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(54) Title: METHOD FOR DETERMINING ELECTROMAGNETIC SURVEY SENSOR ORIENTATION

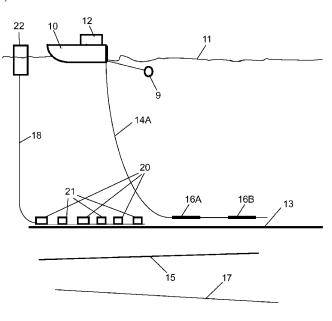


FIG 1A

(57) Abstract: A method for determining orientation of an electromagnetic survey sensor includes deploying the sensor at a selected position on the bottom of a body of water. An electromagnetic field is generated at a selected position in the body of water. A portion of the electromagnetic field is detected along at least two orthogonal directions at the sensor. A portion of the detected electromagnetic field is selected as having traveled only in a vertical plane which includes both source position and sensor position. The polarization direction of the selected portion of the electromagnetic field is determined from the selected portion. The determined polarization direction is used to determine the sensor orientation.



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A. CLASSIFICATION OF SUBJECT MATTER INV. G01V3/12 ADD. According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification symbols) G01V Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X US 7 203 599 B1 (STRACK KURT M [US] ET AL) 1 - 1210 April 2007 (2007-04-10) Υ * abstract; claims 1,6-8,18; figures 1,3,4 13-22 column 1, lines 16-21 column 5, line 20 - column 6, line 64 column 8, line 9 - column 10, line 55 Y WO 2008/024184 A2 (EXXONMOBIL UPSTREAM RES 13-22 CO [US]; BURTZ OLIVIER M [US]; STIVER MARK [US) 28 February 2008 (2008-02-28) paragraphs [0006], [0031] GB 2 438 430 A (OHM LTD [GB]) Α 1-22 28 November 2007 (2007-11-28) page 11, line 11 - page 15, line 13; figures 1,2,6a,6b,6c page 24, lines 24-27 X See patent family annex. Further documents are listed in the continuation of Box C. 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 "A" document defining the general state of the art which is not considered to be of particular relevance earlier document but published on or after the international "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 filing date "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) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "O" document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 7 December 2010 13/12/2010 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Fax: (+31–70) 340–3016 Vollmer, Thorsten

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