

**PATENT ASSIGNMENT COVER SHEET**

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5894025

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|------------------------------|----------------|
| <b>SUBMISSION TYPE:</b>      | NEW ASSIGNMENT |
| <b>NATURE OF CONVEYANCE:</b> | ASSIGNMENT     |

**CONVEYING PARTY DATA**

| Name                      | Execution Date |
|---------------------------|----------------|
| SMITH INTERNATIONAL, INC. | 12/31/2019     |

**RECEIVING PARTY DATA**

|                        |                                  |
|------------------------|----------------------------------|
| <b>Name:</b>           | WELLBORE INTEGRITY SOLUTIONS LLC |
| <b>Street Address:</b> | 1310 RANKIN ROAD, BLDG. 18       |
| <b>City:</b>           | HOUSTON                          |
| <b>State/Country:</b>  | TEXAS                            |
| <b>Postal Code:</b>    | 77073                            |

**PROPERTY NUMBERS Total: 73**

| Property Type  | Number  |
|----------------|---------|
| Patent Number: | 7448446 |
| Patent Number: | 7178589 |
| Patent Number: | 7036580 |
| Patent Number: | 7331387 |
| Patent Number: | 7198101 |
| Patent Number: | 7225889 |
| Patent Number: | 7152698 |
| Patent Number: | 7357198 |
| Patent Number: | 7857058 |
| Patent Number: | 7377328 |
| Patent Number: | 6302198 |
| Patent Number: | 7810553 |
| Patent Number: | 8881845 |
| Patent Number: | 8186458 |
| Patent Number: | 8122977 |
| Patent Number: | 7753139 |
| Patent Number: | 8967270 |
| Patent Number: | 8881817 |
| Patent Number: | 7980307 |
| Patent Number: | 7762330 |

**PATENT**

| Property Type       | Number   |
|---------------------|----------|
| Patent Number:      | 8602101  |
| Patent Number:      | 6720764  |
| Patent Number:      | 8800660  |
| Patent Number:      | 8844620  |
| Patent Number:      | 8459357  |
| Patent Number:      | 8590623  |
| Patent Number:      | 9322227  |
| Patent Number:      | 8887798  |
| Patent Number:      | 9206648  |
| Patent Number:      | 9151136  |
| Patent Number:      | 8820437  |
| Patent Number:      | 9416635  |
| Patent Number:      | 10047582 |
| Patent Number:      | 9404331  |
| Patent Number:      | 10000986 |
| Patent Number:      | 9097073  |
| Application Number: | 14957183 |
| Patent Number:      | 9228406  |
| Patent Number:      | 9347268  |
| Patent Number:      | 9915098  |
| Patent Number:      | 9004159  |
| Patent Number:      | 8739900  |
| Patent Number:      | 8997895  |
| Patent Number:      | 6840320  |
| Patent Number:      | 6499538  |
| Patent Number:      | 6629565  |
| Patent Number:      | 6484802  |
| Patent Number:      | 6880631  |
| Patent Number:      | 6945328  |
| Patent Number:      | 6659203  |
| Patent Number:      | 6675897  |
| Patent Number:      | 9816328  |
| Patent Number:      | 9512690  |
| Patent Number:      | 9617791  |
| Patent Number:      | 9353589  |
| Application Number: | 15144944 |
| Patent Number:      | 9222328  |
| Patent Number:      | 9856702  |

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 15288150 |
| Patent Number:      | 9464496  |
| Patent Number:      | 9512680  |
| Patent Number:      | 10113394 |
| Application Number: | 14521952 |
| Application Number: | 14815174 |
| Patent Number:      | 10030459 |
| Application Number: | 62850607 |
| Application Number: | 62916883 |
| Patent Number:      | 9194201  |
| Patent Number:      | 6293342  |
| Patent Number:      | 6289911  |
| Patent Number:      | 6650824  |
| Patent Number:      | 8360154  |
| Patent Number:      | 6612383  |

