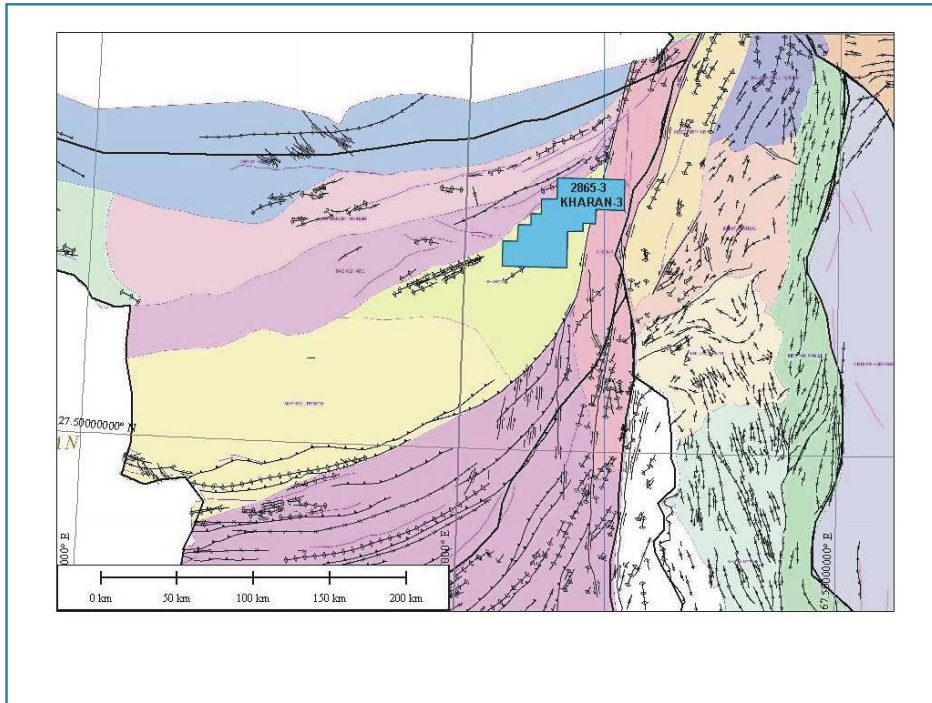


BALUCHISTAN FOLDBELT BASIN

INTRODUCTION

The Kharan-3 block is located in the Kharan Trough of Balochistan Basin.



GEOLOGICAL SETTING

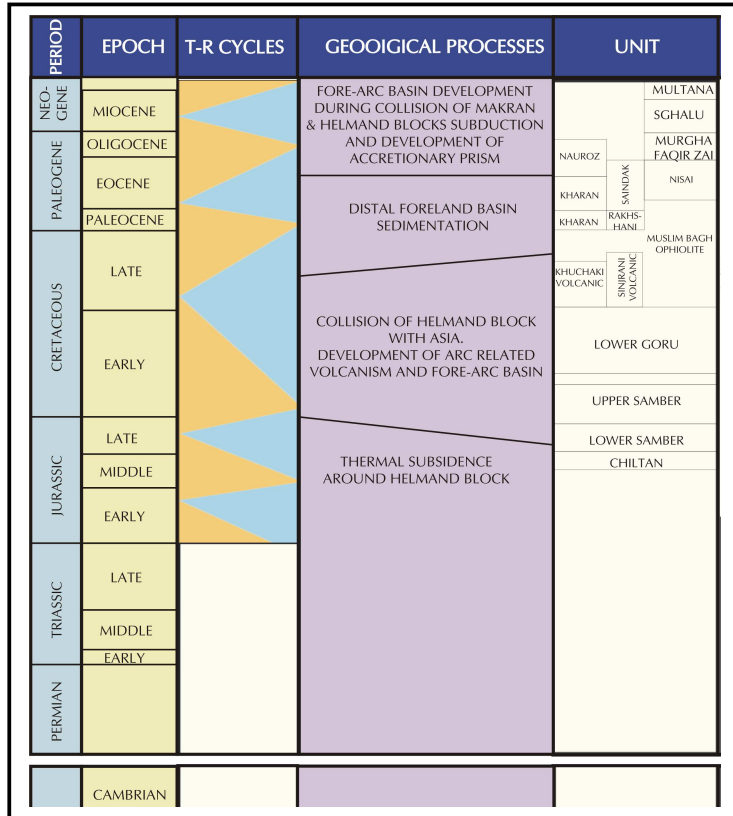
The Balochistan Province is an Upper Cretaceous to Recent structurally defined basin related to under-thrusting of the Arabian Plate beneath the Eurasian margin. It is bounded by the major Chaman-Ornachnal Fault Zone to the east and Makran Accretionary Prism in the south.

