

Block-III

Location and accessibility

- Serial. No: 40 L/5 (Toposheet No.)
- Name/Blocks: III (B), Saleh Jo Tar
- Area (Sq-Km): 76.80 sq.km.
- Latitude: 24°46'N & 24°53'N
- Longitude: 70°23'E & 70°30'E

Relief, Topography and Climate

Since Block-III (Saleh jo Tar) and III (B) are part of Thar Desert, the topography of the terrain covering these blocks is similar to the general topography of the whole Thar district, which is characterized by typical eolian deposits. The whole area is covered by numerous longitudinal sand dunes stabilized by herbs and shrubs, with intervening narrow and broad valleys, both trending NE-SW. Besides interdunal valleys, there are flat tracts of land present at several locations in Thar, and also in Block-III (B). Full-grown trees are found scattered through these tracts of flat and slightly undulating surfaces. The dunes are longitudinal ranging in relief from tens of meters to hundreds of meters. In Block-III (B), the highest (at Pakka kotha) and lowest points are 158.50 m and 91 m respectively with a relief of 67.5 meters in the area. Rain-fall is very scanty, and only comes in monsoon during the months of June to September. But there can be several years in a row completely without rains. The annual average rainfall ranges between 200 mm to 300 mm. Rain-fall being so rare and terrain so dry, porous and permeable, no regular drainage pattern could have developed in the area. Even heavy downpour is immediately absorbed into the sands of Thar. The temperatures in summer range between 30°C and 35°C, whereas during winter they range from 16.4°C to 22.6°C.

Water Resources

Surface Water:

- (i) Left Bank out Drain
- (ii) Jamrao Canal
- (iii) The marshy land area in the Rann of Kutch.

Groundwater:

According to the hydrogeological investigations carried out by GSP (Records of Geological Survey of Pakistan, 2002, vol.115) a number of water wells that produce brackish water are present in the flat low-lying inter-dune playas. Some tube wells are also present. According to them drilling of boreholes has revealed the presence of three aquifers at variable depths:

- first above the coal zone,
- second within the coal zone and
- third beneath the coal zone

