

15 Documents

Publication numbers	Title	Current assignees
WO201838635 A1	Downhole acoustic emitter	FEDERALNOE GOSUDARSTVENNOE BUDZHETNOE UCHREZHDENIE NAUKI INSTITUTE FIZIKI METALLOV IMENI M N MIKHEEVA URA, ...
WO201170142 A2	Method and apparatus for stimulating wells	AIC ENERGY
WO200524177 A1	Downhole power generation and communications apparatus and method	SCHLUMBERGER TECHNOLOGIES
EP3563025 A1	A downhole monitoring method	METROL TECHNOLOGY
WO2019133906 A1	Methods and systems for operating and maintaining a downhole wireless network	EXXONMOBIL UPSTREAM RESEARCH
WO2018176024 A1	Guided mode beamforming for probing open-hole and cased-hole well environments	SCHLUMBERGER, ...
RU2696740 C1	Method and device of complex action for heavy oil and bitumen production by means of wave technology	ILMASONIC SCIENCE LIABILITY
US5371330 A	Synchronized acoustic source	EXXONMOBIL UPSTREAM RESEARCH
WO201227168 A2	Imaging of formation structure ahead of the drill-bit	BAKER HUGHES
EP2165218 A2	Imaging of formation structure ahead of the drill-bit	BAKER HUGHES
WO2018183246 A1	Methods for characterizing multi-string cased wells using wide frequency bandwidth signals	SCHLUMBERGER, ...
EP3464797 A1	Method of monitoring a reservoir	METROL TECHNOLOGY
EP2691996 A1	Electrical, mechanical, computing, and/or other devices formed of extremely low resistance materials	AMBATURE
WO2009149519 A1	System for cultivation and processing of microorganisms and products therefrom	WINWICK BUSINESS SOLUTIONS
AU2016202159 A1	System for cultivation and processing of microorganisms, processing of products therefrom, and processing in drillhole reactors	WINWICK BUSINESS SOLUTIONS

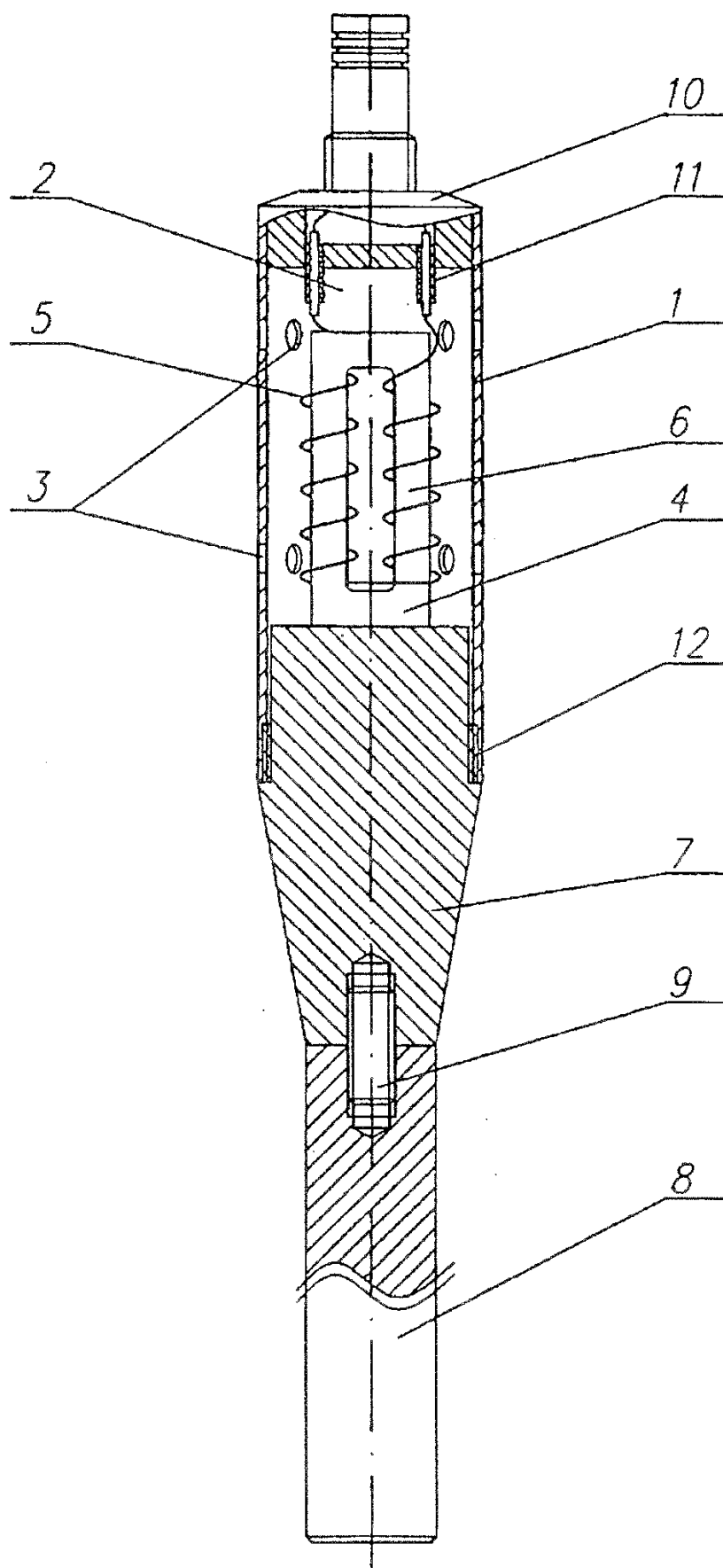
Family 1/15 - FAMPAT - ©Questel

Title

(WO201838635)

Downhole acoustic emitter

Images



	A1	2019-07-25	US20190226302				
BR112019001629	A2	2019-05-07	BR112019001629				
CO2019001122	A2	2019-02-19	CO2019001122				
BR112019001629	A1	2019-02-05	BR112019001629				
CA3052972	A1	2018-03-01	CA3052972				
WO2018/038635	A1	2018-03-01	WO201838635				
RU2634769	C1	2017-11-03	RU2634769				

Abstract

(WO2018/038635)

A **downhole acoustic** emitter comprises a supporting housing with a cavity and ports, in which housing are disposed a rod-type **magnetostrictive** transducer with an electrical coil on the rods, and an **acoustic waveguide** in the form of a cylinder which transitions into a tapering cone. The cylindrical portion of the **acoustic waveguide** is disposed inside the supporting housing, and the conical portion is disposed outside the housing. The upper end surface of the **acoustic waveguide** is coaxially joined to the lower emitting surface of the **magnetostrictive** transducer by soldering, and the **acoustic waveguide** is joined at its middle portion, which coincides with the zero vibration point of the **waveguide**, to the supporting housing by a threaded joint. The **downhole acoustic** emitter is provided with an emitting element, the upper end of which is coaxially joined to the lower end of the **acoustic waveguide** by a threaded joint. The **magnetostrictive** transducer has a length of 200-280 mm and is made of permendur, and the ports are arranged around the perimeter of the supporting housing in two rows, the first of which is level with the top turns of the electrical coil of the **magnetostrictive** transducer, and the second row is level with the bottom turns of the coil. The emitting element is in the form of a cylinder or a prism with a square cross-section.

Inventors

TARAKANOV VALERIY VIKTOROVICH

KUZNETSOV MIKHAIL INNOKENTYEVICH

PATSERKOVSKIY ROMAN PETROVICH

Latest standardized assignees - inventors removed

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SERVICIOS & SUMINISTROS WEAVER DE MEXICO

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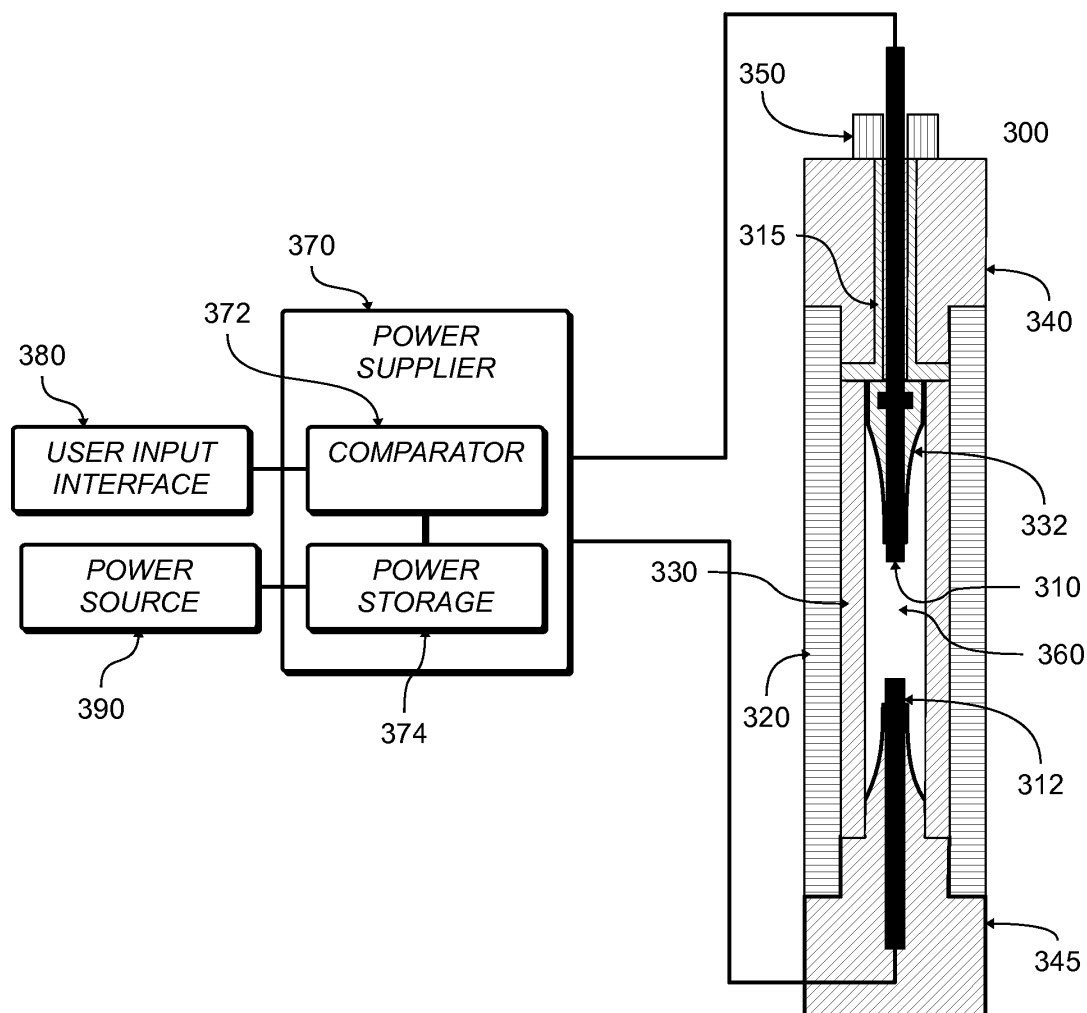
Family 2/15 - FAMPAT - ©Questel

Title

(WO201170142)

Method and apparatus for stimulating **wells**

Images



Publication numbers with kind code & date

BR112012014018	A2	2019-08-20	BR112012014018
CA2783931	C	2018-01-02	CA2783931
BR112012014018	A1	2013-12-31	BR112012014018
US8613312	B2	2013-12-24	US8613312
AR084664	A1	2013-06-05	AR--84664
CO6561794	A2	2012-11-15	CO6561794
MX2012006689	A	2012-10-09	MX2012006689
AR081233	A1	2012-07-18	AR--81233
WO2011/070143	A3	2011-09-22	WO201170143
WO2011/070142	A3	2011-08-18	WO201170142
CA2783931	A1	2011-06-16	CA2783931
CA2783932	A1	2011-06-16	CA2783932
US20110139440	A1	2011-06-16	US20110139440
US20110139441	A1	2011-06-16	US20110139441
WO2011/070142	A2	2011-06-16	WO201170142
WO2011/070143	A2	2011-06-16	WO201170143



Abstract

(WO2011/070142)

The invention provides an apparatus and method for stimulating a borehole of a well. The invention provides an apparatus that generates low-frequency seismic type elastic waves that propagate to the geologic formation and in order to enhance the movement of fluids in the geologic formation toward a well. The apparatus may operate automatically driven by a power

source that may be located on the ground surface. The regime of operation may be determined by user input. Operation of the apparatus may be carried out while production of a natural resource is ongoing.

Inventors

ZOLEZZI-GARRETON ALFREDO

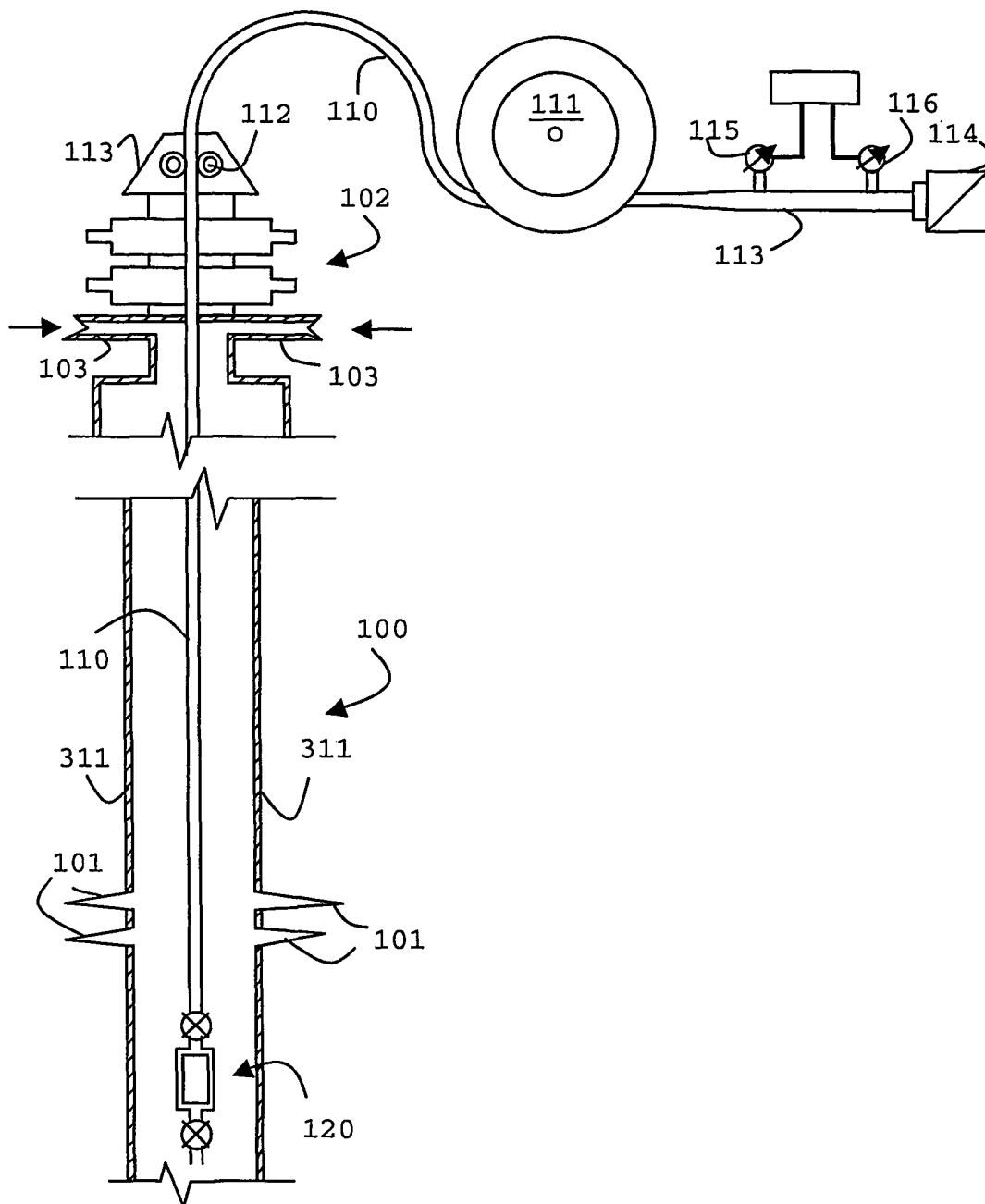
Latest standardized assignees - inventors removed

AIC ENERGY

Family 3/15 - FAMPAT - ©Questel

Title

(WO200524177)

Downhole power generation and communications apparatus and method**Images**

CA2537189	C	2012-04-24	CA2537189				
US8009059	B2	2011-08-30	US8009059				
US7990282	B2	2011-08-02	US7990282				
GB2422395	B	2007-12-19	GB2422395				
US20070227776	A1	2007-10-04	US20070227776				
US20070194947	A1	2007-08-23	US20070194947				
GB2405725	B	2006-11-01	GB2405725				
GB2422395	A	2006-07-26	GB2422395				
GB0604384	D0	2006-04-12	GB200604384				
CA2537186	A1	2005-03-17	CA2537186				
CA2537189	A1	2005-03-17	CA2537189				
WO2005/024177	A1	2005-03-17	WO200524177				
WO2005/024182	A1	2005-03-17	WO200524182				
GB2405725	A	2005-03-09	GB2405725				
GB0320804	D0	2003-10-08	GB200320804				

Abstract

(WO2005/024177)

Apparatuses and methods to power and communicate with **downhole** sensors are presented. Preferred embodiments of the present invention includes energizing a **downhole** sensor with a surface pressure wave generator and a **downhole** mechanical to electrical energy converter. Preferred embodiments of the present invention also include transmitting data measured from a **downhole** sensor to a surface unit through modulation of surface-generated pressure waves.

