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Gas Condensate Reservoir Developmental Techniques

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Abstract

The use of energy has evolved significantly in the past 5 decades from coal to oil to being dominated using natural gas in the next 30 years. When the complete switch from crude oil to natural gas will occur, is still a debatable topic but some researchers suggest the age of natural gas has arrived. Natural gas presently provides about 25% of the global energy supply and its desire is increasing significantly. From an environmental point of view, natural gas has also become a more desirable energy source as it is the cleaner as compared to other fossil fuels, relatively cheaper and abundant and proving stability of supply. However, some natural gas resource turn to produce liquid hydrocarbons called condensates when their pressure drops below the dew point pressure forming liquids called condensates. Gas condensate fields are very valuable resources high gas prices due to

expanding gas markets. Likewise, they are also very valuable when gas prices are low because of they can produce valuable liquids. Producing from these condensate systems is challenging as they tend to produce liquids upon pressure reduction below dew point. The development of gas condensate reservoirs is like the development of dry gas reservoirs. However, two significant differences are: condensates flow in the near the wellbore region of the reservoir and significant liquid production over the life of the reservoir. This review discusses condensate reservoir development options. The advantages and disadvantages of the various development options are discussed.

Keywords

Gas condensate
Pressure maintenance
Gas cycling
Chemical treatment
Nitrogen injection
Huff and Puff

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