

Search history

Search 1: PN=(CO9443233) (Results 0)
Search 2: PN=(US1189617) (Results 1)
Search 3: PN=(US6189617) (Results 1)
Search 4: FT=(sand W5 (clean* OR extract* OR separate#)) and PD<20161215 and IC=(E21B21* OR E21B37* OR E21B3*) (Results 1267)
Search 5: 4 AND (FT = (mill* OR drill*) W3 (tool OR device OR apparatus OR element)) (Results 255)
Search 6: 5 AND (FT = inject* W4 nozzle) (Results 3)
Search 7: 5 AND (FT = nozzle AND sleeve) (Results 69)
Search 8: 7 AND (FT = valve) (Results 57)
Search 9: 8 AND (FT = connect* OR join*) (Results 57)
Search 10: 9 AND (FT = fluidizer) (Results 0)
Search 11: 9 AND (FT = venturi) (Results 23)

Title: Hydraulic mining tool apparatus

Abstract: Source: US4296970A [EN] An improved hydraulic mining tool for recovering minerals, particularly bitumen, and other viscous crude oils, from subterranean formations is disclosed, composed generally of a radially directed cutting jet nozzle which discharges a high velocity liquid to dislodge bitumen, viscous crude oils, and sand particles from the formation and a venturi-type pump and jet nozzle which lifts the dislodged material upward to the surface. The mining tool includes a rock crushing mechanism having means to vary its impact force and reciprocation frequency and an Archimedes feed screw which provides a variable quantity, continuous feed of mined material into the jet pump inlet.

Classifications:

International (IPC 8-9): E21B21/12 E21B43/29 E21B7/18

E21C25/60 (Advanced/Invention);

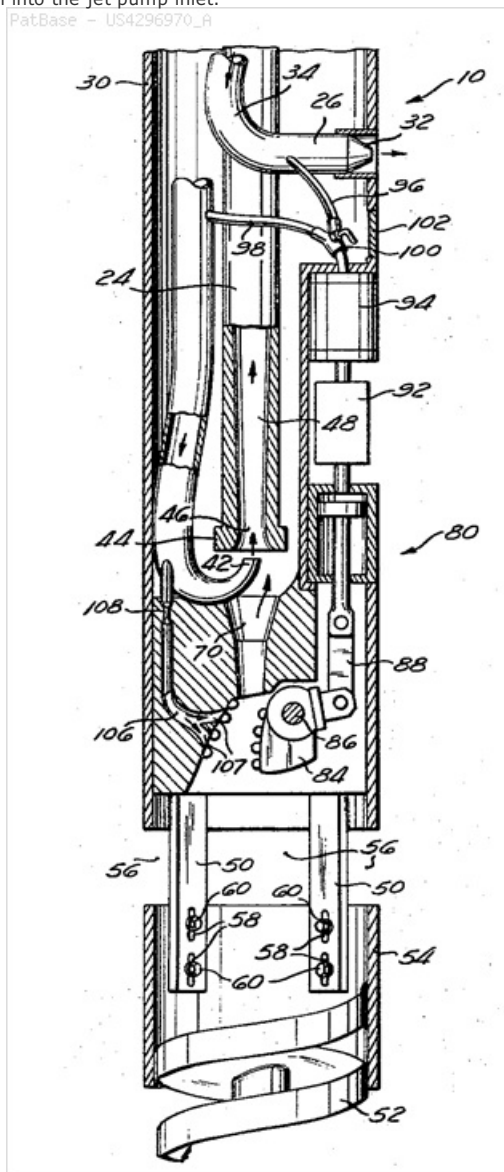
E21B21/00 E21B43/00 E21B7/18 (Core/Invention)

International (IPC 1-7): E21C25/60 E21C41/00 E21C45/00

CPC: E21B7/18 E21B21/12 E21B43/29

European: E21B21/12 E21B43/29 E21B7/18

US: 175/213 175/215 175/67 299/17 299/18 299/67 37/322 406/61



Family:

Publication number	Publication date	Application number	Application date
AU198167269 A1	19810820	AU19810067269	19810213
CA1131665 A1	19820914	CA19800358394	19800815
US4296970 A	19811027	US19800121712	19800215

Priority:

CA19800358394 19800815 US19800121712 19800215

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Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; GOWLING LAFLEUR HENDERSON LLP

Title: THREE DIMENSIONAL STEERABLE SYSTEM

Abstract: Source: US2001052427A [EN] The steering assembly includes upper and lower tubular housings **connected** by a universal **joint**. An angle cam is disposed on the end of the lower housing and projects into the upper housing. A plurality of wedge members extend axially from the upper housing and into engagement with the angle cam. Drive trains are **connected** to the wedge members to move the wedge members toward and away from the angle cam so as to pivot the lower housing at the universal **joint** and change the angle and azimuth of the lower housing with respect to the upper housing. The lower housing is **connected** to a bearing pack supporting a drill bit such that upon changing the angle and azimuth of the lower housing, the direction of the drilling of the drill bit is also changed. The steering assembly being **connected** to composite tubing having conductors in the wall thereof for conducting data and commands between the steering assembly and a processor at the surface and for providing power to the steering assembly. Data on the position of the bit is transmitted to a processor which determines the direction of drilling and selectively transmits commands to the steering assembly to change the bend angle and direction of the drilling of the bit.

