

Search history

Search PN=(WO2016156956) (Results 1)

1:

Search [SP]: 1. a retarded cross-linked fracturing fluid that allows for reusing return water with no treatment, being said fluid stable to a temperature in a range of 90 to 120 degrees centigrade (200 to 250 degrees fahrenheit) and at a ph in the range from 8,5 to 9,5, wherein it comprises: a) return water, production water, sea water, fresh water and mixtures thereof, present in at least enough amount to hydrate the gelling agentb) a gelling agent selected from the group consisting of guar, hydroxypropyl guar, carboxymethylhydroxypropyl guar, carboxymethyl guar, carboxymethyl cellulose, carboxymethyl hydroxyethyl cellulose, and mixtures thereof, in an amount in the range from 25.76 to 103.02 kg/m³ (15 to 60 pounds per 1000 gallons) of said return waterc) an iron control agent selected from the group consisting of ethylenediamino tetraacetic acid (edta) nitrile triacetic acid (nta) salicylic acid sulfosalicylic acid glucoheptanoic acid gluconic acid ascorbic acid erithorbic acid fumaric acid citric acid sulfamic acid maleic acid formic acid lactic acid phthalic acid tartaric acid thiocianic acid any salt thereof, any derivative thereof, any mixture thereof, in an amount in the range from 4.29 to 25.75 kg/m³ (2.5 to 15 pounds per 1000 gallons) of said return waterd) a boron control agent selected from the group consisting of polyhydric alcohols or polyols, which are selected from organic compounds having adjacent hydroxyl groups in a cis orientation, selected from saccharides, acids, acid salts, esters and hydrogenation derivatives and the polyol amine. the polyols are selected from fructose, sorbitol, gluconic acid, and salts thereof, sodium gluconate, glucoheptanoic acid and salts thereof, sodium glucoheptanoate, mannitol, ribose, arabinose and xylose, and mixtures thereof, in an amount within the range from 0.17 to 4.29 kg/m³ (0.1 to 2.5 pounds per 1000 gallons of said used watere) an alkaline buffer selected from the group consisting of methylamine dimethylamine trimethylamine ethylamine diethylamine triethylamine n-butylamine n-decylamine dodecylamine (dda) monoethanolamina (mea) diethanolamina (dea) triethanolamina (tea) diisopropylamine tetramethylenediamine (tmdda) hexamethylenediamine (hmd) 1,6-hexanediamine diethylenetriaminea (deta) triethylenetetramine (teta) hexamethylenetetramine (hmta) tetraethylenepentamine (tepa) pentaethylenhexaminea (peha) and mixtures thereof. from these, monoethanolamine (mea) diethanolamine (dea) triethanolamine (tea) hexamethylenediamine (hmd) diethylenetriamine (deta), and/or mixtures thereof are preferred, in an amount in the range from 1.71 to 17.17 kg/m³ (1 to 10 pounds per 1000 gallons) of said return waterf) a cross-linking agent selected from the group consisting of boron oxide, boric acid, boronic acids, methaborate salts, octaborate salts, tetraborate salts, colemanite, fluorite, glnorite, gowrite, hydroboracite, inderborite, inderite, inyoite, kaliborite (heitzite), kurnakovite, meyerhoffeireite, nobleite, paternoite, pinnoite, preobrazhenskite, priceite, probertite, tertschite, ulexite, veatchite and mixtures thereof, in an amount enough to provide a boron concentration within the range from 0.01 to 0.1 percent by weight of said gelling agent andg) a rupture system selected from the group consisting of oxidating agents, enzymes, acids and esters. 2. the fracture fluid according to claim 1, characterized in that it also comprises other additives selected from the group consisting of supporting agents, biocides, clay stabilizers, surfactants, non-emulsifiers, return upgraders, temperature stabilizers, friction reducers, gas hydrate inhibitors, supporting agents return control, fluid loss control additives, foaming agents, coupling agents, supporting agent suspension additives, solvents, mutual solvents, paraffin/asphaltenes control additives, relative permeability modifiers, resin activators, incrustation inhibitors, and any other additive that may be useful for the design of specific stimulation work. 3. a method for fracturing a subterranean formation penetrated by a drill and having a temperature to a range from 90 to 120 degrees centigrade (200 to 250 degrees fahrenheit) using the cross-linked fracture fluid from claim 1, comprising: (a) preparing a cross-linked and delayed fracture fluid based on return water, production water, sea water, fresh water and mixtures thereof comprising a gelling agent return water, production water, sea water, fresh water and mixtures thereof present in at least an amount sufficient for hydrating the gelling agent, thus forming a gellified aqueous fluid an iron control agent capable of controlling the presence of iron and other metals a boron control agent capable of keeping the control of boron concentration in return water, production water, sea water, fresh water and mixtures thereof an alkaline buffer capable of increasing the ph, even at low concentrations under high salinity and hardness conditions a cross-linking agent, capable of causing a delayed cross-linking of gelling agent at a ph within a range of 8.5 to 9.5, whereby the delay in cross-linking is of about 1 minute or more and a rupture system to break the liquid and improve the cleaning of fracture and(b) introducing said fracture fluid in a subterranean formation at a flow rate and pressure by means which subterranean formation fractures are formed. (Results 9)

Search fluid and fracturing and crosslinked and (gelling agent) and (iron control agent) (Results 34)

3:

Title: METHODS AND **FLUID** COMPOSITIONS DESIGNED TO CAUSE TIP SCREENOUTS

Abstract: In stimulation treatments to increase the production of hydrocarbons from subterranean formations, especially in treatments including hydraulic **fracturing** followed by gravel packing, desirable short wide **fractures** are created and filled with proppant by deliberately including in the first **fluid**/proppant slurry pumped a sufficiently high concentration of a bridging-promoting material, such as fibers, that reduces the mobility of the slurry when it dewateres so that screenout at or near the tip occurs.

Classifications:

International (IPC 8-9): C09K8/00 C09K8/02 C09K8/035 C09K8/04 C09K8/06 C09K8/08 C09K8/12 C09K8/50 C09K8/504 C09K8/506 C09K8/508 C09K8/512 C09K8/514 C09K8/52 C09K8/524 C09K8/528 C09K8/575 C09K8/584 C09K8/60 C09K8/62 C09K8/66 C09K8/68 C09K8/70 C09K8/72 C09K8/74 C09K8/76 C09K8/80 E21B21/00 E21B33/13 E21B33/138 E21B37/06 E21B43/02 E21B43/04 E21B43/22 E21B43/25 E21B43/26 E21B43/267 E21B43/27 (Advanced/Invention); C09K8/035 C09K8/60 C09K8/68 C09K8/70 C09K8/76 C09K8/80 E21B43/00 (Advanced/Non-invention); C09K8/00 C09K8/02 C09K8/50 C09K8/52 C09K8/56 C09K8/60 E21B21/00 E21B33/13 E21B33/138 E21B37/00 E21B43/02 E21B43/16 E21B43/25 (Core/Invention); C09K8/02 C09K8/60 E21B43/00 (Core/Non-invention)

International (IPC 1-7): C09K7/00 C09K7/02 C09K8/506 C09K8/60 C09K8/62 C09K8/72 C09K8/74 E21B37/06 E21B43/26 E21B43/267 E21B43/269 E21B43/27

CPC: C09K2208/08 Y10S507/924 C09K8/50 C09K8/5045 C09K8/665 C09K8/685 E21B33/138 E21B37/06 E21B43/025 E21B43/267 Y10S507/902 Y10S507/922 Y10S507/923 Y10S507/933 E21B43/26 E21B43/14 C09K8/62 C09K8/72 C09K8/703 C09K8/508 C09K8/5751 C09K8/76 C09K2208/18 C09K8/516 C09K8/12 C09K8/506 C09K8/5083 C09K8/512 C09K8/52 C09K8/70 C09K8/80 C09K8/584 C09K8/706 C09K8/74 C09K2208/26 C09K2208/30 C09K8/602 C09K8/68 Y10S507/921

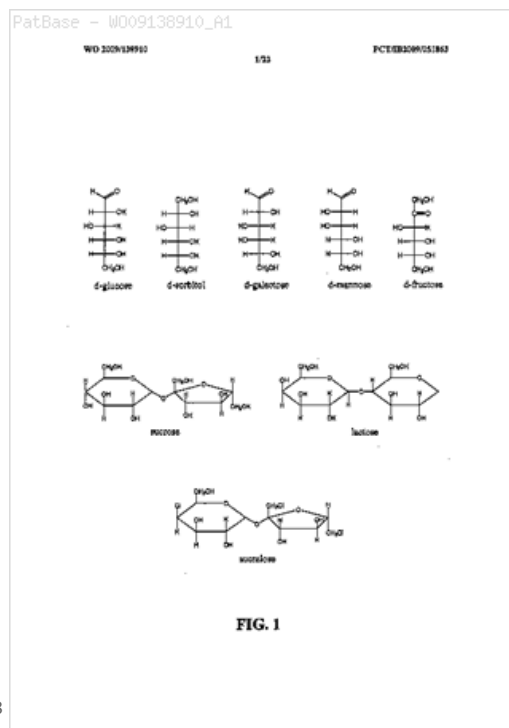
European: C09K8/12 C09K8/50 C09K8/504B C09K8/506 C09K8/508 C09K8/508B C09K8/512 C09K8/516 C09K8/52 C09K8/575B C09K8/60G C09K8/62 C09K8/66B C09K8/68 C09K8/68B C09K8/70 C09K8/70B C09K8/70E C09K8/72 C09K8/74 C09K8/76 C09K8/80 E21B33/138 E21B37/06 E21B43/02B E21B43/14 E21B43/26 E21B43/267 M09K208/08 M09K208/18 M09K208/26 M09K208/30

US: 1/1 166/270.1 166/270.100P 166/278 166/279 166/28 166/280 166/280.1 166/280.100P 166/280.100S 166/280.2 166/281 166/282 166/283 166/297 166/300 166/302 166/302S 166/305.1 166/307 166/308 166/308.1 166/308.100P 166/308.2 166/308.3 175/72 175/72S 507/100

507/100S 507/103 507/103S 507/110 507/110P 507/124 507/129 507/129S 507/132 507/140 507/140S 507/141 507/141S 507/145 507/145S 507/200 507/201 507/201P 507/203 507/203S 507/209 507/209P 507/211 507/219 507/219S 507/230 507/239 507/240 507/241 507/244 507/245 507/252 507/259 507/260 507/263 507/265 507/267 507/269 507/269P 507/271 507/274 507/276 507/277 507/902 507/921 507/922 507/923 507/924 507/933

Family:

Publication number	Publication date	Application number	Application date
AR058588 AA	20080213	AR2006P105655	20061220
AR071801 AA	20100714	AR2009P101752	20090515
AU2002333819 AA	20030324	AU20020333819	20020910
BRPI0416525 A	20070109	BR2004P116525	20041111
BRPI0512640 A	20080325	BR2005P112640	20050701
BRPI0619204 A2	20110920	BR2006P119204	20061218
CA2544834 AA	20060504	CA20042544834	20041111
CA2544834 C	20100202	CA20042544834	20041111
CA2570526 AA	20061215	CA20052570526	20050701
CA2570526 C	20080826	CA20052570526	20050701
CA2635868 AA	20081228	CA20082635868	20080625
CA2635868 C	20151215	CA20082635868	20080625
CA2636523 AA	20081228	CA20082636523	20080627
CA2636523 C	20130219	CA20082636523	20080627
CA2662210 AA	20090302	CA20072662210	20070912
CA2662210 C	20131231	CA20072662210	20070912
CA2663660 AA	20090316	CA20072663660	20070912
CA2663660 C	20121106	CA20072663660	20070912
CA2724080 AA	20091119	CA20092724080	20090506
CN100540844 C	20090916	CN20028021417	20020910
CN1639445 A	20050713	CN20028021417	20020910
CN1902376 A	20070124	CN200480033573	20041111
CN1902376 B	20120201	CN200480033573	20041111
EA005718 B1	20050428	EA20040000421	20020910
EA007835 B1	20070227	EA20060000960	20041111
EA014811 B1	20110228	EA20090070299	20070912
EA016730 B1	20120730	EA20090070298	20070912
EA200400421 A1	20040826	EA20040000421	20020910
EA200600960 A1	20061027	EA20060000960	20041111
EA200970298 A1	20091030	EA20090070298	20070912
EA200970299 A1	20091030	EA20090070299	20070912



GB200608115 A0	20060607	GB20060008115	20041111
GB2423326 A1	20060823	GB20060008115	20041111
GB2423326 B2	20070221	GB20060008115	20041111
GC2111 A	00000000	GC2005P005035	20050814
IN00002CN2007 A	20070817	IN2007CN00002	20070102
IN01660CN2006 A	20070629	IN2006CN01660	20060512
IN240691 B	20100604	IN2006CN01660	20060512
IN257335 B	20130927	IN2007CN00002	20070102
MX2007000771 A1	20070402	MX20070000771	20050805
OA13324 A	20070413	OA20061000155	20041111
RU2008126320 A	20100110	RU20080126320	20080627
RU2413839 C2	20110310	RU20080126320	20080627
TH137771 A	20141103	TH20051003752	20050811
US2003062160 AA	20030403	US20020214817	20020808
US2003106690 AA	20030612	US20020227690	20020826
US2004094300 AA	20040520	US20030707022	20031114
US2005252659 AA	20051117	US20050159023	20050622
US2006000609 AA	20060105	US20050198422	20050805
US2006157248 AA	20060720	US20050316021	20051221
US2007032386 AA	20070208	US20060532553	20060918
US2008066916 AA	20080320	US20070770442	20070628
US2008070806 AA	20080320	US20070770313	20070628
US2008070813 AA	20080320	US20060532565	20060918
US2008269081 AA	20081030	US20080122121	20080516
US2010056402 AA	20100304	US20090613766	20091106
US2010163228 AA	20100701	US20100723760	20100315
US2014196897 AA	20140717	US20130911612	20130606
US6837309 BB	20050104	US20020214817	20020808
US6938693 BB	20050906	US20020227690	20020826
US7066260 BB	20060627	US20030707022	20031114
US7219731 BB	20070522	US20050159023	20050622
US7318475 BB	20080115	US20050198422	20050805
US7398826 BB	20080715	US20050316021	20051221
US7635028 BB	20091222	US20070770442	20070628
US7677311 BB	20100316	US20060532553	20060918
US7857051 BB	20101228	US20100723760	20100315
US7879770 BB	20110201	US20060532565	20060918
US8067342 BB	20111129	US20080122121	20080516
US8481462 BB	20130709	US20070770313	20070628
US9006153 BB	20150414	US20130911612	20130606
US9284482 BB	20160315	US20090613766	20091106
WO03023177 A2	20030320	WO2002EP10126	20020910
WO03023177 A3	20030904	WO2002EP10126	20020910
WO05047643 A1	20050526	WO2004IB52396	20041111
WO06003637 A1	20060112	WO2005IB52202	20050701
WO06018778 A1	20060223	WO2005IB52621	20050805
WO07072401 A2	20070628	WO2006IB54922	20061218
WO07072401 A3	20080327	WO2006IB54922	20061218
WO08035253 A2	20080327	WO2007IB53683	20070912
WO08035253 A3	20080529	WO2007IB53683	20070912
WO08035253 B1	20081002	WO2007IB53683	20070912
WO08035253 C1	20080821	WO2007IB53683	20070912
WO08035254 A2	20080327	WO2007IB53684	20070912
WO08035254 A3	20080529	WO2007IB53684	20070912
WO09138910 A1	20091119	WO2009IB51863	20090506

