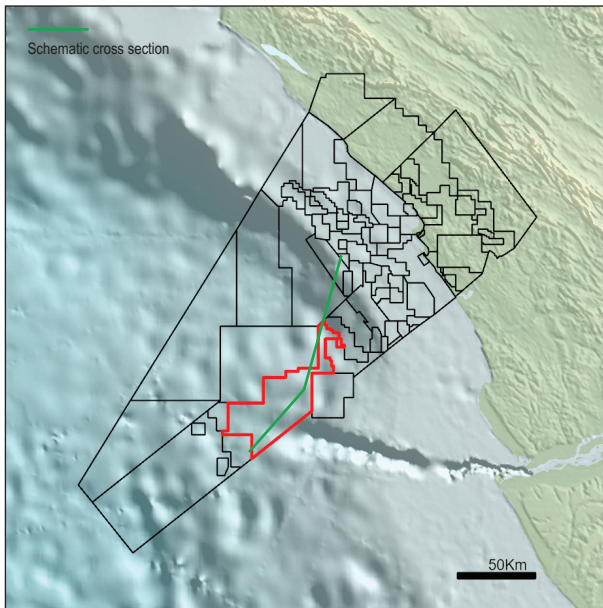
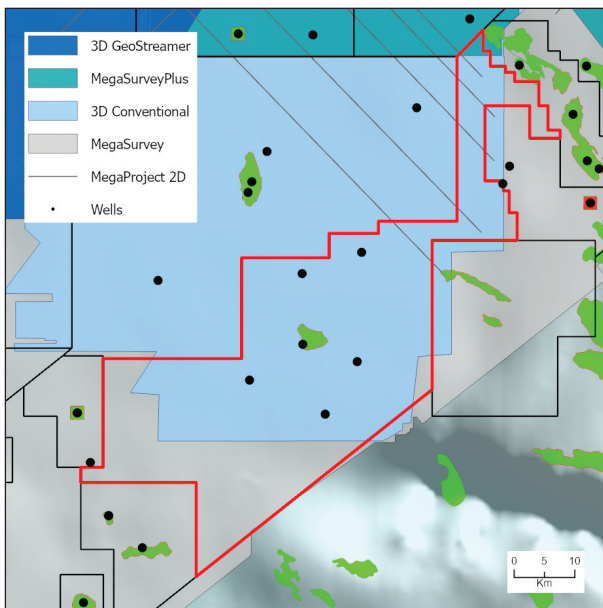




Congo Coastal Basin



Seismic available, Permis Marine XIX

Permis Marine XIX

Permis Marine XIX is located offshore in the Congo Coastal Basin. It has an area of 1997.6 Km². The bathymetry of this deep-water block ranges from 1000 to 2000 m.

Permis Marine XIX contains the Azurite Marine Field, which has a production history dating back to 2006. Along with the field associated wells, a further 7 exploration wells are found in the block. The wells encountered valid reservoirs and traps but were dry. Typical plays expected in Permis Marine XIX include Upper Miocene channel systems, Lower Miocene turbidite channels, Sendji carbonates and Pre-salt sandstones.

Miocene Sandstones

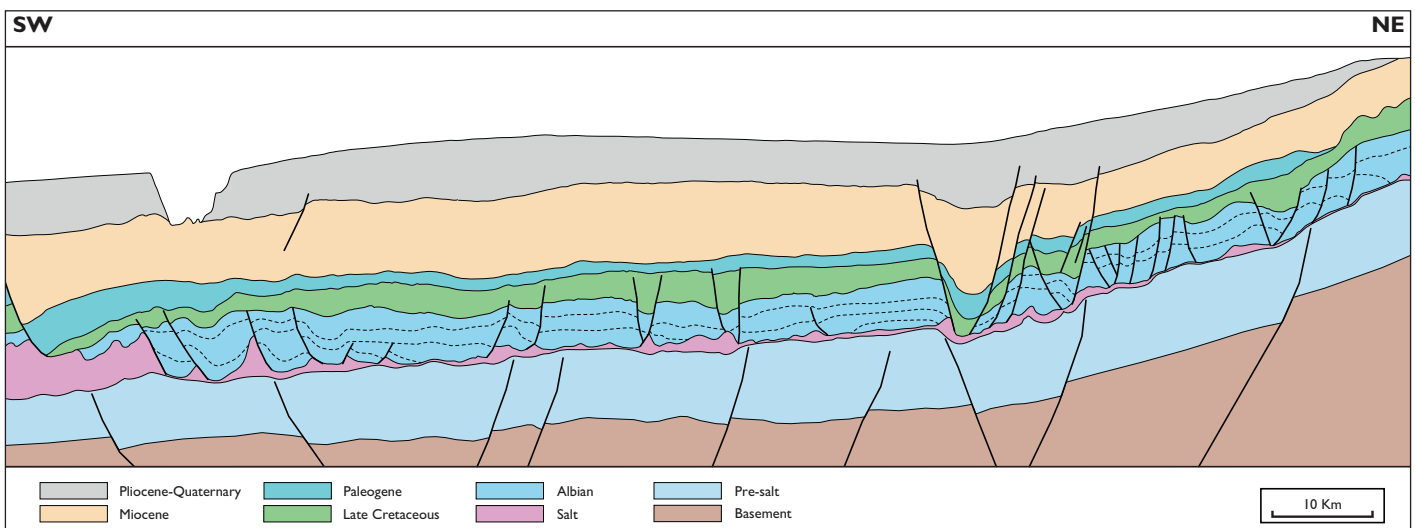
Miocene channels and turbidites of the Paloukou Formation (Fm) consist largely of medium grained, well sorted sandstone. These sandstones form the reservoir for the nearby Azurite and Turquoise fields.

