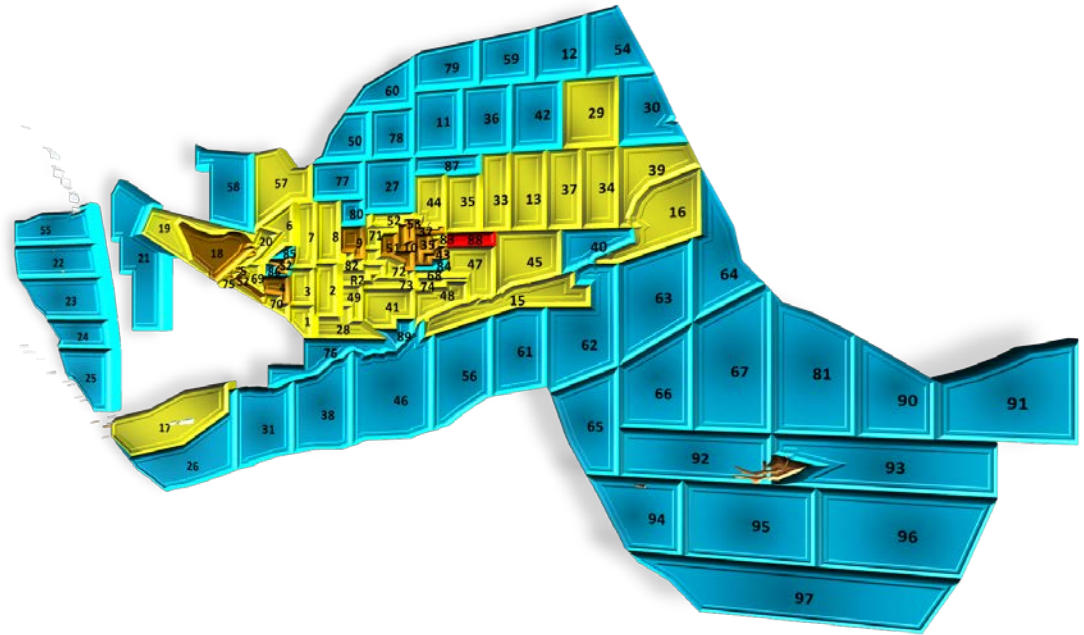
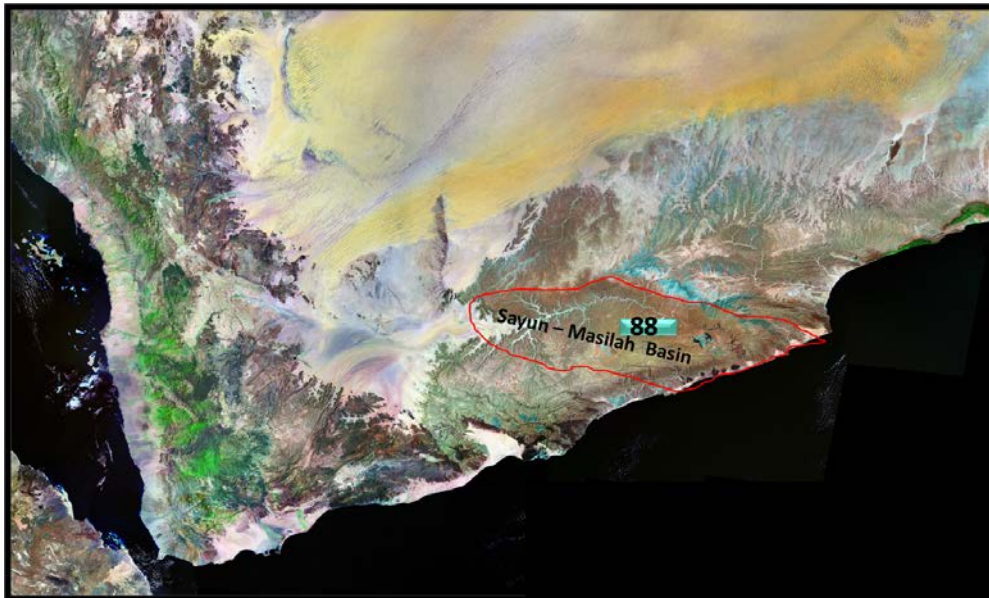




BLOCK 88 (DU'IBIR)



- ☞ The du'ibir Block (88) occupies an area of 1901 km² on the Sayun-Masilah Basin in the central Yemen.
- ☞ Block (88) bordered on the south by Producing block (47) with many discoveries, to the east by block (83), to the west by block (45), and block (35) to the north.
- ☞ The petroleum system of the Masilah Basin has been confirmed by the discoveries of the many oil and gas fields.

