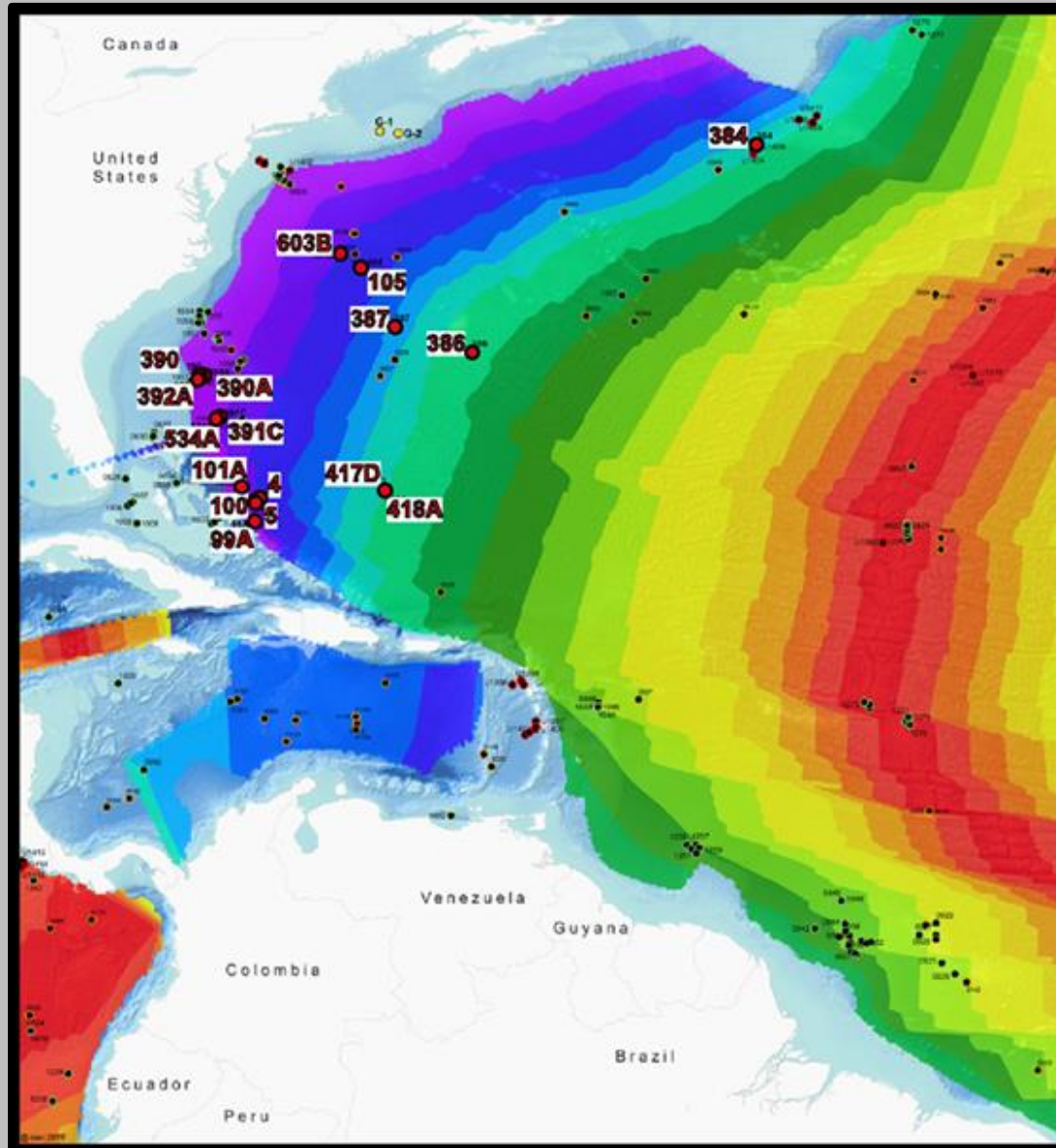
The study will be based on a review of data from selected DSDP/ODP boreholes along the North American East Coast margin between Bahamas to Nova Scotia. *All sites are located in the 'Distal Domain' and most are on oceanic crust.*

The aim is to complete the study, which is subject to industry pre-commitment, before the anticipated 2020 bidding round.

While DSDP/ODP data are in the public domain, the compilation and databasing of all analytical results in this project will be a major undertaking and the original data will be substantially re-evaluated, leading to significant new information on the habitat of source rocks on oceanic crust.



