TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 ETAS ID: TM374576

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
H.B. Rentals, L.C.		02/22/2016	LIMITED LIABILITY COMPANY: LOUISIANA
Superior Energy Services-North America Services, Inc.		02/22/2016	CORPORATION: DELAWARE
Superior Energy Services, L.L.C.		02/22/2016	LIMITED LIABILITY COMPANY: LOUISIANA
Warrior Energy Services Corporation		02/22/2016	CORPORATION: DELAWARE
Workstrings International, L.L.C.		02/22/2016	LIMITED LIABILITY COMPANY: LOUISIANA
Wild Well Control, Inc.		02/22/2016	CORPORATION: TEXAS

RECEIVING PARTY DATA

Name:	JPMORGAN CHASE BANK, N.A. as Administrative Agent
Street Address:	10 S. Dearborn
Internal Address:	7th Floor
City:	Chicago
State/Country:	ILLINOIS
Postal Code:	60603
Entity Type:	a national banking association: UNITED STATES

PROPERTY NUMBERS Total: 23

Property Type	Number	Word Mark
Registration Number:	4727810	COMPLETE TRAK
Registration Number:	4554338	SUPERIOR ENERGY SERVICES
Registration Number:	2171374	AMBASOL
Registration Number:	4110994	BOBCAT PRESSURE CONTROL
Registration Number:	4724719	RISING STAR SERVICES
Registration Number:	4724720	RISING STAR SERVICES
Registration Number:	2899147	X-TEND-A-PERF
Registration Number:	3642711	FASTR
Registration Number:	4039921	WORKSTRINGS ALASKA

TRADEMARK

REEL: 005739 FRAME: 0696

900355460

Property Type	Number	Word Mark
Registration Number:	3847077	WORKSTRINGS INTERNATIONAL
Registration Number:	3744289	WORKSTRINGS INTERNATIONAL, YOUR FIRST CH
Registration Number:	4265212	BTI FLOWBACK & WELL TESTING
Registration Number:	4687201	WELLCONTAINED
Registration Number:	3720557	WILD WELL CONTROL
Registration Number:	3833289	WILD WELL CONTROL
Registration Number:	4667242	ww
Serial Number:	86723667	YOUR PRODUCTIVITY STARTS HERE
Serial Number:	86615229	SPN
Serial Number:	86615231	SPN
Serial Number:	85875738	COMPPRO
Serial Number:	86269705	UF COLLAR
Serial Number:	86269720	UF COLLAR
Serial Number:	86634766	WW REACT RESPONSE APP

CORRESPONDENCE DATA

Fax Number: 6502515002

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.

Phone: 6502515027
Email: jmull@stblaw.com
Correspondent Name: Marcela Robledo
Address Line 1: 2475 Hanover Street

Address Line 4: Palo Alto, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER:	509265/1645
NAME OF SUBMITTER:	J. Jason Mull
SIGNATURE:	/J. Jason Mull/
DATE SIGNED:	02/25/2016

Total Attachments: 16

source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page1.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page2.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page3.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page4.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page5.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page6.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page7.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page8.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page9.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page10.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page11.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page11.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page12.tif

source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page13.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page14.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page15.tif source=_(18665085)_(1)_SESI - 4th AR CRA - Executed Security Agreement (Intelle#page16.tif

SECURITY AGREEMENT (Intellectual Property)

THIS **SECURITY AGREEMENT** (Intellectual Property) (this "<u>Agreement</u>"), dated as of February 22, 2016 is by H.B. Rentals, L.C., a Louisiana limited liability company, Integrated Production Services, Inc., a Delaware corporation, Superior Energy Services-North America Services, Inc., a Delaware corporation, Superior Energy Services, L.L.C., a Louisiana limited liability company, Warrior Energy Services Corporation, a Delaware corporation, Workstrings International, L.L.C., a Louisiana limited liability company and Wild Well Control, Inc., a Texas corporation (the foregoing entities collectively referred to as "<u>Pledgors</u>") in favor of JPMORGAN CHASE BANK, N.A. as Administrative Agent (the "<u>Administrative Agent</u>") for the benefit of the Secured Parties under the Credit Agreement referred to below.

RECITALS

- A. Superior Energy Services, Inc. (the "<u>Parent</u>"), SESI, L.L.C. (the "<u>Borrower</u>"), the Administrative Agent and certain other Lenders are parties to a certain Fourth Amended and Restated Credit Agreement dated as of February 22, 2016 (as same may be amended, supplemented or otherwise modified from time to time, the "<u>Credit Agreement</u>"), providing for extensions of credit to be made by the Lenders to the Borrower.
- B. The obligations of the Borrower under the Credit Agreement are to be secured by the Pledgors, as provided under the Credit Agreement.
- C. Pledgors are using the patents, trademarks and/or service marks, and copyrights and are the owners of the U.S. patents, patent applications, copyrights, copyright applications, trademark registrations and trademark applications which are listed on Exhibit A attached hereto (collectively the "Intellectual Property").
- D. Pursuant to a Security Agreement dated of even date herewith between the Borrower, Pledgors and other Subsidiaries of Borrower and the Administrative Agent (as same may be amended, supplemented or otherwise modified from time to time, the "Security Agreement"), the Pledgors have granted the Administrative Agent, for the ratable benefit of the Lenders, a security interest in the Intellectual Property and in all proceeds relating to and deriving from the Intellectual Property on the terms and conditions set forth in the Security Agreement.
- E. The Credit Agreement requires that the Pledgors shall execute and deliver this Agreement for purposes of filing with the United States Patent and Trademark Office or the United States Copyright Office, as applicable.
- F. In consideration of the financial and other support that the Borrower has provided, and such financial and other support as the Borrower may in the future provide, to the other Pledgors, and in order to induce the Lenders and the Administrative Agent to enter into the Credit Agreement, and the Lenders and their Affiliates to enter into one or more Rate Management Transactions and/or transactions in respect of Specified Cash Management Obligations with the Borrower and its Subsidiaries, the Pledgors are willing to guarantee the Secured Obligations of the Borrower and its Subsidiaries under the Credit Agreement.

