



Smart Solutions for Today's Geoscientist



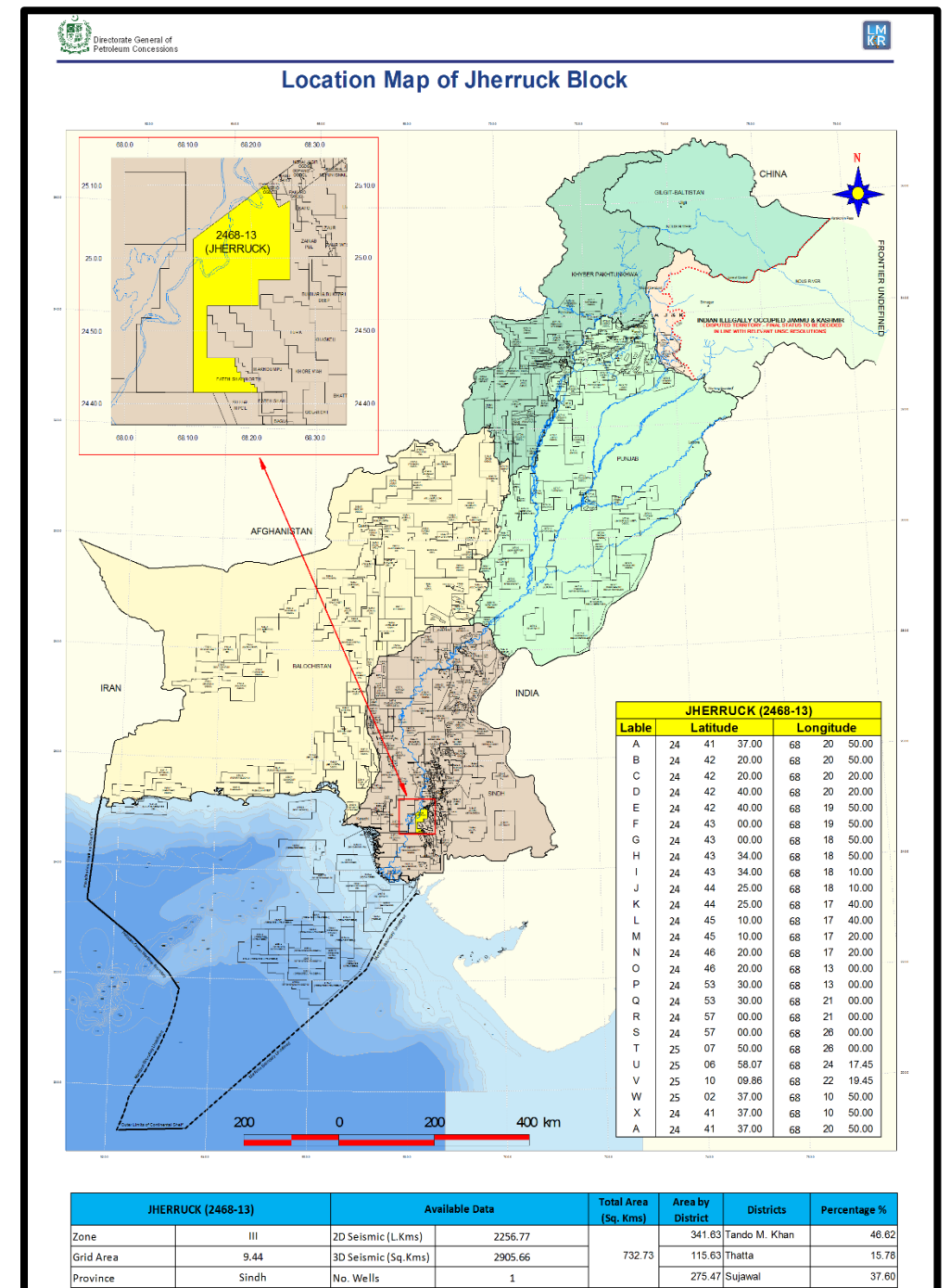
BLOCK: JHERRUCK 2468-13

ONSHORE BIDDING BLOCK BIDDING ROUND 2025

MINISTRY OF ENERGY PETROLEUM DIVISION (DGPC)

