

Smart Solutions for Today's Geoscientist



BLOCK: PAHARPUR-II (3170-13)

ONSHORE BLOCK BIDDING ROUND 2025

MINISTRY OF ENERGY PETROLEUM DIVISION (DGPC)

Introduction

Paharpur-II Block covers an area of 1222.6 Sq. Kms.

- Location: Dera Ismail Khan and Tank Districts of Khyber Pukhtoon Khwa Province, Pakistan.
- Geological Basin: Sulaiman Foldbelt, Pakistan.
- Estimated Resources of the Central Indus Basin:
 - Oil: 2880 million barrels
 - Gas: 69.12 trillion cubic feet
- The block falls in Prospectivity Zone II.
- AMOCO, KUFPEC, LASMO, OGDCL and PPL acquired some 2D data approximately 2245.99 L. Kms in the block within the years 1973, 1978, 1991, 1995, 2016, 2017 and 2018.
- The Block is surrounded by Zin (North-East), Kotra East (South), Dera Murad Jamali (East) and Kuhan (West) blocks.



*Riaz Ahmed 1998, Hydrocarbon Resource Base of Pakistan, Pakistan Journal of Hydrocarbon Research, Vol 10, 1-10

Geological Map

- Paharpur-II block lies in northern part of the Sulaiman Foredeep and southern part of the Bannu Depression.
- Marwat and Khisore Ranges appear in the north- eastern part of the block.
- Pezu and Bhitanni ranges are in the north of the block.
- Rocks ranging in age from Permian to Recent are exposed in the block.
- The oldest rocks exposed in the north-eastern part of the block are Amb and Wargal Formations of Permian age.



Petroleum System

Source Rocks:

Sembar Formation (Cretaceous) and Intra-Formational Shale units are the source rocks in the area.

Reservoirs:

Pirkoh (Late Eocene), Habib Rahi(Middle Eocene), Sui main Limestone (Eocene) and first three sand intervals of Lower Goru Formation (Early Cretaceous) are reservoirs of the area.

Seal:

 Upper Goru Formation (Cretaceous), Ghazij Shale (Eocene) along with Sirki Shale (Eocene) acts as a seal.

Trap:

• Fault bounded anticlinal traps are present in the area.

Era	Period	Epoch	For Men	mation/ nber	Lithology	Source	Reservior	Seal
Cenozoic	Neogene	Miocene- Pliocne	Siwaliks	Upper Middle Lower				
	Paleogene	Oligocene	Chitte Nari	erwatta/	•••••			
		Eocene	Laki/ Kithar Ghajiz Fm.	Drazinda Pirkoh Sirki Habib Rahi Baska Druq Shazij Shale Sul Upper USt Sul Shale Sul Shale				
		Paleocene	Dunghan Ranikot					Shales
Mesozoic	Cretaceous	Late	Pab Mughalkot/Fort Parh				Sands Carbonate	lational S
		Early	Goru	Upper Lower		Proved	Sands	Intra Form
	Jurassic	Late						
		Middle	Chiltan			Probable	Carbonate	Tight Zon
		Early	Shirinab/ Loralai					
	Triassic		Wulglai / Allozai					
Paleozoic	1	Probable deposition						



Prospectivity



- The main trapping mechanism in this area is pinch out as revealed by seismic and anticlinorium structural feature.
- Nearby Blocks shows successful gas discoveries.
- High Resolution seismic section reveals the stratigraphic and structural features.





Infrastructure Map

- Government support to companies for infrastructure development.
- Gas fields exist near the block.
- Thermal power stations exist near the block.





Investment Benefits

- Low risk, high reward.
- Largest gas discovery in the geographic province.
- Low cost on infrastructure development within limited timeframe.
- Return on Investment within 3 years.
- Attractive government policies for foreign investors.
- Excellent purchase rate set by the Government against the discovered commodity.
- Government will guarantee to buy the gas or oil discovered.
- Attractive price in case of tight gas discovery.



Block Summary

Item	Indicators
Probable multiple sources in the region	Positive Indicator
Discoveries in Geographical Province	Positive Indicator
Nearby Infrastructure	Positive Indicator
ROI in 3 Years	Positive Indicator



THANK YOU



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