

THE GUNESHLI-CHIRAG-AZERI (GCA) MEGASTRUCTURE DEVELOPMENT IN AZERBAIJAN

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Azerbaijan occupies a dominant and central geographical location in the Caspian Region. Azerbaijan is a country historically rich in industry, a situation which continues to the present day. The chief industry is of course oil, with Azerbaijan being one of the earliest commercial oil producers in the world. Groundbreaking technical achievements were developed here, for example the mechanical methods introduced by the Nobel Brothers at the turn of the 20th century. Oil is produced both onshore and offshore Azerbaijan, with offshore activity starting in the 1940's.

Currently the GCA field is one of the biggest offshore producing fields on the extension of the Apsheron peninsula, in the north-west of the South Caspian Basin. The GCA structure is a series of anticlines with a NW-SE trend. This field is located about 100 km SE of Baku in water depths of between 120 and 280m. The South Caspian is an active tectonic region with active mud volcanoes. These affect seabed competence and can be a source of problems during operations in this area. The sea bottom is not firm and large landslides and silt flows were found in this area. Mud volcanoes and shallow gas accumulations were also determined in the GCA area, which created problems during well drilling and development operations.

After the historic signing of the GCA contract in September 1994, AIOC started to operate with a consortium originally consisting of 11 oil companies from 7 countries. Recently, operatorship of AIOC was taken over by BP-Amoco. Between 1995 and the middle of this year, AIOC successfully shot the first 3D seismic survey, SOCAR's semi-submersible rig was upgraded and drilled five GCA appraisal wells were drilled confirming the commerciality of the Chirag Early Oil Project. In 1997, after the upgrading of SOCAR's CHIRAG-1 platform, AIOC drilled 12 production and 2 injection wells. The first oil was produced in November 1997. Daily platform production is approximately 100kbopd with average well rates between 10 and 25kbopd.

After the installation of water injection and a rig upgrade on Chirag, BP-Amoco will start the next Chirag development phase, carrying out extended reach drilling (ERD) on Chirag field. The aim is to increase oil production and maintain reservoir pressure by injection.

All of this will be integrated with the next phase of the fullfield development, which is focused on the Azeri structure.