Priority:

US20010318764P	20010911	US20010318764P	20010911	US20010334703P	20011031
US20020214817	20020808	US20020227690	20020826	WO2002EP10126	20020910
US20030707022	20031114	US20040584995	20040702	US20040584995P	20040702
US20040601912P	20040816	WO2004IB52396	20041111	US20050159023	20050622
WO2005IB52202	20050701	US20050198422	20050805	WO2005IB52621	20050805
US20050316021	20051221	US20060532553	20060918	US20060532565	20060918
WO2006IB54922	20061218	US20070770442	20070628	US20070770313	20070628
WO2007IB53684	20070912	WO2007IB53683	20070912	US20080122121	20080516
CA20082635868	20080625	CA20082636523	20080627	WO2009IB51863	20090506
US20090613766	20091106	US20100723760	20100315	US20130911612	20130606

Probable Assignee: SCHLUMBERGER TECHNOLOGY CORP

Assignee(s): (std): ABAD CARLOS ; BASER BELGIN ; BLANCO JUAN G ; BLANCO JUAN GABRIEL ; BONEY CURTIS ; BONEY CURTIS L ; COMPANIE DES SERVICES DOWELL S ; BROWN J E ; CAVAZZOLI GUSTAVO ; BROWN J ERNEST ; CHEN YIYAN ; BULOVA MARINA ; MILLER MATTHEW J ; LEE JESSE C ; SALAMAT GOLCHEHREH ; FRANCINI PIA ANGELA ; FU DIANKUI ; HOEFER ANN M ; FREDD CHRISTOPHER N ; POPE TIMOTHY L ; LIN LIJUN ; NELSON ERIK ; HOEFER ANN M W ; LI LEIMING ; PRAD RES AND DEV NV ; BUI TOAN ; PRAD RES AND DEV LTD ; PETROLEUM RES AND DEV NV ; PRAD RESERARCH AND DEV LIMETED ; WILLBERG DEAN M ; SOFITECH NV ; SCHLUMBERGER CA LTD ; SCHLUMBERGER TECHNOLOGY BV ; SCHLUMBERGER HOLDINGS ; SCHLUMBERGER TECHNOLOGY CORP ; SCHLUMBERGER CANADA LTD ; SCHLUMBERGER SERVICES PETROL ; SULLIVAN PHILIP ; SULLIVAN PHILIP F ; SULLIVAN PHILLIP F ; SHLJUMBERGER TEKNOLODZHI BV

Assignee(s): SOFITECH N V ; SERVICES PETROLIERS SCHLUMBERGER ; SCHLUMBERGER HOLDINGS LTD ; PRAD RESERARCH AND DEVELOPMENT LIMETED ; COMPANIE DES SERVICES DOWELL SCHLUMBERGER SA ; PRAD RESEARCH AND DEVELOPMENT LTD ; PRAD RESEARCH AND DEVELOPMENT NV ; PRAD RESEARCH AND

DEVELOPMENT N V ; COMPANIE DES SERVICES DOWELL SCHLUMBERGER S A

Inventor(s): (std): BLANCO JUAN G ; BONEY CURTIS L ; ABAD KARLOS ; CAVAZZOLI GUSTAVO ; DEAN WILLBERG ; FRANCINI PIA ANGELA ; FU DIANKUI ; MILLER MATTHEW J ; SULLIVAN PHILIP F BONEY CURTIS ; WILLBERG DEAN ; WILLBERG DEAN M ; SULLIVAN PHILLIP F ; SULLIVAN PHILIP ; SALAMAT GOLCHEHREH ; POPE TIMOTHY L ; PHILIP SULLIVAN ; NELSON ERIK ; LIN LIJUN ; LEE JESSE C ; CURTIS BONEY ; CHEN YIYAN ; BULOVA MARINA ; BROWN J ERNEST ; BROWN J E ; BONEY CURTIS ; BASER BELGIN ; LI LEHJMIN ; LIN LITSZJUN ; HOFER ANN M ; ABAD CARLOS ; SULLIVAN PHILIP F ; LI LEIMING ; BUI TOAN ; BLANCO JUAN GABRIEL ; FREDD CHRISTOPHER N ; HOFER ANN M W

Inventor(s): FREDD CHRISTOPHER ; JUAN G BLANCO ; DIANKUI FU ; PIA ANGELA FRANCINI ; JUAN GABRIEL BLANCO ; GUSTAVO CAVAZZOLI ; LIN' LITSZJUN' ; HOFER ANN ; GOLCHEHREH SALAMAT ; MATTHEW J MILLER ; ANN M HOFER ; LEE JESSE ; JESSE C LEE ; J ERNEST BROWN ; POPE TIMOTHY ; PHILLIP F SULLIVAN ; SULLIVAN PHILIP F BONEY CURTIS L ; HOFER ANN MW ; CURTIS L BONEY ; BLANCO JUAN ; BROWN J ; BROWN J EMEST

Agent(s): SMART AND BIGGAR; SULEIMAN I AL AMMAR LAW OFFICE; SCHLUMBERGER TECHNOLOGY CORP; SCHLUMBERGER TECHNOLOGY DAVID CATE CORP; THOMAS O; BRIGITTE L; ROBIN; CURINGTON TIM; NAVA ROBIN; MITCHELL THOMAS O; TIM; DAVID; DARLA; CATE DAVID; FOUDECA DARLA; DAVE; CHARLOTTE; JEFF; MARTIN; MARCIN; DARYL R; MATTHIEU; RACHEL; JEREMY D; JEFFREY R; FONSECA DARLA; RZANIAK MARTIN

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 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 YU ZA ZM ZW

Title: BRINE-BASED VISCOSIFIED TREATMENT **FLUIDS** AND ASSOCIATED METHODS

Abstract: The present invention relates to viscified treatment **fluids** used in industrial and oil field operations, and more particularly, to brine-based viscified treatment **fluids** comprising xanthan **gelling agents**, and their use in industrial and oil field operations. In one embodiment, the present invention provides a method of treating a portion of a subterranean formation comprising the steps of: providing a viscified treatment **fluid** that comprises a brine and a **gelling agent** that comprises a clarified xanthan; and treating the portion of the subterranean formation. The present invention also provides methods of **fracturing**, gravel packing, and making viscified treatments **fluids**. Also provided are viscified treatment **fluid** compositions, and **gelling agent** compositions.

Classifications:

International (IPC 8-9): C09K8/00 C09K8/04 C09K8/08 C09K8/40 C09K8/52 C09K8/56 C09K8/58 C09K8/60 C09K8/66 C09K8/68 C09K8/72 C09K8/74 C09K8/90 E21B43/04 E21B43/16 E21B43/25 E21B43/26 E21B43/27 E21B43/28 (Advanced/Invention); E21B37/06 E21B43/00 (Advanced/Non-invention); C09K8/00 C09K8/02 C09K8/40 C09K8/52 C09K8/56 C09K8/58 C09K8/60 E21B43/02 E21B43/25 (Core/Invention); E21B37/00 E21B43/00 (Core/Non-invention); E21B (Subclass/Invention)

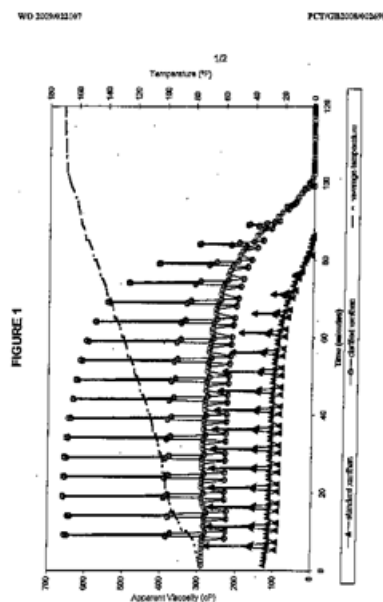
International (IPC 1-7): E21B

CPC: C09K8/74 C09K8/76 C23F11/04 C23F11/10 C23F11/173 C09K8/08 C09K8/40 C09K8/52 C09K8/68 C09K8/685 C09K8/70 C09K8/90 C09K8/528 C09K8/887

European: C09K8/08 C09K8/40 C09K8/52 C09K8/528 C09K8/68 C09K8/68B C09K8/70 C09K8/74 C09K8/76 C09K8/88C C09K8/90 C23F11/04 C23F11/10 C23F11/173

US: 166/305.1 166/307 166/308.1 166/308.2 507/209 507/211 507/213 507/213P 507/90

PatBase - W009022107_A1



Family:

Publication number	Publication date	Application number	Application date
AU2008288334 AA	20090219	AU20080288334	20080808
AU2008288334 BB	20130704	AU20080288334	20080808
BRPI0814466 A2	20150120	BR2008PI14466	20080808
CA2694151 AA	20100121	CA20082694151	20080808
CA2694151 C	20130730	CA20082694151	20080808
CN101970598 A	20110209	CN200880110326	20080808
CN101970598 B	20130904	CN200880110326	20080808
DE602006034902 D1	20130502	DE200660034902T	20060426
DK1880081 T3	20130603	DK20060726916T	20060426
EP1617039 A1	20060118	EP20050254386	20050713
EP1880081 A2	20080123	EP20060726916	20060426
EP1880081 B1	20130306	EP20060726916	20060426
EP2185666 A1	20100519	EP20080788269	20080808
MX2010001625 A1	20100315	MX20100001625	20080808
MY150016 A	20131115	MY20100000625	20080808
NO20053403 A	20060116	NO20050003403	20050713
NO20053403 A0	20050713	NO20050003403	20050713
NO20075525 A	20080129	NO20070005525	20071101
NZ583208 A	20120629	NZ20080583208	20080808
US2006014648 AA	20060119	US20040889860	20040713
US2006243449 AA	20061102	US20050118028	20050429
US2006247135 AA	20061102	US20050117959	20050429
US2007281868 AA	20071206	US20070891542	20070810
US2008039347 AA	20080214	US20070891511	20070810
US2009042750 AA	20090212	US20070891538	20070810
US7547665 BB	20090616	US20050117959	20050429
US7621334 BB	20091124	US20050118028	20050429
US7727936 BB	20100601	US20070891538	20070810
US7727937 BB	20100601	US20070891542	20070810
US7825073 BB	20101102	US20070891511	20070810
WO06117517 A2	20061109	WO2006GB01531	20060426
WO06117517 A3	20061221	WO2006GB01531	20060426

WO09022106 A1	20090219	WO2008GB02697	20080808
WO09022107 A1	20090219	WO2008GB02698	20080808

Priority:

US20040889860 20040713	US20050118028 20050429	US20050117959 20050429
EP20060726916 20060426	WO2006GB01531 20060426	US20070891511 20070810
US20070891538 20070810	US20070891542 20070810	WO2008GB02697 20080808

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): BEACH SEAN R ; BRYANT JASON E ; BURNS BOBBY J ; CURTIS PHILIP ANTHONY ; HALLIBURRON ENERGY SERVICES IN ; HALLIBURTON ENERGY SERV INC ; MILSON SHANE L ; MCMECHAN DAVID E ; HARRIS PHILLIP C ; MUNDY JEFFERY L ; HEATH STANLEY J ; MUNDY JEFFREY L ; MCMECHAN DAVID EUGENE ; PAULS RICHARD ; WELTON THOMAS D ; ROBB IAN D ; PAULS RICHARD W ; SAINI RAJESH K ; SANDERS MICHAEL W ; MUNOZ TRINIDAD ; PARKINSON CHRISTINA A ; WALTERS HAROLD G ; SANDRES MICHAEL W ; MUNOZ TRINIDAD JR

Assignee(s): HALLIBURTON ENERGY SERVICE INC ; HALLIBURTON CO ; HALLIBURTON ENERGY SERVICES INC ; HALLIBURRON ENERGY SERVICES INC

Inventor(s): (std): ANTHONY CURTIS PHILIP ; MCMECHAN DAVID EUGENE ; MILSON SHANE L ; PAULS RICHARD ; PAULS RICHARD W ; MUNDY JEFFREY L ; MUNOZ TRINIDAD JR ; ROBB IAN D ; SANDRES MICHAEL W ; WELTON THOMAS D ; WALTERS HAROLD G ; PARKINSON CHRISTINA A ; MUNOZ TRINIDAD ; MUNDY JEFFERY L ; HEATH STANLEY J ; HARRIS PHILLIP C ; BURNS BOBBY J ; BRYANT JASON E ; BEACH SEAN R ; TRINIDAD MUNOZ JR ; SANDERS MICHAEL W ; SAINI RAJESH K ; MUNOZ JR TRINIDAD ; MCMECHAN DAVID E ; EUGENE MCMECHAN DAVID

Inventor(s): TRINIDAD JR MUNOZ ; SEAN R BEACH ; STANLEY J HEATH ; THOMAS D WELTON ; WALTERS HAROLD ; WELTON THOMAS ; WELTON THOMAS D DUNCAN ; SAINI RAJESH ; SANDERS MICHAEL ; PARKINSON CHRISTINA ; PAULS RICHARD W DUNCAN ; PHILLIP C HARRIS ; RAJESH K SAINI ; RICHARD W PAULS ; ROBB IAN ; MUNDY JEFFERY ; MICHAEL W SANDRES ; MILSON SHANE ; BEACH SEAN ; BOBBY J BURNS ; BRYANT JASON ; BURNS BOBBY ; CHRISTINA A PARKINSON ; CURTIS PHILIP ANTHONY ; DAVID EUGENE MCMECHAN ; HAROLD G WALTERS ; HARRIS PHILLIP ; HEATH STANLEY ; JASON E BRYANT ; JEFFREY L MUNDY ; MCMECHAN DAVID

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; CURTIS PHILIP ANTHONY ET AL; CURTIS PHILIP ANTHONY; ROBERT A KENT HALLIBURTON ENERGY SERVICES; ROBERT A KENT; BAKER BOTTS LLP; KENT ROBERT A; ROBERT A; MCDERMOTT WILL AND EMERY 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 YU ZA ZM ZW

Title: **FRACTURING** OPERATIONS EMPLOYING CHLORINE DIOXIDE

Abstract: A method includes introducing a treatment **fluid** into a wellbore penetrating a subterranean formation, the treatment **fluid** including a polymer gel having a water-soluble polymer, a proppant, and a polymer gel-preserving amount of chlorine dioxide, the placing step includes applying the treatment **fluid** at a sufficient pressure and at a sufficient rate to **fracture** the subterranean formation.

