

1) Family number: 33497038 (GB200120433A)

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Title: MONITORING OF DOWNHOLE PARAMETERS AND TOOLS UTILIZING FIBRE OPTICS

Abstract: A method of controlling production from a wellbore (12) comprises providing a producing string (106) carrying an electrical submersible pump (114,516) for pumping wellbore fluid to the surface, said string carrying a high voltage line (52) from a surface location to the pump for providing electrical power to the pump; and providing an optical fiber (122) carrying at least one fiber optic sensor (40) along the high voltage line for taking measurements of a wellbore parameter.

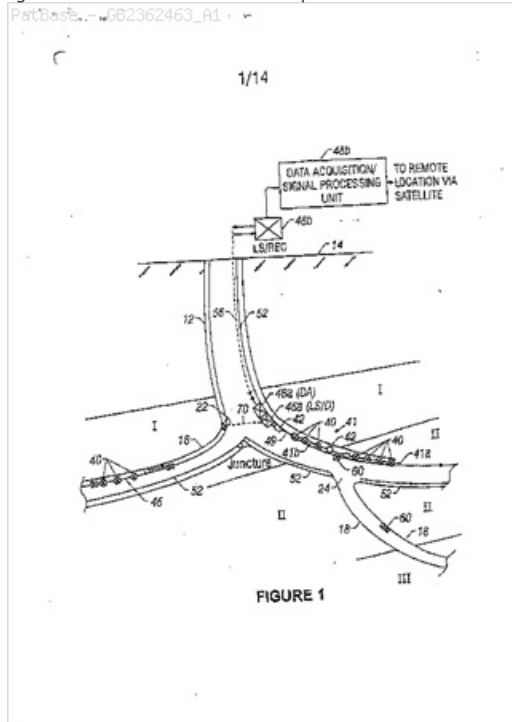
Classifications:

International (ipc 8-9): E21B23/03 E21B33/127 E21B34/10 E21B37/06 E21B41/00 E21B41/02 E21B43/12 E21B43/16 E21B43/20 E21B43/25 E21B43/26 E21B47/00 E21B47/01 E21B47/06 E21B47/10 E21B47/12 E21B49/00 E21B49/08 G01D5/26 G01N21/31 G01V1/40 G01V1/42 G01V1/46 G01V1/52 G01V11/00 G01V7/08 G01V7/16 G01V8/02 (Advanced/Invention)

International (ipc 1-7): E21B37/06 E21B41/02 E21B47/06 E21B47/10 E21B47/12 E21B47/14 G01V1/36 G01V8/10 G01V8/24

CPC: G01V2210/6163 G01V2210/6167 G01V11/002 E21B23/03 E21B33/1275 E21B37/06 E21B41/0035 E21B41/02 E21B43/12 E21B43/122 E21B43/123 E21B43/16 E21B43/20 E21B43/25 E21B43/26 E21B47/00 E21B47/011 E21B47/06 E21B47/065 E21B47/10 E21B47/101 E21B47/1015 E21B47/102 E21B47/123 E21B49/00 E21B49/006 E21B49/008 E21B49/08 G01D5/268 G01N21/31 G01V1/40 G01V1/42 G01V1/46 G01V1/52 G01V7/08 G01V7/16 G01V8/02 G01V11/00

European: E21B23/03 E21B33/127D E21B37/06 E21B41/00L E21B41/02 E21B43/12 E21B43/12B2 E21B43/12B2C E21B43/16 E21B43/20 E21B43/25 E21B43/26 E21B47/00 E21B47/01P E21B47/06 E21B47/06B E21B47/10 E21B47/10D E21B47/10G E21B47/10K E21B47/12M2 E21B49/00 E21B49/00M E21B49/00P E21B49/08 G01D5/26F G01N21/31 G01V1/40 G01V1/42 G01V1/46 G01V1/52 G01V11/00 G01V11/00B G01V7/08 G01V7/16 G01V8/02



Family:

Publication number	Publication date	Application number	Application date
GB200120433 A0	20011017	GB20010020433	19980501
GB200120438 A0	20011017	GB20010020438	19980501
GB2362462 A1	20011121	GB20010020433	19980501
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Priority:

US19970045354P 19970502 US19970048989P 19970609 US19970052042P 19970709
US19970062953P 19971010 US19980073425P 19980202 US19980079446P 19980326
GB19990025977 19980501

Probable Assignee: BAKER HUGHES INC

Assignee(s): (std): BAKER HUGHES INC

Inventor(s): (std): WILLIAMS GLYNN ; VOLL BENN ARILD ; TUBEL PAULO S ; JOHNSON MICHAEL ; HARRELL JOHN ; BIDIGARE BRIAN

Inventor(s): BENN ARILD VOLL ; GLYNN WILLIAMS ; BRIAN BIDIGARE ; JOHN HARRELL ; PAULO S TUBEL ; MICHAEL JOHNSON

2) Family number: 43687049 (US2011026031A)

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Title: PIPE SYSTEM, A FLUID SENSING SYSTEM FOR A PIPE SYSTEM, AND A METHOD OF DETERMINING A FLUID COMPONENT IN AN ANNULUS CAVITY OF A PIPE

Abstract: The invention relates to a pipe system comprising a) a pipe, b) a fluid sensing station and c) a remote light detector system. The pipe comprises a flow channel and an annular fluid cavity surrounding the flow channel. The fluid sensing station comprises a sensing fluid cavity which is in fluid communication with the annular fluid cavity, and the sensing fluid cavity comprises a light emitter and a light receiver placed at a distance from each other. The light emitter and the light receiver are optically connected to each other and optically connected to the remote light detector system. The invention also relates to a fluid sensing system for sensing a fluid in an annulus cavity of a pipe, said fluid sensing system comprises a fluid sensing station and a remote light detector system. The fluid sensing station comprises a sensing fluid cavity comprising a light emitter and a light receiver placed at a distance from each other and optically connected to each other. The remote light detector system comprises a light source and an analyzer. The light emitter is optically connected to the light source, and the light receiver being optically connected to the analyzer. The fluid sensing station is arranged to be connected to a pipe with

an annular fluid cavity to provide a fluid communication between said annular fluid cavity and said sensing fluid cavity. The invention further relates to a method for sensing a fluid in an annulus cavity of a pipe.

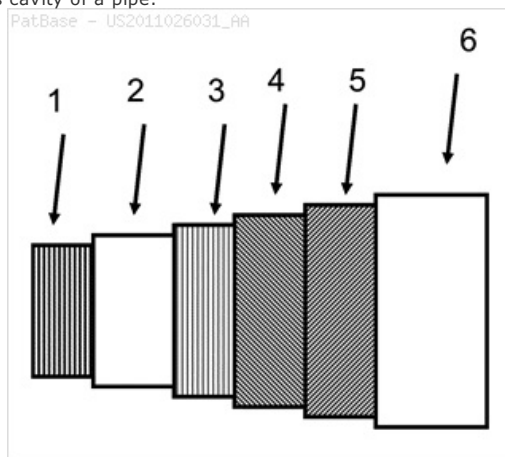
Classifications:

International (IPC 8-9): E21B17/01 F16L11/08 F16L11/12 F16L11/20 F17D5/06 G01M3/04 G01M3/18 G01M3/38 G01N21/00 G01N21/17 G01N21/31 G01N29/24 (Advanced/Invention); G01N21/33 G01N21/35 G01N21/65 (Advanced/Non-invention); F16L11/00 F16L11/08 F16L11/12 F17D5/00 G01M3/00 G01M3/04 G01M3/16 G01N21/17 G01N29/24 (Core/Invention)

CPC: F16L11/083 G01N21/31 G01N21/33 G01N21/35 G01N21/65 G01N21/658 E21B17/015 F16L11/082 F16L11/12 F16L2011/047 G01M3/047 G01N21/1702 G01N29/2425 G01N2021/1704 G01N2021/1708 G01N2021/1793 G01N2021/8557 G01N2021/8578 G01N2201/084

European: F16L11/08D1 F16L11/08D2 F16L11/12 G01M3/04B2B G01N21/17B G01N21/59 G01N29/24C1 R16L11/04F S01N201/08H S01N21/17B2 S01N21/17B4 S01N21/17Y S01N21/85D S01N21/85G