#### CORRESPONDENCE DATA

**Fax Number:**

*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.*

**Email:** dwilson@hubbardjohnston.com

**Correspondent Name:** HUBBARD JOHNSTON, PLLC

**Address Line 1:** P.O. BOX 670688

**Address Line 4:** DALLAS, TEXAS 75367

|                                |                 |
|--------------------------------|-----------------|
| <b>ATTORNEY DOCKET NUMBER:</b> | WELLBORE        |
| <b>NAME OF SUBMITTER:</b>      | DENISE WILSON   |
| <b>SIGNATURE:</b>              | /Denise Wilson/ |
| <b>DATE SIGNED:</b>            | 01/03/2020      |

#### Total Attachments: 10

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**Intellectual Property Assignment**  
(Smith International, Inc.)

This INTELLECTUAL PROPERTY ASSIGNMENT (this “Assignment”), dated as of December 31, 2019 (the “Effective Date”), is made by and between Smith International, Inc., a Delaware corporation (“Assignor”), and Wellbore Integrity Solutions LLC, a Delaware limited liability company (“Assignee”). Assignor and Assignee are referred to herein individually as a “Party” and collectively as the “Parties”. Capitalized terms used in this Assignment but not otherwise defined herein shall have the meanings ascribed to such terms in the Purchase Agreement, dated April 2, 2019, by and between the Parties and other parties named therein (as amended, modified or supplemented from time to time in accordance with its terms, the “Purchase Agreement”).

WHEREAS, in and pursuant to the Purchase Agreement, Assignor agreed to sell, convey, assign, transfer, and deliver to Assignee, and Assignee wishes to purchase, acquire, and receive from Assignor, all rights, title, and interest in and to the Target Business Owned IP and the Target Business IT Assets that are owned by Assignor or any of its Affiliates, including, without limitation, the Intellectual Property Rights, IP Assets, and IT Assets set forth on **Schedule 1** (collectively, the “Assigned IP/IT Assets”).

NOW, THEREFORE, in consideration of the payments under the Purchase Agreement by Assignee to Assignor, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged:

1. Assignor hereby sells, assigns, conveys, transfers, and sets over to Assignee, and Assignee purchases, acquires, and receives from Assignor, all rights, title and interest in and to the Assigned IP/IT Assets, all of them to be held and enjoyed by Assignee, its successors, heirs, and assigns on and as of the Effective Date.

2. Assignor and Assignee agree that, as of the Effective Date, Assignee shall solely and exclusively own and hold all rights, title and interest in and to the Assigned IP/IT Assets and any part, component, aspect, element and right thereof, including, without limitation, the right to, directly or indirectly exercise, exploit, grant rights and license to or under, assign, transfer, convey, commercialize, improve, protect, enforce, or otherwise enjoy any and all rights and benefits encompassed by or resulting from any and all of the Assigned IP/IT Assets, all in Assignee’s sole discretion, including, but not limited to, the exploitation, licensing out, assignment, transfer, conveyance, commercialization, enjoyment, and exercise of any economic and non-economic rights, and the development and ownership of any derivative works and technology in any way covered by, embodying, using, utilizing or based on the Assigned IP/IT Assets and/or any part, component, aspect, element and right thereof. Assignor does not and shall not retain, whether expressly, by implication, estoppel or otherwise, any right, title, or interest in and to any or all of the Assigned IP/IT Assets, or any part, component, aspect, element or right therein or thereof. For the avoidance of doubt, Assignee shall solely and exclusively have the right and be entitled, in its sole discretion, in and/or under the laws of any country and jurisdiction, to (i) initiate and/or continue any action, suit, litigation, arbitration or other proceeding of any kind, and seek, enforce, and benefit from any right, remedy and/or award, in connection with the Assigned IP/IT Assets, or any infringement, theft or violation thereof, whether such rights, remedies or infringement are based on any acts, omission or conduct prior to, on, or after the Effective Date, and (ii) file, continue, discontinue, prosecute, or abandon any patent application and any application for

registration of any Assigned IP/IT Assets, and (iii) obtain, maintain, abandon, cancel, or let expire any patent and registration of any Assigned IP/IT Assets. Assignee does not and shall not have any obligation to account for, report, share, pay, or otherwise provide or deliver, and Assignor is not and shall not be entitled to any or all of, any revenue, payment, royalty, award, or other benefit that Assignee receives or is entitled to for or in connection with any Assigned IP/IT Assets, other than the consideration for the assignment thereof expressly stated in the Purchase Agreement.