Inventors

HUANG SONGMING

MONMONT FRANCK

SADIKOGLU KASIM

Latest standardized assignees - inventors removed

SCHLUMBERGER TECHNOLOGIES

Family 4/15 - FAMPAT - ©Questel

Title

(EP3563025)

A **downhole** monitoring method**Images**

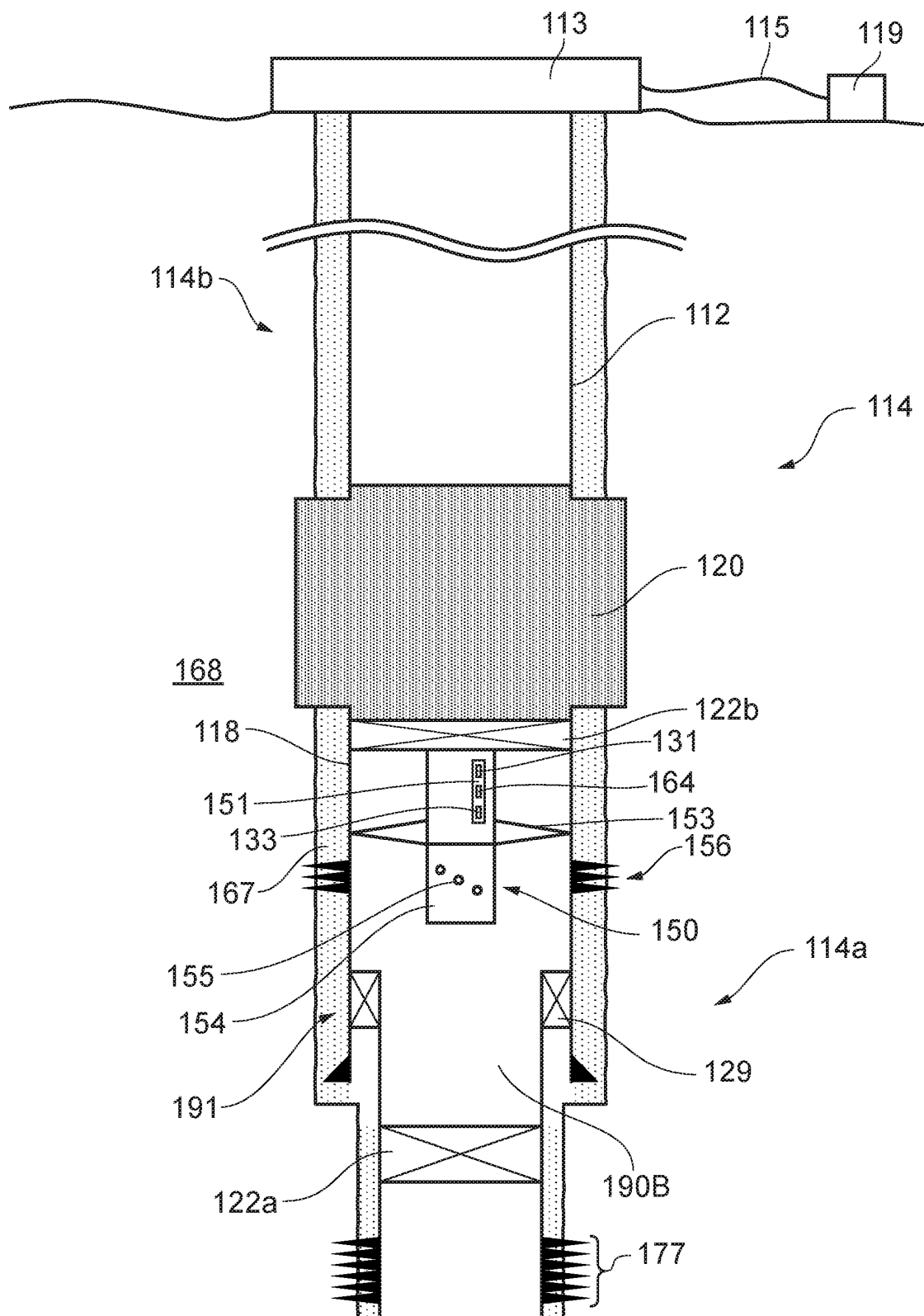


FIG. 1

Publication numbers with kind code & date

EP3563025	A1	2019-11-06	EP3563025
AU2017388130	A1	2019-07-04	AU2017388130
BR112019013156	A1	2019-07-02	BR112019013156
GB2558309	A	2018-07-11	GB2558309
WO2018/122548	A1	2018-07-05	WO2018122548
GB201622440	D0	2017-02-15	GB201622440



Abstract

(EP3563025)

A method to test or monitor the integrity of a cement barrier, comprising providing an assembly therebelow including: a perforating device;a control mechanism to control the perforating device, a pressure sensor, a wireless communication device and a pressure sensor. The perforating device is activated to perforate casing below the barrier and a pressure test may be conducted. The creation of the perforation(s)below the barrier allows an assessment of the integrity of the barrier across its entire width, and especially its bond to the formation, rather than only a central portion of the barrier. Electromagnetic or **acoustic** wireless signals are used to retrieve data from below the barrier.

