









Block 7 N. Thekah offshore





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About The Block

Location: N. Thekah offshore block is located at about 56 km to the north of the Mediterranean shore line, 85 km to the north west of El Arish city. The block is bounded from the south by Thekah offshore concession and from west by North Tineh and North Hap'y offshore concessions.

Total Area: 3750 Km²

Water Depth: 400 - 1400 m

Seismic Surveys

- : 2D Seismic lines (approx. 1580 Km)
- : 3D seismic survey (approx. 1080 Km²)

Data review and Purchase form EGAS

Previous Concessionaire : BG & IEOC / Tharwa .

Nearby Fields & Discoveries: Mango-1, Tineh-1 oil discoveries, N. Bardawil, Tao and Thekah gas fields.









Block-7 N. Thekah offshore Latitude (North) Longitude (East) No. 32° 30" 17' 1 00" 33° 42.7" 2 32° 23" 39" 33° 22' 5.8" 17" 33° 26' 46.8" 3 32° 00" 50" 33° 26' 4 31° 00" 00" 33° 16' 5 31° 50" 00" 00" 31° 33° 16' 00" 6 48" 00" 7 31° 48" 33° 13' 00" 00" 31° 44" 00" 33° 13' 00" 8 9 31° 44" 00" 33° 04' 00" 10 45" 33° 04' 00" 31° 00" 11 31° 45" 32° 58' 00" 00" 32° 12 31° 46" 00" 58' 00" 13 31° 46" 00" 32° 54' 00" 51" 32° 14 31° 00" 54' 00" 15 51" 57' 31° 00" 32° 00" 16 53" 32° 57' 31° 00" 00" 17 31° 53" 00" 32° 54' 00" 30" 32° 54' 32° 00" 00" 18 **Excluded Area (B)** 00" 1 31° 56' 33° 01' 00" 2 31° 54' 33° 01' 00" 00" 3 31° 54' 00" 33° 05' 00" 31° 53' 33° 05' 00" 4 00" 5 53' 33° 11' 31° 00" 00" 56' 33° 11' 6 31° 00" 00" 7 31° 56' 00" 33° 15' 00" 59' 33° 15' 8 31° 00" 00" 59' 00" 33° 10' 9 31° 00" 10 31° 56' 33° 00" 10' 00"





SEISMIC DATA

A) <u>"2D" SEISMIC DATA (Segy Standard Format)</u>

Survey Name	Digital 2D Data (Km)	No. of Seismic lines
bp NDO	399	8
S99DW	274	5
S2001DW	691	14
S2008DW	55	1
TGS	161	3
TOTAL	1580	31

B) <u>"3D" SEISMIC DATA (Segy Standard Format)</u>

Total Selected Sq. Km	Remarks	
1080 Km²	IEOC	
	Total Selected Sq. Km 1080 Km ²	







PRICE LIST									
Block No.	Block Name	Area (Km²)	Principal Data Package		3D Surveys				
			2D Total Line Km	Drilled Wells	Price US\$	3D Survey Km ²	Price US\$		
7	N. Thekah offshore	3750	1580	-	66530	1080 (Thekah N. Sinai - 2007)	594100		

- Data Package for each block in digital format will be available at EGAS premises at prices as shown in the above table.

- Technical reports for all wells are available for purchase at: (\$1100 for hard copy and \$1200 for digital format per well)

- Final geological reports for all wells are available for purchase at: (\$1500 for hard copy and \$1700 for digital format per well)
- Data review will be available at EGAS premises using Geographix Software (Seisvision, Prizm & Geoatlas) at cost:

10% of total price of the principal data package (2D and well logs) with a minimum of \$2000/block

10% of total price of request 3D seismic survey

- In case of data purchase after review, review fees will be deducted from the total purchase price

Plio-Pleistocene Play Concept:

The Eastern Mediterranean Plio-Pleistocene play is controlled by the WNW-ESE Syn-depositional growth faulting that controls the deltaic sediments distributions of shelf and slope environments and the trapping of the reservoir rather than the generated gas. The Plio-Pleistocene play is mainly gas accumulation in stratigraphic and structural traps generally associated with clear Direct Hydrocarbon Indicator (DHI) in the seismic reflecting section. This play was already drilled and proved the presence of gas accumulations in Thekah and Thekah North wells drilled in the adjacent concession.

Source:

The Plio-Pleistocene sediments provide an excellent source rocks for gas. This gas is mainly of biogenic origin and composed mainly of Methane, with very low content of heavier components.

Reservoir:

The reservoir sands of this play deposited during the activities of the Plio-Pleistocene deep marine system as channel complex and over bank deposits.

Trapping:

The combined Channel fill stratigraphic features associated with faultinduced roll over structures created the main entrapment mechanism and configurations within the Plio-Pleistocene growth faulting belts. The biogenic gas accumulation require early trap development, due to its generation took place shortly after deposition.

GENERALIZED STRATIGRAPHIC COLUMN



Sealing:

The massive shale of deep marine deposits provide the main seal for both top and lateral sealing for the reservoirs of the Plio-Pleistocene sand levels as proven by the results of wells drilled in the Thekah and Thekah North area.

<u>Charging:</u>

Biogenic gas occurrences are mainly located in the offshore Eastern Mediterranean in the shallow Plio-Pleistocene basin. The charging is mainly inferred across fault with possible contributions through permeable lithology. The high sedimentation rate turns in considerable thickness of target reservoir sands and source shale of deep marine facies. Thick regional cap rock secured the sealing efficiency and provided the generation potential of the dry gas. All these factors are composing the main play elements within the Plio-Pleistocene sub-basin.



Eocene – Upper Cretaceous Play Concept:

The main objective of this play is the porous carbonates of Eocene/ Upper Cretaceous age and this play is anticipated to be found in the part (B) located in the eastern part of El Arish concession ,where thick section of these carbonates (278 m) was penetrated by Mango-1 well.

<u>Source :</u>

Late-Middle Jurassic and/or lower Cretaceous shale are considered as main source rocks.

Reservoir:

Porous carbonates of excellent porosity and permeability.

Trapping:

Stratigraphic traps provide the main trapping style.

Sealing:

Oligocene and Miocene shales act as a good sealing.

Charging:

It is highly anticipated that the reservoir in the block is charged through the planes of deep seated faults.



Early Cretaceous Play Concept:

This play was already proved in El Arish concession by Mango-1 well. A total of 332 m gross reservoir quality sandstone, subdivided into 7 sandstone Bodies have been drilled. Two sand bodies have been found oil bearing and tested 10,000 BOPD and 4.5 MMSCFG/d. the well bottomed at 4656 m in Middle Jurassic section. An Early Cretaceous lead in the study area is located Just to the north west of Mango structure and exhibits the characteristic of classic Syrian Arc inversion structure.

Source:

Early Cretaceous and Middle Jurassic shales are considered the excellent source rock for gas and oil generation and proved by Mango oil and gas discovery.

Reservoir:

The lower Cretaceous sand represents sub-marine fan delta and channelized system that have been deposited in an outer shally slope environment. Sandstone of early Cretaceous age are considered the main Reservoir rock in this block, where Mango-1 well penetrates several bodies of Sandstone with average porosity ranges from 16-26 %. Significant oil and gas shows have been recorded from these Sandstone.

Trapping:

Two type of traps are existing in this block ; stratigraphic trap and faulted anticline structure trap.

Sealing:

Good sealing capacities are represented by thick shale / carbonate section deposited above this reservoir rocks.

Charging:

Charging is carrying out vertically through the fault planes from deep seated source rocks.

MANGO-1 STRATIGRAPHIC COLUMN

