Title (en)
Method for correcting directional surveys

Title (de)
Verfahren zum Korrigieren von Richtungsmessungen

Title (fr)
Méthode pour corriger les mesures de la direction

Publication
EP 0793000 A3 19980204 (EN)

Application
EP 96303391 A 19960514

Priority
GB 9509819 A 19950515

Abstract (en)
[origin: EP0793000A2] In a method for determining the orientation of a borehole from measurements of the gravity and magnetic fields within the borehole, the hole azimuth is obtained corrected for sources of permanent, induced and electrically caused magnetic interference. Information on these sources and on the earth's magnetic field is computed as a by product so that in the fullest application of the invention no prior information is required. The method uses several survey measurements to provide the required data for the correction, and provides quality assurance indicators that do not depend on ad hoc rules. The method uses predicted components of the magnetic field (including error components resulting from interference sources as above) and a predicted gravity field vector (allowing for possible motion of the drillstring and survey package during measurement), and adjusts the predicted values on the basis of best fit with the field values from the survey. The updated values are then available for use with the field values from the next survey.

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E21B 47/022

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E21B 47/022 (2006.01)

CPC (source: EP)
E21B 47/022 (2013.01)

Citation (search report)
- [DA] EP 0384537 A1 19900829 - ANADRILL INT SA [PA], et al
- [A] US 5398421 A 19950321 - NICOLLE GILLES [FR], et al
- [A] US 5321893 A 19940621 - ENGEBRETSON HAROLD J [US]

Cited by
CN106522924A; EP2895888A4; NO338056B1; GB2358251A; GB2358251B; GB2623678A; US11193363B2; US9297249B2; US9134452B2; US9658360B2; WO9964720A1; WO2014092938A1; US8195400B2; US8947094B2; US8271199B2; EP2818632A2; US11175431B2; US6508316B2; US6179067B1; WO2005124102A1; US7403857B2; US7027926B2; US7103982B2; US7143521B2; WO2023055382A1

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