Classifications:

International (IPC 8-9): C09K8/588 C09K8/60 C09K8/62 C09K8/66 C09K8/68 C09K8/80 C09K8/88 C09K8/90 E21B43/16 E21B43/20 E21B43/22 E21B43/25 E21B43/26 E21B43/267 E21B43/27 E21B43/40 (Advanced/Invention); C09K8/58 C09K8/588 (Advanced/Non-invention)

CPC: C09K8/604 Y10S507/92 Y10S507/936 C09K8/685 C09K8/882 Y10S507/935 C09K8/90 E21B43/255 C09K8/665 E21B43/25 E21B43/16

US: 166/250.01 166/265 166/266 166/267 166/272.3 166/275 166/279 166/305.1 166/308.2 166/308.3 166/371 166/400 166/401 166/402 507/202 507/211 507/214 507/215 507/216 507/225 507/269 507/920 507/935 507/936

Family:

Publication number	Publication date	Application number	Application date
AR096088 AA	20151202	AR2014P101711	20140424
AR096089 AA	20151202	AR2014P101712	20140424
CA2829282 AA	20141024	CA20132829282	20131004
CA2829668 AA	20141024	CA20132829668	20131004
US2014014349 AA	20140116	US20130031252	20130919
US2014020899 AA	20140123	US20130031259	20130919
US2014311734 AA	20141023	US20140318438	20140627
US2015005205 AA	20150101	US20140487243	20140916
US2015114650 AA	20150430	US20140587671	20141231
US2017226408 AA	20170810	US20170403873	20170111
US8789592 BB	20140729	US20130031259	20130919
US8991500 BB	20150331	US20130031252	20130919
US8997862 BB	20150407	US20140318438	20140627
WO14176333 A1	20141030	WO2014US35143	20140423
WO14176339 A1	20141030	WO2014US35152	20140423

Priority:

US20130815682P	20130424	US20130031252	20130919	US20130031259	20130919
US20140318438	20140627	US20140487243	20140916	US20140587671	20141231
US20170403873	20170111				

Probable Assignee: SABRE INTELLECTUAL PROPERTY HOLDINGS LLC

Assignee(s): (std): SABRE INTELLECTUAL PROPERTY HOLDINGS LLC ; SABRE IP HOLDINGS LLC

Assignee(s): SABRE INTELLECTUAL PROPERTY HOLDINGS LLC1891 NEW SCOTLAND ROADSLINGERLANDSNY12159US ; INNOVATUS CAPITAL PARTNERS LLC ; MASON JOHN

Inventor(s): (std): JOHN MASON ; MASON JOHN

Inventor(s): MASON JOHNUS

Agent(s): MBM INTELLECTUAL PROPERTY LAW LLP; PILLSBURY WINTHROP SHAW PITTMAN LLP; BEHAR VICTOR

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 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

Title: NOVEL FLUID SYSTEM HAVING CONTROLLABLE REVERSIBLE VISCOSITY

Abstract: This Invention relates to methods of treating a subterranean hydrocarbons reservoir comprising contacting the formation with a treating fluid comprising an aqueous solution, an acid, a surfactant acting as gelling agent essentially consisting of erucylamidopropyl betaine (or a protonated/deprotonated homolog or salt thereof). The treating fluid may further comprise a lower n-alcohol for improved temperature stability.

Classifications:

International (IPC 8-9): C09K8/00 C09K8/60 C09K8/62 C09K8/68 C09K8/72 C09K8/74 C09K8/86 E21B43/25 E21B43/26

E21B43/27 (Advanced/Invention);

E21B43/00 (Advanced/Non-invention);

C09K8/00 C09K8/60 (Core/Invention);

E21B43/00 (Core/Non-invention)

International (IPC 1-7): E21B1/00 E21B43/00 E21B43/25 E21B43/26 E21B43/27

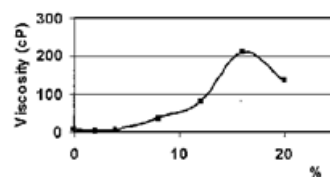
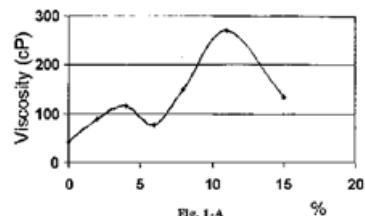
CPC: C09K8/74 C09K2208/30 C09K8/68 C09K8/86 E21B43/26 C09K8/72

European: C09K8/68 C09K8/74 C09K8/86 M09K208/30

US: 166/300 166/305.1 166/307 166/308.2 507/200 507/200P 507/203 507/240 507/244 507/245 507/266 507/267 507/277

PatBase - US2003119680_AA

Patent Application Publication Jun. 26, 2003 Sheet 1 of 5 US 2003/0119680 A1



Family:

Publication number	Publication date	Application number	Application date
AT368173 E	20070815	AT20020799054T	20021206
AT409797 E	20081015	AT20030762640T	20030707
AU2002364282 AA	20030709	AU20020364282	20021206
AU2002364282 BB	20071108	AU20020364282	20021206
AU2003250012 AA	20040123	AU20030250012	20030709
AU2003250901 AA	20040123	AU20030250901	20030707
BRPI0312349 A	20050405	BR2003PI12349	20030709
BRPI0312349 B1	20140311	BR2003PI12349	20030709
CA2469259 AA	20040603	CA20022469259	20021206
CA2469259 C	20050412	CA20022469259	20021206
CA2491529 AA	20041231	CA20032491529	20030707
CA2491529 C	20070206	CA20032491529	20030707
CA2491934 AA	20050105	CA20032491934	20030709
CA2491934 C	20120424	CA20032491934	20030709
CN100335746 C	20070905	CN20028025239	20021206
CN100354501 C	20071212	CN20038016258	20030707
CN1604987 A	20050406	CN20028025239	20021206
CN1666007 A	20050907	CN20038016258	20030707
CN1729347 A	20060201	CN20038016234	20030709
CN1729347 B	20101229	CN20038016234	20030709
DE60221431 D1	20070906	DE20026021431	20021206
DE60323838 D1	20081113	DE20036023838	20030707
DK1456504 T3	20071126	DK20020799054T	20021206
EA005909 B1	20050630	EA20040000842	20021206
EA006813 B1	20060428	EA20050000181	20030707
EA200400842 A1	20041230	EA20040000842	20021206
EA200500181 A1	20050630	EA20050000181	20030707
EG23268 A	20041031	EG20020121365	20021218
EG23471 A	20051024	EG20030070645	20030707
EP1456504 A1	20040915	EP20020799054	20021206
EP1456504 B1	20070725	EP20020799054	20021206
EP1520085 A1	20050406	EP20030762640	20030707
EP1520085 B1	20081001	EP20030762640	20030707
EP1520086 A1	20050406	EP20030762670	20030709

GC1541 A	20110312	GC2002P002388	20021214
MXPA04005480 A1	20050419	MX2004PA05480	20021206
MXPA04012808 A1	20050224	MX2004PA12808	20030707
MXPA05000043 A1	20050419	MX2005PA00043	20030709
NO20043106 A	20040720	NO20040003106	20040720
NO20050009 A	20050208	NO20050000009	20050103
NO20050009 L	20050208	NO20050000009	20050103
NO20050025 A	20050208	NO20050000025	20050103
NO337698 B1	20160606	NO20050000009	20050103
US2003119680 AA	20030626	US20020065144	20020920
US2003139298 AA	20030724	US20020191179	20020709
US2004009880 AA	20040115	US20030370633	20030220
US2005209108 AA	20050922	US20050115662	20050427
US2006276346 AA	20061207	US20060465467	20060818
US6929070 BB	20050816	US20020191179	20020709
US7028775 BB	20060418	US20050115662	20050427
US7119050 BB	20061010	US20020065144	20020920
US7288505 BB	20071030	US20060465467	20060818
US7666821 BB	20100223	US20030370633	20030220
WO03054352 A1	20030703	WO2002EP13848	20021206
WO04005671 A1	20040115	WO2003EP07265	20030707
WO04005672 A1	20040115	WO2003EP07412	20030709

Priority:

US20010343145P	20011221	US20020191179	20020709	US20020065144	20020920
WO2002EP13848	20021206	US20030370633	20030220	WO2003EP07265	20030707
WO2003EP07412	20030709	US20050115662	20050427	US20060465467	20060818

Probable Assignee: SCHLUMBERGER TECHNOLOGY CORP

Assignee(s): (std): FU DIANKUI ; SCHLUMBERGER CA LTD ; SCHLUMBERGER CANADA LTD ; SCHLUMBERGER HOLDINGS ; SOFITECH NV ; SCHLUMBERGER SERVICES PETROL ; SCHLUMBERGER TECHNOLOGY BV ; CHANG FRANK ; CHANG FRANK F ; SCHLUMBERGER TECHNOLOGY CORP ; SOFITECH N V

Assignee(s): SERVICES PETROLIERS SCHLUMBERGER ; SCHLUMBERGER HOLDINGS LTD

Inventor(s): (std): CHANG FRANK ; CHANG FRANK F ; DIANKUI CHANG FRANK F FU ; FU DIANKUI ; N N ; FRANK F CHANG ; FRANK CHANG ; DIANKUI FU

Agent(s): GRIFFITH HACK; SMART AND BIGGAR; RZANIAK MARTIN; SULEIMAN I AL AMMAR LAW OFFICE; SCHLUMBERGER TECHNOLOGY CORP; NAVA ROBIN; MITCHELL THOMAS O; ECHOLS BRIGITTA L; THOMAS O; BRIGITTA L; ROBIN; TIM; DARLA; DAVID; RACHEL

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 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 UZ VC VN YU ZA ZM ZW

Title: CARBOXYLIC ACID AND OXIDIZER CLEAN-UP COMPOSITIONS AND ASSOCIATED METHODS OF USE IN SUBTERRANEAN APPLICATIONS

Abstract: Of the many methods provided herein, one method of reducing the viscosity of a viscosified treatment **fluid** includes: providing a clean-up composition comprising a carboxylic acid; providing a chlorite-based breaker system; providing a viscosified treatment **fluid**; placing the viscosified treatment **fluid** in a subterranean formation via a well bore penetrating the subterranean formation; contacting the viscosified treatment **fluid** with the clean-up composition; contacting the viscosified treatment **fluid** with the chlorite-based breaker; and allowing the viscosity of the viscosified treatment **fluid** to reduce. Also provided herein are methods that include a method of reducing polymeric residue from a subterranean formation that includes: placing a clean-up composition and a chlorite-based breaker system in a subterranean formation in contact with an amount of polymeric residue; and allowing the amount of polymeric residue present in the formation to be reduced.

Classifications:

International (IPC 8-9): C09K8/34 C09K8/52 C09K8/524 C09K8/56 C09K8/62 C09K8/68 C09K8/74 (Advanced/Invention); C09K8/52 C09K8/56 C09K8/60 (Core/Invention)

International (IPC 1-7): C09K8/74

CPC: C09K8/524 C09K8/56 C09K8/68 C09K8/685 C09K2208/26

European: C09K8/524 C09K8/56 C09K8/68 C09K8/68B M09K208/26

US: 166/305.1 507/129 507/129P 507/239 507/250 507/250S 507/251 507/251S 507/260 507/260P 507/267 507/268 507/269

Family:

Publication number	Publication date	Application number	Application date
AR073400 AA	20101103	AR2009P103679	20090924
AU2009306176 AA	20100429	AU20090306176	20090923
AU2009306176 BB	20130704	AU20090306176	20090923
CA2739355 AA	20100429	CA20092739355	20090923
CA2739355 C	20131105	CA20092739355	20090923
DE602009021472 D1	20140227	DE200960021472T	20090923
EP2370542 A1	20111005	EP20090785155	20090923
EP2370542 B1	20140115	EP20090785155	20090923
MX2011004232 A1	20110616	MX20110004232	20090923
US2010099587 AA	20100422	US20080254307	20081020
US2012190595 AA	20120726	US20120438061	20120403
US8470747 BB	20130625	US20080254307	20081020
US8476202 BB	20130702	US20120438061	20120403
WO10046618 A1	20100429	WO2009GB02273	20090923

Priority:

US20080254307 20081020 EP20090785155 20090923 WO2009GB02273 20090923
US20120438061 20120403

Probable Assignee: KENT ROBERT A

Assignee(s): (std): CURTIS PHILIP ANTHONY ; FLEMING JEFF T ; HALLIBURTON ENERGY SERV INC ; WELTON THOMAS D ; PAULS RICHARD W

Assignee(s): KENT ROBERT A ; HALLIBURTON ENERGY SERVICES INC DUNCAN ; HALLIBURTON ENERGY SERVICE INC ; HALLIBURTON ENERGY SERVICES INC

Inventor(s): (std): PAULS RICHARD W ; FLEMING JEFF T ; WELTON THOMAS D

Inventor(s): WELTON THOMAS D DUNCAN ; FLEMING JEFF T DUNCAN ; JEFF T FLEMING ; PAULS RICHARD W DUNCAN ; RICHARD W PAULS ; THOMAS D WELTON

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; NORTON ROSE OR SENCRL SRL LLP; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; COTTRILL EMILY ELIZABETH HELEN; ROBERT A KENT; ROBERT A; MCDERMOTT WILL AND EMERY LLP; CURTIS PHILIP ANTHONY ET AL

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 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 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 PE 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

Title: DRILLING **FLUID** ADDITIVES AND **FRACTURING FLUID** ADDITIVES CONTAINING CELLULOSE NANOFIBERS AND/OR NANOCRYSTALS

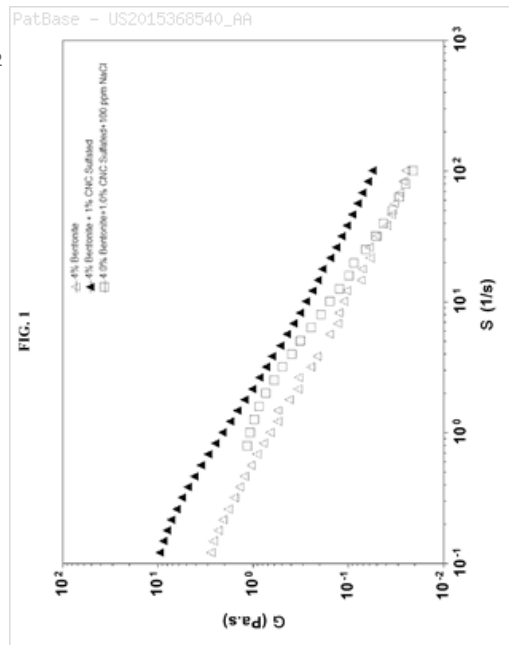
Abstract: This disclosure provides drilling **fluids** and additives as well as **fracturing fluids** and additives that contain cellulose nanofibers and/or cellulose nanocrystals. In some embodiments, hydrophobic nanocellulose is provided which can be incorporated into oil-based **fluids** and additives. These water-based or oil-based **fluids** and additives may further include lignosulfonates and other biomass-derived components. Also, these water-based or oil-based **fluids** and additives may further include enzymes. The drilling and **fracturing fluids** and additives described herein may be produced using the AVAP(R) process technology to produce a nanocellulose precursor, followed by low-energy refining to produce nanocellulose for incorporation into a variety of drilling and **fracturing fluids** and additives.