Classifications:

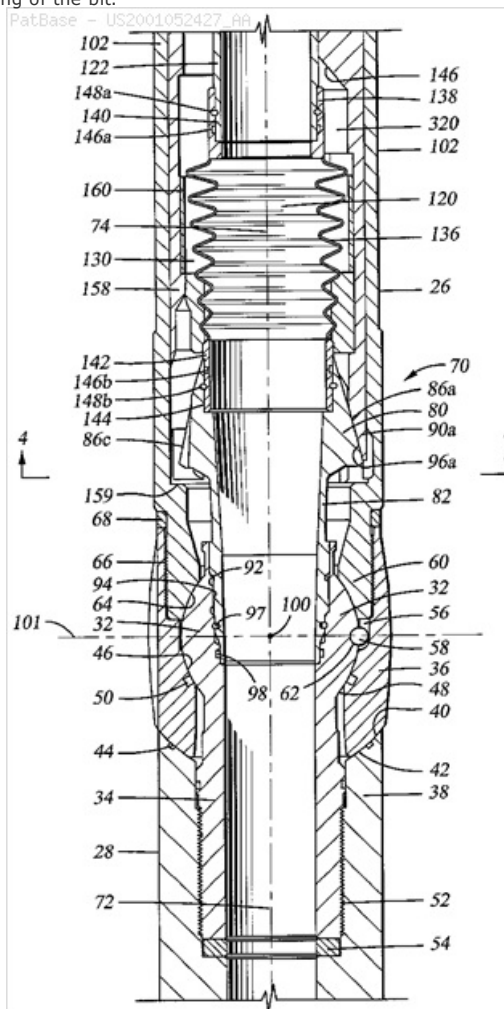
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International (IPC 1-7): E05B63/20 E21B0/00 E21B10/62 E21B17/00 E21B17/01 E21B17/02 E21B17/042 E21B17/046 E21B17/20 E21B19/07 E21B19/08 E21B19/16 E21B19/22 E21B23/00 E21B29/00 E21B29/06 E21B3/00 E21B4/00 E21B4/02 E21B4/04 E21B4/16 E21B4/18 E21B44/00 E21B47/00 E21B47/01 E21B47/02 E21B47/12 E21B49/08 E21B7/00 E21B7/04 E21B7/06 E21B7/08 E21B7/10 E21B7/20 F16D1/02 F16L11/127 F16L25/00 F16L25/01 F16L35/00 G01V3/30 H01R13/28 H01R13/62

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European: E21B17/02 E21B17/02E E21B17/03 E21B17/042 E21B17/046 E21B17/20 E21B17/20D E21B19/07 E21B19/086 E21B19/16B E21B21/10C E21B29/06 E21B37/00 E21B4/00F E21B4/04 E21B4/18 E21B44/00 E21B47/01 E21B49/08 E21B7/06K E21B7/06M G01V11/00B G01V3/30 P21B23/00T

US: 138/125 166/242.1 166/242.2 166/381 175/107 175/171 175/26 175/263 175/263S 175/26P 175/32 175/320 175/40 175/40P 175/45 175/45S 175/61 175/61P 175/62 175/73 175/73S 175/74 175/80 175/92 285/39 285/39P 324/369 439/191 439/320 464/19 702/6

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Priority:

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Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; DEETH WILLIAMS WALL LLP; EMERY JAMIESON LLP; PARLEE MCLAWS LLP; CURTIS PHILIP ANTHONY; BENNETT ADRIAN ROBERT J; CONLEY ROSE PC; CONLEY ROSE P C
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: IN SITU THERMAL PROCESSING AND INHIBITING MIGRATION OF FLUIDS INTO OR OUT OF AN IN SITU OIL SHALE FORMATION

Abstract: Source: US2003080604A [EN] An oil shale formation may be treated using an in situ thermal process. Fluid migration into and/or out of a treatments area in the formation may be inhibited. In some embodiments, a barrier may be used to inhibit migration of fluids into and/or out of the treatment area. Heat may be provided to the treatment area and subsequently, hydrocarbons, H₂, and/or other formation fluids may be produced from the formation.

Classifications:

International (IPC 8-9): C10G1/00 C10G49/00 E21B36/00 E21B42/243 E21B43/00 E21B43/24 E21B43/243 E21B43/247 E21B43/28 E21B43/30 E21B43/40 E21B47/00 E21B49/00

E21C41/24 (Advanced/Invention);
E21B47/00 (Core/Invention)

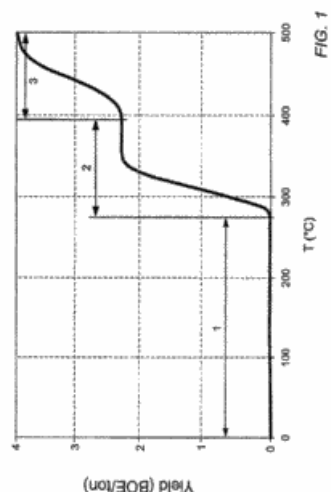
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CPC: E21B43/24 E21B43/2401 E21B43/243 E21B43/247 E21B43/30 E21B43/243 E21B43/247 E21B43/30

European: 166/242.1 166/242.100P 166/245 166/250.01 166/250.010P 166/250.07 166/250.070P 166/250.12 166/250.15 166/251.1 166/254.1 166/256 166/256S 166/257 166/261 166/264 166/266 166/267 166/271 166/272.1 166/272.100P 166/272.100S 166/272.2 166/272.3 166/272.7 166/300 166/302 166/302S 166/303 166/308 166/384 166/52 166/57 166/59 166/59S 166/6 166/60 166/60P 166/60S 299/14 299/14P 299/4 299/5 299/5P 299/6 299/7 392/301 392/301P 392/305 392/306 405/130 405/270 405/52 423/131 423/208 423/658.5 507/200 507/200P 585/1 585/2

