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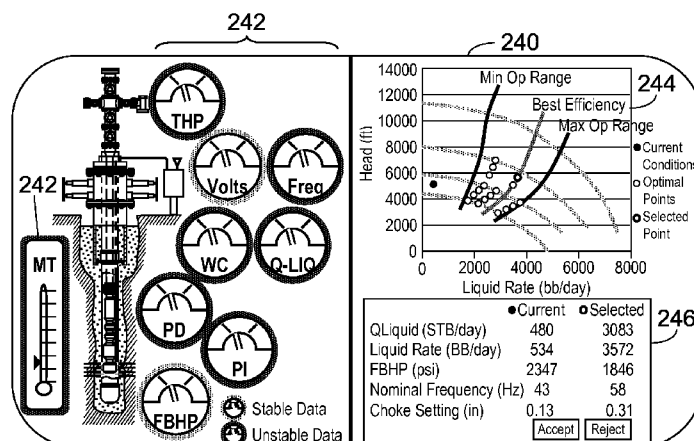
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(54) Title: ELECTRIC SUBMERSIBLE PUMP OPERATIONS



(57) **Abstract:** The present disclosure describes systems and methods for monitoring, diagnosing and optimizing operation of an electric submersible pump (ESP). At least some illustrative embodiments include a method that includes collecting measured data representative of a state of an ESP within a well or of well conditions and storing the measured data, matching a nodal analysis model of the well to the well by matching one or more modeled values to corresponding measured data, and identifying one or more likely conditions of the ESP based at least in part on data generated by a matched model. The method further includes updating the matched model to reflect a selected correction of one of the likely conditions identified, generating ESP performance curves using the updated model, and presenting to a user an action recommended to achieve an ESP performance consistent with an ESP operating point selected from one of the ESP performance curves.