Classifications:

International (IPC 8-9): B82Y30/00 C09K8/035 C09K8/10 C09K8/32 C09K8/62 C09K8/64 C09K8/66 C09K8/68 C09K8/70 C09K8/80 C09K8/82 C09K8/84 C09K8/88 C09K8/90 E21B43/26 (Advanced/Invention)

CPC: C09K8/035 C09K8/80 C09K8/82 C09K2208/10 C09K2208/08 C09K8/88 C09K8/32 C09K8/10 C09K8/64 C09K8/68 C09K8/685 C09K8/887 C09K8/90

US: 507/101 507/108 507/112 507/207



Family:

Publication number	Publication date	Application number	Application date
US2015368540 AA	20151224	US20150743771	20150618
US2015368541 AA	20151224	US20150743779	20150618
US2017240792 AA	20170824	US20170450059	20170306
WO15196042 A1	20151223	WO2015US36635	20150619

Priority:

US20140014208P 20140619 US20150743771 20150618 US20150743779 20150618
US20170450059 20170306

Probable Assignee: API INTELLECTUAL PROPERTY HOLDINGS LLC

Assignee(s): (std): API IP HOLDINGS LLC

Assignee(s): API INTELLECTUAL PROPERTY HOLDINGS LLC

Inventor(s): (std): MONCLIN JEAN PIERRE ; NELSON KIMBERLY ; RETSINA THEODORA

Agent(s): OCONNOR RYAN

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 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

Title: HYBRID AQUEOUS-BASED SUSPENSIONS FOR HYDRAULIC FRACTURING OPERATIONS

Abstract: Disclosed are aqueous-based compositions and methods for treating a subterranean formation for inhibiting formation damage after the treatment. Compositions include an aqueous-based fluid, gelling agents, sparingly-soluble crosslinking agents, and one or more formation damage prevention agents, such as scale inhibitors, iron control agents, non-emulsifiers, clay stabilizers, or polymer breakers. The methods include performing a well treating operation, such as a hydraulic fracturing operation, using the compositions described and inhibiting formation damage, such as scale, iron formation, emulsions, or clay swelling within the subterranean formation. The inclusion of the formation damage preventing agents allows for long-term formation damage inhibition after the treatment.

Classifications:

International (IPC 8-9): C09K C09K8/12 C09K8/52 C09K8/528 C09K8/86 E21B E21B21/14 E21B37/06 E21B43/16 E21B43/22 E21B43/26 E21B43/267 (Advanced/Invention)

CPC: C09K8/86 E21B43/16 E21B43/26 C09K8/24 C09K8/528 C09K8/602 C09K8/605 C09K8/685

US: 166/305.1 166/308.5 507/103 507/203 507/238 507/240 507/259 507/261 507/262 507/266 507/269 507/276



Family:

Publication number	Publication date	Application number	Application date
AU2013222374 AA	20130829	AU20130222374	20130222
AU2013222374 BB	20151105	AU20130222374	20130222
BR112014020791 A2	20170620	BR20141120791	20130222
BR112014020791 A8	20170718	BR20141120791	20130222
CA2864584 AA	20140813	CA20132864584	20130222
CO7071120 A2	20140930	CO20140209650	20140922
EA201491567 A1	20150130	EA20140091567	20130222
EP2817383 A1	20141231	EP20130751204	20130222
EP2817383 A4	20160406	EP20130751204	20130222
ID201601381 A	20160318	ID2014P0005204	20130222
IN06833CN2014 A	20160701	IN2014CN06833	20140916
MX2014010101 A1	20140916	MX20140010101	20130222
NZ629295 A	20161223	NZ20130629295	20130222
US2013213657 AA	20130822	US20130774859	20130222
WO13126639 A1	20130829	WO2013US27240	20130222
ZA201406450 A	20160525	ZA20140006450	20140902

Priority:

US20120601967P 20120222 US20130774859 20130222 WO2013US27240 20130222
WO2013US24240 20130222

Probable Assignee: TUCC TECHNOLOGY LLC

Assignee(s): (std): DOBSON JR JAMES W ; HAYDEN SHAUNA L ; PIERCE KIMBERLY A ; TEXAS UNITED CHEMICAL CORP ; TUCC TECHNOLOGY LLC ; TUCC TECH LLC

Assignee(s): TUCC TECHNOLOGY LLC4800 SAN FELIPEHOUSTONTX77056US ; TEXAS UNITED CHEMICAL CO LLC

Inventor(s): (std): DOBSON JAMES W ; DOBSON JAMES W JR ; DOBSON JR JAMES W ; HAYDEN SHAUNA L ; PIERCE KIMBERLY A

Inventor(s): PIERCE KIMBERLY AUS ; SHAUNA L HAYDEN ; HAYDEN SHAUNA LUS ; JAMES W DOBSON JR ; JAMES W JR DOBSON ; KIMBERLY A PIERCE ; DOBSON JR JAMES WUS

Agent(s): FB RICE; FB RICE PTY LTD; FINLAYSON AND SINGLEHURST; JUAN PABLO CADENA SARMIENTO; CARPMAELS AND RANSFORD LLP; RHODES MONTE R ET AL

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 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 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

Title: ON-THE-FLY CONTROL OF DELAYED BORATE-CROSSLINKING OF FRACTURING FLUIDS

Abstract: A method is provided for controlling the delay time of aqueous borate-crosslinked polysaccharide-based fluids for hydraulic fracturing and related applications which allows on-the-fly control of the delay time without comprising overall fluid integrity. Without having to modify the total boron content nor pH of the fracturing fluid, the delay time is controlled by adding a polyol to the fracturing fluid at a first rate, determining the resulting delay time and then adjusting the rate of the polyol addition to the fracturing fluid until the desired delay time is achieved.

Classifications:**International (IPC 8-9):** C08B37/00 C08K5/55

C09K8/68 (Advanced/Invention)

International (IPC 1-7): C08K5/55 C08L5/00 C09K3/00 C09K7/02

E21B43/17 E21B43/22 E21B43/26

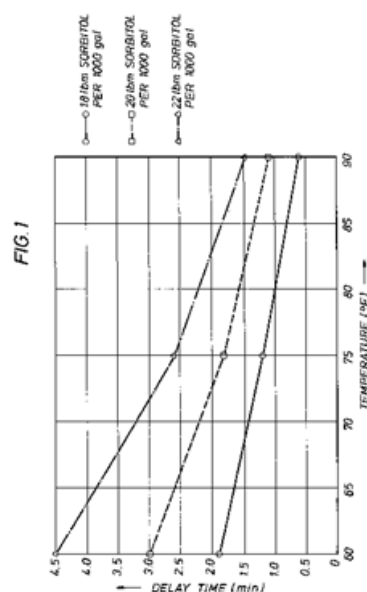
CPC: Y10S507/922 Y10S507/924 C08B37/0096 C09K8/685 C08K5/55**European:** C08B37/00P6F C08K5/55 C09K8/68B**US:** 166/308 166/308.5 507/209 507/211 507/217 507/266 507/273 507/922 507/924

PatBase - US5877127_A

U.S. Patent

Mar. 2, 1999

5,877,127

**Family:**

Publication number	Publication date	Application number	Application date
CA2073806 AA	19930125	CA19922073806	19920714
CA2073806 C	20030923	CA19922073806	19920714
DE69222496 D1	19971106	DE19926022496	19920716
DE69722711 D1	20030717	DE19976022711	19970430
DK0528461 T3	19990222	DK19920202185T	19920716
DK0528461 T4	20030317	DK19920202185T	19920716
EP0528461 A2	19930224	EP19920202185	19920716
EP0528461 A3	19930303	EP19920202185	19920716
EP0528461 B1	19971001	EP19920202185	19920716
EP0528461 B2	20021106	EP19920202185	19920716
EP0805260 A2	19971105	EP19970400988	19970430
EP0805260 A3	19980218	EP19970400988	19970430
EP0805260 B1	20030611	EP19970400988	19970430
NO303699 B1	19980817	NO19920002935	19920723
NO922935 A	19930125	NO19920002935	19920723
NO922935 A0	19920723	NO19920002935	19920723
US5877127 A	19990302	US19960641677	19960501
US6060436 A	20000509	US19960692756	19960806

Priority:US19910735407 19910724
US19960641677 19960501CA19922073806 19920714
US19960692756 19960806

US19940314119 19940531

Probable Assignee: SCHLUMBERGER TECHNOLOGY CORP**Assignee(s):** (std): DOWELL SCHLUMBERGER CANADA ; DOWELL SCHLUMBERGER INC ; DOWELL SCHLUMBERGER SERVICES ; SCHLUMBERGER DOWELL INC ; SOFITECH NV ; PUMPTech NV ; SCHLUMBERGER CIE DOWELL ; SCHLUMBERGER TECHNOLOGY CORP**Assignee(s):** SOFITECH N V BRUESSEL BRUXELLES ; PUMPTech N V ANTWERPEN ANVERS BE ; SOFITECH N V ; MCCONNELL S BRUCE ; PUMPTech N V ; DOWELL SCHLUMBERGER CANADA INC ; AINLEY BRIAN ; DES SERVICES DOWELL SCHLUMBERGER COMP SA ; DES SERVICES DOWELL SCHLUMBERGER S A COMP**Inventor(s):** (std): AINLEY BRIAN R ; CARD ROGER JOHN ; FREE DUSTIN L ; MABERRA JACK L ; MABERRY L JACK ; MCCONNELL BRUCE S ; MCCONNELL STANLEY BRUCE ; NELSON ERIK BENTLEY ; NIMERICK KENNETH H ; SNYDER TRAVIS C ; MABERRY JACK L ; AINLEY BRIAN ; MCCONNELL S BRUCE**Inventor(s):** MCCONNELL S BRUCE KATY TEXAS 77449 US

Agent(s): SMART AND BIGGAR
Designated states: DE DK FR GB IE IT NL

Title: SURFACTANT ADDITIVES FOR STIMULATING SUBTERRANEAN FORMATION DURING **FRACTURING** OPERATIONS

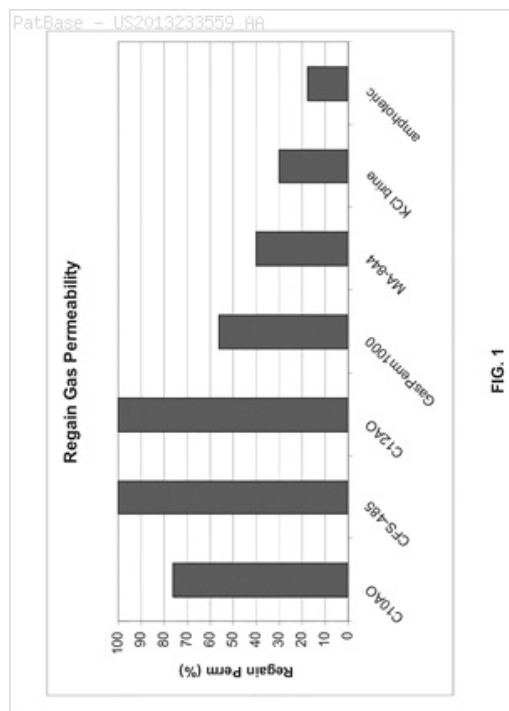
Abstract: The present invention relates to surfactant additives useful for restoring permeability of a subterranean formation and methods of use thereof. One embodiment of the present invention provides a method that includes providing a **fracturing fluid** having an aqueous **fluid**, and a microemulsion surfactant, wherein the **fracturing fluid** is substantially free of an organic solvent; and placing the **fracturing fluid** into a subterranean formation at a rate sufficient to create or enhance at least one **fracture** in the subterranean formation.

Classifications:

International (IPC 8-9): C09K8/584 C09K8/60 C09K8/68 C09K8/86 E21B43/22 E21B43/26 (Advanced/Invention)

CPC: C09K8/68 C09K8/602 C09K8/604 C09K8/86

US: 166/308.1



Family:

Publication number	Publication date	Application number	Application date
AU2013230585 AA	20130912	AU20130230585	20130219
AU2013230585 BB	20151008	AU20130230585	20130219
BR112014016798 A8	20170704	BR20141116798	20130219
CA2860429 AA	20140703	CA20132860429	20130219
EA201491101 A1	20150227	EA20140091101	20130219
EP2823015 A1	20150114	EP20130706894	20130219
MX2014008337 A1	20140827	MX20140008337	20130219
US2013233559 AA	20130912	US20120413811	20120307
WO13133963 A1	20130912	WO2013US26684	20130219

Priority:

US20120413811 20120307 WO2013US26684 20130219

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): HALLIBURTON CO ; HALLIBURTON ENERGY SERV INC ; HALLIBURTON ENERGY SERVICES INC ; TANCHE LARSEN PER BJARTE ; VAN ZANTEN RYAN

Assignee(s): HALLIBURTON ENERGY SERVICES INC3000 N. SAM HOUSTON PARKWAY E.HOUSTONTX77032-3219US ; HALLIBURTON ENERGY SERVICES INC10200 BELLAIRE BOULEVARDHOUSTONTX77072US

Inventor(s): (std): TANCHE LARSEN PER BJARTE ; VAN ZANTEN RYAN ; ZANTEN RYAN VAN

Inventor(s): VAN ZANTEN RYANUS ; TANCHE LARSEN PER BJARTENO ; PER BJARTE TANCHE LARSEN ; RYAN VAN ZANTEN

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PHILLIPS ORMONDE FITZPATRICK; EMERY JAMIESON LLP; PARLEE MCLAWS LLP; HOFFMANN EITLE; KAISER IONA N

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 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 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

Title: SYSTEMS AND METHODS FOR IN SITU MONITORING OF CEMENT SLURRY LOCATIONS AND SETTING PROCESSES THEREOF

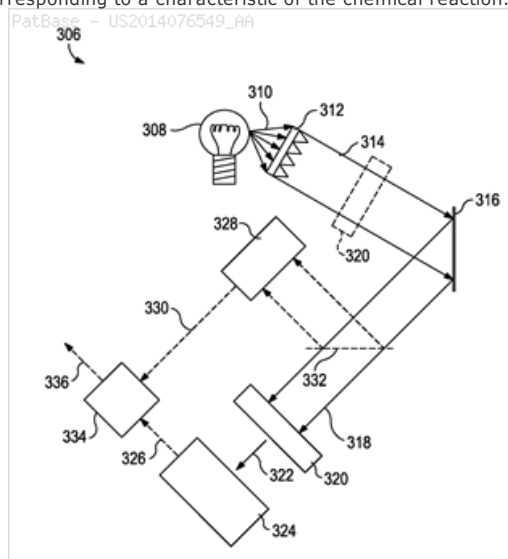
Abstract: Optical analysis systems may be useful in monitoring **fluids** relating to cementing operations in or near real-time, e.g., for location and/or the status of a cement setting process. For example, method may involve containing a cement slurry within a flow path, the cement slurry having a chemical reaction occurring therein; and optically interacting the cement slurry with an integrated computational element, thereby generating an output signal corresponding to a characteristic of the chemical reaction.

Classifications:

International (IPC 8-9): E21B23/06 E21B33/14 E21B34/14 E21B47/00
E21B47/005 G01N33/38 (Advanced/Invention)

CPC: E21B47/0005

US: 166/250.14 166/66



Family:

Publication number	Publication date	Application number	Application date
AR092541 AA	20150422	AR2013P103262	20130912
AU2013315676 AA	20140320	AU20130315676	20130911
AU2013315676 BB	20160922	AU20130315676	20130911
BR112015003979 A2	20170704	BR20151103979	20130911
CA2882767 AA	20150220	CA20132882767	20130911
EP2877680 A1	20150603	EP20130837025	20130911
MX2015002344 A1	20150923	MX20150002344	20130911
US2014076549 AA	20140320	US20120615681	20120914
WO14043181 A1	20140320	WO2013US59169	20130911

Priority:

US20120615681 20120914 WO2013US59169 20130911

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): HALLIBURTON CO ; HALLIBURTON ENERGY SERV INC ; HALLIBURTON ENERGY SERVICES INC ; JONES CHRISTOPHER MICHAEL ; SANTRA ASHOK K ; PELLETIER MICHAEL T ; REDDY B RAGHAVA

Assignee(s): SANTRA ASHOK

Inventor(s): (std): ASHOK K SANTRA ; ASHOK SANTRA ; JONES CHRISTOPHER MICHAEL ; B RAGHAVA REDDY ; CHRISTOPHER MICHAEL JONES ; MICHAEL T PELLETIER ; PELLETIER MICHAEL T ; REDDY B RAGHAVA ; SANTRA ASHOK ; SANTRA ASHOK K

Inventor(s): REDDY B

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; FB RICE; FB RICE PTY LTD; PARLEE MCLAWS LLP; HOFFMANN EITLE; KAISER IONA N ET AL

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 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

Title: **CROSSLINKED FLUID** TREATMENT AND METHODS FOR **FRACTURING** UNDERGROUND FORMATIONS BASED ON FLOWBACK, PRODUCTION WATER, SEAWATER, FRESH WATER, AND MIXTURES OF SAME

Abstract: The present invention provides cross-linked **fracture fluids** that allow for reusing return water with no treatment, minimizing the environmental impact thereof and reducing the use of fresh water to very low levels to stimulate wells or re-stimulate wells stimulated in the past. Preparation and use methods of said **fluids** in **fractured** subterranean formations drilled by wells, based on return water, production water, sea water, fresh water and mixtures thereof, are provided. **Fluids** are basically composed of: return water, production water, sea water, fresh water and mixtures thereof present in a sufficient amount to moisten the **gelling agent** and to form a gellified aqueous agent; a **gelling agent**; an **iron control agent**; an alkaline buffer; a delayed cross-linking agent, and a rupture system to "break" the **fluid** and improve **fracture** cleaning.