Cross Section showing different water aquifers in coalfield

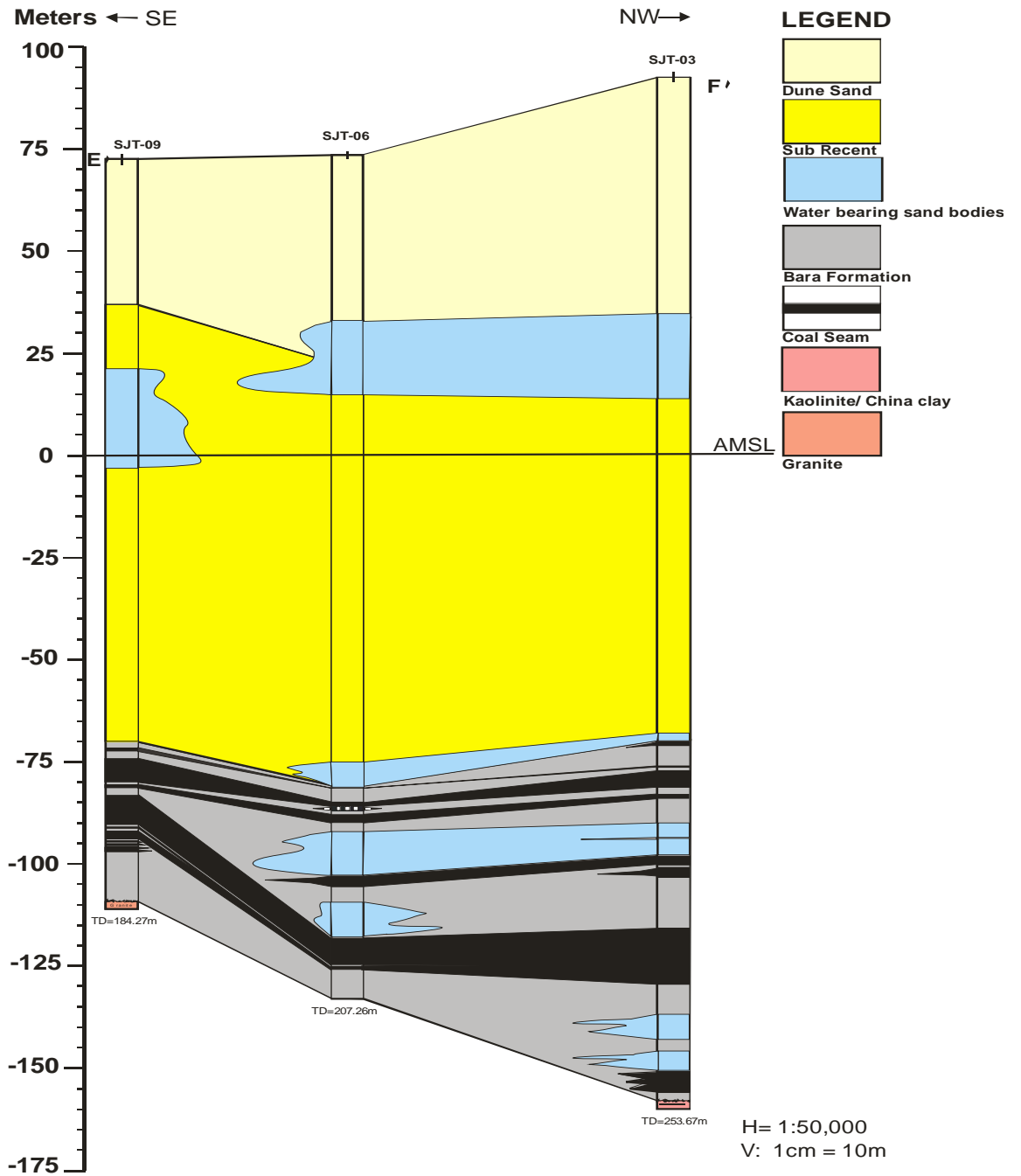


Fig-1: Cross-Section Along Line EF, Showing Different Water Aquifers In Saleh Jo Tar, Block-III(B), Thar Coalfield, Sindh, Pakistan

General Geology of Block-III

Stratigraphic sequence on the Coalfield

Formation	Age	Lithology	Thickness
Dune Sand	Late Pleistocene to Recent	Sand, silt and Clay	51m – 90.70m
..... Unconformity			
Sub-Recent deposits	Pleistocene	Sandstone, siltstone	51m – 175.04m
..... Unconformity			
Bara Formation (Coal bearing)	Mid Paleocene to Early Eocene	Claystone, Shale, Siltstone, Sandstone and Coal	31.33m – 82.41m
..... Unconformity			
Basement Complex	Pre-Cambrian	Gray and pink granite	-