Inventors

ROSS SHAUN COMPTON

JARVIS LESLIE

Latest standardized assignees - inventors removed

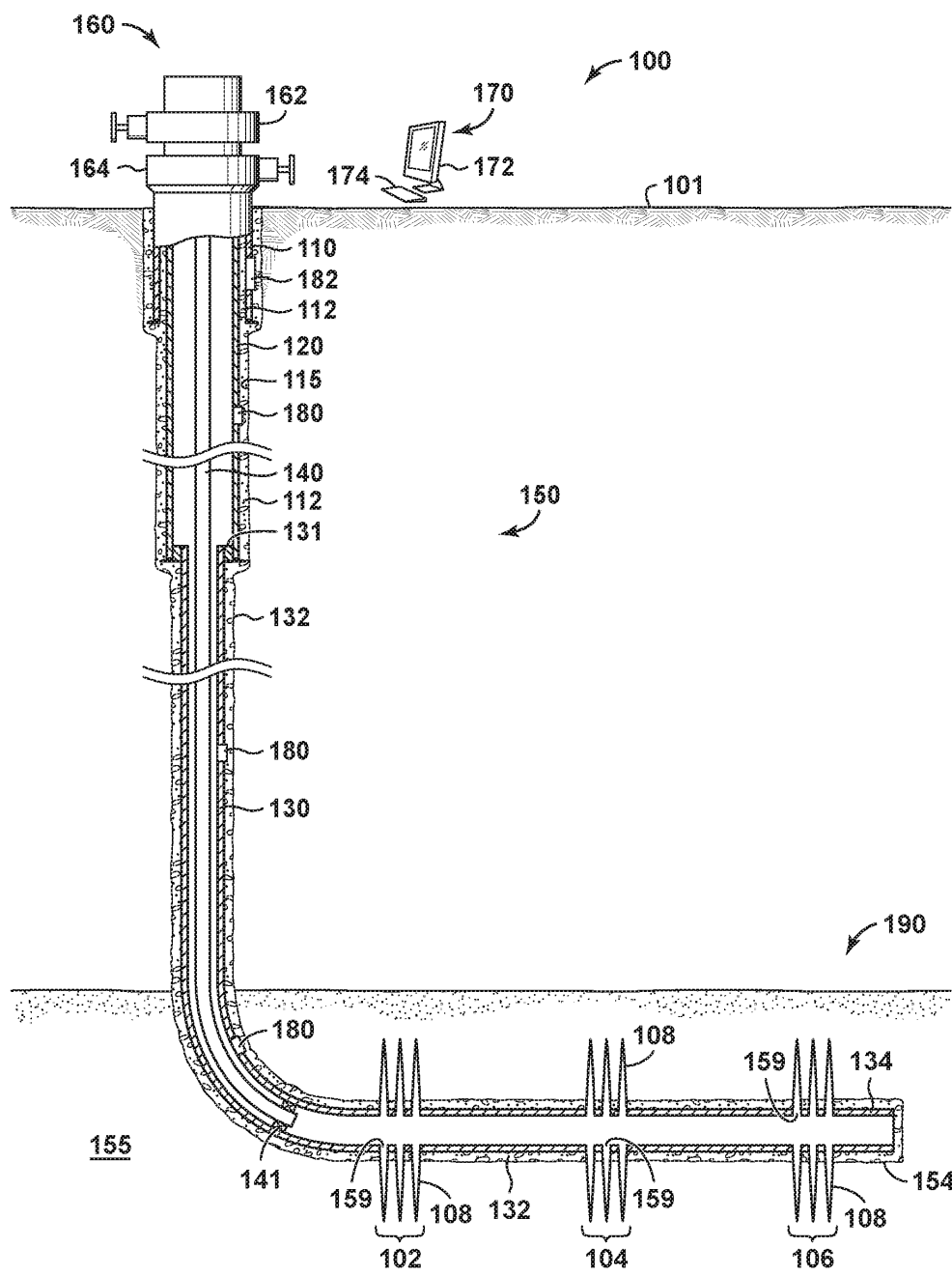
METROL TECHNOLOGY

Family 5/15 - FAMPAT - ©Questel

Title

(WO2019133906)

Methods and systems for operating and maintaining a **downhole** wireless network**Images**



Publication numbers with kind code & date

US20190203591	A1	2019-07-04	US20190203591
WO2019/133906	A1	2019-07-04	WO2019133906



Abstract

(WO2019/133906)

Disclosed herein are methods and systems for operating and maintaining **downhole** wireless networks. The methods and systems use a **downhole** tool, such as a hydrophone, as part of the **downhole** wireless network. The **downhole** tool may be used, for example, to perform maintenance on the **downhole** wireless network, to overcome and/or correct communications errors along the network, to update and reprogram communication nodes in the **downhole** wireless network, to determine characteristics of nearby geologic formations, reservoirs, fluids, and tubulars, and/or to act as a substitute or topside node for the **downhole** wireless network.

Inventors

DISKO MARK M

CLAWSON SCOTT W

WALKER KATIE M

ANGELES BOZA RENZO M

SONG LIMIN

DEFFENBAUGH MAX

Latest standardized assignees - inventors removed

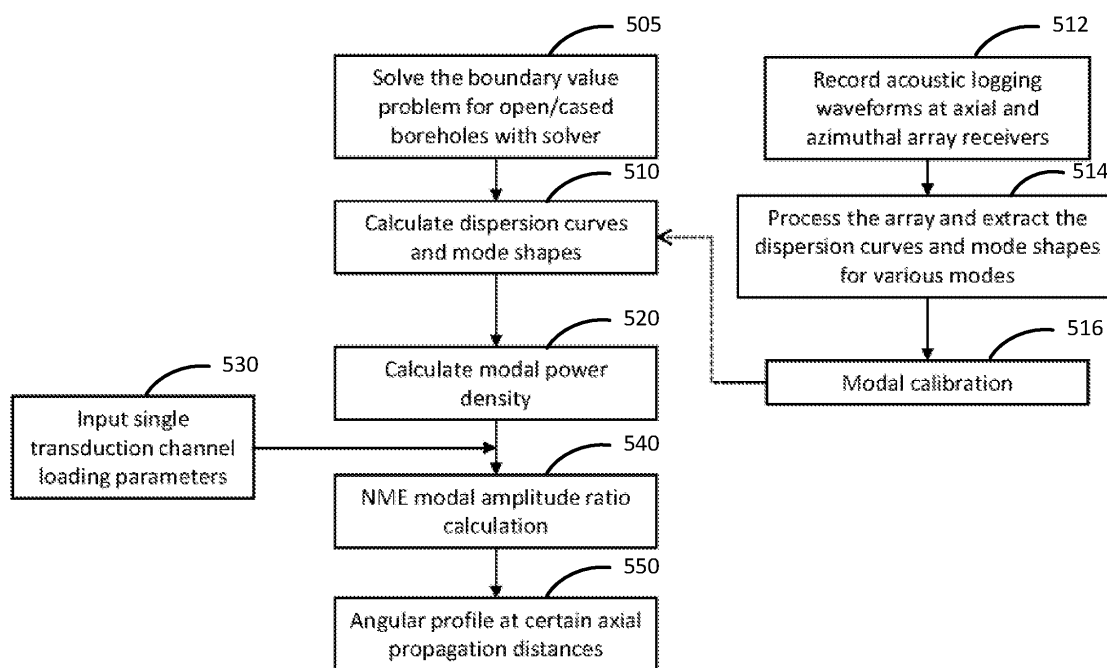
EXXONMOBIL UPSTREAM RESEARCH

Family 6/15 - FAMPAT - ©Questel

Title

(WO2018176024)

Guided mode beamforming for probing open-hole and cased-hole well environments

Images**FIG. 5****Publication numbers with kind code & date**

WO2018/176024 A1 2018-09-27 WO2018176024

**Abstract**

(WO2018/176024)

A method and **downhole** tool is provided that uses beamforming to localize **acoustic** energy at a desired zone-of-interest within a wellbore traversing a subterranean formation. The tool has an array of transmitter elements configured to emit guided mode **acoustic** signals at variable amplitude and variable time delay, which are individually controlled by an amplitude factor and time delay assigned to respective transmitter elements. A set of amplitude factors and time delays can be assigned to the transmitter elements of the transmitter array such that the transmitter elements produce a focused **acoustic** beam at the desired zone-of-interest by combination of guided mode **acoustic** signals transmitted by the transmitter elements.

Inventors

LIU YANG

D'ANGELO RALPH

ZEROUG SMAINE

BOSE SANDIP

Latest standardized assignees - inventors removed

SCHLUMBERGER

SCHLUMBERGER SERVICES PETROLIERS

SCHLUMBERGER TECHNOLOGIES

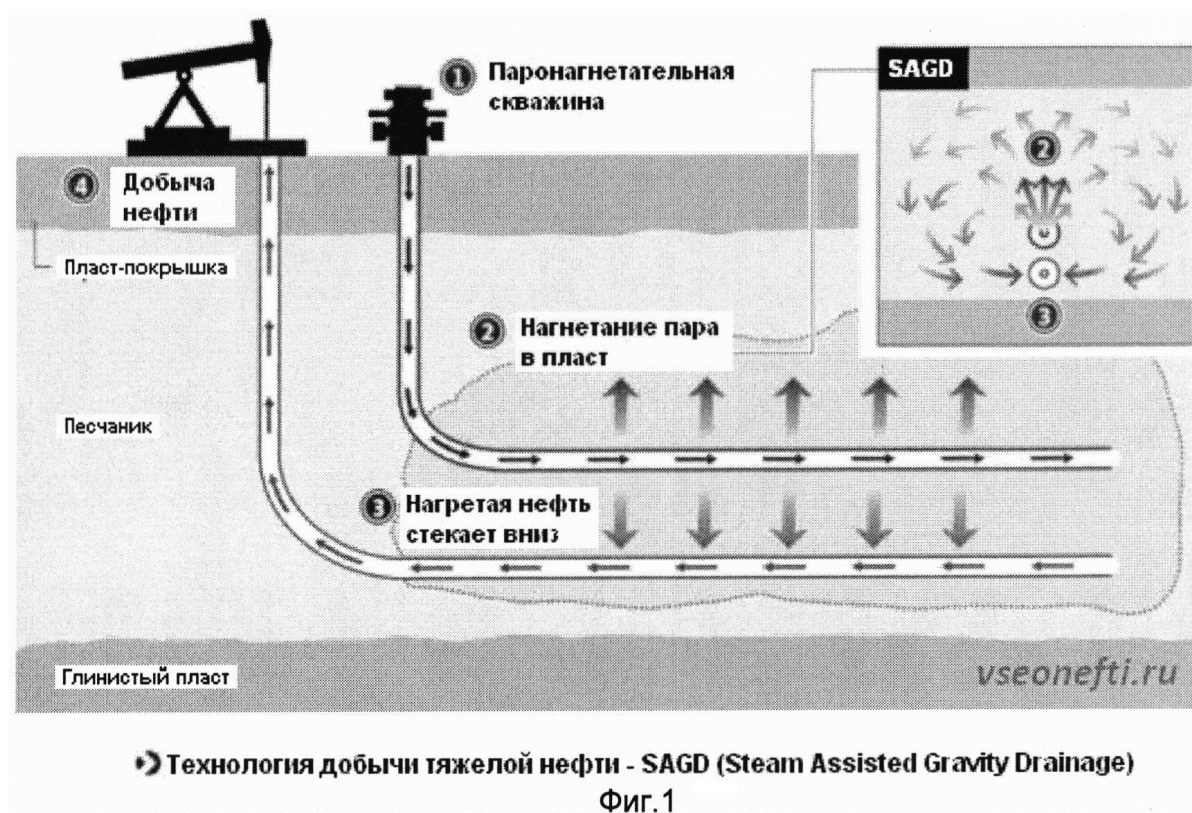
Family 7/15 - FAMPAT - ©Questel

Title

(RU2696740)