NOW, THEREFORE, in consideration of the premises and to induce the Administrative Agent and the Lenders to enter into the Credit Agreement and to induce the Lenders to make their respective

extensions of credit to the Borrower thereunder, the Pledgors hereby agree with the Administrative Agent, for the ratable benefit of the Secured Parties, as follows:

- 1. All capitalized terms used herein and not otherwise defined shall have the meanings assigned to such terms in the Credit Agreement.
- 2. The Pledgors hereby grant to the Administrative Agent for the ratable benefit of the Secured Parties on the terms and conditions contained in the Security Agreement, which are incorporated herein and made a part hereof, and as additional security for the Subsidiary guarantees and the payment and performance by the Borrower of the Secured Obligations, a security interest in each of the Pledgor's respective right, title and interest in, to and under the Intellectual Property and in all proceeds deriving from and relating to the Intellectual Property, including, without limitation, royalties and other payments due thereon or in connection therewith; provided, however, the amount of the Obligations that will be Secured Obligations secured by the Collateral (as defined in the Credit Agreement) will be limited to the maximum principal amount permitted to be secured under the Senior Notes without triggering the equal and ratable provisions thereof. On any date, if the Obligations or any portion thereof which are not then secured by the Collateral (as defined in the Credit Agreement) may become so secured pursuant to the terms of the Senior Notes without triggering the equal and ratable provisions thereof, such Obligations or portion thereof, as applicable, shall automatically be Secured Obligations in accordance with the terms of the Credit Agreement and the other Loan Documents.
- 3. The Pledgors hereby acknowledge and affirm that the rights and remedies of the Administrative Agent and the Secured Parties with respect to the security interest in the Intellectual Property granted hereby are more fully set forth in the Credit Agreement and the Security Agreement, and that in the event of any conflict between the terms of this Agreement and the terms of the Security Agreement, the terms of the Security Agreement shall govern.
- 4. The Pledgors shall take such commercially reasonable action, under both statutory and common law, which may be necessary or useful to maintain title to the Intellectual Property (but the Pledgors have and may continue to license the Intellectual Property in the ordinary course of business) and to maintain and/or defend the Intellectual Property, including, without limitation, bringing actions against infringement of any or all of the Intellectual Property to the extent commercially reasonable.
- 5. The provisions of Section 10.11 of the Credit Agreement are incorporated herein, *mutatis mutandis*.
- 6. This Agreement shall be binding upon the Pledgors, the Administrative Agent and the Lenders and their respective successors and assigns, except that the Pledgors shall not have the right to assign their rights or delegate their obligations under this Agreement or any interest herein, without the prior written consent of the Administrative Agent. Upon the full execution of the Credit Agreement, this Agreement shall be deemed accepted and agreed to by the Administrative Agent on behalf of the Lenders.
- 7. This Agreement may not be amended or modified except with the written consent of the Administrative Agent with the concurrence or at the direction of the Lenders required under Section 9.12 of the Credit Agreement and then only to the extent in such writing specifically set forth.
- 8. The Pledgors will provide any additional documentation to support or confirm the security interest created under this Agreement.
- 9. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

[Signature Page Follows]

IN WITNESS WHEREOF, the Pledgors have executed this Agreement as of the date first above written.

PLEDGOR:

SUPERIOR ENERGY SERVICES, L.L.C.

By:

Name: Robert S. Taylor

Title: Executive Vice President, Chief Financial Officer

and Treasurer

Signature Page SESI, L.L.C. - Security Agreement (Intellectual Property)

SUPERIOR ENERGY SERVICES-NORTH AMERICA SERVICES, INC. H.B. RENTALS, L.C. INTEGRATED PRODUCTION SERVICES, INC. WARRIOR ENERGY SERVICES CORPORATION WILD WELL CONTROL, INC. WORKSTRINGS INTERNATIONAL, L.L.C.

By:

Name: Robert S. Taylor

Title: Vice President and Treasurer

Signature Page SESI, L.L.C. - Security Agreement (Intellectual Property)

EXHIBIT A PATENTS, COPYRIGHTS, TRADEMARKS

Trademarks

H.B. Rentals, L.C.

Trademark	Case Number Country	SubCase Case Type	Status Classes	Application Number/Date	Registration Number/Date
YOUR	S11192	00	Pending	86/723,667	
PRODUCTIVITY STARTS HERE	United States of America	PRI	NA Int.	13-Aug-2015	

Superior Energy Services-North America Services, Inc.

Trademark	Case Number Country	SubCase Case Type	Status Classes	Application Number/Date	Registration Number/Date
COMPLETE	S11161	00	Other firm	76/707,770	4,727,810
TRAK	United States of	ORD	35 Int., 37 Int., 39	31-May-2011	28-Apr-2015
	America		Int., 40 Int., 42	-	-
			Int.		

Superior Energy Services, L.L.C.

Trademark	Case Number Country	SubCase Case Type	Status Classes	Application Number/Date	Registration Number/Date
SPN	T11145	00	Published	86/615,229	
	United States of	PRI	37 Int., 39 Int., 40	30-Apr-2015	
	America		Int.		
SPN	T11146	00	Published	86/615,231	
	United States of	PRI	37 Int., 42 Int.	30-Apr-2015	
	America			•	
SUPERIOR	S11175	00	Registered	85/885,042	4,554,338
ENERGY	United States of	PRI	37 Int.	25-Mar-2013	24-Jun-2014
SERVICES	America				
AMBASOL	S11155	00	Registered	75/317,782	2,171,374
	United States of	ORD	01 Int.	01-Jul-1997	07-Jul-1998
	America				
CompPro	S11174	00	Published	85/875,738	
•	United States of America	PRI	07 Int.	14-Mar-2013	

Warrior Energy Services Corporation

Trademark	Case Number	SubCase	Status	Application	Registration
	Country	Case Type	Classes	Number/Date	Number/Date
BOBCAT	S11159	00	Registered	85/222,462	4,110,994
PRESSURE	United States of	ORD	37 Int., 40 Int., 45	20-Jan-2011	13-Mar-2012
CONTROL	America		Int.		
RISING STAR	S11180	00	Registered	86/122,377	4,724,719
SERVICES	United States of	PRI	37 Int., 40 Int., 42	19-Nov-2013	21-Apr-2015

Exhibit A - 1

Trademark	Case Number Country	SubCase Case Type	Status Classes	Application Number/Date	Registration Number/Date
	America		Int.		
RISING STAR	S11181	00	Registered	86/122,379	4,724,720
SERVICES	United States of	PRI	37 Int., 40 Int., 42	19-Nov-2013	21-Apr-2015
	America		Int.		-
X-TEND-A-	126006	00	Registered	76/555,400	2,899,147
PERF	United States of America	ORD	37 Int.	30-Oct-2003	02-Nov-2004

Workstrings International, L.L.C.

Trademark	Case Number Country	SubCase Case Type	Status Classes	Application Number/Date	Registration Number/Date
FASTR	076807	00	Registered	77/603,508	3,642,711
	United States of	ORD	07 Int.	29-Oct-2008	23-Jun-2009
	America				
UF Collar	T11135	00	Published	86/269,705	
	United States of	PRI	06 Int.	02-May-2014	
	America			•	
UF Collar (logo)	T11135	01	Published	86/269,720	
	United States of	PRI	06 Int.	02-May-2014	
	America				
WORKSTRINGS	S11156	00	Registered	85/026,391	4,039,921
ALASKA	United States of	ORD	37 Int.	29-Apr-2010	11-Oct-2011
	America				
WORKSTRINGS	S11157	00	Registered	77/765,377	3,847,077
INTERNATION	United States of	ORD	37 Int.	22-Jun-2009	14-Sep-2010
AL	America				_
WORKSTRINGS	S11163	00	Registered	77/765,407	3,744,289
INTERNATION	United States of	ORD	37 Int.	22-Jun-2009	02-Feb-2010
ALand design	America				

Wild Well Control, Inc.

