

Caspian Sea

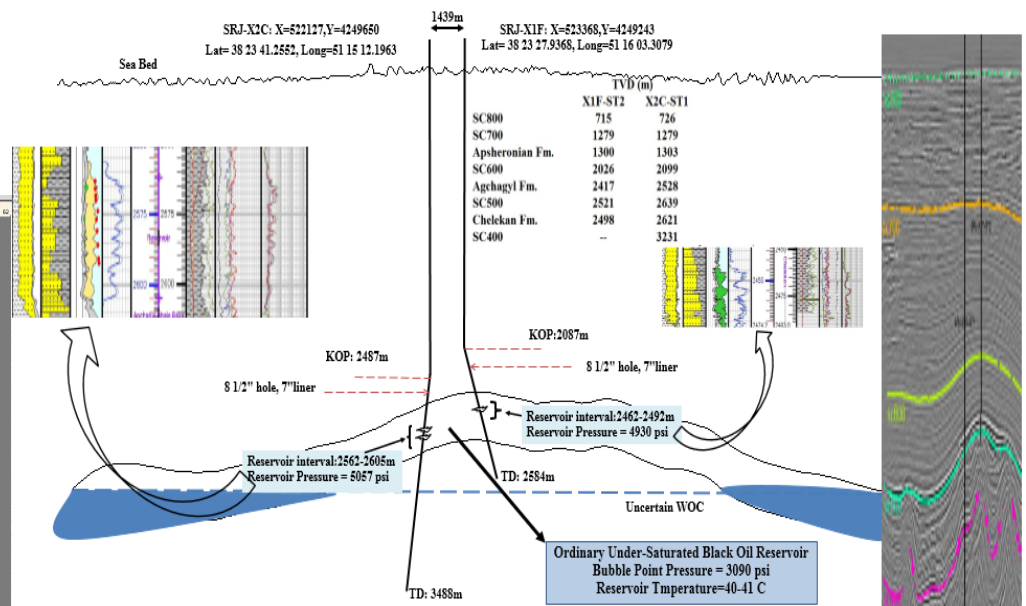
Exploration Blocks and Sardar-e-Jangal Field

Location of south Caspian Sea structures

- * Caspian Sea is divided into three sections of North, Middle and South Caspian Basin.
- * In south of Caspian Sea, 30,000 Km. 2D Seismic lines has been acquired.
- * 46 Structures have been identified which 8 of them (6.2, 29, 6.1, 8.1, 7.1, N10, N9 & N3) have the priority.
- * 4000 Km² 3D Seismic has been acquired in 6, 7,8 and 29 Blocks during 2003-2005 .
- * Blocks 24, 26, 29 and Sardar-e-Jangal field are being introduced for Exploration and Development.