3. If and to the extent requested by Assignee, Assignor shall cause, and hereby authorizes, the United States Patent and Trademark Office and any other patent office, trademark office, and similar or comparable agency, office, register, or registrar in any country or jurisdiction to record Assignee as the sole and exclusive owner of any application, patent and/or registration covering the Assigned IP/IT Assets, and to issue any patent, registration, certificate, document, or process in such country or jurisdiction, or issue process, presently pending or existing in the future, for any such application, patent and/or registration in the name and for the benefit of Assignee only.

4. If and to the extent that Assignor, under any applicable law, retains or acquires any right, title, or interest in or to any or all of the Assigned IP/IT Assets notwithstanding the assignments and agreements under this Assignment, Assignor agrees to make any additional assignment, conveyance, and transfer in or to, and to take all actions necessary to fully assign, convey, and transfer to Assignee, all of such retained or acquired right, title, and interest to the fullest extent permitted by applicable law.

5. If and to the extent that the assignment, transfer, and conveyance of any right, title, or interest in or to any Assigned IP/IT Assets is prohibited, illegal, invalid, ineffective, or unenforceable under applicable law, Assignor hereby grants Assignee and its successors and assigns a sole and exclusive, worldwide, irrevocable, perpetual, non-terminable, freely transferable, freely assignable, freely sublicensable right and license, free of any royalty, fee, or other payment or value by Assignee or to Assignor, to fully use, utilize, exploit, commercialize, and exercise any right under or to such Assigned IP/IT Assets in any way, by any means, and in any form or medium, whether now known or becoming known in the future.

6. Upon Assignee's request, Assignor shall provide, at Assignee's reasonable and necessary expense (excluding any attorneys' and legal fees), any reasonable assistance, including, without limitation, providing any information and documents, executing any documents and affidavits, providing any testimony, and/or rendering any other assistance, as is necessary or useful for Assignee to secure and perfect sole and exclusive ownership of, and obtain registrations in the name of solely Assignee or a third party designated by Assignee, for the Assigned IP/IT Assets and/or any part thereof, and to otherwise fully effect and implement the provisions in this Assignment.

7. If any term or provision of this Assignment is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Assignment or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon a determination that any term or provision is invalid, illegal or unenforceable in any jurisdiction, this Assignment shall be modified to effect the original intent of the Parties as closely as possible in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

8. This Assignment shall be binding upon Assignor and its successors and assigns, and shall be binding upon and inure to the benefit of Assignee and its successors and assigns. This Agreement is for the sole benefit of the Parties and their permitted assigns and nothing herein expressed or implied shall give or be construed to give any Person, other than the Parties and their permitted assigns, any legal or equitable rights hereunder.

9. Neither this Assignment nor any term or provision hereof may be waived, changed, discharged or terminated except by an instrument in writing signed by the person against whom the enforcement of any waiver, change, discharge or termination is sought. No modification, amendment, supplement to or waiver of any provision of this Assignment will be binding upon the Parties unless made in a writing identifying the relevant provisions and signed by each Party through its authorized representative. A failure of either Party to exercise any right provided for herein shall not be deemed to be a waiver of any right hereunder.