Method and device of complex action for heavy **oil** and bitumen production by means of wave technology

Images



Publication numbers with kind code & date

RU2696740

C1 2019-08-05 RU2696740



Abstract

(RU2696740)

FIELD: **oil** industry. SUBSTANCE: group of inventions relates to **oil** industry, in particular to a method of extracting high-viscosity, heavy **oil** or bitumen. Complex of equipment includes ground frequency generator, combined with power supply and control unit and two well instruments. One **downhole** device is an electrohydraulic **downhole** device with a plasma discharger (hereinafter referred to as EDDPD) of directed action intended for creation of microcracks in **oil** formation. Second **downhole** device has a long length (up to 50 meters) and consists of alternating microwave and **acoustic** radiators (hereinafter SAMWAR), which perform simultaneous or alternate impact on **oil** reservoir. **Downhole** instruments are lowered to the well, they are moved along the horizontal well and power is supplied to them by means of a umbilical cable. **Oil** is extracted from the well by means of a pump fixed between the umbilical and the SAMWAR. EFFECT: high efficiency and environmental friendliness of extracting high-viscosity, heavy **oil** or bitumen from a horizontal well owing to complex application of **acoustic** and electromagnetic wave technologies. 23 cl, 13 dwg

Inventors

SALTYKOV ALEKSANDR ALEKSEEVICH

SALTYKOV YURIJ ALEKSEEVICH

OLSHEVSKIY ANATOLIY ANTONOVICH

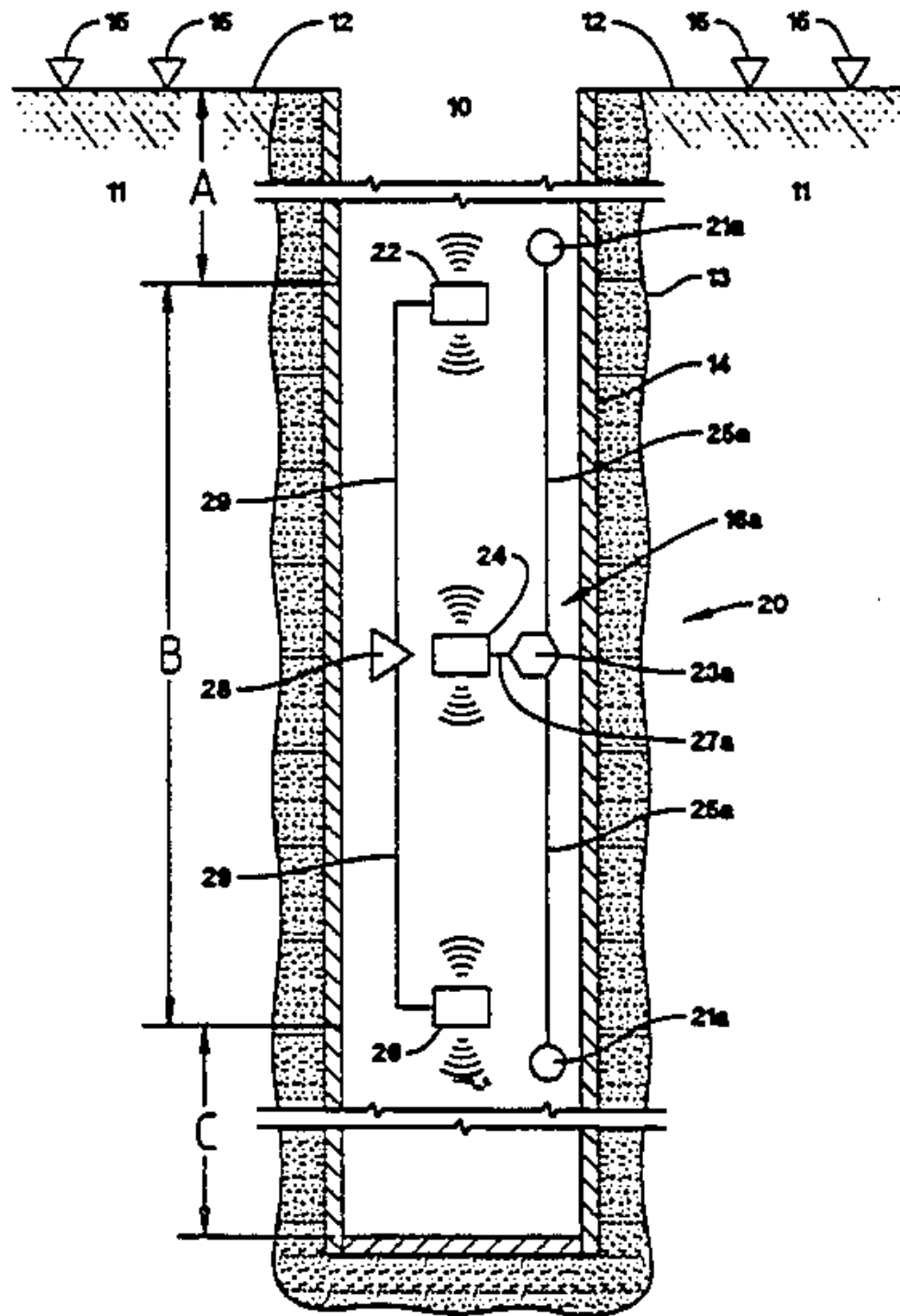
Latest standardized assignees - inventors removed

ILMASONIC SCIENCE LIABILITY

Family 8/15 - FAMPAT - ©Questel

Title

Images



NO306745	B1	1999-12-13	NO-306745
GB2280958	B	1996-12-04	GB2280958
US5418335	A	1995-05-23	US5418335
CN1100492	A	1995-03-22	CN1100492
GB2280958	A	1995-02-15	GB2280958
NO942878	L	1995-02-07	NO-942878
US5371330	A	1994-12-06	US5371330



(WO2012/027168)

The present disclosure is related to apparatuses and methods for **downhole acoustic** logging. The tool may be used for generating a guided borehole wave that propagates into the formation as a body wave, reflects from an interface, and is converted back into a guided borehole wave. Guided borehole waves resulting from reflection of the body wave are used to image a reflector. Methods may include processing of **acoustic** logging signals including: wavefield separation, auto-correlation of wavefield components, filtering using a dip filter, and estimating a distance to the reflective interface.

Inventors

GEERITS THEODORUS W

BOHLEN THOMAS

HELLWIG OLAF

Latest standardized assignees - inventors removed

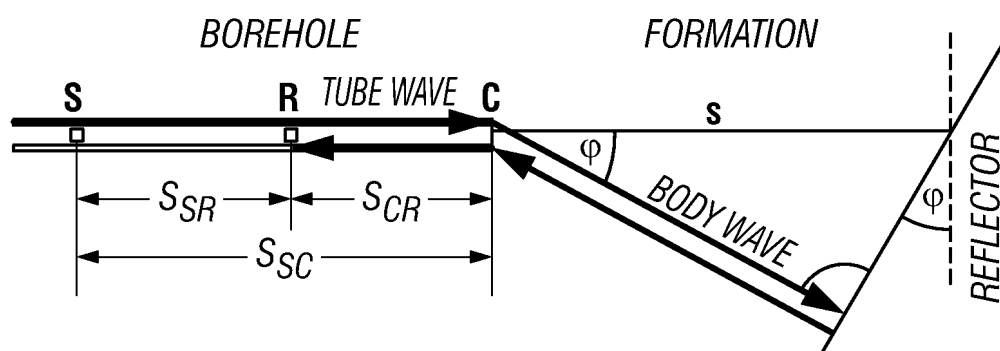
BAKER HUGHES

Family 10/15 - FAMPAT - ©Questel

Title

(EP2165218)

Imaging of formation structure ahead of the drill-bit

Images**Publication numbers with kind code & date**

EP2165218	B1	2017-02-22	EP2165218
US8055448	B2	2011-11-08	US8055448
EP2165218	A2	2010-03-24	EP2165218
WO2008/157366	A3	2009-12-23	WO2008157366
WO2008/157366	A2	2008-12-24	WO2008157366
US20080312839	A1	2008-12-18	US20080312839

**Abstract**

(EP2165218)

A **downhole acoustic** logging tool is used for generating a guided borehole wave that propagates into the formation as a body wave, reflects from an interface and is converted back into a guided borehole wave. Guided borehole waves resulting from reflection of the body wave are used to image a reflector.

