

## Discovery in China during 2006 to 2010: Seven Hundred-Million-Ton Oil Fields and Ten Hundred-Billion-Cubic-Meter Gas Fields

During the “Eleventh Five-Year Plan” period from 2006 to 2010, China has discovered seven hundred-million-ton oil fields and ten hundred-billion-cubic meter gas fields. With annual oil and gas outputs increasing up to 200 Mt and 942 bcm respectively, it has ranked China the fourth and sixth in world’ oil and gas production.

The seven oil fields with proved oil reserves of more than 100 Mt are: The Tahe oil field (526 Mt) in Akesu of Xinjiang is located in Tarim basin and belongs to fractured-pore carbonate reservoirs buried in the depth up to 5350 to 6600 m; Huaqing oil field (522 Mt) in Qingyang of Shaanxi and Jiyuan oil field (348 Mt) in Qixian of Shaanxi are both located in Ordos basin, and characterized by typical feature of “three lows”—low pressure, low permeability and low abundance oil and gas field; Nanbu oil field (445 Mt) in Hebei and Chenghai oil field (126 Mt) in Tianjin are distributed in the Bahai Bay depression in North China, and belong to Paleozoic carbonate reservoirs occurring in paleo-buried hill fissure and fractures; Xinlongtai oil field (127 Mt) in Liaoning, located in the northern Liaohewan basin, is characterized with typical structure-controlling layer sandstone super heavy oil reservoirs; and Gulong oil field (105 Mt) in Heilongjiang, which is multiple-sourced lithological or structural-lithological oil reservoir formed in complicated tectonic settings.

The ten natural gas fields with reserves exceeding 10 bcm are: Sulige gas field (567.1 bcm) and Jingbian gas field (128.8 bcm) in Shaanxi, both of which are located in Ordos basin and occur in highly heterogeneous compact rocks, with the feature of low permeability, pressure, abundance and output. Hechuan gas field (229.6 bcm) in Chongqing, and Puguang gas field (147.0 bcm), Xinchang gas field (139.3 bcm), Guang’an gas field (135.1 bcm), and Anyue gas field (117.1 bcm) in Sichuan are all distributed within Sichuan basin, which belong to marine-facies deep carbonate reservoirs of Devonian Changxin Formation and Triassic Feixianguan Formation. Tazhong gas field I (316.8 bcm) in Xinjiang belongs to the Ordovician marine carbonate reservoir; Xujiaweizi gas field (103.5 bcm) in Heilongjiang and Kelameili gas field (103.3 bcm) in Xinjiang are two volcanic rock type gas reservoirs.

During the “Eleventh Five-Year Plan” period, China has invested a total of 278.8 bn yuan in oil and gas exploration and newly proven oil and gas reserves reached up to 5.75 Mt and 3.1 tcm respectively, increasing by 15.4% and 14.8% compared with that in the “Tenth Five-Year Plan” period.

(provided by Hao Ziguo, Fei Hongcai and Liu Lian  
on Dec. 1, 2011)