10. In the event of a dispute between the Purchase Agreement and this Assignment, this Assignment shall prevail.

11. This Assignment, and all disputes and controversies arising hereunder or related hereto, shall be governed by and construed in accordance with the laws of the State of New York, regardless of the laws that might otherwise govern under applicable principles of conflicts of laws thereof that would apply any other law. The Parties hereto agree that the appropriate, exclusive and convenient forum for any disputes between any of the Parties hereto arising out of this Assignment or the transactions contemplated hereby shall be in any state or federal court located in the Borough of Manhattan, City of New York, State of New York, United States. The Parties shall not bring suit with respect to any disputes arising out of this Assignment or the transactions contemplated hereby in any court or jurisdiction other than the above specified courts, and Licensee agrees that, pursuant to Section 12 below, it (and its Affiliates, as applicable) will submit to such jurisdiction. In any such Action, the Parties irrevocably consent to service of process in the manner provided for notices in Section 9.5 of the Purchase Agreement, or in any other manner permitted by applicable Law. To the extent permitted by applicable Law, final and unappealable judgment against a Party in any Action or proceeding contemplated above shall be conclusive and may be enforced in any other jurisdiction within or outside the United States by suit on the judgment, a certified or exemplified copy of which shall be conclusive evidence of the fact and amount of such judgment.

12. To the extent that any Party has or hereafter may acquire any immunity from jurisdiction of any court or from any legal process (whether through service or notice, attachment prior to judgment, attachment in aid of execution, execution or otherwise) with respect to itself or its property, each such Party hereby irrevocably (i) waives such immunity in respect of its obligations with respect to this Assignment, and (ii) submits to the personal jurisdiction of any court described in Section 11 above.

THE PARTIES HERETO AGREE THAT THEY HEREBY IRREVOCABLY WAIVE, AND AGREE TO CAUSE THEIR RESPECTIVE AFFILIATES TO WAIVE, THE RIGHT TO TRIAL BY JURY IN ANY ACTION TO ENFORCE OR INTERPRET THE PROVISIONS OF THIS ASSIGNMENT.

13. The Parties acknowledge that each Party and its counsel have reviewed and revised this Assignment and that any rule of construction to the effect that any ambiguities are to be resolved against the drafting Party shall not be employed in the interpretation of this Assignment. The descriptive headings herein are inserted for convenience of reference only and are not intended to be part of or to affect the meaning or interpretation of this Assignment.

14. This Assignment may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Assignment shall become effective when each Party shall have received a counterpart hereof signed by the other Party. For the convenience of the Parties, any number of counterparts hereof may be executed, each such executed counterpart shall be deemed an original and all such counterparts together shall constitute one and the same instrument. Facsimile transmission (including the e-mail delivery of documents in PDF format) of any signed original counterpart and/or retransmission of any signed facsimile transmission shall be deemed the same as the delivery of an original.

15. This Agreement may be amended, modified or supplemented at any time by the Parties, but only by an instrument in writing signed on behalf of the Parties. Upon reasonable request, the Parties shall act reasonably and in good faith to amend, modify or supplement this Agreement, for the purposes of clarifying, simplifying or rationalizing the Agreement, facilitating the performance by the Parties of their respective obligations under the Agreement, or for any other purpose.

16. This Agreement constitutes the entire agreement among the Parties with respect to the subject matter hereof and supersedes all other prior agreements and understandings, both written and oral, among the Parties with respect to the subject matter hereof (other than the Confidentiality Agreement).

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the Effective Date.

**ASSIGNOR**

**Smith International, Inc.**

By: \_\_\_\_\_

Name: Ryan Rodgers

Title: Authorized Person

*Signature Page to Intellectual Property Assignment -- Smith International, Inc.*

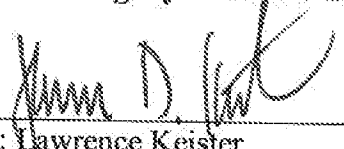
AmericasActive:14196150.2

**PATENT**  
**REEL: 051470 FRAME: 0687**

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the Effective Date.

