Earth Data - Seismic

CÔTE D'IVOIRE

Unleashing the Tano Basin's potential with high-quality 3D seismic data

Viridien, in association with the Direction Générale des Hydrocarbures (DGH) and PETROCI, is reimaging a significant portion of the Ivorian margin to provide the industry with the tools to de-risk the Tano Basin's play potential.

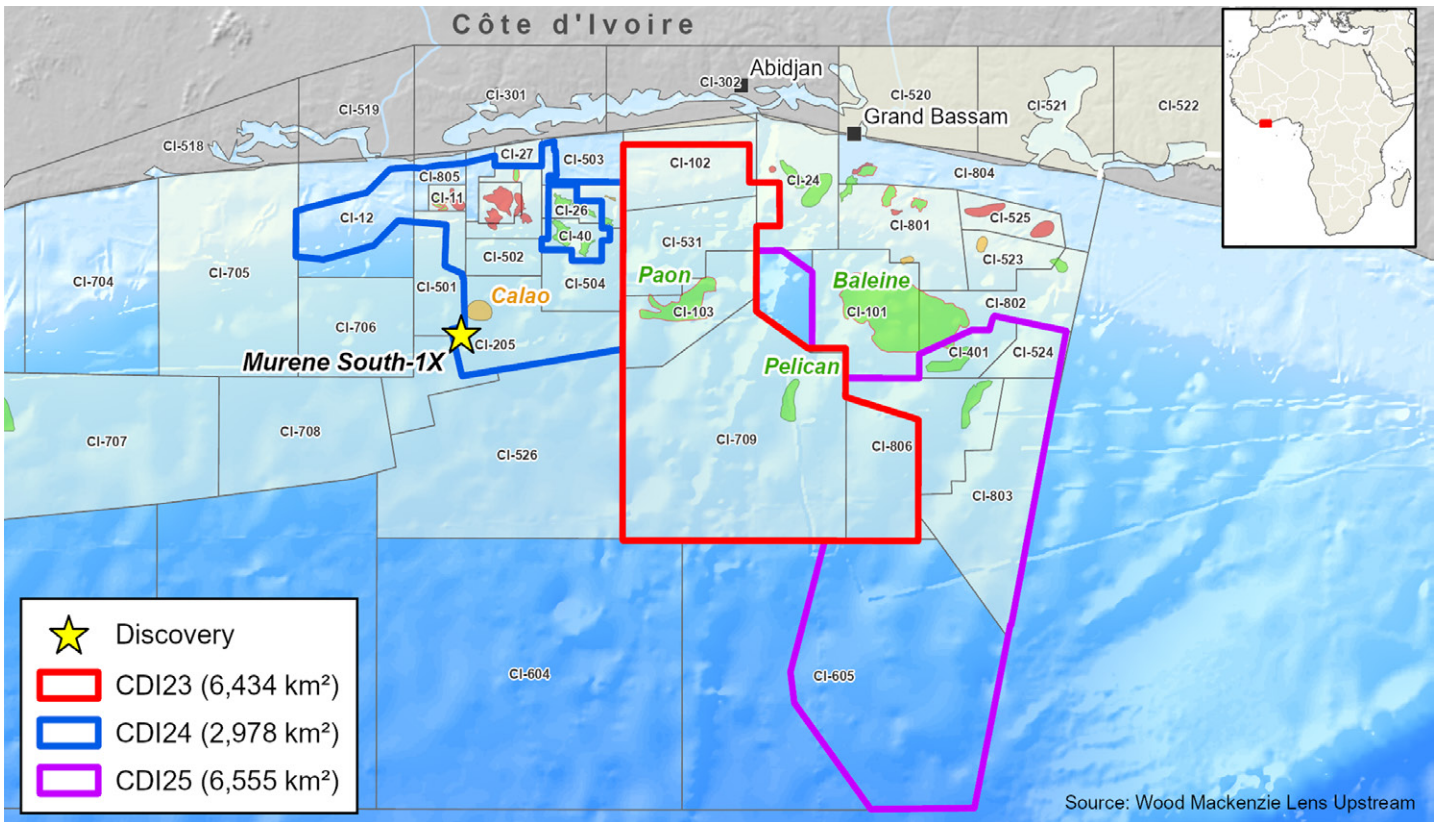
Côte d'Ivoire is a hotspot for oil and gas exploration. The Calao discovery and the giant Baleine field, along with favourable geological conditions and government support, make it an attractive destination for energy companies. Ongoing exploration and production efforts indicate a promising future for hydrocarbon development in the country. Viridien's advanced 3D seismic dataset is your gateway to uncovering the area's full potential.

Highlights

- Data coverage enveloping the recent Calao discovery and adjacent to the renowned Baleine field
- CDI23 and CDI24 data sets available now
- CDI25 harmonized volume available now, fast-track expected Q4 2026 and final data due Q2 2027
- Unrivaled detail: full-bandwidth data for high-resolution imaging targeting the Cretaceous reservoir intervals

Next steps

Additional data from the current reimaging multi-client program (CDI25) will be merged with the completed CDI23 and CDI24 data sets, creating a seamless and contiguous volume of over 16,000 km².



