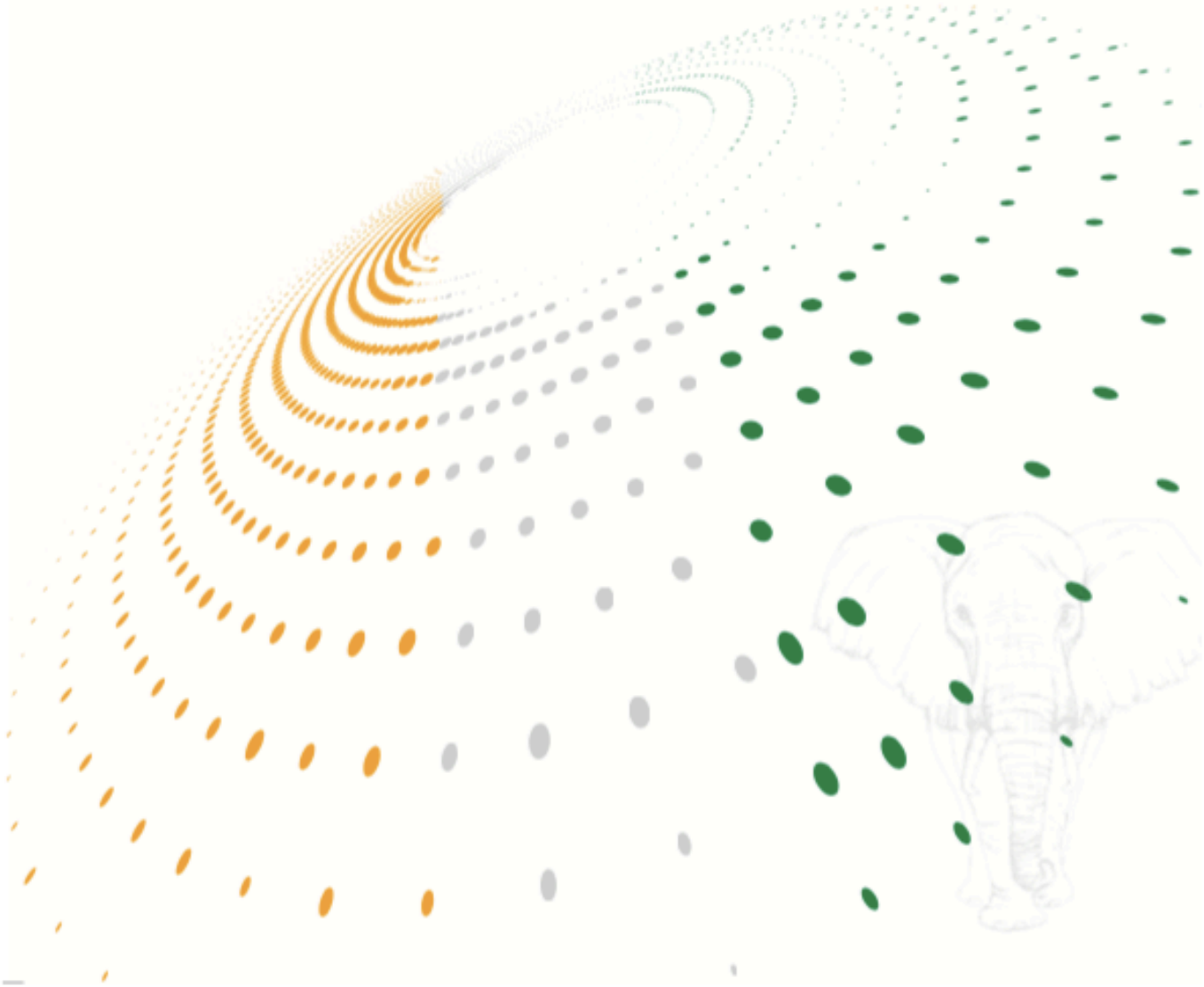
CÔTE D'IVOIRE 2019

Oil & Gas Opportunities



CONTENTS

« CÔTE D'IVOIRE OIL AND GAS OPPORTUNITIES »

Côte d'Ivoire in an integrated player in the Oil and Gas industry with activities going from upstream (exploration and production) to downstream (the refining of products).

So far, Oil and Gas production in Côte d'Ivoire comes mainly from shallow offshore fields with a water depth lower than 200 meters.

In line with the vision of HE. Alassane Ouattara, President of the Republic of Côte d'Ivoire, to become a regional hub of energy, the Government has decided to boost oil and gas exploration and production activities over the sedimentary basin.

To achieve this goal, the Government has improved its business environment, invested in infrastructures, improved the availability of technical data (through some seismic studies) and consolidated its macroeconomic environment with an average annual GDP growth rate of around 8% over 2012-2018 and an inflation below 2%.

As a result of those actions, since 2011 47 exploration licenses have been granted including 4 on ultradeep water blocs (more than 3,000 meters) and exploration has resumed on all onshore blocks.

The Government is committed to continue these efforts in order to open new bright chapters for Côte d'Ivoire and the Oil and Gas industry.

In this context, we are delighted to present, in this book, our exploration opportunities through the eighteen (18) blocs available in the country.

We are also excited to launch a request for Expression of Interest (EOI) for five (5) shallow water blocs located on the eastern side of the sedimentary basin including the last three (3) newly created blocs of the country.

We look forward to collaborating with you and invite you to explore Oil and Gas exploration opportunities in Côte d'Ivoire.

H.E. Mr. Abdourahmane CISSE
Minister of Petroleum,
Energy and Renewable Energy

MINISTRY OF PETROLEUM, ENERGY AND RENEWABLE ENERGY

CÔTE D'IVOIRE : AN OVERVIEW

The Republic of Côte d'Ivoire is located on the southern coast of West Africa, with a surface area of 322 462 sq. Km and a population estimated at 26,000,000 inhabitants. Yamoussoukro is the political capital of the country and Abidjan is the economic capital and the largest city. The official language spoken by Ivorians is French, and the currency used is the CFA Franc (1 euro=655.957 CFA francs).

Côte d'Ivoire is the world's largest producer and exporter of cocoa, which prevails the country's economy. It is also a significant producer and exporter of cashews, coffee, rubber and palm oil. As one of the fastest-growing african economies, with an annual GDP growth rate forecast at 7.5% in 2019, Côte d'Ivoire is now promoting sustainable and inclusive growth, with significant mineral resources (gold, iron, …) and potential oil and gas reserves, from which electricity is produced.

CÔTE D'IVOIRE SEDIMENTARY BASIN

- **Geological Context:**

Côte d'Ivoire sedimentary basin is a passive transform margin, which lies along the west coast of Africa, from Liberia to Ghana. It was initiated from Upper Jurassic to Lower Cretaceous with the opening of an intra-cratonic rift of probable panafrican age. It consists of two parts :

- An onshore part, which is approximately 360 km long ;
- An offshore part, which ranges between 80 km and 120 km wide, from shore to water depths over 3,000 metres.

- **Oil and Gas Activities:**

The oil and gas exploration activities started in the late 1950s with the discovery of bituminous sands in the South Eastern coastal basin. Since the 1970s more exploration activities have taken place. At the end of 2018, around 69,736 km of 2D seismic (onshore and offshore) and 92,036 Km² of 3D seismic were acquired and over 280 wells drilled as of June 2019.

Several oil and gas deposits have been discovered and most of them are currently in a production stage (Espoir, Baobab, Foxtrot, Marlin, Manta, Mahi, Lion and Panthere). The average oil and gas production in 2019 is estimated at 34,800 bopd for crude oil and 208 mmcf/d for natural gas. Côte d'Ivoire sedimentary basin encompasses 51 blocks as at November 2019, among which 32th are under contracts, 1 under negotiation and 18 opened.

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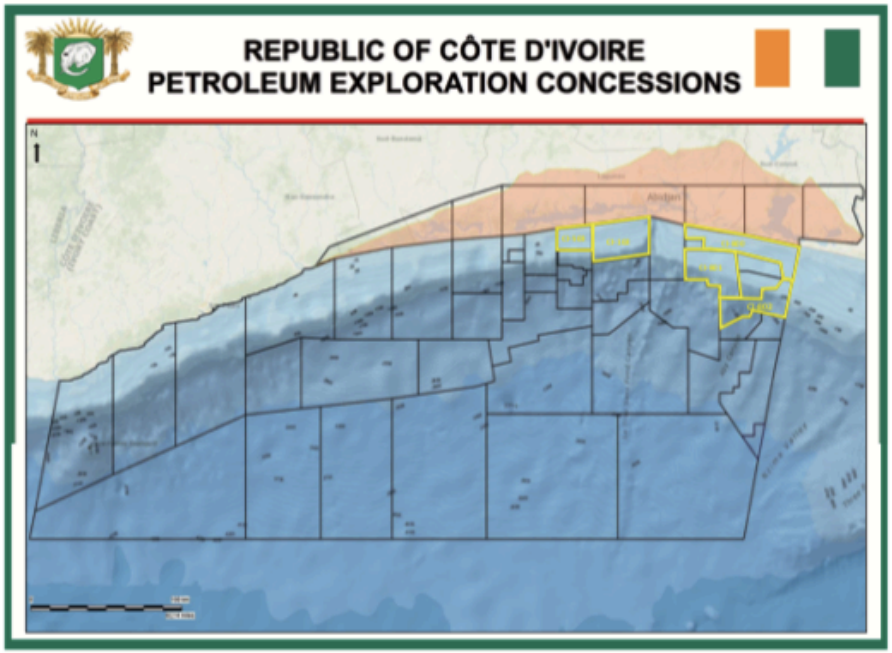
REQUEST FOR EXPRESSION OF INTEREST

MINISTRY OF PETROLEUM, ENERGY AND RENEWABLE ENERGY

To promote the development of oil and gas resources in the ivorian sedimentary basin, the Ministry of Petroleum, Energy and Renewable Energy of Côte d'Ivoire is organizing a petroleum promotion campaign for the Ivorian sedimentary basin in Cape Town, South Africa, from 4 to 8 November 2019 during the «Africa Oil Week» event.

On this occasion a Request for Expression of Interest will be launched for the allocation of five (5) shallow to deep offshore blocks to the East of the ivorian sedimentary basin : **CI-102**, **CI-503**, **CI-800**, **CI-801** and **CI-802**.

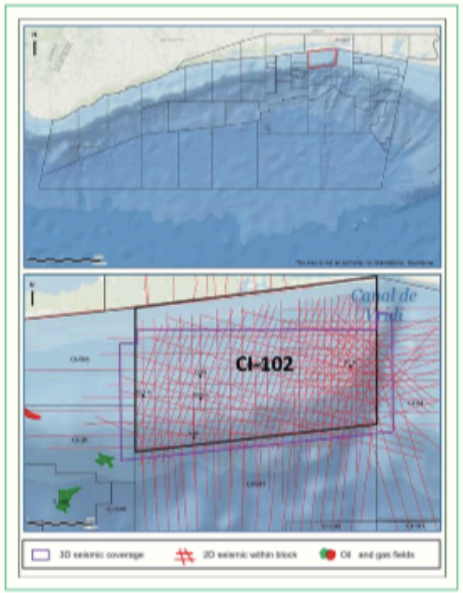
Any petroleum companies willing to show interest in one or more of the above blocks are invited to submit their Expressions of Interest no later than **31 December 2019.**



Technical description, example of an interpreted seismic lines and G&G data on these five (5) blocks are presented on the following pages.

BLOCK TECHNICAL DESCRIPTION AND AVAILABLE DATA

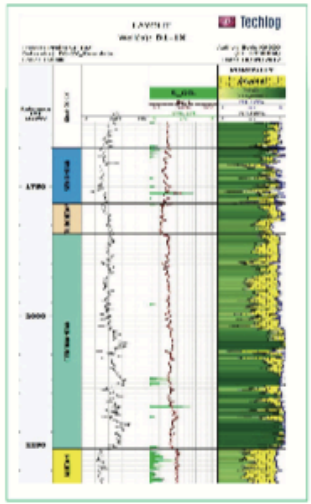
Block CI-102



Overview
Area size: 863 Km²
Location: Offshore Abidjan Margin
Water depth: 0 – 950 m

Available Data
2D seismic: 1567 Km
3D seismic: 639 Km²
Wells: 5

Nearby Fields
Bélier, Espoir, Baobab, Gazelle



D1-1X (P&A, Oil/Gas)
AGIP (Africa) 1983, WD: 104 m, TD: 3587 m

Targets
Lower senonian & Cenomanian

Results
Lower Senonian-Turonian Section: 1675 m to 1815 m
Gas zone: 1745 m to 1770 m
- Net Sand: 25 m, Net Pay: 3 m, Average Porosity: 25 %,
- Water saturation: 10%

Oil zone: 1770 m to 1785 m
- Net Sand: 15 m, Net Pay: 2.5 m,
- Average Porosity: 23%, Water saturation: 50%,
- Produced Heavy Oil (22° API)

Cenomanian Section: 1815 m to 2254 m
- Gross Sand: 78 m, Net Sand: 47 m,
- Average Porosity: 20%

Petroleum Systems

In shallow water, block CI-102 is located within Abidjan Margin between two (2) provinces of hydrocarbon accumulations: Espoir field (upper Albian reservoir) and Belier (Campanian sands).

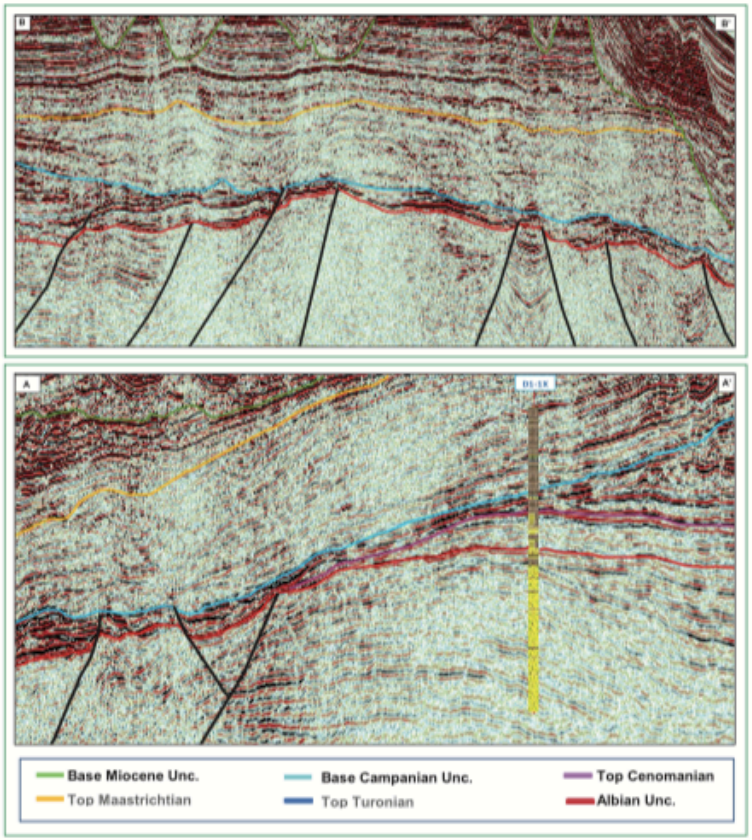
Reservoir: Reservoirs range from the Albian to the Cenomanian. Albian sands were deposited in a variety of depositional environments from fluvial, alluvial fans, fan-delta deposits to lacustrine- marginal and marine deltaic sandstones

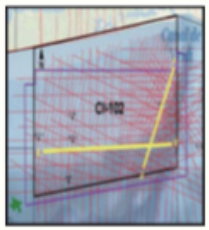
Source Rock: Proven source rock intervals have been identified in both the upper Albian and the Cenomanian.

Trap: Identified trapping mechanisms are both stratigraphic and structural. The structural traps are primarily fault-related. The area is dominated by NE- SW or E-W trending normal faults. Structures formed early and were therefore present during hydrocarbon migration.

Seal: Proven interbedded Lower Cretaceous claystones and shales act as both the up-dip seal and as the lateral seal across fault closure.

