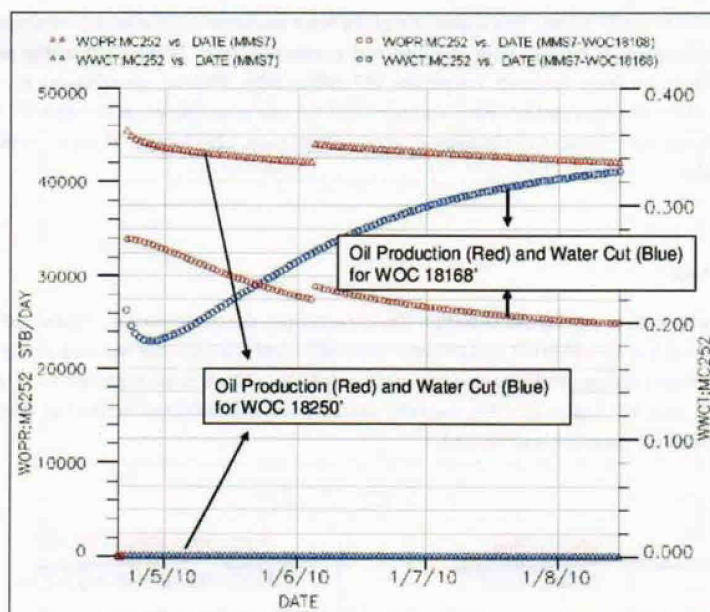**Appendix C.1 Kelkar Report**

Figure 19   Simulations Results in Water Production for WOC 18168ft.

1. Uncertainty in the reservoir structure: We use the 2 structure previously described to simulate the influence of bulk volume on the wells performance.

2. Uncertainty in porosity (pore volume): We assumed that the porosity values can be 7% higher than that of log measured value. For example, pay zone 2 which has average porosity of 26% will then be 33%.

3. Uncertainty in permeability: This is one of the most important parameters for uncertainty due to its impact on wells productivity. Therefore, we assumed that permeability values can be 50% higher than that of the base case values obtained from core measurements.

4. Uncertainty in rock compressibility: We have used the average rock compressibility (5.61 E-6) from the data as base case and maximum compressibility (8.29E-6) value for the high case.

5. Uncertainty in PVT: We have assumed two different PVT tables to reflect uncertainty in the oil properties reflected in solution gas ratio (or bubble point pressure). The base case assumes an R_s (solution gas ratio) of 2544 and the maximum case uses 2100.

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