Classifications:

International (IPC 8-9): C09K8/04 C09K8/10 C09K8/24 C09K8/487

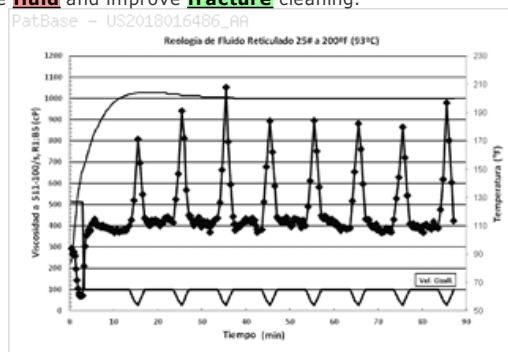
C09K8/60 C09K8/68 C09K8/88 C09K8/90 E21B21/00

E21B43/26 (Advanced/Invention);

E21B21/00 E21B43/26 (Advanced/Non-invention)

CPC: C09K8/887 C09K8/24 C09K8/487 C09K8/602 C09K8/10 C09K8/605

C09K2208/22 E21B21/00 E21B43/26 C09K8/685 C09K8/90



Family:

Publication number	Publication date	Application number	Application date
AR102026 AA	20170201	AR2015P100952	20150330
AU2015389879 AA	20161006	AU20150389879	20151216
BR112017012599 A2	20180116	BR20171112599	20151216
CA2959126 AA	20170223	CA20152959126	20151216
CN107109200 A	20170829	CN201580071921	20151216
CO20170003240 A2	20170620	CO20170003240	20170403
EP3178900 A1	20170614	EP20150887389	20151216
EP3178900 A4	20180117	EP20150887389	20151216
MX2017004150 A1	20170912	MX20170004150	20151216
PE10752017 A1	20170803	PE20170000411	20151216
US2018016486 AA	20180118	US20150531987	20151216
WO16156651 A1	20161006	WO2016ES70222	20160330
WO16156956 A1	20161006	WO2015IB59685	20151216

Priority:

AR2015P100952 20150330 WO2015IB59685 20151216

Probable Assignee: GONZALEZ AHIJADO JESUS

Assignee(s): (std): GONZALEZ AHIJADO JESUS ; SOTRO FINANCIAL INC

Assignee(s): GERMAN BORGOGNO FABIO

Inventor(s): (std): FABIO GERMAN BORGOGNO ; GERMAN BORGOGNO FABIO

Agent(s): PHILLIPS ORMONDE FITZPATRICK; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; LUZ HELENA ADARVE GOMEZ; HERRERO AND ASOCIADOS SL; CARPINTERO LOPEZ FRANCISCO; CONSORTIUM LACLE AND GUTIERREZ

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

Title: FOAM OR VISCOSIFIED COMPOSITION CONTAINING A CHELATING AGENT

Abstract: The present invention relates to a foam containing water, between 5 and 30 wt percent on total weight of the foam of a chelating agent selected from the group of glutamic acid N,N-diacetic acid or a salt thereof (GLDA), aspartic acid N,N-diacetic acid or a salt thereof (ASDA), methylglycine N,N-diacetic acid or a salt thereof (MGDA), N-hydroxyethyl ethylenediamine-N,N',N'-triacetic acid or a salt thereof (HEDTA), a foaming agent, and at least 25 vol percent on total volume of the foam of a gas, and having a pH of between 2 and 5, to a viscified composition containing water, between 5 and 30 wt percent on total volume of the composition of a chelating agent selected from the group of glutamic acid N,N-diacetic acid or a salt thereof (GLDA), aspartic acid N,N-diacetic acid or a salt thereof (ASDA), methylglycine N,N-diacetic acid or a salt thereof (MGDA), N-hydroxyethyl ethylenediamine-N,N',N'-triacetic acid or a salt thereof (HEDTA), and at least 0.01 wt percent on total weight of the composition of a viscifying agent, and having a pH of between 2 and 5, and to a process for treating a subterranean formation comprising introducing the above foam or viscified composition into the formation.

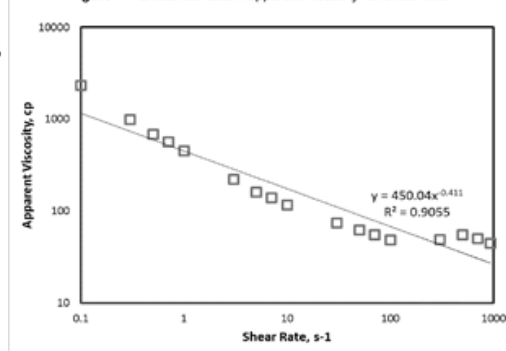
Classifications:

International (IPC 8-9): B01F17/18 B01J13/00 C09K3/00 C09K8/035 C09K8/08 C09K8/52 C09K8/524 C09K8/528 C09K8/536 C09K8/54 C09K8/60 C09K8/64 C09K8/68 C09K8/70 C09K8/72 C09K8/74 C09K8/76 C09K8/82 C09K8/92 C09K8/94 C9K8/64 C9K8/70 C9K8/72 C9K8/82 C9K8/92 E02D3/12 (Advanced/Invention); B01F17/18 (Advanced/Non-invention); C09K8/035 C09K8/52 (Core/Invention)

CPC: C09K2208/26 C09K8/08 C09K8/64 C09K8/82 C09K8/92 C09K2208/20 C09K2208/28 C09K2208/32 C09K8/72 C09K8/86 C09K8/725 C09K8/703 C09K8/536 C09K8/70 C09K8/74 C09K8/52 C09K8/54 C09K8/035 C09K8/60 C09K8/76 C09K8/94

US: 507/202 507/211 507/213 507/215 507/241

Figure 1 - Emulsified GLDA apparent viscosity vs. shear rate.

**Family:**

Publication number	Publication date	Application number	Application date
AU2013254748 AA	20131031	AU20130254748	20130424
AU2013254748 BB	20160630	AU20130254748	20130424
BR112014025618 A2	20170620	BR20141125618	20130424
BR112014025618 A8	20170725	BR20141125618	20130424
CA2869995 AA	20141007	CA20132869995	20130424
CA2875725 AA	20141204	CA20132875725	20130604
CN104245878 A	20141224	CN201380020436	20130424
CO7131390 A2	20141201	CO20140255257	20141120
EP2841525 A1	20150304	EP20130723020	20130424
EP2861691 A1	20150422	EP20130728152	20130604
ID201601943 A	20160325	ID2014P0006926	20130424
IN02196MN2014 A	20150911	IN2014MN02196	20141031
JP2015529691 A2	20151008	JP20150516551	20130604
JP2015529691 T2	20151008	JP20150516551T	20130604
MX2014012824 A1	20151113	MX20140012824	20130424
PH2014502812 A	20150302	PH20140502812	20141217
TH147272 A	20160304	TH20141006320	20130424
TH149461 A	20160504	TH20141007384	20130604
US2015080271 AA	20150319	US20140395740	20140424
US2015141302 AA	20150521	US20130406421	20130604
US9725643 BB	20170808	US20130395740	20130424
WO13160332 A1	20131031	WO2013EP58455	20130424
WO13160334 A1	20131031	WO2013EP58457	20130424
WO13189731 A1	20131227	WO2013EP61472	20130604

Priority:

US20120639460P	20120427	EP20120167695	20120511	US20120661001P	20120618
US20120661017P	20120618	EP20120175052	20120705	EP20120175056	20120705
EP20130723020	20130424	WO2013EP58457	20130424	WO2013EP58455	20130424
US20130395740	20130424	EP20130728152	20130604	US20130406421	20130604
WO2013EP61472	20130604	WO2013EP58455	20140424	US20140395740	20140424

Probable Assignee: AKZO NOBEL NV

Assignee(s): (std): AKZO NOBEL NV ; AKZO NOBEL CHEMICALS INT BV

Assignee(s): AKZO NOBEL CHEMICALS INT BVSTATIONSSTRAAT 77NL-3811 MHAMERSFOORTNL ; BALTUSSEN JOZEF JOHANNES MARIA ; BANG EDWIN RUDOLF ANTONY ; VAN EIJK MARCEL CORNELIS PAULUS ; O BOEN HO ; DE WOLF CORNELIA ADRIANA ; WANG GUANQUN ; THEEUWEN CONRARDUS HUBERTUS JOSEPH ; NASR EL DIN HISHAM ; SAYED MOHAMMED ALI IBRAHIM

Inventor(s): (std): ADRIANA DE WOLF CORNELIA ; BALTUSSEN JOZEF JOHANNES MARIA ; BALTUSSEN JOZEF JOHANNES MARIA ; BANG EDWIN RUDOLF ANTONY ; BOEN HO O ; DE WOLF CORNELIA ADRIANA ; DEWOLF CORNELIA ADRIANA ; HISHAM NASR EL DIN ; IBRAHIM SAYED MOHAMMED ALI ; EIJK MARCEL CORNELIS PAULUS VAN ; ELKATATNY SALAHELDIN MAHMOUD AHMED AHMED ; NASR EL DIN HISHAM ; O BOEN HO ; SAYED MOHAMMED ALI IBRAHIM ; THEEUWEN CONRARDUS HUBERTUS JOSEPH ; VAN EIJK MARCEL CORNELIS PAULUS ; WANG GUANQUN ; WOLF CORNELIA ADRIANA DE

Inventor(s): WANG GUANQUNUS ; VAN EIJK MARCEL CORNELIS PAULUSNL ; THEEUWEN CONRARDUS HUBERTUS JOSEPHNL ; SAYED MOHAMMED ALI IBRAHIMUS ; O BOEN HONL ; NASR EL DIN HISHAMUS ; GUANQUN

WANG ; JOZEF JOHANNES MARIA BALTUSSEN ; MARCEL CORNELIS PAULUS VAN EIJK ; EDWIN RUDOLF
ANTONY BANG ; DE WOLF CORNELIA ADRIANANL ; CONRARDUS HUBERTUS JOSEPH THEEUWEN ;
CORNELIA ADRIANA DE WOLF ; BANG EDWIN RUDOLF ANTONYNL ; BALTUSSEN JOZEF JOHANNES MARIANL

Agent(s):

SPRUSON AND FERGUSON; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; AKZO NOBEL IP
DEPARTMENT; DARU LUKIANTONO; KOBAYASHI HIROSHI; OHMORI NORIO; SANDRA B

Designated states:

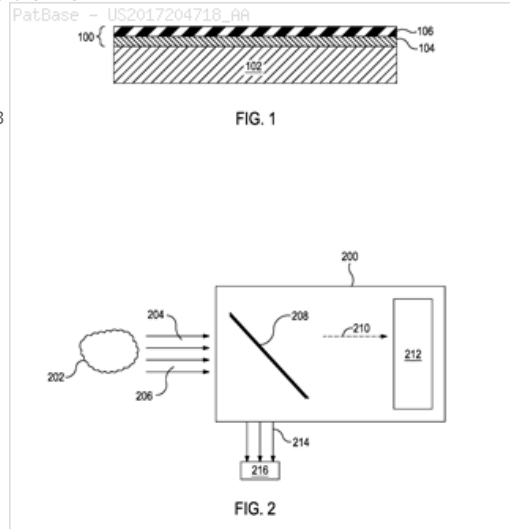
AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN
IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX
MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW 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

Title: SYSTEMS AND METHODS FOR IN SITU MONITORING OF CEMENT SLURRY LOCATIONS AND SETTING PROCESSES THEREOF

Abstract: Optical analysis devices may be configured for optically interacting a material of interest with a chemical filter and a detector that together are configured to detect a characteristic of the material of interest, wherein optically interacting the material of interest with the chemical filter comprises absorbing, by the chemical filter, at least a portion of an electromagnetic radiation having optically interacted with the material of interest. Relative to cementing operations, such optical analysis devices may be useful in identifying **fluids**, analyzing compositions of cement slurries, investigating the status of a reaction occurring in a cement slurry, detecting and/or monitoring corrosion of a set cement, and the like.

Classifications:

International (IPC 8-9): C04B28/02 C04B40/00 C09K8/42 E21B33/13
E21B33/14 E21B47/00 E21B47/10 G01N21/75
G01N33/38 (Advanced/Invention)
CPC: C09K8/424 C04B40/0096 C09K8/42 C04B40/0032 C04B28/02
E21B33/14 E21B47/0005 E21B33/13 E21B47/102 G01N21/75 G01N33/383



Family:

Publication number	Publication date	Application number	Application date
GB201621914 A0	20170201	GB20160021914	20140826
GB2543973 A1	20170503	GB20160021914	20140826
NO20170018 A	20170104	NO20170000018	20170104
US2017204718 AA	20170720	US20140313266	20140826
WO16032437 A1	20160303	WO2014US52627	20140826

Priority:

US20140313266 20140826 WO2014US52627 20140826

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): HALLIBURTON CO ; HALLIBURTON ENERGY SERVICES INC

Inventor(s): (std): PEARL JR WILLIAM C ; PEARL MEGAN RENEE ; WILLIAM C PEARL JR ; MEGAN RENEE PEARL

Agent(s): KAISER IONA ET AL

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 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

Title: HIGH MOLECULAR WEIGHT LOW POLYDISPERSITY POLYMERS

Abstract: The present invention relates to synthetic polymers having high molecular weight and low polydispersities, and methods of synthesis thereof. One embodiment of the present invention provides a method of polymerizing that includes dissolving acrylate monomers in a **fluid** media having an olefin-containing polyalcohol amide surfactant; and initiating a polymerization reaction of the acrylate monomers with a polymerization initiator to produce a polymer having a molecular weight of at least about 500,000 and a polydispersity index of about 1.25 or less.

