

EL QA'A PLAIN BLOCK

Exploration history:

Drilling activity in the area dates back to the late sixties - early seventies when the General Petroleum Company (GPC) drilled El Tor-1 well in 1965 on the southern extension of the El Tor horst. Several wells were drilled both onshore and offshore between 1967 and 1977 by various operators during the Israeli occupation.

Israel drilled three wells (Yoram-1, El Tor-4 & Gili-1); Yoram-1 well was found as oil producer in basal Miocene. (Non comm.), and the other two wells are dry holes.

During 1980-1984, Most of the area was covered by three companies:

- 1- BP (Sabil Concession) which drilled 2 wells, Sabil-1 and Abu Raya-2.*
- 2- Conoco (El Qaa Concession) which drilled 3 wells, Isla-1, Safariat-1 and Ashiera-1.*
- 3- Agip (Feiran Concession) which drilled 2 wells, Wadi Feiran-1 and Wadi Feiran-2*

There was a lack of activities in this block from that time.

Seismic Data

The seismic data coverage in the area comes largely from the recent joint BP/Conoco vibroseis survey (Qs-80). Additional data comes from the data made by Israel National Oil Company. The BP/Conoco lines are of good quality and provide both structural and stratigraphic information.

Western Arabian Geophysical Company executed a vibroseis reflection survey in both Conoco and BP concession. A total of 1683 surface kilometers were recorded. The area did not present any particular problems.

Source Rocks:

Late Cretaceous and Eocene Carbonate and Shale are generally considered good oil source rocks.

Reservoirs:

Porous sandstone reservoirs in Nukhul, Upper Cretaceous and Nubian sections are considered good reservoirs in El Qaa area.

1. Nukhul Reservoir

In Abu Raya-1 well penetrated 38 m gross Nukhul Formation clastics in fault contact with basement. Some 11 m net Calcareous sand occurs with porosity averaging 17%.

Permeabilities are relatively low as no free flow of low gravity oil (14 API).

Gili-1 well penetrated 11 m net sand in Nukhul below the Nukhul shale/anhydrate which could act as a cap rock for a possible pinch out. Porosity average 22%.

2. Upper Cretaceous Reservoir

Gili-1 penetrated 12 m net sand in the Matulla Formation which has average porosity of 24% and an additional 12 m in the Wata/Raha Formation with an average porosity of 20%.

3. Nubia Reservoir

Thick porous sandstone occurs regionally beneath the upper Cretaceous in some places in the area. Porosity and permeability are likely to be moderate to good.



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LOCATION :

The block is located in the Southwestern part of Sinai on the Gulf of Suez shore line.

TOTAL AREA : 1823.5 Km² .

NEARBY FIELDS :

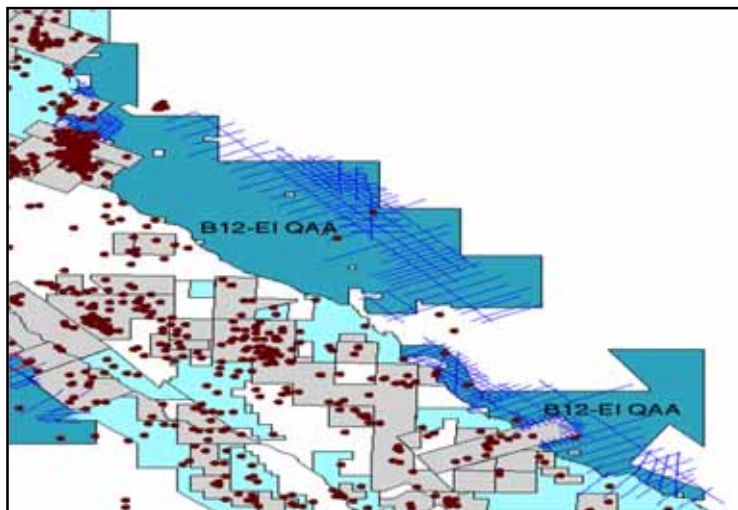
Feiran, Belayim land, Abu Durba, GS 327, Ekma, Ghara and Shoab Ali oil fields .

