

Smart Solutions for Today's Geoscientist



BLOCK: CHHALGARI (2867-7)

ONSHORE BLOCK BIDDING ROUND 2025

MINISTRY OF ENERGY PETROLEUM DIVISION (DGPC)

Introduction

- Chhalgari Block covers an area of 2485.19 Sq. Kms.
- Location: Nasirabad, Bolan and Jhal Magsi district, Balochistan, Pakistan
- Geological Basin: Kirthar Foldbelt, Pakistan.
- The block falls in Prospectivity Zone II
- Estimated Resources of the Lower Indus Basin:
 - Oil: 4740 million barrels.
 - Gas: 64.75 trillion cubic feet.
- AMOCO, BP and OMV acquired some 2D data approximately 815 L. Kms in the block within the years 1975, 1978, 1982 and 1992.
- The Block is surrounded by Zin (North-East), Kotra East (South), Dera Murad Jamali (East) and Kuhan (West) blocks.
- The wells drilled in the near vicinity is Sanni-01.



2867-7 (CHHALGARI)		Available Data		Total Area (Sq. Kms)	Area by District	Percentage %	Districts
Zone	Ш	2D Seismic (L.Kms)	815.00		408.12	16.42	Nasirabad
Grid Area	33.08	3D Seismic (Sq.Kms)	NA	2,485.19	1497.72	60.27	Bolan
Province	Balochistan	No. Wells	NA		579.35	23.31	Jhal Magsi



Geological Map

- The collision of Indian and Eurasian plates resulted in the creation of north-south trending Kirthar Fold Belt (KBF) in the Southern Indus Basin.
- The basin is comprised of five structural elements units, i.e., Kirthar Fold Belt, Kirthar Foredeep, Karachi Trough, Thar Platform, and Offshore Indus.
- The present study area belongs to the western portion of Kirthar Foredeep, which is located between the Kirthar Foldbelt and Thar Platform.
- In the north of Kirthar Foredeep, Jacabobad Mari Kandkot high is present. It is bounded in the south by the Hyderabad high and in the east by the Tharpakar high in the west by KBF Bela Ophiolite.





Munir, Muhammad Nofal, Mohammad Zafar, and Muhsan Ehsan. 2022. "Comparative and Statistical Analysis of Core-Calibrated Porosity with Log-Derived Porosity for Reservoir Parameters Estimation of the Zamzama GAS Field, Southern Indus Basin, Pakistan." Arabian Journal for Science and Engineering 1–16.

Petroleum System

Source Rock:

The Cretaceous Sembar shale are considered to be the main source rock in this area.

Reservoir Rock:

 Mughalkot (Upper Cretaceous), Pab sandstone (Upper Cretaceous), Sui main Limestone (Eocene) and Lower Goru sands (Early Cretaceous) with a porosity of 5 to 30 % act as major reservoir in Lower Indus Basin.

Seal:

The Upper Goru marls and Ghazij shales act as seal for major reservoirs.

Trap:

Anticlinal traps associated with thrust faults are more common in the area.



dan Penyongsangan, M., KHALID, A., AHMAD, S., ALI, A., REHMAN, G., & YASEEN, M. (2023). Structural Analysis of Kirthar Fold Belt, Lower Indus Basin, Balochistan, Pakistan; Implications from Compression and Inversion Tectonics. Sains Malaysiana, 52(2), 417-430.

Prospectivity



- The main trapping mechanism in this area is considered to be tilted fault block traps.
- High resolution seismic data can allow to delineate true potential of the block.





Infrastructure Map

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





Investment Benefits

- High 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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