Block CI-102





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Block CI-102

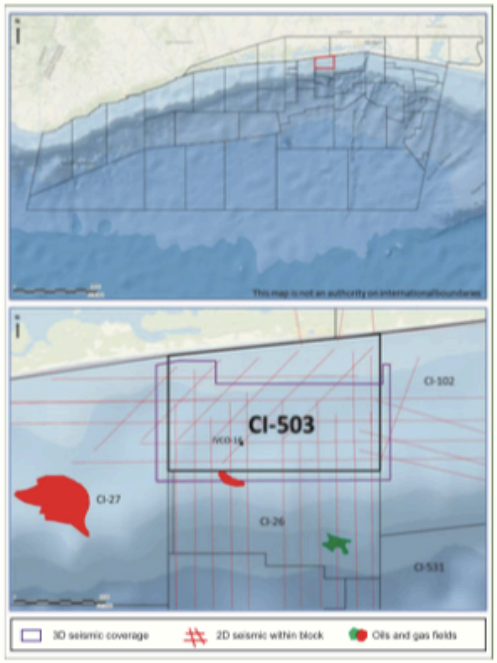
SEISMIC DATA

ACQUISITION				PROCESSING				
SURVEY	YEAR	CONTRACTOR	FIELD DATA	YEAR	CONTRACTOR	DATA	LENGTH (Km)	SIZE (km^2)
2D	1975	GSI	YES	1975	GSI	Filtered stack	1567	
		SSL	YES	1975	SSL	Filtered stack		
2D	1976	GSI	YES	1976	GSI	Filtered stack		
		PETTY RAY	YES	1976	PETTY RAY	Filtered stack		
2D	1980	GSI	YES	1980	GSI	PSTM		
2D	1981	W. GEO	YES	1981	W. GEO	PSTM		
		CGG	YES	1981	CGG	PSTM		
2D	1985	W. GEO	YES	1985	W. GEO	PSTM		
2D	1987	GECO	YES	1987	GECO	PSTM		
2D	1998	GECO	YES	1998	GECO	PSTM		
3D	2000	CGG (Multi-client survey)	YES	2000	CGG 2009 merged processing	PSTM Full stack		600
3D	2007	Wavefield Inseis	YES	2007	GXT 2011 merged processing	PreSTM, PreSDM (full, near, far angle stack)		355

WELL DATA

WELL	YEAR	OPERATOR	TYPE	DATA/REPORTS
IVCO-1	1972	ESSO	Exploration	- Micropaleontology, Palynology and Paleoenvironment Report, - Geological Report - Composite Log (LAS), Logs (GR, NEU, SON, DIPM, DEN, POR)
IVCO-11	1977	ESSO	Exploration	- Geological Completion and Biostratigraphy Report, - Palynology and Source Rock Potential Report - Mud Log, Composite Log (LAS), Logs (GR, NEU, SON, DIPM, DEN, POR)
C1-9X	1982	PHILLIPS PETROLEUM	Exploration	- Final Geological Report - Mud Log, Composite Log (LAS) Logs, (GR, IND-RES, SON, DIPM, NEU, DEN)
A-6X	1981	AGIP	Exploration	- Geological Report, Biostratigraphy and Basic Source Rock Potential - Composite Log (LAS), Logs (CAL, GR SONIC; LDL, RFT.)
D1-1X	1982	PHILLIPS PETROLEUM	Exploration	- Final Geological Report - Stratigraphy- Micropaleontology Palynology - Paleoenvironment Report - Fluid Analysis Report - Composite Log (LAS), Logs (GR-IND-RES, SON, DIPM, NEU, DEN,)

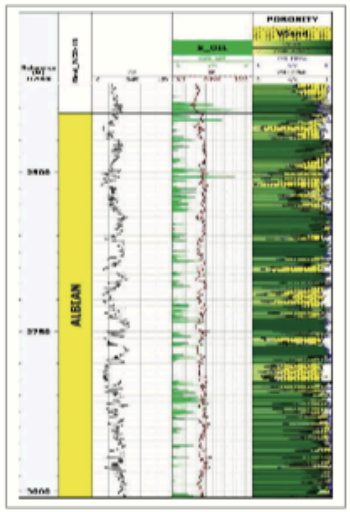
Block CI-503



Overview
Area size: 326 Km²
Location: Offshore Abidjan Margin
Water depth: 0 - 100 m

Available Data
2D seismic: 316 Km
3D seismic: 237 Km²
Well: 1

Nearby Fields
Bélier, Espoir, Baobab, Gazelle



IVCO-16 Well (P&A, dry)
ESSO Exploration, 1977, WD: 75 m, TD: 3441 m

Targets
Cenomanian & Albian turbidite fan complex

Results
Albian Section : 2410 m to 3010 m
- Gross Sand: 157m
- Net Sand: 119 m
- Average Porosity: 15 %

Petroleum Systems

In shallow water, block CI-503 is located within Abidjan Margin. It is close to two (2) producing fields: Foxtrot field and Espoir field

Reservoir: Reservoirs range from the Albian to the Cenomanian. Albian sands were deposited in a variety of depositional environments from fluvial, alluvial fans, fan-delta deposits to lacustrine- marginal and marine deltaic sandstones.

Source Rock: Proven source rock intervals have been identified in both the upper Albian and the Cenomanian.

Trap: Identified trapping mechanisms are both stratigraphic and structural. The structural traps are primarily fault-related. The area is dominated by NE- SW or E-W trending normal faults. Structures formed early and were therefore present during hydrocarbon migration.

Seal: Proven interbedded Lower Cretaceous claystones and shales act as both the up-dip seal and as the lateral seal across fault closure.

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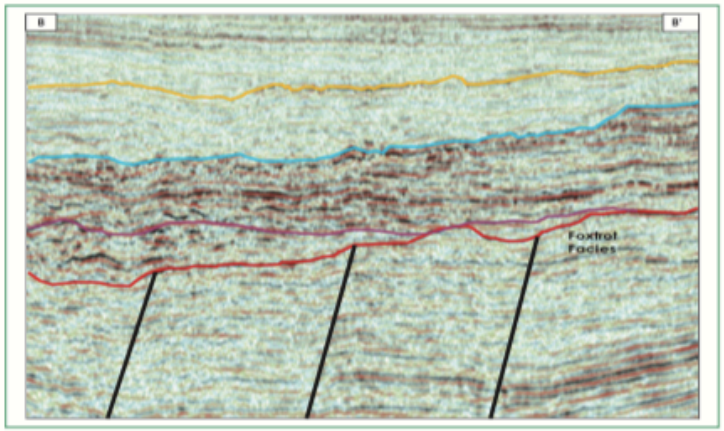
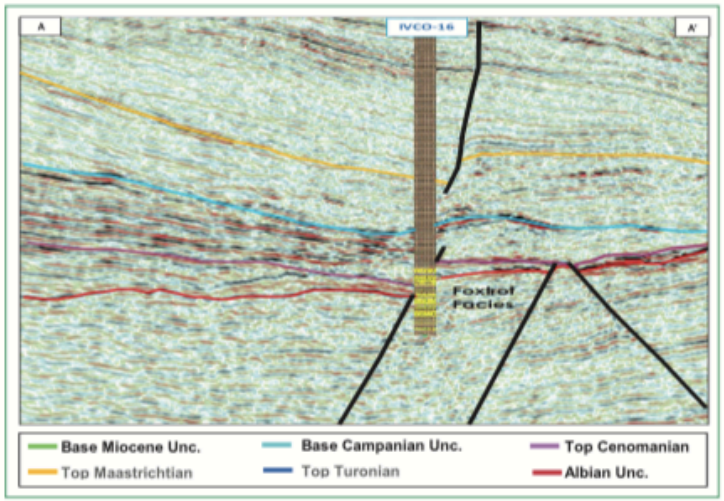
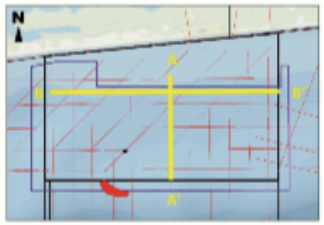
Block CI-503





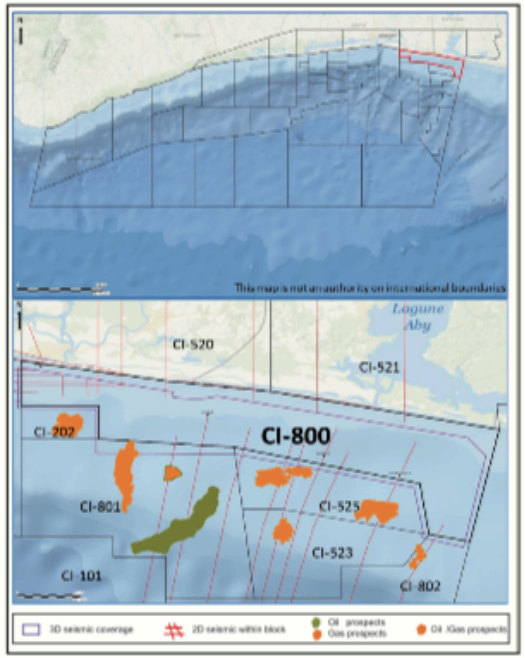


Block CI-503

SEISMIC DATA								
ACQUISITION				PROCESSING				
SURVEY	YEAR	CONTRACTOR	FIELD DATA	YEAR	CONTRACTOR	DATA	LENGTH (Km)	SIZE (km^2)
2D	1975	GSI	YES	1975	GSI	Filtered stack	316	-
2D	1976	PETTY RAY	YES	1976	PETTY RAY	Filtered stack		-
2D	1980	GSI	YES	1980	GSI	Filtered stack		-
2D	1981	W.GEO	YES	1981	W GEO	Filtered stack		-
2D	1982	CGG	YES	1975	GSI	PSTM		-
2D	1981	CGG	YES	1981	CGG	PSTM		
2D	1982	CGG	YES	1982	CGG	PSTM		
3D	2000	CGG	YES	2000	CGG	PSTM	-	237

WELL DATA				
WELL	YEAR	OPERATOR	TYPE	DATA/REPORTS
IVCO-16	1977	ESSO	Exploration	-Final Well Report -Geological Completion Report -Palynology and Source Rock Potential Report -Mud log, Composite Log (LAS), Logs (GR-IND-RES-NEU-DEN-SON)

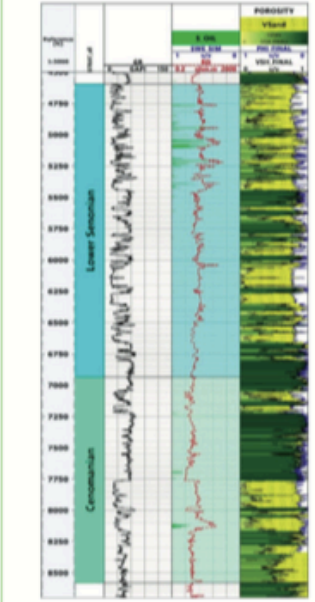
Block CI-800



Overview
Area size: 904. Km^2
Location: Offshore Abidjan Margin
Water depth: 0 - 50 m

Available Data
2D seismic: 113 Km
3D seismic: 689 Km^2
Wells: 3

Nearby Fields
Kudu, Eland, Gazelle.



Petroleum Systems

The block is located within the shelf slope until the water depth of 50 meters. Three wells have been drilled in the block:
IVCO-3, IVCO-17, ANTELOPE-1X.

Reservoir: Reservoirs range from the Albian to the Maastrichtian. The reservoir in Ivco-3 well consists of sands, sandstones and conglomerates. In IVCO 17 well, significant hydrocarbon shows were encountered in lower Maastrichtian. They consisted of heavy residual oil shows scattered between 777 m and 853 m and good show of dry gas in the isolated sandstones from 1067 m to 1098 m.

Source Rock: The source rocks of the overall oil discoveries consisted of a mixed lacustrine and anoxic marine source, probably of Albian through Turonian age

Trap: Identified trapping mechanisms are both stratigraphic and structural. The structural traps are primarily fault-related. The area is dominated by faults with WNW-ESE orientation. Generally, they are interpreted south dip as active during the deposit of the upper terms of the Albian.

Seal: Good quality regional seal is characterized by mixed marginal marine to marine shales from Albian to Paleocene.

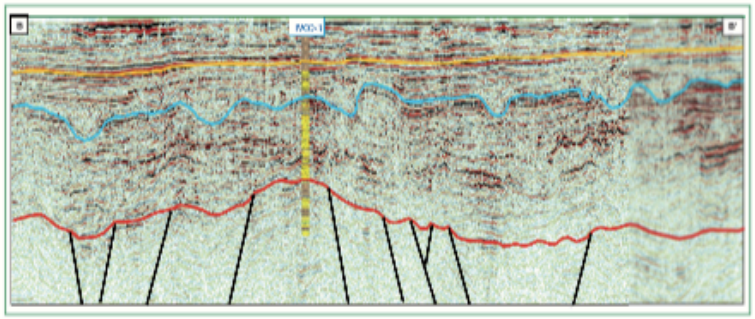
IVCO-17 Well (P&A, Dry)
ESSO EXPLORATION (1977), WD: 75 m, TD: 3441 m

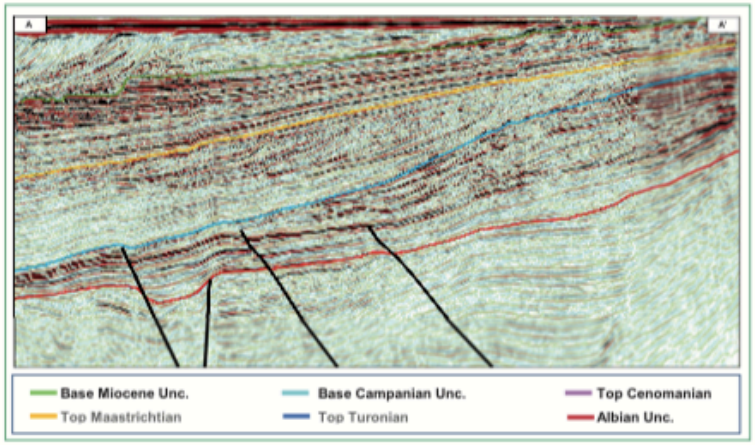
Targets
Lower Maastrichtian & Lower Senonian sandstones

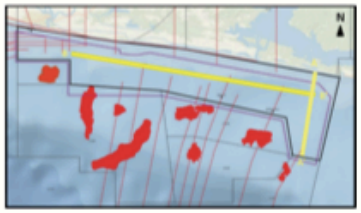
Results
Lower Senonian reservoir:
- Net Sand: 735' (224 m)
- Average Porosity: 20 %

Cenomanian reservoir:
- Net Sand: 260' (79 m)
- Average Porosity: 16 %

Block CI-800







Block CI-800

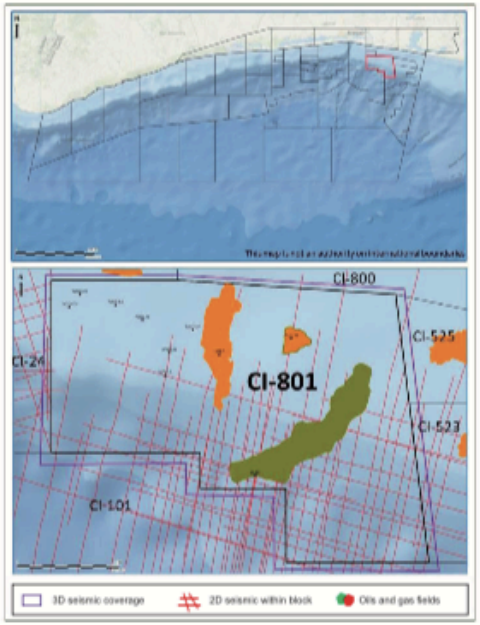
SEISMIC DATA

ACQUISITION				PROCESSING				
SURVEY	YEAR	CONTRACTOR	FIELD DATA	YEAR	CONTRACTOR	DATA	LENGTH (Km)	SIZE (km^2)
2D	1973	MANDREL	YES	1973	MANDREL	Filtered Stack		
2D	1977	GSI	YES	1977	GSI	Filtered Stack		
2D	1979	GSI	YES	1979	GSI	Filtered Stack		
2D	1978	CGG	YES	1978	CGG	Filtered Stack		
2D	1980	CGG	YES	1980	CGG	Filtered Stack	**113**	-
2D	1980	CGG	YES	1980	CGG	Filtered Stack		
2D	1987	GECO	YES	1987	GECO	Filtered Stack		
2D	2000	GARDLINE	YES	2000	GARDLINE	PSTM		
2D	2005	W. GECO	YES	2005	W. GECO	PSTM		
3D	1998	CGG	YES	1998	CGG	PSTM	-	**184**
3D	2012	POLARCUS	YES	2014	PGS 2014 merged processing	PTSM, PSDM (full, angle stack)	-	**730**

WELL DATA

WELL	YEAR	OPERATOR	TYPE	DATA/REPORTS
IVCO-3	1973	ESSO	Exploration	- Hydrocarbon Source Evaluation Of Samples Geochemistry Report, Geological and Drilling Summary Report, Stratigraphy and Paleontology Report, Mud log, Composite Log (LAS), Logs (GR-IND, SON, DIPM, DEN,)
IVCO-17	1977	ESSO	Exploration	- Geological Completion Report, Biostratigraphy Report, Composite Log (LAS), Logs (GR, ISF, SON, DIPM, NEU, DEN)
ANTELOPE-IX	1998	UMIC	Exploration	- Geological report, Biostratigraphy Report - Composite Log (LAS), Logs (GR, HCAL, SON, AITH, PEX, SLS, NGS).

