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(54) Title: LONG-TERM TREND ANALYSIS FOR EQUIPMENT FOR WELL SYSTEMS

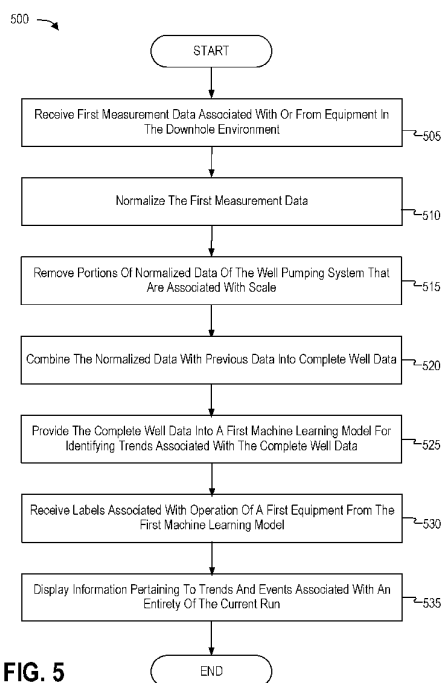


FIG. 5

(57) Abstract: Disclosed are systems, apparatuses, methods, and computer readable medium for long term trend analysis for equipment for well systems. A method includes: receiving first measurement data associated with or from equipment submersed into a downhole environment during a portion of a current operation for extracting materials from the downhole environment at a pumping system for a well; normalizing the first measurement data; removing portions of normalized data that are associated with scale; combining the normalized data with previous data into complete well data, wherein the previous data is associated with previous runs of the downhole environment; providing the complete well data into a first machine learning model for identifying trends associated with the complete well data; receiving labels associated with operation of a first equipment from the first machine learning model; and displaying information pertaining to trends and events associated with an entirety of the current operation.

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