

Title (en)

DEVICE WITH CAPACITIVE ELECTRODES FOR MEASURING SUBSURFACE ELECTRIC CHARACTERISTICS

Title (de)

VORRICHTUNG ZUM MESSEN VON UNTERIRDISCHEN ELEKTRISCHEN CHARAKTERISTIKEN MIT KAPAZITIVEN ELEKTRODEN

Title (fr)

DISPOSITIF DE MESURE DES CARACTERISTIQUES ELECTRIQUES DANS LE SOUS-SOL A ELECTRODES CAPACITIVES

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Application

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Priority

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Abstract (en)

[origin: FR2782170A1] The invention concerns a electrical prospecting device in a borehole with capacitive electrodes comprising at least two injection electrodes (16, 20), at least two measuring electrodes (28, 34) and a current generator (22) for applying an electric current between the two injection electrodes. The current generator (22) delivers an alternating current whereof the frequency ranges from 5 kHz to 100 kHz under a voltage less than 1000 volts. At least one of the measuring or injection electrodes (16, 28) is arranged in a borehole (12, 14) and has an electricity conducting cylindrical outer surface. The device further comprises means (24) for measuring the intensity of the current passing through said injection electrodes, means for measuring the difference of potential between the two measuring electrodes (36, 36b), and means for processing the intensity measurements and the potential difference to deduce therefrom the characteristics of the subsurface where the borehole is located.

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