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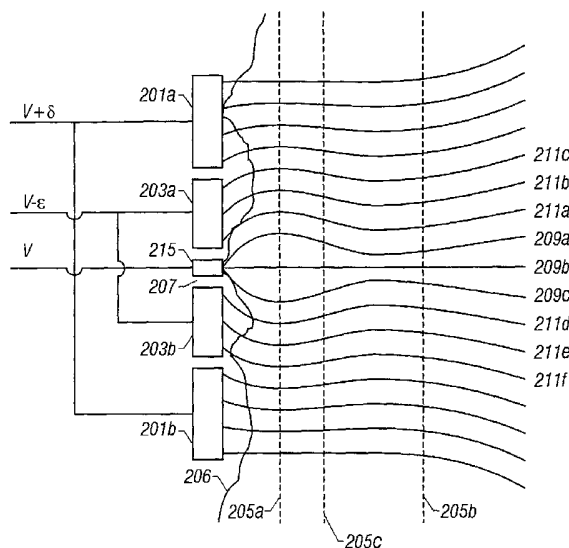
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(54) Title: AN IMAGE FOCUSING METHOD AND APPARATUS FOR WELLBORE RESISTIVITY IMAGING



(57) Abstract: An apparatus for obtaining resistivity images of a borehole includes an array of measure electrodes (215) separated from a pad or the body of the instrument (210a-b) by a guard electrode (203a-b). The guard electrode is maintained at a slightly lower potential than the pad and the measure electrode is at an intermediate potential thereto. With this arrangement the current (211a-f) from the guard electrode defocuses the measure current (209a-c) from the measure electrode as it enters the formation, and at greater distances, the current from the measure electrode is refocused by the effect of the current from the pad. This defocusing and refocusing defines a region of investigation (205b-c) away from the borehole wall that is relatively insensitive to borehole rugosity.

WO 01/051880 A3



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/00742**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) :G01V 3/20

US CL :324/374

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 324/374, 347, 355, 367, 373, 375

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
noneElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
none**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,692,707 A [Locke et al.] 08 September 1987 (08.09.1987), see Abstract.	1-19
A	US 5,036,283 A [Trouiller et al.] 30 July 1991 (30.07.1991), see Abstract.	1-19



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
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