DALBANDIN TROUGH; The Dalbandin Trough, is a narrow E-W trending intra-arc basin characterised by a 4.5 km thick sedimentary succession between the Chagai Volcanic Arc to the north and the Ras Koh Volcanic Arc to the south. Upper Pleistocene to Recent sediments cover the trough.

KHARAN TROUGH; Kharan Trough is 150km wide and 300km long fore-arc basin bounded by the Ras Koh arc to the north and the Makran accretionary prism to the south. It extends to the Hamun-I-Mashkel Depression, across the Iranian border to the west. The basin covers approximately 30,000 sq. km and is mostly covered by superficial deposits of the Kharan desert.

STRATIGRAPHY

The Balochistan Foldbelt Basin is characterised by Late Cretaceous and Tertiary successions composed of limestone, mudstone, sandstone, and volcanics. Fault bounded slices of metamorphosed Jurassic ophiolite; radiolarian cherts and accretionary melange are overlain by thick successions of Cretaceous basinal muds, pillow lavas and volcanics recording the evolution of volcanic island arc. The volcanic successions are overlain by Late Cretaceous



limestone and thick succession of Paleogene turbiditic shale, sandstone and conglomerate of the Rakhshani Formation. This was following a period of uplift and relative tectonic stability in the Eocene recorded by platform carbonates and basinal muds. These sediments are overlain by deep marine muds and distal prodeltaic turbidites of the Oligocene, which shallow upwards in the east into delta front sands and muds of the Oligocene Nauroze Formation. Terrestrial to shallow marine clastic and carbonate sediments of the Amalaf

Formation were deposited, interrupted by episodic explosive volcanic activity. The Miocene and Pliocene are dominated by continental conglomeratic facies of the Dalbandin Formation. The Mid-Pleistocene to Recent time was dominated by uplift across the Balochistan, which led the deposition of Kameron Formation.

PETROLEUM GEOLOGY

There is no oil and gas discovery in the basin so far however the potential can be determined through analysis.

SOURCE ROCKS

The potential source rocks of the area are Rakhshani Formation of Paleocene age and Early to Middle Eocene Kharan Limestone. Rakhshani Formation of Paleocene age contains source horizons in shale layers. Its source potential in term of TOC is moderate to good. Kharan Limestone has a fetid odour and the basal part of the formation, which is composed of wackstone, deposited in an environment favorable for the accumulation and preservation of organic matter. These source rocks are predicted to be presently mid to late-mature for oil generation and mature for gas generation.

RESERVOIR ROCKS

Paleocene sandstone of Rakhshani Formation, Eocene limestone of Kharan Formation and sandstone of Nauroze/Amalaf Formation of Oligocene age are the potential reservoirs in the basin. The Rakhshani Formation sandstones have favourable reservoir quality in outcrops. Kharan Limestone is massively bedded, vuggy, and cavernous and has favorable reservoir characteristics. Oligocene sequence is composed of shelf-marginal marine sandstones and deep-water turbidites. In outcrops these sands have good reservoir characters.

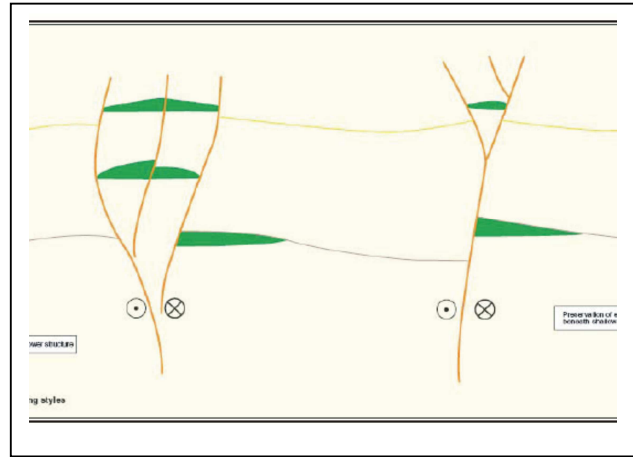
SEAL ROCKS

Intra-formational shale of Rakhshani, Kharan/Saindak and Nauroze formations have potential to act as seal.