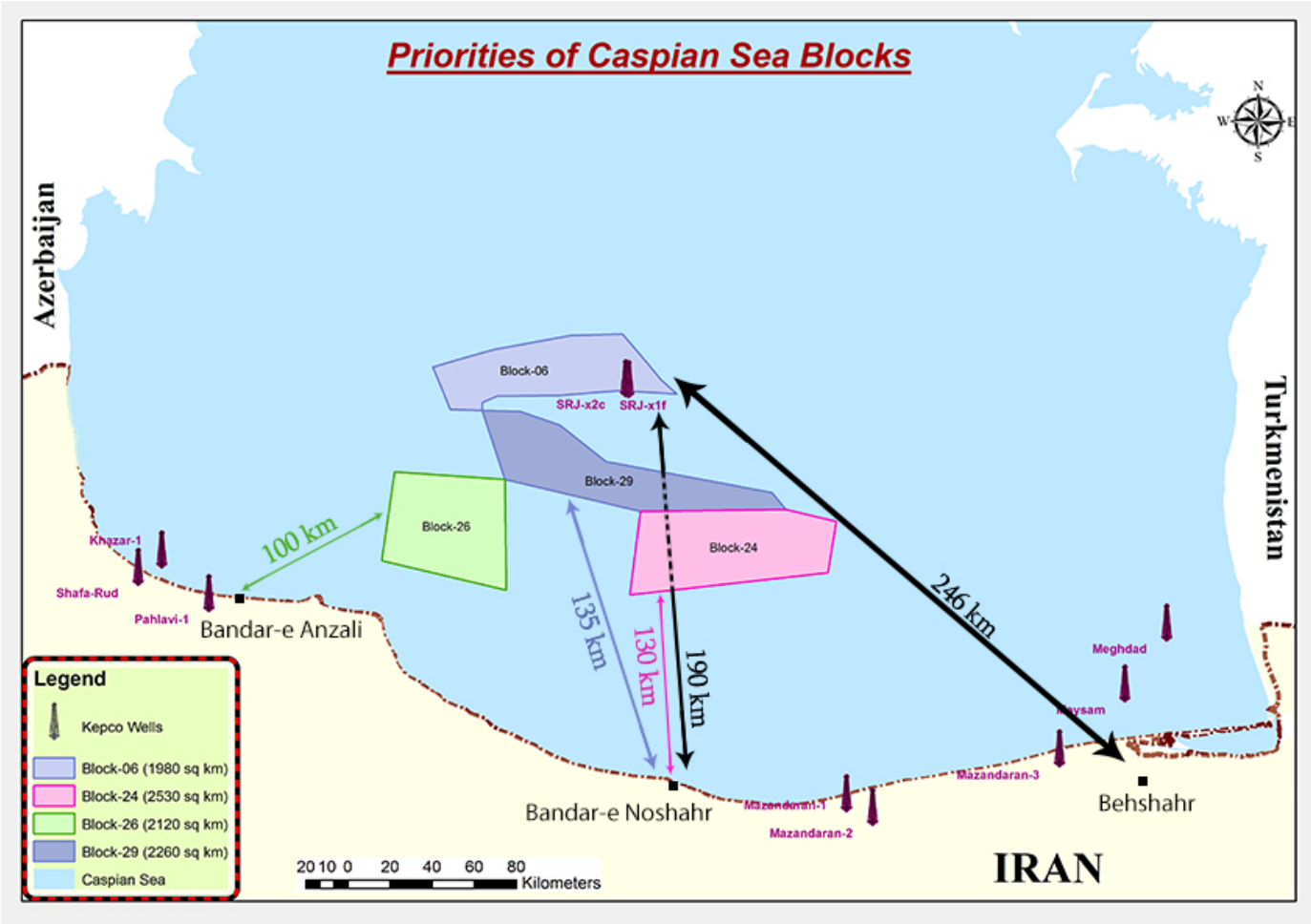
Sardar-e-Jangal Field General Specifications

- * Sardar-E-Jangal field in block 6 with dimensions of 24x6 km. is located about 250 Km. of Caspian Sea coastline, in 750 m water depth.
- * It is expected the main prospect is Cheleken. Although the first exploration well in 2012 has discovered hydrocarbon in layers above Cheleken.
- * The second delineation/exploration well has been completed in 2015 and was tested 5157 bbl/d oil with 4107 Psi WHP.
- * It contains about 2000 MMSTB oil with API of 39 and GOR of 987 Scf/bbl.



Caspian Sea

Exploration & Development Blocks



Block-24

Block-24 is situated at 130 km to North of Bandar-e-Noshahr.

Main Structures: N9 (Rouyan) (6x19 km), N10 (Noor) & N14 (4x21 km)

low-moderate relief four-way dip closed structure

Maximum closure in both prospects at the deeper levels is at Least 400 meters.

