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(54) Title: SOIL ANALYSIS AND SAMPLING SYSTEM

(57) Abstract

A soil analysis and sampling system is provided with an outer tube (1) having near its outer end a part (3) with a decreased inside diameter and at its outer end a drilling head (1') having an opening in the centre; a series of extension tubes (2) which are connected to the top end of the outer tube (1); an upward seal (18) for the extension tubes (2); a pump system for introducing compressed fluid under the upward seal (18); and a tool provided with a hydraulic cylinder (8) cooperating with the outer tube (1), which cylinder (8) comprises a piston (9) moving in a linear motion when fluid pressure is exerted onto one side of the piston (9), and a rod (12), connected at one outer end with the piston (9) and at the other outer end with a sampling tube (13) or bottom hole analysis probe, whereby the downward movement of the piston pushes the tube (13) or probe below the drilling head (1') into the ground. The pump system is connected to the extension tubes (2) such that under the upward seal (18) fluid in the outer tube (1) and the extension tubes (2) can be compressed, and that the hydraulic cylinder (8) is provided at the top with a passage (24) allowing this fluid under pressure to enter above the piston (9) and wherein the cylinder (8) and piston (9) are provided with a control device (24') which causes the fluid under pressure to pass through at one side of the piston (9) at a substantially constant rate when the fluid in the extension tubes (2) is compressed.