US: 356/432 356/432S 356/436 356/440 356/440P 73/152.18 73/24.02 73/24.020P 73/64.48



Family:

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AU2009254329 AA	20091210	AU20090254329	20090422
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BRPI0907534 A2	20150728	BR2009PI07534	20090223
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CA2725624 AA	20091210	CA20092725624	20090422
DK200801338 A5	20100327	DK20080001338	20080926
DK201001077 A5	20101126	DK20100001077	20101126
EP2265929 A1	20101229	EP20090713982	20090223
EP2286201 A1	20110223	EP20090757143	20090422
US2011026031 AA	20110203	US20090919070	20090223
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WO09146710 A1	20091210	WO2009DK50093	20090422

Priority:

DK20080000263	20080225	DK20080000766	20080603	DK20080001338	20080926
US20080101009P	20080929	US20080101009	20080929	WO2009DK00050	20090223
WO2009DK50093	20090422	US20090995740	20090422	DK20100001077	20101126

Probable Assignee: NATIONAL OILWELL VARCO DENMARK I S

Assignee(s): (std): KRISTIANSEN MIKAEL ; NAT OILWELL VARCO DENMARK I S ; NAT OILWELL VARCO DENMARK IS ; NKT FLEXIBLES I S ; WEPPENAAR NICKY ; NKT FLEXIBLES IS

Assignee(s): NATIONAL OILWELL VARCO DENMARK I S

Inventor(s): (std): NICKY WEPPENAAR ; MIKAEL KRISTIANSEN ; KRISTIANSEN MIKAEL ; WEPPENAAR NICKY ; KRISTIANSEN MAKAE

Inventor(s): MAKAE KRISTIANSEN

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FPA PATENT ATTORNEYS PTY LTD; FETHERSTONHAUGH AND CO; HEGNER ANETTE; PEARNE AND GORDON LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

3) Family number: 41806224 (US2010268479A)

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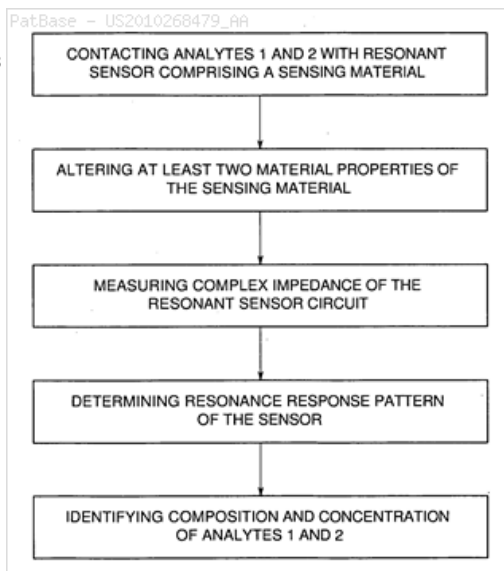
Title: SENSOR SYSTEM AND METHODS FOR ANALYTE DETECTION

Abstract: A system for selectively determining at least two analytes, comprising at least one resonant sensor circuit comprising a sensing material that predictably affects the resonant complex impedance response of a sensor electrode, wherein the sensing material having at least two material properties that change upon exposure to two or more analytes; and a processor that generates a multivariate sensor response pattern that is based at least in part on a change in the two material properties of the sensing material and a sensing device and methods adapted to detect an analyte using the same sensor system.

Classifications:

International (IPC 8-9): G01N27/22 G01N27/26 G01N33/18 G21C17/022 B01D17/12 B60R21/00 B61C17/08 B61L3/00 C12M1/34 E21B47/10 F01M11/10 F01M11/12 F16N29/04 G01C21/20 G01D21/02 G01F G01F23/00 G01F23/22 G01F23/24 G01F23/26 G01F23/284 G01N G01N1/10 G01N21/39 G01N27/00 G01N27/02 G01N27/06 G01N27/08 G01N27/12 G01N27/327 G01N29/00 G01N29/02 G01N29/24 G01N30/26 G01N30/96 G01N31/00 G01N33/00 G01N33/22 G01N33/28 G01N33/483 G01N33/487 G01R27/00 G01R27/02 G01R27/22 G01R27/26 G01R27/28 G01R33/385 G01S17/89 G01V3/00 G06F15/00 G06F16/29 G06F16/58 G06K19/07 G06K19/077 G06K7/10 G06Q50/26 G07C5/00 G07C5/08 G08B13/14 G21C17/00 G21C17/02 H03K17/955 H04B5/00 H04Q5/22 H04Q9/00

