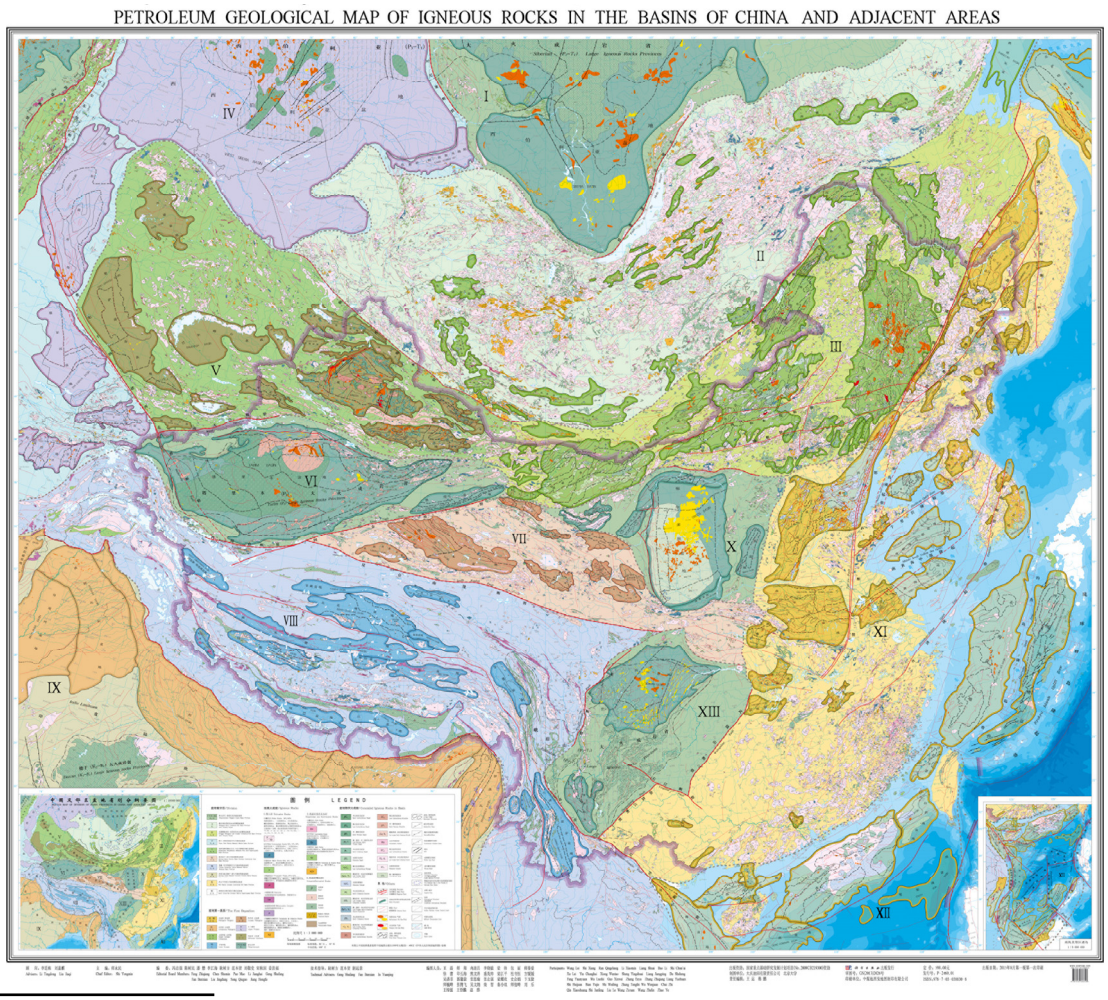
SHI Yongmin, CHEN Shumin, WANG Lei, SHI Xiang and DU Shuheng, 2016. Petroleum Geological Map of Igneous Rocks in the Basins of China and Adjacent Areas. *Acta Geologica Sinica* (English Edition), 90(supp. 1): 24-25.

Petroleum Geological Map of Igneous Rocks in the Basins of China and Adjacent Areas

SHI Yongmin[1, *], CHEN Shumin[2], WANG Lei[1], SHI Xiang[1] and DU Shuheng[1]

1 *School of Earth and Space Sciences, Peking University, Beijing, 100871, China*
2 *Daqing oil company,petrochina, Daqing, 163453, China*

There are much information such as fault structure, stratigraphic distribution and filling features, basal features and igneous rock distribution which are concealed inside the basins of China and adjacent regions. These factors would play important roles on the formation and evolution of the reservoir distribution, coal and other sedimentary mineral distribution. The author filled the concealed geological information in the basin on a small scale geological map by the geological mapping method. Analasis of regional geological setting of basin and the contrast between the basin and the mountain were carried out from a large number of information of surface outcrop



* Corresponding author. E-mail: sym@vip.163.com

and wider geological environment information. From above, we could speculated the structure and the filling feature of basin which lacks of research, and the distribution of energy and mineral resources. The 1:30 00000 petroleum geological map of igneous rocks in the basins was compiled.

When compared with the traditional geological maps, this map has the following three aspects of the characteristics:

(1) When concerned about the mapping method, when compared with the traditional near-surface geological survey and satellite remote sensing image interpretation, the author combined the data of gravity, magnetic, electric, seismic, logging and drilling to carry out the geological mapping.

(2) When concerned about the mapping content, fill in the blank of the concealed igneous rock information inside the basin in geological map because the traditional geological map did not consist of these, which enriched the content of the igneous rock geological map and showed the east Asia continent igneous rocks distribution from the space scale when combined with the surface outcrop igneous rock distribution.

(3) When concerned about the geological understanding, the author use the magmatic activity as clues, the various oil and gas basins with complex geological history in China and its adjacent areaswere classified, which divided into 13 basin province, showing the commonness and individuality of each basin. It may benefit in basin contrast and the strategic selection of oil and gas resources areas.

Thank for Ting-dong Li, Jia-qi Liu and Xu-chang Xiao, three outstanding academicians to give the author precious guidance in aspects such as planning, preparation, requirements of this map.

References

Cukur, D., Horozal, S., Kim, D.C., Lee, G.H., Han, H.C., and Kang, M.H., 2010. The distribution and characteristics of the igneous complexes in the northern East China Sea Shelf Basin and their implications for hydrocarbon potential. *Marine Geophysical Researches*, 31(4): 299-313.

Fu, M.Z., Liu, L.J., Zheng, Y.P., Liu, B.H., Wu, J.L., and Xu, X.W., 2004. Tectonic geomorphology of the Ryukyu Trench-Arc-Backarc System: geological-geophysical exploration and mapping. *Chinese Science Bulletin*, 49(14): 1512-1526.

Jargal, L., and Lee, Y.I., 2006. Detrital modes of the East Gobi Basin (Ondor-Bogd area) sandstones (Late Jurassic-Early Cretaceous) in southeastern Mongolia and their geological implications. *Geosciences Journal*, 10(1): 1-16.