

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3764797

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
US SHALE SOLUTIONS, INC.	01/13/2016
J4 FLUID SERVICES, LLC	01/13/2016
CULBERSON CONSTRUCTION, LLC	01/13/2016
RITTER CONSTRUCTION COMPANY, LLC	01/13/2016
US SHALE HOLDCO, LLC	01/13/2016
RECEIVING PARTY DATA	
Name:	WILMINGTON TRUST, NATIONAL ASSOCIATION
Street Address:	50 SOUTH SIXTH STREET, SUITE 1290
Internal Address:	GLOBAL CAPITAL MARKETS
City:	MINNEAPOLIS
State/Country:	MINNESOTA
Postal Code:	55402
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	13216329
Application Number:	29497163
CORRESPONDENCE DATA	
Fax Number:	(202)835-7586
<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:	2028357500
Email:	mknabel@milbank.com
Correspondent Name:	MATTHEW KNABEL
Address Line 1:	1850 K STREET NW
Address Line 4:	WASHINGTON, D.C. 20006
ATTORNEY DOCKET NUMBER:	37753.01500
NAME OF SUBMITTER:	MATTHEW KNABEL
SIGNATURE:	/Matthew Knabel/
DATE SIGNED:	03/02/2016

Total Attachments: 4

source=Patent Security Agreement (1st Lien Canadian Obligations) [Executed](1)#page1.tif

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GRANT OF SECURITY INTEREST
IN UNITED STATES PATENTS

FOR GOOD AND VALUABLE CONSIDERATION, receipt and sufficiency of which are hereby acknowledged, each of US Shale Solutions, Inc., J4 Fluid Services, LLC, Culberson Construction, LLC, Ritter Construction Company, LLC and US Shale Holdco, LLC (collectively, the “Grantors”) hereby grants to Wilmington Trust, National Association, as Collateral Agent (the “Grantee”), a continuing security interest in (i) all of such Grantor's rights, title and interest in, to and under the United States patents (the “Patents”) set forth on Schedule A attached hereto, in each case together with (ii) all Proceeds (as such term is defined in the Security Agreement referred to below) and products of the Patents, and (iii) all causes of action arising prior to or after the date hereof for infringement of any of the Patents or unfair competition regarding the same.

This Grant is made to secure the satisfactory performance and payment of all the Obligations of the Grantors under the WPW Notes Documents, as such terms are defined in the Security Agreement (1st Lien Canadian Obligations) among the Grantors, the other assignors from time to time party thereto and the Grantee, dated as of January 13, 2016 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “Security Agreement”). Upon the occurrence of the Termination Date (as defined in the Security Agreement), the Grantee at the expense of the Grantors, shall execute, acknowledge, and deliver to the Grantors an instrument in writing releasing the security interest in the Patents acquired under this Grant subject to the terms of the Security Agreement.

This Grant has been granted in conjunction with the security interest granted to the Grantee under the Security Agreement. The rights and remedies of the Grantee with respect to the security interest granted herein are as set forth in the Security Agreement, all terms and provisions of which are incorporated herein by reference. In the event that any provisions of this Grant are deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall govern.

[Remainder of this page intentionally left blank; signature page follows]

IN WITNESS WHEREOF, the undersigned have executed this Grant as of the 13 day of
January, 2016.

US SHALE SOLUTIONS, INC., as
Grantor

By: _____
Name: Jerrit Coward
Title: Chief Executive Officer

J4 FLUID SERVICES, LLC, as
Grantor

By: _____
Name: Jerrit Coward
Title: Authorized Signatory

CULBERSON CONSTRUCTION, LLC, as
Grantor

By: _____
Name: Jerrit Coward
Title: Authorized Signatory

RITTER CONSTRUCTION COMPANY,
LLC, as Grantor

By: _____
Name: Jerrit Coward
Title: Authorized Signatory

[Signature Page to First Lien Grant of Security Interests in Patents (Canadian)]

PATENT
REEL: 037872 FRAME: 0193

US SHALE HOLDCO, LLC, as
Grantor

By: US Shale Solutions, Inc., its sole
member

By: _____

Name: Jerfit Coward

Title: Chief Executive Officer

[Signature Page to First Lien Grant of Security Interests in Patents (Canadian)]

PATENT
REEL: 037872 FRAME: 0194

SCHEDULE A

OWNER	TITLE	PATENT NO./(APP. NO.)	COUNTRY
US Shale Solutions, Inc.	POLYMER BLENDING SYSTEM	US Application No.: 13/216329	US
US Shale Solutions, Inc.	METHOD FOR EQUALIZING PRESSURE WITHIN WELLBORN DRILLOUTS TO OPTIMIZE FLOWBACK INCREASE EFFICIENCY AND HYDROCARBON PRODUCTION	US Application No.: 29497163	US