Inventors

MATHISZIK HOLGER

GEERITIS TIM W

BOHLEN THOMAS

DE NIL DENISE

KOHN DANIEL

HELLWIG OLAF

JETSCHNY STEFAN

Latest standardized assignees - inventors removed

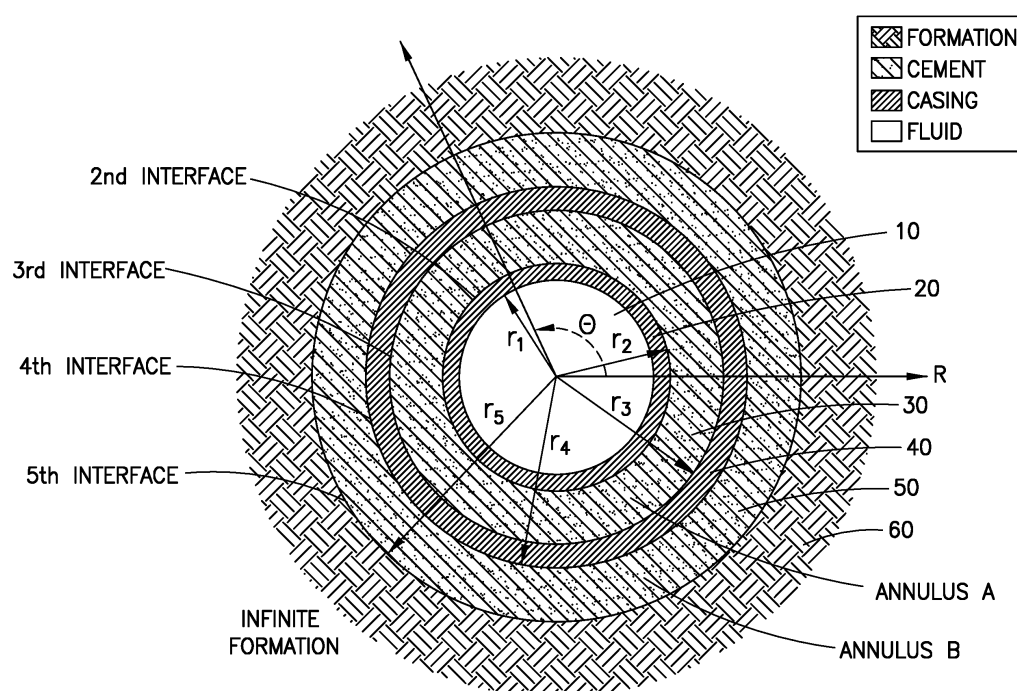
BAKER HUGHES

Family 11/15 - FAMPAT - ©Questel

Title

(WO2018183246)

Methods for characterizing multi-string cased wells using wide frequency bandwidth signals

Images**FIG.1****Publication numbers with kind code & date**[WO2018/183246](#)

A1 2018-10-04 WO2018183246

**Abstract**

(WO2018/183246)

Methods are provided for estimating a quality of cement in the annuli of a multi-string wellbore. Wideband **acoustic** energy signals are generated and detected in the wellbore and are processed to obtain indications of wideband casing-formation phase slowness dispersions in the wellbore. The indications are compared to reference wideband model casing-formation phase slowness dispersions in order to estimate status of cement or lack of cement in the annuli at that location based on the results of the comparison.

Inventors

LIU YANG

SINHA BIKASH K

ZEROUG SMAINE

Latest standardized assignees - inventors removed

SCHLUMBERGER

SCHLUMBERGER SERVICES PETROLIERS

SCHLUMBERGER TECHNOLOGIES

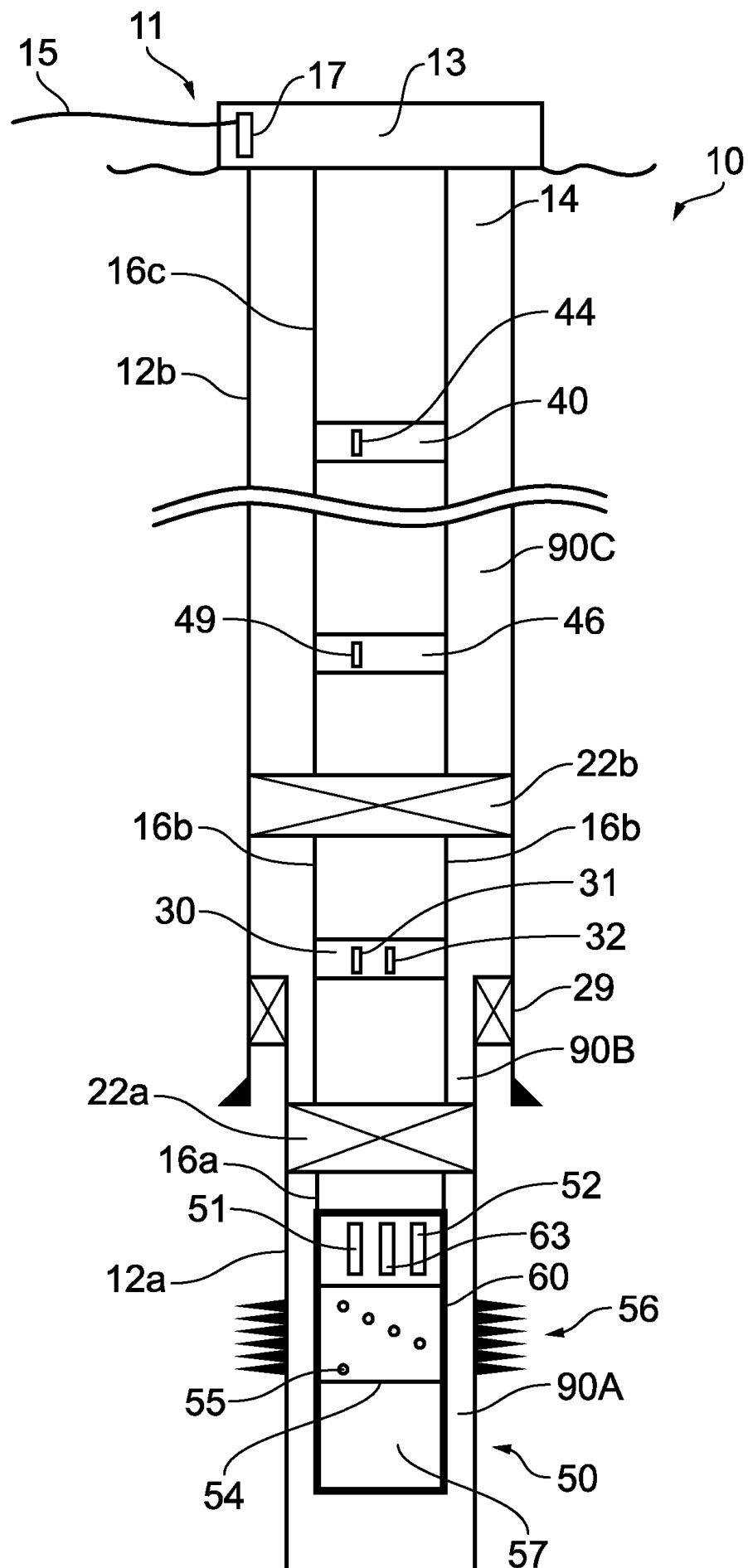
Family 12/15 - FAMPAT - ©Questel

Title

(EP3464797)

Method of monitoring a reservoir

Images



Publication numbers with kind code & date

US20190292905	A1	2019-09-26	US20190292905				
MX2018013836	A	2019-06-10	MX2018013836				
EA201892747	A1	2019-05-31	EA201892747				
EP3464797	A1	2019-04-10	EP3464797				
BR112018074195	A2	2019-03-06	BR112018074195				
GB2550865	B	2019-03-06	GB2550865				
BR112018074195	A1	2018-12-04	BR112018074195				
GB2550865	A	2017-12-06	GB2550865				
WO2017/203292	A1	2017-11-30	WO2017203292				
GB201609290	D0	2016-07-13	GB201609290				

Abstract

(EP3464797)

A method of monitoring a reservoir comprising setting at least one barrier in a well separating it into upper and lower isolated sections. A perforating gun or other perforating device is provided in the lower isolated section, along with a control mechanism, wireless communication device and a pressure sensor. After the barrier is set, the perforating gun is activated in order to create at least one perforation between the well and a surrounding reservoir. The well, or part of it, is suspended or abandoned but the pressure is still monitored and a wireless, preferably **acoustic** or electromagnetic, data signal is transmitted from the lower isolated section to above the barrier. Data from the suspended/abandoned part of the well may be used to infer characteristics of the reservoir so that it may be exploited more appropriately especially through another well.