Trademark	Case Number Country	SubCase Case Type	Status Classes	Application Number/Date	Registration Number/Date
BTI	S11164	00	Other firm	85/319,440	4,265,212
FLOWBACK &	United States of	ORD	37 Int., 40 Int., 42	12-May-2011	25-Dec-2012
WELL TESTING	America		Int.		
and design					
WELLCONTAIN	T11124	00	Registered	86/189,813	4,687,201
ED	United States of	PRI	37 Int., 40 Int., 41	10-Feb-2014	17-Feb-2015
	America		Int., 42 Int.		
WILD WELL	W11158	00	Registered	77/350,943	3,720,557
CONTROL	United States of	ORD	37 Int., 42 Int., 45	13-Dec-2007	08-Dec-2009
	America		Int.		
WILD WELL	T11166	00	Registered	77/350,351	3,833,289
CONTROL and	United States of	ORD	37 Int., 42 Int., 45	12-Dec-2007	17-Aug-2010
design	America		Int.		

REEL: 005739 FRAME: 0705

Trademark	Case Number	SubCase	Status	Application	Registration
	Country	Case Type	Classes	Number/Date	Number/Date
WW FLAMES	W11131	00	Registered	86/295,900	4,667,242
design	United States of	PRI	37 Int., 42 Int., 45	30-May-2014	06-Jan-2015
-	America		Int.		
WW REACT	W11147	00	Pending	86/634,766	
RESPONSE APP	United States of	PRI	09 Int., 42 Int.	19-May-2015	
design	America			•	

Patents

Integrated Production Services, Inc.

Case Number Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Date
126006	01	ORD	14/702,653	20150322753		Published
United States of			01-May-2015	12-Nov-2015		
America						
Title: Ball Plunger	Lift System for Hig	h Deviated Wellbores				
OFIPS-01	00	PRI	11/434,740	20070267189	7,448,442	Granted
United States of			16-May-2006	22-Nov-2007	11-Nov-2008	16-May-2026
America			3			ž .
Title: PAD TYPE I	PLUNGER					
OFIPS-02	00	PRI	09/312,737		6,209,637	Granted
United States of			14-May-1999		03-Apr-2001	14-May-2019
America					_	
Title: PLUNGER I	LIFT WITH MULTI	PART PISTON AND M	ETHOD OF USING TH	E SAME		
OFIPS-03	00	PRI	09/630,255		6,467,541	Granted
United States of			01-Aug-2000		22-Oct-2002	01-Aug-2020
America						
Title: PLUNGER I	LIFT WITH MULTI	PART PISTON				
SMI-01	01	ORD	10/298,499	20030145986	6,883,606	Granted
United States of			18-Nov-2002	07-Aug-2003	26-Apr-2005	12-Mar-2023
America				<u> </u>	•	
Title: DIFFERENT	TAL PRESSURE C	ONTROLLER				

Superior Energy Services, L.L.C.

Case Number Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Date
12086-11	01	PCT	12/990,470	2011/0067878	8,607,873	Other Firm
United States of America			04-Dec-2010	24-Mar-2011	17-Dec-2013	22-Oct-2029
Title: FLOW CON	TROL DEVICE					
12086-6	02	CIP	11/160,397		7,165,614	Granted
United States of			22-Jun-2005		23-Jan-2007	12-Sep-2023
America						
Title: Reactive Stir	mulation of Oil and O	Gas Wells				
12086-7	02	CON	12/888,726		8,127,832	Granted
United States of America	02	CON	23-Sep-2010		06-Mar-2012	18-Sep-2027
Title: Well Stimula	ation Using Reaction	Agents Outside the Cas	ing			

Case Number Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Date
11112 inited States of	00	ORD	10/095,182 11-Mar-2002	20030037925A1 27-Feb-2003	7,017,664 28-Mar-2006	Granted 04-Mar-2023
merica itle: Single Trip H	Iorizontal Gravel Pa	ck and Stimulation Syste	em and Method			
11112	01	CIP	11/348,275	20060231253A1	7,331,388	Granted
nited States of			06-Feb-2006	19-Oct-2006	19-Feb-2008	21-Aug-2022
merica itle: Single Trip H	Iorizontal Gravel Pa	ck and Stimulation Syste	em and Method			
11112	02	CON	11/390,226	20060162927A1	7,210,527	Granted
nited States of merica			27-Mar-2006	27-Jul-2006	01-May-2007	11-Mar-2022
	Iorizontal Gravel Pa	ck and Stimulation Syste	em and Method			
11112	03	CON	11/691,831	20070187095A1	7,472,750	Granted
Inited States of Interica			27-Mar-2007	16-Aug-2007	06-Jan-2009	27-Mar-2026
	Iorizontal Gravel Pa	ck and Stimulation Syste	em and Method			
11113 Inited States of	00	PRI	09/467,363		6,206,100	Granted
Inited States of Imerica			20-Dec-1999		27-Mar-2001	20-Dec-2019
Title: Separable On		and Gravel Pack System				
11113 Inited States of	01	CIP	09/818,298 27-Mar-2001	20020062960A1 30-May-2002	6,568,474 27-May-2003	Granted 20-Dec-2029
America			27-18141-2001	30-141ay-2002	27-May-2003	20-Dec-2029
		and Gravel Pack System			(202.200	
S11114 United States of	00	ORD	09/312,102 14-May-1999		6,302,208 16-Oct-2001	Granted 14-May-2019
America			14 May 1999		10 Oct 2001	14 May 2019
Title: Gravel Pack		DD I	10//14 500	2005000600211	C 001 551	
511116 Jnited States of	00	PRI	10/614,500 07-Jul-2003	20050006092A1 13-Jan-2005	6,981,551 03-Jan-2006	Granted 07-Nov-2023
America			o, va r 2003	15 5411 2 005	00 5411 2 000	0,110, 2023
<mark>Fitle: C</mark> ross-Over T S11116	Cool Return Port Cov 01	Ver CIP	11/123,793		7,383,884	Granted
United States of	01	CIP	06-May-2005		7,363,664 10-Jun-2008	02-Nov-2023
America			,			
<u>Fitle: Cross-Over 1</u> S11117	Cool Return Port Cov	ver ORD	11/256,306	20060086505A1	7,395,862	Granted
Jnited States of	00	OKD	21-Oct-2005	27-Apr-2006	08-Jul-2008	05-Feb-2026
America						
T itle: Combination 311118	Jar and Disconnect 00	PRI	11/049,126	20060169462A1	7,303,020	Granted
Jnited States of	00	1101	02-Feb-2005	03-Aug-2006	04-Dec-2007	24-Sep-2025
America	Oil Teel Astrocte	ith Election Distan				
i iue: mierveniionii S11119	00 Actuald	or with Floating Piston PRI	11/034,228	20060151183A1	7,210,535	Granted
Jnited States of			12-Jan-2005	13-Jul-2006	01-May-2007	06-Jul-2025
America	tem Comprising a P	lug and a Circulation Va	lve and Method			
811119	01	CON	11/737,978	20070246216A1	7,810,575	Granted
Jnited States of			20-Apr-2007	25-Oct-2007	12-Oct-2010	12-Jan-2025
America	tem Comprising a P	lug and a Circulation Va	lve and Method			
511120	00	PRI	11/879,182	20090020290A1	7,665,528	Granted
United States of			16-Jul-2007	22-Jan-2009	23-Feb-2010	11-Dec-2027
America `itle: Frangible Fla	pper Valve with Hv	draulic Impact Sleeve ar	nd Method of Breaking			
511121	00	ORD	12/027,869	20080185157A1	7,677,322	Granted
United States of			07-Feb-2008	07-Aug-2008	16-Mar-2010	14-Apr-2028
America F itle: System and N	Method for a Low D	rag Flotation System				
11122	02	CON	11/028,468	20050178547A1	7,178,595	Granted
Inited States of			03-Jan-2005	18-Aug-2005	20-Feb-2007	10-Aug-2021
America		l Packing				