Introduction

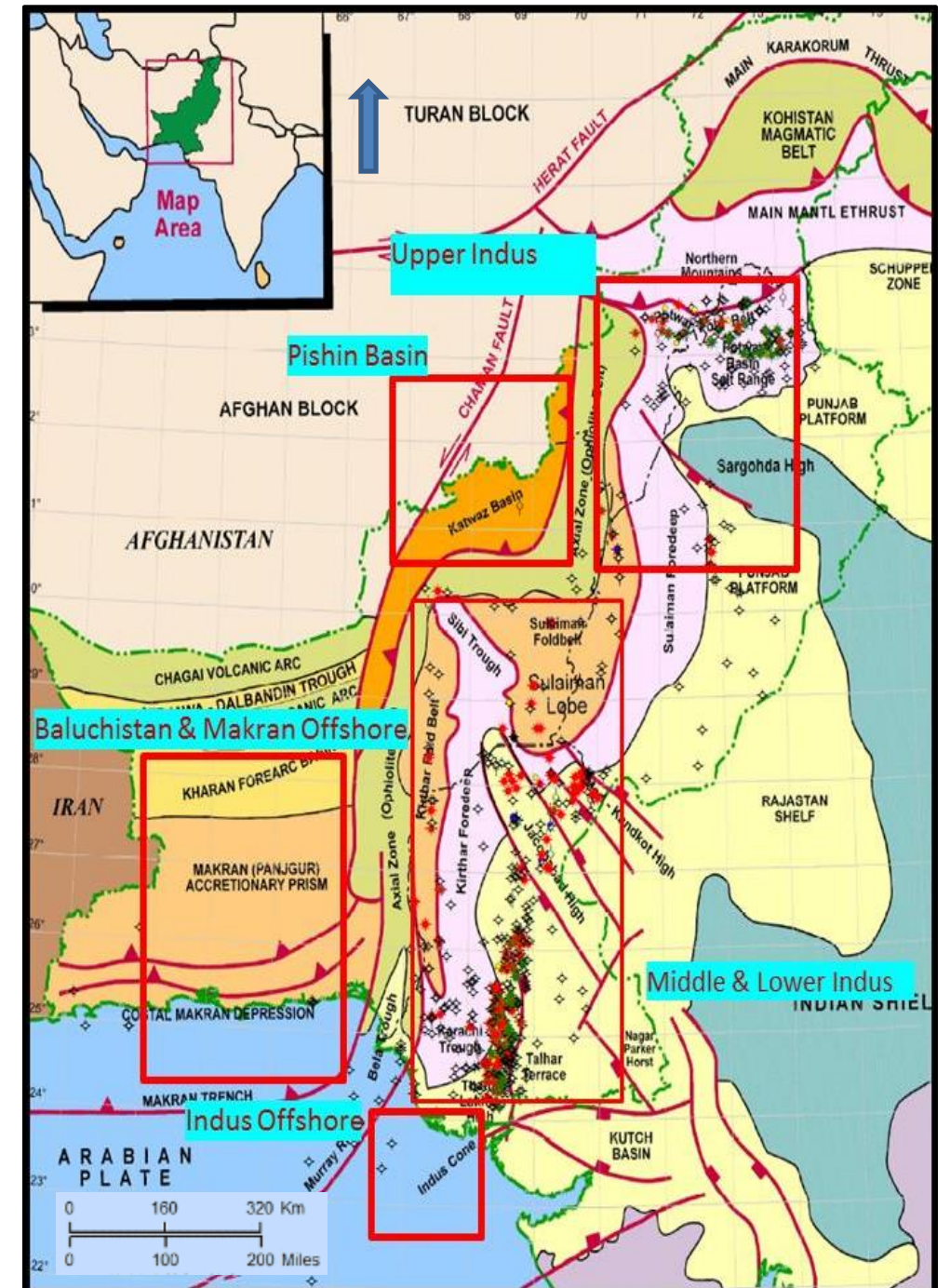
- Jherruck Block covers the total area of 732.73 Sq. kms.
- Location: T.M.Khan, Thatta and Sujawal districts, Sindh , Pakistan.
- Block lies in prospectively zone III.
- Geological Basin: Lower Indus Basin, Pakistan.
- Estimated Resources of the Lower Indus Basin:
 - Oil: 4740 million barrels
 - Gas: 64.75 trillion cubic feet
- OGDCL, UTP and MPCL, PEL acquired some 2D data of about 2325 (L.Kms.) and 3D of about 2765 (Sq.Kms.) during 1978 to 2013 within this block.
- One well “Jherruck-01” is drilled within the block.