Classifications:

International (IPC 8-9): C08F2/14 C08F2/24 C08F2/38 C08F20/06 C08F20/14 C08F20/18 C08F20/56 C08F220/12 C08F220/56 C08F299/00 C09K8/035 C09K8/12 C09K8/24 C09K8/34 C09K8/44 C09K8/588 C09K8/62 C09K8/64 C09K8/68 (Advanced/Invention)

CPC: C08F2/38 C09K8/64 C09K8/68 C09K8/685 C09K8/80 C09K8/882 C08F220/56

US: 166/305.1 507/119 507/120 507/224 507/225 523/130 525/299 526/210 526/211 526/303.1 526/317.1 526/328 526/328.5 526/329.7

PatBase - US2013157901_AA

Patent Application Publication Jan. 20, 2013 Sheet 1 of 2 US 2013/0157901 A1

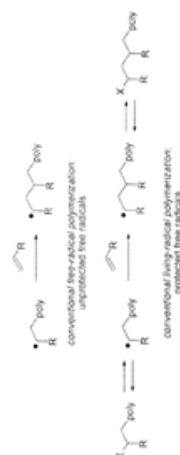


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
DE602012011014 D1	20151105	DE201260011014T	20121112
DE602012016048 D1	20160428	DE201260016048T	20121112
EP2794699 A1	20141029	EP20120795186	20121112
EP2794699 B1	20150923	EP20120795186	20121112
EP2794700 A1	20141029	EP20120795673	20121112
EP2794700 B1	20160323	EP20120795673	20121112
US2013157901 AA	20130620	US20110331441	20111220
US2013157902 AA	20130620	US20110333377	20111221
US8815783 BB	20140826	US20110331441	20111220
US8815784 BB	20140826	US20110333377	20111221
WO13095805 A1	20130627	WO2012US64606	20121112
WO13095806 A1	20130627	WO2012US64611	20121112

Priority:

US20110331441 20111220 US20110333377 20111221 EP20120795186 20121112
EP20120795673 20121112 WO2012US64611 20121112 WO2012US64606 20121112

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): BOONTHEUNG CHARM ; HALLIBURTON CO ; HALLIBURTON ENERGY SERV INC ; HALLIBURTON ENERGY SERVICES INC ; OGLE JAMES W ; SAINI RAJESH K

Assignee(s): HALLIBURTON ENERGY SERVICES INC HOUSTON

Inventor(s): (std): BOONTHEUNG CHARM ; OGLE JAMES W ; SAINI RAJESH K

Inventor(s): SAINI RAJESH K CYPRESS ; OGLE JAMES W DUNCAN ; BOONTHEUNG CHARM DUNCAN

Agent(s): WEISSE RENATE DIPL PHYS DR ING; COTTRILL EMILY ELIZABETH HELEN; MCDERMOTT WILL AND EMERY LLP; CRAIG W; KAISER IONA N

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 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 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

Title: TREATMENT **FLUIDS** COMPRISING VISCOSIFYING AGENTS AND METHODS OF USING THE SAME

Abstract: Methods include introducing a treatment **fluid** into a wellbore penetrating a subterranean formation, the treatment **fluid** including a polymer gel comprising a water-soluble polymer, a biocidal agent in an amount sufficient to viscosify the treatment **fluid**, and an aqueous base **fluid**.

Classifications:

International (IPC 8-9): C09K8/02 C09K8/24 C09K8/60 C09K8/80 C09K8/88 C09K8/90 E21B21/00 E21B37/08 E21B43/04 E21B43/114 E21B43/16 E21B43/26 (Advanced/Invention)

CPC: C09K8/605 C09K8/512 C09K8/514 C09K8/524 C09K8/528 C09K8/588 C09K8/68 C09K8/685 C09K8/90 C09K2208/26 C09K2208/28 C09K2208/32

US: 166/278 166/298 166/305.1 166/308.3 507/202 507/217

Family:

Publication number	Publication date	Application number	Application date
■ AR099124 AA	20160629	AR2015P100130	20150116
■ US2015197686 AA	20150716	US20150595459	20150113
■ WO15108929 A2	20150723	WO2015US11338	20150114
■ WO15108929 A3	20151119	WO2015US11338	20150114

Priority:

US20140928319P 20140116 US20150595459 20150113

Probable Assignee: SABRE INTELLECTUAL PROPERTY HOLDINGS

Assignee(s): (std): SABRE INTELLECTUAL PROPERTY HOLDINGS LLC ; SABRE IP HOLDINGS LLC

Assignee(s): INNOVATUS CAPITAL PARTNERS LLC ; SABRE INTELLECTUAL PROPERTY HOLDINGS

Inventor(s): (std): JOHN MASON ; MASON JOHN

Agent(s): BEHAR VICTOR

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 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

Title: Method for removing filtercake

Abstract: A method for removing filtercake from a subterranean borehole comprising drilling the borehole with a drilling **fluid** that includes additives to form a filtercake having an oxidation-degradable component, preferably a polymer. The filtercake is contacted with a precursor that forms an oxidizing agent at downhole temperatures to degrade the polymers within the filtercake. Alternatively one or more catalysts for activating the precursor of an oxidizing agent is embedded within the filtercake. The catalyst activates the precursor as the precursor is flushed over the filtercake and remains in contact with the filtercake to form an oxidizing agent to degrade the oxidation-degradable agent and decompose the filtercake. The remaining particles of decomposed filtercake are then flushed away.

Classifications:

International (IPC 8-9): C09K8/08 C09K8/52 C09K8/60 E21B37/06 (Advanced/Invention);
C09K8/02 C09K8/52 C09K8/60 (Core/Invention)

International (IPC 1-7): C09K7/02 E21B21/00 E21B37/00 E21B37/06 E21B43/04

CPC: C09K8/08 C09K8/52 C09K8/60 C09K2208/18

European: C09K8/08 C09K8/52 C09K8/60 M09K208/18

US: 166/278 166/300 166/307 166/312 507/141 507/145 507/272 507/276 507/277

Family:

Publication number	Publication date	Application number	Application date
AU199919282 A1	20000228	AU19990019282	19981218
AU199919282 A5	20000228	AU19990019282	19981218
BRPI9815979 A	20010502	BR1998PI15979	19981218
CA2337836 AA	20010116	CA19982337836	19981218
EP1109875 A1	20010627	EP19980964085	19981218
EP1109875 B1	20041103	EP19980964085	19981218
GB200105369 A0	20010418	GB20010005369	19981218
GB2357538 A1	20010627	GB20010005369	19981218
GB2357538 B2	20030212	GB20010005369	19981218
NO20010582 A	20010202	NO20010000582	20010202
NO20010582 A0	20010202	NO20010000582	20010202
US6131661 A	20001017	US19980127842	19980803
US6143698 A	20001107	US19980206077	19981204
WO0008112 A1	20000217	WO1998US26956	19981218

Priority:

US19980127842 19980803 US19980206077 19981204 WO1998US26956 19981218

Probable Assignee: TETRA TECHNOLOGIES INC

Assignee(s): (std): MCKENNIS JEFFREY S ; MURPHEY JOSEPH ; SHARP KEITH W ; TETRA TECH ; TETRA TECHNOLOGIES INC

Assignee(s): JPMORGAN CHASE BANK NA

Inventor(s): (std): SHARP KEITH W ; MURPHEY JOSEPH ROBERT ; MURPHEY JOSEPH R ; MURPHEY JOSEPH ; MCKENNIS JEFFREY S ; CONNER RICHARD PAUL ; KEITH W SHARP ; JOSEPH MURPHEY ; JEFFREY S MCKENNIS

Agent(s): FINLAYSON AND SINGLEHURST

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

Title: METHODS AND COMPOSITIONS FOR CONTROLLING THE VISCOSITY OF VISCOELASTIC SURFACTANT **FLUIDS**

Abstract: Viscoelastic surfactant **fluids**, and methods of using such **fluids** and controlling the viscosity thereof. In one embodiment, the methods of the present invention comprise: providing a viscoelastic surfactant **fluid** that comprises an aqueous-base **fluid**, and a surfactant; providing a metal ion having at least two oxidation states wherein at least one of the oxidation states interferes with the ability of the surfactant to form a viscosifying micelle, wherein at least a portion of the metal ion is present in an oxidation state that interferes with the ability of the surfactant to form a viscosifying micelle; allowing the metal ion to interact with viscoelastic surfactant **fluid** so as to decrease the ability of the surfactant to form a viscosifying micelle; and introducing the viscoelastic surfactant **fluid** into at least a portion of a subterranean formation.

Classifications:

International (IPC 8-9): C09K8/60 E21B43/22 E21B43/27 (Advanced/Invention); E21B43/16 (Core/Invention)

CPC: C09K8/12 C09K8/68 C09K2208/30

European: C09K8/12 C09K8/68 M09K208/30

US: 166/279 166/300 166/305.1 166/305.100S 507/237 507/237S 507/240 507/240S 507/245 507/245S 507/259 507/259S 507/271 507/271S 507/276 507/276S

Family:

Publication number	Publication date	Application number	Application date
■ US2007056736 AA	20070315	US20050225536	20050913
■ US7261160 BB	20070828	US20050225536	20050913

Priority:

US20050225536 20050913

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): HALLIBURTON ENERGY SERV INC

Assignee(s): HALLIBURTON ENERGY SERVICES INC ; HALLIBURTON CO

Inventor(s): (std): WELTON THOMAS D ; PAULS RICHARD W ; GDANSKI RICK D

Inventor(s): GDANSKI RICK ; PAULS RICHARD ; WELTON THOMAS

Agent(s): ROBERT A KENT; ROBERT A; BAKER BOTTS

Title: PROCESSES FOR PRODUCING NANOCELLULOSE, AND NANOCELLULOSE COMPOSITIONS PRODUCED THEREFROM

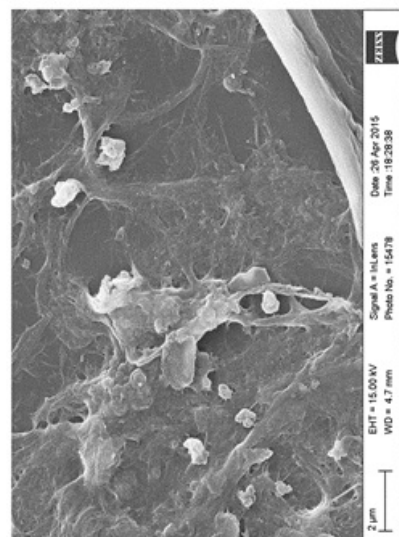
Abstract: Various processes are disclosed for producing nanocellulose materials following steam extraction or hot-water digestion of biomass. Processes are also disclosed for producing nanocellulose materials from a wide variety of starting pulps or pretreated biomass feedstocks. The nanocellulose materials may be used as rheology modifiers in many applications. Water-based and oil-based drilling **fluid** formulations and additives are provided. Also, water-based and oil-based hydraulic **fracturing fluid** formulations and additives are provided. In other embodiments, polymer-nanocellulose composites are provided.

Classifications:

International (IPC 8-9): B82Y40/00 C07G1/00 C08B1/02 C08B1/06 C08B15/08 C08B37/00 C09K8/10 C09K8/34 C09K8/62 C09K8/64 C09K8/68 C13K1/02 D01F2/02 D21B1/06 D21C11/00 D21C3/00 D21C3/04 D21C3/06 D21C5/00 D21C9/00 D21C9/10 (Advanced/Invention) **CPC:** D21C9/007 D21H11/18 C08B15/08 D21B1/061 D21C3/006 D21C3/003 D21C3/06 D21C9/10 C09K8/68 C09K8/64 C09K8/10 C09K8/34 C08B37/0057 C07G1/00 C13K1/02 D21C1/02 D21C5/005 D21C11/0007 C08H8/00

PatBase - US2017210826_AA

FIG. 1A



Family:

Publication number	Publication date	Application number	Application date
CA3002683 AA	20180419	CA20163002683	20160929
US2017210826 AA	20170727	US20160278800	20160928
WO17058980 A2	20170406	WO2016US54284	20160929
WO17058980 A3	20170720	WO2016US54284	20160929

Priority:

US20150235052P 20150930 US20160278800 20160928 WO2016US54284 20160929

Probable Assignee: API INTELLECTUAL PROPERTY HOLDINGS LLC

Assignee(s): (std): API IP HOLDINGS LLC

Assignee(s): NELSON KIMBERLY ; RETSINA THEODORA ; API INTELLECTUAL PROPERTY HOLDINGS LLC

Inventor(s): (std): NELSON KIMBERLY ; RETSINA THEODORA

Agent(s): RIDOUT AND MAYBEE LLP; OCONNOR RYAN

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 DJ 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 KW KZ LA LC 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

Title: **CROSSLINKING** DELAYING AGENTS FOR ACID **FLUIDS**

Abstract: **Fluids** comprising an aqueous acid, synthetic polymer, metal **crosslinking** agent and lactic acid or a salt thereof have particular applicability in **fracturing** subterranean formations of an oil or gas well. The lactic acid acts as a delaying agent. As a result, **crosslinking** of the synthetic polymer and metal **crosslinking** agent typically occurs at a temperature of 100 degrees Fahrenheit or higher.

Classifications:

International (IPC 8-9): C09K8/58 C09K8/588 C09K8/60 C09K8/72 C09K8/74 E21B33/138 E21B43/22 E21B43/26 E21B43/27 (Advanced/Invention)

International (IPC 1-7): C09K7/02 E21B33/138 E21B43/26 E21B43/27

CPC: C09K8/74 C09K8/882 C09K8/887

US: 166/270 166/271 166/307 507/100 507/100P 507/120 507/225 507/260

PatBase - US2004152602_AA

Patent Application Publication Aug. 5, 2004 Sheet 1 of 3 US 2004/0152602 A1

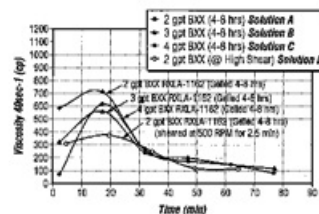


FIG. 1

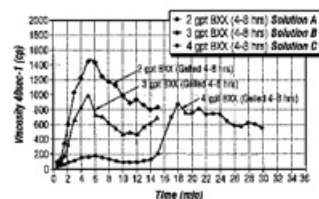


FIG. 2

Family:

Publication number	Publication date	Application number	Application date
CA2455249 AA	20040717	CA20042455249	20040115
GB200400878 A0	20040218	GB20040000878	20040115
GB2399362 A1	20040915	GB20040000878	20040115
GB2399362 B2	20050202	GB20040000878	20040115
NO20040199 A	20040719	NO20040000199	20040116
US2004152602 AA	20040805	US20040758410	20040115
US7205264 BB	20070417	US20040758410	20040115

Priority:

US20030440818P 20030117 CA20042455249 20040115 US20040758410 20040115

Probable Assignee: BAKER HUGHES A GE CO LLC

Assignee(s): (std): BJ SERVICES CO

Assignee(s): BJ SERVICES CO LLC ; BJ SERVICES COMPANY ; BOLES JOEL LYNN ; BSA ACQUISITION LLC ; BAKER HUGHES A GE CO LLC ; BAKER HUGHES INC

Inventor(s): (std): BOLES JOEL LYNN

Inventor(s): JOEL LYNN BOLES

Agent(s): BERESKIN AND PARR; JOHN WILSON; JONES AND SMITH LLP

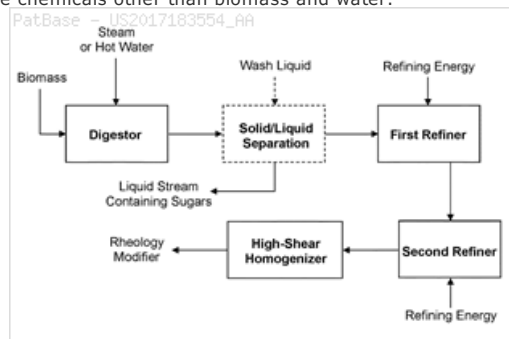
Title: PROCESSES FOR PRODUCING HIGH-VISCOSITY COMPOUNDS AS RHEOLOGY MODIFIERS, AND COMPOSITIONS PRODUCED THEREFROM

Abstract: A process is provided for producing a biomass-derived rheology modifier, comprising: providing a pretreated feedstock comprising cellulose-rich solids; refining the cellulose-rich solids in a first high-intensity refining unit, generating refined cellulose solids; gelling the refined cellulose solids in a second high-intensity refining unit, thereby generating gelled cellulose solids; and homogenizing the gelled cellulose solids in a high-shear homogenizer, thereby generating a biomass-derived rheology modifier. The pretreated feedstock may include kraft pulp, sulfite pulp, AVAP(R) pulp, soda pulp, mechanical pulp, thermomechanical pulp, and/or chemimechanical pulp, derived from wood or lignocellulosic biomass. The pretreated feedstock may be GP3+(R) pulp, obtained from steam or hot-water extraction of lignocellulosic biomass. These rheology modifiers may be utilized in a wide variety of applications, including water-based or oil-based hydraulic **fracturing fluid** formulations, as **gelling agents**. These rheology modifiers are biodegradable, and their production does not directly involve chemicals other than biomass and water.