Coordinates

BLOCK-I				BLOCK-II			
LAT.	LONG.	LAT.	LONG.	LAT.	LONG.	LAT.	LONG.
1 - 28° 01' 00.00"	33° 18' 00.00"	34- 28° 25' 25.00"	32° 23' 00.00"	1 - 28° 12' 00.00"	34° 00' 00.00"	8 - 27° 53' 50.00"	33° 58' 20.00"
2 - 28° 42' 50.00"	33° 18' 00.00"	35- 28° 25' 25.00"	32° 23' 00.00"	2 - 27° 58' 35.00"	34° 00' 00.00"	9 - 27° 53' 50.00"	33° 58' 20.00"
3 - 28° 43' 20.00"	33° 17' 30.00"	36- 28° 25' 55.00"	33° 23' 00.00"	3 - 28° 02' 35.00"	33° 57' 20.00"	10- 27° 53' 50.00"	33° 57' 40.00"
4 - 28° 43' 00.00"	33° 16' 30.00"	37- 28° 25' 55.00"	33° 20' 05.00"	4 - 27° 57' 30.00"	33° 54' 20.00"	11- 28° 00' 00.00"	33° 57' 45.00"
5 - 28° 41' 50.00"	33° 17' 30.00"	38- 28° 28' 50.00"	33° 20' 05.00"	5 - 27° 54' 05.00"	34° 00' 00.00"	12- 27° 58' 52.00"	33° 47' 58.00"
6 - 28° 41' 50.00"	33° 24' 00.00"	39- 28° 28' 50.00"	33° 20' 05.00"	6 - 27° 52' 50.00"	34° 00' 00.00"	13- 28° 01' 14.91"	33° 50' 53.81"
7 - 28° 39' 05.00"	33° 24' 00.00"	40- 28° 28' 50.00"	33° 17' 09.35"	7 - 27° 52' 50.00"	34° 00' 00.00"	14- 28° 03' 38.33"	33° 49' 27.88"
8 - 28° 39' 05.00"	33° 23' 00.00"	41- 28° 32' 45.42"	33° 17' 09.35"	8 - 27° 52' 50.00"	34° 00' 00.00"	15- 28° 02' 08.81"	33° 48' 07.78"
9 - 28° 38' 35.00"	33° 23' 00.00"	42- 28° 35' 15.05"	33° 17' 09.35"	9 - 27° 53' 50.00"	33° 58' 20.00"	16- 28° 04' 40.00"	33° 43' 45.00"
10- 28° 38' 35.00"	33° 24' 00.00"	43- 28° 35' 06.32"	33° 17' 24.12"	10- 27° 53' 50.00"	33° 57' 40.00"	17- 28° 04' 40.00"	33° 43' 45.00"
11- 28° 36' 00.00"	33° 24' 00.00"	44- 28° 36' 33.88"	33° 16' 31.85"	11- 28° 00' 00.00"	33° 57' 45.00"	18- 28° 04' 40.00"	33° 43' 45.00"
12- 28° 36' 00.00"	33° 36' 00.00"	45- 28° 38' 02.34"	33° 16' 03.63"	12- 27° 58' 52.00"	33° 47' 58.00"	19- 28° 09' 40.00"	33° 40' 45.00"
13- 28° 30' 00.00"	33° 36' 00.00"	46- 28° 38' 29.25"	33° 16' 23.61"	13- 28° 01' 14.91"	33° 50' 53.81"	20- 28° 09' 40.00"	33° 40' 45.00"
14- 28° 30' 00.00"	33° 42' 00.00"	47- 28° 40' 36.52"	33° 12' 50.39"	14- 28° 03' 38.33"	33° 49' 27.88"	21- 28° 10' 20.00"	33° 40' 45.00"
15- 28° 24' 00.00"	33° 42' 00.00"	48- 28° 41' 15.00"	33° 13' 10.00"	15- 28° 02' 08.81"	33° 48' 07.78"	22- 28° 11' 20.00"	33° 39' 15.00"
16- 28° 24' 00.00"	33° 48' 00.00"	49- 28° 41' 15.00"	33° 14' 29.85"	16- 28° 04' 40.00"	33° 43' 45.00"	23- 28° 10' 30.00"	33° 39' 15.00"
17- 28° 17' 20.00"	33° 48' 00.00"	50- 28° 42' 24.00"	33° 14' 29.85"	17- 28° 04' 40.00"	33° 43' 45.00"	24- 28° 12' 30.00"	33° 30' 00.00"
18- 28° 17' 20.00"	33° 40' 55.00"	51- 28° 41' 05.33"	33° 14' 29.85"	18- 28° 04' 40.00"	33° 43' 45.00"	25- 28° 12' 30.00"	33° 30' 00.00"
19- 28° 17' 45.00"	33° 40' 55.00"	52- 28° 43' 25.22"	33° 13' 38.86"	19- 28° 09' 40.00"	33° 40' 45.00"	26- 28° 09' 40.00"	33° 42' 15.00"
20- 28° 17' 45.00"	33° 39' 55.00"	53- 28° 45' 00.96"	33° 13' 38.86"	20- 28° 09' 40.00"	33° 40' 45.00"	27- 28° 06' 43.00"	33° 42' 50.00"
21- 28° 18' 20.00"	33° 39' 55.00"	54- 28° 44' 49.00"	33° 13' 38.86"	21- 28° 10' 20.00"	33° 40' 45.00"	28- 28° 06' 45.00"	33° 50' 00.00"
22- 28° 18' 20.00"	33° 38' 30.00"	55- 28° 45' 25.00"	33° 14' 25.00"	22- 28° 11' 20.00"	33° 39' 15.00"	29- 28° 07' 05.00"	33° 50' 00.00"
23- 28° 18' 35.00"	33° 38' 30.00"	56- 28° 45' 25.00"	33° 14' 25.00"	23- 28° 10' 30.00"	33° 39' 15.00"	30- 28° 12' 00.00"	33° 52' 40.00"
24- 28° 18' 35.00"	33° 35' 05.00"	57- 28° 47' 00.00"	33° 14' 25.00"	24- 28° 12' 30.00"	33° 40' 25.00"		
25- 28° 18' 55.00"	33° 35' 05.00"	58- 28° 47' 00.00"	33° 13' 23.00"	25- 28° 12' 30.00"	33° 40' 25.00"		
26- 28° 18' 55.00"	33° 34' 40.00"	59- 28° 47' 25.00"	33° 13' 09.62"	26- 28° 09' 40.00"	33° 42' 15.00"		
27- 28° 18' 30.00"	33° 34' 40.00"	60- 28° 47' 55.00"	33° 14' 05.00"	27- 28° 06' 43.00"	33° 42' 50.00"		
28- 28° 18' 30.00"	33° 36' 05.00"	61- 28° 48' 08.88"	33° 14' 55.00"	28- 28° 06' 45.00"	33° 50' 00.00"		
29- 28° 18' 18.00"	33° 36' 05.00"	62- 28° 48' 18.00"	33° 14' 55.00"	29- 28° 07' 05.00"	33° 50' 00.00"		
30- 28° 18' 15.00"	33° 34' 30.00"	63- 28° 48' 15.00"	33° 14' 25.00"	30- 28° 12' 00.00"	33° 52' 40.00"		
31- 28° 18' 30.00"	33° 34' 30.00"	64- 28° 49' 43.00"	33° 13' 24.12"				
32- 28° 18' 30.00"	33° 33' 30.00"	65- 28° 49' 43.00"	33° 13' 24.12"				
33- 28° 18' 30.00"	33° 33' 30.00"	66- 28° 51' 01.20"	33° 13' 24.12"				



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SEISMIC SURVEY :

➤ 1519 Km 2D .

NUMBER OF WELLS : 11 WELLS .

PREVIOUS CONSSIONNAIRE:

➤ Conoco .

NO.	WELL NAME/ NEWNAME	COMPANY	SPUD. DATE COMP. DATE	LAT. LONG.	T.D. FEET	FORMATION REACHED	FINAL STATUS
1	WADI FEIRAN -2 (Gh 83-10)	AGIP	14/05/1984 05/12/1984	28° 42' 06.5" 33° 12' 25.2"	14,212	BASEMENT	P & A
2	ASHEIRA -1 (Ge 86-2)	CONOCO	15/03/1984 16/07/1984	28° 26' 11.0" 33° 32' 53.0"	5,355	LOWER SENONIAN	P & A
3	SAFARIAT -1 (Ge 86-1)	CONOCO	20/02/1984 23/04/1984	28° 29' 26.1" 33° 35' 33.1"	9,194	UPPER CRETACEOUS	P & A
4	ISLA -1 (Gb 88-1)	CONOCO	09/01/1984 28/02/1984	28° 07' 27.8" 33° 42' 32.8"	9,448	NUBIA	P & A
5	WADI FEIRAN -1 (Gg 83-4)	AGIP	04/08/1982 02/12/1982	28° 39' 34.9" 33° 14' 52.1"	11,207	BASEMENT	P & A
6	SABIL -1 (Ga 89-1)	bP	16/04/1982 28/04/1982	28° 00' 48.6" 33° 50' 34.9"	3,911	NUBIA	P & A
7	ABU RAYA -2 (Gb 87-8)	bP	24/09/1981 29/11/1981	28° 08' 47.7" 33° 40' 11.6"	8,937	NUBIA	P & A
8	GILI -1 (Ga 88-2)	ISRAEL	04/02/1979 11/03/1979	28° 03' 06.0" 33° 46' 15.0"	7,271	NUBIA	P & A
9	EL TOR -4 (Gb 87-6)	ISRAEL	19/05/1977 31/05/1977	28° 11' 30.0" 33° 40' 51.0"	4,761	UPPER CRETACEOUS	P & A
10	YORAM -1 (Gb 87-4)	ISRAEL	26/10/1975 12/12/1975	28° 09' 10.0" 33° 40' 20.0"	7,143	BASEMENT	Oil Producer basal Miocene disc. (non comm.)
11	EL TOR -1 (Gb 87-1)	GPC	14/04/1965 08/05/1965	28° 10' 47.1" 33° 37' 47.5"	3,317	UPPER CRETACEOUS	P & A with Oil shows in Miocene



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STRATIGRAPHIC COLUMN OF THE AREA

ERA	PERIOD	EPOCH	FORMATION	LITHOLOGY	OIL ZONES	THICKNESS	
CENOZOIC	QUATERNARY	PLIOCENE HOLOCENE	POST ZEIT	[Yellow dotted pattern]		1020 m.	
			ZEIT	[Green horizontal lines]		750 m.	
	TERTIARY	MIOCENE	SOUTH GHARIB	[Pink cross-hatch pattern]		1300 m.	
				[Blue horizontal lines]			
			BELAYIM	[Blue horizontal lines]		210 m.	
			KAREEM	[Green horizontal lines]	●	150 m.	
			RUDEIS	UPPER	[Yellow dotted pattern]	●	600 m.
				LOWER	[Yellow dotted pattern]		850 m.
			NUKHUL	[Yellow dotted pattern]	●	300 m.	
			MESOZOIC	CRETACEOUS	THEBES ESNA	[Blue horizontal lines]	
MATULLA	[Green horizontal lines]	●			110 m.		
NUBIA	[Yellow dotted pattern]				350 m.		
			BASEMENT	[Pink cross-hatch pattern]			

SOURCE :

- Late Cretaceous and Eocene Carbonate and Shale are generally good oil source rocks.

RESERVOIRS :

- Porous sandstone reservoirs in Nukhul.
- Upper Cretaceous reservoirs and Nubian sections are considered good reservoirs.