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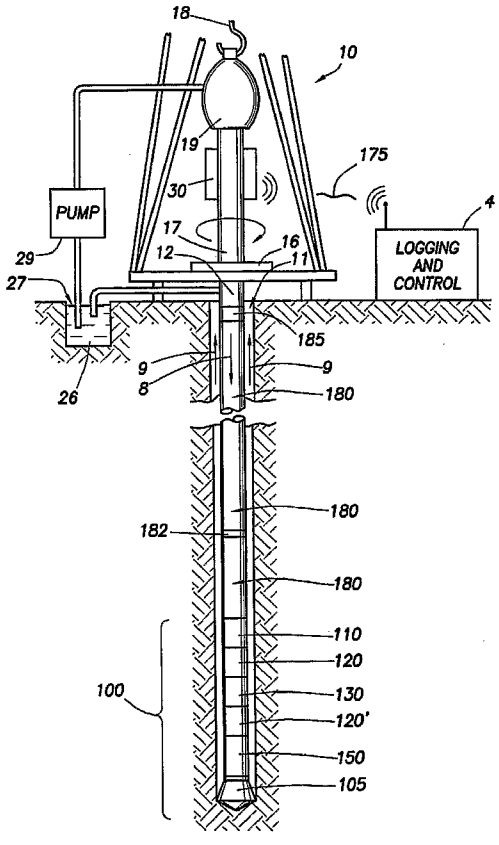
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*[Continued on next page]*

(54) Title: SURFACE COMMUNICATION APPARATUS AND METHOD FOR USE WITH STRING TELEMETRY




(57) Abstract: A system for bidirectional communication between the downhole equipment and a processor subsystem at the earth's surface, including: a section of wired drill pipes (180) comprising at least the upper portion of a string of drill pipes (12), and forming at least a portion of a bidirectional communication link between downhole equipment and the top of the string of drill pipes; a drive string portion of the drill string, mechanically coupleable with the topmost wired drill pipe; a drive mechanism mechanically coupleable with said drive string portion, for rotating the drill string; a first wireless transceiver subsystem (185) mounted on the drive string portion of the drill string, for rotation in conjunction with the drill string; a cable, electrically coupled between the top joint of the topmost wired drill pipe and the first transceiver subsystem; and a second wireless transceiver subsystem (110) coupled with the uphole processor subsystem, the second wireless transceiver subsystem communicating bidirectionally with the first wireless transceiver subsystem.

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