□ Hydrocarbon Systems:

➤ **Seal Rock:**

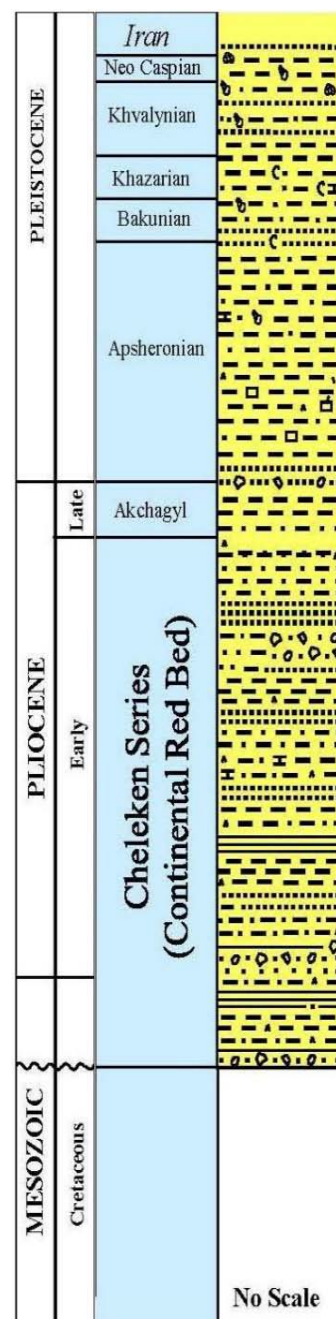
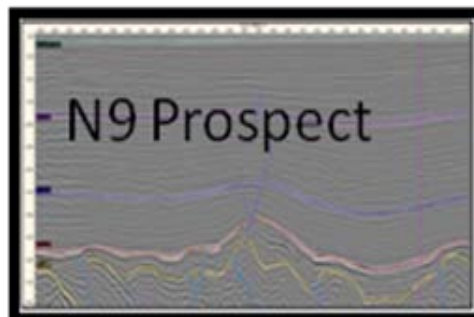
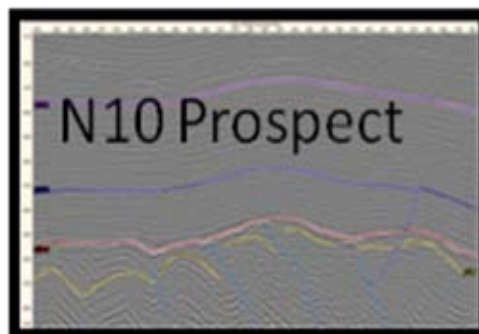
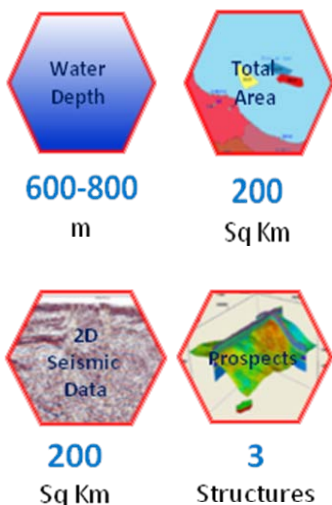
- Pliocene Evaporate of Surakhani (Upper Productive Series) .
- The fine clay of Upper Aghchagyl formation.

➤ **Reservoir Rocks:**

- Aghchagyl sandstone.
- Lower Productive series sandstone (Balakhany equivalent) .

➤ **Source Rock:**

- Lower Shale layers from Maykop Series & base of Aghchagyl formation.



Block-26

Block-26 is situated at some 100 to 130 km to North-East of Bandar-e-Anzali

Main Structures: N11, N12, N13, N14, N17, N55, N74 & N75

- Combination of N11, N12 and N13 (30x5 Km.)
- And individual prospects N14 and N17 (12x6 Km.)

