Oil Exploration in Middle East and Formation of OPEC

What is exploration?

The exploration means almost the same as detective work (Haderre, p, 28). It needs seeking clues, keen studying of the ground structure, writing down information and analyzing the survey material. The petroleum geoscientists professional are the people tasked with this duty who have vast experience on rock formation. These people works in the oil firms where they carry out their research for oil exploration. They look for areas where there might be presence of this black gold. They search for the availability of hydrocarbons beneath the earth surface. They also locate the favorable places to start drilling. To start their work, they have to examine the arrangement of different plate of rocks below the earth surface (Haderrer, p, 28). They employ special machine to examine the rock layers beneath the earth. With the help of advanced technological tools such as space photography, satellite images, and dedicated machines. They are able to determine earth’s gravity variation and magnetic areas; they can also locate crude oil basins.

Oil exploration in Middle East

A vast amount of oil basins are as a formation of plate tectonic in Middle East. The ocean ridge found in Red Sea causes Saudi Arabian plate to shift northeast and meet the plate of Eurasian. The Persian Gulf is compressed between 2 rocks, creating the folded oil fields in Middle East. This pressure is more eminent on the upper Eastern side of Saudi Arabia extending to Iran and Iraq leading to the formation of Zargos Mountain (Hyne, p, 148). The largest oil basin on the planet Earth is the Ghawar field in Saudi Arabia.

The basin is located in an inclination trap measuring one hundred and forty-five miles long a width of thirteen miles. A fractured limestone is the reservoir block. The reservoir stone is located in a depth of one thousand five hundred meters, while the oil field is at 1800 feet. The salt elements found on top of the Hith Formation are seal. The Ghawar oil field produces an average of 11400 gallons of oil in a day (Hyne, p, 148). The estimated amount of total oil deposit in it is at eighty two billions of gallons.

In Iran, the Gashsaran oil deposit is in a dented anticline. Big thrust and inverted faults are connected to the anticline which is also a product of compression of moving rocks. The Asmari limestone reservoir block of Oligocene-Miocene period measures about one thousand to 1500 feet thick. The salt forming seal overlie on the limestone. On the raised side of the anticline the high dipping line rock deposit measures six thousand feet overall oil pay area. The projected total volume of oil in this area is about eight point five gallons.

The formation of Organization of Petroleum Exporting Countries (OPEC)

Many oil discoveries were many in several places around the globe. This led to new oil entrant companies in the market that led to fluctuation in oil prices. The American firms started controlling the oil prices and output making the Middle East nations to form their own alliance.

To safeguard their income from oil proceeds, they draw an agreement in 1950s that would help them in sharing out profit earned. They bases their measure not on actual prices but on fixed value which they believed should remain unchanged (Favennec, 10). However, there was more reduction in prices in 1959 and 1960, so as to protect their economic margin. The manufacturing nation decided to form the OPEC. Five countries which included Saudi Arabia, Kuwait, Iran, Iraq and Venezuela were the founding members of this body (Favennec, 10). With time eight more nations joined
increasing the number to thirteen. These comprises of Qatar, Indonesia, Libya, the United Arab Emirates, Algeria, Nigeria, Ecuador, and lastly Gabon (Favennec, 10). Some countries did not stay for long enough and left; Ecuador in 1992 and Gabon in nineteen ninety-six. The organization was created to control reduction prices of oil which they managed to maintain for ten years. Nevertheless, later there was farther cost increase in the nineteen seventies. That made those nations to withdraw their membership.

Other factors that contributed to the creation of this body were due to unfavorable political goodwill and decline in economic system. These countries felt that the United State European countries were misusing their powers to influence the oil prices. There was also unpredicted fall in prices that they could not contend with any more. As oil demand rose to a point where it accounted for fifty per cent of energy required in Europe and three fourth of that needed in Japan (Denis, 25). There was also another shock in the whole globe; the global oil deposit could only be measured to thirty years of drilling with that current level of output in 1970s. There was a feeling that oil store could be depleted come new millennium. A report published in Rome gave a warning to end of the natural and non-renewable asserts as a consequence of economic progress.

Work cited