DOWNHOLE FLUID-FLOW COMMUNICATION TECHNIQUE

A method of wireless communication with a downhole assembly in absence of pressure pulse or hard wired communications. Tools and techniques for achieving such wireless communications are directed fluid-flow communication which may be utilized in circumstances where a completions assembly is open to the well in a pressure sense. Notably, a trigger is included with detection equipment which may be utilized to detect fluid-flow generated by surface equipment. In certain embodiments, such equipment may even be mounted exterior of completions equipment tubing through which fluid-flow communication is directed. Thus, wireless downhole communication capacity may even be provided without the need for obstructing tubing with such detection equipment.
(74) Agents: WARFFORD, Rodney V., et al.; 10001 Richmond Avenue, IP Administration Center of Excellence, Room 4720, Houston, Texas 77042 (US).


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A. CLASSIFICATION OF SUBJECT MATTER

E21B 23/04 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

E21B 23/00, 23/04, 23/06, 23/08, 23/10, 23/12, 47/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PATSEARCH, ESP@CENET, RUPAT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>WO 2011/08525 15 A2 (SCHLUMBERGER CANADA LIMITED et al.) 14.07.201 1, claims, fig. 3A, 3B</td>
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<td>A</td>
<td>SU 1183666 A1 (KAZAKHSKII NAUCNO-ISSLEDOVATELSKII INSTITUT MINERALNOGO SYRIYA) 07.10.1985, abstract</td>
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<td>GB 2280013 A (BUYERS MARK et al.) 18.01.1995, claims</td>
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<td>A</td>
<td>CA 2541489 A1 (SCHLUMBERGER CANADA LIMITED) 14.03.2007, claims</td>
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[ ] Further documents are listed in the continuation of Box C. [ ] See patent family annex.

* Special categories of cited documents:

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"&" document member of the same patent family

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