

Exploration history in south Caspian Sea: an overview

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The Caspian Sea with its 371.000 km² size is the largest enclosed sea in the world and it is very rich in hydrocarbon resources. Petroleum exploration activities have been increased rapidly in the last century. Especially since the breakup of the former Soviet Union, the broader Caspian region has become available to foreign investors for either developing existing hydrocarbon fields and/or exploring for new targets.

Compared to the super giant oil and gas fields in the Zagros basin and partially in the Kopeh Dagh basin, the south Caspian area has never been studied fully for petroleum exploration purposes.

Exploration activities have been started in south Caspian by NIOC (National Iranian Oil Company) about fifty years ago. Since 1996, KEPCo (Khazar Exploration Petroleum Company) took over all Iranian Caspian exploration activities. Foreign companies like Schell, Lasmo and etc. have been working in this area as well and various studies have been done during this time ranging from surface geology, geochemistry and geophysics. In particular, lots of 2D and 3D reflection seismic data have been acquired covering most of the southern basin.

There are number of key wells (for example, Meysam, Gorgan, Meghdad, Khazar) which have been drilled in this area. The deepest well is Khazar-1 with depth of over 5,000m which proved the presence of gas but had substantial operational issues. Just recently, the first truly deepwater well is going to be spud (at water depth of ~850m) in the southwest Caspian Sea which would be quite important to confirm the play in that part of the basin.

This presentation will provide a concise overview of exploration activities in the Iranian segment of the south Caspian during the past 50 years.