

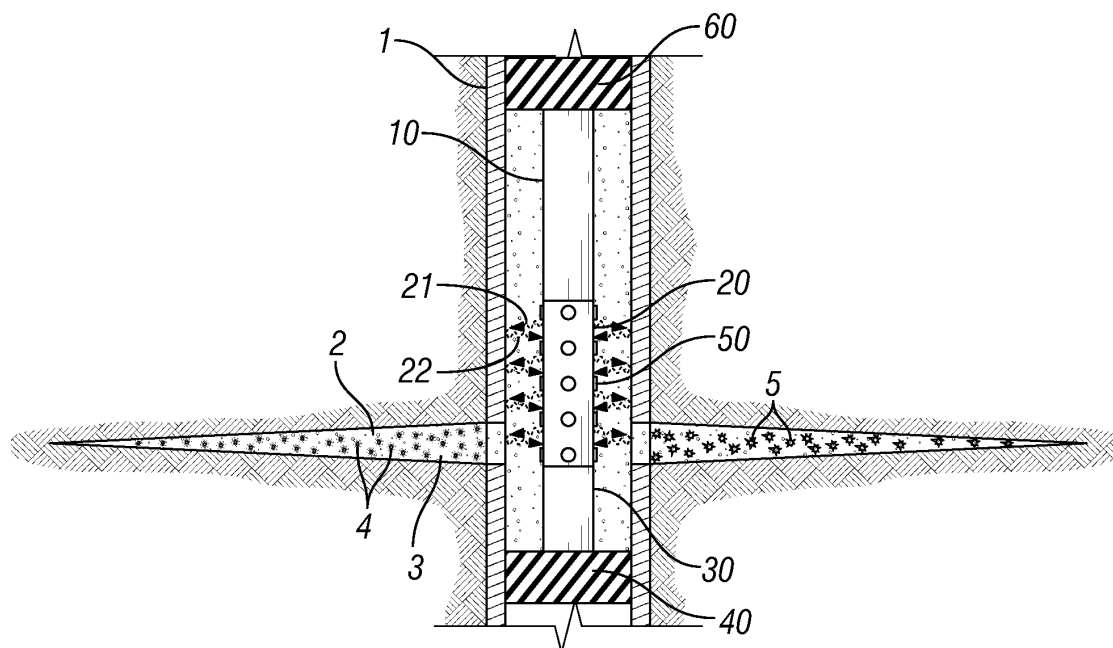
7 Documents

Publication numbers	Title	Current assignees
CA2958765 A1	System and method for using pressure pulses for fracture stimulation performance enhancement and evaluation	BAKER HUGHES
US4252209 A	Method and apparatus for fracturing a deep borehole and determining the fracture azimuth	GEOPHYSICAL SERVICE, ...
WO9850681 A1	A method of generating electric power in a wellbore	BAKER HUGHES
WO200336041 A2	In situ thermal processing of a hydrocarbon containing formation	SHELL
WO200285821 A2	In situ recovery from a relatively permeable formation containing heavy hydrocarbons	SHELL INTERNATIONALE RESEARCH, ...
WO200286029 A2	In situ recovery from a relatively low permeability formation containing heavy hydrocarbons	SHELL
NO9805718 D0	Method for improved identification of seismic events in a subsurface area under oilfield production conditions	IFP ENERGIES NOUVELLES, ...

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Title

(EP3183420)

System and method for using **pressure pulses** for fracture stimulation performance enhancement and evaluation**Images****Publication data including kind & date**

CA2958765	A1	2016-02-25	CA2958765
US20160053611	A1	2016-02-25	US20160053611
WO2016028886	A1	2016-02-25	WO201628886
AR101609	A1	2016-12-28	AR-101609
NO20170279	A1	2017-02-27	NO20170279
MX2017001975	A	2017-05-04	MX2017001975
EP3183420	A1	2017-06-28	EP3183420
IN201717009071	A	2017-08-18	IN201717009071
EP3183420	A4	2018-08-01	EP3183420

**Abstract**

(EP3183420)

A system and method of applying periodic energy **pulses** to a portion of a wellbore, fracture(s), and/or near wellbore to interrogate and/or stimulate at least a portion of the wellbore, fracture(s), and/or near wellbore. The system includes a downhole device that is configured to deliver periodic energy **pulses** to a portion of the wellbore. The downhole device may deliver various energy **pulses** such as **pressure waves**, **seismic waves**, and/or acoustic **waves**. **Sensors** may determine properties of a portion of the wellbore and/or fracture based on energy **pulses** detected within the wellbore. The **sensors** may be connected to the downhole tool, may be positioned within the wellbore, and/or maybe positioned at the surface. The magnitude and/or frequency of the periodic energy **pulses** may be varied to change the stimulation and/or interrogation of the wellbore.