H04W84/18 H04W88/16 H05K1/16 H05K3/30 (Advanced/Invention);
G01N33/487 G01R31/28 H04Q9/00 (Advanced/Non-invention);
G01N1/10 G01N27/06 G01N27/22 G01N27/26 G01N30/00 G01N33/18
G01R27/22 G21C17/02 (Core/Invention)
CPC: G01N27/08 G01N27/22 G01N27/26 G01N33/2847 G21C17/022
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G01F23/241 E21B47/10 H04B5/0043 G01N33/48792 Y10T29/4913
G01N27/3278 G01N27/025 G07C5/0816 G07C5/006 B60W2400/00
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F16N2200/00 F16N2200/08 F16N2210/04 F16N2260/18 F16N2270/54
G07C5/0808 G01N27/126 G01N33/1893 G01N27/028 G06K19/0717
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324/675S 324/693 324/698 340/10.1 340/856.3 376/247 376/247P
376/259 376/259S 422/82.01 422/82.010S 702/127 702/23 702/23P
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Family:

Publication number	Publication date	Application number	Application date
AU2012359270 AA	20130627	AU20120359270	20121219
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WO13096359 A2	20130627	WO2012US70448	20121219
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ZA201502454 A	20171025	ZA20150002454	20150413
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Priority:

US20060560476	20061116	US20080325653	20081201	US20090424016	20090415
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Probable Assignee: GENERAL ELECTRIC CO

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

4) Family number: 73622827 (CO20180014207A)

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Title: SENSOR DE CORROSION POR RESISTENCIA ELECTRICA PARA USO PERMANENTE Y SEMIPERMANENTE EN FONDO EN POZOS Electrical resistance CORROSION SENSOR FOR PERMANENT USE AND SEMI-PERMANENT BACKGROUND IN WELLS (Machine translation)

Abstract: Source: CO20180014207A [ES] La presente invencion pertenece al campo de la investigacion o analisis de materiales por determinacion de sus propiedades quimicas o fisicas e investigacion de la resistencia de los materiales a la intemperie, a la corrosion o a la luz especificamente a las prospecciones en los orificios de perforacion o en los pozos y sondas de corrosion, que consiste en una herramienta que se puede conectar como un empaque de pozo, tanto en la sarta de tuberia de produccion como al revestimiento; con una reserva de energia suplida con baterias resistentes a altas temperaturas que alimenta un(os) sensor(es) ER (Resistencia Electrica) que convierte el desgaste de un electrodo expuesto a los fluidos que fluyen dentro de la tuberia de produccion y externos a esta, con probeta ER, termometro y medidores piezoelectricos de cuarzo; y los que contactan el revestimiento en el anular en el interior y aquellos provenientes de las diferentes formaciones que atraviesan el pozo en el exterior; en una tasa de corrosion. **Machine translation:** The present invention belongs to the field of research or analysis of materials by determination of their chemical or physical properties and investigation of the resistance of materials to weathering, corrosion or light specifically to surveys in the drilling holes or in the wells and probes for corrosion, consisting of a tool that can be connected as a package of well, both in the production casing string and the skin; with a reserve of energy supplied with batteries resistant to high temperatures which feeds a sensor(s) ER (Electrical Resistance) that converts the wear of an electrode exposed to the fluid flowing within the production tubing and External to this, with specimen ER, thermometer and piezoelectric quartz meters; and which contact the annular coating on the inside and those coming from the different formations that pass through the well to the outside; at a rate of corrosion.

Classifications:

International (IPC 8-9): E21B47/12 G01N17/00 G01N17/04 G01N27/00 (Advanced/Invention)

Family:

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