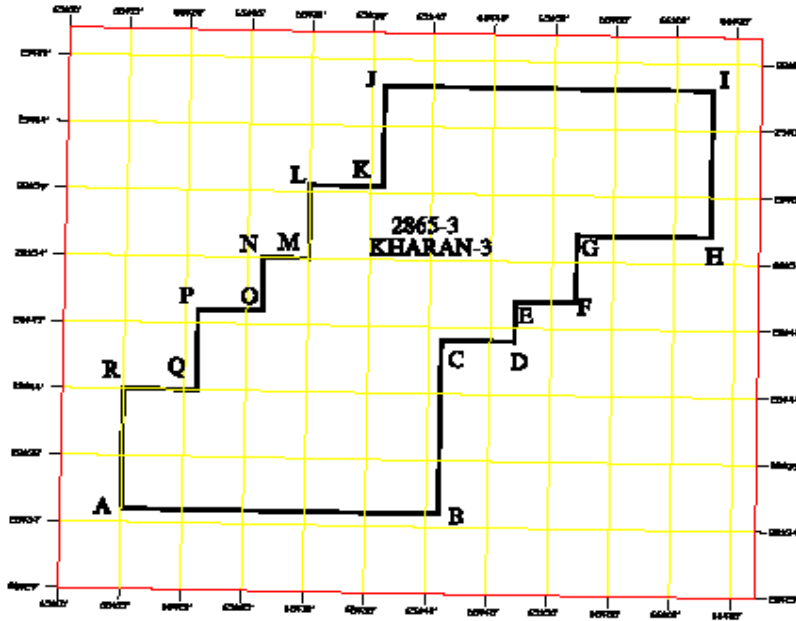
TRAPPING MECHANISM

Based on the tectonic setting of the Balochistan Foldbelt Basin, the trap types can vary from

highly complex to simple. Area adjacent to Chamman Fault System, which is a transform plate boundary, highly complex structures are expected in that area. Farther west of the Chamman Fault, in the Mashkeland Dalbandin troughs, less complex thrust anticlines, pop-ups and fault propagation folds are expected.



BALOCHISTAN FOLDBELT BASIN				
CO-ORDINATES FOR NEW BLOCKS				
VERTICES	LONG_DMS	LAT_DMS	BLOCK NAME	AREA COVERED
A	65°15' 00"	28°35' 00"	2865-3 KHARAN-3	2487.46 Sq.Kms
B	65°41' 00"	28°35' 00"		
C	65°41' 00"	28°48' 00"		
D	65°47' 00"	28°48' 00"		
E	65°47' 00"	28°51' 00"		
F	65°52' 00"	28°51' 00"		
G	65°52' 00"	28°56' 00"		
H	66°03' 00"	28°56' 00"		
I	66°03' 00"	29°07' 00"		
J	65°36' 00"	29°07' 00"		
K	65°36' 00"	28°59' 30"		
L	65°30' 00"	28°59' 30"		
M	65°30' 00"	28°54' 00"		
N	65°26' 10"	28°54' 00"		
O	65°26' 18"	28°50' 00"		
P	65°21' 00"	28°50' 00"		
Q	65°21' 00"	28°44' 00"		
R	65°15' 00"	28°44' 00"		
A	65°15' 00"	28°35' 00"		



	2865-3	KHARAN-3
A	28 35 00.00	65 15 00.00
B	28 35 00.00	65 41 00.00
C	28 48 00.00	65 41 00.00
D	28 48 00.00	65 47 00.00
E	28 51 00.00	65 47 00.00
F	28 51 00.00	65 52 00.00
G	28 56 00.00	65 52 00.00
H	28 56 00.00	66 03 00.00
I	29 07 00.00	66 03 00.00
J	29 07 00.00	65 36 00.00
K	28 59 30.00	65 36 00.00
L	28 59 30.00	65 30 00.00
M	28 54 00.00	65 30 00.00
N	28 54 00.00	65 26 10.00
O	28 50 00.00	65 26 18.00
P	28 50 00.00	65 21 00.00
Q	28 44 00.00	65 21 00.00
R	28 44 00.00	65 15 00.00
A	28 35 00.00	65 15 00.00

2865-3	KHARAN-3
TOTAL AREA	2487.46 Sq.Kms.
ZONE	I