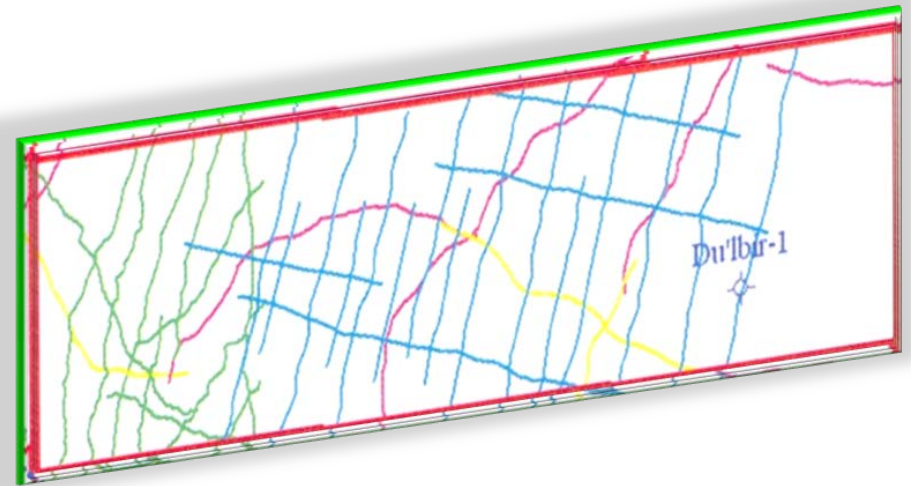


GENERALS

Block Name	DU'IBIR
Block N ^o	(88)
Province	Hadramawt
Basin	Masilah Basin
Area (Km ²)	1,901