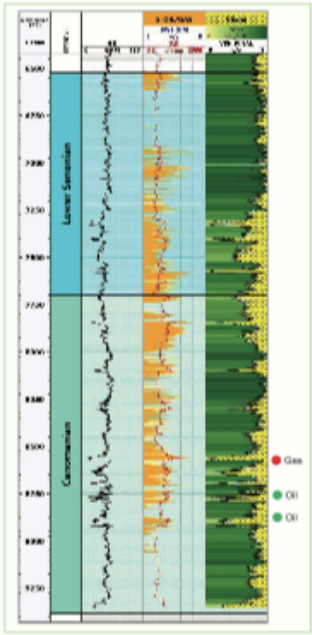
Block CI-801



Overview
Area size: 798 Km²
Location: Offshore Abidjan Margin
Water depth: 50 - 850 m

Available Data
2D seismic: 691 Km
3D seismic: 798 Km²
Wells: 10 (9 Exploration & 1 Evaluation)

Nearby Fields
Kudu, Eland, Gazelle.



IVCO - 18 Well (P&A, Gas, Oil shows)
ESSO, Exploration, 1978, WD: 95 m, TD: 2852 m

Target
Lower Senonian & Turo-Cenomanian sandstones

Results

Lower Senonian reservoir:
- Net Sand: 87' (26.5 m)
- Average Porosity: 20 %

Cenomanian reservoir:
- Net Sand: 162' (49.4 m)
- Average Porosity: 15 % - 20 %
- Water Saturation: 27-55 %
- Hydrocarbon: Gas/Oil

Petroleum Systems

Block CI-801 is located within Abidjan Margin, in shallow water from 50 to 850 meters water depth. Ten (10) wells have been drilled: IVCO-25, IVCO- 13, IVCO-24, IVCO-10, IVCO-22, IVCO-2, IVCO-15, IVCO-18, B-3X and HIPPO-1X.

Reservoir: Reservoirs range from the Albian to the Cenomanian. In the Esso IVCO-18 discovery well, Oil and gas were discovered in Lower Cenomanian strata in three (3) sandstone intervals and 28 m of gross sandstone was encountered. Gas was reported as having been found in four (4) separate sandstone intervals. The formation was tested at a rate of 588 BOPD, 11.5 MMCFGD and 439 BWPD. This Sandstone fairway extends through Esso's IVCO-22 and Santa Fe-Snyder's HIPPO-1X wells.

Source Rock: The source rocks for overall oil discoveries consisted of a mixed lacustrine and anoxic marine source, probably of Albian through Turonian age

Trap: Identified trapping mechanisms are both stratigraphic and structural. The area is dominated by WNW- ESE oriented faults network. Generally south-facing and interpreted as having been active during the deposit of the upper terms of the Albian. The structural traps are primarily fault-related. Some of them appears to be a south plunging structural nose, which is bifurcated by an east-west trending discontinuous normal fault.

Seal: a good quality regional seal is present, which comprises mixed marginal marine to marine shales of Maastrichtian to Paleocene age.

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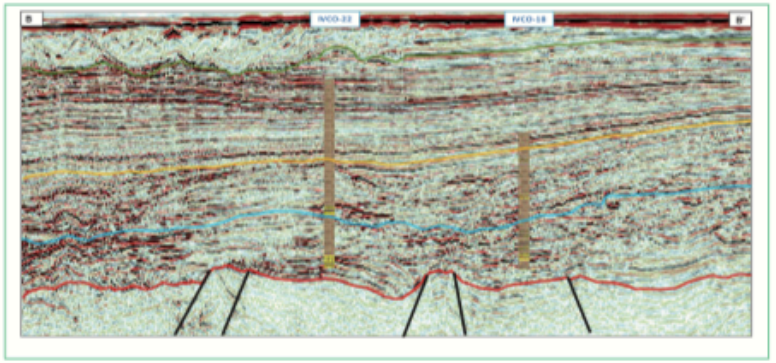
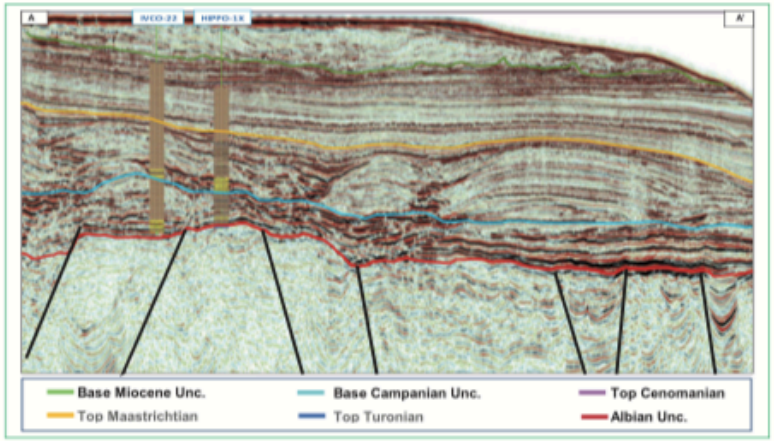
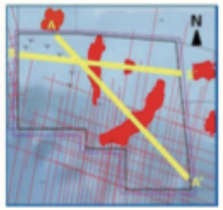
Block CI-801





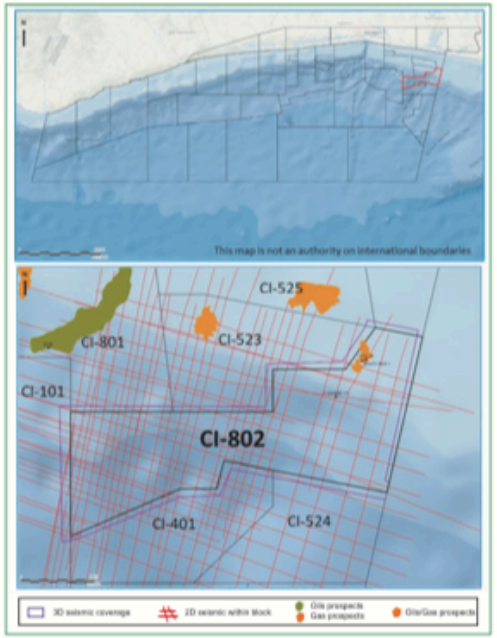


Block CI-801

BLOCK	SEISMIC DATA								
	ACQUISITION				PROCESSING				
	SURVEY	YEAR	CONTRACTOR	FIELD DATA	YEAR	CONTRACTOR	DATA	LENGTH (Km)	SIZE (km²)
CI-801	2D	1973	MANDREL	YES	1973	MANDREL	Filtered stack	691	
	2D	1977	GSI	YES	1977	GSI	Filtered stack		
	2D	1979	GSI	YES	1979	GSI	Filtered stack		
	2D	1980	CGG	YES	1980	CGG	Filtered stack		
	2D	1980	CGG	YES	1980	CGG	Filtered stack		
	2D	1987	GECO	YES	1987	GECO	PSTM		
	2D	2005	W. GECO	YES	2005	W. GECO	PSTM		
	3D	1998	CGG	YES	1998	CGG	PTSM		278
	3D	2012	POLARCUS	YES	2012 2013	CGG Veritas	PTSM, PSDM (full stack)		684
					2014	PGS 2014 merged processing	PTSM, PSDM (full, angle stack)		798

WELL DATA				
WELL	YEAR	OPERATOR	TYPE	DATA/REPORTS
IVCO-25	1982	ESSO	Exploration	-Final well Report -Final Geological completion Report -Final water analysis Report -Composite Log (LAS), Logs (FCD, CNL, GR, ISF, MSFL, BHC, SON)
IVCO- 13	1977	ESSO	Exploration	-Final well report, Biostratigraphy Report -Well testing report -Deviation summary -Mud log, Composite Log (LAS), Logs (GR-IND-RES, SON, DIPM, NEU, DEN,)
IVCO-24	1981	ESSO	Exploration	-Final Geological completion Report -Final well Report -Composite Log (LAS), Logs (GR, DDL, FDC, CNL, ISF, SON, DIPM, NEU, DEN,)
IVCO-10	1977	ESSO	Exploration	-Biostratigraphy Report -Final Geological completion Report -Well testing Report -Pressure_ Temperature _Measurements report -Composite Log LAS, Logs (CAL, DIPM, IND-RES, SON,)
IVCO-22	1981	ESSO	Exploration	-Final well report, Final Geological Completion Report, -Paleontology Petrography Report -Results Of Production Tests report -Composite Log LAS, Logs (CBL, CNL, GR, ISF, SON, NEU, DEN)
IVCO-2	1972	ESSO	Exploration	-Final well report -Lithology Log, Composite Log (LAS), Logs (DIPM, CAL, CBL, IES, BHC, -GR, FIT, CNL, ISF, SON, NEU, DEN)
IVCO-15	1977	ESSO	Exploration	-Biostratigraphy Report, Final Geological Completion Report, - Final well Report -Lithology Log, Composite Log (LAS), Logs (GR, SON, NEU, DEN)
IVCO-18	1978	ESSO	Exploration	-Biostratigraphy Report, Biostratigraphy and Depositional Environment report, -Core Analysis Report, Results of production tests report, -Geological completion report -Geochemical profiles -Composite Log (LAS), Logs (DIPM, GR, ISF, SON, NEU, DEN)
B-3X	1982	PHILLIPS PETROLEUM	Exploration	-Final Geological Report, Biostratigraphy and Basic Source Rock Potential Report, VSP report -Strati_Micropal_Palyno_Paleoenvironment report -Lithology Log, Composite Log (LAS) , Logs (IND-RES, GR, ISF,SON, NEU, DEN)
HIPPO-1X	2000	SANTAFE	Exploration	-Wellsite Geological Report, - Composite Log (LAS)

Block CI-802



Overview
Area size: 655 Km²
Location: Offshore Abidjan Margin
Water depth: 80 - 1480 m

Available Data
2D seismic: 813 Km
3D seismic: 655 Km²
Wells: 3

Nearby Fields
Kudu, Eland, Gazelle, Independance

Petroleum Systems

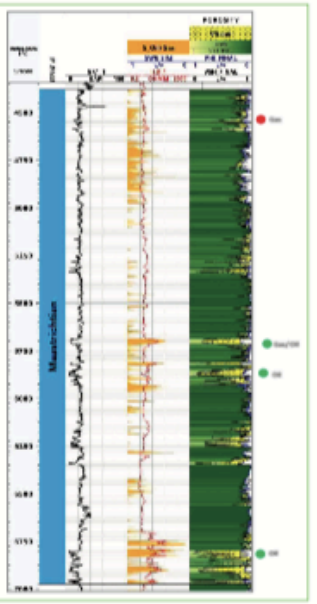
Block CI-802 is located within Abidjan Margin, in shallow water from 80 to 1480 meters of water depth. Three (3) wells have been drilled: IVCO-26, EAST ASSINIE-1X and SOUTH IBEX-1.

Reservoir: Reservoirs range from the Albian to the Maastrichtian. They are consisted of sandstone separated by shale. In IVCO-26 well, Oil and Gas were recovered at rates of 625 BOPD (42.8° API) and 545 MCFPD while, South Ibex-1 well drilled by UMIC in 1998 encountered 7,8m of oil pay in the Maastrichtian.

Source Rock: The source rocks of the overall oil discoveries consisted of a mixed lacustrine and anoxic marine source, probably of Albian through Turonian age.

Trap: Identified trapping mechanisms are both stratigraphic and structural. The area is dominated by faults with WNW-ESE orientation. Generally, they are interpreted south dip as active during the deposit of the upper terms of the Albian. In 1984, IVCO-26 well was drilled to test an Albian high structural four-way closure.

Seal: Good quality regional seal is characterized by mixed marginal marine to marine shales from Albian to Paleocene.

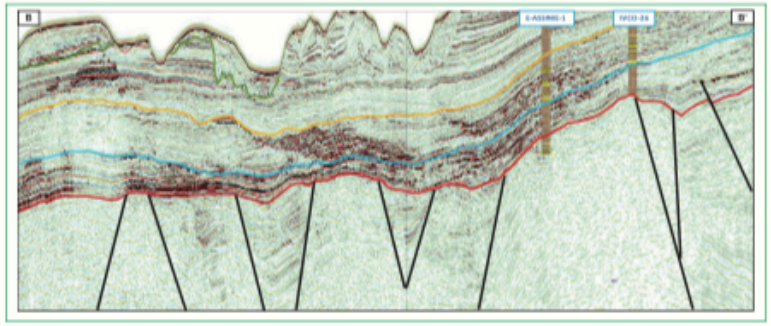


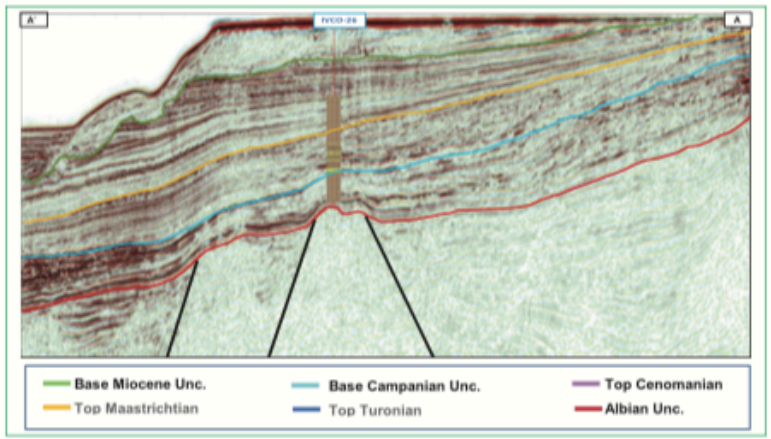
IVCO- 26 Well (GAS/OIL)
ESSO EXPLORATION (1985), WD: 85 m, TD: 2617 m

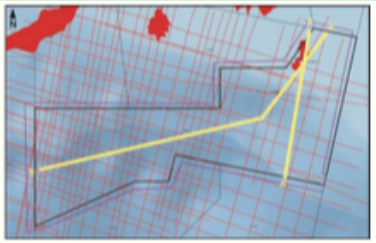
Target
Maastrichtian and Lower Senonian sandstones

Results
Maastrichtian reservoir:
- Net Sand: 100' (30.48 m)
- Average Porosity: 18 % - 22 %
- Water Saturation: 33 % - 45 %
- Hydrocarbon: Gas/Oil

