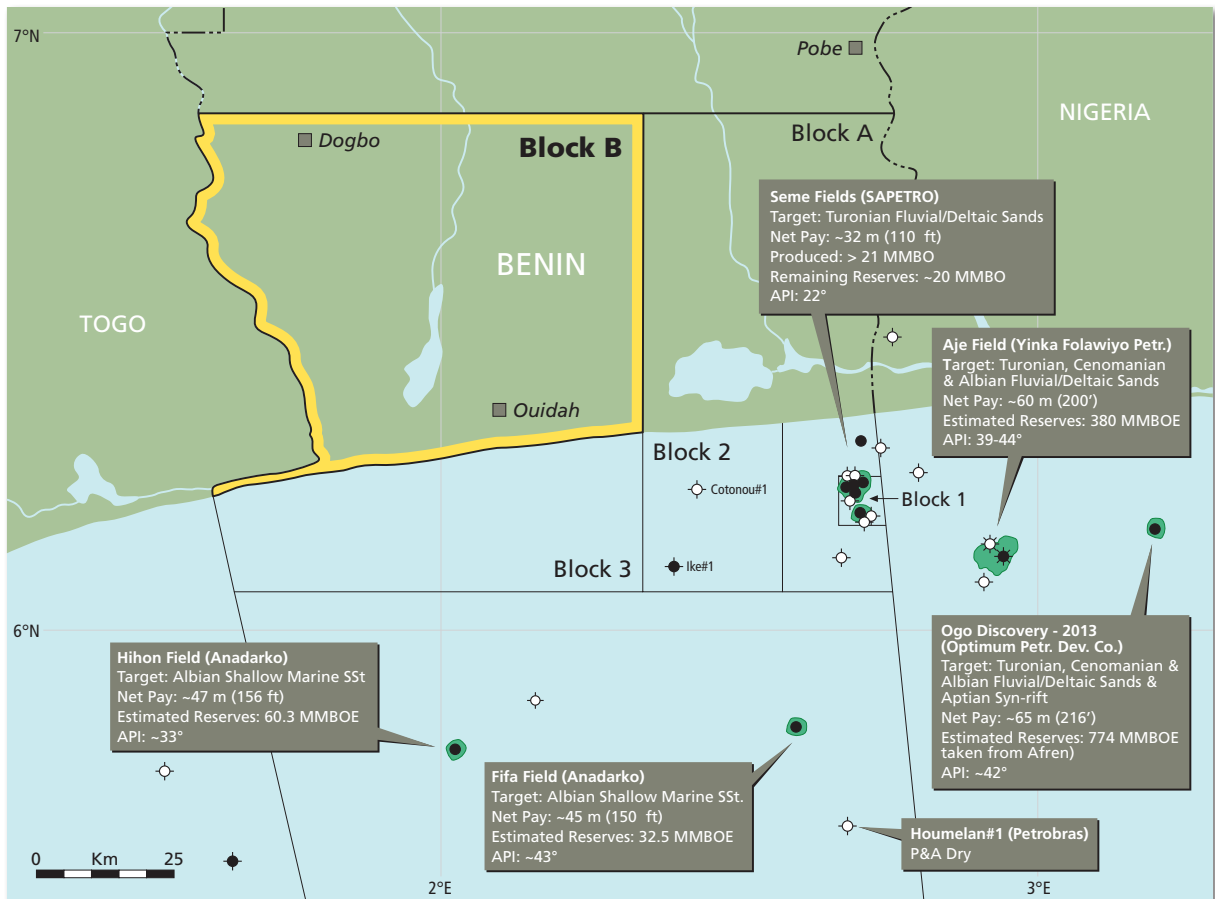


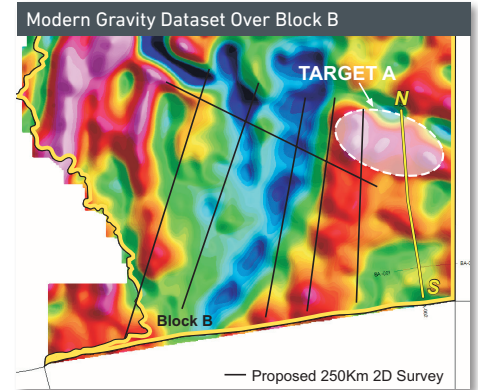
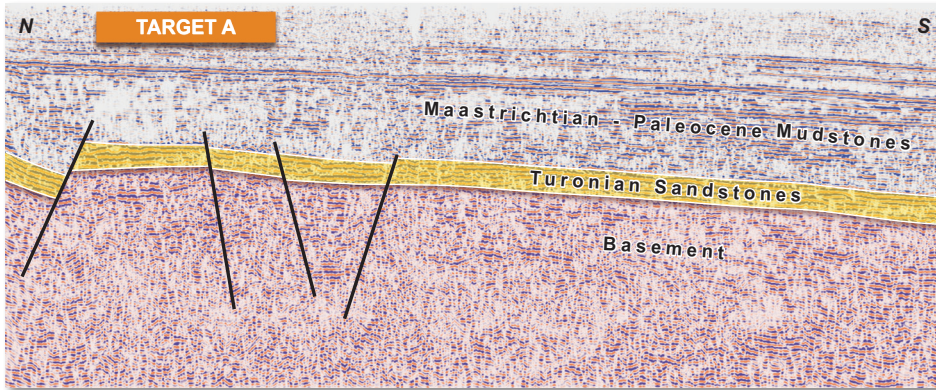