JHERRUCK (2468-13)		Available Data		Total Area (Sq. Kms)	Area by District	Districts	Percentage %
Zone	III	2D Seismic (L.Kms)	2256.77	732.73	341.83	Tando M. Khan	46.82
Grid Area	9.44	3D Seismic (Sq.Kms)	2905.66		115.83	Thatta	15.78
Province	Sindh	No. Wells	1		275.47	Sujawal	37.60

Geological History

- Tectonically the region is located in the south-eastern boundary of Lower Indus Basin, Geologically, it is a part of Thar Platform region with westward sloping monocline controlled by its basement topography.
- The platform marks very good development of Goru sands of Cretaceous age that acts as susceptible reservoirs for hydrocarbon fields.
- Due to phenomena of rifting and counterclockwise rotation of Indian plate, the study area exhibits extensional regime along with tilted horst blocks which serve as major structural traps of the area.
- The hydrocarbon accumulation in Lower Goru is bounded towards east and west by regional extensional faults dipping northeast and trending northwest to southeast as reported.



Petroleum System

Source Rock:

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

Reservoir Rock:

- Lower Goru sands with a porosity of 5 to 30 % act as major reservoir in Lower Indus Basin

Seal:

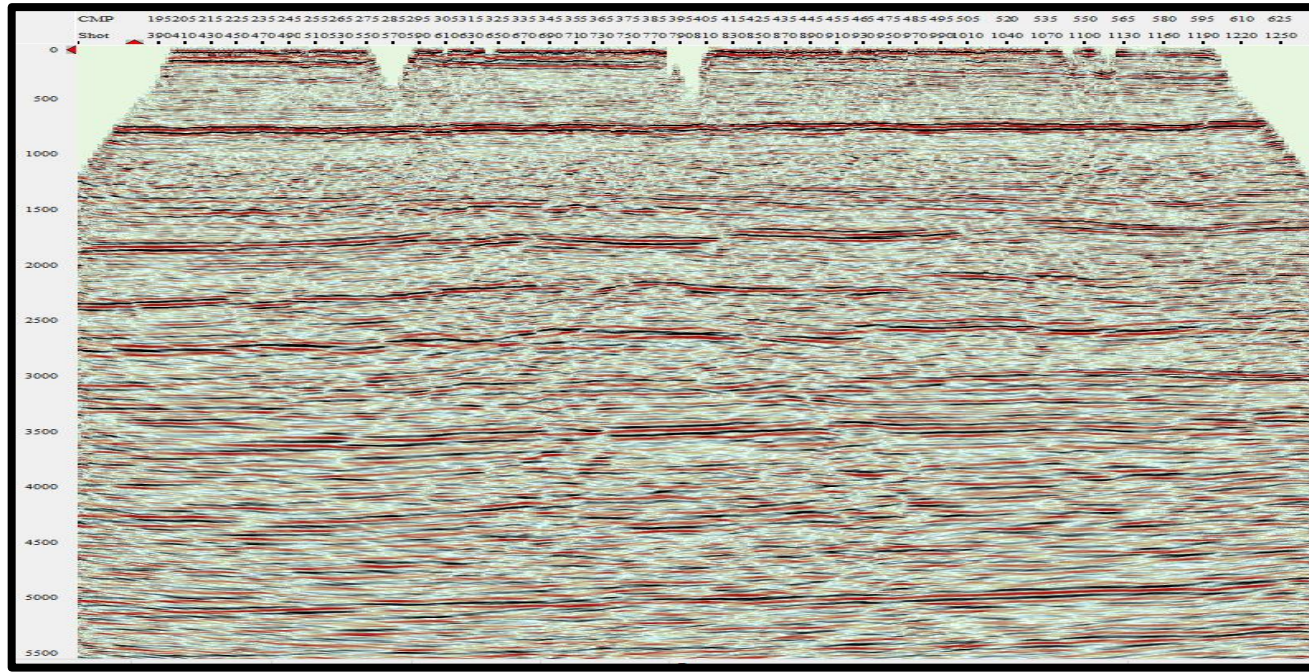
- The Upper Goru marls act as seal for Lower Goru sands.

