Perspectives of Hydrocarbon Exploration and Development in China's Offshore Basins

Zhang, Guo-hua, CNOOC Exploration Department, Shanghai, China

Offshore oil and gas exploration and development in China is developing rapidly. As at the end of 2004, the recoverable reserves in China's offshore region have reached 5,824 MMbbls of oil equivalent with an annual production reaching 209 MMbbls of oil equivalent. The offshore discoveries are primarily from three regions: (1) the Bohai Bay area, where a number of oilfields with the recoverable reserves over millions of barrels have been discovered in the Neogene System; (2) the Pearl River Mouth Basin, South China Sea, where the Huizhou, Lufeng, and Liuhua oilfields have been discovered; and (3) the Yingqiong Basin, South China Sea, where several large gas fields have been discovered.

It is estimated that the annual production in China's offshore oil and gas fields will reach 345 MMbbls of oil equivalent by 2010. Future potential discoveries are expected to be from the deep water areas and the frontier basin areas, which are poorly explored. Future exploration activities will also be focused around these favorable regions identified adjacent to known commercial hydrocarbon discoveries. Exploration programs will be designed to explore fault-blocks, buried hills, structural-lithologic, and lithologic plays around the major proven hydrocarbon-rich sags. Additional effort will also be made on exploring new stratigraphic, structural and lithologic plays in the mid to deep parts of offshore sedimentary basins around China