Case Number Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Date
311122 Jnited States of	03	CON	11/627,873 26-Jan-2007	20070119590A1 31-May-2007	7,377,320 27-May-2008	Granted 27-Aug-2021
America	d Mathed for Corre	l Doublin o				
i tte: Apparatus an S11123	d Method for Grave	ORD	09/378,384		6.397.949	Granted
Jnited States of	00	OKD	20-Aug-1999		04-Jun-2002	20-Aug-2019
	**		Actuated Circulating Valve			
11123	01	CIP	10/004,956	20020070023A1	6,722,440	Granted
United States of America	A	at a Title a December A	05-Dec-2001	13-Jun-2002	20-Apr-2004	21-Aug-2018
111e: Method and 2	Apparatus for Produ 02	CIP CION Using a Pressure A	Actuated Circulating Valve 10/364,941	20030221839A1	7,198,109	Granted
United States of america	02	CIF	12-Feb-2003	04-Dec-2003	03-Apr-2007	21-Aug-2018
	Apparatus for Produ	ction Using a Pressure A	Actuated Circulating Valve	•		
11123	03	CIP	10/364,945	20030178198A1	7,124,824	Granted
Jnited States of America			12-Feb-2003	25-Sep-2003	24-Oct-2006	05-Dec-2020
	Apparatus for Produ		Actuated Circulating Valv			
11123	04	CIP	10/712,153 13-	20040094304A1	7,201,232	Granted
Inited States of merica			Nov-2003	20-May-2004	10-Apr-2007	03-Feb-2019
	Apparatus for Produ	ction Using a Pressure A	Actuated Circulating Valve			
11123	05	CON	10/788,833	20040244976A1	7,152,678	Granted
nited States of merica			27-Feb-2004	09-Dec-2004	26-Dec-2006	21-Aug-2018
			Actuated Circulating Valve		7.665.506	
11123	06	CON	11/614,927	20070119598A1	7,665,526	Granted
nited States of merica			21-Dec-2006	31-May-2007	23-Feb-2010	23-Sep-2018
			Actuated Circulating Valve		DE 40. C 40	Contai
11123 nited States of	07	REI	11/711,591 26-Feb-2007		RE40,648 10-Mar-2009	Granted 21-Aug-2018
merica itle: Method and .	Apparatus for Produ	ction Using a Pressure A	Actuated Circulating Valve			
11124	00	PRI	11/061,714	20060185852A1	7,497,265	Granted
nited States of merica			18-Feb-2005	24-Aug-2006	03-Mar-2009	18-Jun-2025
itle: Reclosable M	Iechanical Annular l	Flow Valve				
11125	00	PRI	12/329,188 05-	10-0139917	8,739,870	Granted
nited States of merica			Dec-2008	10-Jun-2010	03-Jun-2014	21-Apr-2030
	Method for Sealing (Gravel Exit Ports in Grav	vel Pack Assemblies			
11126	00	ORD	11/724,434	20070246226A1	7,793,716	Granted
nited States of merica			15-Mar-2007	25-Oct-2007	14-Sep-2010	16-Apr-2028
			nto an Underground Base			
11126	01	DIV	12/853,443	2010300692	8,240,374	Granted
nited States of merica			10-Aug-2010	02-Dec-2010	14-Aug-2012	15-Mar-2027
			nto an Underground Base			
11127	00	PRI	12/246,166	10-084133	7,987,909	Granted
nited States of merica	d Motheda C All	ning Eluid Elaw India	06-Oct-2008	08-Apr-2010	02-Aug-2011	09-Nov-2028
itie: Apparatus an 11127	09	Ving Fluid Flow Inside A	At Least One Screen and C 13/194,211	2012-0090831	8,622,125	Granted
nited States of merica	U7	DIA	13/194,211 29-Jul-2011	19-Apr-2012	8,622,123 07-Jan-2014	06-Oct-2028
	d Methods for Alloy	ving Fluid Flow Inside 4	At Least One Screen and C	Outside A Pine Disnosed	in a Well Bore	
11128	00	PRI	12/048,517 14-	2009229828 17-	8,251,150	Granted
nited States of merica		171	Mar-2008	Sep-2009	28-Aug-2012	17-Mar-2030
itle: Radial Flow	Valve and Method					
11128	01	CON	13/592,486	US2012-0312558	8,689,887	Granted
nited States of			23-Aug-2012	A1	08-Apr-2014	14-Mar-2028

