

PS Afghanistan-Under Explored Basins and Hydrocarbon Potential Study*

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Search and Discovery Article #10478 (2013)**
Posted January 29, 2013

*Adapted from poster presentation given at PAPG/SPE 2012 Annual Technical Conference, Islamabad, Pakistan, 3-5 December 2012

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Abstract

For over more than a decade, wells drilled by the Soviet Union in the 1960s and 1980s were abandoned and left out in the open as an icon of exploration and hydrocarbon existence and potential. We estimate over 962 mbo, 52 tcf of natural gas, and 582 million barrels of natural gas liquids in Amu Darya Basin including 946 mbo, 7 tcf of natural gas and 85 million barrels of natural gas liquids for the Afghan Tajik Basin. Both basins fall in three different countries of Central Asia and are one of the prolific hydrocarbon basins in region. Afghanistan hydrocarbon resources are important for the redevelopment of Afghanistan's infrastructure. One of the results of more than two decades of strife in Afghanistan is a shortage or absence of energy required to improve living conditions. The presence of petroleum resources has long been known in Afghanistan and from the recent exploration activity and 2D seismic survey; the basins have shown promising structure in the Afghanistan region. Both basins lie in the northern areas of Afghanistan where we have low security threat. The Government of Afghanistan and Ministry of Mines have already initiated work on exploration and are moving forward to appraise and develop the fields. The US Geological Survey cooperated with the Afghanistan Ministry of Mines and Industry in assessing the potentially undiscovered technically recoverable conventional petroleum resources of Afghanistan. Much of the petroleum resource potential of Afghanistan and all of the known crude oil and natural gas reserves are in northern Afghanistan, located in parts of two petroliferous geologic basins — the Amu Darya Basin to the west and the Afghan-Tajik Basin to the east.

The paper briefly discusses the hydrocarbon potential of Afghanistan and its geological study including exploration and production opportunities.

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