PREVIOUS EXPLORATION ACTIVITIES

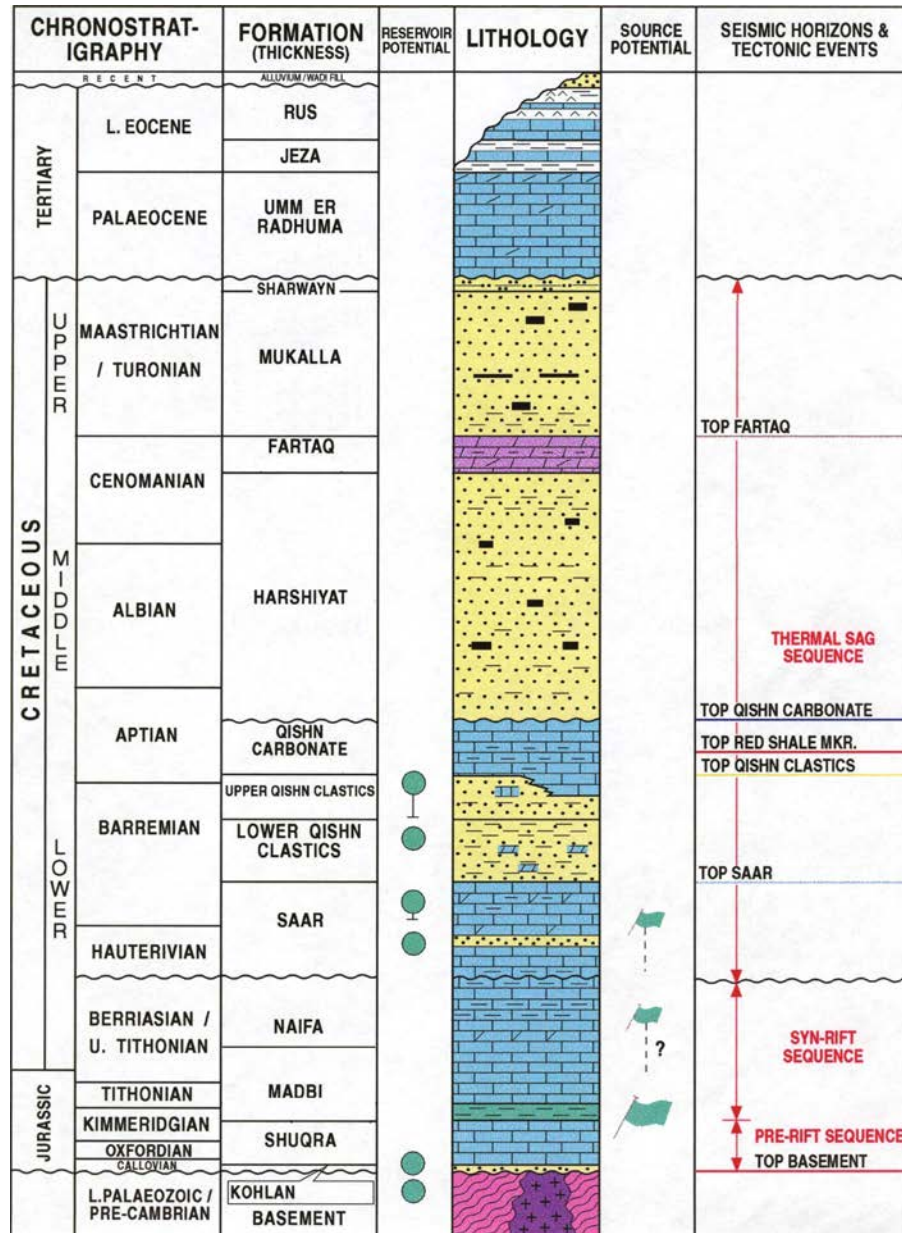
Company	Period	Activities
Russian	82-89	▫ Gravity & aeromagnetic
Canadian Occidental	87-95	▫ Gravity & aeromagnetic ▫ 2D seismic ▫ Drilling (1) well
OGMC / ENCANA	98-05	▫ Gravity & 2D seismic
DNO	05-06	▫ 2D seismic



Previous Work

DRILLED WELLS

WELL NAME	COMPANY	DATE	TD	SHOWS
			TD FM	STATUS
Du'ibir#1	Canadian Occidental	1993	2261 m	Minor Oil shows
			Basement	P & A



- ✧ The basic fault pattern is an ENE-WSW trending fault system, with mostly north-dipping faults. In some places south-dipping faults also exist. The north-dipping faults create major subsiding blocks in the southern, coastal area and downthrow the stratigraphic sequences towards the plateau area.
- ✧ Other dominant fault system strikes NW-SE, which, separates several steps of the Mukalla high from the subsident coastal flats.
- ✧ A third group of faults strikes ESE-WNW. This group is mainly present in the eastern part.
- ✧ The area is characterised by the dominance of Paleogene and Late Cretaceous outcrops. Paleocene and Eocene flatly cover vast areas, while Cretaceous is generally exposed in deeper wadis. The longest wadi, Masilah, starts in northern areas and cuts through the Paleogene plateau to arrive at the Gulf of Aden shore. In its southern part even Jurassic is exposed in a smaller patch.
- ✧ Within the Late Jurassic Kimmeridgian to Tithonian aged sequences the Lam, Meem and Madbi Formations contain the greatest amounts of organic material encountered in the Basin, TOC values ranged from 2.75% to 12.8 %.
- ✧ Oil generation started in the Late Cretaceous and is continuing up to the present day. The main period of migration was related to the pre-Umm er Radhuma (latest Cretaceous-early Paleocene) uplift. A secondary migration started at the Paleogene burial. Oil migrated along vertical or short distance lateral paths, eventually faults up to the reservoirs.