Inventors

ROSS SHAUN COMPTON

JARVIS LESLIE DAVID

Latest standardized assignees - inventors removed

METROL TECHNOLOGY

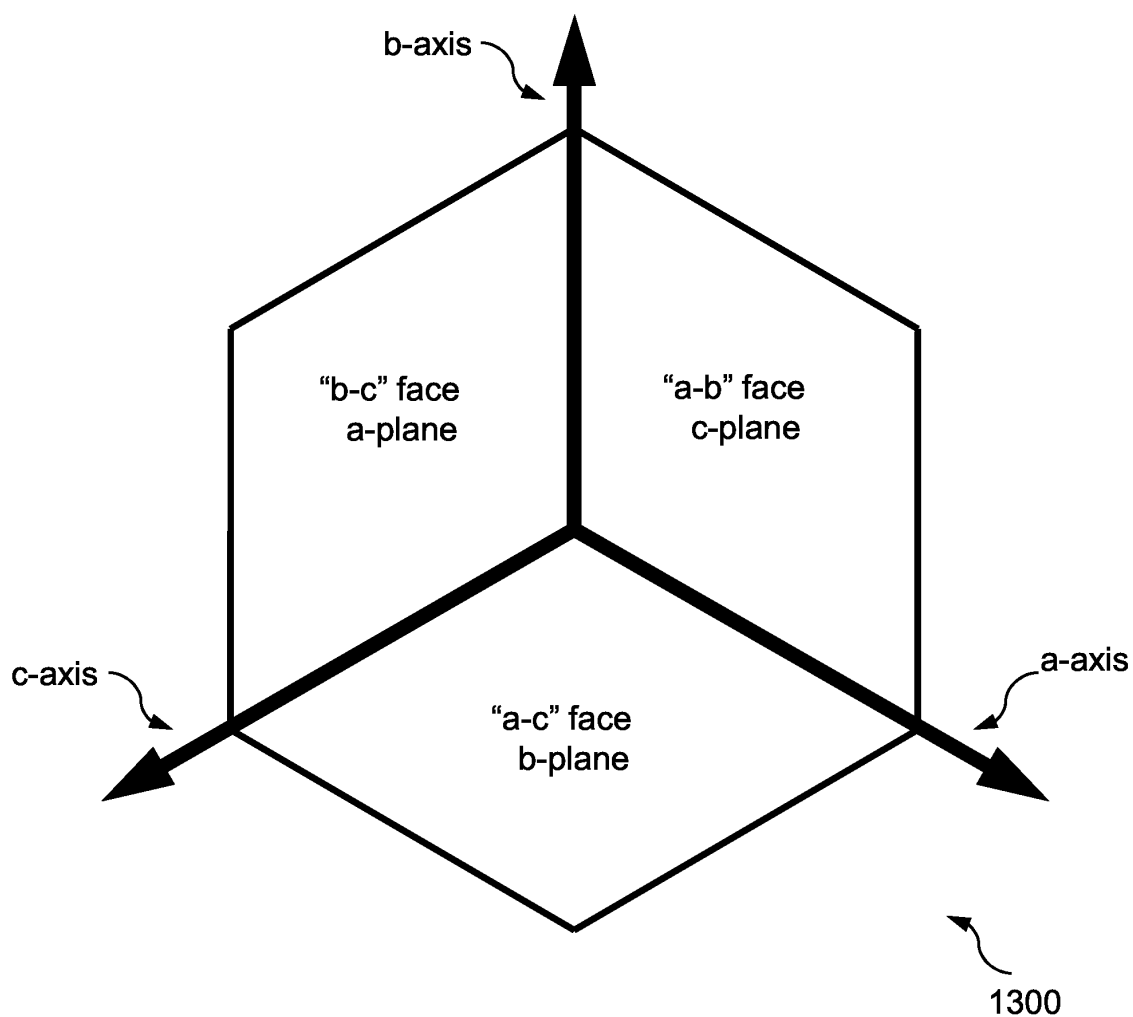
Family 13/15 - FAMPAT - ©Questel

Title

(EP2691996)

Electrical, mechanical, computing, and/or other devices formed of extremely low resistance materials

Images



Publication numbers with kind code & date

US20190326501	A1	2019-10-24	US20190326501
US10333047	B2	2019-06-25	US10333047
RU2016150397	A	2018-11-15	RU2016150397
IL260453	A	2018-09-20	IL-260453
IL228645	B	2018-07-31	IL-228645
CN107611249	A	2018-01-19	CN107611249
JP2017533572	A	2017-11-09	JP2017533572
RU2612847	C2	2017-03-13	RU2612847
CN105264680	A	2016-01-20	CN105264680
RU2013148124	A	2015-05-10	RU2013148124
EP2691996	A4	2015-01-28	EP2691996
KR20140140474	A	2014-12-09	KR20140140474
US20140113828	A1	2014-04-24	US20140113828
IN3193/KOLNP/2013	A	2014-02-21	IN2013KN03193
EP2691996	A1	2014-02-05	EP2691996
IL228645	A	2013-12-31	IL-228645
AU2012236227	A1	2013-11-14	AU2012236227
US20130196858	A1	2013-08-01	US20130196858
US8404620	B2	2013-03-26	US8404620
CA2868986	A1	2012-10-04	CA2868986
US20120252676	A1	2012-10-04	US20120252676



[WO2012/135683](#)

A1 2012-10-04 WO2012135683

Abstract

(EP2691996)

Electrical, mechanical, computing, and/or other devices that include components formed of extremely low resistance (ELR) materials, including, but not limited to, modified ELR materials, layered ELR materials, and new ELR materials, are described.

