



US007971658B2

(12) **United States Patent**
Buckman, Sr.

(10) **Patent No.:** **US 7,971,658 B2**
(45) **Date of Patent:** **Jul. 5, 2011**

(54) **CHEMICALLY ENHANCED STIMULATION OF OIL/GAS FORMATIONS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 147 days.

(21) Appl. No.: **12/259,806**

(22) Filed: **Oct. 28, 2008**

(65) **Prior Publication Data**

US 2009/0107678 A1 Apr. 30, 2009

Related U.S. Application Data

(60) Provisional application No. 61/001,183, filed on Oct. 31, 2007.

(51) **Int. Cl.**
E21B 7/18 (2006.01)

(52) **U.S. Cl.** 175/67; 175/424

(58) **Field of Classification Search** 175/65, 175/67, 424

See application file for complete search history.

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(57) **ABSTRACT**

Method is provided for drilling of formations containing carbonate minerals with flexible tubing capable of being turned in a very short radius. The very flexible tubing may be placed inside a work string in a well with coiled tubing and a micro-jet bit on the tubing be diverted to a selected direction and depth. Acidic drilling fluid pumped through the micro-jet bit allows high rates of drilling with hydrochloric acid. A slip joint between coiled tubing and the flexible tubing may be used to allow jet drilling without movement of the coiled tubing and use of a jet bit with forward-facing jets. Mixing of acid and base solutions downhole may be used to provide hotter acid solutions for drilling.

7 Claims, 5 Drawing Sheets

