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CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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(54) Title: RELATIVE AND ABSOLUTE ERROR MODELS FOR SUBTERRANEAN WELLS

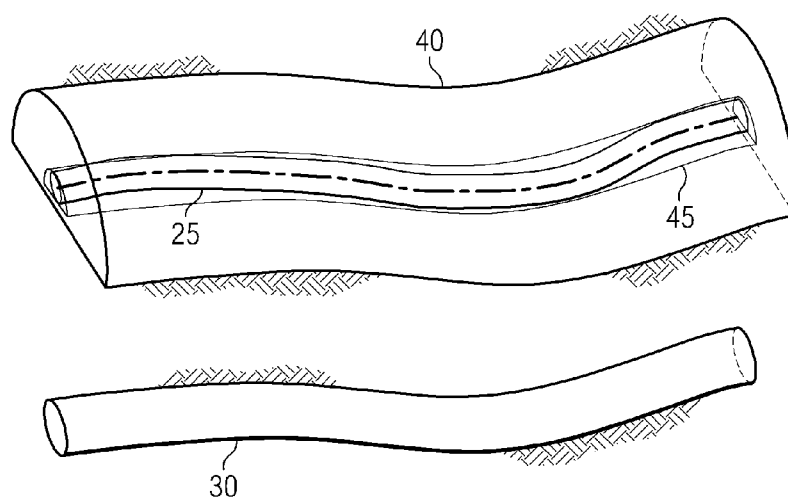


FIG. 2B

(57) Abstract: A relative error model is used to compute a relative uncertainty in the position of a first well with respect to a second well. This relative uncertainty may be computed in real time during drilling and may be used in making subsequent steering decisions during drilling. Moreover, an absolute uncertainty in the position of a first well may be obtained by combining an absolute uncertainty in the position of a second well and the relative uncertainty in the position of the first well with respect to the second well.



A. CLASSIFICATION OF SUBJECT MATTER*G01V 3/18(2006.01)i, G01V 3/26(2006.01)i, G01V 3/34(2006.01)i, E21B 47/00(2006.01)i*

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)

G01V 3/18; E21B 47/00; G01V 3/26; E21B 31/06; E21B 704; E21B 47022; E21B 7/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: inter-well, uncertainty, location

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6985814 B2 (GRAHAM MCELHINNEY) 10 January 2006 See column 8, line 25 - column 9, line 7; claim 1 and figure 6. Document cited by the applicant in the application.	1-37
A	US 2006-0131013 A1 (GRAHAM A. MCELHINNEY) 22 June 2006 See column 5, 16, 18; claim 1 and figure 1.	1-37
A	US 6834732 B2 (IVAR HAARSTAD) 28 December 2004 See abstract; claim 1 and figure 1.	1-37
A	US 2006-0124360 A1 (DEAN LEE et al.) 15 June 2006 See abstract; claims 1, 15 and figure 1.	1-37



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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