PETROLEUM SYSTEM TRAPS AND PLAY FAIRWAYS

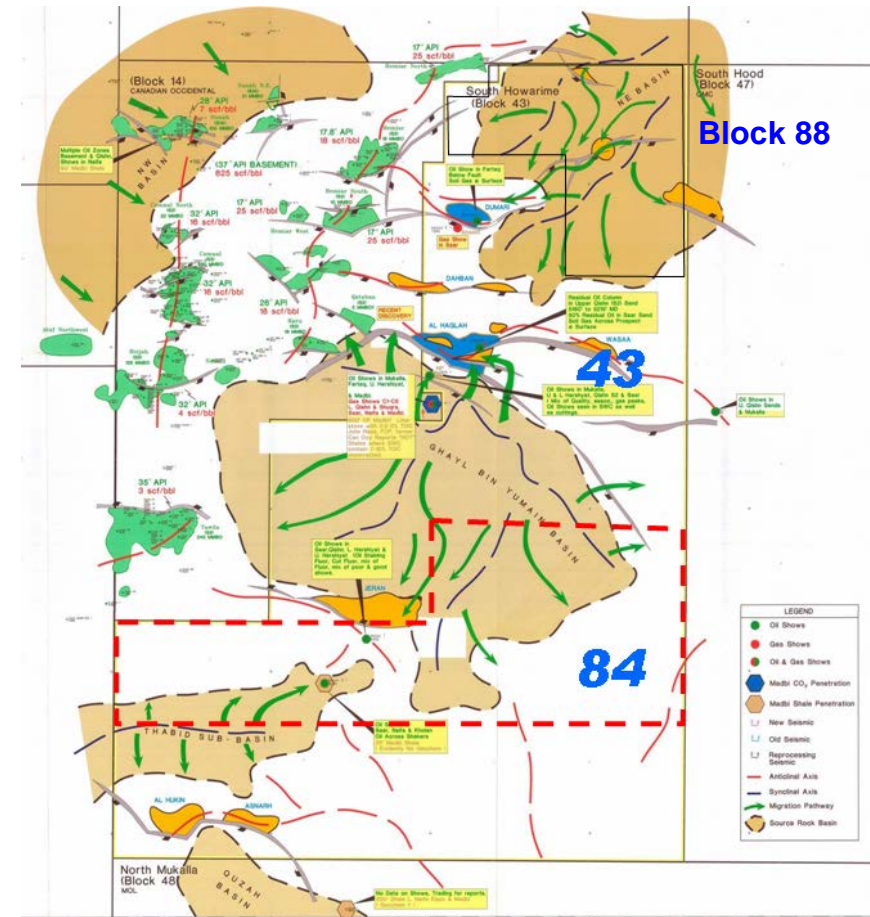
- ⌘ Structural and stratigraphic.
- ⌘ Horsts and tilted fault blocks developed in the rifting.
- ⌘ Differential compaction and drape anticlines.

SOURCE ROCKS

- ⌘ The principal source rock is the Madbi formation shale. This sequence has type I and II kerogens, and is oil-prone source rock. The organic carbon contents are over 1% to 12%, and the hydrogen index reaches 700 mgHC/grock.
- ⌘ The Naifa/Saar Formation shows good source potential in some places.

RESERVOIR

- ⌘ Fractured Basement
- ⌘ Kohlan Formation Sandstone
- ⌘ Shuqra Formation (limestone)
- ⌘ Naifa Formations (limestone/dolomite)
- ⌘ Saar Formations (limestone/dolomite and sandstone)
- ⌘ Qishn Formation Clastic Member



Conclusions

- ⌘ Masilah Basin is a proven hydrocarbon generating basin (with more than 35 oil fields have been proven by many companies in many blocks).
- ⌘ The drilled wells in the area proved the presence of good reservoir properties in many levels.
- ⌘ The presence of migrated hydrocarbons and hydrocarbon shows indicate that the effective and mature Syn-rift (Lam / Meem fm) source rocks are present in the sub-basins.
- ⌘ The exploration could be focused on Qishn, Saar, Naifa, Madbi, Shuqra and Basement targets in this area.
- ⌘ Oil fields were discovered immediatly to the south (in Block 47).