

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3176136

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JIAN HUANG	12/02/2014
KEDAR M. DESHPANDE	12/03/2014
MOHAMMAD REZA SAFARIFOROSHANI	12/02/2014
OVUNC MUTLU	12/02/2014
CHIH-CHAU HWANG	12/04/2014
RAJESH K. SAINI	12/04/2014
LEONID VIGDERMAN	12/04/2014
DUANE TREYBIG	12/04/2014
CLAYTON S. SMITH	12/08/2014
MATHEW M. SAMUEL	01/06/2015
KERN L. SMITH	01/06/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	WEATHERFORD TECHNOLOGY HOLDING, LLC
<b>Street Address:</b>	2000 ST. JAMES PLACE
<b>City:</b>	HOUSTON
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	77056
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14546301
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(713)977-7011
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	713-977-7000
<b>Email:</b>	RWSTROZ@FLASH.NET
<b>Correspondent Name:</b>	ROBERT W. STROZIER
<b>Address Line 1:</b>	P.O. BOX 429
<b>Address Line 4:</b>	BELLAIRE, TEXAS 77402-0429

<b>ATTORNEY DOCKET NUMBER:</b>	03015/89UTL
<b>NAME OF SUBMITTER:</b>	ROBERT W. STROZIER
<b>SIGNATURE:</b>	/Robert W. Strozier/
<b>DATE SIGNED:</b>	01/09/2015

**Total Attachments: 13**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: **HUANG ET AL**

SERIAL NO: **14/546,301**

FILED: **11/18/2014**

§ EXAMINER: N/A

§ ART UNIT: N/A

§ DOCKET: **03015/89UTL**

§ CONF. NO.: **6846**

FOR: **SYSTEMS AND METHODS FOR OPTIMIZING  
FORMATION FRACTURING OPERATIONS**

§

§

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, **Jian Huang, Kedar M. Deshpande, Mohammad Reza Safariforoshani, Ovunc Mutlu, Chih-Chau Hwang, Rajesh K. Saini, Leonid Vigderman, Duane Treybig, Clayton S. Smith, Mathew M. Samuel, and Kern L. Smith** (the "Undersigned") do hereby: SELL, ASSIGN AND TRANSFER to **WEATHERFORD TECHNOLOGY HOLDINGS, LLC**, a Delaware corporation having a place of business at **2000 St. James Place, Houston, TX 77056**, its successors, trustees, devisees and assigns, the entire right, title and interest for the United States and all foreign countries in and to:

- a. Any and all improvements which are disclosed in the application for United States Letters Patent under 35 U.S.C. §§ 111(a) or (b), which has been executed by the Undersigned concurrently herewith and is entitled **SYSTEMS AND METHODS FOR OPTIMIZING FORMATION FRACTURING OPERATIONS**;
- b. Any and all applications for patent or like protection on said improvements that have now been or may in the future be made by me or my legal representatives, whether in the United States of America or any other country or place anywhere in the world;
- c. Any and all patents and like protection that have now been or may in the future be granted on said improvements to me or my legal representatives, whether in the United States of America or in any other country or place anywhere in the world;
- d. Any and all substitutions, divisions, continuations, continuations-in-part, renewals, reissues, reexaminations, extensions, and the like of said applications and/or patents or like grants, including, without limitation, those obtained or permissible under past, present and/or future law and statutes;
- e. The express right to file foreign applications under the provisions of any convention or treaty and claim priority based on any and all application filed in the United States of America based on said improvements;
- f. All rights of action on account of past, present and/or future authorized or unauthorized use of said improvements and for misappropriation of said improvement and/or infringement of said patents derived from said improvements and like protection;

- g. The right of Assignee to file in its name applications for patents and like protection for said improvements in any country and countries foreign to the United States of America; and
- h. All international rights of priority associated with said improvements, applications, patents and like protection;

(hereinafter "Rights").

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States of America and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

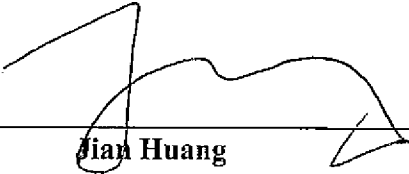
WARRANT AND COVENANT that the Undersigned have the right to make the assignment set forth herein;

COVENANT, when requested and at the expense of the Assignee, its successors, and/or assigns, the Undersigned will cooperate with the Assignee, its successors, and/or assigns, to carry out in good faith the intent and purpose of this assignment. Such cooperation will include, without limitation:

- (1) Prompt execution of all papers that are deemed necessary or desirable by Assignee to perfect the right, title and interest herein conveyed;
- (2) Prompt execution of all petitions, oaths, specifications, declarations or other papers that are deemed necessary or desirable by Assignee for prosecuting patent applications, for filing and prosecuting substitute, divisional, continuing, or additional applications in the United States of America and/or foreign countries, for filing and prosecuting applications for reissuance or reexamination of previously granted Letters Patent, and for interference proceedings involving and covering any of the Rights, and
- (3) Prompt assistance and cooperation, including, but not limited to, execution of documents and testifying, in the prosecution of legal proceedings involving any of the Rights, including, but not limited to, patent prosecution, interference proceedings, infringement court actions, opposition proceedings, cancellation proceedings, priority contests, unfair competition court actions, trade secret court actions, public use proceedings, slander, license breach and royalty collection proceedings and any other legal proceedings.

TO BE BINDING on the heirs, assigns, representatives and successors of the Undersigned and inure to Assignee, its successors, trustees, devisees and assigns.

EXECUTED THIS 2<sup>nd</sup> day of December, 2014

  
\_\_\_\_\_  
Jian Huang

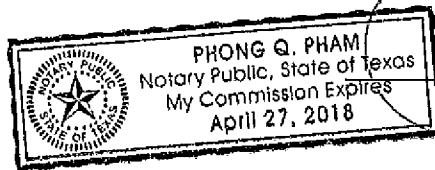
STATE OF TEXAS

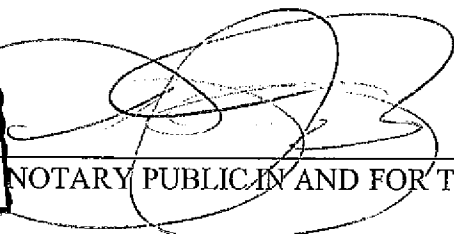
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COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared **Jian Huang**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 2 day of Dec, 2014



  
\_\_\_\_\_  
NOTARY PUBLIC IN AND FOR TEXAS

EXECUTED THIS 3<sup>rd</sup> day of December, 2014

Kedar

Kedar M. Deshpande

STATE OF TEXAS

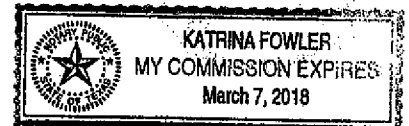
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COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared **Kedar M. Deshpande**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 3 day of December, 2014

Katrina Fowler  
NOTARY PUBLIC IN AND FOR TEXAS



EXECUTED THIS 02 day of December, 2014

M. R. Sar

Mohammad Reza Safariforoshani

STATE OF TEXAS

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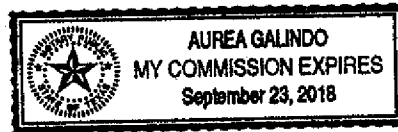
COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared **Mohammad Reza Safariforoshani**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 02 day of December, 2014

Aurea Galindo

NOTARY PUBLIC IN AND FOR TEXAS



EXECUTED THIS 2<sup>nd</sup> day of DECEMBER, 2014



Ovunc Mutlu

STATE OF TEXAS

§

COUNTY OF HARRIS

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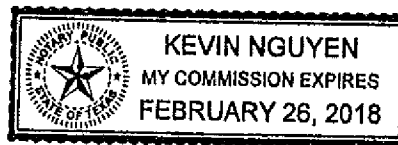
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BEFORE ME, the undersigned authority, on this day personally appeared **Ovunc Mutlu**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 2 day of December, 2014



NOTARY PUBLIC IN AND FOR TEXAS





EXECUTED THIS 4 day of Dec, 2014

  
\_\_\_\_\_  
Chih-Chau Hwang

STATE OF TEXAS

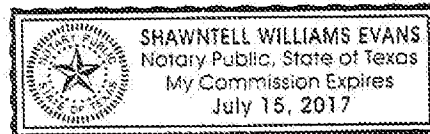
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COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared Chih-Chau Hwang, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed and initialed each page of the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 4<sup>th</sup> day of December, 2014

  
\_\_\_\_\_  
NOTARY PUBLIC IN AND FOR TEXAS



EXECUTED THIS 4<sup>th</sup> day of December, 2014

Rajesh K. Saini

Rajesh K. Saini

STATE OF TEXAS

§

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COUNTY OF HARRIS

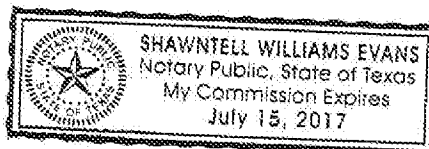
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BEFORE ME, the undersigned authority, on this day personally appeared **Rajesh K. Saini**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed and initialed each page of the same for the purposes and consideration therein expressed.