Block CI-802







Block CI-802

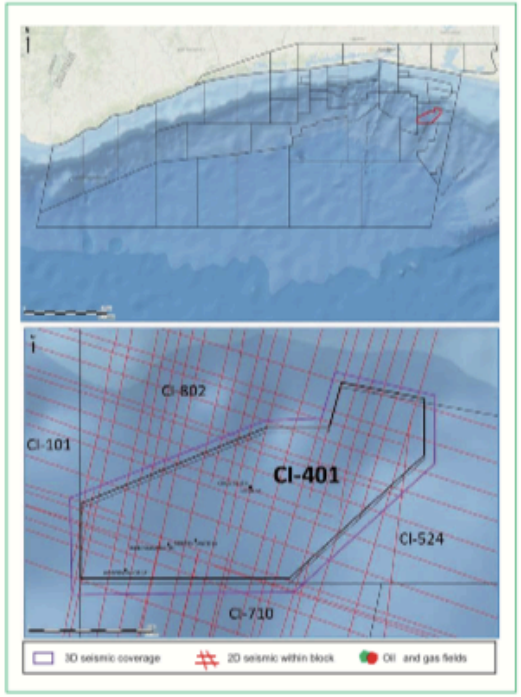
SEISMIC DATA								
ACQUISITION				PROCESSING				
SURVEY	YEAR	CONTRACTOR	FIELD DATA	YEAR	CONTRACTOR	DATA	LENGTH (Km)	SIZE (km²)
2D	1975	SSL	YES	1975	SSL	Time Stack	813	-
2D	1976	PETTY RAY	YES	1976	PETTY RAY	Time Stack		
2D	1977	GECO	YES	1977	GECO	Time Stack		
2D	1986	GECO	YES	1986	GECO	Time Stack		
2D	1999	W. GECO	YES	1999	W. GECO	Time Stack		
2D	2005	W. GECO	YES	2005	W. GECO	Time Stack		
3D	2007	GSI	YES	2007 2012	TGS	PTSM, PSDM (full, angle stack)	-	215
				2007 2011	CGG	PTSM, PSDM (full, angle stack)	-	240
3D	2014	POLARCUS	YES	2014	PGS 2014 merged processing	PTSM, PSDM (full, angle stack)	-	655

WELL DATA				
WELL	YEAR	OPERATOR	TYPE	DATA/REPORTS
IVCO-26	1985	ESSO	Exploration	- VSP Report, Final Well report, Reservoir Fluid Analysis Report, DST report, Deviation survey - Mud log, Composite Log (LAS), Logs (ISF, BHC, MSF, GR, SP, CBL, VDL, DIPM)
EAST ASSINIE-1X	1978	PHILLIPS PETROLEUM	Exploration	- Geological Report, Final Well Report, Formation testing report, Biostratigraphy and source rock potential report, Biostratigraphy and Geopressure report, Mud log, Composite Log (LAS), Logs (CAL, ISF, SON, GR)
SOUTH IBEX-1	1998	UMIC	Exploration	- Petrophysics summary Report. - Composite Log (LAS)

OTHER AVAILABLE BLOCKS

MINISTRY OF PETROLEUM, ENERGY AND RENEWABLE ENERGY

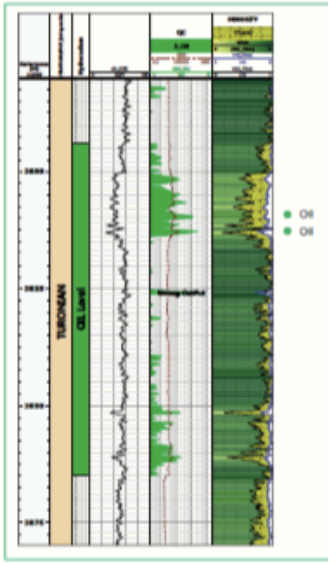
Block CI-401



Overview
Area size: 284 Km²
Location: Offshore Abidjan Margin
Water depth: 1300 -2150 m

Available Data
2D seismic: 122 Km
3D seismic: 284 Km²
Wells: 5 (2 Exploration & 3 Evaluation)

Nearby Fields
Ibex, Kudu, Eland



Petroleum Systems

Reservoir: The primary reservoir target is Turonian sandstone fan systems which were following erosion of the uplifted Côte d'Ivoire continental margin.

Source Rock: Proven source rock intervals have been identified in upper Albian and the Cenomanian.

Trap: Leads are primarily stacked, amalgamated slope channel complexes and stratigraphically-trapped fans with additional structural faults. Sediments are mid late cretaceous or tertiary in age. The nearest analogues are adjacent Enyenra and Tweneboa discoveries in the East.

Seal: Good quality regional seal is characterized by mixed marginal marine to marine shales from Albian to Paleocene.

INDEPENDANCE -1X (P&A, Oil)

LUKOIL, Exploration, 2011 WD: 1689m,

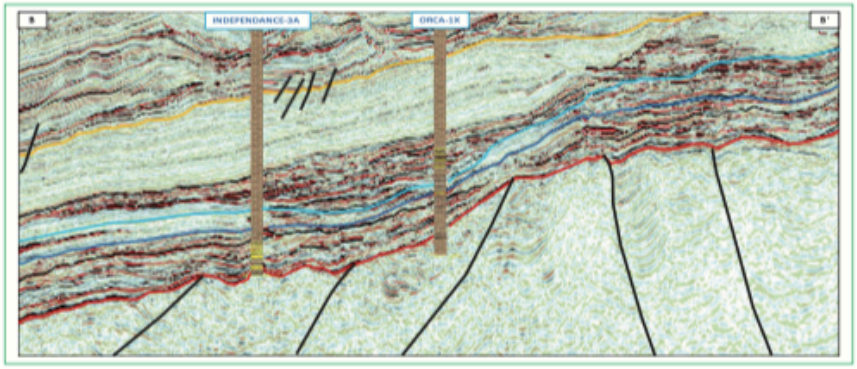
TD: 4132 m

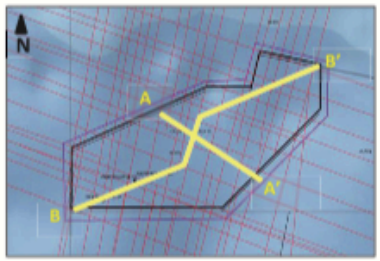
Target Turonian

Results
Turonian 3800 m to 3814 m.

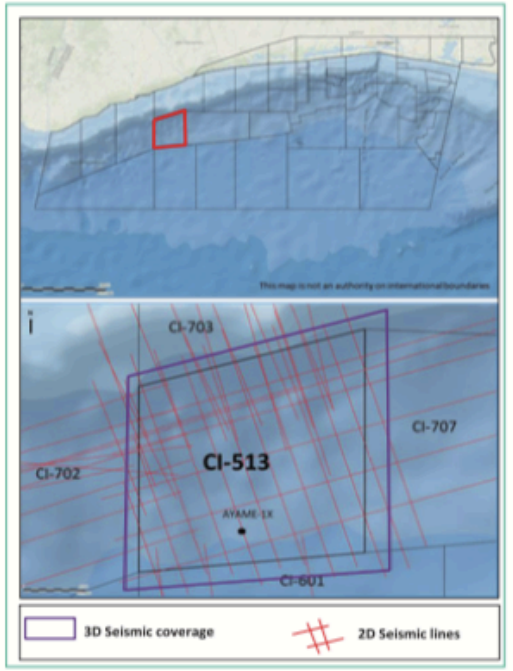
- Net Stand =12
- Oil Pay = 8m
- Average Porosity=21%

Block CI-401



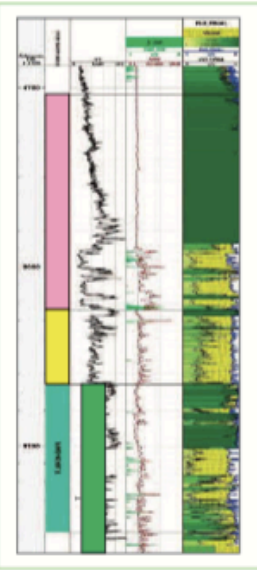


Block CI-513



Overview
Area size: 1443 Km²
Location: Offshore San Pedro Margin
Water Depth: 950 - 3100 m

Available Data
2D seismic: 889.7 Km
3D seismic: 1443 Km²
Well: 1



AYAMÉ-1X Well (P&A, Oil)
OPHIR ENERGY, Exploration, 2017, WD: 2839 m, TD: 5420 mD

Targets
Turonian, Santonian and Campanian

Results
Campanian:
- Gross Sand = 56 m
- Average Porosity = 17 %
- Water saturation = 100 %

Santonian:
- Gross Sand = 64 m
- Average Porosity = 14 %
- Water Saturation = 100 %

Turonian:
- Net Sand = 79 m
- Average Porosity = 19 %

Petroleum Systems

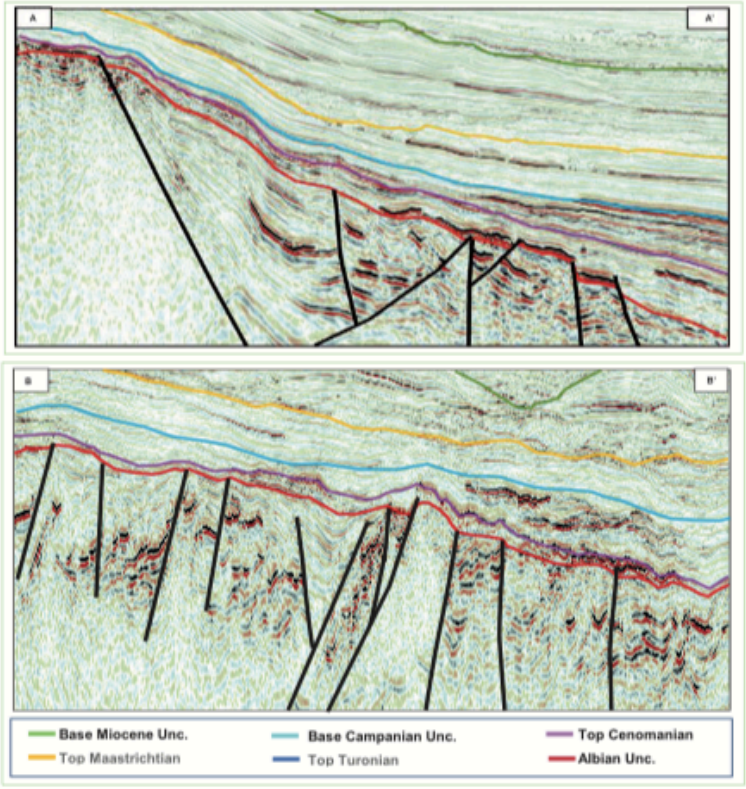
Reservoir: The main reservoirs are found in Turonian and Lower Senonian sandstones, formed by turbidites and basin floor fans. Ayamé-1X well found good quality reservoir sandstones in Turonian and Santonian with oil and gas shows.

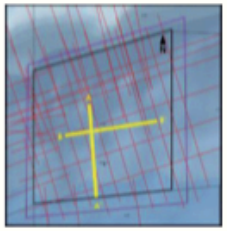
Source Rock: Albian and Cenomanian are good source rocks in the deep offshore and have been proven in nearby fields. These source rocks are mature, entering into the oil window in the Early Tertiary, which post-dates rap formation.

Trap: Identified trapping mechanisms are both stratigraphic and structural. Stratigraphic trap mechanisms are dominantly characterized by channelized submarine fan systems. Hydrocarbons migrate in either one of two pathways, vertically following fault systems, or laterally.

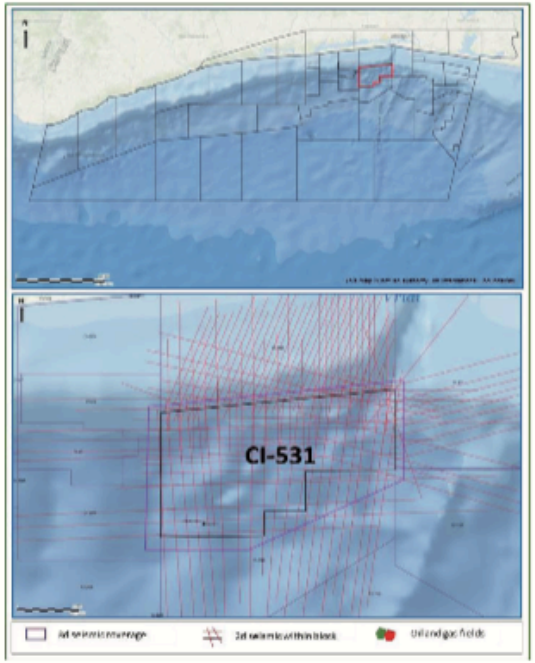
Seal: Albian to Paleocene marine shales provide good sealing capacity over hb area. The Santonian to Coniacian shale section identified in deep water wells of the Ivorian Basin indicate a working top and lateral seal.

Block CI-513





Block CI-531



Overview
Area size: 757.9 Km²
Location: Offshore Abidjan Margin
Water Depth: 500 - 2350 m

Available Data
2D seismic: 1253 Km
3D seismic: 757.9 Km²
Wells: 2

Nearby Fields
Bélier, Espoir, Baobab, Gazelle, Paon

Petroleum Systems

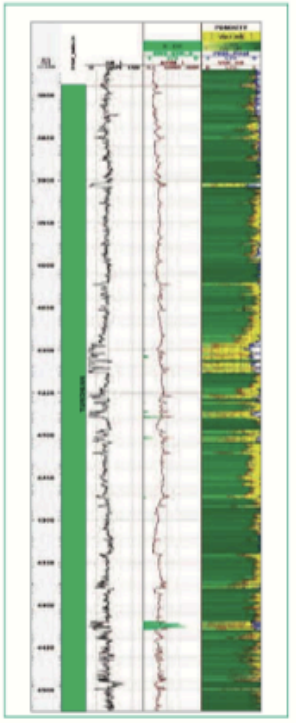
The block extends from the shelf slope to the basin of the Abidjan Margin. it is close to the Baobab and Espoir Oil fields to the west and to the Paon Field to the south. Two wells have been drilled in the block: Calao-1X and Calao- 1X ST. The Calao-1X well encountered gas.

Reservoir: Sandstones from Albian to Lower Senonian. These sandstones are generally medium to fine grained and well sorted with good to excellent porosity and permeability characteristics.

Source Rock: Proven source rocks from Middle to Upper Albian intervals have been identified over the area.

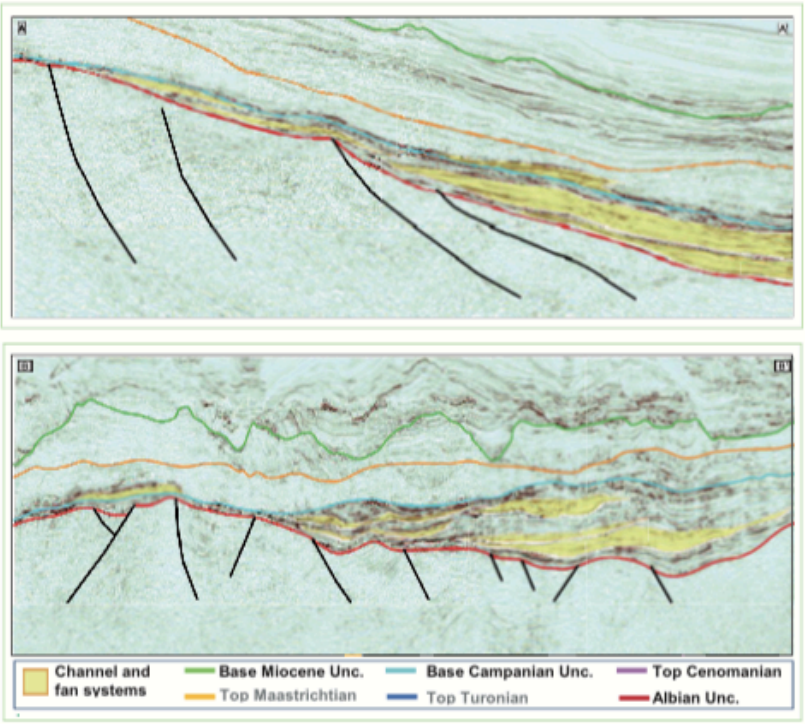
Trap: Identified trapping mechanisms are both stratigraphic and structural. The principal play target are Upper Cretaceous turbidites and channel-fan systems.

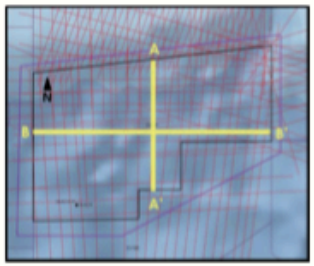
Seal: Albian to Paleocene marine shales provide good sealing capacity over the area.