PatBase - US2003080604_AA

U.S. Patent Apr. 25, 2006 Sheet 1 of 241 US 7,032,660 B2



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: SHELL OIL CO

Assignee(s): (std): SHELL OIL CO ; SHELL INT RESEARCH ; SHELL CANADA LTD

Assignee(s): ROBERTS BRUCE ; VAN HARDEVELD MARTIJN ; WELLINGTON SCOTT L ; RYAN ROBERT C ; STEGEMEIER GEORGE L ; SUMNU DINDORUK MELIHA D ; WARD JOHN M ; SCHOELING LANNY ; WATKINS WADE ; SHAHIN GORDON T ; PRATT KIP ; VEENSTRA PETER ; SHELL INT RESEARCH MIJ BV ; WATKINS RONNIE WADE ; PALFREYMAN BRUCE DONALD ; SCHOELING LANNY GENE ; STEGEMEIER GEORGE LEO ; VAN HARDEVELD ROBERT MARTIJN ; RYAN ROBERT CHARLES ; SHAHIN GORDON THOMAS ; ZHANG ETUAN ; VINEGAR HAROLD J ; WELLINGTON SCOTT LEE ; ROUFFIGNAC ERIC PIERRE DE ; PIERRE DE ROUFFIGNAC ERIC ; WARD JOHN MICHAEL ; VINEGAR HOROLD J ; PLAFREYMAN BRUCE DONALD ; PRATT CHRISTOPHER ARNOLD ; SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B V ; SHELL CANADA LIMITED ; AYMOND DANNIE ANTOINE ; BASS RONALD ; BASS RONALD MARSHALL ; BAXLEY PHILIP T ; BERCHENKO ILYA E ; COLES JOHN MATTHEW ; CARL FREDRICK GORDON ; BERCHENKO ILYA EMIL ; BIELAMOWICZ LAWRENCE JAMES ; COLE ANTHONY THOMAS ; COLES JOHN M ; BIELAMOWICZ LAWRENCE J ; DE ROUFFIGNAC ERIC ; CARL FRED G ; CRANE STEVE ; MCKINZIE BILLY JOHN ; HUNSUCKER BRUCE GERARD ; MENOTTI JAMES LOUIS ; MAHER KEVIN ALBERT ; FOWLER THOMAS DAVID ; KARANIKAS JOHN MICHAEL ; DE ROUFFIGNAC ERIC PIERRE ; KEEDY CHARLES ROBERT ; MADGAVKAR AJAY MADHAV ; MAHER KEVIN A ; GLANDT CARLOS ; MESSIER MARGARET ; KARANIKAS JOHN M ; HUNSUCKER BRUCE G ; MENOTTI JAMES L ; FOWLER THOMAS D ; LEPPER BRUCE ; MIKUS TOM ; KEEDY CHARLIE R ; MADGAVKAR AJAY M ; SHELL OIL COMPANY

Inventor(s): (std): RYAN R BERT C ; ROUFFIGNAC ERIC PIERRE DE ; ROBERTS BRUCE ; PRATT KIP ; PRATT CHRISTOPHER ARNOLD ; PLAFREYMAN BRUCE DONALD ; PIERRE DE ROUFFIGNAC ERIC ; PALFREYMAN BRUCE DONALD ; MIKUS TOM ; MESSIER MARGARET ; MENOTTI JAMES LOUIS ; MENOTTI JAMES L ; MCKINZIE II BILLY JOHN ; MCKINZIE BILLY JOHN ; MAHER KEVIN ALBERT ; MAHER KEVIN A ; MADGAVKAR AJAY MADHAV ; MADGAVKAR AJAY M ; LEPPER BRUCE ; KEEDY CHARLIE R ; KEEDY CHARLES ROBERT ; KARANIKAS JOHN MICHAEL ; KARANIKAS JOHN M ; HUNSUCKER BRUCE GERARD ; HUNSUCKER BRUCE G ; GLANDT CARLOS ; FOWLER THOMAS DAVID ; FOWLER THOMAS D ; DE ROUFFIGNAC ERIC PIERRE ; DE ROUFFIGNAC ERIC ; CRANE STEVE ; COLES JOHN MATTHEW ; COLES JOHN M ; COLE ANTHONY THOMAS ; CARL JR FREDRICK GORDON ; CARL FREDRICK GORDON ; CARL FRED G ; BIELAMOWICZ LAWRENCE JAMES ; BIELAMOWICZ LAWRENCE J ; BERCHENKO ILYA EMIL ; BERCHENKO ILYA E ; BAXLEY PHILIP T ; BASS RONALD MARSHALL ; BASS RONALD ; AYMOND JR DANNIE ANTOINE ; AYMOND DANNIE ANTOINE ; ZHANG ETUAN ; WELLINGTON SCOTT LEE ; WELLINGTON SCOTT L ; WATKINS WADE ; WATKINS RONNIE WADE ; WARD JOHN MICHAEL ; WARD JOHN M ; VINEGAR HOROLD J ; VINEGAR HAROLD J ; VEENSTRA PETER ; VAN HARDEVELD ROBERT MARTIJN ; VAN HARDEVELD MARTIJN ; SUMNU DINDORUK MELIHA D ; STEGEMEIER GEORGE LEO ; STEGEMEIER GEORGE L ; SHAHIN JR GORDON THOMAS ; SHAHIN GORDON THOMAS ; SHAHIN GORDON T ; SCHOELING LANNY GENE ; SCHOELING LANNY ; RYAN ROBERT CHARLES ; RYAN ROBERT C

Inventor(s): RYAN ROBERT C

Agent(s): SMART AND BIGGAR

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

Title: IN SITU THERMAL RECOVERY FROM A RELATIVELY PERMEABLE FORMATION USING GAS TO INCREASE MOBILITY

Abstract: Source: US2003098149A [EN] A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may reduce the viscosity of at least some hydrocarbons within the selected section. A gas may be produced to the selected section of the formation. The gas may produce a flow of hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section.

