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(54) Title: WELLBORE THERMAL FLOW, STRESS AND WELL LOADING ANALYSIS WITH JET PUMP

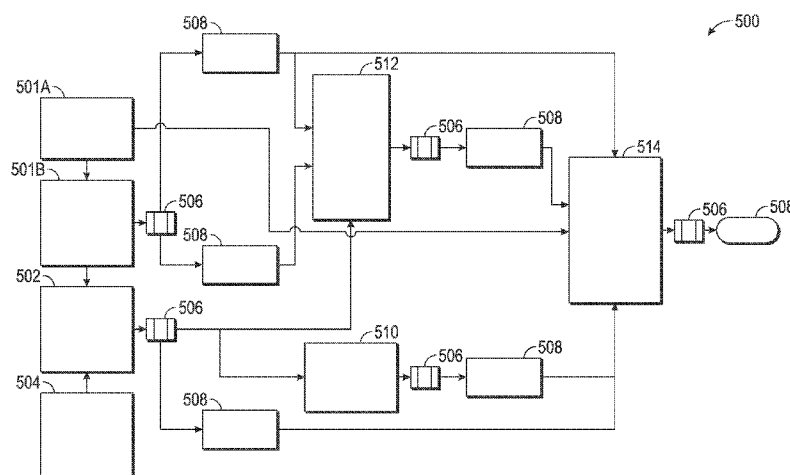


FIG. 5

(57) Abstract: A method for simulating a well system can include providing a well system model, providing a jet pump model, providing at least one calculation engine, inputting an input parameter, defining a mechanical configuration of the well system, integrating a jet pump model into a well system model, computing a solution to a model, and determining at least one production condition of a well system. A computer readable medium can have instructions stored thereon that, when executed by a processor, can cause the processor to perform a method including accessing a well system model, accessing a jet pump model, integrating the jet pump model and the well system model, computing a solution to a combined model, and determining a production condition of a well system.