# OCEP: US East Coast





# OCEP: US East Coast Objectives

The overall objectives of the OCEP: US East Coast study are to investigate and elucidate the:

- ✓ main controls on stratigraphic development in the 'Distal Domain'.
- ✓ controls/influences on the development and occurrence of organic-rich intervals (ORIs) i.e. global v regional v local, in the 'Distal Domain'.
- ✓ occurrence/distribution of ORIs in the 'Distal Domain' along the eastern seaboard of North America.
- ✓ potential of ORIs as commercial source rocks along the eastern seaboard of North America and the significance of Oceanic Anoxic Events (OAEs).
- ✓ thermal history of sedimentary section overlying oceanic crust.
- ✓ maturity history of source rocks extending from transitional crust to oceanic crust leading to a recognition of areas favourable for successful exploration on oceanic crust along the eastern seaboard of North America.
- ✓ effects of oceanic crust deformation contributing to the formation of trap-forming structures.



# OCEP: US East Coast

## Project Scope of Work

The scope of work will include:

1. Biostratigraphic review of 12 key DSDP/ODP boreholes (by Weston Stratigraphic)
2. Compilation of geochemical data for DSDP/ODP boreholes (by IGI Ltd)
3. Compilation of public domain and released gravity and magnetic data (by AustinBridgeporth)
4. Petroleum systems analysis including 1D and 2D thermal maturity modelling (by IGI Limited)
5. Compilation of public domain and Geoex-MCG seismic data to allow extrapolation away from borehole control (by SRC)
6. Regional seismic interpretation, structural and seismic-stratigraphic interpretation recognition and extrapolation of key ORIs/potential 'drift' source rock (by SRC)
7. Qualitative and quantitative 2D and 3D potential field modelling to constrain the transitional-to-oceanic crustal zone (by AustinBridgeporth)



# OCEP: US East Coast

## Preliminary Selection of DSDP/ODP Boreholes

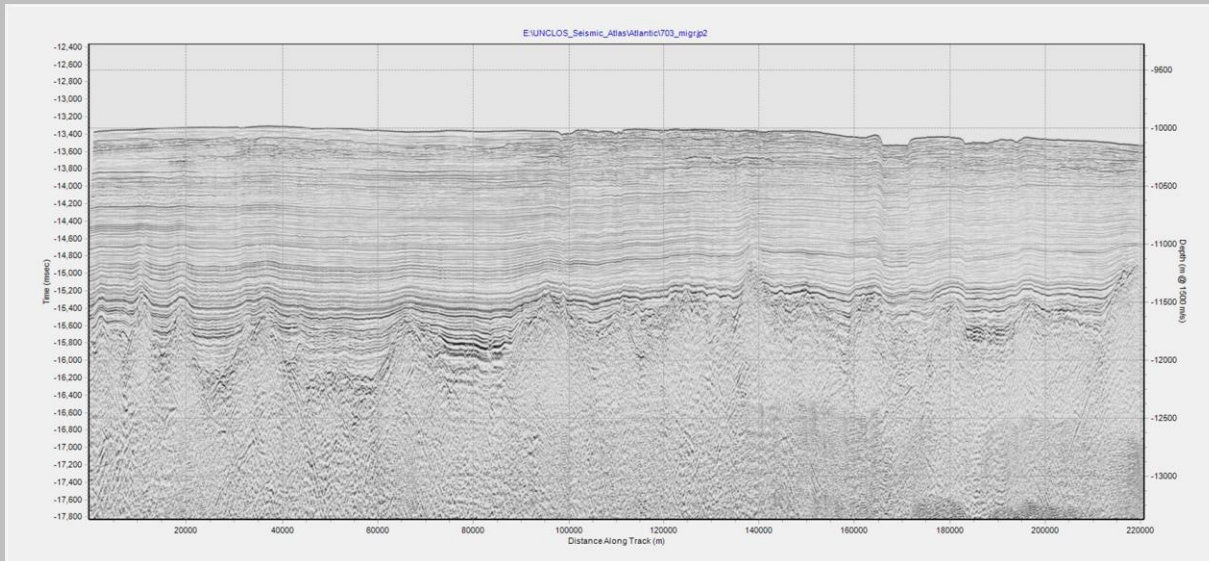
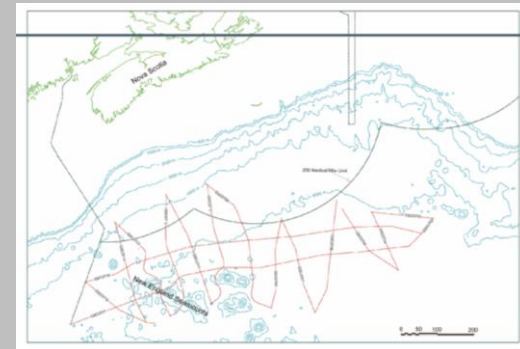
Leg No.	Site/Hole	Penetration (m)	Fm/Age @ TD
1	4	258.6	Tithonian
	5	281.3	Tithonian
11	99A	248	Kimm.-Oxf.
	100	331	Oxf.-Call. on basalt
	105	633	Kimm.-Oxf. on basalt
43	386	973	Lwr Alb. on basalt
	387	794.5	Upper Berrias. on basalt
44	391C	1412	Upper Jurassic
51, 52, 53	417D	532.5	Aptian on basalt
	418A	570.5	Lwr Aptian on basalt
76	534A	1666.5	Mid Callovian
11	101A	691	Neocomian
43	384	330.3	Upper Barrem. on basalt
44	390	206	Pre-Barremian
	390A	142.5	Albian
	392A	349	Lwr Cret.
93	603B	816.7	Late Maastrichtian