Case Number Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Date
	Operating a Radial F					
S11132 United States of	00	ORD	09/247,168 09- Feb-1999		6,211,120 03-Apr-2001	Granted 09-Feb-2019
America F itle: Application c	of Aluminum Chloro	hydrate in Viscosifying	Brine for Carrying Propp	ants in Gravel Packing		
S11133	00	CIP	10/315,430	US03/83205	6,642,185	Granted
United States of America	00	CII	10-Dec-2002	01-May-2003	04-Nov-2003	16-Oct-2020
Title: Borate Crossl	linked Fracturing Flo	aid Viscosity Reduction	Breaker Mechanism and			
11134 Inited States of	00	PRI	09/900,343 03-Jul-2001	US03/22796 30-Jan-2003	6,617,285 09-Sep-2003	Granted 03-Jul-2021
America Fitle: Polyala for P	raalsing of Porato C	rosslinked Fracturing Flo	nid.			
Гие: Рогуот Гог <u>Б</u> S11134	01	CIP	10/627,091	04/127367	7,160,842	Granted
United States of America	01	CII	25-Jul-2003	01-Jul-2004	09-Jan-2007	03-Jul-2021
Fitle: Polyols for B	reaking of Borate C	rosslinked Fracturing Flo				
S11134 United States of	02	CIP	10/627,391 25-Jul-2003	04/0019199 29-Jan-2004	7,084,093 01-Aug-2006	Granted 01-Jun-2022
America Fitle: Polyels for P	realing of Poreto C	rosslinked Fracturing Flo	,;d			
S11135	00	ORD	10/270,807	US03/92581	7,256,160	Granted
United States of America	00	OIW)	14-Oct-2002	15-May-2003	7,230,100 14-Aug-2007	13-Aug-2024
	uids for Delayed Flo					
811137	00	ORD	10/238,072	03/119678	7,078,370	Granted
United States of America Fitle: Biodagradabl	la Chalant Composit	ions for Fracturing Fluid	09-Sep-2002	26-Jun-2003	18-Jul-2006	03-Sep-2023
811138	00	ORD	10/223,118	03/111225	6,805,198	Granted
United States of America			19-Aug-2002	19-Jun-2003	19-Oct-2004	16-Nov-2022
		emperature Acidizing				
S11139	00	ORD	10/438,384	03/217846	6,923,260	Granted
United States of America	in dili	B . B 117	15-May-2003	27-Nov-2003	02-Aug-2005	28-Oct-2023
11116: Milligation of \$11140	00	n Removing Downhole PRI	10/602,230	04/262002	6,994,166	Granted
United States of America	00	TKI	24-Jun-2003	30-Dec-2004	07-Feb-2006	11-Feb-2024
Fitle: Composition	and Method for Div	ersion Agents for Acid S	Stimulation of Subterrane	an Formations		
S11141	00	PRI	10/911,898	06/27364	7,195,065	Granted
United States of America			05-Aug-2004	09-Feb-2006	27-Mar-2007	24-Jun-2025
		Guars and Modified Gua				
S11142	01	CIP	12/122,843	08/0220995	7,543,646	Granted
United States of America	Sugnancian of Doub	aulata Additivas ta Erras	19-May-2008	11-Sep-2008	09-Jun-2009	30-Jul-2027
S11143	00	culate Additives to Frac PRI	12/122,854	10/38085	7,703,522	Granted
United States of America	00	TKI	19-May-2008	18-Feb-2010	27-Apr-2010	23-Jun-2028
Fitle: Methods of U	Inderground Format	ion Consolidation				
S11147	00	PRI	12/859,455	2012042966	8,870,153	Granted
United States of America	a IDada W	1	19-Aug-2010	23-Feb-2012	28-Oct-2014	29-Mar-2032
1111e: Pressure Acti 111152	vated Ratcheting Va	CIP	13/833,089	2014-0182854		Published
United States of America	O1	Сп	15-Mar-2013	03-Jul-2014		1 donstied
	ontrol Pill With Inte	rnal Breaker and Method	1			
S11168 United States of	00	ORD	14/457,972 12-Aug-2014	2015-0047837 19-Feb-2015		Published
America Fitle: Multi Zone S	Single Trip Well Cor	npletion System				

Case Number Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Date
\$11171	00	PRI	13/896,521	2014-0338902		Published
United States of			17-May-2013	20-Nov-2014		
America						
Fitle: Polysacchario	de Delivery Unit for	Wellbore Treatment Ag	ent and Method			
S11172	02	ORD	14/668,598 25-	20150275643		Published
United States of			Mar-2015	01-Oct-2015		
America						
Title: Location and	Stimulation Method	ls and Apparatuses Utili	zing Downhole Tools			
S11172	03	PRO	62/222,023			Pending
United States of			22-Sep-2015			22-Sep-2016
America			•			•
	Stimulation Method	ls and Apparatuses Utili	zing Downhole Tools			
S11182	01	ORD	14/328,335		<u> </u>	Pending
United States of			10-Jul-2014			-
America						
Title: Casing Valve	<u>; </u>					
S11183	00	PRO	62/157,834			Pending
United States of			06-May-2015			06-May-2016
America						
Title: Disappearing	Sleeve					
S11184	01	ORD	14/702,291	20150315881		Published
United States of			01-May-2015	05-Nov-2015		
America			•			
Title: Over-Couplin	ng Screen Communi	cation System				
S11188	01	ORD	14/813,865	20160032684		Published
United States of			30-Jul-2015	04-Feb-2016		
America						
	ool With Counting N	1echanism				
S11189	00	PRO	62/144,722			Pending
United States of			08-Apr-2015			08-Apr-2016
America			7			7
Title: Multi-Pressur	re Toe Valve					
S11189	01	ORD	14/874,696			Pending
United States of			05-Oct-2015			-
America						
Title: Multi-Pressur	re Toe Valve					
S11190	01	ORD	14/932,594			Pending
United States of			04-Nov-2015			٥
America						

Title: Method and Apparatus for Secondary Recovery Operations in Hydrocarbon Formations

Superior Energy Services-North America Services, Inc.

Case Number			Application	Publication	Patent Number	Status
Country	SubCase	Case Type	Filing Date	Publication Date	Issue Date	Expiration Date
IPSO-01 United States of America	01 GE SPRING FOR	PRI USE WITH ARTIFICIA	12/540,951 13-Aug-2009	20100038071 18-Feb-2010		Published
NASI-010	00	PRI	13/507.329		9,097,064	Other Firm
United States of	00		21-Jun-2012		04-Aug-2015	24-Jun-2033
America						
Title: SNUBBING	ASSEMBLIES AI	ND METHODS FOR INS	SERTING AND REMO	VING TUBULARS FRO	OM A WELLBORE	
NASI-015	00	PRI	13/507,326			Other Firm
United States of			21-Jun-2012			
America						
Title: LONG LATI	ERAL COMPLET	ION SYSTEM PIPE TON	IG AND METHOD OF	USING THE SAME		
NASI-017	00	PRI	13/507,354			Other Firm
United States of			21-Jun-2012			
America						
Title: CONTROL S	SYSTEM AND MI	ETHOD FOR A WELL C	OMPLETION SYSTE	M		

Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Date
NASI-026 United States of	00	PRI	13/507,356 21-Jun-2012			Other Firm
America Fitle: GRIPPING A	ATTACHMENT FO	OR USE WITH DRIVE	SYSTEMS			
NASI-027	00	PRI	13/507,323	2013-0340998		Other Firm
United States of America	NE ADDADATES	EOD DISDESTRIG AN	21-Jun-2012	26-Dec-2013		
i tue: method a. NASI-028	ND APPAKATUS 00	FOR INSPECTING AN PRI	ID TALLYING PIPE			Other Firm
Jnited States of America	00	TKI	13/507,341 21-Jun-2012	2013-0341003 26-Dec-2013		Other Film
Title: TRANSPOR		PERATOR RIG APPA	RATUS AND METHO	D FOR OPTIMIZING DI	RILLING AND/OR C	OMPLETION
IASI-030	00	PRI	13/507,346	2013-0341045	9,016,386	Other Firm
Inited States of Interica			21-Jun-2012	26-Dec-2013	28-Apr-2015	12-Apr-2033
	ACHMENT FOR U	USE WITH DRIVE SYS				
NASI-031	00	PRI	13/507,334	2013-0341096		Other Firm
Jnited States of America			21-Jun-2012	26-Dec-2013		
Title: TRANSPOR			RATUS AND METHO	D FOR OPTIMIZING DI	RILLING AND/OR C	
NASI-032	00	PRI	13/507,339	2013-0341038		Other Firm
Jnited States of America			21-Jun-2012	26-Dec-2013		
Title: METHOD A				N CLOSE PROXIMITY		
NASI-033	00	PRI	13/507,353	20130341046	9,194,194	Granted
Inited States of Interica			21-Jun-2012	26-Dec-2013	24-Nov-2015	21-Jun-2032
	√D METHOD FOR	CONTROLLING SUR	FACE EQUIPMENT TO	O INSERT AND REMO	VE TUBULARS WIT	H A WELL UNDE
IASI-035	00	RCE	13/507,336	2013-0343858		Other Firm
Jnited States of			21-Jun-2012	26-Dec-2013		
America Fitle: METHOD O	F DEPLOYING A	MOBILE RIG SYSTEN	A.			
NASI-036	00	PRI	13/507,349	2013-0341013		Other Firm
Jnited States of			21-Jun-2012	26-Dec-2013		
America Sitle: METHODS I	FOR REAL TIME (CONTROL OF A MOB	SILERIG			
NASI-037	00	PRI	13/507,325	2013-0341039		Other Firm
Jnited States of			21-Jun-2012	26-Dec-2013		
merica	EVEL RIC AND M	1FTHOD				
america `itle: GROUND LI	EVEL RIG AND M	METHOD PRI	12/507 225	2012 02 11027		Other Firm
America F itle: GROUND LI JASI-038 Jnited States of			13/507,335 21-Jun-2012	2013-0341037 26-Dec-2013		Other Firm
America Citle: GROUND LI VASI-038 United States of America	00	PRI	13/507,335 21-Jun-2012	2013-0341037 26-Dec-2013		Other Firm
America Citle: GROUND LI NASI-038 United States of America Citle: LOW WIND	00 RESISTANCE RIG	PRI G	21-Jun-2012	26-Dec-2013		
America Title: GROUND LI TASI-038 United States of America Title: LOW WIND TASI-039	00	PRI	21-Jun-2012 13/507,332	26-Dec-2013 2013-0341036		Other Firm
America Citle: GROUND LI VASI-038 United States of America Citle: LOW WIND VASI-039 United States of America	00 RESISTANCE RIO 00	PRI G PRI	21-Jun-2012 13/507,332 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013		
America Citle: GROUND LI VASI-038 United States of America Citle: LOW WIND VASI-039 United States of America Citle: METHOD A	00 RESISTANCE RIG 00 ND APPARATUS	PRI G PRI FOR ALIGNING A BC	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS	26-Dec-2013 2013-0341036 26-Dec-2013	8 899 907	Other Firm
America Title: GROUND LI TASI-038 United States of America Title: LOW WIND TASI-039 United States of America Title: METHOD A TASI-040	00 RESISTANCE RIO 00	PRI G PRI	21-Jun-2012 13/507,332 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013	8,899,907 02-Dec-2014	
America Nitle: GROUND LI VASI-038 United States of America NITLE: LOW WIND VASI-039 VASI-039 VASI-040 VASI-040 United States of America VASI-040 United States of America	00 RESISTANCE RIG 00 ND APPARATUS 00	PRI G PRI FOR ALIGNING A BO PRI	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835	, ,	Other Firm Other Firm
America Nitle: GROUND LI VASI-038 United States of America Nitle: LOW WIND VASI-039 Vasi-039 Vasi-039 Vasi-040	00 RESISTANCE RIG 00 ND APPARATUS 00 OR MECHANISM	PRI G PRI FOR ALIGNING A BO PRI AND METHOD	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013	02-Dec-2014	Other Firm Other Firm 09-Oct-2032
America Nitle: GROUND LIVASI-038 United States of America Nitle: LOW WIND NASI-039 United States of America Nitle: METHOD AND Nitle: METHOD AND Nitle: States of America Nitle: PIPE EJECTO NASI-041	00 RESISTANCE RIG 00 ND APPARATUS 00	PRI G PRI FOR ALIGNING A BO PRI	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013 2013-0341002	02-Dec-2014 8,944,158	Other Firm Other Firm 09-Oct-2032 Other Firm
America Nitle: GROUND LIVASI-038 United States of America Nitle: LOW WIND NIASI-039 United States of America Nitle: METHOD AND NIASI-040 United States of America Nitle: PIPE EJECTO NASI-041 United States of	00 RESISTANCE RIG 00 ND APPARATUS 00 OR MECHANISM	PRI G PRI FOR ALIGNING A BO PRI AND METHOD	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013	02-Dec-2014	Other Firm Other Firm 09-Oct-2032
America Fitle: GROUND LI VASI-038 Juited States of America Fitle: LOW WIND VASI-039 Juited States of America Fitle: METHOD A VASI-040 Juited States of America Fitle: PIPE EJECTO VASI-041 Juited States of America Fitle: PIPE CLAMI Fitle: PIPE CLAMI	00 RESISTANCE RIO 00 ND APPARATUS 00 OR MECHANISM 00 P MECHANISM A	PRI G PRI FOR ALIGNING A BC PRI AND METHOD PRI AND METHOD	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013 2013-0341002	02-Dec-2014 8,944,158	Other Firm 09-Oct-2032 Other Firm 15-Feb-2033
America Fitle: GROUND LI VASI-038 United States of America Fitle: LOW WIND VASI-039 United States of America Fitle: METHOD A VASI-040 VASI-040 United States of America Fitle: PIPE EJECTO VASI-041 United States of America Fitle: PIPE CLAMI VASI-043	RESISTANCE RIG 00 ND APPARATUS 00 OR MECHANISM 00	PRI G PRI FOR ALIGNING A BC PRI AND METHOD PRI	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013 2013-0341002	02-Dec-2014 8,944,158	Other Firm Other Firm 09-Oct-2032 Other Firm
America Citle: GROUND LIVASI-038 United States of America Citle: LOW WIND WASI-039 United States of America Citle: METHOD AVIASI-040 WASI-041 United States of America Citle: PIPE EJECTO WASI-041 United States of America Citle: PIPE CLAMI WASI-043 United States of America Citle: PIPE CLAMI WASI-043 United States of America	00 RESISTANCE RIO 00 ND APPARATUS 00 OR MECHANISM 00 P MECHANISM A	PRI G PRI FOR ALIGNING A BC PRI AND METHOD PRI AND METHOD	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012 13/507,348 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013 2013-0341002 26-Dec-2013	02-Dec-2014 8,944,158	Other Firm 09-Oct-2032 Other Firm 15-Feb-2033
America Nitle: GROUND LI VASI-038 United States of America Nitle: LOW WIND VASI-039 United States of America Nitle: METHOD AN VASI-040 United States of America Nitle: PIPE EJECTO VASI-041 VASI-041 VASI-041 VASI-041 VASI-043 United States of America Nitle: PIPE CLAMI VASI-043 United States of America Nitle: PIPE CLAMI VASI-043 United States of America	00 RESISTANCE RIG 00 ND APPARATUS 00 OR MECHANISM 00 P MECHANISM A 00	PRI G PRI FOR ALIGNING A BC PRI AND METHOD PRI AND METHOD	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012 13/507,348 21-Jun-2012 13/507,328 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013 2013-0341002 26-Dec-2013	02-Dec-2014 8,944,158	Other Firm 09-Oct-2032 Other Firm 15-Feb-2033
America Nitle: GROUND LI VASI-038 United States of America Nitle: LOW WIND VASI-039 VASI-039 VASI-040 VASI-040 VASI-040 VASI-041 VASI-041 VASI-041 VASI-041 VASI-043 VASI-043 VASI-043 VASI-043 VASI-043 VASI-044	00 RESISTANCE RIG 00 ND APPARATUS 00 OR MECHANISM 00 P MECHANISM A 00	PRI G PRI FOR ALIGNING A BO PRI AND METHOD PRI AND METHOD PRI PRI	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012 13/507,348 21-Jun-2012 13/507,328 21-Jun-2012 ID METHOD 13/507,351	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013 2013-0341002 26-Dec-2013 2013-0343834 26-Dec-2013	02-Dec-2014 8,944,158	Other Firm 09-Oct-2032 Other Firm 15-Feb-2033
America Fitle: GROUND LI VASI-038 Juited States of America Fitle: LOW WIND VASI-039 Juited States of America Fitle: METHOD A VASI-040 Juited States of America Fitle: PIPE EJECTO VASI-041 Juited States of America Fitle: PIPE CLAMI VASI-043 Juited States of America Fitle: PIPE CLAMI VASI-043 Juited States of America	RESISTANCE RIG 00 ND APPARATUS 00 OR MECHANISM 00 P MECHANISM A 00 NTED PIPE ARM V	PRI G PRI FOR ALIGNING A BO PRI AND METHOD PRI AND METHOD PRI WITH WALKWAY AN	21-Jun-2012 13/507,332 21-Jun-2012 DP STACK AND A MAS 13/507,338 21-Jun-2012 13/507,348 21-Jun-2012 13/507,328 21-Jun-2012	26-Dec-2013 2013-0341036 26-Dec-2013 ST 2013-0343835 26-Dec-2013 2013-0341002 26-Dec-2013 2013-0343834 26-Dec-2013	02-Dec-2014 8,944,158	Other Firm 09-Oct-2032 Other Firm 15-Feb-2033 Other Firm

