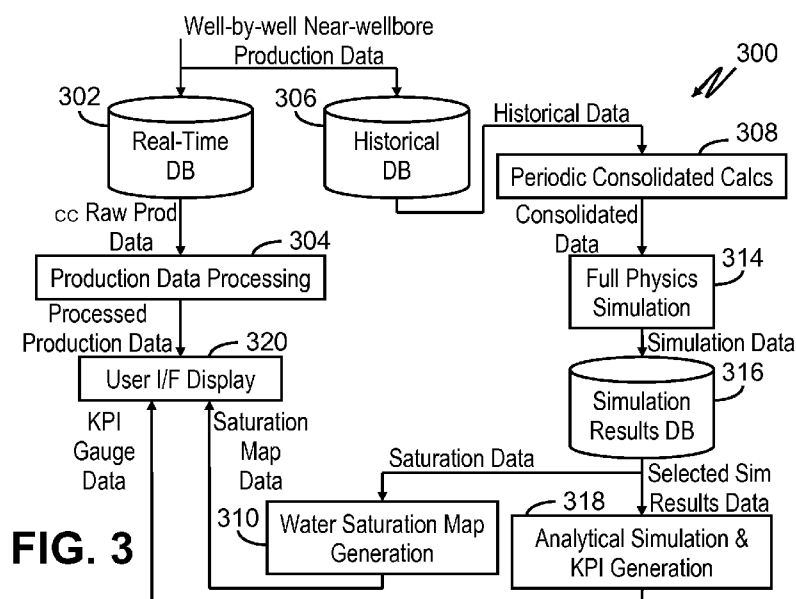




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(54) **Title:** MONITORING AND DIAGNOSING WATER FLOODED RESERVOIRS

(57) **Abstract:** The present disclosure describes systems and methods for monitoring and diagnosing reservoirs. At least some illustrative embodiments include a method that includes collecting measured near-wellbore data representative of conditions at or near wells within the reservoir (e.g., oil and gas wells), storing the measured near-wellbore data in one or more databases and graphically presenting to a user simulated interwell data generated by a reservoir simulation based at least in part on the measured near-wellbore data. The method further includes graphically overlaying at least some of the measured near-wellbore data over the simulated interwell data and graphically presenting to the user one or more production indicators calculated based at least in part on the simulated interwell data.



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