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[54] PUMPING SYSTEM

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[57] ABSTRACT

To draw samples from a source of liquid, a pumping system measures the amount of liquid being pumped by detecting pump cycles and calculating the pumped liquid from this measurement and stored data including conduit size, pressure head and statistical data to correlate detected pump cycles with volume of liquid pumped. Pressure pulses caused by a peristaltic pump are sensed by a piezoelectric film positioned on an inlet conduit connecting the pump to the source of water and, when the liquid reaches a predetermined point determined by the nature of the pulses, the pulses are counted to determine the number of pump cycles.

43 Claims, 9 Drawing Sheets