**ASSIGNEE**

**Wellbore Integrity Solutions LLC**

By: 

Name: Lawrence Keister

Title: Authorized Representative

## **Schedule 1**

i. Patent Rights:

[See attached]

|                     |                    |                                      |                  |             |                  |      |                                                                                     |                          |
|---------------------|--------------------|--------------------------------------|------------------|-------------|------------------|------|-------------------------------------------------------------------------------------|--------------------------|
| 06-WD69-US-CNT      | USA                | National Patent Continuation         | 11/670888        | 02 Feb 2007 | 7448446          | Live | Thru Tubing Tool And Method                                                         | Smith International, Inc |
| 06-WD69-US-NP       | USA                | National Patent                      | 10/719199        | 21 Nov 2003 | 7178589          | Live | Thru Tubing Tool And Method (Thru Tubing Multilateral Side-Tracking System)         | Smith International, Inc |
| 01-RBA56-GB-NP[1]   | UK                 | National Patent                      | 02/17596.0       | 30 Jul 2002 | 2378197          | Live | Selective Motor Lock-Up Tool                                                        | Smith International, Inc |
| 01-RBA56-US-PCT     | USA                | PCT National Stage                   | PCT/GB02/003483  | 30 Jul 2002 | 7036580          | Live | Downhole Window Finder And Method Of Using The Same                                 | Smith International, Inc |
| 01-WD43-US-PCT      | USA                | PCT National Stage                   | PCT/GB01/001823  | 24 Apr 2001 | 7331387          | Live | Downhole Release Joint (Shear Subs)                                                 | Smith International, Inc |
| 01-WD51-US-PCT      | USA                | PCT National Stage                   | PCT/GB02/003473  | 30 Jul 2002 | 7198101          | Live | Downhole Motor Locking System And Method                                            | Smith International, Inc |
| 02-WD25-CA-NP       | Canada             | National Patent                      | 2447565          | 31 Oct 2003 | 2447565          | Live | Downhole Motor Locking System And Method (Down Hole Motor Lock-Up System)           | Smith International, Inc |
| 02-WD25-GB-NP       | UK                 | National Patent                      | 0329404.2        | 30 Oct 2003 | 2394740          | Live | Downhole Motor Locking System And Method (Down Hole Motor Lock-Up System)           | Smith International, Inc |
| 02-WD25-US-CNT[2]   | USA                | National Patent Continuation         | 11/551527        | 20 Oct 2006 | 7225889          | Live | Downhole Motor Locking System And Method (Down Hole Motor Lock-Up System)           | Smith International, Inc |
| 02-WD25-US-NP[1]    | USA                | National Patent                      | 10/696748        | 31 Oct 2003 | 7152698          | Live | Downhole Motor Locking System And Method (Down Hole Motor Lock-Up System)           | Smith International, Inc |
| 03-WD120-US-PCT     | USA                | PCT National Stage                   | PCT/GB04/000286  | 26 Jan 2004 | 7357198          | Live | Downhole Apparatus                                                                  | Smith International, Inc |
| 03-WD127-US-PCT     | USA                | PCT National Stage                   | PCT/GB04/004926  | 23 Nov 2004 | 7857058          | Live | Downhole Swivel Joint Assembly And Method Of Using Said Swivel Joint Assembly       | Smith International, Inc |
| 03-WD25-CA-NP       | Canada             | National Patent                      | 2498914          | 01 Mar 2005 | 2498914          | Live | Expandable Anchor (Expandable Down Hole Anchor (Thru Tubing Anchor))                | Smith International, Inc |
| 03-WD25-GB-NP       | UK                 | National Patent                      | 0504183.4        | 01 Mar 2005 | 2411674          | Live | Expandable Anchor (Expandable Down Hole Anchor (Thru Tubing Anchor))                | Smith International, Inc |
| 03-WD25-US-NP       | Norway             | National Patent                      | 20051105         | 01 Mar 2005 | 336064           | Live | Expandable Anchor (Expandable Down Hole Anchor (Thru Tubing Anchor))                | Smith International, Inc |
| 03-WD25-US-NP[1]    | USA                | National Patent                      | 11/069282        | 01 Mar 2005 | 7377328          | Live | Expandable Anchor (Expandable Down Hole Anchor (Thru Tubing Anchor))                | Smith International, Inc |
| 04-RB163-US-NP      | USA                | National Patent                      | 09/450835        | 29 Nov 1999 | 6302198          | Live | One Trip Milling System (Canfish/Nq)                                                | Smith International, Inc |
| 04-WD109-US-CNT[1]  | USA                | National Patent Continuation         | 12/189479        | 11 Aug 2008 | 7810553          | Live | Coiled Tubing Wireline Cutter                                                       | Smith International, Inc |
| 05-WD44-US-CNT      | USA                | National Patent Continuation         | 13/481470        | 25 May 2012 | 8881845          | Live | Expandable Window Milling Bit And Methods Of Milling A Window In Casing             | Smith International, Inc |
| 05-WD44-US-NP       | USA                | National Patent                      | 11/175565        | 06 Jul 2005 | 8186458          | Live | Method Of Drilling An Enlarged Sidetracked Well Bore                                | Smith International, Inc |
| 05-WD57-US-CNT[1]   | USA                | National Patent Continuation         | 12/779759        | 13 May 2010 | 8122977          | Live | Cutting Device With Multiple Cutting Structures                                     | Smith International, Inc |
| 05-WD57-US-NP       | USA                | National Patent                      | 11/175567        | 06 Jul 2005 | 7753139          | Live | Cutting Device With Multiple Cutting Structures                                     | Smith International, Inc |
| 07-FR108-AU-PCT     | Australia          | PCT National Stage                   | 2009334509       | 30 Dec 2009 | 20093345         | Live | Rigless Abandonment System                                                          | Smith International, Inc |