Case Number Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Date
NASI-045	00	PRI	13/507.324	2013-0340356	8.661.743	Other Firm
United States of	00	IKI	21-Jun-2012	26-Dec-2013	04-Mar-2014	21-Jun-2032
America			21 Jun 2012	20 200 2015	01 Mai 2011	21 Jun 2032
	PORT MAST ASSI	EMBLY FOR A TRANS	SPORTABLE RIG			
OFIPS-04	00	PRI	10/292,238		6,719,060	Granted
United States of			12-Nov-2002		13-Apr-2004	12-Nov-2022
America					•	
Title: PLUNGER L	IFT SEPARATION	AND CYCLING				
T11140	00	PRI	13/507.322		8,915,310	Other Firm
United States of			21-Jun-2012		23-Dec-2014	21-Jun-2032
America			21-Jun-2012		23-Dec-2014	21-Jun-2032
		ON SYSTEM AND MET				
T11141	00	PRI	13/507,350		8,875,447	Other Firm
United States of			21-Jun-2012		04-Nov-2014	21-Jun-2032
America						
Title: MAST AND			A LONG LATERAL CO	OMPLETION SYSTEM	S AND METHOD	
T11142	00	PRI	13/507,343			Other Firm
United States of			21-Jun-2012			
America						
Title: MOBILE RIC	G AND METHOD					
T11143	00	PRI	13/507.342		8,985,928	Other Firm 09-
United States of			21-Jun-2012		24-Mar-2015	Oct-2032
America					24-War-2013	Oct-2032
Title: LONG LATE	RAL COMPLETIC	ON SYSTEM AND MET	THOD FOR PIPE HAN	DLING		
T11144	00	PRI	13/507,347			Other Firm
United States of			21-Jun-2012			
America						
Title: DRIVE SYS	TEMS FOR USE W	ITH LONG LATERAL	COMPLETION SYST	EMS AND METHODS		

Warrior Energy Services Corporation

Case Number			Application	Publication	Patent Number	Status
Country	SubCase	Case Type	Filing Date	Publication Date	Issue Date	Expiration Date
140140-04200	00	ORD	14/472,044			Pending
United States of			28-Aug-2014			_
America			_			
Title: Plunger Lift A	Assembly With an I	mproved Free Piston A	ssembly			
170140	00	PRI	13/523,238	2013-0336747	8,899,901	Other Firm
United States of			14-Jun-2012	19-Dec-2013	02-Dec-2014	05-Oct-2032
America						
Title: Pipe Handling	g Apparatus and Mo	ethod				
170140	01	CIP	13/548,048	2013-0336748	8,950,996	Other Firm
United States of			12-Jul-2012	19-Dec-2013	10-Feb-2015	13-Nov-2032
America						
Title: Pipe Handling	g Apparatus and M	lethod				
170140	02	CIP	13/660,784	2014 0110955		Other Firm
United States of			25-Oct-2012	2014-0119855		
America			23-001-2012	01-May-2014		
Title: Pipe Handling	g Apparatus and Mo	ethod				
170140	03	CON	14/494,377	2015-0010377		Other Firm
United States of			. ,			
America			23-Sep-2014	08-Jan-2015		
Title: Pipe Handling	g Apparatus and Me	ethod				

Wild Well Control, Inc.