☐ Hydrocarbon Systems:

➤ **Seal Rock:**

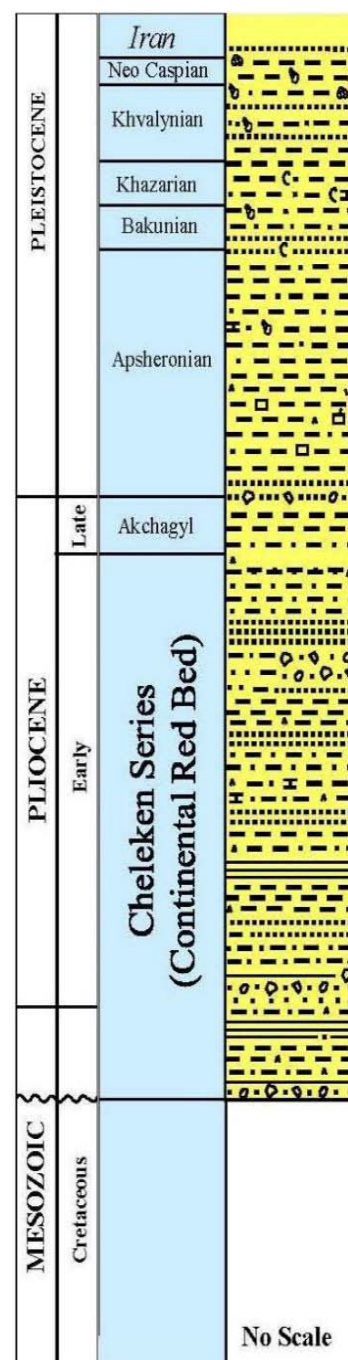
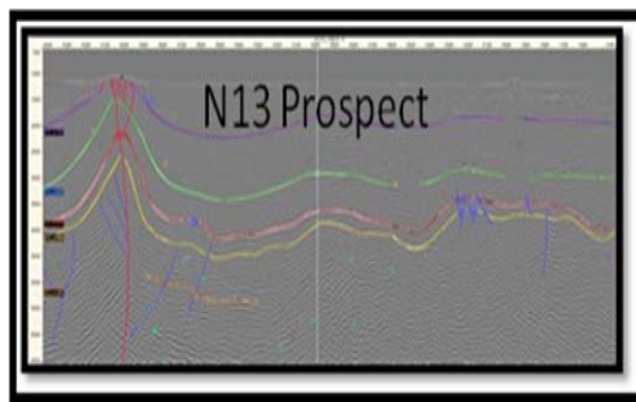
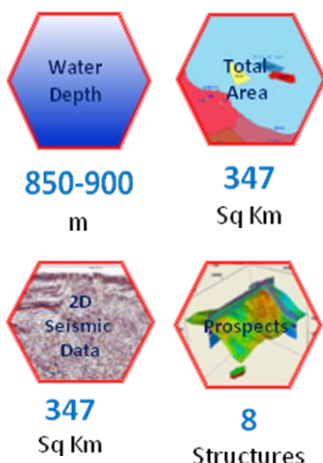
- Pliocene Evaporate of Surakhani (Upper Productive Series) .
- The fine clay of Upper Aghchagyl formation.

➤ **Reservoir Rocks:**

- Aghchagyl sandstone.
- Lower Productive Series sandstone (Balakhany equivalent) .

➤ **Source Rock:**

- Lower Shale layers from Maykop series & base of Aghchagyl formation.



Block-29

Block-29 is situated at 135 km to North of Bandar -e-Nowshahr.

Main Structures: N1, N72 & N73

- N1 (8-10x75 km) is the largest .
- Elongated WNW-ESE.
- Medium relief anticline.
- Vertical relief of 700 m .

Hydrocarbon Systems:

➤ **Seal Rock:**

- Pliocene Evaporate of Surakhani (Upper Productive Series).
- The fine clay of Upper Aghchagyl formation .

➤ **Reservoir Rocks:**

- Aghchaghyl sandstone .
- Lower Productive Series sandstone (Balakhany equivalent) .

➤ **Source Rock:**

Lower Shale layers from Maykop Series & base of Aghchagyl Formation.