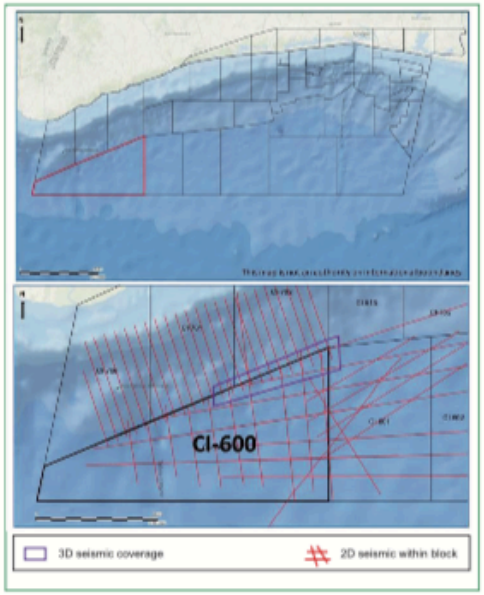
CALAO-1X (P&A)
TULLOW OIL, 2013 WD: 1922 m, TD: 4570 m
Targets
Turonian & Cenomanian
Results
Turonian
- Gross Sand = 101 m
- Net Pay = 2.8 m
- Water saturation = 36 %

Block CI-531





Block CI-600



Overview
Area size: 6415 Km²
Location: Offshore San Pedro margin
Water Depth: 3000 - 4200 m

Available Data
2D seismic: 1520 Km
3D seismic: 505 Km²
Well: 0

Petroleum Systems

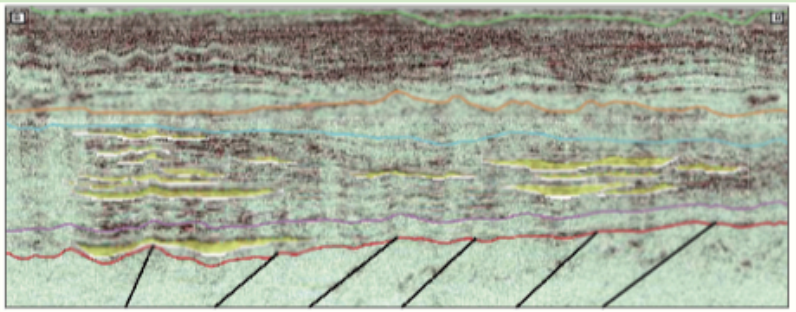
Reservoir: Main reservoirs include Turonian and Lower Senonian turbiditic and basin floor fans sandstones, analogous to the Jubilee play-types. These were deposited following large-scale erosion of the uplifted Côte d'Ivoire continental margin.

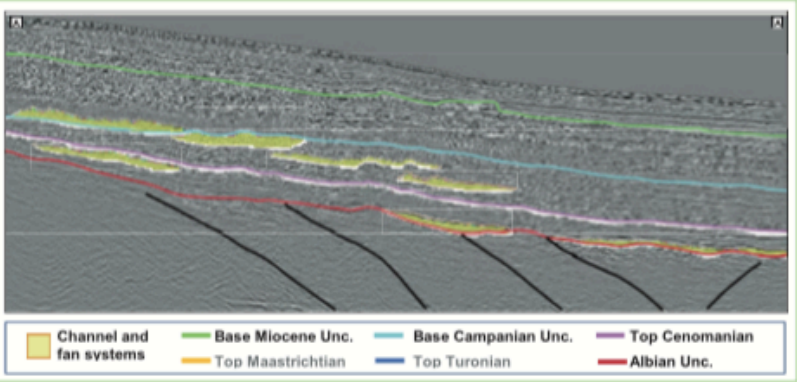
Source Rock: Source rocks are found in multiple Cretaceous intervals, with Albian to Cenomanian deep marine sediments; the best quality source rocks in the area. Turonian and Lower Senonian source rocks may be locally mature, mostly in the deep offshore.

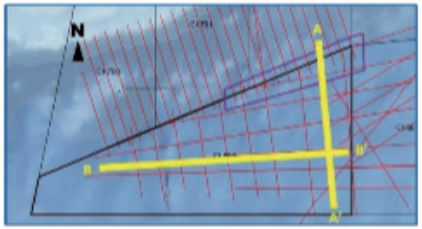
Trap: Traps are stratigraphic and/or structural. Stratigraphic trap mechanisms are characterized predominantly by channelized submarine fan systems. Hydrocarbons migrate vertically following fault systems or connected interbedded reservoirs and laterally.

Seal: Albian to Eocene marine shales provide good sealing capacity over the area.

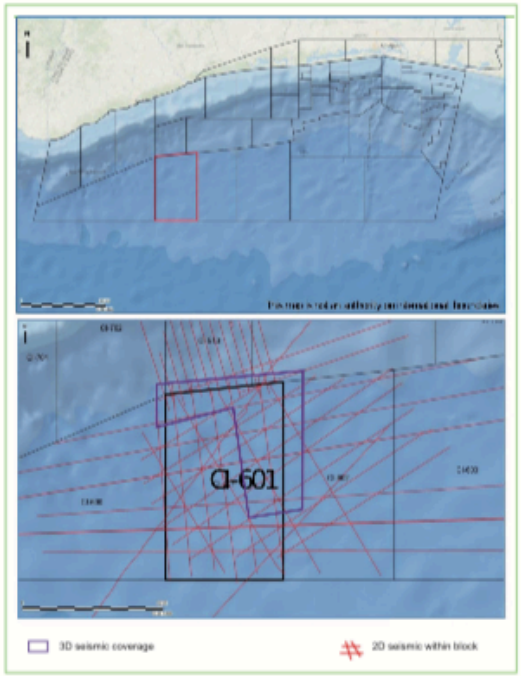
Block CI-600







Block CI-601



Overview
Area size: 3852 Km²
Location: Offshore San Pedro margin
Water depth: 3000 - 4200 m

Available Data
2D seismic: 2023 Km
Well: 0

Petroleum Systems

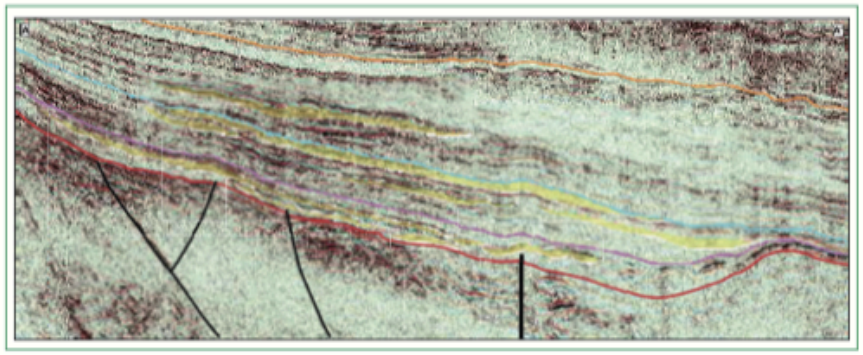
Reservoir: Main reservoirs include Turonian and Lower Senonian turbiditic and basin floor fans sandstones, analogous to the Jubilee play-types. These were deposited following large-scale erosion of the uplifted Côte d'Ivoire continental margin.

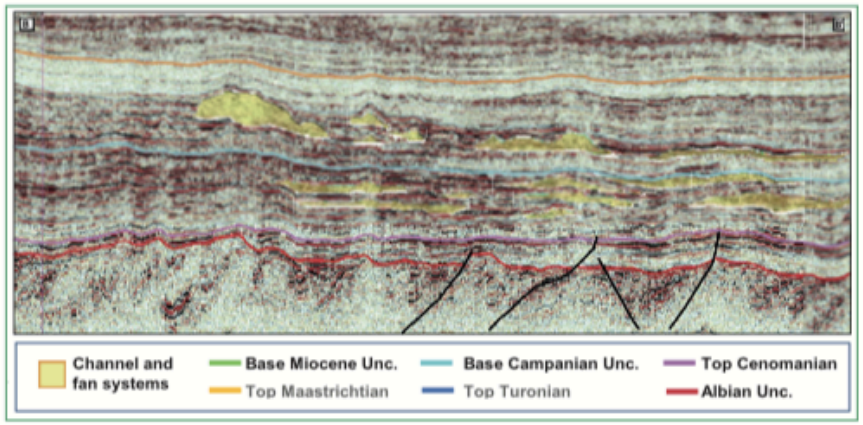
Source Rock: Source rocks are found in multiple Cretaceous intervals, with Albian to Cenomanian deep marine sediments; the best quality source rocks in the area. Turonian and Lower Senonian source rocks may be locally mature, mostly in the deep offshore

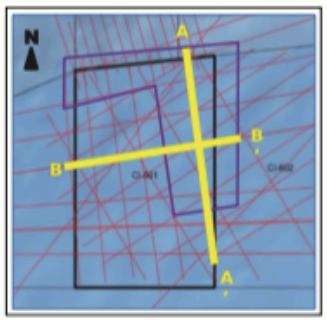
Trap: Traps are stratigraphic and/or structural. Stratigraphic trap mechanisms are characterized predominantly by channelized submarine fan systems. Hydrocarbons migrate vertically following fault systems or connected interbedded reservoirs and laterally.

Seal: Albian to Eocene marine shales provide good sealing capacity over the area.

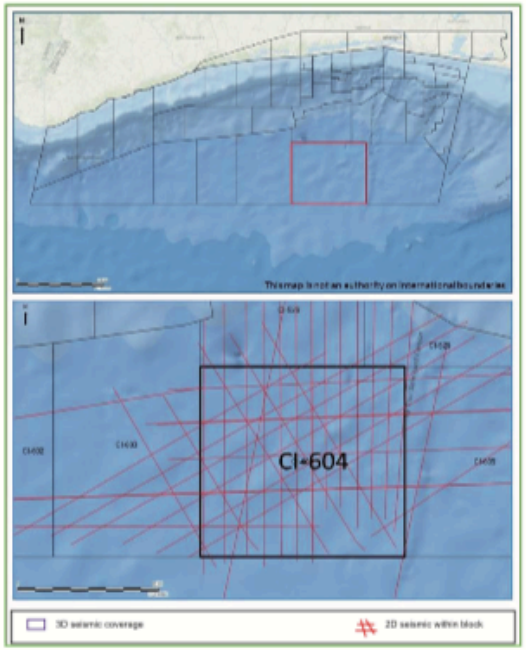
Block CI-601







Block CI-604



Overview
Area size: 6547 Km²
Location: Offshore Abidjan margin
Water depth: 3350 - 4100 m

Available Data
2D seismic: 2448 Km
Well: 0

Petroleum Systems

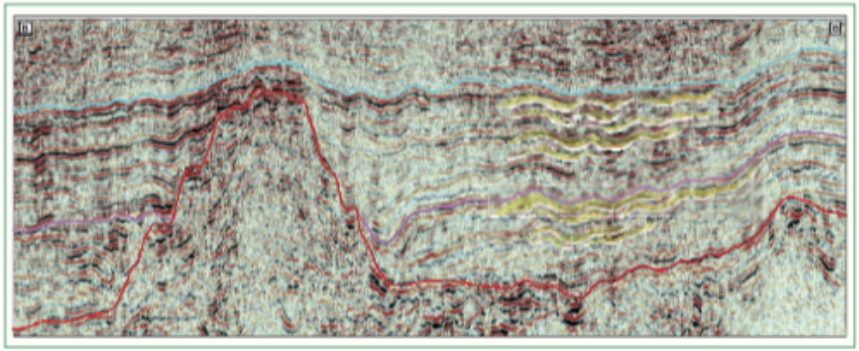
Reservoir: Main reservoirs include Turonian and Lower Senonian turbiditic and basin floor fans sandstones, analogous to the Jubilee play-types. These were deposited following large-scale erosion of the uplifted Côte d'Ivoire continental margin.

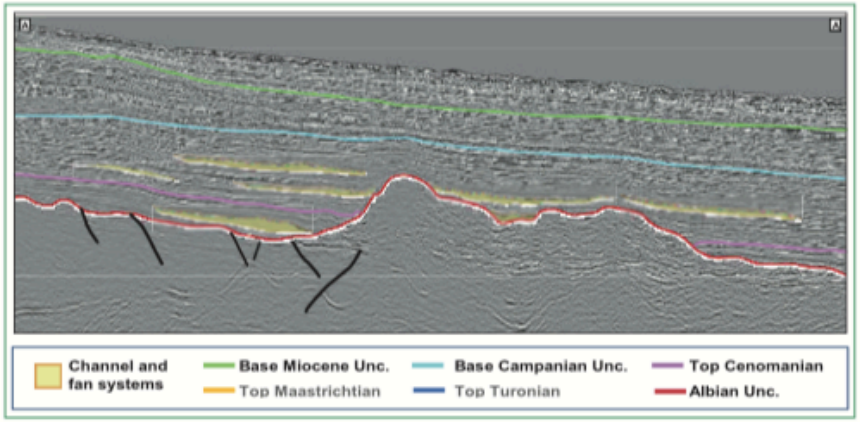
Source Rock: Source rocks are found in multiple Cretaceous intervals, with Albian to Cenomanian deep marine sediments; the best quality source rocks in the area. Turonian and Lower Senonian source rocks may be locally mature, mostly in the deep offshore.

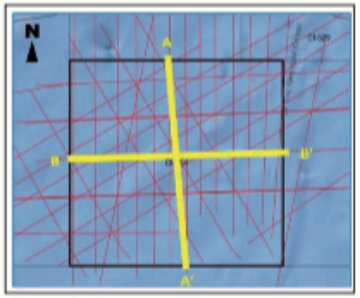
Trap: Traps are stratigraphic and/or structural. Stratigraphic trap mechanisms are characterised predominantly by channelised submarine fan systems. Leads are analogous to discoveries on the shelf to north of the CI-604. These are tilted fault blocks and Late Cretaceous stratigraphic traps, draped over older structural highs. Hydrocarbons migrate vertically following fault systems or connected interbedded reservoirs and laterally.

Seal: Albian to Tertiary marine shales provide good sealing capacity over the area.

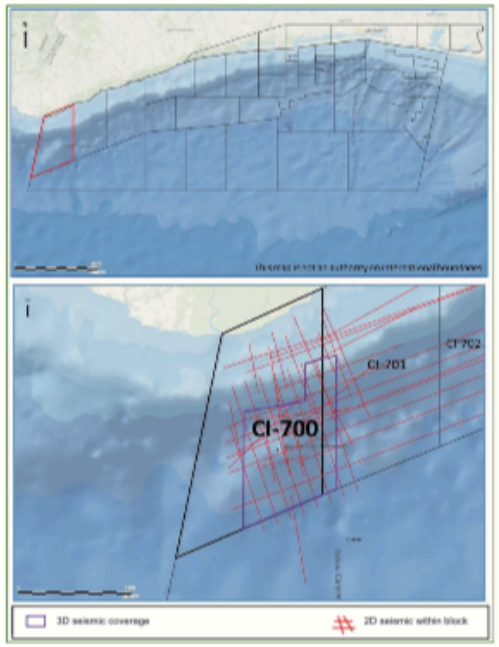
Block CI-604







Block CI-700



Overview
Area size: 3134 Km²
Location: Offshore San Pedro Margin
Water Depth: 0 - 3450 m

Available Data
2D seismic: 973 Km
3D seismic: 1123 Km²
Well: 0

Petroleum Systems

The block extends from the shelf to deep water on the San-Pedro Margin. The tectonic history of the area is dominated by the effects of shear faulting caused by the nearby St Paul Fault. Shear stresses have strongly deformed the area, leading to the formation of numerous normal faults and anticlines.

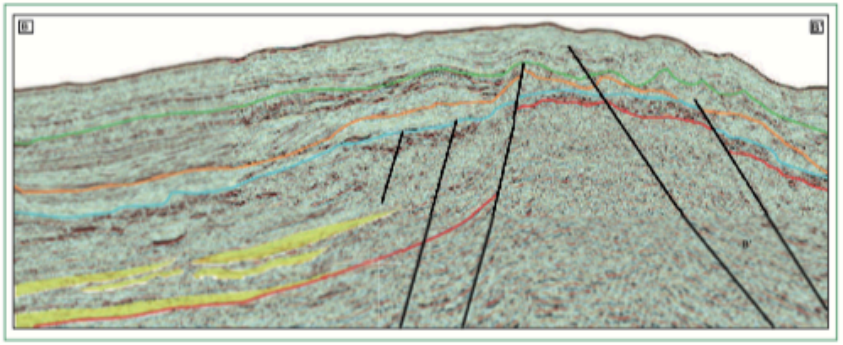
Reservoir: Sand-rich reservoir intervals have been identified in the Albian, Cenomanian and Turonian intervals. Thick sandstone reservoirs with interbedded claystones are expected.

