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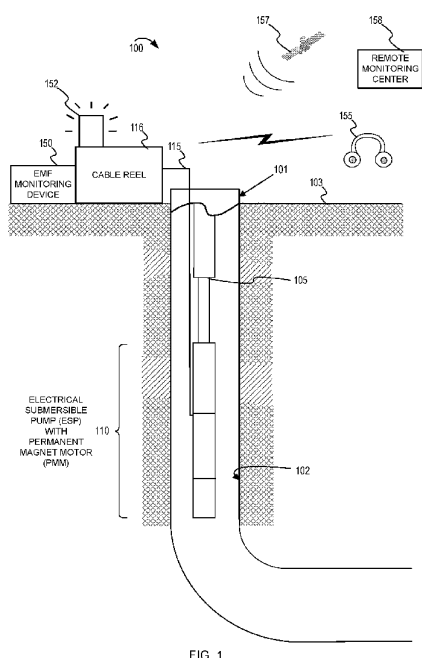
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(54) Title: ELECTROMOTIVE FORCE (EMF) MONITORING FOR AN ELECTRICAL SUBMERSIBLE PUMP (ESP) WITH PERMANENT MAGNET MOTOR (PMM)



(57) Abstract: Systems, methods, and apparatus, including computer programs encoded on computer-readable media, for monitoring an electromotive force (EMF) for an electrical submersible pump (ESP) having a permanent magnet motor (PMM) are disclosed. One or more voltages and one or more currents may be monitored in a cable coupled to the ESP having the PMM and being used in a well system. It may be determined whether at least one of the one or more voltages in the cable exceeds a voltage threshold and whether at least one of the one or more currents in the cable exceeds a current threshold. A notification may be generated to indicate an EMF condition if at least one of the one or more voltages and the one or more currents in the cable exceeds at least one of the one or more thresholds.

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