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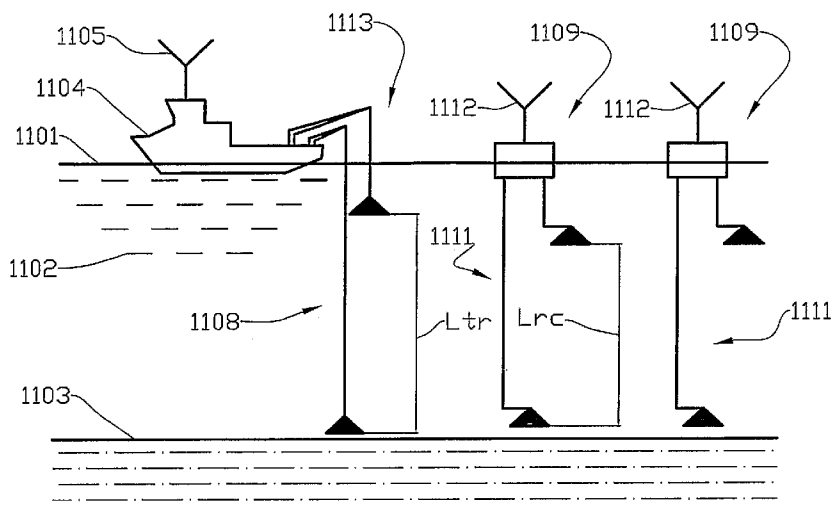
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(54) Title: A METHOD FOR HYDROCARBON RESERVOIR MAPPING AND APPARATUS FOR USE WHEN PERFORMING THE METHOD



(57) Abstract: A method is proposed for a marine electromagnetic survey based on the TM mode, for the purpose of prospecting for and detecting subsurface hydrocarbon reservoirs. The method includes an electromagnetic field source (1113) that, in a submerged, essentially vertical transmitter antenna, generates and injects electric current pulses (81,82) with a sharply defined termination. An electromagnetic field generated by these pulses (81,82) is measured by at least one receiver (1109) provided with an essentially vertical receiver antenna (1111) submerged in water, during the interval when the current in the transmitter antenna (1108) of the electromagnetic field source (1113) is switched off. The distance between the electromagnetic field source (1113) and the at least one receiver (1109) is smaller than the depth of the target object. An apparatus is also described, for implementation of the method.

WO 2007/053025 A1



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