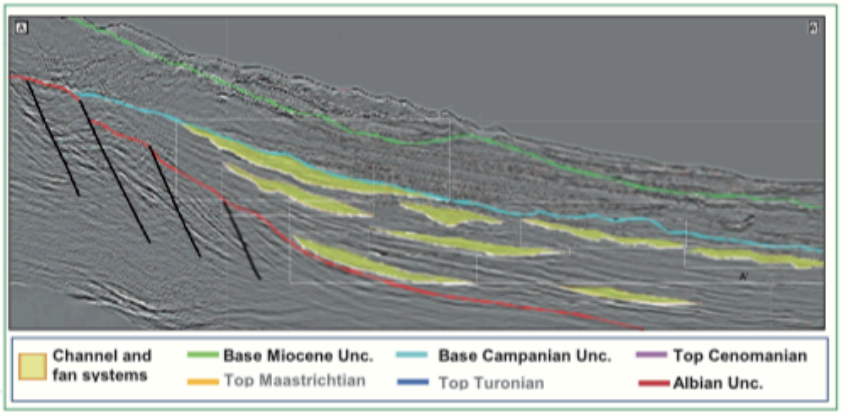
Source Rock: Albian and Cenomanian sediments form good quality source rocks in the deep offshore. They matured in the Early Tertiary, which post dates trap formation. Turonian and Lower Senonian source rocks may be locally mature, mostly deep offshore.

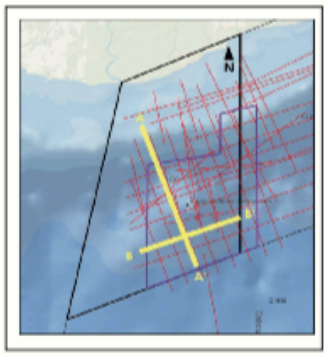
Trap: Trapping mechanisms are structural and/or stratigraphic. Albian structural traps developed during the Syn-rift phase and are tilted fault blocks or fault-bounded rollover anticlines with four-way dip closures. Stratigraphic traps formed mainly by up-dip pinchouts with fault support and lateral facies change. Structures formed early and were therefore present during hydrocarbon migration, which occurs vertically following fault systems or connected interbedded reservoir and laterally.

Seal: Albian to Paleocene marine shales provide good sealing capacity over the area.

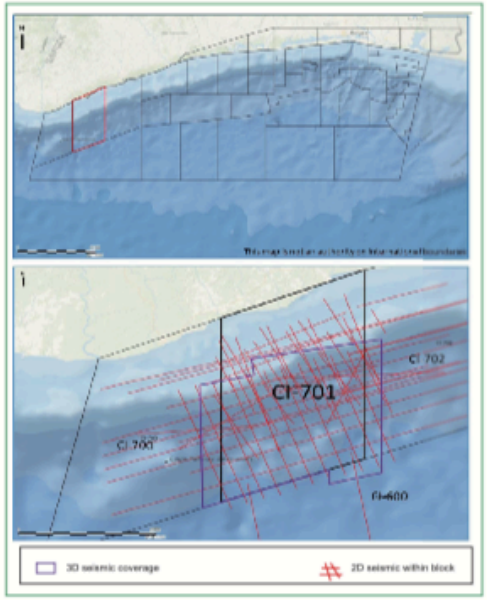
Block CI-700







Block CI-701



Overview
Area size: 3 049 Km²
Location: Offshore San Pedro Margin
Water Depth: 0 - 3200 m

Available Data
2D seismic: 1611 Km
3D seismic: 2011 Km²
Well: 0

Petroleum Systems

The block extends from the shelf to deep water on the San-Pedro Margin. The tectonic history of the area is dominated by the effects of shear faulting caused by the nearby St Paul Fault. Shear stresses have strongly deformed the area, leading to the formation of numerous normal faults and anticlines.

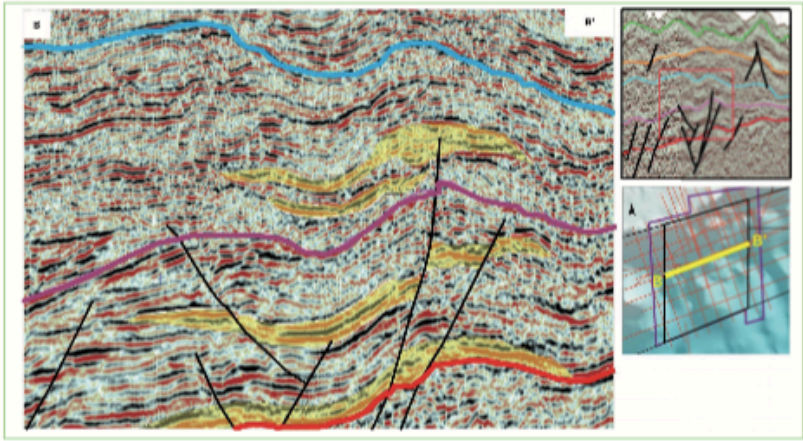
Reservoir: Upper Cretaceous sandstones are encountered with several pinchout geometries related to slope gradient changes. The nearby well San- Pedro-1X has also found good reservoir sandstones in the Albian.

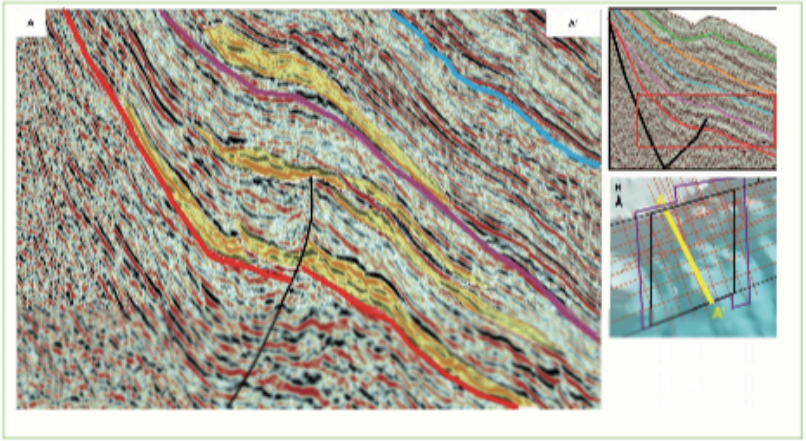
Source Rock: Albian and Cenomanian sediments form good quality source rocks in the deep offshore. They matured in the Early Tertiary, which post dates trap formation. Turonian and Lower Senonian source rocks may be locally mature, mostly deep offshore.

Trap: Trapping mechanisms are structural and/or stratigraphic. Albian structural traps developed during the Syn-rift phase and are tilted fault blocks or fault-bounded rollover anticlines with four-way dip closures. Stratigraphic traps formed mainly by up-dip pinchouts with fault support and lateral facies change. Structures formed early and were therefore present during hydrocarbon migration, which occurs vertically following fault systems or connected interbedded reservoir and laterally.

Seal: Albian to Paleocene marine shales provide good sealing capacity over the area.

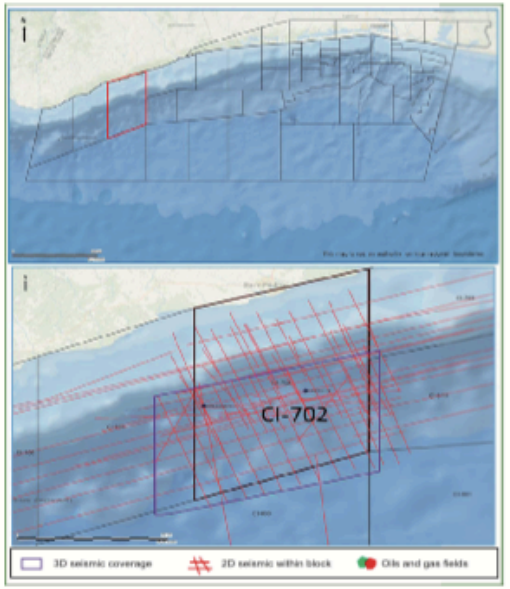
Block CI-701





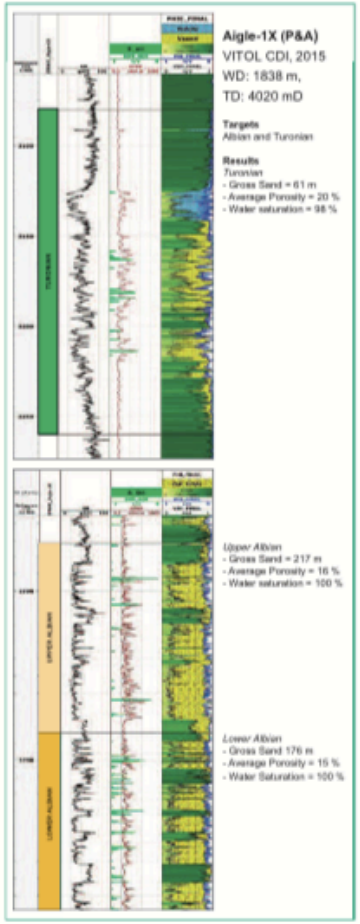
Channel and fan systems
Base Miocene Unc.
Top Maastrichtian
Base Campanian Unc.
Top Turonian
Top Cenomanian
Albian Unc.

Block CI-702



Overview
Area size: 3344 Km²
Location: Offshore San Pedro Margin
Water Depth: 0 - 3350 m

Available Data
2D seismic: 2069 Km
3D seismic: 1983 Km²
Wells: 2



Petroleum System

The block extends from the shelf to deep water on the San-Pedro Margin. The tectonic history of the area is dominated by the effects of shear faulting caused by the nearby St Paul Fault. Shear stresses have strongly deformed the area, leading to the formation of numerous normal faults and anticlines.

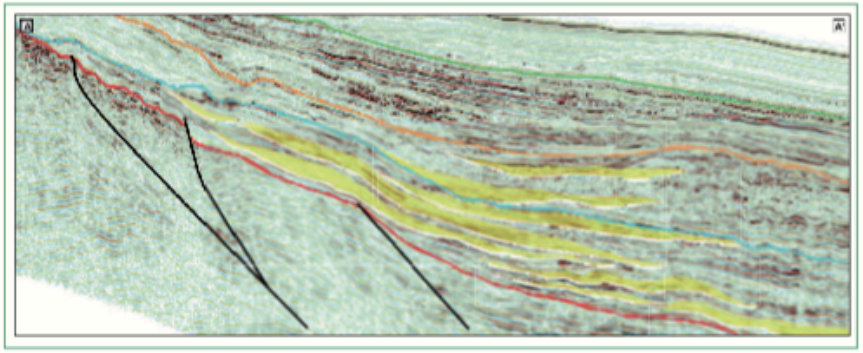
Reservoir: Upper Cretaceous sandstones are encountered with several pinchout geometries related to slope gradient changes. The nearby well San-Pedro-1X has also found good reservoir sandstones in the Albian.

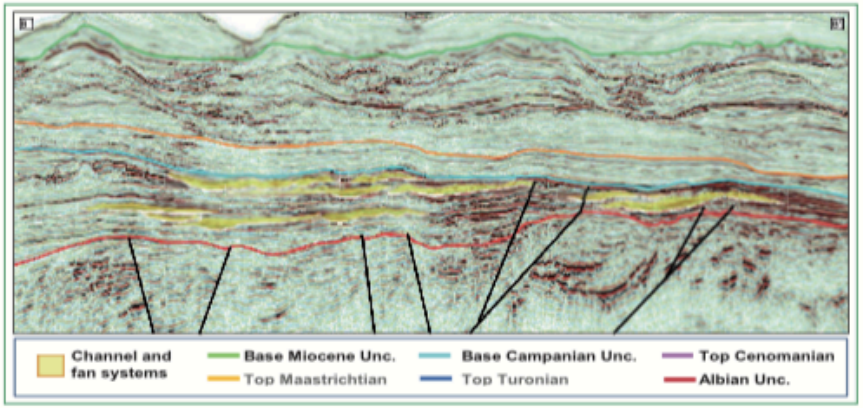
Source Rock: Albian and Cenomanian sediments form good quality source rocks in the deep offshore. They matured in the Early Tertiary, which post dates trap formation. Turonian and Lower Senonian source rocks may be locally mature, mostly deep offshore.

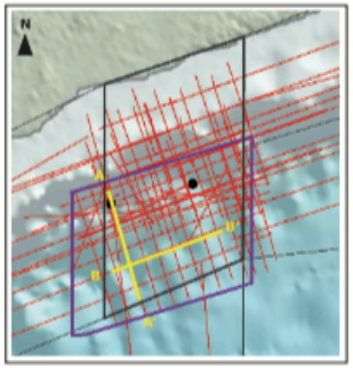
Trap: Trapping mechanisms are structural and/or stratigraphic. Albian structural traps developed during the Syn-rift phase and are tilted fault blocks or fault-bounded rollover anticlines with four-way dip closures. Stratigraphic traps formed mainly by up-dip pinchouts with fault support and lateral facies change. Structures formed early and were therefore present during hydrocarbon migration, which occurs vertically following fault systems or connected interbedded reservoir and laterally.

Seal: Albian to Paleocene marine shales provide good sealing capacity over the area.

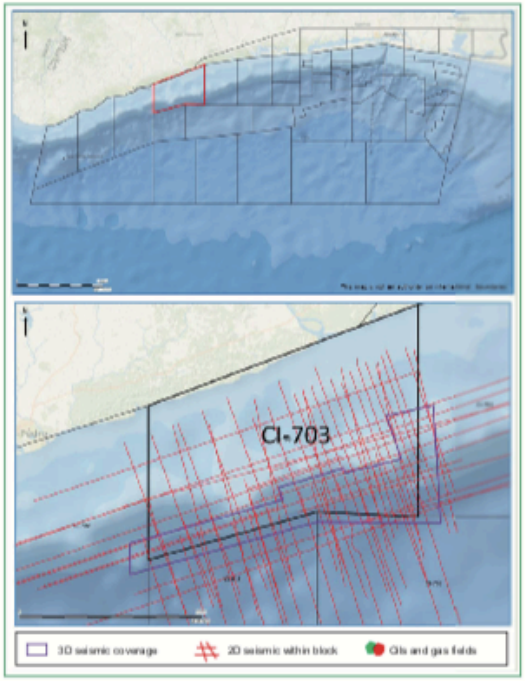
Block CI-702







Block CI-703



Overview
Area size: 2323 Km²
Location: Offshore San Pedro
Margin Water Depth: 0 - 1950 m

Available Data
2D seismic: 1442 Km
3D seismic: 505 Km_2

Well: 0

Petroleum Systems

The block is located on the shelf of the San-Pedro Margin, to the north of the Saphir discovery. The tectonic history of the area is dominated by the effects of shear faulting caused by the nearby St Paul Fault. Shear stresses have strongly deformed the area, leading to the formation of numerous normal faults and anticlines.

Reservoir: Reservoirs are found in the Albian to Campanian. Albian sediments are mainly continental clastics, while the post Albian series consists of widespread marine sediments which blanket the Albian tilted block topography.

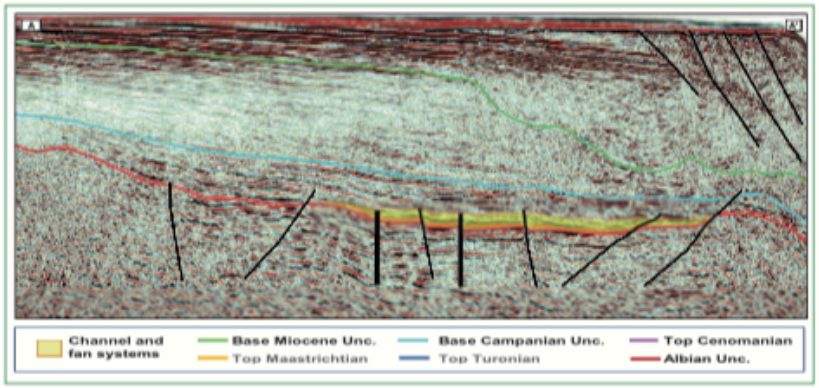
Source Rock: Source rock intervals have been identified in both the Albian and Cenomanian sequences. Albian source rocks are in the early oil mature window. Hydrocarbons seem not to be autochthonous, having migrated to their present locations.

