

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM431603

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
LIBERTY OILFIELD SERVICES LLC		06/15/2017	Limited Liability Company: DELAWARE
RECEIVING PARTY DATA			
Name:	111000614		
Street Address:	1000 LOUISIANA STREET, 9TH FLOOR		
City:	Houston		
State/Country:	TEXAS		
Postal Code:	77002		
Entity Type:	Corporation: DELAWARE		
PROPERTY NUMBERS Total: 9			
Property Type	Number	Word Mark	
Serial Number:	87480891	LIBERTY OILFIELD SERVICES	
Serial Number:	87480903	LIBERTY	
Serial Number:	87481307	L	
Serial Number:	87481362	L	
Serial Number:	87480720	LIBERTY QUIET FLEET	
Serial Number:	87480835	LIBERTY QUIET	
Serial Number:	87480770	QUIET FLEET	
Serial Number:	87480999	LIBERTY SPIRIT	
Serial Number:	77902727	SHOCKFRAC	
CORRESPONDENCE DATA			
Fax Number:	8004043970		
<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>			
Phone:	7132211199		
Email:	docketing@bracewell.com		
Correspondent Name:	BRACEWELL LLP		
Address Line 1:	711 LOUISIANA, SUITE 2300		
Address Line 4:	Houston, TEXAS 77002		
NAME OF SUBMITTER:	Eleanor "Lucy" Tyson		

OP \$240.00 87480891

SIGNATURE:	/Lucy Tyson - event/
DATE SIGNED:	06/16/2017
Total Attachments: 8 source=088599.96-Patent_and_Trademark_Security_Agreement#page1.tif source=088599.96-Patent_and_Trademark_Security_Agreement#page2.tif source=088599.96-Patent_and_Trademark_Security_Agreement#page3.tif source=088599.96-Patent_and_Trademark_Security_Agreement#page4.tif source=088599.96-Patent_and_Trademark_Security_Agreement#page5.tif source=088599.96-Patent_and_Trademark_Security_Agreement#page6.tif source=088599.96-Patent_and_Trademark_Security_Agreement#page7.tif source=088599.96-Patent_and_Trademark_Security_Agreement#page8.tif	

PATENT AND TRADEMARK SECURITY AGREEMENT

This Patent and Trademark Security Agreement dated as of June 15, 2017 (as amended, supplemented, amended and restated or otherwise modified from time to time, this "Patent and Trademark Security Agreement"), is by and among Liberty Oilfield Services LLC, a Delaware limited liability company (the "Original Borrower"), LOS Acquisition CO I LLC, a Delaware limited liability company (the "Designated Borrower" and together with the Original Borrower, the "Borrowers" and individually, a "Borrower"), certain Affiliates of the Borrowers party hereto from time to time (collectively with the Borrowers, the "Grantors" and individually, a "Grantor"), and Wells Fargo Bank, National Association, as administrative agent (in such capacity, the "Administrative Agent") for the ratable benefit of the Secured Parties. Capitalized terms used herein and not otherwise defined herein shall have the meanings assigned to such terms in the Credit Agreement (as defined below) and the Pledge and Security Agreement (as defined below), as applicable.

Preliminary Statement

The Original Borrower and the Administrative Agent are parties to the Credit Agreement, dated as of October 21, 2013 (as heretofore amended, the "Credit Agreement"), among the Original Borrower, the lenders party thereto from time to time (the "Lenders") and Wells Fargo Bank, National Association, as the Administrative Agent, as Issuing Lender and as Swing Line Lender.

The Grantors own or are a party to, as applicable, the Patent Collateral and Trademark Collateral listed on Schedule I annexed hereto and by this reference incorporated herein.

Pursuant to the terms of that certain Amended and Restated Pledge and Security Agreement, dated as of June 15, 2017 (as the same may be amended and in effect from time to time, the "Pledge and Security Agreement"), among the grantors party thereto from time to time (the "Pledge and Security Grantors") in favor of the Administrative Agent for the ratable benefit of the Secured Parties, the Pledge and Security Grantors have granted a security interest in the Collateral, including, without limitation, all right, title and interest of the Grantors in, to, and under all now owned and hereafter acquired Patent Collateral and Trademark Collateral, set forth on Schedule I attached hereto, to secure the payment of all Secured Obligations.

Agreement

Section 1.1 NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby grants to the Administrative Agent for the ratable benefit of the Secured Parties a continuing security interest in all of such Grantor's right, title and interest in, to and under, all of the following, whether now owned or hereafter acquired by such Grantor, and wherever located and whether now owned or hereafter existing or arising (the "Patent and Trademark Collateral"):

(a) (i) all inventions and discoveries, whether patentable or not, all letters patent and applications for letters patent throughout the world, including those patents and patent applications referred to in Schedule I hereto, (ii) all reissues, divisions, continuations, continuations in part, extensions, renewals and reexaminations of any of the items described in clause (i), (iii) all patent licenses, and other agreements providing any Grantor with the right to use any items of the type referred to in clauses (i) and (ii) above, and (iv) all proceeds of, and rights associated with, the foregoing (including licenses, royalties income, payments, claims, damages and proceeds of infringement suits), the right to sue third parties for past, present or future infringements of any patent or patent application, and for breach or enforcement of any patent license; and

