

**AAPG Annual Convention
Salt Lake City, Utah
May 11-14, 2003**

Yunhua Deng, CNOOC Limited-Tianjin Company, Tianjin, China

Upper Tertiary Hydrocarbon Accumulation and Exploration in Offshore Bohai, China

The Bohai Bay Basin, covering an area of 200,000 sqkm, is located in the northeastern China as one of the most petroliferous basins of the nation. The Eocene succession is mainly of thick lacustrine source rock and fluvial-deltaic reservoir sand. The Upper Tertiary is dominated by fluvial-meandering river clastics. In recent years, more than 10 billion bbls of in place oil was proved in the basin. Its reserves growth ranked the top list in China. Majority of those fields are Upper Tertiary fields and relatively large comparing to Eocene fields. Two phenomena observed are 1) All of the Upper Tertiary fields are close to hydrocarbon source kitchen, and 2) Big fields tend to be at central-eastern part of the basin. The first phenomenon can be explained by "source kitchen controlling" and the second phenomenon can be explained by "seal controlling" since the central-eastern part is more shale prone. Large draping anticline at smaller high seems favoring for big fields. Important play concepts in the basin are draping anticline and complicated anticline formed by different geological forces. The author proposes the following two guidelines for Upper Tertiary exploration 1) Pay more attention to prospects near source kitchens and areas with good seal rock, 2) Apply effective sand-control and testing technology to fully evaluate the reservoir.