Inventors

MOOS DANIEL
LIVESCU SILVIU

Latest standardized assignees - inventors removed

BAKER HUGHES

Publication dates

2016-02-25

2016-02-25

2016-02-25

2016-12-28

2017-02-27

2017-05-04

2017-06-28

2017-08-18

2018-08-01

Family 2/7 - FAMPAT - ©Questel

Title

(US4432078)

Method and apparatus for fracturing a deep borehole and determining the fracture azimuth

Images

Abstract

(US4432078)

A method of fracturing a deep borehole to form a vertical fracture, and of determining the azimuth of the resulting fracture, comprising pumping a **pressurized** fracture fluid into said well through a pipe from the surface, to provide a bottom hole **pressure** P which is less than the normal fracturing press (NFP), and generating a series of sharp **pressure pulses** (SPP) of selected magnitude, such that when added to the **pressure** P, provide **pressure** peaks greater than the NFP. By providing arrays of **seismic sensors** at the surface and determining the direction of propagation of the **seismic waves** generated by the SPP, the azimuth of the fracture can be determined.

Inventors

SILVERMAN DANIEL

Latest standardized assignees - inventors removed

GEOPHYSICAL SERVICE

WESTERN ATLAS INTERNATIONAL

Publication dates

1981-02-24

1984-02-14

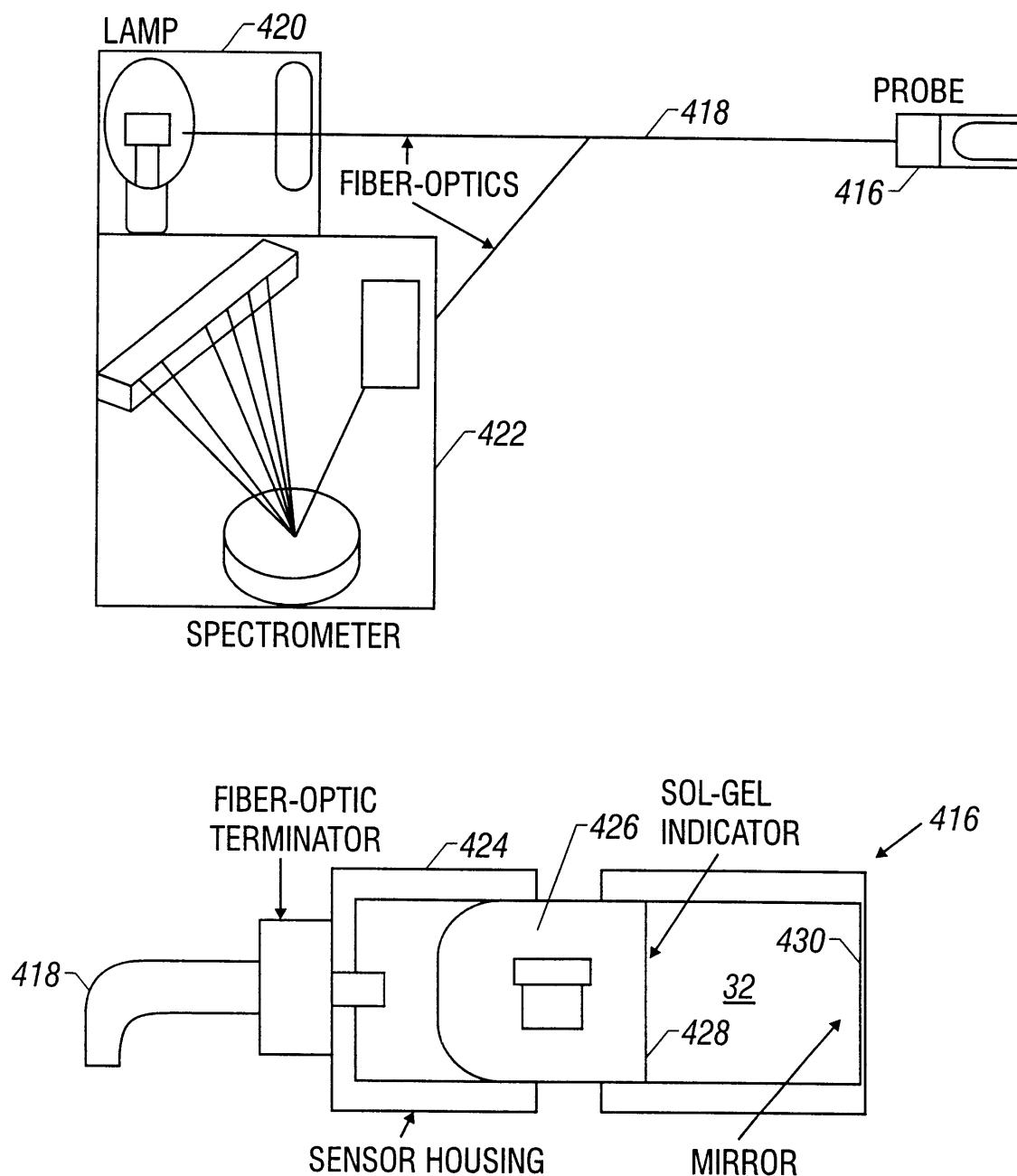
Family 3/7 - FAMPAT - ©Questel

Title

(EP1357403)

A method of generating electric power in a wellbore

Images


Publication data including kind & date

WO9850681	A1	1998-11-12	WO9850681
WO9850680	A2	1998-11-12	WO9850680
CA2525065	A1	1998-11-12	CA2525065