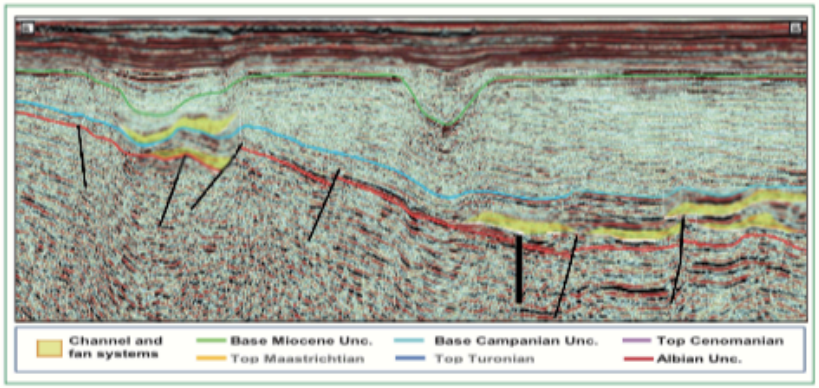
Trap: Trapping mechanisms are structural and/or stratigraphic. Albian structural traps developed during the Syn-rift phase and are tilted fault blocks or fault-bounded rollover anticlines with four-way dip closures. Stratigraphic traps formed mainly by up-dip pinchouts with fault support and lateral facies change. Structures

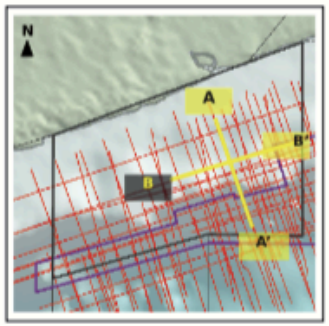
formed early and were therefore present during hydrocarbon migration, which occurs vertically following fault systems or connected interbedded reservoir and laterally.

Seal: Albian to Paleocene marine shales provide good sealing capacity over the area.

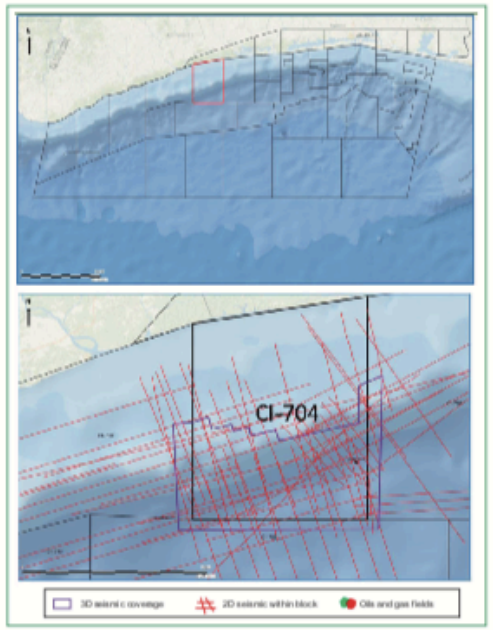
Block CI-703





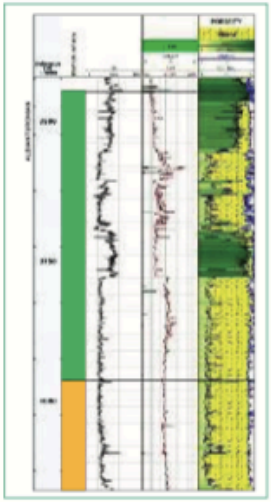


Block CI-704



Overview
Area size: 1962 Km²
Location: Offshore San Pedro margin
Water Depth: 0 - 2200 m

Available Data
2D seismic: 1297 Km
3D seismic: 863 Km²
Well: 1



SAUMON-1X Well (P&A)
ANADARKO CI, Exploration, 2014 WD:1539 m,
TD: 4179 m

Targets
Turonian

Results
Turonian section: 3450 m to 3962.5 m
- Gross Sand = 412 m
- Net Sand = 411 m
- Average Porosity = 12 %

Petroleum Systems

The block extends from the shelf to deep water on the San-Pedro Margin. Shear stresses have strongly deformed the area, leading to the formation of numerous normal faults and anticlines.

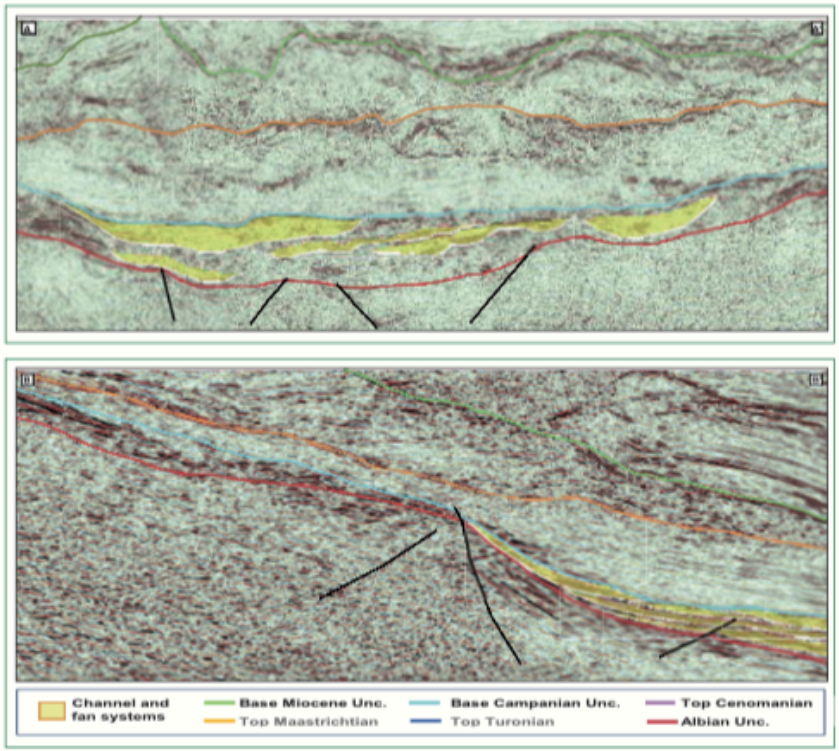
Reservoir: Reservoirs are found in the Albian to Campanian. Albian sediments are mainly continental clastics, while the post Albian series consist of widespread marine sediments which blanket the Albian tilted block topography.

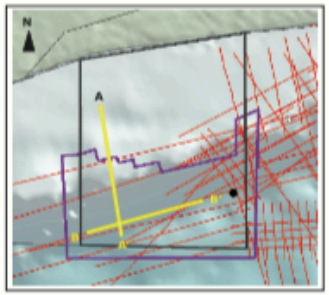
Source Rock: Albian and Cenomanian sediments form good quality source rocks in the deep offshore. They matured in the Early Tertiary, which postdates trap formation. Turonian and Lower Senonian source rocks may be locally mature, mostly deep offshore.

Trap: Trapping mechanisms are structural and/or stratigraphic. Albian structural traps developed during the Syn-rift phase and are tilted fault blocks or fault-bounded rollover anticlines with four-way dip closures. Stratigraphic traps formed mainly by up-dip pinchouts with fault support and lateral facies change. Structures formed early and were therefore present during hydrocarbon migration, which occurs vertically following fault systems or connected interbedded reservoir and laterally.

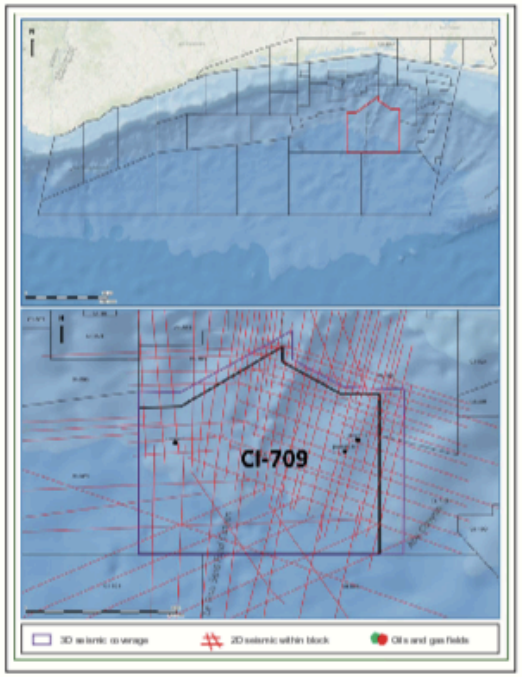
Seal: Albian to Paleocene marine shales provide good sealing capacity over the area.

Block CI-704





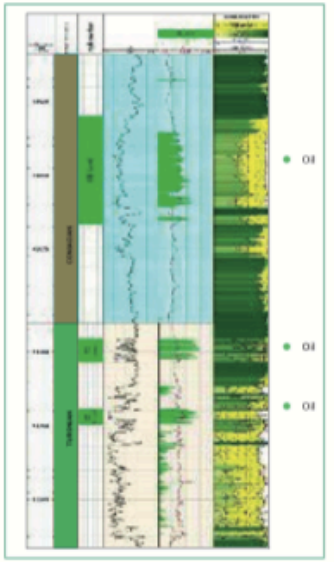
Block CI-709



Overview
Area size: 3481 Km²
Location: Offshore Abidjan Margin
Water Depth: 1850 - 3300 m

Available Data
2D seismic: 2233 Km
3D seismic: 3481 Km²
Wells: 3

Nearby Fields: Paon



Petroleum Systems

Reservoir: Located to the south of the Paon oil field, the main reservoirs are Turonian and Lower Senonian turbiditic and basin floor fan sandstones, analogous to the Jubilee play-types. Pelican-1X well encountered good quality reservoir in the Turonian and Coniacian, where oil was sampled.

Source Rock: Source rocks are found in multiple Cretaceous intervals. Albian and Cenomanian sediments form good quality source rocks in the deep offshore. They matured in the Early Tertiary, which post dates trap formation.

Trap: Trapping mechanisms are structural and/or stratigraphic. Stratigraphic traps are predominantly characterized by channelized submarine fan systems. This trapping style is analogous to the large Jubilee Field. Hydrocarbons migrate vertically following fault systems or connected interbedded reservoir and laterally.

Seal: Albian to Paleocene marine shales provide good sealing capacity over the area. A Santonian-Coniacian shale section identified in the deep-water wells of the Ivorian Basin indicate a "working" top and lateral seal.

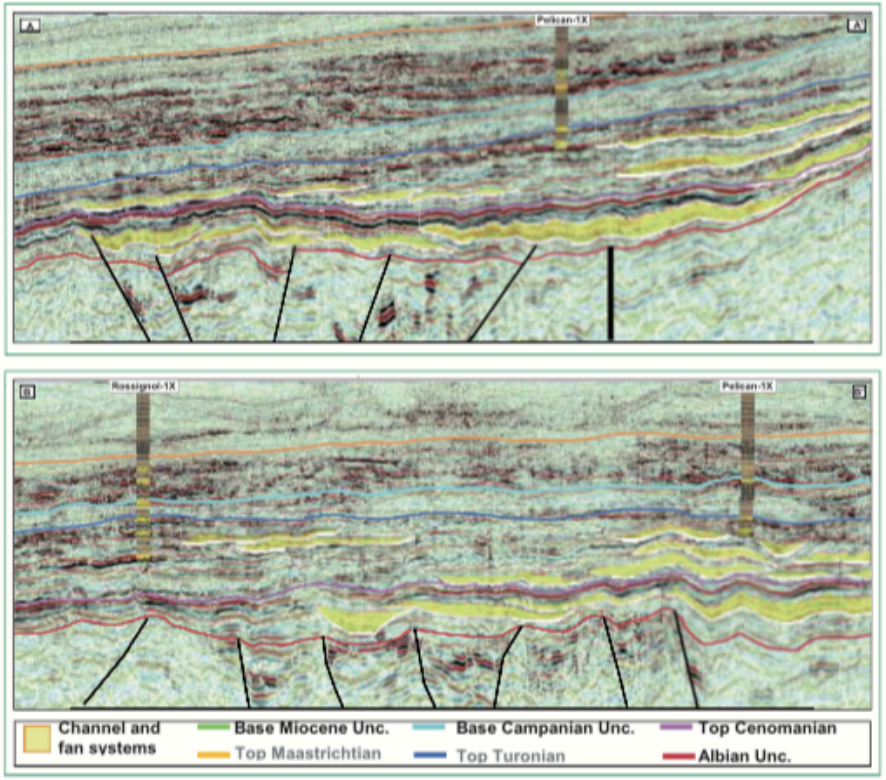
PELICAN-1X Well (P&A, Oil)
ANADARKO Exploration, 2016 WD: 2361 m, TD: 5353 m

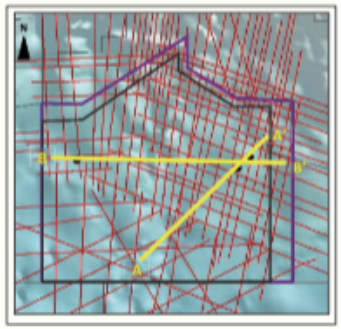
Targets
Coniacian and Turonian

Results
Coniacian section: 4930 m to 4970 m
- Net Sand = 31 m, Net Pay = 14 m
- Average Porosity = 13 %, Water saturation = 51 %
- Oil sample (44°, GOR 1129)

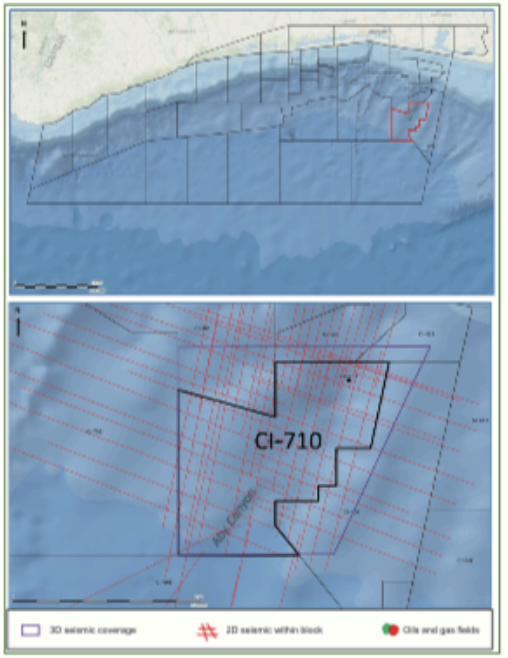
Turonian Section: 5120 m to 5224 m
- Gross Sand = 93 m, Net Sand = 21 m
- Net Pay = 5 m, Porosity = 19 %, SW: 45 %
- Oil sample (35.5°, GOR 1100)

Block CI-709





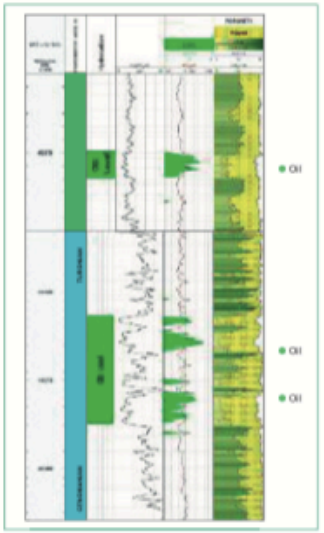
Block CI-710



Overview
Area size: 1339 Km²
Location: Offshore Abidjan Margin
Water depth: 1700 - 3150 m

Available Data
2D Seismic: 1298 Km
3D Seismic: 1339 Km²
Well: 1

Nearby Fields
Independance



IVOIRE-1X Well (P&A, Oil)
TOTAL CI Exploration, 2013, WD: 2281 m,
TD: 5044 m

Targets
Turonian and Cenomanian

Results
Turonian section: 4560 m to 4590 m
Gross Sand = 4 m, Net Sand = 4 m
Net Pay = 4 m
Average Porosity = 12 %

cenomanian Section: 4827.5 m to 4915 m
- Gross Sand = 28 m, Net Sand = 21 m
- Net Pay = 21 m
- Average Porosity = 13 %

Petroleum Systems

In deep water, CI-710 block is located to the East of the Abidjan Margin, beneath the south of the Independance oil field.