(b) (i) (A) all trademarks, trade names, corporate names, company names, business names, fictitious business names, trade styles, service marks, certification marks, collective marks, logos and other source or business identifiers, and all goodwill of the business associated therewith, now existing or hereafter adopted or acquired, including those trademarks referred to in Schedule I hereto, whether currently in use or not, all registrations and recordings thereof and all applications in connection therewith, whether pending or in preparation for filing, including registrations, recordings and applications in the United States Patent and Trademark Office or in any office or agency of the United States of America, or any State thereof or any other country or political subdivision thereof or otherwise, and all common-law rights relating to the foregoing, and (B) the right to obtain all reissues, extensions or renewals of the foregoing (collectively referred to as the "Trademarks" and each, a "Trademark"), (ii) all Trademark licenses for the grant by or to any Grantor of any right to use any Trademark, (iii) all of the goodwill of the business connected with the use of, and symbolized by the items described in, clause (i), and to the extent applicable clause (ii), (iv) the right to sue third parties for past, present and future infringements of any Trademark Collateral described in clause (i) and, to the extent applicable, clause (ii), and (v) all Proceeds of, and rights associated with, the foregoing, (including licenses, royalties, income, payments, claims, damages and proceeds of infringement suits), the right to sue third parties for past, present or future infringement or dilution of any Trademark, Trademark registration or Trademark license, or for any injury to the goodwill associated with the use of any such Trademark or for breach or enforcement of any Trademark license and all rights corresponding thereto throughout the world;

provided, however, that notwithstanding anything to the contrary contained in Section 1.1, Excluded Collateral shall be excluded from the Lien and security interest granted hereunder (and shall, as applicable, not be included as "Collateral" or any component of the definition thereof for purposes of the Credit Documents); provided, however, that (x) the exclusion from the Lien and security interest granted by any Grantor hereunder of any Excluded Collateral shall not limit, restrict or impair the grant by such Grantor of the Lien and security interest in any accounts or receivables arising under any such Excluded Collateral or any payments due or to become due thereunder unless the conditions in effect which qualify such Property as an Excluded Collateral applies with respect to such accounts and receivables and (y) any proceeds received by any Grantor from the sale, transfer or other disposition of any Excluded Collateral shall constitute Collateral unless the conditions in effect which qualify such Property as an Excluded Collateral applies with respect to such proceeds.

Section 1.2 This Patent and Trademark Security Agreement has been executed and delivered by the Grantors for the purpose of recording the security interest granted hereunder with the United States Patent and Trademark Office. This security interest is granted in conjunction with the security interests granted to the Administrative Agent for the ratable benefit of the Secured Parties pursuant to the Pledge and Security Agreement. The Grantors hereby acknowledge and affirm that the rights and remedies of Secured Parties with respect to the security interest in the Patent and Trademark Collateral made and granted hereby are more fully set forth in the Pledge and Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

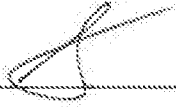
Section 1.3 The Grantors authorize and request that the United States Patent and Trademark Office and any other applicable government office record this Patent and Trademark Security Agreement.

[Remainder of this page intentionally left blank. Signature pages to follow.]


IN WITNESS WHEREOF, each of the parties hereto has caused this Patent and Trademark Security Agreement to be duly executed by its Responsible Officer as of the date first above written.

GRANTORS:


LIBERTY OILFIELD SERVICES LLC

By: 
Name: Michael Stock
Title: Chief Financial Officer

LOS ACQUISITION CO I LLC

By: 
Name: Michael Stock
Title: Chief Financial Officer


TITAN FRAC SERVICES LLC

By: 
Name: Michael Stock
Title: Chief Financial Officer

LOS CIBOLO RE INVESTMENTS, LLC

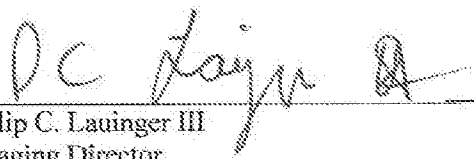
By: 
Name: Michael Stock
Title: Chief Financial Officer

LOS ODESSA RE INVESTMENTS, LLC

By: 
Name: Michael Stock
Title: Chief Financial Officer

ADMINISTRATIVE AGENT:

WELLS FARGO BANK, NATIONAL ASSOCIATION,
as Administrative Agent

By: 
Name: Philip C. Lauinger III
Title: Managing Director

Signature Page to
Patent and Trademark Security Agreement

SCHEDULES:

Schedule I Item A-Patent Collateral
 Item B-Trademark Collateral

Schedules to
Patent and Trademark Security Agreement

TRADEMARK
REEL: 006086 FRAME: 0021

Schedule I

Item A – Patent Collateral

Issued Patents

Technology	Jurisdiction	Owner	Application No.	Patent No.	Filing Date	Grant Date
Crosslinking Composition for Fracturing Fluids	Canada	LOS Acquisition Co I LLC	2,598,147	2,598,147	8/20/07	4/2/13
Crosslinking Composition for Fracturing Fluids	Canada	LOS Acquisition Co I LLC	2,802,841 (division of 2,598,147)	2,802,841	8/20/07	5/21/03
Crosslinking Composition for Fracturing Fluids	US	LOS Acquisition Co I LLC	11/841,401	7,749,946	8/20/07	7/6/10
Low Residue Fluid Fracturing System and Method of Use	Canada	LOS Acquisition Co I LLC	2,652,489	2,652,489	2/4/09	6/3/14
Low Residue Fluid Fracturing System and Method of Use	US	LOS Acquisition Co I LLC	12/365,586	8,193,127	2/4/09	6/5/12
Apparatus and Method for Creating Pressure Pulses in a Wellbore (Shockfrac)	Canada	LOS Acquisition Co I LLC	2,689,038	2,689,038	12/23/09	9/13/11
Apparatus and Method for Creating Pressure Pulses in a Wellbore (Shockfrac)	US	LOS Acquisition Co I LLC	12/646,826	8,347,965	12/23/09	1/8/13
Well Product Recovery Process (Cyclefrac)	Canada	LOS Acquisition Co I LLC and Fairborne Energy Ltd.	2,517,497	2,517,497	8/29/05	7/15/08
Process for Fracturing a Subterranean Formation (Cyclefrac)	US	LOS Acquisition Co I LLC and Fairborne Energy Ltd.	11/421,030	7,559,373	5/30/06	7/14/09
Well Product Recovery Process (Cyclespal)	Canada	LOS Acquisition Co I LLC	2,517,494	2,517,494	8/29/05	3/9/10
Well Product Recovery Process (Cyclespal)	US	LOS Acquisition Co I LLC	11/421,034	8,061,427	5/30/06	11/22/11

Pending Patent Applications

Technology	Jurisdiction	Owner	Application No.	Filing Date
Thermo-Gas- Generating Systems and Methods for Oil and Gas Well Stimulation	US	LOS Acquisition Co I LLC	14/090,928	11/26/13
Thermo-Gas- Generating Systems and Methods for Oil and Gas Well Stimulation	Canada	LOS Acquisition Co I LLC	2834374	11/26/13
Method of Treating the Near-Wellbore Zone of the Reservoir	US	LOS Acquisition Co I LLC	13/149,558	5/31/11
Method of Treating the Near-Wellbore Zone of the Reservoir	Canada	LOS Acquisition Co I LLC	2,744,556	6/27/11
Hydrocarbon Stimulation by Energetic Chemistry	US	LOS Acquisition Co I LLC	14/720,277	5/22/15
Hydrocarbon Stimulation by Energetic Chemistry	Canada	LOS Acquisition Co I LLC	2892343	5/22/15
Method for chemically controlling delay time for breaking polymers (Friction Reducer Breaker)	US	LOS Acquisition Co I LLC	62/133,065	3/13/15
Boron Sequestration	US	LOS Acquisition Co I LLC	62/151,737	4/23/15
Reduced Noise Hydraulic Fracturing System	US	LOS Acquisition Co I LLC	62371678	3/13/15
Surfactant System as a Self-Diverted Acid for Well Stimulation	CA	LOS Acquisition Co I LLC	2,836,221	
Apparatus and Method for Continuously Mixing Fluids Using Dry Additives	CA	LOS Acquisition Co I LLC	2,839,611	

Abandoned Patent Applications

Technology	Jurisdiction	Owner	Application No.
Well Product Recovery Process	Canada	LOS Acquisition Co I LLC	2,518,692
Surfactant System as a Self-Diverted Acid for Well Stimulation	US	LOS Acquisition Co I LLC	14/106,194
Apparatus and Method for Continuously Mixing Fluids Using Dry Additives	US	LOS Acquisition Co I LLC	14/158,167

Patent Applications in Preparation

None.

Item B – Trademark Collateral

Trademarks, Service Marks, Trademark Licenses			
Credit Party	Jurisdiction	Trademark	Serial Number
Liberty Oilfield Services LLC	US	Liberty Oilfield Services	87480891
Liberty Oilfield Services LLC	US	Liberty	87480903
Liberty Oilfield Services LLC	US	L in our signature circle, black and white	87481307
Liberty Oilfield Services LLC	US	L in our signature circle, color	87481362
Liberty Oilfield Services LLC	US	Liberty Quiet Fleet	87480720
Liberty Oilfield Services LLC	US	Liberty Quiet	87480835
Liberty Oilfield Services LLC	US	Quiet Fleet	87480770
Liberty Oilfield Services LLC	US	Liberty Spirit	87480999
LOS Acquisition Co I LLC	CA	Shockfrac	1463937
LOS Acquisition Co I LLC	US	Shockfrac	77902727
LOS Acquisition Co I LLC	CA	CYCLEFRAC	1253386
LOS Acquisition Co I LLC	CA	SANSPAL	1253387

Schedule I to
Patent and Trademark Security Agreement