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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4668851

NATURE OF CONVEYA CONVEYING PARTY D		NEW ASSIGNMENT	NEW ASSIGNMENT		
CONVEYING PARTY D	NATURE OF CONVEYANCE:		ASSIGNMENT		
	ΑΤΑ				
		Name		Execution Date	
CHARLES FRANCIS S	TRINGER			06/21/2012	
RECEIVING PARTY DA	ATA				
Name:	HALLIB	URTON ENERGY SERVICES, IN	С.		
Street Address:	10200 E	ELLAIRE BLVD.			
City:	HOUST	HOUSTON			
State/Country:	TEXAS	TEXAS			
Postal Code:	77072				
PROPERTY NUMBERS	6 Total: 1				
Property Type		Number			
Application Number:	· ·	5799842			
CORRESPONDENCE	(214)200-0853			
		the e-mail address first; if that i ; if that is unsuccessful, it will b			
Phone:	2	214-651-5000	-		
Email:		pdocketing@haynesboone.com			
•		HAYNES AND BOONE, LLP	,		
•			VICTORY AVENUE, SUITE 700		
Address Line 1:					
Address Line 1: Address Line 2:		ALLAS TEXAS 75210			
Address Line 1:		DALLAS, TEXAS 75219			
Address Line 1: Address Line 2:	I	DALLAS, TEXAS 75219 7523.1411US02			
Address Line 1: Address Line 2: Address Line 4:	UMBER:				
Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N	UMBER:	7523.1411US02			

ASSIGNMENT

WHEREAS, Charles Francis Stringer (an "ASSIGNOR"), a citizen of the United States, residing at 3225 Woodland Park Drive, Houston, Texas 77072, has developed and is the owner of certain inventions as embodied in and represented by the Intellectual Property, as defined below.

SYSTEM, METHOD, & COMPUTER PROGRAM PRODUCT TO DETERMINE PLACEMENT OF FRACTURE STIMULATION POINTS USING MINERALOGY

of even d

of even date filed herewith; and

X filed on June 14, 2012 and assigned application number PCT/US12/42499

(collectively, "Intellectual Property").

WHEREAS, each ASSIGNOR is desirous of assigning all of his right in the Intellectual Property to Halliburton Energy Services, Inc. ("ASSIGNEE"), a corporation, doing business at 10200 Bellaire Blvd., Houston, Texas 77072, United States of America.

NOW, THEREFORE, subject to the terms, conditions, covenants and provisions of this Assignment, and in consideration of Ten Dollars (\$10.00) and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by each ASSIGNOR, the parties hereto, intending legally to be bound, agree as follows:

ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE, its successors and assigns, said ASSIGNOR'S entire right, title and interest in the Intellectual Property, including, without limitation, (i) all United States and foreign rights therein, whether patentable or not, and in and to aforesaid patents, patent applications and any divisions or continuations thereof, and any patents or similar registrations obtained for the said Intellectual Property in the United States and foreign countries, or issuing out of said application or any such division or continuation thereof, and any reissues or extensions of any such patents and (ii) all causes of action, past, present, and future, for infringement, unfair competition or otherwise with respect to the Intellectual Property and all disclosures of ideas, whether or not patentable and all pending applications.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

ASSIGNOR hereby covenants that (i) he believes himself to be the original and first inventor of the subject matter of the Intellectual property; (ii) he has the full right to convey his entire right, title and interest in said Intellectual Property, and (iii) he has not executed and will not execute any agreement in conflict herewith.

ASSIGNOR further covenants that that he will not undertake any activity to erode or challenge the ASSIGNEES' rights in the Intellectual Property assigned hereunder.

ASSIGNOR further covenants that he will, at any time, upon ASSIGNEE'S request, execute and deliver any and all papers that may be necessary or desirable to perfect the title in the Intellectual Property, or any patents that may be granted therefore, in the ASSIGNEE, its successors and assigns, and if ASSIGNEE, or its assignee, desires to make a substitute, divisional or continuation application for said Intellectual Property, or to secure a reissue or extension of any Letters Patent, to file a disclaimer relating thereto, or an application for a corresponding patent in any foreign country, or undertake any other act to secure and protect the ASSIGNEE'S rights in the Intellectual Property, that he will upon

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request, sign all papers, make all rightful oaths, and do all lawful acts requisite for the said purposes, but at the expense of the ASSIGNEE.

ASSIGNOR hereby acknowledges that the entire beneficial interest in the Intellectual Property and to which the above application relates is irrevocably vested in the ASSIGNEE including the right to make the application for protection in all countries abroad and to claim priority under the International Convention for such applications and hereby assents to the making of any such applications, with or without priority claims, and of any divisional application resulting therefrom.

ASSIGNOR further covenants that he will at all times communicate to the ASSIGNEE, its successors, assigns or legal representatives, all facts relating to said Intellectual Property, or the history thereof, known to him, and testify as the same in interferences or other litigation, when requested so to do.

Executed and delivered this Z day of	2012.
Inventor: Charles Francis Stringer	
State of TEXAS §	
Country of HAMMIS \$	

BEFORE ME, the undersigned authority, personally appeared this 21^{bt} day of 10^{10} 2012, Charles Francis Stringer, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he signed, sealed and delivered the said instrument as his free and voluntary act and deed for the uses and purposes therein set forth.

[SEAL]



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Notary Public	1 al and	Ca.

My Commission expires: 16 Aug 2012

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RECORDED: 11/01/2017