CA2524666	A1	1998-11-12	CA2524666
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NO20023857	A	1999-03-19	NO200203857



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Abstract

(EP1357403)

A method of generating electric power in a wellbore comprises placing a light cell at a desired depth in the wellbore, said light cell generating electric energy upon receiving light energy, and supplying light energy from a source thereof to the light cell for generating the electrical energy downhole. <IMAGE>

Inventors

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Latest standardized assignees - inventors removed

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Publication dates

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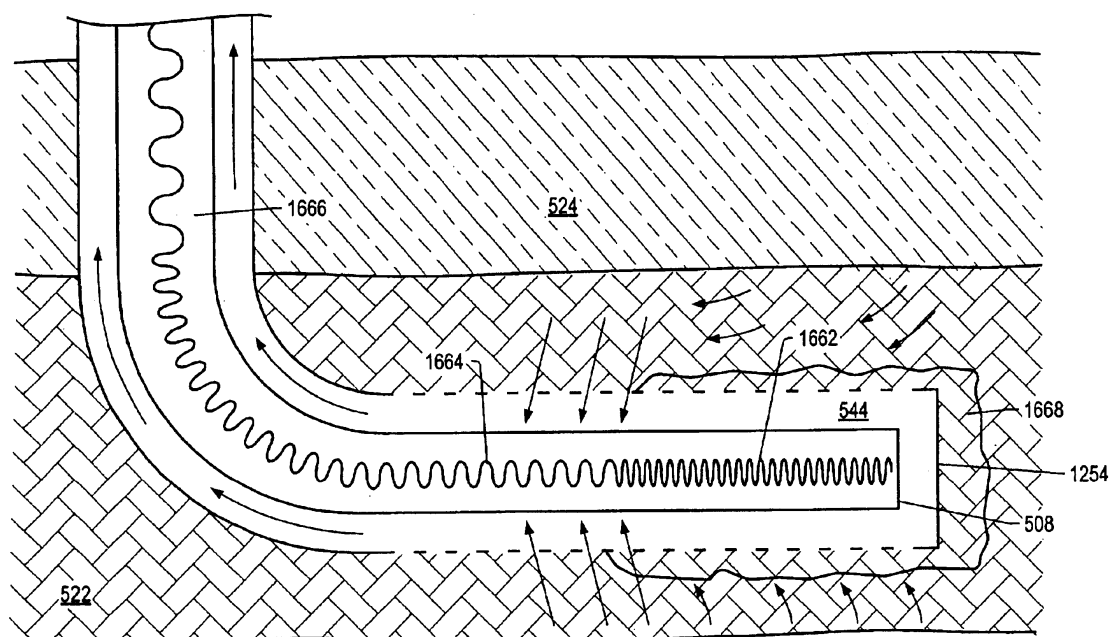
Family 4/7 - FAMPAT - ©Questel

Title

(WO200340513)

In situ thermal processing of a hydrocarbon containing formation

Images



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WO03036043	A2	2003-05-01	WO200336043				
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IL161172	A	2004-08-31	IL-161172				
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Abstract

(WO200340513)

An in situ process for treating a hydrocarbon containing formation is provided. The process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from the one or more heaters to a part of the formation such that heat from the one or more heat sources pyrolyzes at least some hydrocarbons within the part. Hydrocarbons may be produced from the formation.

Inventors

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FOWLER THOMAS DAVID
RYAN ROBERT CHARLES
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MENOTTI JAMES LOUIS
COLES JOHN MATTHEW
KEEDY CHARLES ROBERT
MADGAVKAR AJAY MADHAV
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Latest standardized assignees - inventors removed
SHELL
Publication dates

2003-05-01

2003-05-01

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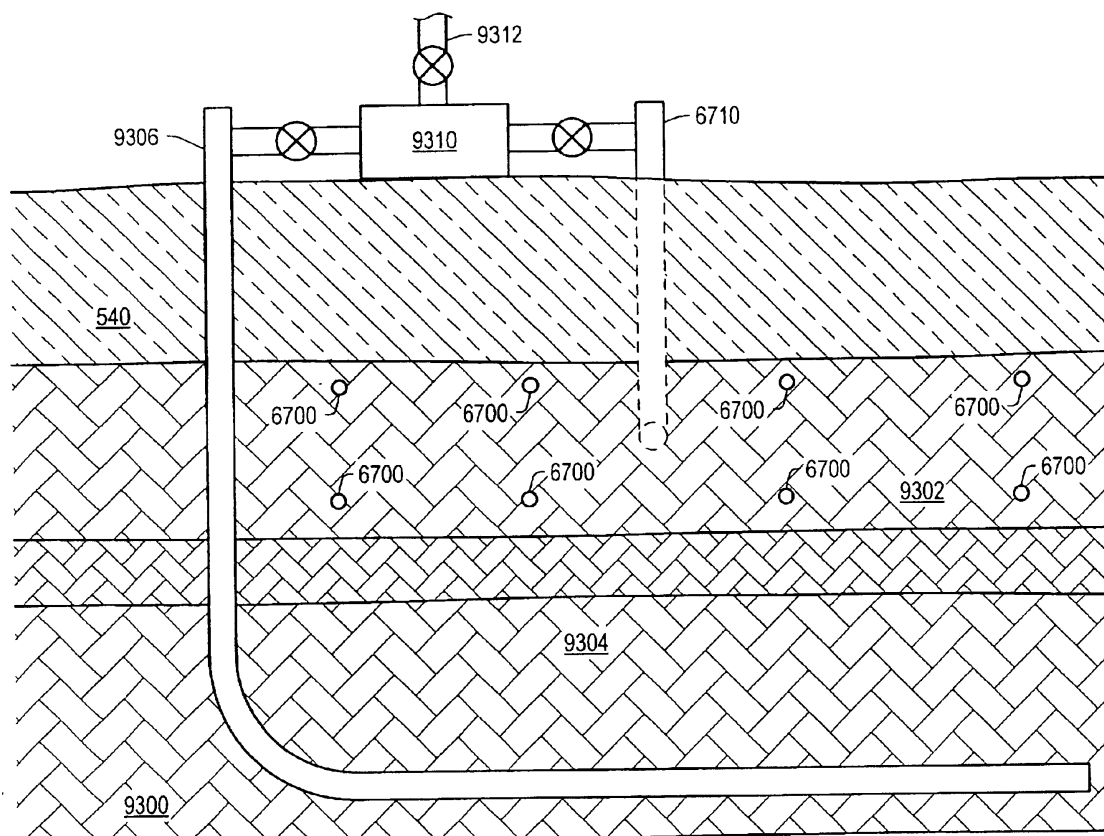
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Title

(WO200285821)

In situ recovery from a relatively permeable formation containing heavy hydrocarbons

Images



Publication data including kind & date

WO02085821	A2	2002-10-31	WO200285821
US20030098605	A1	2003-05-29	US20030098605
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US7096942	B1	2006-08-29	US7096942
WO02085821	A3	2013-11-07	WO200285821



Abstract

(WO200285821)

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from a first set of heat sources (6700) to a first section (8600) of the formation. The heat provided to the first section (8600) may pyrolyze at least some hydrocarbons in the first section (8600). Heat may also be provided from a second set of heat sources (6700) to a second section (8602) of the formation. The heat provided to the second section (8602) may mobilize at least some hydrocarbons in the second section (8602). A portion of the hydrocarbons from the second section (8602) may

be induced to flow into the first section (8600).A mixture of hydrocarbons may be produced from the formation.The produced mixture may include at least some pyrolyzed hydrocarbons.

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Latest standardized assignees - inventors removed

SHELL INTERNATIONALE RESEARCH
SHELL CANADA

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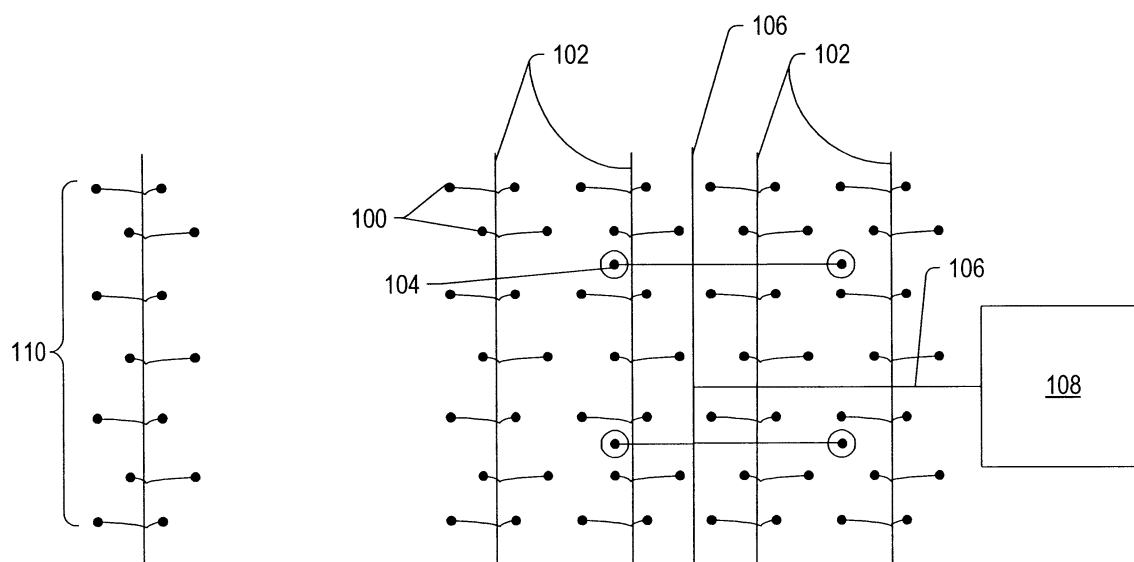
2013-11-07

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Title

(WO200286029)

In situ recovery from a relatively low permeability formation containing heavy hydrocarbons

Images**Publication data including kind & date**

WO02086029	A2	2002-10-31	WO200286029
AU2002303481	A1	2002-11-05	AU2002303481
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WO02086029	A3	2009-10-01	WO200286029
AU2002303481	A8	2009-11-19	AU2002303481

**Abstract**

(WO200286029)

A method for treating a relatively low permeability formation (222) containing heavy hydrocarbons in situ may include providing heat from one or more heat sources (2604,2608) to a portion of the formation (222).The heat may be allowed to transfer from the heat sources (2604, 2608) to a selected section of the formtion (222).The transferred heat may pyrolyze at least some hydrocarbons within the selected section.A mixture of hydrocarbons may be produced from the selected section.In some embodiments, the permeability of a portion of the formation (222) may be increased relative to an initial permeability of the portion.