Project	Area	Start	Fast Track	Completion
CDI23	6,434 km²	2023	-	2024
CDI24	3,129 km²	2024	-	2025
CDI25	6,618 km²	2026	Q4 2026	Q2 2027

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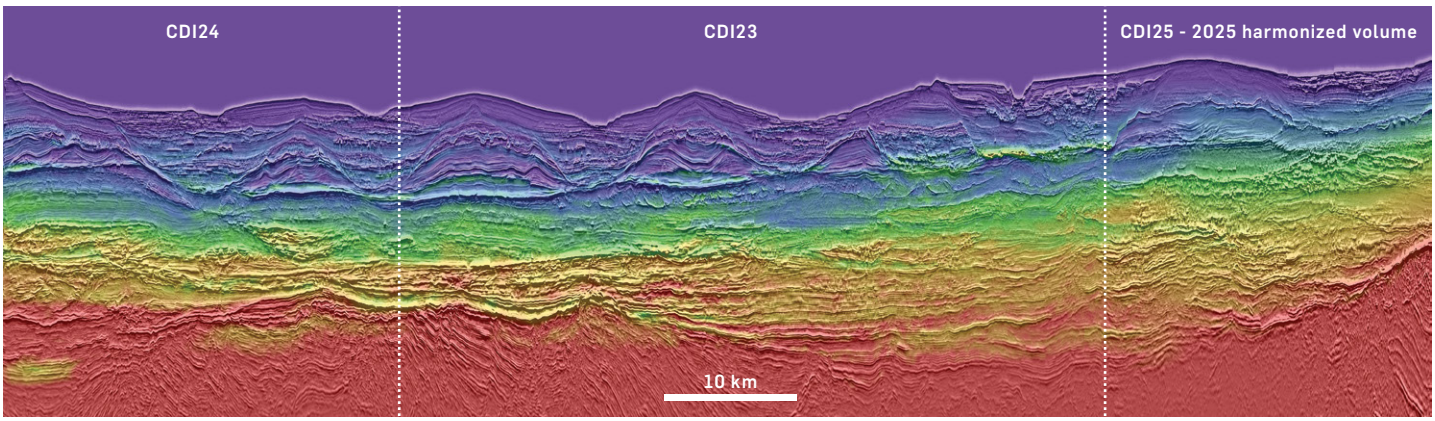
Reimaging projects

The completed CDI23 and CDI24 3D reimaging volumes show a significant imaging uplift compared to the legacy data. This uplift in data quality is due to improved bandwidth and a detailed velocity model, enabling better imaging of the basin architecture, better resolution and delineation of faults and better imaging of Cretaceous reservoir intervals.

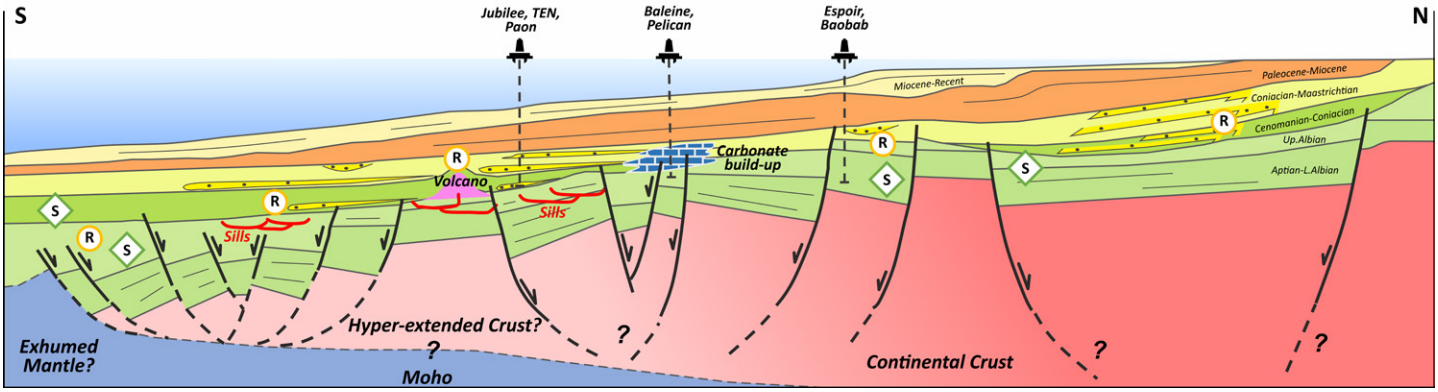
The 3D Ghost Wavefield Elimination (GWE) in the sparse Tau-p domain was crucial in aligning signals across different surveys with differing acquisition parameters; Wave Equation Deconvolution (WEDECON) and Model-based Water Layer Demultiple (MWD) for modeling the shallow water multiples, and Time-Lag Full-Waveform Inversion (TLFWI) up to 15 Hz for building the high-frequency velocity model able to accurately capture the velocity variations in the complex shelf slope with multiple mass transport systems.



Composite seismic line showing CDI23, CDI24, and CDI25 (2025 harmonized volume) datasets, with velocity overlay illustrating project evolution.

Geological setting

The Tano basin is one of the last segments of the Atlantic Margin to open. The African Transform Margin cuts across the structural pattern observed in other regions of the South Atlantic, where rifting typically followed the Pan-African/Brasiliano lineaments. It results in a relatively complex rift topography marked by volcanic intrusions formed during the rifting stage. Exploration-wise, this basin is one of the most recent prolific hydrocarbon regions discovered in the Gulf of Guinea.



Schematic section through the Tano Basin.

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