Classifications:

International (IPC 8-9): C01B3/24 C10G1/00 C10G47/22 C10G49/00 E21B1/00 E21B17/10 E21B36/00 E21B36/02 E21B36/04 E21B43/14 E21B43/16 E21B43/24 E21B43/243 E21B43/247 E21B43/28 E21B43/295 E21B43/30 E21B43/34 E21B43/40 E21B47/00 E21B47/06 E21B49/00 E21B7/04 (Advanced/Invention); E21B1/00 E21B36/00 E21B43/00 E21B43/16 (Core/Invention)

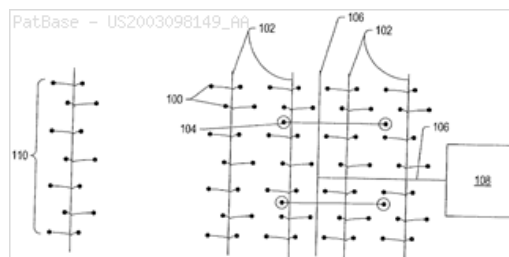
International (IPC 1-7): C07C C09K7/00 C10B3/24 C10G1/00 E21B E21B1/00 E21B36/00 E21B36/02 E21B36/04 E21B43/16 E21B43/24 E21B43/243 E21B43/30 E21B43/40 E21B49/00 E21C37/16 E21C37/20

CPC: E21B43/14 E21B43/2406 E21B43/2408 Y10T137/0391

E21B47/065 E21B7/04 E21B17/10 E21B36/00 E21B36/02 E21B36/025 E21B36/04 E21B43/166 E21B43/24 E21B43/243 E21B43/247 E21B43/281 E21B43/30 E21B43/305 Y02C10/14

European: E21B17/10 E21B36/00 E21B36/02 E21B36/02B E21B36/04 E21B43/14 E21B43/16G E21B43/24 E21B43/243 E21B43/247 E21B43/24S E21B43/24S2 E21B43/28B E21B43/30 E21B43/30B E21B47/06B E21B7/04 Y02C10/14

US: 137/13 166/245 166/250.01 166/250.15 166/256 166/256S 166/257 166/258 166/261 166/263 166/264 166/266 166/267 166/268 166/272.1 166/272.100P 166/272.3 166/272.7 166/302 166/303 166/303S 166/310 166/313 166/369 166/52 166/52P 166/59 166/6 166/60 166/60S 166/75.12 208/370 299/14 507/100 507/100P 585/1 585/2 703/10 705/1



Family:

Publication number	Publication date	Application number	Application date
AT384852 E	20080215	AT20020732664T	20020424
AU2002256340 AA	20021105	AU20020256340	20020424
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US2003098149 AA	20030529	US20020128703	20020424
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WO02085821 A2	20021031	WO2002US12941	20020424
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WO02086276 A3	20030424	WO2002EP04549	20020424	

Priority:

CA20022445173	20020424	CA20022668385	20020424	CA20022668387	20020424
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Probable Assignee: SHELL OIL CO

Assignee(s): (std): SHELL INT RESEARCH ; SHELL CANADA LTD ; SHELL CANADA LIMITED ; SHELL OIL CO ; SHELL OIL COMPANY ; SHELL INT RESEARCH MIJ B

Assignee(s): SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B ; WELLINGTON SCOTT LEE ; VINEGAR HAROLD J ; SUMNU DINDORUK MELIHA DENIZ ; SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ BV ; ZHANG ETUAN ; STEGEMEIER GEORGE LEO ; SHELL INT RESEARCH MIJ BV ; SHELL INTERNATIONALE RESEARCHMAATSCHAPPIJ B V ; SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B V ; BERCHENKO ILYA EMIL ; CRANE STEVEN DEXTER ; DE ROUFFIGNAC ERIC ; DE ROUFFIGNAC ERIC PIERRE ; DINDORUK MELIHA DENIZ SUMNU ; ROUFFIGNAC ERIC PIERRE DE ; MAHER KEVIN ALBERT ; ROBERTS BRUCE EDMUNDS ; KARANIKAS JOHN MICHAEL ; MESSIER MARGARET ANN ; RYAN ROBERT CHARLES ; SHAHIN GORDON THOMAS ; FOWLER THOMAS DAVID ; MESSIER ANN MARGARET