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MIKUS TOM
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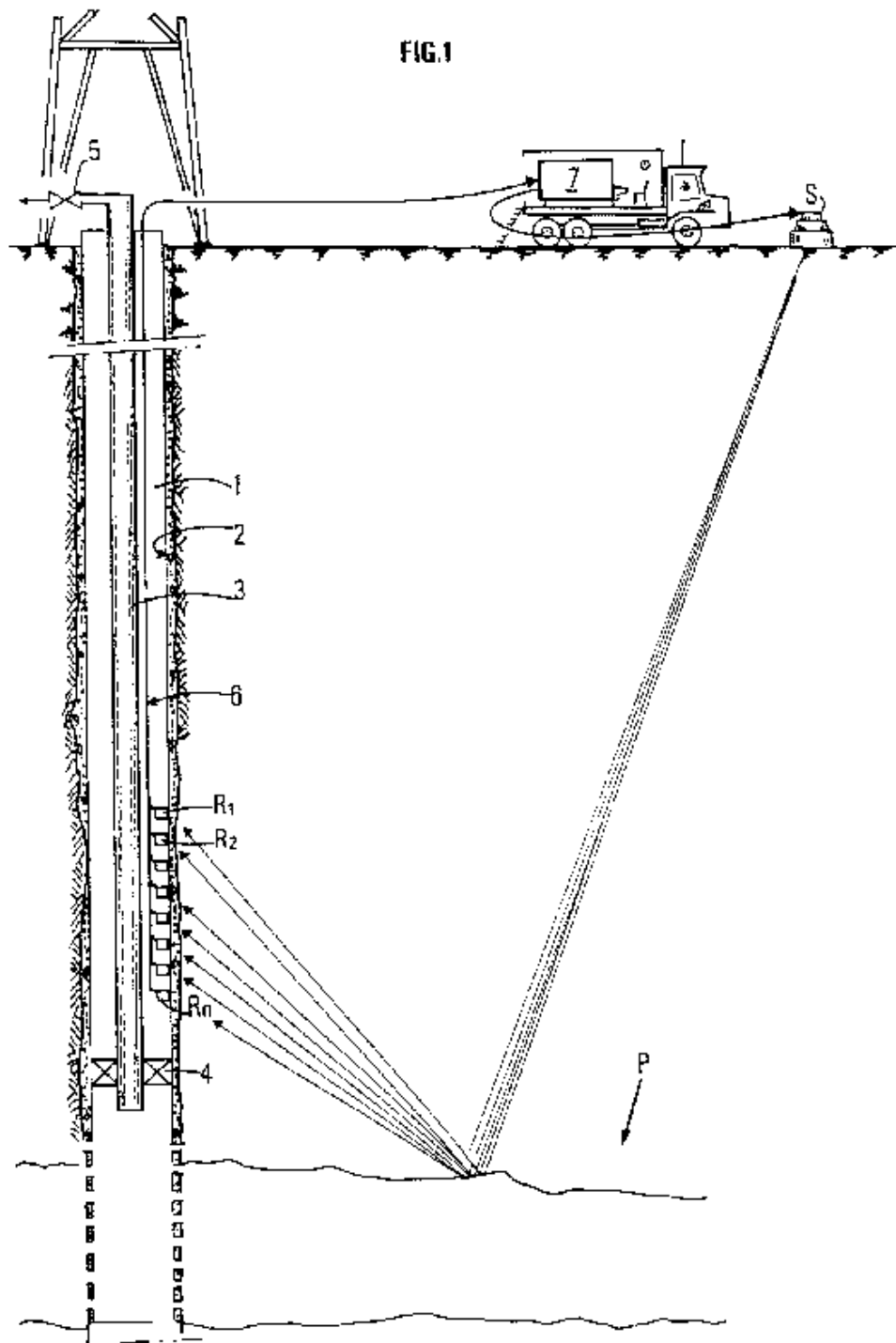
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SHELL

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BRPI9805239	A2	2009-11-10	BR199805239				
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Abstract

(EP-921416)

Receivers (R) are placed in shaft(s) to collect elastic **waves** from underground and a reference detector (T) has a direct acoustic coupling to the exploitation equipment. The data from the receivers and reference detector are collected and compared, to divide them into sets indicating events which are independent of the exploitation, or directly or indirectly dependent. A catalogue of event types is established with a causal link between the exploitation, by correlating the signals. Recordings of events connected to hydraulic fracturing are selected and the fractures located by comparative analysis of the component signals from at least two receivers. Permanent receivers are installed in the shafts behind a lining tube or in the annular space between a lining tube and a shaft so it is left free for underground exploitation. The permanent receivers are installed in the same or different shafts. The reference detector is acoustically coupled to the exploitation equipment. The receivers are installed at different depths to allow the direction of propagation of events to be determined. System for applying this method, with receivers (R), detectors (T), means (27) of recording the signals, means (6) of transmitting and treating (7) the data.

Inventors

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Latest standardized assignees - inventors removed

IFP ENERGIES NOUVELLES

GAZ DE FRANCE

Publication dates

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