

#### Search history

Search 1: (acrylic w1 acid) or (acrylate) or (acrylamide) or (vinylpyrrolidone) or (vinyl w1 acetate) or (vinyl w1 alcohol) or (acrylamide w1 acid) (Results 690834)

Search 2: proppant or (man-made w1 ceramic) or sand (Results 648088)

Search 3: pd<20150330 (Results 1000000)

Search 4: 1 and 2 and 3 (Results 46602)

Search 5: flush or affluent (Results 598903)

Search 6: 4 and 5 (Results 1595)

Search 7: carrier or water or brine (Results 1000000)

Search 8: 6 and 7 (Results 1514)

Search 9: circulat+ or flow or course or (move w1 around) (Results 1000000)

Search 10: 8 and 9 (Results 1302)

Search 11: transport+ or carr+ or mov+ or ship+ or lead or driv+ (Results 1000000)

Search 12: 10 and 11 (Results 886)

Search 13: superabsorbent w1 polymer (Results 5805)

Search 14: 12 and 13 (Results 17)

Search 15: 14 not (personal w1 hygiene) (Results 12)

Search 16: 15 not seeds (Results 9)

Search 17: IC=(e21) (Results 569771)

Search 18: 16 and 17 (Results 3)

**Title:** Composition and method for recovering hydrocarbon fluids from a subterranean reservoir

**Abstract:** This invention is directed to a composition comprising expandable cross linked polymeric microparticles having an unexpanded volume average particle size diameter of from about 0.05 to about 10 microns and a cross linking agent content of from about 9,000 to about 200,000 ppm of labile cross linkers and from 0 to about 300 ppm of non-labile cross linkers and to the use of the composition for modifying the permeability of subterranean formations and increasing the mobilization and/or recovery rate of hydrocarbon fluids present in the formations.

**Classifications:**

**International (IPC 8-9):** C08F26/06 C08K3/20 C09K8/512 C09K8/588 C09K8/88 E21B33/113 E21B33/13 E21B33/138 E21B43/16

E21B43/22 (Advanced/Invention);

C09K8/50 C09K8/58 C09K8/60 E21B33/13 (Core/Invention)

**International (IPC 1-7):** C08F2/22 C08F20/06 C08F20/18 C08F20/56 E21B33/113 E21B33/13 E21B33/138 E21B36/00 E21B43/16 E21B43/22

**CPC:** C09K8/516 C09K8/512 C09K8/588

**European:** C09K8/512 C09K8/516 C09K8/588

**US:** 166/270 166/275 166/295 507/224 507/225 507/226 507/261 507/266 523/130 524/547 524/555 524/558 526/260 526/286 526/304 526/307 526/310 526/312 526/317.1 526/323.1

PatBase - NZ522534\_A

END

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2001266600 AA    | 20011224         | AU20010266600      | 20010523         |
| AU2001266600 BB    | 20061005         | AU20010266600      | 20010523         |
| AU200166600 A1     | 20011224         | AU20010066600      | 20010523         |
| AU200166600 A5     | 20011224         | AU20010066600D     | 20010523         |
| BRPI0111613 A      | 20030701         | BR2001PI11613      | 20010523         |
| BRPI0111613 B1     | 20121211         | BR2001PI11613      | 20010523         |
| CA2408312 AA       | 20021031         | CA20012408312      | 20010523         |
| CA2408312 C        | 20090818         | CA20012408312      | 20010523         |
| CN1434893 A        | 20030806         | CN20018010851      | 20010523         |
| DK1290310 T3       | 20070702         | DK20010944162T     | 20010523         |
| ECSP024391 A       | 20030526         | EC2002SP04391      | 20021213         |
| EP1290310 A1       | 20030312         | EP20010944162      | 20010523         |
| EP1290310 A4       | 20050615         | EP20010944162      | 20010523         |
| EP1290310 B1       | 20070321         | EP20010944162      | 20010523         |
| MXPA02011661 A1    | 20040517         | MX2002PA11661      | 20010523         |
| NO20025581 A       | 20030210         | NO20020005581      | 20021121         |
| NO20025581 A0      | 20021121         | NO20020005581      | 20021121         |
| NO20025581 L       | 20030210         | NO20020005581      | 20021121         |
| NO330481 B1        | 20110426         | NO20020005581      | 20021121         |
| NZ522534 A         | 20050624         | NZ20010522534      | 20010523         |
| OA12332 A          | 20060515         | OA20021000376      | 20010523         |
| RU2002133464 A     | 20040420         | RU20020133464      | 20010523         |
| RU2256071 C2       | 20050710         | RU20020133464      | 20010523         |
| US2003116317 AA    | 20030626         | US20020233950      | 20020903         |
| US2003149212 AA    | 20030807         | US20020251006      | 20020920         |
| US2003155122 AA    | 20030821         | US20020251742      | 20020920         |
| US6454003 BA       | 20020924         | US20000593197      | 20000614         |
| US6729402 BB       | 20040504         | US20020251742      | 20020920         |
| US6984705 BB       | 20060110         | US20020233950      | 20020903         |
| US7300973 BB       | 20071127         | US20020251006      | 20020920         |
| VN10103 A1         | 20120425         | VN20020001111      | 20010523         |
| WO0196707 A1       | 20011220         | WO2001US16773      | 20010523         |
| WO0196707 C1       | 20020404         | WO2001US16773      | 20010523         |

**Priority:**

US20000593197 20000614 WO2001US16773 20010523 US20020233950 20020903  
US20020251006 20020920 US20020251742 20020920

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**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 EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