| 07-FR108-GB-PCT     | UK                 | PCT National Stage                   | 1113098.6        | 30 Dec 2009 | 2479318          | Live | Rigless Abandonment System                                                          | Smith International, Inc |
| 07-FR108-NZ-PCT     | New Zealand        | PCT National Stage                   | 594303           | 30 Dec 2009 | 594303           | Live | Rigless Abandonment System                                                          | Smith International, Inc |
| 07-FR108-US-NP[1]   | USA                | National Patent                      | 12/646077        | 23 Dec 2009 | 8967270          | Live | Rigless Abandonment System                                                          | Smith International, Inc |
| 07-FR125-US-NP[1]   | USA                | National Patent                      | 12/659017        | 18 Aug 2010 | 8881817          | Live | Cutting Tool                                                                        | Smith International, Inc |
| 07-WD113-US-NP      | USA                | National Patent                      | 12/206185        | 10 Sep 2008 | 7980307          | Live | Downhole Window Finder System                                                       | Smith International, Inc |
| 07-WD128-US-NP      | USA                | National Patent                      | 12/170362        | 09 Jul 2008 | 7762330          | Live | Methods Of Making Multiple Casing Cuts                                              | Smith International, Inc |
| 08-FR161-BR-PCT     | Brazil             | PCT National Stage                   | 1120130188111    | 19 Jan 2012 |                  | Live | Multi-Cycle Pipe Cutter And Related Methods                                         | Smith International, Inc |
| 08-FR161-EP-EPT     | EPO                | PCT National Stage                   | 12736705.0       | 19 Jan 2012 | 334238           | Live | Multi-Cycle Pipe Cutter And Related Methods                                         | Smith International, Inc |
| 08-FR161-MX-PCT     | Mexico             | PCT National Stage                   | MX/a/2013/008464 | 19 Jan 2012 |                  | Live | Multi-Cycle Pipe Cutter And Related Methods                                         | Smith International, Inc |
| 08-FR161-US-NP      | USA                | National Patent                      | 13/011492        | 21 Jan 2011 | 8602101          | Live | Multi-Cycle Pipe Cutter And Related Methods                                         | Smith International, Inc |
| 08-THO002-US-NP[00] | USA                | National Patent                      | 10/125005        | 16 Apr 2002 | 6720764          | Live | Magnetic Sensor System Useful For Detecting Tool Joints In A Downhole Tubing String | Smith International, Inc |
| 08-WD151-US-NP      | USA                | National Patent                      | 12/412084        | 26 Mar 2009 | 8800660          | Live | Debris Catcher For Collecting Well Debris                                           | Smith International, Inc |
| 09-WD42-US-NP[1]    | USA                | National Patent                      | 12/979842        | 28 Dec 2010 | 8844620          | Live | Side-Tracking System And Related Methods                                            | Smith International, Inc |
| 09-WD66-IN-PCT      | India              | PCT National Stage                   | 8672/CHENP/2011  | 03 May 2010 |                  | Live | Milling System And Method Of Milling                                                | Smith International, Inc |
| 09-WD66-US-NP[1]    | USA                | National Patent                      | 12/772781        | 03 May 2010 | 8459357          | Live | Milling System And Method Of Milling                                                | Smith International, Inc |
| 09-WD66-US-NP[1]    | USA                | National Patent                      | 12/616934        | 16 Jun 2010 | 8590823          | Live | Downhole Tools And Methods Of Setting In A Wellbore                                 | Smith International, Inc |
| 10-FR22-US-CNT      | USA                | National Patent Continuation         | 14/530241        | 31 Oct 2014 | 9322227          | Live | Radially Expandable Stabilizer                                                      | Smith International, Inc |
| 10-FR22-US-NP       | USA                | National Patent                      | 13/216159        | 25 Aug 2011 | 8887798          | Live | Hydraulic Stabilizer For Use With A Downhole Casing Cutter                          | Smith International, Inc |
| 10-WD46A-AU-PCT     | Australia          | PCT National Stage                   | 2013222382       | 21 Feb 2013 | 20132223         | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46A-CN-PCT     | China              | PCT National Stage                   | 201380020087.2   | 21 Feb 2013 | 20138002         | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46A-RU-PCT     | Russian Federation | PCT National Stage                   | 2014138017       | 21 Feb 2013 | 0087.2           | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46-AU-PCT      | Australia          | PCT National Stage                   | 2011240846       | 13 Apr 2011 | 2596020          | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46A-US-CIP     | USA                | National Patent Continuation-in-Part | 13/772165        | 20 Feb 2013 | 20112406<br>46   | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46-BR-PCT      | Brazil             | PCT National Stage                   | 112012026499.0   | 13 Apr 2011 | 9206648          | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46-CA-PCT      | Canada             | PCT National Stage                   | 2798454          | 13 Apr 2011 | 2798454          | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46-GB-PCT      | UK                 | PCT National Stage                   | 12/18633.4       | 13 Apr 2011 | 2492996          | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46-ID-PCT      | Indonesia          | PCT National Stage                   | W-00201204158    | 13 Apr 2011 | IDP00004<br>9198 | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46-US-CIP      | USA                | National Patent Continuation-in-Part | 14/448718        | 31 Jul 2014 | 9151136          | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |
| 10-WD46-US-NP[1]    | USA                | National Patent                      | 13/085586        | 13 Apr 2011 | 8820437          | Live | Cementing Whipstock Apparatus And Methods                                           | Smith International, Inc |