Benin Block B Overview



- Block B, 4,590 km² onshore, located in the Dahomey Embayment
- 4,600 km² high resolution airborne AGG Gravity and Magnetic data acquired in 2013 (Fugro-CGG)
- Allada Structure already identified (vintage 2D and modern AGG Gravity)
- Field Studies in 2014 reveal Coastal Basin petroleum geology, including live seeps, reservoir and source rock outcrop
- Integrated Block Study underway with vintage gravity and 2D data, modern airborne gravity and magnetics, field data and Remote Sensing data
- Large depocentre yet to be explored
- Large amount of offshore exploration nearby with new discoveries (e.g. Ogo Field in the Benin Basin of western Nigeria)
- Preparations underway for new 2D seismic acquisition

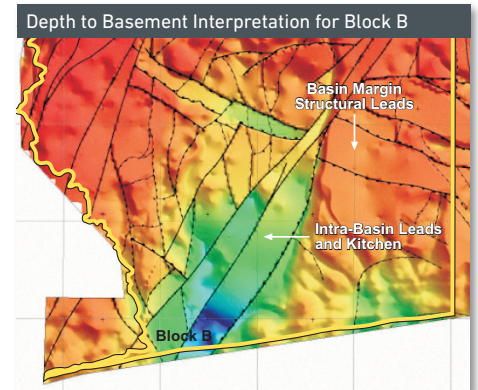
Benin Block B Prospectivity



The Benin Coastal Basin is located in the south of the country. The elongated basin is largely covered by seven departments (Ouémé, Plateau, Littoral, Atlantique, Mono, Couffo and Zou).

The basin is an onshore part of West African Conjugate Margin, extending from Eastern Ghana up to Okitipupa High.

The main geologic features defining the basin on the surface are the Okitipupa High, which separates the basin from the Niger Delta to the East, the West African Massif to the North and the Gulf of Guinea to the south.



Source

Documented source rocks and proven charge systems occur nearby in the Albian (deltaic to marine shales, pre-rift transform margin) and Turonian (deep marine shales) in the post rift Benin Basin.

Seal

Several unconformity surfaces in the Cretaceous-Neogene sequence that are associated with the sedimentary cycles can be seen in the seismic data. Various thick shales through the Mesozoic and Tertiary section provide several opportunities for sealing rocks.

Reservoir

The reservoir rocks are associated with transgressive and regressive sequences of early Cretaceous to Neogene age, with proven reservoir nearby in the Turonian and Cenomanian.

| Chrono-Stratigraphy | Lithostratigraphy | | | HC Type | Source Rock | Reservoir Rock | Cap Rock |
|---------------------|-------------------|-------------------|------------|-----------------------------------|----------------------------------|---|-------------------------------|
| | Shelf | Slope | Deep Water | | | | |
| TERTIARY | Plio-Rec | Benin U. Afowo | | | | | |
| | Miocene | | | | | Turbidite Sands (DW Only) | Marine Shales |
| | Oligocene | L. Afowo | | | | | |
| | Eocene | Oshoshun | | | | | |
| LATE CRETACEOUS | Paleocene | | Imo Shale | | | | |
| | Senonian | Awgu | Araromi | | | Confined Channel Sands and Turbidite Fans | Marine Shales/Claystones |
| | Turonian | Abeokuta | | ● 22° API (Seme Field, Aje Field) | Marine Shales | Reworked Marine and Turbidite Sands Phi = 20-30% | |
| | Cenomanian | | | | | | |
| EARLY CRETACEOUS | Albian | | | ☀ 33°-43° API (Block 4) | Deltaic to Shallow Marine Shales | Deltaic to Shallow Marine Sands Phi = 9-28% | Flood Plain Shales |
| | Aptian | | | | | | |
| | Pre-Aptian | | ISE | | Lacustrine Shales/Claystones | Fluvio-Lacustrine Sandstones Phi = 11-13% | Interbedded Lacustrine Shales |
| | | | Basement | | | | |