

East Coast of India : an Emerging Exploration Frontier

by

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POSTER ABSTRACT

Recently acquired high quality seismic data shot in the offshore East Coast India area and some old reprocessed shallow marine data has revealed a complex depositional model of sedimentation in the Eastern margin of India.

Mesozoic rift sediments were deposited in a series of depressions following “The Eastern Ghats Trend” or the Gondwana Graben. Continued movement along these rifted fault blocks allowed the preservation of Syn-rift Cretaceous sediments. During the Late Cretaceous, sediment accumulation was terminated locally by major volcanic activity. During this phase the regional tilt of the east coast shifted eastwards and the Tertiary mega sequence developed as a consequence of continued sagging and tilting of the continental margin offshore India.

A series of major deltaic systems formed in the Tertiary, building out eastward from India into the deep marine environment.. Depositional products are complex and episodic erosion and re-sedimentation are the dominant processes in this area. Shelf, slopes and deep basinal facies, are clearly all defined. The technique of seismo-stratigraphic analysis was instrumental in the evaluation of this unique shelf margin.

Although virtually undrilled, the area is considered to have distinctive petroleum potential and seismic data will continue to play a key role for future exploration.

About the author

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Darko Tufekcic is Manager of the Western Geophysical integrated Services Center, London. He has 35 years of exploration and petroleum industry experience of which is 5 years were with Zagreb University, 14 years with INA-Oil Industry, Zagreb, and 18 years with Western Geophysical. He has been involved in a broad range of exploration activities in many areas of the world and has published a dozen papers on geophysical and petroleum exploration. Darko has BSc and MSc degrees in Geophysics and Geology from the University of Zagreb.