GIVEN UNDER MY HAND and seal of office this 4<sup>th</sup> day of December, 2014

Shawntell Williams Evans

NOTARY PUBLIC IN AND FOR TEXAS



EXECUTED THIS 4 day of December, 2014



Leonid Vigderman

STATE OF TEXAS

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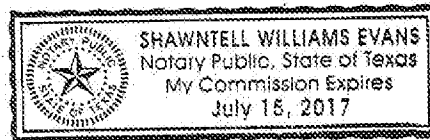
COUNTY OF HARRIS

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BEFORE ME, the undersigned authority, on this day personally appeared **Leonid Vigderman**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 4th day of December, 2014

  
NOTARY PUBLIC IN AND FOR TEXAS



EXECUTED THIS 4<sup>th</sup> day of December, 2014

Duane Treybig  
Duane Treybig

STATE OF TEXAS

§

COUNTY OF HARRIS

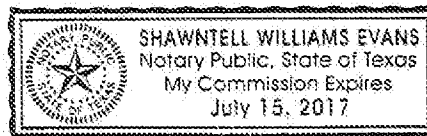
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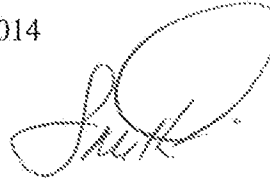
BEFORE ME, the undersigned authority, on this day personally appeared **Duane Treybig**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 4<sup>th</sup> day of December, 2014

Shawntell Williams Evans  
NOTARY PUBLIC IN AND FOR TEXAS



EXECUTED THIS 8 day of December, 2014



Clayton S. Smith

STATE OF TEXAS

§

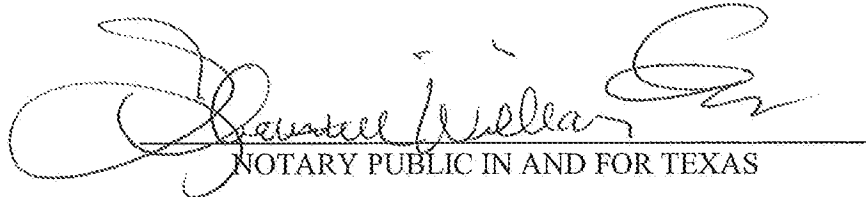
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COUNTY OF HARRIS

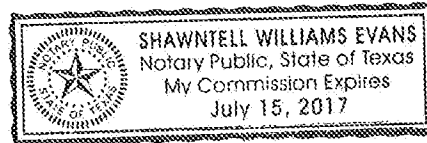
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BEFORE ME, the undersigned authority, on this day personally appeared **Clayton S. Smith**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

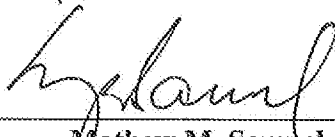
GIVEN UNDER MY HAND and seal of office this 8<sup>th</sup> day of December, 2014



NOTARY PUBLIC IN AND FOR TEXAS



EXECUTED THIS 6<sup>th</sup> day of January, 2015

  
\_\_\_\_\_  
Mathew M. Samuel

STATE OF TEXAS

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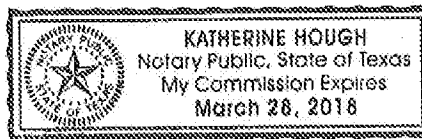
COUNTY OF HARRIS

§

BEFORE ME, the undersigned authority, on this day personally appeared **Mathew M. Samuel**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

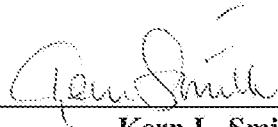
GIVEN UNDER MY HAND and seal of office this 6<sup>th</sup> day of January, 2015

  
\_\_\_\_\_  
NOTARY PUBLIC IN AND FOR TEXAS



TO BE BINDING on the heirs, assigns, representatives and successors of the Undersigned and inure to Assignee, its successors, trustees, devisees and assigns.

EXECUTED THIS 6<sup>th</sup> day of JANUARY, 2015

  
\_\_\_\_\_  
Kern L. Smith

STATE OF TEXAS

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COUNTY OF HARRIS

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BEFORE ME, the undersigned authority, on this day personally appeared **Kern L. Smith**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he **executed and initialed each page of the same** for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND and seal of office this 6<sup>th</sup> day of January, 2015

  
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NOTARY PUBLIC IN AND FOR TEXAS