Sendji Carbonates

The Albian Sendji Fm is the primary reservoir for the nearby Moho Albian and N'Kossa fields. Hydrocarbons are sourced from the Neocomian Marnes Noires Fm (predominantly sourced from Type I/II kerogens). Trapping structures are typically related to folding of the carbonates due to halokinesis.

Pre-Salt Sandstones

Pre-salt reservoirs include sandstones within the Chela, Djeno and Vandji formations. No Pre-salt discoveries have been made in the ultra-deepwater. The nearest Pre-salt field lies >100 Km to the NE of this block.

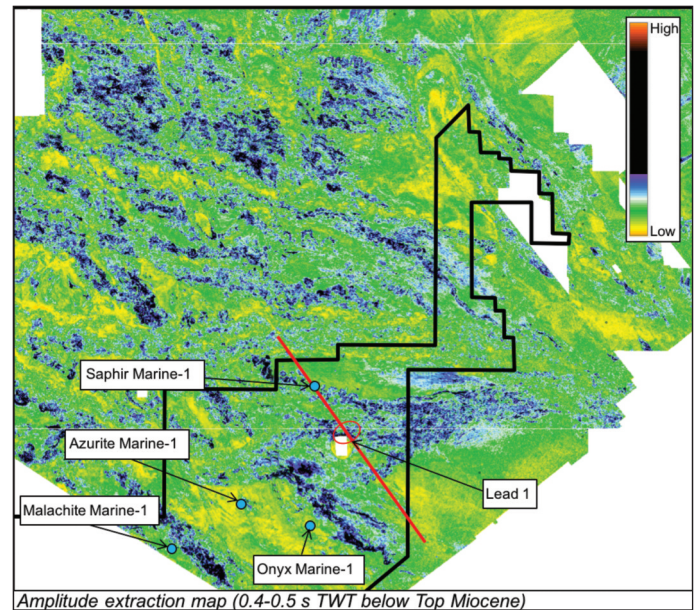


Schematic cross section

Lead 1 – Post-salt (Multiple targets)

This lead is a high-amplitude Paloukou Fm Miocene turbidite channel complex sitting on a structural high. There is also potential within the Albian Sendji Fm carbonates, Cenomanian sandstones and Oligocene sandstones within a four-way dip closed trap.

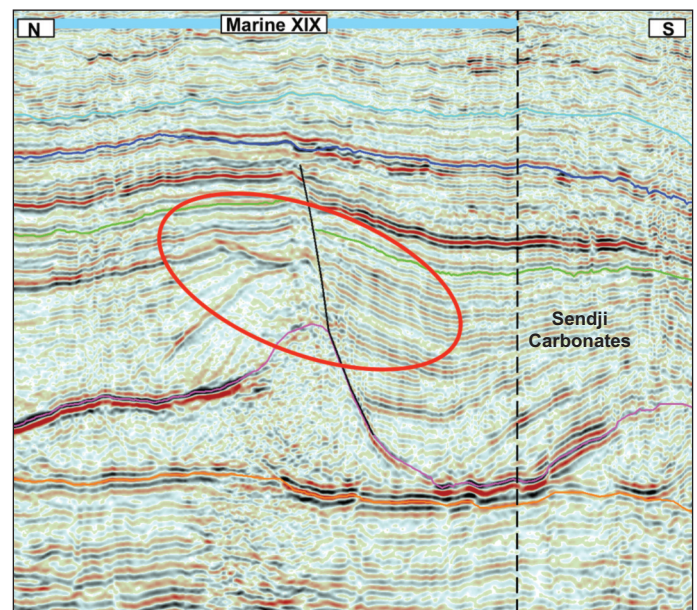
Hydrocarbons are likely sourced from the Neocomian Sialivakou shales, migrating up faults. Reservoir units are expected to be sealed by overlying marine shales.



Lead 2 – Sendji Carbonates

This lead is a faulted raft block of Sendji Fm carbonates. These carbonates consist of dolomites, oolitic limestones and interbedded sandstone units, deposited in tidal channels in the lower part and as offshore bars and shoreface units in the upper part.

Hydrocarbons are sourced from the Neocomian Sialivakou shales migrating up faults. The carbonates are truncated up-dip against the salt and fault forming the trap. The nearby N'Kossa Field contains a working reservoir within the Sendji Fm



Lead 3 – Pre-salt

This lead targets a Pre-salt high amplitude wedge-shaped reflector package within a tilted fault block. The postulated reservoir intervals for this lead are the Chela and Djeno formations sandstones.

The Pointe Noire Marl and lacustrine shales of the Djeno Sandstone Fm provide effective source rocks, reservoir units are expected to be sealed by intraformational shales.

