

Impact of Chemical Flooding on Displacement Efficiency in Shallow Carbonate Marine Reservoir (Case Study)

Authors : Tarek Duzan, Walid Eddib

Abstract : The marine shallow carbonate reservoir (G- Eocene) is one of the biggest mature water drive reservoir of Waha Oil Company. The cumulative oil produced up to date is about to eighty percent of the booked original oil in place at ninety five percent of Water cut. However, the company believes that there is a good amount of remaining oil left need to be recovered. Many laboratory studies have been conducted to see the possibility drain the commercial oil left behind using two types of gases, namely, carbone dioxide and enriched hydrocarbon gas injection. The conclusions of those cases were inconclusive Technically and Economically. Therefore, the company has decided to verify another Tertiary Recovery (EOR) technique that may be applied to the interested reservoir. A global screening criteria and quick Laboratory chemical tests have been conducted by using many types of chemical injection into real rock samples. The outcomes were unique economically and provide a significant increase in the commercial oil left. Finally, the company has started conducting a sector pilot plan before proceeding with a full plan. There are many wellbores available to use in a potential field Enhanced Oil Recovery.

Keywords : chemical lab. test, ASP, rock types, oil samples, and global screening criteria

Conference Title : ICOGPCF 2022 : International Conference on Oil and Gas Projects in Common Fields

Conference Location : Kuala Lumpur, Malaysia

Conference Dates : August 30-31, 2022