

Current status of Chinese oil shale business

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The current Chinese oil shale business is as follows: (1) Exploration and evaluation have been conducted for Wutu oil shale deposit located in Shandong province, China, by Longkou Coal Mining Group. In Tongchuan, Shanxi province, oil shale will be explored and mined by Hailiang group. In Jimsar County, west of China, Liaoning Chengda Co. Ltd plans to establish shale oil business. The construction of oil shale retorts will be finished in September, 2013. Finally, the shale oil production will reach 2 million tons per year. (2) In 2011, the total shale oil production accounted for about 700,000 tons. 10 shale oil plants are in operation, while the Fushun Bureau of Mines is the largest, producing 350,000 tons shale oil. (3) The Fushun type retort is the main technology used in China. Other technologies include the SJ squared retort and modified Fushun retort with gas reheating system. These retorts only process lump oil shale. In Liushuhe, Heilongjiang province, CNPC is cooperating with Dalian University of Technology to build a demonstration solid heat carrier unit for processing particulate oil shale. Longkou Coal Mining Group plans to import Enefit-280 retort for processing particulate oil shale. In Beipiao, Jilin province, 44 modified Fushun retorts with the daily capacity of 200 tons of oil shale for each have been operated in May, 2012. (4) All the existing commercial plants are beneficial. The shale oil production cost accounted 2000-3000 RMB per ton (50-70 USD/bbl), while the product selling price reached 5000-6000 RMB per ton (120-140 USD/bbl). (5) China University of Petroleum has been continually devoted to the analysis and evaluation of oil shales both from China and from foreign countries, such as, North Korea, Mongolia, Myanmar, Kameroun, etc. Some other investigations have been carried out, including the production of ceramsite using shale ash, hydrotreating of shale oil, fluidized retorting of oil shale, etc. In addition, more than ten Universities and research institutions are conducting oil shale R&D now in China and 6 professional oil shale books have been published over the last 3 years.