EVALUATION OF TERMINAL WATER-CUT OF EXCESS WATER PRODUCING OIL WELLS IN THE NIGER DELTA OILFIELDS

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ABSTRACT

This paper evaluates the terminal Water-Cut of selected Oil Wells in the Niger Delta Oilfields using the Prosper software to run sensitivity to determine the natural flowing limit of bottom Sediment and Sand (BS&W). It covers the understanding of the water production mechanism which causes excess water production problems. Evaluation was done with PVT data, Well deviation Survey data, Well completion schematics, flow test data all inputted in the Prosper tool with different correlations .The post water shut sensitivity analysis shows that at 88% the oil production rate for NDZ_A was 287 Bopd with gas rate of 676scf/day and water rate of 2107stb/day while NKZ_B well indicates that at 94% the oil production rate was 138Bopd with gas rate of 156scf/day and water rate of 2154 stb/day. The results shows different percentage of Water-cut when sensitivities were run, which is the limit the well will stop flowing or produce oil. The importance of the Model is its quick in resolving issues and proper well reservoir and facility management. The use of prosper software is accurate if the data's inputted are correct and current.

Keywords: Water -cut, Prosper Model, Sensitivity and Niger Delta Oil wells.