Trap:

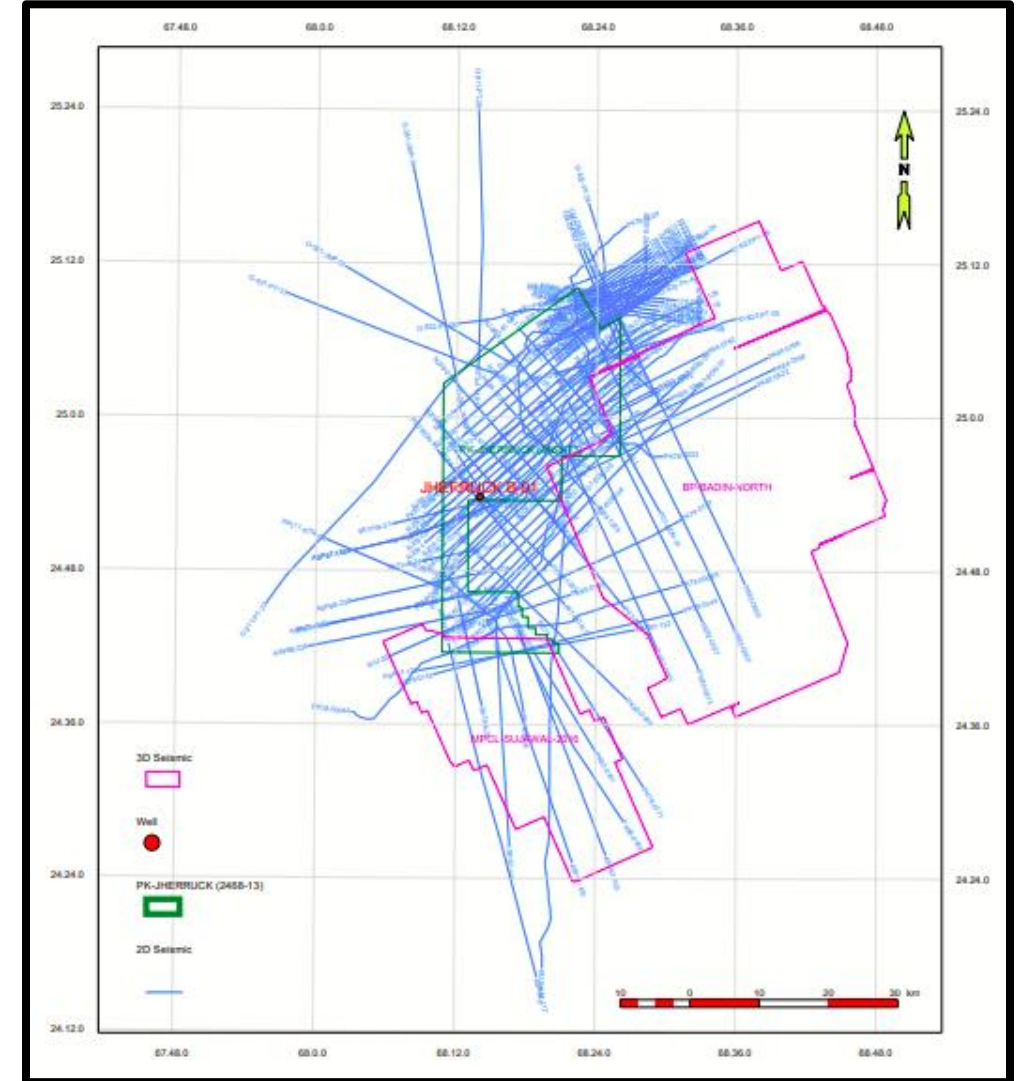
- Due to phenomena of rifting and counterclockwise rotation of Indian plate, the area exhibits extensional regime along with tilted horst blocks which serve as major structural traps of the area.

AGE	FORMATION	LITHOLOGY	DESCRIPTION	TOP (MSL) m	THICKNESS m	
POST EOCENE	ALLUVIUM		Sandstones with interbeds of clay/claystone, conglomerate and minor traces of coal	0.0	604.0	
EOCENE	LAKI		Limestone with interbedded marl and shale	604.0	541.0	
PALEOCENE	RANIKOT		Sandstone, shale with streaks of clay/claystone and thin bands of limestone	1145.0	497.0	
CRETACEOUS	PARH		Limestone with subordinate chalk	1642.0	99.0	
	UPPER GORU		Marl SEAL	1741.0	361.0	
	LOWER GORU	UPPER SHALES & SAND		Shale with intrusions of marl and streaks of sandstone RESERVOIR	2102.0	715.0
		BASAL SANDS		Sandstone with few laminations of shale RESERVOIR	2817.0	28.0
		TALHAR SAHLE		Shale RESERVOIR	2845.0	70.0
		MASSIVE SAND		Argillaceous Sandstone with subordinate shale RESERVOIR	2915.0	135.0
	SEMBER		Shale SOURCE	From Geological History		
JURASSIC	CHILTAN		Massive limestone			