Classifications:

International (IPC 8-9): C08B15/00 C08B37/00 C08H8/00 C09K8/035 C09K8/20 C09K8/62 (Advanced/Invention)

CPC: C08H8/00 C09K8/68 C09K8/90 C09K8/62 C09K8/035 C08B15/00 C08B37/0057



Family:

Publication number	Publication date	Application number	Application date
US2017183554 AA	20170629	US20160228070	20160804
WO17024122 A1	20170209	WO2016US45531	20160804

Priority:

US20150200952P 20150804 US20150222611P 20150923 US20160228070 20160804

Probable Assignee: API INTELLECTUAL PROPERTY HOLDINGS LLC

Assignee(s): (std): API IP HOLDINGS LLC

Assignee(s): API INTELLECTUAL PROPERTY HOLDINGS LLC

Inventor(s): (std): KUREBAYASHI HISAKO ; MONCLIN JEAN PIERRE

Agent(s): OCONNOR RYAN

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 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

Title: COMPOSITION AND METHOD FOR TREATING OILFIELD WATER

Abstract: A method for reducing sulfide in oilfield waste water includes contacting oilfield waste water with an oxidizer in the presence of an iron catalyst. The oilfield waste water includes sulfide that is oxidized to sulfate while avoiding formation of a colloidal or bulk sulfur precipitate. A method for recycling oilfield waste water includes contacting oilfield waste water with an oxidizer in the presence of an iron catalyst, the oilfield waste water comprising sulfide; oxidizing the sulfide to sulfate; avoiding formation of a colloidal sulfur precipitate, a bulk sulfur precipitate, or a combination comprising at least one of the foregoing; clarifying the oilfield waste water by contacting the oilfield waste water with a flocculant to form an aggregate precipitate; separating the aggregate precipitate from the oilfield waste water to form a recycled water; combining an additive with the recycled water; and disposing the recycled water in a downhole environment.

Classifications:

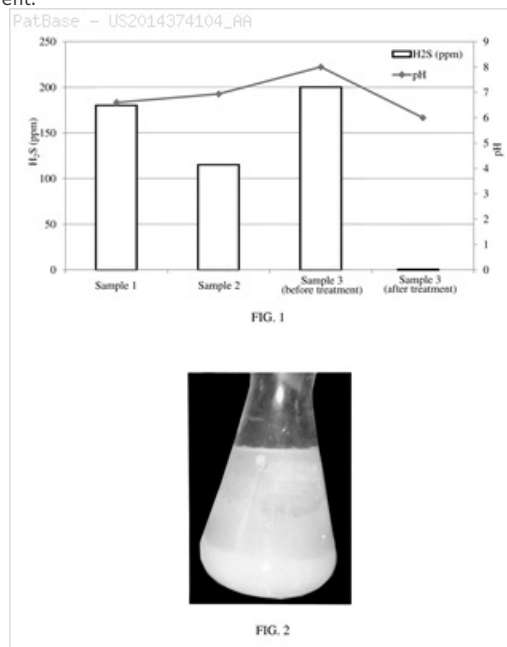
International (IPC 8-9): C02F1/52 C02F1/72 C02F1/76 C02F103/10 C02F9/04 C09K8/58 C09K8/66 E21B43/34

E21B43/40 (Advanced/Invention);

C02F103/10 (Advanced/Non-invention)

CPC: C02F1/725 E21B43/40 C02F1/52 C02F1/766 C02F2103/10

US: 166/305.1 210/721 252/183.14

**Family:**

Publication number	Publication date	Application number	Application date
CA2851015 AA	20141224	CA20142851015	20140508
CA2851015 C	20161115	CA20142851015	20140508
US2014374104 AA	20141225	US20130924801	20130624
US9670080 BB	20170606	US20130924801	20130624

Priority:

US20130924801 20130624

Probable Assignee: BAKER HUGHES INC

Assignee(s): (std): BAKER HUGHES INC ; SETH KUSHAL

Assignee(s): BAKER HUGHES INC2100 - 2929 ALLEN PARKWAYHOUSTONTX77019US ; KUSHAL SETH

Inventor(s): (std): KUSHAL SETH ; SETH KUSHAL

Inventor(s): KUSHAL SETHUS

Agent(s): BERESKIN AND PARR LLP SENCRL SRL; SIM AND MCBURNEY; CANTOR COLBURN LLP

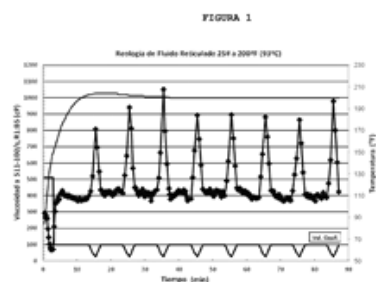
Title: FLUIDO DE TRATAMIENTO ENTRECruzADO Y METODOS DE FRACTURACION DE FORMACIONES SUBTERRANEAS BASADOS EN AGUA DE RETORNO, AGUA DE PRODUCCION, AGUA DE MAR, AGUA DULCE Y MEZCLAS DE LAS MISMAS **Crosslinked** TREATMENT **FLUID** AND METHODS OF **FRACTURING** SUBTERRANEAN FORMATIONS BASED ON RETURN water, water, sea water, fresh water, and mixtures thereof (Machine translation)

Abstract: Source: UY37305A [ES] Fluido entrecruzado y metodo para fracturacion que reutiliza agua de retorno sin tratamiento, minimizando el impacto ambiental y reduciendo el uso de agua dulce para estimular nuevos pozos o re-estimular pozos estimulados en el pasado, en donde el fluido comprende agua de retorno, de produccion, de mar, dulce o mezclas de estas en cantidad suficiente para hidratar el agente gelificante y formar un fluido acuoso gelificado; un agente gelificante; un agente de control de hierro; un buffer alcalino; un agente de entrecruzamiento retardado, y un sistema de ruptura para "romper" el fluido y mejorar la limpieza de la fractura. **Machine translation:** It reuses the **fracturing fluid** and method for return water without treatment, minimizing environmental impact and reducing the use of fresh water to stimulate new wells or re-stimulate stimulated wells in the past, wherein the **fluid** comprises return water, production, sea, fresh or mixtures thereof in an amount sufficient to hydrate the **gelling agent** and form a gelled aqueous **fluid**; a **gelling agent**; a control agent; an alkaline buffer iron; a cross-linking agent, and a system to "break" the **fluid** and improve the cleanliness of the **fracture**.

Classifications:

International (IPC 8-9): E21B43/00 (Advanced/Invention)

PatBase - UY37305_A1

**Family:**

Publication number	Publication date	Application number	Application date
UY37305 A1	20170831	UY20170037305	20170622

Priority:

UY20170037305 20170622

Probable Assignee:

SOTRO FINANCIAL INC

Assignee(s): (std):

SOTRO FINANCIAL INC

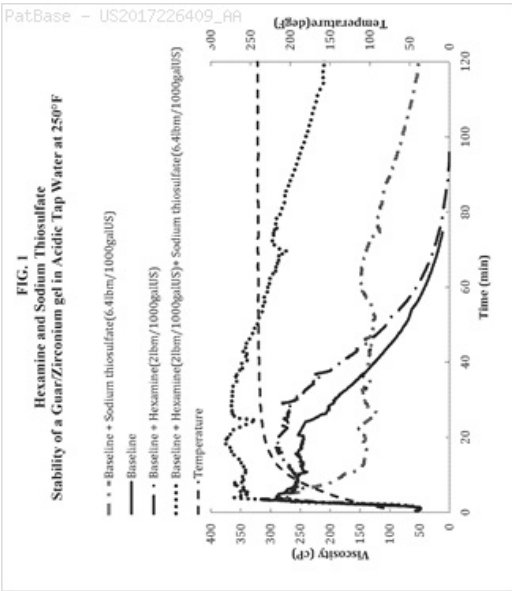
Inventor(s): (std):

GERMAN BORGOGNO FABIO

Title: TREATMENT FLUID AND VISCOSITY CONTROL

Abstract: A treatment fluid includes a carrier fluid having a pH less than 6.5, a polysaccharide gelling agent, and a pH modifier which decomposes and/or releases a pH increasing agent under downhole formation conditions to increase the pH of the fluid within the formation, Methods of using the treatment fluid include introducing the treatment fluid in a well bore and allowing the pH modifier to decompose and/or release the pH increasing agent to increase the pH of the wellbore treatment fluid above 7.

Classifications:
International (IPC 8-9): C09K8/52 C09K8/72 E21B43/26 (Advanced/Invention)
CPC: C09K8/725 E21B43/26 E21B43/267 C09K8/68 C09K8/685 C09K8/74 C09K8/887 C09K8/90



Family:

Publication number	Publication date	Application number	Application date
US2017226409 AA	20170810	US20160015988	20160204

Priority:

US20160015988 20160204

Probable Assignee: SCHLUMBERGER TECHNOLOGY CORP

Assignee(s): (std): SCHLUMBERGER TECHNOLOGY CORP

Inventor(s): (std): ABIVIN PATRICE ; MAKARYCHEV MIKHAILOV SERGEY ; TORRES HORTENCIA

Title: METHODS AND COMPOSITIONS FOR CONTROLLING THE VISCOSITY OF VISCOELASTIC SURFACTANT **FLUIDS**

Abstract: Viscoelastic surfactant **fluids**, and methods of using such **fluids** and controlling the viscosity thereof. In one embodiment, the present invention provides a viscoelastic surfactant **fluid** comprising an aqueous-base **fluid**, a surfactant, and a metal ion having at least two oxidation states wherein at least one of the oxidation states interferes with the ability of the surfactant to form a viscosifying micelle.

Classifications:

International (IPC 8-9): B01F3/08 C09K8/00 (Advanced/Invention);

E21B43/00 (Advanced/Non-invention);

B01F3/08 C09K8/00 (Core/Invention);

E21B43/00 (Core/Non-invention)

CPC: B01J13/04 C09K8/68 C09K2208/30

European: B01J13/04 C09K8/68 M09K208/30

US: 507/269 507/269P 516/113 516/113S 516/198 516/198S 516/99 516/99S

Family:

Publication number	Publication date	Application number	Application date
US2007060482 AA	20070315	US20050225537	20050913

Priority:

US20050225537 20050913

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): HALLIBURTON ENERGY SERV INC

Assignee(s): HALLIBURTON ENERGY SERVICES INC ; HALLIBURTON CO

Inventor(s): (std): GDANSKI RICK D ; PAULS RICHARD W ; WELTON THOMAS D

Inventor(s): GDANSKI RICK ; WELTON THOMAS ; PAULS RICHARD

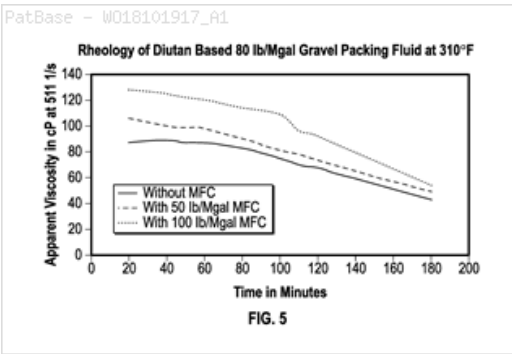
Agent(s): ROBERT A KENT

Title: HIGH TEMPERATURE GRAVEL PACKING **FLUID** SYSTEM

Abstract: A composition and method for treating a subterranean formation that includes preparing a treatment gel of aqueous **fluid**, a thickening agent soluble in the aqueous **fluid**, sand/gravel, and micro fibrous cellulose. Placing the treatment gel in at least a portion of a subterranean formation.

Classifications:

International (IPC 8-9): C09K8/035 C09K8/10
C09K8/68 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
WO18101917 A1	20180607	WO2016US64027	20161129

Priority:

WO2016US64027 20161129

Probable Assignee: HALLIBURTON CO

Assignee(s): HALLIBURTON CO ; HALLIBURTON ENERGY SERVICES INC

Inventor(s): ELURU SAIRAM ; MALICK MONALISA ; PRAKASH CHETAN

Agent(s): TUMEY COREY S ET AL

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 DJ 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 KW KZ LA LC 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

Title: ORTHO ESTER BREAKERS FOR VISCOELASTIC SURFACTANT GELS AND ASSOCIATED METHODS

Abstract: Many methods are provided including a method comprising: providing a surfactant gel having a first viscosity that comprises an aqueous base **fluid** and a surfactant; providing an ortho ester breaker; contacting the surfactant gel with the ortho ester breaker; allowing the ortho ester breaker to hydrolyze to produce an acid and an alcohol; and allowing the acid and/or the alcohol to interact with the surfactant gel so as to reduce the first viscosity of the surfactant gel to a second viscosity. Other methods are provided that include a method comprising: providing a surfactant gel that comprises an aqueous base **fluid** and a surfactant having a first viscosity; placing the surfactant gel into a subterranean formation; providing an ortho ester breaker; contacting the breaker with the surfactant gel; allowing the breaker to hydrolyze to produce an acid and an alcohol; and allowing the acid and/or the alcohol to interact with the surfactant gel so as to reduce the first viscosity of the surfactant gel to a second viscosity.