- Cumulative coal thickness Isopach map of coalfield Pakistan

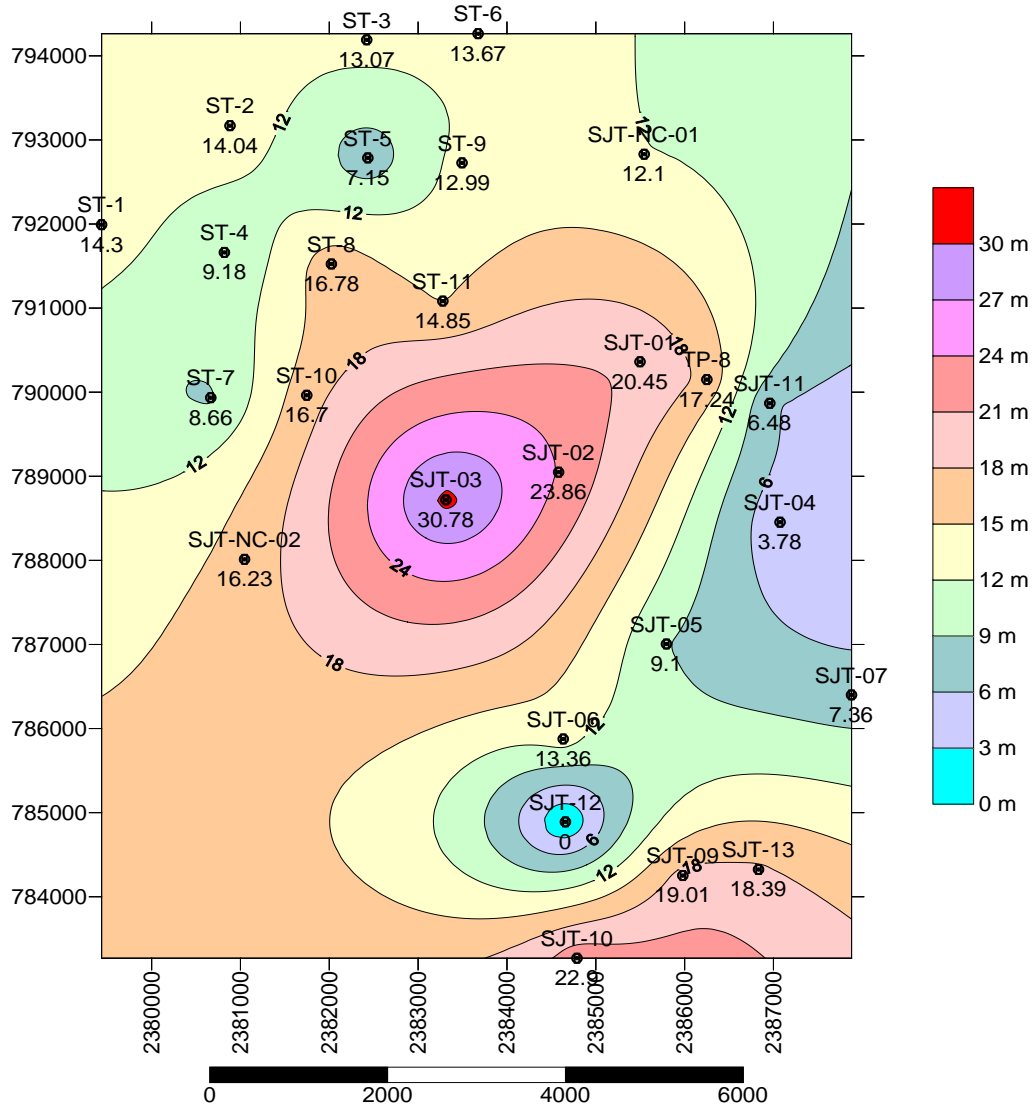


FIG-8a: COMPOSITE ISOPACH MAP OF CUMULATIVE COAL THICKNESS OF BLOCK-III (GSP) AND BLOCK-III (B), THAR COALFIELD, SINDH, PAKISTAN.

