



[54] AUTOMATED WATER SAMPLE COLLECTING SYSTEM

FOREIGN PATENT DOCUMENTS

3134722 3/1983 Germany ..... 73/864.35

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[57] ABSTRACT

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An automated water sampling system collects multiple samples of sample water at a remote site. A multiport valve provides a plurality of ports and respective port inlets. A sample water intake line is coupled to the respective port inlets. A plurality of sample receivers or sample containers are coupled to respective ports of the multiport valve. At least one container of cleaning liquid is also coupled to a port of the multiport valve. An output manifold provides a plurality of manifold outlets coupled to the respective sampler receivers and to at least one container of cleaning liquid. A pumping water output line is coupled to the plurality of manifold outlets. A reversible pump is coupled in the water output line for pumping and drawing sample water through the intake line into selected sample receivers and for pumping and pushing cleaning liquid from said at least one cleaning liquid container out the sample water intake line. The multiport valve opens and closes the ports one at a time. The water sample receivers are each constructed as an elongate container having a sample water opening at one end, a pumping water opening at the other end, and a slidable sealing piston container within and slidable between the ends of the elongate container in response to differential pressure across the piston. The cleaning liquid container is similarly constructed and a flushing liquid container may also be coupled to a port of the multiport valve for flushing away the cleaning liquid.

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[58] Field of Search ..... 137/15, 240, 625.11; 73/864.34, 864.35

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21 Claims, 6 Drawing Sheets