Inventors

GILBERT DOUGLAS J

SHTEYN YEVGENIY EUGENE

SMITH MICHAEL J

HANNA JOEL PATRICK

GREENLAND PAUL

COPPA BRIAN

NORTH FORREST

Latest standardized assignees - inventors removed

AMBATURE

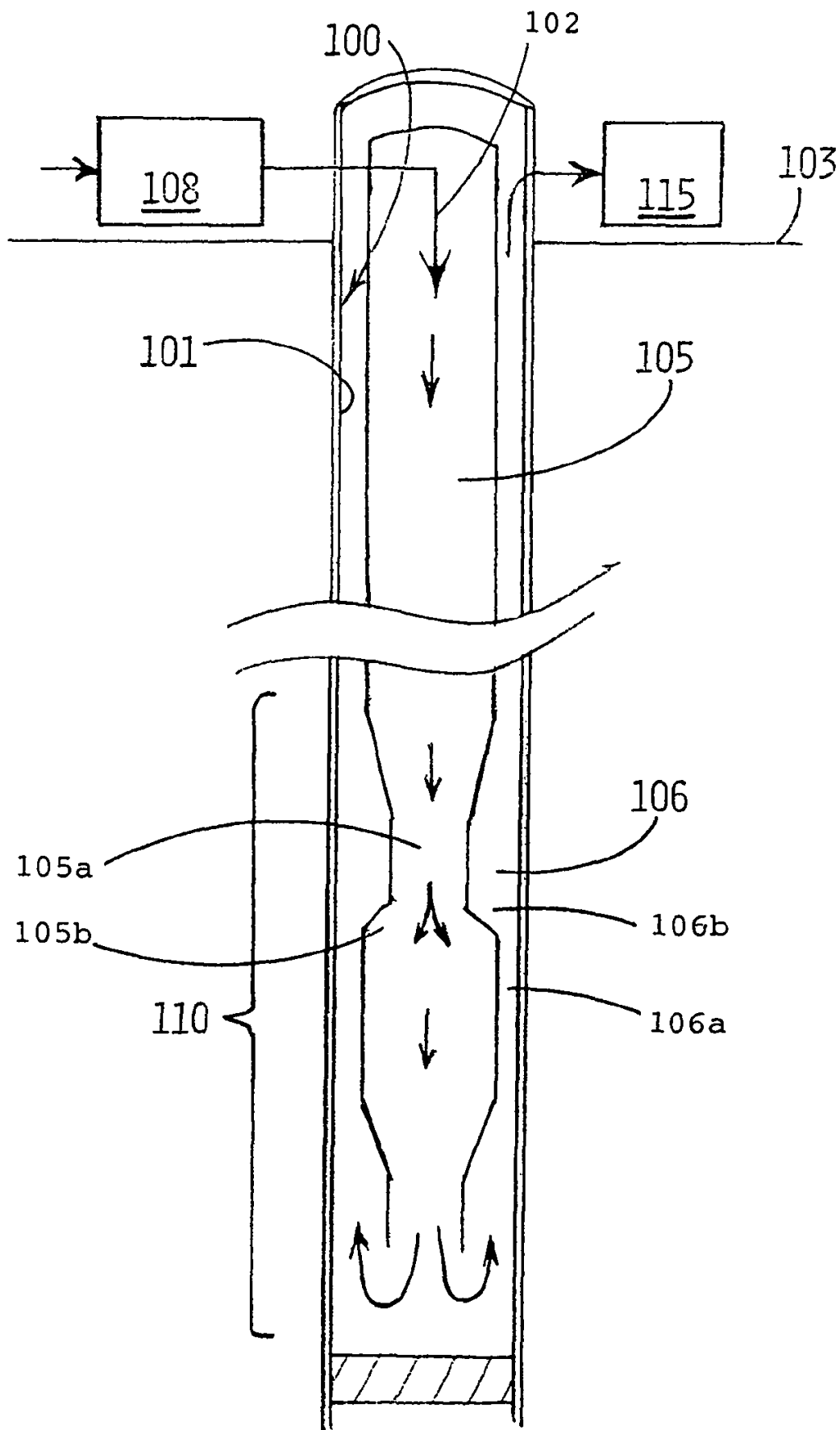
Family 14/15 - FAMPAT - ©Questel

Title

(WO2009149519)

System for cultivation and processing of microorganisms and products therefrom

Images

**Publication numbers with kind code & date**

AU2011200090	B2	2016-01-07	AU2011200090
US20150072400	A1	2015-03-12	US20150072400
US8715980	B2	2014-05-06	US8715980



US20110092726	A1	2011-04-21	US20110092726
AU2011200090	A1	2011-02-03	AU2011200090
WO2009/149519	A1	2009-12-17	WO2009149519

**Abstract**

(WO2009/149519)

Described are methods of cultivating phototropic microorganisms, particularly microalgae or diatoms, in a bioreactor by entraining a culture of the microorganisms in a tenuous, gelated, thixotropic carrier medium having nutrients therefor and moving the medium along a passage at a sufficiently slow speed to enable laminar flow which in cross section is closed and which has transparent walls through which the culture is irradiated to enable photosynthesis. The method includes effecting convective turnover of the culture and medium as they flow along the passage by differentially heating the medium laterally relative to the flow direction so as to produce a generally helical flow of the culture and medium. Also described are processing methods, both physical and chemical, performed underground e.g. in drill holes, to utilise ambient elevated pressures, including processes to implement lysis of the micro-organisms, producing methanol, syngas synthesis, Haber ammonia synthesis, and Fischer- Tropsch reactions.

Inventors

CLARKE WILLIAM SEVERN

Latest standardized assignees - inventors removed

WINWICK BUSINESS SOLUTIONS

Family 15/15 - FAMPAT - ©Questel

Title

(AU2016202159)

System for cultivation and processing of microorganisms, processing of products therefrom, and processing in drillhole reactors

Images

2016202159 06 Apr 2016

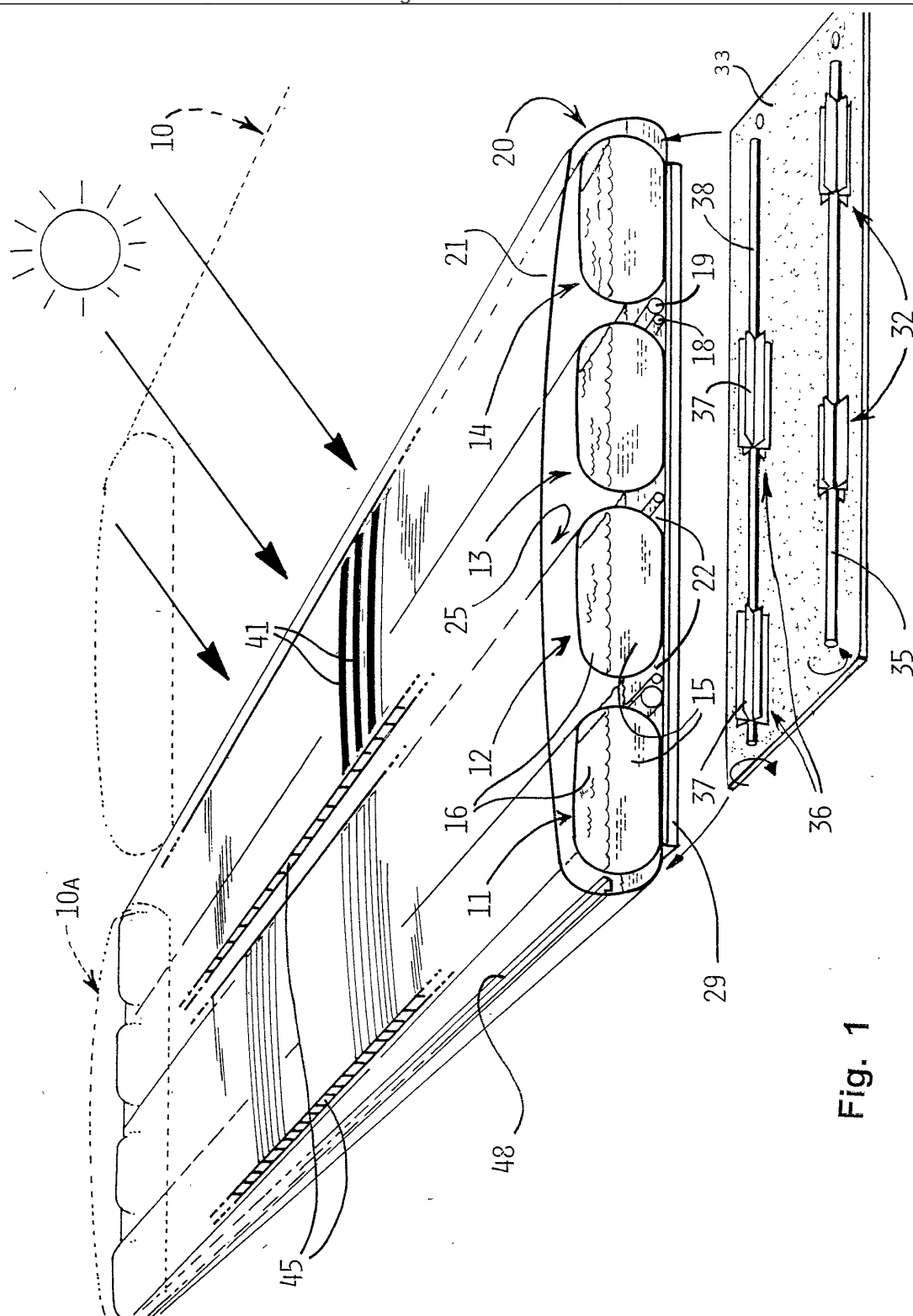


Fig. 1

Publication numbers with kind code & date[AU2016202159](#)

A1 2016-04-28

[AU2016202159](#)**Abstract**

(AU2016202159)

Described are methods of cultivating autotrophic microorganisms, particularly microalgae or diatoms, in a bioreactor by entraining a culture of the microorganisms in a tenuous, gelated, thixotropic carrier medium having 5 nutrients therefor and moving the medium along a passage at a sufficiently slow speed to enable laminar flow which in cross section is closed and which has transparent walls through which the culture is irradiated to enable photosynthesis. The method includes effecting convective turnover of the culture and medium as they flow along the passage by differentially heating the medium laterally relative to the flow direction so as to produce a generally helical flow of the culture and medium. Also described are processing methods, both physical and chemical, 10 performed underground e.g. in drillholes, to utilise

decavitation energy under ambient elevated pressures, including processes to implement lysis of the micro-organisms, producing methanol, syngas synthesis, Haber ammonia synthesis, Fischer-Tropsch reactions, supercritical reactions, dimethyl ether synthesis, and nitric acid synthesis. CDp IC' I - I[:NI

Inventors

CLARKE WILLIAM SEVERN

Latest standardized assignees - inventors removed

WINWICK BUSINESS SOLUTIONS