- Overburden Isopach of Coalfield Pakistan

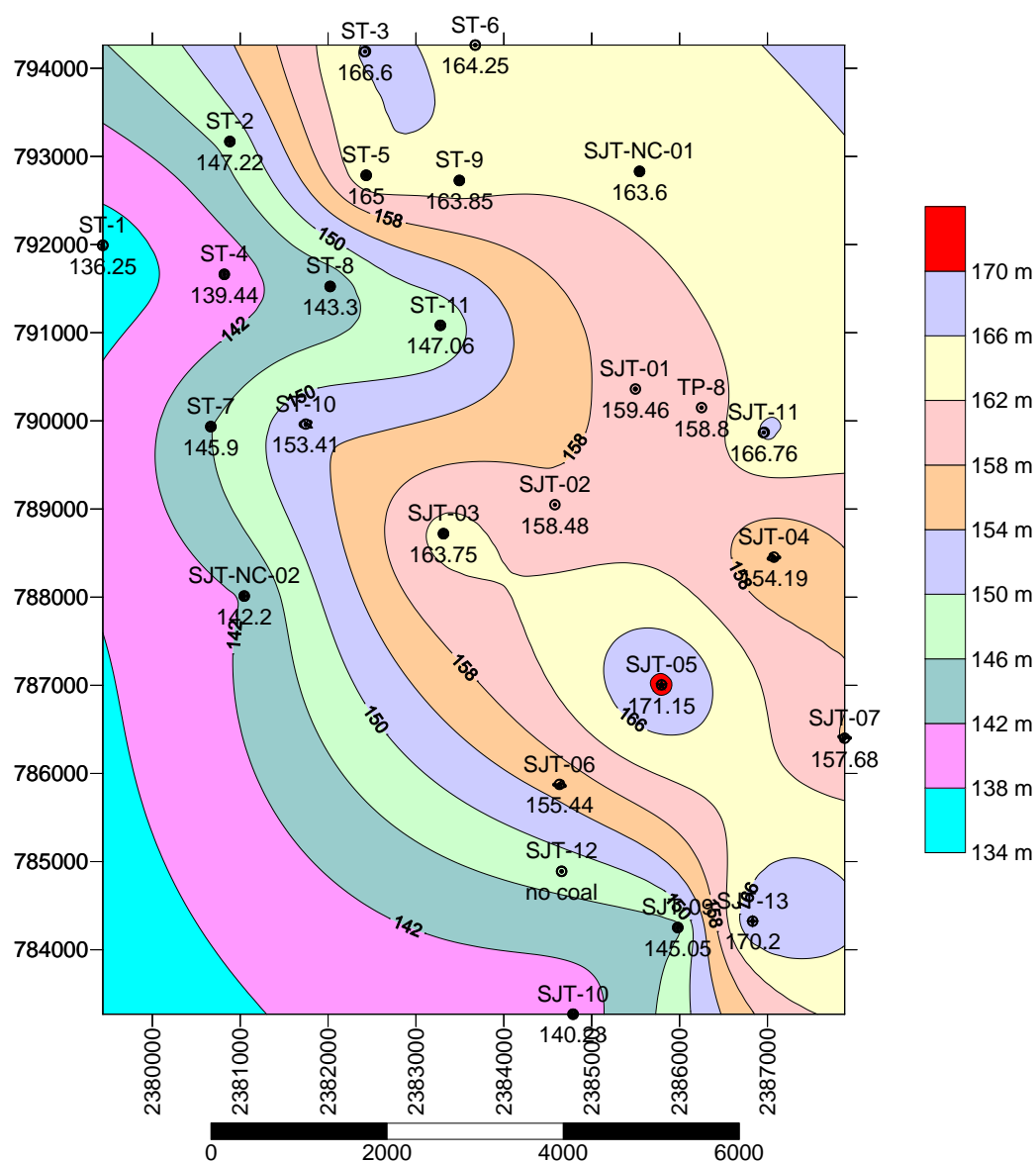


FIG-10a: COMPOSITE ISOPACH MAP OF OVERBURDEN OF BLOCK-III (GSP) AND BLOCK-III (B), THAR COALFIELD, SINDH, PAKISTAN.

- Chemical Composition : (As received)

Moisture %:	47.72%
Ash %:	9.30%
Volatile Matter %:	25.49%
Fixed Carbon%:	16.79%
Sulphur %:	1.15%
Heating value Btu/lb:	4808

Cumulative Reserves of Block-IIIB

Measured Reserves	225.94 million tones
Indicated Reserves	938.91 million tones
Inferred Reserves	288.33 million tones
Total Reserves all categories	<u>1453.18 million tones</u>