Inventor(s): (std): SUMNU DINDORUK MELIHA D ; SUMNU DINDORUK MELIHA DENIZ ; VAN HARDEVELD MARTIJN ; VEENSTRA PETER ; WARD JOHN M ; WATKINS WADE ; STEGEMEIER GEORGE LEO ; SHAHIN GORDON THOMAS ; RYAN ROBERT CHARLES ; ROBERTS BRUCE ; PRATT KIP ; MIKUS TOM ; LEPPER BRUCE ; HUNSUCKER BRUCE G ; GLANDT CARLOS ; FOWLER THOMAS DAVID ; FOWLER THOMAS D ; DE ROUFFIGNAC ERIC PIERRE ; CRANE STEVE ; COLES JOHN M ; CARL FRED G ; BIELAMOWICZ LAWRENCE J ; BERCHENKO ILYA EMIL ; BERCHENKO ILYA E ; BAXLEY PHILIP T ; BASS RONALD ; ZHANG ETUAN ; WELLINGTON SCOTT LEE ; MESSIER ANN MARGARET ; MAHER KEVIN ALBERT ; KARANIKAS JOHN MICHAEL ; DINDORUK MELIHA DENIZ SUMNU ; DE ROUFFIGNAC ERIC ; MICHAEL KARANIKAS JOHN ; DEXTER CRANE STEVEN ; WELLINGTON SCOTT L ; VINEGAR HAROLD J ; SHAHIN GORDON T ; RYAN ROBERT C ; MENOTTI JAMES L ; MAHER KEVIN A ; MADGAVKAR AJAY M ; KEEDY CHARLIE R ; KARANIKAS JOHN M ; WELLINGTON SCOTT ; VINEGAR HAROLD ; SHAHIN JR GORDON THOMAS ; CRANE STEVEN D ; MESSIER MARGARET ; MESSIER MARGARET ANN ; ROBERTS BRUCE EDMUNDS ; ROUFFIGNAC ERIC DE ; ROUFFIGNAC ERIC PIERRE DE ; SCHOELING LANNY ; ETUAN ZHANG ; ERIC DE ROUFFIGNAC ; DINDORUK MELIHA DENIZ SUMMU ; DINDORUK MELIHA ; CRANE STEVEN DEXTER ; CRANE STEVEN ; ALBERT MAHER KEVIN ; DINDORUK MELIHA DENIZ ; MESSIER ANN MARGARET ; MESSIER ANN ; MARGARET MESSIER ANN ; MAHER KEVIN ; LEE WELLINGTON SCOTT ; KARANIKAS JOHN MICHAEL ; STEGEMEIER GEORGE L

Inventor(s): STEVEN DEXTER CRANE ; ANN MARGARET MESSIER ; JR GORDON THOMAS ; SCOTT LEE WELLINGTON ; HAROLD J VINEGAR ; JOHN MICHAEL KARANIKAS ; KEVIN ALBERT MAHER ; MELIHA DENIZ SUMNU DINDORUK ; SHAHIN

Agent(s): SPRUSON AND FERGUSON; SMART AND BIGGAR

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

Title: IN SITU THERMAL PROCESSING OF A HYDROCARBON CONTAINING FORMATION

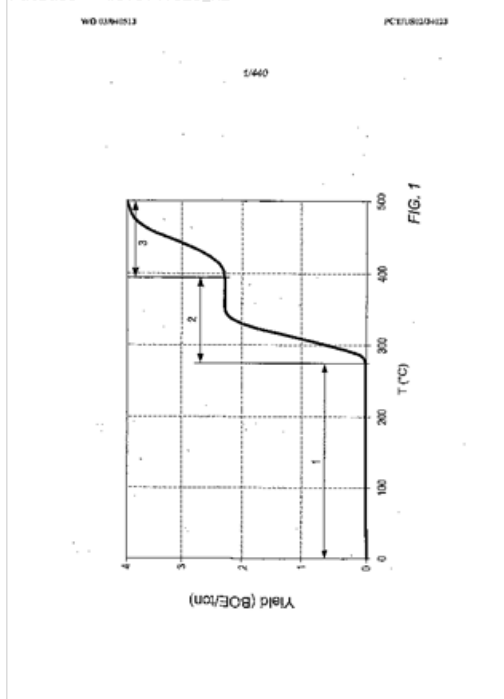
Abstract: An in situ process for treating a hydrocarbon containing formation is provided. The process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from the one or more heaters to a part of the formation such that heat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

Classifications:

International (IPC 8-9): B09C1/02 B09C1/06 C01B3/24 C10G45/00 C10G47/22 C10G49/00 C10G9/24 E21B17/02 E21B36/00 E21B43/16 E21B43/24 E21B43/243 E21B43/295 E21B43/30 E21B43/34 E21B44/00 E21B47/022 G01V3/26 (Advanced/Invention)

CPC: E21B43/2401 B09C1/02 B09C1/06 B09C2101/00 C10G9/24 C10G45/00 E21B17/028 E21B43/168 E21B43/24 E21B43/243 E21B43/305 E21B47/02208 G01V3/26 Y02P30/30 Y02P30/44 Y10S210/901 Y10T137/0391

PatBase - WO03040513_A2



Family:

Publication number	Publication date	Application number	Application date
AU2002349904 AA	20030519	AU20020349904	20021024
AU2002349904 AH	20090730	AU20020349904	20021024
WO03040513 A2	20030515	WO2002US34023	20021024
WO03040513 A3	20090611	WO2002US34023	20021024

Priority:

US20010334568P 20011024 US20010337136P 20011024 US20020374970P 20020424
US20020374995P 20020424 WO2002US34023 20021024

Probable Assignee: SHELL OIL CO

Assignee(s): (std): SHELL CANADA LTD ; SHELL OIL CO

Inventor(s): (std): AYMOND DANNIE ANTOINE JR ; BAI TAI XU ; BASS RONALD MARSHALL ; BAXLEY PHILLIP TEMMONS ; BERCHENKO ILYA EMIL ; BIELAMOWICZ LAWRENCE JAMES ; CARL JR FREDRICK GORDON ; COLE ANTHONY THOMAS ; COLES JOHN MATTHEW ; CRANE STEVEN DEXTER ; DE ROUFFIGNAC ERIC PIERRE ; DEMARTINI DAVID CHARLES ; FOWLER THOMAS DAVID ; HARRIS CHRISTOPHER KELVIN ; HUNSUCKER BRUCE GERARD ; GINESTRA JEAN CHARLES ; GLANDT CARLOS ALBERTO ; HANSEN KIRK SAMUEL ; HARDEVELD ROBERT MARTIJN VAN ; KARANIKAS JOHN MICHAEL ; KEEDY CHARLES ROBERT ; LEPPER GORDON BRUCE ; MADGAVKAR AJAY MADHAV ; MAHER KEVIN ALBERT ; MENOTTI JAMES LOUIS ; MESSIER MARGARET ANN ; MIKUS THOMAS ; PALFREYMAN BRUCE DONALD ; PRATT CHRISTOPHER ARNOLD ; MCKINZIE BILLY JOHN II ; ROBERTS BRUCE EDMUNDS ; ROUFFIGNAC ERIC PIERRE DE ; RYAN ROBERT CHARLES ; SANDBERG CHESTER L ; SCHOELING LANNY GENE ; SHAHIN JR GORDON THOMAS ; SON JAIME S ; STEGEMEIER GEORGE LEO ; VAN HARDEVELD ROBERT MARTIJN ; VEENSTRA PETER ; VINEGAR HAROLD J ; WAGNER RANDOLPH R ; WARD JOHN MICHAEL ; WATKINS RONNIE WADE ; WELLINGTON SCOTT LEE ; ZHANG ETUAN ; STONE FRANCIS M JR ; SUMNU DINDORUK MELIHA DENIZ

Inventor(s): TAI XU BAI ; THOMAS DAVID FOWLER ; THOMAS MIKUS ; STEVEN DEXTER CRANE ; STONE FRANCIS M ; SCOTT LEE WELLINGTON ; RONALD MARSHALL BASS ; RONNIE WADE WATKINS ; MELIHA DENIZ SUMNU DINDORUK ; RANDOLPH R WAGNER ; ROBERT CHARLES RYAN ; ROBERT MARTIJN VAN HARDEVELD ; PETER VEENSTRA ; PHILLIP TEMMONS BAXLEY ; MARGARET ANN MESSIER ; KEVIN ALBERT MAHER ; KIRK SAMUEL HANSEN ; LANNY GENE SCHOELING ; LAWRENCE JAMES BIELAMOWICZ ; HAROLD J VINEGAR ; GORDON BRUCE LEPPER ; ILYA EMIL BERCHENKO ; JAIME S SON ; JAMES LOUIS MENOTTI ; JEAN CHARLES GINESTRA ; JOHN MATTHEW COLES ; JOHN MICHAEL KARANIKAS ; JOHN MICHAEL WARD ; JR FREDRICK GORDON CARL ; JR GORDON THOMAS SHAHIN ; FRANCIS M JR STONE ; GEORGE LEO STEGEMEIER ; AJAY MADHAV MADGAVKAR ; ANTHONY THOMAS COLE ; ERIC PIERRE DE ROUFFIGNAC ; ETUAN ZHANG ; DANNIE ANTOINE JR AYMOND ; DAVID CHARLES DEMARTINI ; CARLOS ALBERTO GLANDT ; CHARLES ROBERT KEEDY ; CHESTER L SANDBERG ; CHRISTOPHER ARNOLD PRATT ; CHRISTOPHER KELVIN HARRIS ; BILLY JOHN II MCKINZIE ; BRUCE DONALD PALFREYMAN ; BRUCE EDMUNDS ROBERTS ; BRUCE GERARD HUNSUCKER

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

Title: FORMING OPENINGS IN A HYDROCARBON CONTAINING FORMATION USING MAGNETIC TRACKING

Abstract: Source: US2003173072A [EN] A method for forming one or more openings in a hydrocarbon containing formation is described. The method may include forming or providing a first opening in the formation. A plurality of magnets may be provided into the first opening. The plurality of magnets may be positioned along a portion of the first opening. The plurality of magnets may produce a series of magnetic fields along the portion of the first opening. A second opening in the formation may be formed using magnetic tracking of the series of magnetic fields. The second opening may be spaced a desired distance from the first opening. Alternate embodiments include use of an energized conduit to create a magnetic field. Such energized conduit can be used alone or with the plurality of magnets.

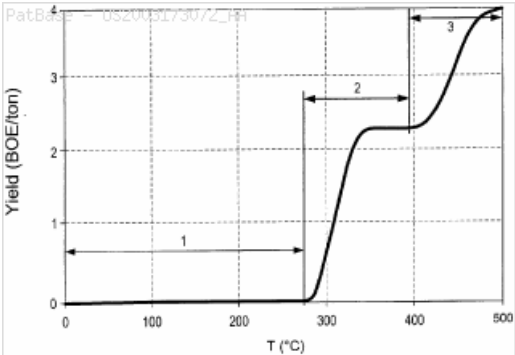
Classifications:

International (IPC 8-9): B09C1/02 B09C1/06 C10G45/00 C10G9/24
E21B17/02 E21B36/00 E21B43/16 E21B43/24 E21B43/243
E21B43/30 E21B44/00 E21B47/022 E21B7/04
G01V3/26 (Advanced/Invention)