Case Number			Application Filing	Publication	Patent Number	Status
Country	SubCase	Case Type	Date	Publication Date	Issue Date	Expiration Date
12086-4	00	ORD	13/776.788	2013-0269948		Other Firm
United States of			,			
America			26-Feb-2013	17-Oct-2013		
Title: Annulus Cen	nenting Tool for Sul	bsea Abandonment Opera	ation			

Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Dat
1768.54 Inited States of	01	ORD	12/334,800 15-Dec-2008	20090178810 16-Jul-2009	8,002,032 23-Aug-2011	Granted 19-Aug-2029
america	1 / 24.0	11 0 m² - 1 m - c²	C			
itte: Hydraulic Ove 0F71768.60	ershot with Remova 01	ble Setting and Testing ORD	g Core			
Inited States of	01	OKD	13/077,053 31-Mar-2011	20110240300 06-Oct-2011	8,678,110 25-Mar-2014	Granted 02-Mar-2032
america Vitle: MUD SAVER	VALVE AND ME	THOD OF OPERATION	ON OF SAME			
0F71768.60	02	CIP	14/222,293	20140284112		Published
Inited States of			21-Mar-2014	25-Sep-2014		
merica						
			OF OPERATION OF SAM		0.007.070	
11110 Inited States of	00	PRI	13/309,137 01-Dec-2011	US2013-0140008 06-Jun-2013	9,097,378 04-Aug-2015	Granted 06-Mar-2034
merica			01-Dec-2011	00-Juli-2013	04-Aug-2013	00-1v1a1-2034
	Junction Jacket for	Freezing the Contents	of a Pipe Junction and Me	thods of Using Same		
11110	02	CON	14/802,161	20150323120		Published
Inited States of			17-Jul-2015	12-Nov-2015		
merica	Indicat and Math - 1	for Heina Carra				
11138	Jacket and Method: 00	PRO	62/148,515			Pending
nited States of	00	110	16-Apr-2015			16-Apr-2016
america			-r			- -
itle: Wire Saw App						
V11160	01	ORD	12/276,863	20100084024	7,938,137	Granted
nited States of			24-Nov-2008	08-Apr-2010	10-May-2011	21-Nov-2029
merica itle: Method of Dir	ect Hot Tanning Int	o a Multiple Productio	on String Without Removin	o Outer Lavers of Cas	ing	
711160	02	CON		is Suite Enjers of Cas		
nited States of			13/104,397		8,474,473	Granted
merica			10-May-2011		02-Jul-2013	24-Nov-2028
			on String Without Removin	g Outer Layers of Cas	ing	
/11160 nited States of	04	CON	13/946,079	20130306162	8,701,699	Granted
mited States of merica			19-Jul-2013	21-Nov-2013	22-Apr-2014	24-Nov-2028
litle: Hot Tapping S	Seal Assembly					
V11160	05	CON	14/182,145	20140158222	9,091,383	Granted
Inited States of			14/182,145 17-Feb-2014	20140158222 12-Jun-2014	9,091,383 28-Jul-2015	24-Nov-2028
america	79 A 1.1		17 100-2017	12 Jun 2017	20 341 2013	211101-2020
`itle: Hot Tapping (V11160	Clamp Assembly 06	DIV				
V11160 Inited States of	OO	DIA	14/182,147	20140158218	9,010,350	Granted
america			17-Feb-2014	12-Jun-2014	21-Apr-2015	24-Nov-2028
itle: Method of Ho	t Tapping Into a Pip					
WC-01	00	PRI	07/621,837		5,154,233	Other Firm
Inited States of			04-Dec-1990		13-Oct-1992	04-Dec-2010
merica itle: WELL PROT	ΕζΤΙΩΝ ΔΡΡΔΡΔ'	TUS AND METHOD				
WC-02	00	PRI	00406			
nited States of	50	* * * * *	08/186,330		5,607,020	Other Firm
america			24-Jan-1994		04-Mar-1997	04-Mar-2014
			STEMS AND METHOD			
VWC-03	00	PRI	12/271,578		8,141,509	Other Firm 14-
Inited States of merica			14-Nov-2008		27-Mar-2012	Nov-2028
	LVAGE OPERATIO	ON USING LIFTING I	MAGNET			
/WC-04	00	PRI		2010 0116504	0 240 207	Oth E: 11
Inited States of			12/268,748 11-Nov-2008	2010-0116504 13-May-2010	8,240,387 14-Aug-2012	Other Firm 11- Nov-2028
merica				-	14-Aug-2012	1107-2020
			AND TESTING OF A WEL		0.057.500	Od E
itle: CASING ANI	00	PRI	13/095,596 27-Apr-2011	2012-0273219 01-Nov-2012	8,857,520 14-Oct-2014	Other Firm 27-Dec-2032
itle: CASING ANI /WC-07				01-1NOV-ZULZ	14-00-2014	Z1-DCC-2032
itle: CASING ANI /WC-07 nited States of			27-Apr-2011			
itle: CASING ANI VWC-07 Inited States of merica	Y DISCONNECT S	YSTEM FOR RISELE	ESS SUBSEA WELL INTE		M	
Title: CASING AND WWC-07 United States of America	Y DISCONNECT S	YSTEM FOR RISELE PRI	*		M	Other Firm

Case Number Country	SubCase	Case Type	Application Filing Date	Publication Publication Date	Patent Number Issue Date	Status Expiration Dat
			N IN SPINAL SURGERY	r ublication Date	Issue Date	Expiration Dat
Title: DEVICE AN	METHOD FOR	. IISSUE KEIKACIIOI	I III SPIIIAL SUKGER I			
WWC-09	00	PRI	12/227 540	1102012/0125722	0.021.562	Other Firm
United States of			13/237,549	US2012/0125623	8,931,562	18-Mar-2032
America			20-Sep-2011	24-May-2012	13-Jan-2015	
Title: Collector for	Capturing Flow D	ischarged from a Subsea	Blowout			
WWC-09	02	DIV	14/561,274	2015-0159456	9228408	Granted
United States of			05-Dec-2014	2015-0159456 11-Jun-2015	9228408 05-Jan-2016	10-Sep-2011
America			03-Dec-2014	11-Juii-2015	03-Jan-2010	10-sep-2011
Title: Collector for	Capturing Flow D	ischarged from a Subsea	Blowout			
WWC-10	01	ORD	13/292,280	2012-0111572		Other Firm
United States of			09-Nov-2011	10-May-2012		
America				-		
Title: EMERGENO	CY CONTROL SY	STEM FOR SUBSEA B	LOWOUT PREVENTER			
WWC-11	01	CIP	13/294,785	US2012/0201604	8,708,600	Other Firm
United States of			11-Nov-2011	09-Aug-2012	29-Apr-2014	16-Dec-2030
America						
	tion of Oil Dispersa					
WWC-12		PRO	61/479,888			Other Firm 28-
United States of			28-Apr-2011			Apr-2012
America						
	ersant Injection Sys					
WWC-12	00	ORD	13/455,724	20130022400A1	8,784,004	Other Firm
United States of			25-Apr-2012	24-Jan-2013	22-Jul-2014	25-Apr-2032
America						
	ersant Injection Sys					
WWC-13	00	PRI	13/523,746			Other Firm
United States of			14-Jun-2012			
America						
		I A LATCHING ASSEM				
WWCI-0022	01	ORD	14/851,106			Other Firm
United States of			11-Sep-2015			
America						
Fitle: CEMENTIN	G SYSTEM FOR I	RISERLESS ABANDON	MENT OPERATION			

Exhibit A - 11

RECORDED: 02/25/2016