**Title:** STABILIZED FLUIDS IN WELL TREATMENT

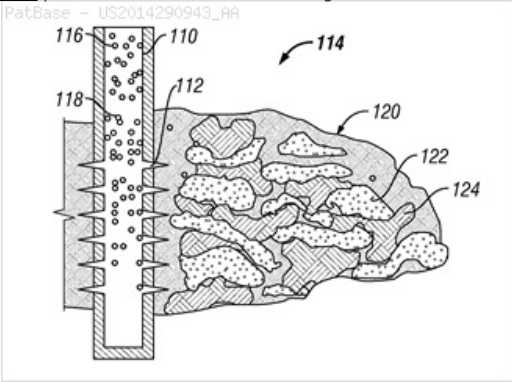
**Abstract:** Proppant pillar placement in a fracture with a stabilized slurry treatment fluid. A method of placing a proppant pack by injecting a well treatment fluid comprising proppant and a stabilized slurry, and a slurry destabilizing system to consolidate solids from the slurry, and placing the proppant in the fracture in a plurality of proppant clusters forming pillars spaced apart by fluid flow channels from the formation through the fracture toward the wellbore. Also, a system for implementing the method, and the propped fracture system obtained as a result of placing the proppant pack into the fracture according to the method.

**Classifications:**

**International (IPC 8-9):** E21B43/267 (Advanced/Invention)

**CPC:** E21B43/267

**US:** 166/280.1 166/69



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2014290943 AA    | 20141002         | US20130854038      | 20130329         |

**Priority:**

US20130854038 20130329

**Probable Assignee:** SCHLUMBERGER TECHNOLOGY CORP

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

**Inventor(s):** (std): CHEN YIYAN ; LADVA HEMANT K J ; LOISEAU ANTHONY ; POTAPENKO DMITRIY IVANOVICH

**Title:** METHOD FOR OPTIMIZING CONDUCTIVITY IN A HYDRAULIC FRACTURING OPERATION

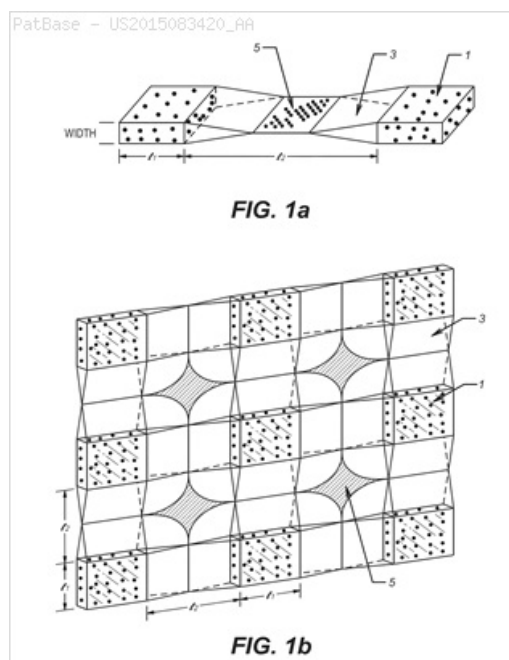
**Abstract:** A method of distributing **proppant** in a spatial arrangement throughout a created or enlarged fracture by pumping into a subterranean formation penetrated by a well multiple stages of fracturing fluid wherein a fluid laden with **proppant** is pumped into the well and a fluid substantially free of **proppant** is then pumped into the well; the fluid of the fluid laden with **proppant** and the fluid substantially free of **proppant** being the same. Vertically extending pillars are created within the formation. Fluid produced from the hydrocarbon-bearing reservoir is then **flowed** at least partially through channels between the vertically extending pillars.

**Classifications:**

**International (IPC 8-9):** C09K8/80 E21B43/00 E21B43/26 E21B43/267 (Advanced/Invention)

**CPC:** E21B43/267 E21B43/006 C09K8/805

**US:** 166/280.1 166/280.2



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AR097793 AA        | 20160413         | AR2014P103583      | 20140926         |
| AU2014327012 AA    | 20160303         | AU20140327012      | 20140923         |
| CA2923232 AA       | 20160303         | CA20142923232      | 20140923         |
| CA2923232 C        | 20181016         | CA20142923232      | 20140923         |
| CN105849359 A      | 20160810         | CN201480052511     | 20140923         |
| CO16060807 A2      | 20160620         | CO20160060807      | 20160309         |
| DE602014028779 D1  | 20180816         | DE201460028779T    | 20140923         |
| EP3049616 A2       | 20160803         | EP20140781008      | 20140923         |
| EP3049616 B1       | 20180718         | EP20140781008      | 20140923         |
| GC9266 A           | 20181203         | GC2014P028005      | 20140925         |
| MX2016002657 A1    | 20160606         | MX20160002657      | 20140923         |
| PL3049616 T3       | 20190131         | PL20140781008T     | 20140923         |
| US2015083420 AA    | 20150326         | US20140494030      | 20140923         |
| US10240447 BB      | 20190326         | US20140494030      | 20140923         |
| WO15048021 A2      | 20150402         | WO2014US56986      | 20140923         |
| WO15048021 A3      | 20150716         | WO2014US56986      | 20140923         |

**Priority:**

US20130882858P 20130926 EP20140781008 20140923 US20140494030 20140923  
WO2014US56986 20140923

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**Assignee(s):** BAKER HUGHES A GE CO LLC HOUSTON ; BAKER HUGHES INCORPORATION ; LEMONS JIMIE DEVON ; GUPTA DV SATYANARAYANA ; HOLCOMB WILLIAM D ; BRANNON HAROLD DEAN

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**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW

MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM  
SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW