

(21) Application No: 0908737.0
(22) Date of Filing: 16.07.2007
(30) Priority Data:
(31) 11608686 (32) 08.12.2006 (33) US
(86) International Application Data:
PCT/IB2007/052835 En 16.07.2007
(87) International Publication Data:
WO2008/068645 En 12.06.2008

(51) INT CL:
C09K 8/80 (2006.01) C09K 8/66 (2006.01)
C09K 8/68 (2006.01) C09K 8/72 (2006.01)
(56) Documents Cited by ISA:
WO 2006/082359 A US 20060118299 A1
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(58) Field of Search by ISA:
INT CL C09K, E21B
Other: EPO-Internal, WPI Data

(71) Applicant(s):
Schlumberger Holdings Limited
(Incorporated in the British Virgin Islands)
PO Box 71, Craigmuir Chambers,
Road Town, Tortola, British Virgin Islands
(72) Inventor(s):
Timothy Lesko
J Ernest Brown
Dean M Willberg
Anatoly Medvedev
(74) Agent and/or Address for Service:
Sensa
Gamma House, Enterprise Road,
Chilworth Science Park, SOUTHAMPTON,
Hampshire, SO16 7NS, United Kingdom

(54) Abstract Title: **Heterogeneous proppant placement in a fracture with removable channelant fill**

(57) A method of heterogeneous proppant placement in a subterranean fracture is disclosed. The method comprises injecting well treatment fluid including proppant (16) and proppant- spacing filler material called a channelant (18) through a wellbore (10) into the fracture (20), heterogeneously placing the proppant in the fracture in a plurality of proppant clusters or islands (22) spaced apart by the channelant (24), and removing the channelant filler material (24) to form open channels (26) around the pillars (28) for fluid flow from the formation (14) through the fracture (20) toward the wellbore (10). The proppant and channelant can be segregated within the well treatment fluid, or segregated during placement in the fracture. The channelant can be dissolvable particles, initially acting as a filler material during placement of the proppant in the fracture, and later dissolving to leave the flow channels between the proppant pillars. The well treatment fluid can include fibers to provide reinforcement and consolidation of the proppant and additionally or alternatively, to inhibit settling of the proppant in the treatment fluid.

