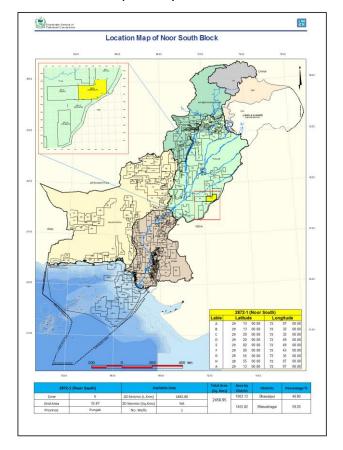


NOOR SOUTH BLOCK (2872)

Introduction

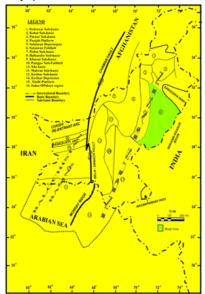
Noor South Block covers an area of 2458.95 sq km and is located in Bhawalpur and Bhawalnagar districts of Punjab Pakistan. Geologically, it lies in the Central Indus Platform Basin of Pakistan. The block falls in Prospectivity Zone II.



Geology and Tectonics

The block is located in Central Indus Platform Basin (CIPB), which is a broad monocline dipping gently westward and merges in Sulaiman Foredeep. Tectonically, the effect of compression is minimum in this area. During the Precambrian, Late Jurassic and Cretaceous, an extensional activity occurred. The uplifts provide the evidence of this tectonism accompanying the fragmentation of Gondwana. The area is categorized by extensional faults, cutting Paleozoic strata.

Geological Map (Modified after Ahmed et al, 1994)



Stratigraphic Sequence

The stratigraphic sequence in the area range from Infra-Cambrian to Miocene-Pliocene strata. The distinct unconformity lies at the base of Miocene because of which Miocene sediments directly overlie the Cretaceous strata. The clastics and carbonates represent the Infra-Cambrian while clastics and dolomites represent the Cambrian which are unconformably overlain by clastics, glacial tillites, and carbonates of Permian. Triassic and Jurassic rocks composed of sandstones, shales, and carbonates while Cretaceous and Miocene sequence is characterized by shales and sandstones.

Generalized Stratigraphic Chart

ERA	PERIOD	EPOCH	FORMATION	LITHOLOGY	
	Quaternary	Recent	Alluvium	***************************************	LEGEND:
C	Miocene	Upper Middle	Siwalik Group	PRIMARE	LL OLI D.
5		Lower	Nari/ Gaj		
CENOZOIC	Oligocene		-		Limestone
×		Upper	Kirthar		00000000
≅	Eocene	Middle	C1::/C11-	THE RESERVE	20200000
Ü		Lower	Ghazij/Shale	adrilation	Sandstone
	Paleocene		Dunghan Ranikot	THE PERSON	
	S		Pah	300	Shale
	Cretaceous	Upper	Minghalkot Parh		
7.)		∪pper	Goru/Lumshiwal		Siltstone
¥		Lower		DOME DESCRIPTION	Shistone
S			Sembar		Source
õ	Jurassic	Upper			Source
MESOZOIC		Middle	Chiltan/ Samana Suk		Reservoir
		Lower	,Shirinab, Datta/Shinawari_	****	•
			Kingriali		Seal
	Triassic		Wulagai		
7.)			Chhidru Warcha		
PALE OZOIC	Permian		Dandot/Tobra	-	
			Baghanwala		
△ Cambrian		Khewra			
Infra Cambrian			Salt Range Group	PARTO PART TARK TO ARK TO P	
Pre Cambrian			Crystalline Basement		







Petroleum Play

The block is located in the west of oil producing fields in India, which confirms that a dynamic petroleum system containing all the necessary elements for the generation and accumulation of hydrocarbons is present in the area.

Source

The expected source rock having potential to generate hydrocarbons in this block includes Salt Range Formation (Infra-Cambrian), Tobra and Dandot Formations (Permian). These sediments have gas and oil generation characteristics with fair to good organic richness.

Reservoir

Infra-Cambrian to Jurassic sequence have potential reservoirs. Carbonates of Shinwari and Samana Suk formations (Jurassic), and clastics of Lumshiwal Formation (Cretaceous) are proven reservoirs in the gas fields of this surrounding area. Salt Range Formation (Infra-Cambrian) is producing heavy oil in the east in India.

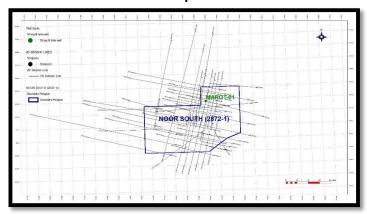
Seal

The potential seals for underlying reservoirs include the intra-formational shales and mudstones of Infra-Cambrian, Paleozoic, and Mesozoic rocks.

Trap

The block area consists of fault bounded three way dip structures. The important feature for trapping mechanism can be provided by the truncations of Jurassic to Eocene strata.

Noor South Block Base Map



Well Data

WELL NAME	SPUD DATE	OPERAT OR	WELL TD (m)	TD FORMATION	PRIMRY TARGET
MAROT- 01	22/02/ 1981	SHELL	2596	Precambrian (Basement)	Salt Range Formation

Seismic Data

2D SEISMIC DATA	3D SEISMIC DATA
Line km = 1692.8	3D data is not available



