

Investigation of carbonated water injection in an oil reservoir to enhance oil recovery

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Abstract

In this paper, according to actual condition of an oil field, a new enhanced oil recovery method called carbonated water injection was designed and tested for this oil field. Recovery efficiency of this EOR method was tested experimentally using several cores of this sandstone reservoir. Reservoir rock and fluid properties changing during this process were investigated. For this purpose, a set of experimental tests based on core flooding tests on sandstones were designed. Totally, this research was done in two sections. In phase 1, called problem statement, we tried to get enough data and information about this field to know the problems in this field related to this research topic. In phase 2, called finding solution methods, solution methods for solving these problems were investigated.

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Biography

Abdollah Esmaeili work in National Iranian Oil Company (N.I.O.C). I work in this company as a senior petroleum engineer and I have a permanent position in this company. My experience in this company from

beginning to now is 28 years. Furthermore, I teach petroleum engineering courses in universities of Iran and international universities worldwide. I have attended in several scientific international conferences as speaker and lead several international scientific workshops and master classes worldwide publications.