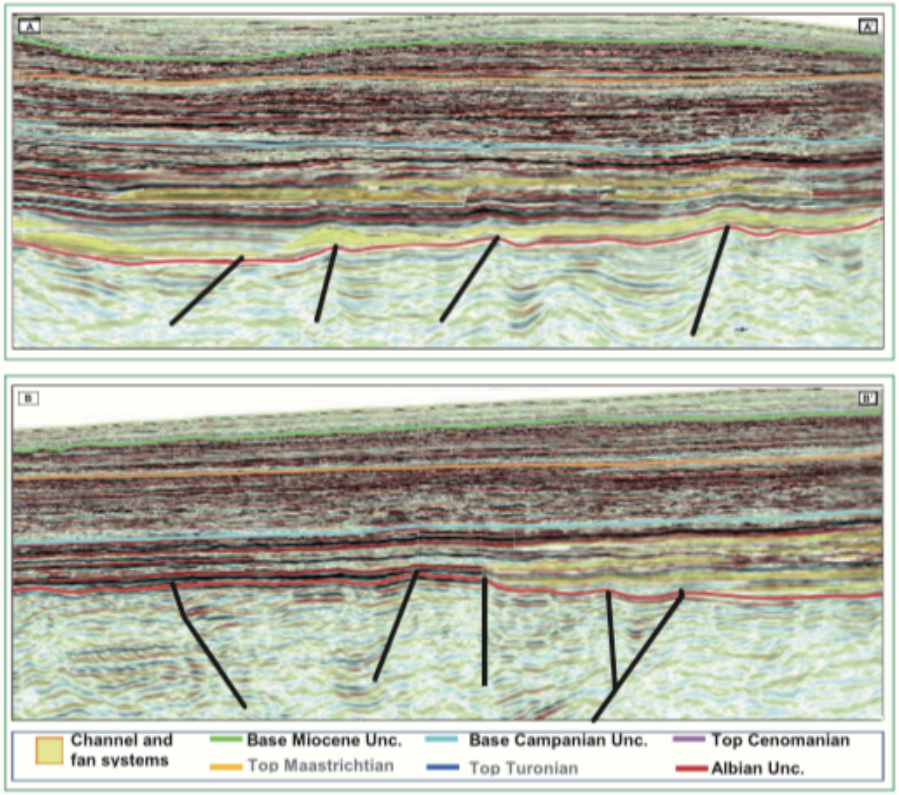
Reservoir: Main reservoirs are Turonian and Lower Senonian turbiditic and basin floor fan sandstones, analogous to the Tweneboa play-types. Ivoire-1X well encountered good quality reservoir in the Turonian, where oil was sampled.

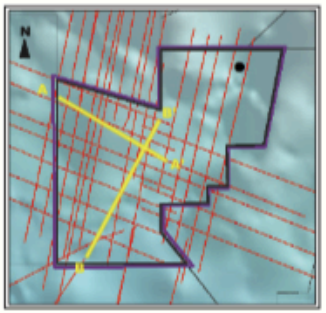
Source Rock: Source rocks are found in multiple Cretaceous intervals. Albian and Cenomanian sediments form good quality source rocks in the deep offshore. They matured in the Early Tertiary, which postdates trap formation. Nearby wells data indicate fair to good source potential for Cenomanian samples and suggest maturity equivalent to the oil generation window.

Trap: Trapping mechanisms are structural and/or stratigraphic. Stratigraphic traps are predominantly characterized by channelized submarine fan systems. This trapping style is analogous to the large Jubilee Field. Hydrocarbons migrate vertically following fault systems or connected interbedded reservoir and laterally.

Seal: Albian to Paleocene marine shales provide good sealing capacity over the area. A Santonian-Coniacian shale section identified in the deep water wells of the Ivorian Basin indicate a "working" top and lateral seal.

Block CI-710





PETROLEUM BLOCKS ALLOCATION PROCEDURE

Pursuant to the decree enforcing the Petroleum Code, oil blocks are allocated on the basis of a tender process or by means of direct negotiations.

The steps below describe the procedure to allocate petroleum blocks in Côte d'Ivoire :

a. Get access to the Data Room of Côte d'Ivoire hosted at PETROCI HOLDING (optional).

b. Address a letter of Expression of Interest to the Minister in charge of Hydrocarbons, targeting one (1) or more blocks, depending on the interest of the applicant company.

c. Approval by the Council of Ministers to start negotiations with the selected companies.

d. Negotiations between the applicant company and the ivorian party, including :

- The Ministry in charge of Hydrocarbons (General Directorate for Hydrocarbons);
- The Ministry in charge of Budget;
- The Ministry in charge of Economy and Finance;
- The national company PETROCI HOLDING.

In the event of direct negotiations, these shall cover the technical and economic contractual terms, in accordance with the PSC key term sheet.

In the event of a request for Invitation for Tender, the bids shall be relevant to specified technical and economic terms. The oil contracts in force in Côte d'Ivoire are the Production Sharing Contracts (PSC), the template (standard PSC) being made available to the oil company during the negotiations.

e. Brief the Council of Ministers on the conclusions of the negotiations in order to authorize the signature of the contract(s).

f. Contract(s) signed on a date agreed between the parties.

The effective date of the contract is the date of signature.

Signing the contract is deemed to be granting the exclusive exploration authorization, which is renewed under the conditions provided for in the contract.

PROCEDURE FOR DATA ROOM ACCESS

1 / A letter requesting access to the Data Room should be addressed to the attention of the Managing Director of PETROCI HOLDING, specifying the relevant area or blocks and the preferred dates on which the visit will be conducted, with a copy to the General Directorate for Hydrocarbons.

2 / On recept of this letter, PETROCI Holding shall notify the applicant with the available dates and the terms and conditions applicable to accessing the Data Room.

These terms and conditions include :

- o A confidentiality agreement, to be signed in two originals by the applicant ;
- o Visiting fees of US$5,000/day ;
- o Number of people limited to four (4) ;
- o Prohibition of documents copying/photographs.

3 / Once the confidentiality agreement has been signed and the bank transfer collected, PETROCI shall confirm the dates of access to the Data Room.

NB :

- PETROCI HOLDING shall return the original invoice (Data Room Access visit fees) and the original confidentiality agreement (signed by the General Manager) to the applicant during the visit.
- In the event of request for Expression of Interest or an Invitation to Tender, special conditions may be applicable.

4/ After consultation, and if the applicant wishes to acquire one or more blocks, the last must address a letter (Expression of Interest) to the Minister in charge of Hydrocarbons, with a copy to the General Manager of Hydrocarbons, on the block(s) detected.

MINISTRY OF PETROLEUM, ENERGY AND RENEWABLE ENERGY :
Attn : Mr Minister of Petroleum, Energy and Renewable Energy
IMMEUBLE SCIAM, 15e ETAGE
B.P. V 50 ABIDJAN, PLATEAU, CÔTE D'IVOIRE
Tel. : +225 2021 6046 / +225 2021 5003

GENERAL DIRECTORATE FOR HYDROCARBONS :
Attn : The General Manager
IMMEUBLE SCIAM, 5e ETAGE
B.P. V 42 ABIDJAN, PLATEAU, CÔTE D'IVOIRE
Tel. : +225 2021 3871

PETROCI HOLDING :
Attn : The General Manager
14, BOULEVARD CARDE,
IMMEUBLE LES HEVEAS
B.P. V 194 ABIDJAN, PLATEAU, CÔTE D'IVOIRE
Tel. : +225 2020 2500

PRODUCTION SHARING CONTRACT (PSC) : KEY TERMS

SECTIONS	KEY TERMS
Structure of Consortium	_____ : 90% (Operator) PETROCI : 10%
Duration of Exploration Periods (Art 3.1, 3.2, 3.3)	1st period : ...years 2nd period : ...years 3rd period : ...years Total : A maximum of 7 years for shallow to deep water blocks and a maximum of 9 years for ultra-deep water blocks
Surface Relinquishment (Art 3.5)	1st period : 25% 2nd period : 25% 3rd period : All the remaining surface area of the delineated Region excluding the apraisal and production perimeter.
minimum exploration Work commitment (Art 4.1, 4.2, 4.3, 4.4)	1st period : ...years _____ _____ 2nd period : ...years _____ _____ 3rd period : ...years _____ _____ Nota Bene : The exploratory drilling will have to reach the minimum depth of at least 100 metres in the Albien according to the contract.
Minimum Investment (Art 4.6)	1st period : _____ USD 2nd period : _____ USD 3rd period : _____ USD
Bank Guarantees (Art 4.8)	To ensure that the minimum work commitments are met, the operator must provide satisfactory irrevocable bank guarantees to the Government. Such guarantees must be provided no later than 30 days after the contract signing date for the 1st exploration period and at the beginning of the 2nd and 3rd exploration periods. Whenever the contractor fulfils the minimum work obligations, the value of the bank garanty, corresponding to the minimum investment, will be gradually reduced during the period.
Cost Recovery (oil and associated gas) (Art 16.2)	_____% of oil and gas production.

<table>
<tr><td>Profit oil
(Art 16.3)</td><td>
<table>
<tr><th>Daily Production Ranges</th><th>Contractors' share</th></tr>
<tr><td>0 to 50,000 bopd</td><td>_____% times H</td></tr>
<tr><td>50,001 to 100,000 bopd</td><td>_____% times H</td></tr>
<tr><td>100,001 to 150,000 bopd</td><td>_____% times H</td></tr>
<tr><td>Over 150,001 bopd</td><td>_____% times H</td></tr>
</table>
Production ranges in the table are indicative and will depend on water depth
The multiplier factor "H" is determined as follows:
- with a crude oil price of $50 to $200 per barrel: H = 1,629 - 0.141 Ln; Ln being the natural logarithm.
- with crude oil prices below $50 per barrel : H = 1.08
- with a crude oil price over $200 per barrel : H = 0.88
Actual prices deflated to december 2011
§ The State share in remaining production is equal to the remaining production minus the Contractor's share
§ When the cumulative production of crude oil reaches 20 million barrels, the contractor's share in the oil profit decreases by 0.5% times each applicable range - for example, 46% - 46% × 0.5% = 45.77%.
</td></tr>
<tr><td>Signature Bonus
(Art 19.1)</td><td>US$ _____</td></tr>
<tr><td>Cost Recovery (dry gas)
(Art 21.1.5)</td><td>_____% of dry gas production</td></tr>
<tr><td>Profit Gas
(Art 21.3.1)</td><td>
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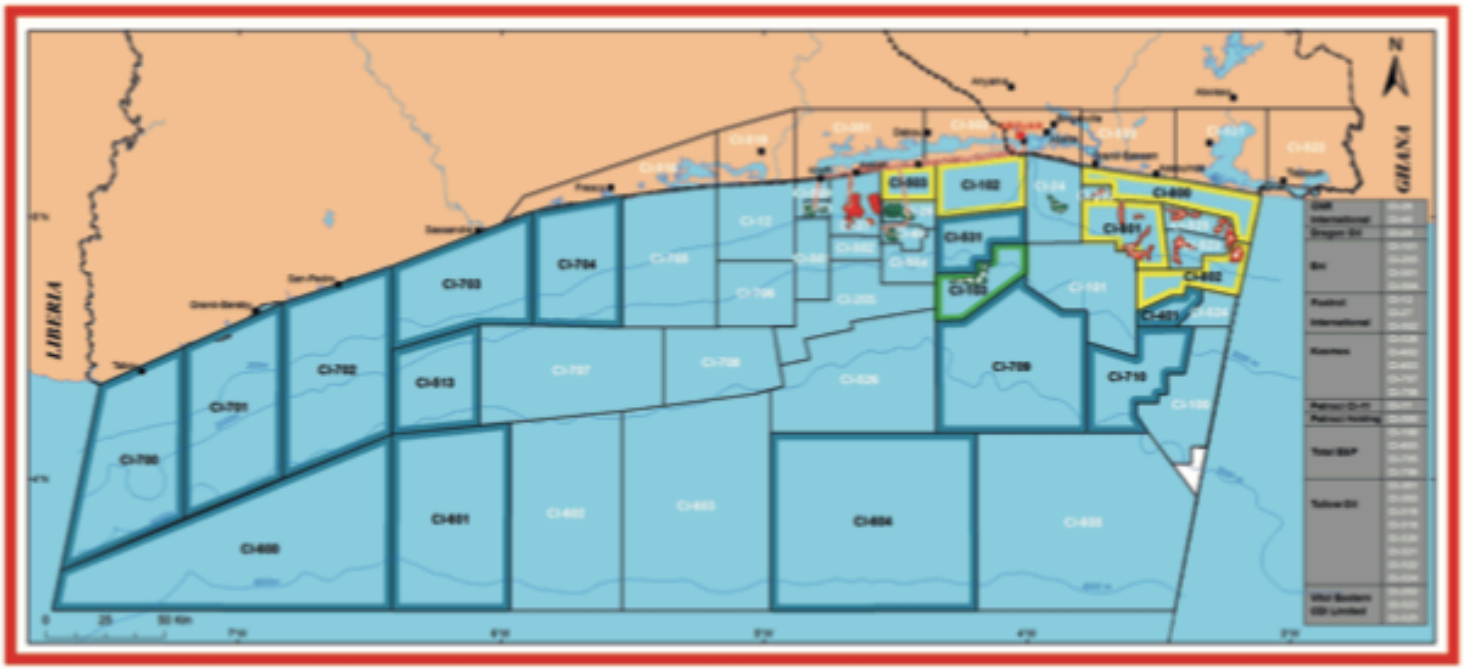
<tr><td>0 to 100 mmcf/day</td><td>...%</td><td>...%</td></tr>
<tr><td>101 to 250 mmcf/day</td><td>...%</td><td>...%</td></tr>
<tr><td>251 to 500 mmcf/day</td><td>...%</td><td>...%</td></tr>
<tr><td>above 500 mmcf/day</td><td>...%</td><td>...%</td></tr>
</table>
The production ranges in the table are indicative and will depend on water depth
</td></tr>
<tr><td>PETROCI Share
(Art 22)</td><td>10% initial stakeholding +...% additional</td></tr>
<tr><td>Employment and Staff
(Art 30)</td><td>It shall be the contractor's objective to employ at least :
- 60% Ivorians on the anniversary date of commercial production
- 80% Ivorians, no later than three years after the start of commercial production.
- 90% Ivorians, no later than 5 years after the start of commercial production.
In the event of non-compliance with one of the above objectives, the contractor, except PETROCI, will pay an additional annual amount of $500,000 in training budget until the above objectives are met.</td></tr>
<tr><td>Annual for budget training
(Art 30)</td><td>- US$ _____ / year during exploration period
- US$ _____ / year during production period
The non-spent budget remains valid for the following years.</td></tr>
<tr><td>Annual Budget for Equipment
(Art 30)</td><td>- US$ _____ / year during exploration period
- US$ _____ / year during production period
The non-spent budget remains valid for the following years.</td></tr>
<tr><td>Annual Budget for Social Works
(Art 30)</td><td>- US$ _____ / year during exploration period
- US$ _____ / year during production period
The non-spent budget remains valid for the following years.</td></tr>
</table>

REPUBLIC OF CÔTE D'IVOIRE
PETROLEUM EXPLORATION CONCESSIONS



- CONCESSIONS UNDER CALL FOR EXPRESSION OF INTEREST
- OPENED CONCESSIONS
- AWARDED CONCESSIONS
- CONCESSIONS UNDER NEGOTIATION
- PRODUCING OIL FIELDS
- OIL FIELDS TO BE PRODUCED
- DEPLETED OIL FIELDS
- PRODUCING GAS FIELDS
- GAS FIELDS TO BE PRODUCED
- PIPELINES

"THIS MAP IS NOT AN AUTHORITY ON INTERNATIONAL BOUNDARIES"

NOVEMBER 2019

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