# OCEP: US East Coast Available Seismic Data

**Geoex**, through its subsidiary MultiClient Geophysical (MCG), has rights to broker the East Coast US dataset. Access to selected regional lines from this database will allow ties to the DSDP/ODP drilling sites.

In addition, seismic data is available in the public domain, including the NOAA (US East Coast) and Geological Survey of Canada.





# OCEP: US East Coast Potential Field Integration

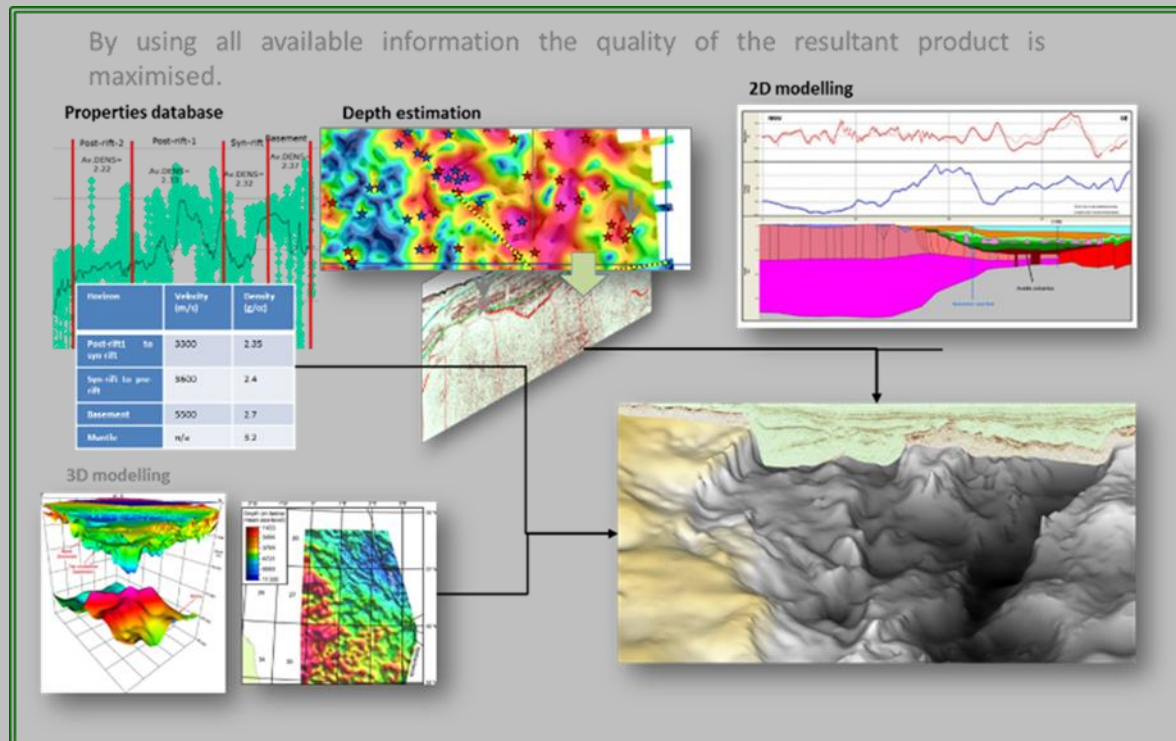


Step 1 Qualitative Interpretation

Step 2 Cross Correlation of Gravity Data with Seismic Data or Schematic Sections

Step 3 Magnetic depth estimates

Step 4 3D Modelling Over Area of Interest Using ABI's Proprietary Software







# OCEP: US East Coast Project Partners



SRC – geology; seismic and potential field data interpretation; structural analysis; project integration and management



A Geoex Company



Geoex-MCG – partner for provision of seismic data



IGI Limited – compilation and review of geochemical data; petroleum systems analysis; 1D and 2D thermal maturity modelling



AustinBridgeporth Ltd – compilation of public domain and in-house G&M data, qualitative and quantitative 2D and 3D modelling including modelling of seismic profiles using available G&M data



# OCEP: US East Coast Provisional Price Details & Contacts

**Provisional Pricing for OCEP: US East Coast (*to be confirmed, subject to final review of available seismic and potential field data*):**

- Integrated Report                      £75,000

**Companies that pre-commit to OCEP: US East Coast will pay 80% of above.**

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