Classifications:

International (IPC 8-9): C09K8/524 C09K8/528 C09K8/532 C09K8/584 C09K8/60 C09K8/78 C23F11/18 E21B43/00 E21B43/16

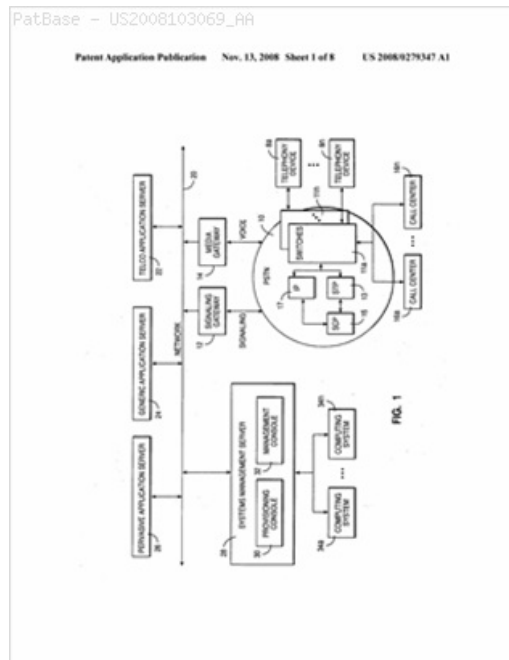
E21B43/22 (Advanced/Invention);

C09K8/60 (Core/Invention)

CPC: C09K8/68 C09K2208/26 C09K2208/30

European: C09K8/68 M09K208/26 M09K208/30

US: 166/268 166/270.1 507/239 507/240 507/241 507/245 507/252 507/253 507/254 507/255 507/256 507/257 507/258 507/260 507/261 507/261P 507/262 507/269 507/271

**Family:**

Publication number	Publication date	Application number	Application date
US2008103069 AA	20080501	US20060588886	20061027
US8008236 BB	20110830	US20060588886	20061027

Priority:

US20060588886 20061027

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): HALLIBURTON ENERGY SERV INC

Assignee(s): HALLIBURTON ENERGY SERVICES INC ; HALLIBURTON CO

Inventor(s): (std): WELTON THOMAS D

Agent(s): ROBERT A KENT; MCDERMOTT WILL AND EMERY LLP; ROBERT A

Title: ORTHO ESTER BREAKERS FOR VISCOELASTIC SURFACTANT GELS AND ASSOCIATED METHODS

Abstract: Many methods are provided including a method comprising: providing a surfactant gel having a first viscosity that comprises an aqueous base **fluid** and a surfactant; placing the surfactant gel into a subterranean formation at a pressure sufficient to create or enhance a **fracture** therein; providing an ortho ester breaker; contacting the surfactant gel with the ortho ester breaker; allowing the breaker to hydrolyze to produce an acid and an alcohol; and allowing the acid and/or the alcohol to interact with the surfactant gel so as to reduce the first viscosity of the surfactant gel to a second viscosity. Other methods are provided that include a method comprising: providing a surfactant gel residue having a first viscosity; providing an ortho ester breaker; contacting the surfactant gel residue with the ortho ester breaker; allowing the ortho ester breaker to hydrolyze to produce an acid and an alcohol; and allowing the acid and/or the alcohol to interact with the surfactant gel residue so as to reduce the first viscosity of the surfactant gel residue to a second viscosity.

Classifications:

International (IPC 8-9): C09K8/60 (Advanced/Invention);
C09K8/60 (Core/Invention)

CPC: C09K8/68 C09K2208/26 C09K2208/30

European: C09K8/68 M09K208/26 M09K208/30

US: 507/261 507/261P 507/267

Family:

Publication number	Publication date	Application number	Application date
■ US2008103070 AA	20080501	US20060589022	20061027
■ US8012914 BB	20110906	US20060589022	20061027

Priority:

US20060589022 20061027

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): HALLIBURTON ENERGY SERV INC

Assignee(s): HALLIBURTON ENERGY SERVICES INC ; HALLIBURTON CO

Inventor(s): (std): WELTON THOMAS D

Agent(s): ROBERT A KENT; MCDERMOTT WILL AND EMERY LLP; ROBERT A

Title: ACID GELS FOR **FRACTURING** SUBTERRANEAN FORMATIONS

Abstract: A **crosslinked** acid gel comprising an emulsion polymer and an external activator is provided. Methods for acid **fracturing** subterranean formations using the **crosslinked** acid gel are also provided.

Classifications:

International (IPC 8-9): C08L33/26 C08L41/00 C09K8/72 E21B43/26 (Advanced/Invention);
C08L33/00 C08L41/00 C09K8/60 E21B43/25 (Core/Invention)

International (IPC 1-7): C08L33/26 C08L41/00 C09K7/02 E21B31/00 E21B43/26

CPC: Y10S507/923 C09K8/74

European: C09K8/74

US: 166/300 166/307 166/308 166/308.5 507/204 507/923

Family:

Publication number	Publication date	Application number	Application date
CA2264974 AA	19990930	CA19992264974	19990308
CA2264974 C	20100511	CA19992264974	19990308
US5975206 A	19991102	US19980052324	19980331
US6046140 A	20000404	US19990408291	19990929

Priority:

US19980052324 19980331 CA19992264974 19990308 US19990408291 19990929

Probable Assignee: BJ SERVICES COMPNAY

Assignee(s): (std): BJ SERVICES CO

Assignee(s): BJ SERVICES CO CANADA ; BJ SERVICES COMPANY ; BJ SERVICES COMPNAY ; BOLES JOEL LYNN ; LOPEZ ENRIQUE ; DAWSON JEFFREY CARL ; METCALF ARTHUR STEVEN ; WOO GEORGE TSO CHIH

Inventor(s): (std): BOLES JOEL LYNN ; DAWSON JEFFREY CARL ; LOPEZ ENRIQUE ; METCALF ARTHUR STEVEN ; WOO GEORGE TSO CHIH

Agent(s): KIRBY EADES GALE BAKER

Title: TREATING AND RECYCLING OILFIELD WASTE WATER

Abstract: A process for treating oilfield waste water includes combining oilfield waste water and a biocide comprising hydrogen peroxide, the biocide being present in an amount effective to decrease a number density of bacteria in the oilfield waste water. A process for treating oilfield waste water includes measuring an oxidation reduction potential (ORP) of oilfield waste water; combining the oilfield waste water and an oxidizer in an amount to adjust the ORP of the oilfield waste water to be greater than or equal to a first ORP value; and adding a biocide comprising hydrogen peroxide to the oilfield waste water to adjust the ORP of the oilfield waste water to be greater than or equal to a second ORP value, to treat the oilfield waste water, the second ORP value being greater than the first ORP value. A process for recycling oilfield waste water includes combining oilfield waste water and a biocide comprising hydrogen peroxide; decreasing a number density of bacteria in the oilfield waste water to form treated water; introducing an additive to the treated water; and disposing the treated water in a subterranean environment.

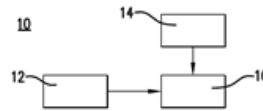
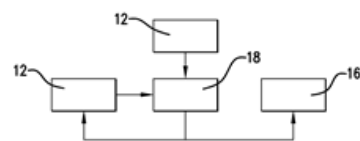
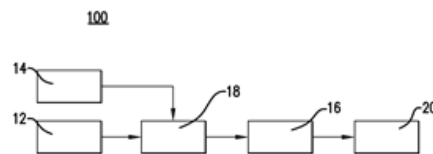
Classifications:**International (IPC 8-9):** C02F1/72 C02F1/76 C02F9/00

E21B43/40 (Advanced/Invention);

C02F1/50 C02F1/72 C02F103/10 (Advanced/Non-invention)

CPC: C02F1/76 C02F1/72 C02F1/722 C02F1/50 C02F9/00 C02F2103/10 C02F2209/04**US:** 166/305.1 210/753 210/754 210/758 210/759

PatBase - US2014374103_AA

**FIG. 1****FIG. 2****FIG. 3****Family:**

Publication number	Publication date	Application number	Application date
■ US2014374103 AA	20141225	US20130923509	20130621
■ US9802846 BB	20171031	US20130923509	20130621

Priority:

US20130923509 20130621

Probable Assignee: BAKER HUGHES INC**Assignee(s):** (std): BAKER HUGHES A GE CO LLC ; BAKER HUGHES INC ; HINES LARRY G ; LASCANO JENIFER C ; SETH KUSHAL**Inventor(s):** (std): HINES LARRY G ; LASCANO JENIFER C ; SETH KUSHAL**Agent(s):** CANTOR COLBURN LLP

Title: **IRON CONTROL AGENTS** AND RELATED METHODS

Abstract: The disclosure herein relates to iron control during subterranean operations, and more specifically, to reducing iron precipitation during subterranean operations to avoid formation damage; a method includes providing an acidizing treatment **fluid** that includes a polyepoxysuccinic acid and an acidizing agent, and placing the acidizing treatment **fluid** in a subterranean formation.

Classifications:

International (IPC 8-9): C09K8/528 E21B43/26 (Advanced/Invention)

CPC: E21B43/26 C09K8/528 C09K8/74

US: 166/307 166/308.1 507/260

Family:

Publication number	Publication date	Application number	Application date
 US2014202701 AA	20140724	US20130748301	20130123

Priority:

US20130748301 20130123

Probable Assignee: HALLIBURTON CO

Assignee(s): (std): HALLIBURTON ENERGY SERV INC

Assignee(s): HALLIBURTON ENERGY SERVICES INC ; HALLIBURTON CO

Inventor(s): (std): CHOUDHARY YOGESH KUMAR ; PATIL PRAJAKTA RATNAKAR

Title: GELLED ACID

Abstract: Reducing agents or reducing agent precursors are provided for breaking ferric ion **crosslinks** in polymers in gelled acids used for diversion in matrix acidizing and used for leakoff control in acid **fracturing**. Previous reducing agents were very toxic to aquatic species or so active that they could be used only at low temperatures. The new reducing agents and reducing agent precursors are less reactive, less toxic, and leave less residue behind to impede **fluid** flow after the gel is broken after the treatment. Suitable compounds are sources of one or two hydrazines or sources of hydroxylamine. Such compounds are carbonylhydrazides, semicarbohydrazides, ketoximes, and aldioximes.

Classifications:

International (IPC 8-9): C09K8/74 E21B43/00 (Advanced/Invention);
C09K8/60 E21B43/00 (Core/Invention)

International (IPC 1-7): E21B43/00

CPC: C09K8/74

European: C09K8/74

US: 507/271

Family:

Publication number	Publication date	Application number	Application date
 US2005065041 AA	20050324	US20030605265	20030918

Priority:

US20030605265 20030918

Probable Assignee: SCHLUMBERGER TECHNOLOGY CORP
Assignee(s): (std): SCHLUMBERGER TECHNOLOGY CORP
Inventor(s): (std): HILL DONALD G
Inventor(s): HILL DONALD
Agent(s): SCHLUMBERGER TECHNOLOGY CORP

Title: METHOD FOR REDUCING SULFIDE IN OILFIELD WASTE WATER AND MAKING TREATED WATER

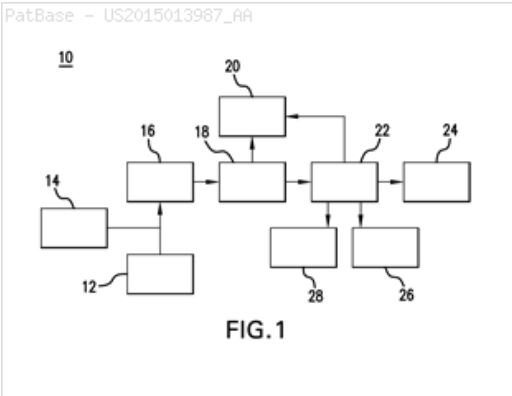
Abstract: A process for treating oilfield waste water includes contacting the oilfield waste water with hydrogen peroxide, the oilfield waste water comprising sulfide; oxidizing the sulfide to sulfur; and precipitating the sulfur to form treated water from the oilfield waste water. A process for recycling oilfield waste water includes combining the oilfield waste water and hydrogen peroxide, the oilfield waste water comprising sulfide; oxidizing the sulfide to sulfur; forming a precipitate comprising a colloidal sulfur precipitate, a bulk sulfur precipitate, or a combination comprising at least one of the foregoing; removing the precipitate from the oilfield waste water to form treated water; introducing an additive to the treated water; and disposing the treated water in a subterranean environment.

Classifications:

International (IPC 8-9): C02F1/72 E21B43/40 (Advanced/Invention)

CPC: C02F1/722 C02F1/52 C02F1/72 C02F2103/10 C02F2209/04 C02F2301/08

US: 166/305.1 210/721



Family:

Publication number	Publication date	Application number	Application date
US2015013987 AA	20150115	US20130939511	20130711

Priority:

US20130939511 20130711

Probable Assignee: BAKER HUGHES INC

Assignee(s): (std): BAKER HUGHES INC ; GOMEZ ARMANDO ; HINES LARRY GENE ; LASCANO JENIFER ; UNDERWOOD TIMOTHY

Inventor(s): (std): GOMEZ ARMANDO ; HINES LARRY GENE ; LASCANO JENIFER ; UNDERWOOD TIMOTHY

Title: METHOD OF ACIDIZING WELLS USING GELLED ACIDS

Abstract: The permeability of siliceous or calcareous subterranean formations adjacent a wellbore is increased by contacting the formation with a gelled aqueous acid capable of dissolving mineral constituents in the formation. The gelled aqueous acid compositions comprise (a) aqueous hydrochloric acid, and (b) a readily soluble **gelling agent**. Component (b) contains a sufficient amount of a polyoxyethylene glycol to gel the acid and enough ammonium-, alkali-, or alkaline earth metal bicarbonate or carbonate to cause rapid dissolution and dispersion of the polyoxyethylene glycol in the aqueous hydrochloric acid.

Classifications:

International (IPC 8-9): C09K8/72 (Advanced/Invention);

C09K8/60 (Core/Invention)

International (IPC 1-7): E21B43/27

CPC: Y10S507/934 C09K8/74

European: C09K8/74

US: 166/307 252/363.5 252/8.55C 507/260 507/261 507/934

Family:

Publication number	Publication date	Application number	Application date
■ US4426296 A	19840117	US19810310932	19811013

Priority:

US19810310932 19811013

Probable Assignee: DOW CHEMICAL CO

Assignee(s): (std): DOW CHEMICAL CO

Assignee(s): DOWELL SCHLUMBERGER INC ; THE DOW CHEMICAL COMPANY

Inventor(s): (std): CROWE CURTIS W

Title: Methods for acidizing subterranean formations and gelled acid compositions

Abstract: Gellable and gelled acid compositions comprise an aqueous acid, and a water-soluble polymer comprising, for example, acrylamide and methacryloylethyl trimethyl ammonium chloride. Optionally, the composition includes a reducing agent such as erythorbic acid. The gelled acids are useful in acidizing subterranean formations and such gels are stable to degradation by heat and do not yield insoluble residues when used in the presence of ferric ions.

Classifications:

International (IPC 8-9): C09K8/72 E21B33/138
E21B43/27 (Advanced/Invention);

E21B33/138 E21B43/25 (Core/Invention)

International (IPC 1-7): C09K7/02 E21B33/138 E21B43/27

CPC: C09K8/74

European: C09K8/74

PatBase - CA1228471_A1

**SUBSTITUTE
REPLACEMENT**

SECTION is not Present

Cette Section est Absente

Family:

Publication number	Publication date	Application number	Application date
CA1217324 A1	19870203	CA19830436973	19830919
CA1228471 A1	19871027	CA19840461615	19840823
GB2163790 A1	19860305	GB19840021761	19840828
GB2163790 B2	19880224	GB19840021761	19840828
GB8421761 A0	19841003	GB19840021761	19840828

Priority:

US19820429356 19820930 CA19830436973 19830919 CA19840461615 19840823
GB19840021761 19840828

Probable Assignee: SCHLUMBERGER DOWELL INC

Assignee(s): (std): DOW CHEMICAL CO ; SCHLUMBERGER DOWELL INC

Assignee(s): THE DOW CHEMICAL COMPANY ; COFFEY MITCHAE L D ; DOW CHEMICAL CO THE ; DOWELL
SCHLUMBERGER CANADA INC ; NEHMER WARREN L

Inventor(s): (std): COFFEY MITCHAE L D ; NEHMER WARREN L

Inventor(s): WARREN L NEHMER

Agent(s): SMART AND BIGGAR