Prospectivity

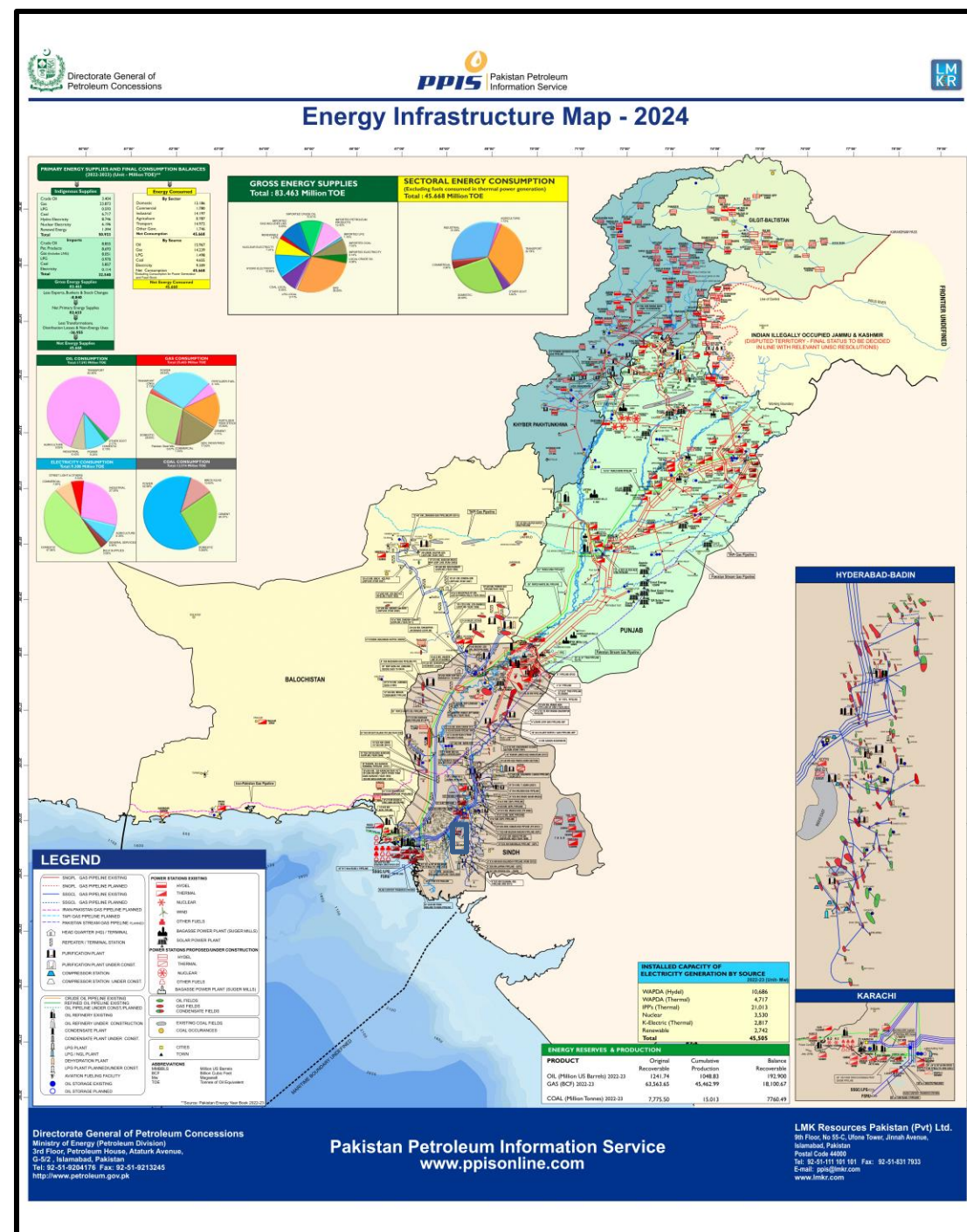


- The main trapping mechanism in this area is considered to be tilted horst block structure.
- High resolution seismic data can allow to delineate true potential of the block.



Infrastructure Map

- Government support to companies for infrastructure development.
- Gas fields exists near the block.



Investment Benefits

- Low risk, high reward.
- Prolific gas discoveries in the basin.
- 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
Possible multiple sources in the region	Positive Indicator
Discoveries in geological basin	Positive Indicator
Nearby Infrastructure	Positive Indicator
ROI in 3 Years	Positive Indicator

THANK YOU

