(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 November 2010 (25.11.2010)

PCT

(10) International Publication Number
WO 2010/135584 A2

(51) **International Patent Classification**:
G01V 13/00 (2006.01) ***E21B 47/00*** (2006.01)
G01V 9/00 (2006.01)

(21) **International Application Number**:
PCT/US2010/035663

(22) **International Filing Date**:
20 May 2010 (20.05.2010)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
61/180,071 20 May 2009 (20.05.2009) US

(71) **Applicant** *(for all designated States except US)*: **HALLIBURTON ENERGY SERVICES, INC.** [US/US]; 10200 Bellaire Boulevard, Houston, Texas 77072 (US).

(72) **Inventors; and**
(75) **Inventors/Applicants** *(for US only)*: **FINKE, Michael, Dewayne** [US/US]; 16033 Drifting Rose Circle, Cypress, Texas 77429 (US). **ORTIZ, Ricardo** [US/US]; 1116 Smallwood, Houston, Texas 77023 (US). **SHERRILL, Kristopher V.** [US/US]; 12730 Smokey Mountain Court, Humble, Texas 77346 (US).

(74) **Agents**: **MOSCICKI, Matthew, R.** et al.; CONLEY ROSE, P.C., P. O. Box 3267, Houston, Texas 77253-3267 (US).

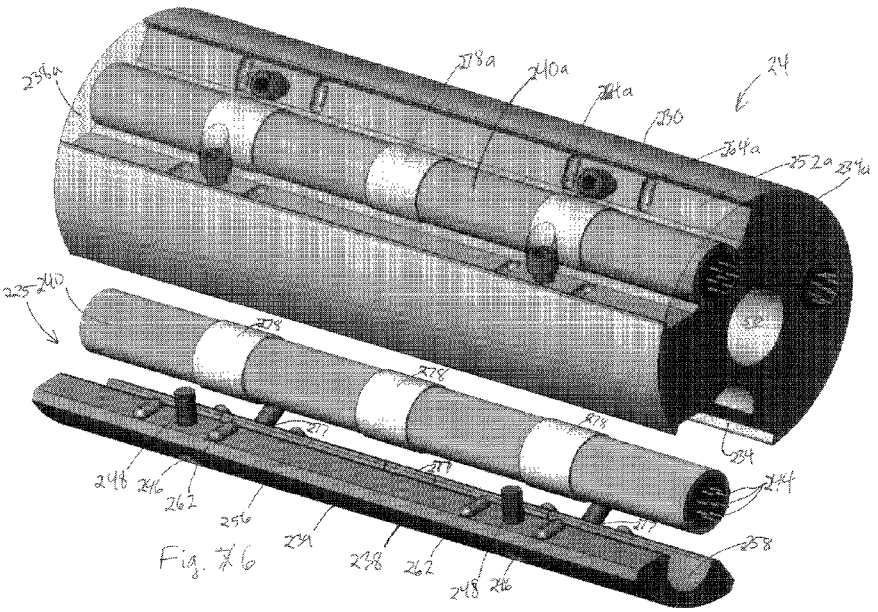
(81) **Designated States** *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, 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.

(84) **Designated States** *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

(54) **Title**: DOWNHOLE SENSOR TOOL WITH A SEALED SENSOR OUTSERT



(57) **Abstract**: A downhole sensor tool includes a sensor outsert coupled into an exterior pocket of the tool body. The sensor outsert is a pressure vessel with an exterior electrical connector coupled to the interior sensor. The sensor outsert contains a sensor, and is pressure-sealed about the sensor. The outsert includes an electrical connector coupled to the sensor. The electrical connector maintains the pressure seal of the outsert. The electrical connector may be a hermetic connector. The electrical connector can be coupled to an electrical connector or a hermetic connector of the tool body while maintaining the sealing of the pressure vessel.

WO 2010/135584 A2