International (IPC 1-7): E21B43/24

CPC: E21B43/2401 B09C1/02 B09C1/06 B09C2101/00 C10G9/24
C10G45/00 E21B17/028 E21B43/168 E21B43/24 E21B43/243
E21B43/305 E21B47/02208 G01V3/26 Y02P30/30 Y02P30/44
Y10S210/901 Y10T137/0391

US: 166/66.5 175/45 175/61 175/62 324/346



Family:

Publication number	Publication date	Application number	Application date
US2003173072 AA	20030918	US20020279289	20021024
US6991045 BB	20060131	US20020279289	20021024

Priority:

US20010334568P 20011024 US20010337136P 20011024 US20020279289 20021024
US20020374970P 20020424 US20020374995P 20020424

Probable Assignee: SHELL OIL CO

Assignee(s): (std): SHELL OIL CO

Assignee(s): VINEGAR HAROLD J ; WAGNER RANDOLPH ROGERS ; HARRIS CHRISTOPHER KELVIN ; HARTMANN ROBIN ADRIANUS ; LEPPER GORDON BRUCE ; PRATT CHRISTOPHER ARNOLD

Inventor(s): (std): HARRIS CHRISTOPHER KELVIN ; HARTMANN ROBIN ADRIANUS ; LEPPER GORDON BRUCE ; PRATT CHRISTOPHER ARNOLD ; VINEGAR HAROLD J ; WAGNER RANDOLPH ROGERS

Title: UPGRADING AND MINING OF COAL

Abstract: Source: US2003173085A [EN] A method for treating a coal formation to alter properties of coal in the formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to a part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons within the part of the formation. The method may include producing a fluid from the formation. In some embodiments, the produced fluid may include at least some pyrolyzed hydrocarbons from the formation. In an embodiment, after at least some coal has been treated at least a portion of such coal may be produced from the formation.

Classifications:**International (IPC 8-9):** E21B36/00 E21B43/00 E21B43/24

E21F7/00 (Advanced/Invention);

E21B36/00 E21B43/00 E21B43/16 E21F7/00 (Core/Invention)

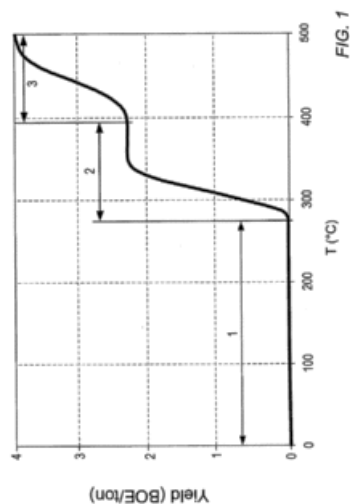
International (IPC 1-7): E21B36/00 E21B43/24 E21C37/16

E21C37/20 E21C41/00

CPC: E21B43/006 E21B43/295 E21F7/00**European:** E21B43/00M E21B43/295 E21F7/00**US:** 166/302 299/14 299/14S 299/3

PatBase - US2003173085_AA

Patent Application Publication Sep. 18, 2003 Sheet 1 of 305 US 2003/0173085 A1

**Family:**

Publication number	Publication date	Application number	Application date
US2003173085 AA	20030918	US20020279286	20021024
US6969123 BB	20051129	US20020279286	20021024

Priority:

US20010337137P 20011024 US20010338648P 20011024 US20020279286 20021024
US20020375000P 20020424 US20020374996P 20020424

Probable Assignee: SHELL OIL CO**Assignee(s):** (std): SHELL OIL CO**Assignee(s):** SHELL OIL COMPANY ; VINEGAR HAROLD J ; WELLINGTON SCOTT LEE ; MAHER KEVIN ALBERT**Inventor(s):** (std): MAHER KEVIN ALBERT ; VINEGAR HAROLD J ; WELLINGTON SCOTT LEE

Title: IN SITU RECOVERY FROM A KEROGEN AND LIQUID HYDROCARBON CONTAINING FORMATION

Abstract: Source: US2003178191A [EN] In an embodiment, a method of treating a kerogen and liquid hydrocarbon containing formation in situ may include providing heat from one or more heat sources to at least a portion of the formation. Heat may be allowed to transfer from the one or more heat sources to a part of the formation. In some embodiments, at least a portion of liquid hydrocarbons in the part may be mobilized. At least a portion of kerogen in the part may be pyrolyzed. In certain embodiments, a pressure within at least a part of the formation may be controlled. The pressure may be controlled to be at least about 2.0 bars absolute. A mixture may be produced from the formation.

Classifications:

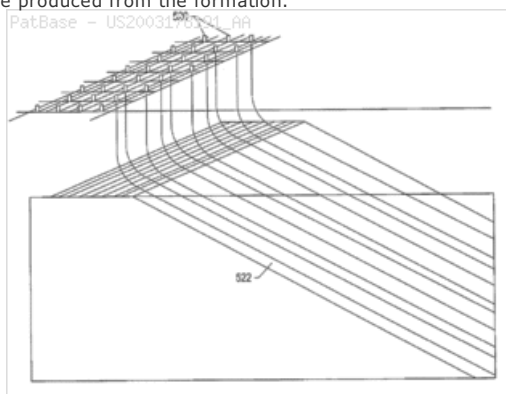
International (IPC 8-9): C09K8/592 E21B36/00 E21B36/04 E21B41/00 E21B43/24 E21B43/243 E21B43/247 E21B43/26 E21B43/30 (Advanced/Invention); C09K8/58 E21B36/00 E21B41/00 E21B43/00 E21B43/16 E21B43/25 (Core/Invention)

International (IPC 1-7): E21B36/04

CPC: C09K8/592 E21B36/001 E21B36/04 E21B41/0057 E21B43/24 E21B43/2401 E21B43/243 E21B43/247 E21B43/30 Y02C10/14

European: C09K8/592 E21B36/00B E21B36/04 E21B41/00M2 E21B43/24 E21B43/243 E21B43/247 E21B43/24B E21B43/30 Y02C10/14

US: 166/245 166/257 166/272.1 166/272.2 166/272.7 166/302 166/308 166/50 166/65.1



Family:

Publication number	Publication date	Application number	Application date
US2003178191 AA	20030925	US20020279287	20021024
US7011154 BB	20060314	US20020279287	20021024

Priority:

US20000199213P 20000424	US20000199214P 20000424	US20000199215P 20000424
US20020279287 20021024	US20010337427P 20011024	US20010337405P 20011024
US20020375043P 20020424	US20020374999P 20020424	

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Title: METHODS AND SYSTEMS FOR HEATING A HYDROCARBON CONTAINING FORMATION IN SITU WITH AN OPENING CONTACTING THE EARTH'S SURFACE AT TWO LOCATIONS

Abstract: Source: US2003183390A [EN] In an embodiment, a method for heating a hydrocarbon containing formation may include providing heat from one or more heaters to an opening in the formation. A first end of the opening may contact the earth's surface at a first location and a second end of the opening may contact the earth's surface at a second location. The heat may be allowed to transfer from the opening to at least a part of the formation. The transferred heat may pyrolyze at least some hydrocarbons in the formation. In certain embodiments, providing the heat to the opening may include providing heat, heated materials, and/or oxidation products from at least one heater to the opening.

Classifications:

International (IPC 8-9): B09C1/02 B09C1/06 C10G45/00 C10G9/24

E21B17/02 E21B36/00 E21B36/02 E21B43/16 E21B43/24

E21B43/243 E21B43/30 E21B44/00 E21B47/022 E21B7/04

G01V3/26 (Advanced/Invention)

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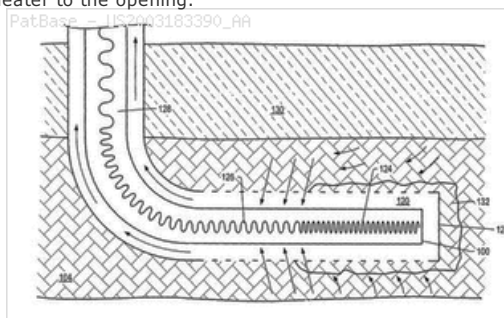
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Y10S210/901 Y10T137/0391

US: 166/250.01 166/272.7 166/302 166/313 166/384 166/50 166/59

175/45 175/53 175/61 175/62 405/154.1 405/184 405/184.1



Family:

Publication number	Publication date	Application number	Application date
US2003183390 AA	20031002	US20020279292	20021024
US7063145 BB	20060620	US20020279292	20021024

Priority:

US20010334568P 20011024 US20010337136P 20011024 US20020279292 20021024
US20020374970P 20020424 US20020374995P 20020424

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Title: IN SITU RECOVERY FROM A HYDROCARBON CONTAINING FORMATION USING BARRIERS

Abstract: Source: US2003192691A [EN] A method is described for inhibiting migration of fluids into and/or out of a treatment area undergoing an in situ conversion process. Barriers in the formation proximate a treatment area may be used to inhibit migration of fluids. Inhibition of migration of fluids may occur before, during, and/or after an in situ treatment process. For example, migration of fluids may be inhibited while heat is provided from heaters to at least a portion of the treatment area. Barriers may include naturally occurring portions (e.g., overburden, and/or underburden) and/or installed portions.

Classifications:

International (IPC 8-9): B09C1/02 B09C1/06 C10G45/00 C10G9/24 E21B17/02 E21B36/00 E21B43/16 E21B43/24 E21B43/243

E21B43/30 E21B44/00 E21B47/022 G01V3/26 (Advanced/Invention)

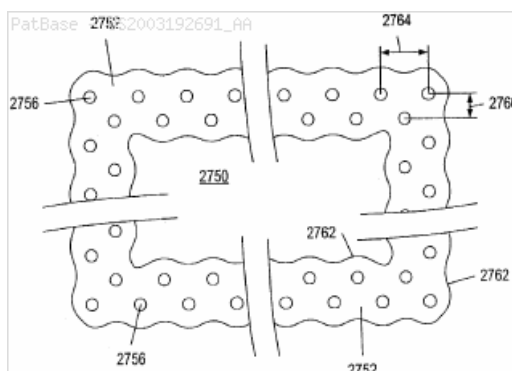
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CPC: E21B43/2401 B09C1/02 B09C1/06 B09C2101/00 C10G9/24 C10G45/00 E21B17/028 E21B43/168 E21B43/24 E21B43/243

E21B43/305 E21B47/02208 G01V3/26 Y02P30/30 Y02P30/44

Y10S210/901 Y10T137/0391

US: 166/245 166/250.01 166/250.12 166/254.1 166/272.1 166/302 166/52 299/6 405/130 405/131 405/270 405/52



Family:

Publication number	Publication date	Application number	Application date
US2003192691 AA	20031016	US20020279291	20021024
US7077198 BB	20060718	US20020279291	20021024

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US20010334568P 20011024 US20010337136P 20011024 US20020279291 20021024
US20020374970P 20020424 US20020374995P 20020424

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