|                    |          |                                      |                |             |          |      |                                                                        |                          |
|--------------------|----------|--------------------------------------|----------------|-------------|----------|------|------------------------------------------------------------------------|--------------------------|
| 11-FR200-US-NP     | USA      | National Patent                      | 13/948735      | 24 Jul 2013 | 9416635  | Live | System And Method Of Cutting And Removing Casings From Wellbore        | Smith International, Inc |
| 11-FR209-US-CNT    | USA      | National Patent Continuation         | 15/210298      | 14 Jul 2016 | 10047582 | Live | Extended Duration Section Mill And Methods Of Use                      | Smith International, Inc |
| 11-FR209-US-NP     | USA      | National Patent                      | 13/954357      | 30 Jul 2013 | 9404331  | Live | Extended Duration Section Mill And Methods Of Use                      | Smith International, Inc |
| 11-FR43-US-CNT     | USA      | National Patent Continuation         | 14/751209      | 26 Jun 2015 | 10000986 | Live | Dual String Section Mill                                               | Smith International, Inc |
| 11-FR43-US-NP      | USA      | National Patent                      | 13/492016      | 08 Jun 2012 | 9097073  | Live | Dual String Section Mill                                               | Smith International, Inc |
| 11-WD136-US-CNT    | USA      | National Patent Continuation         | 14/957183      | 02 Dec 2015 |          | Live | BALANCING LOAD ON MILLING CUTTING ELEMENTS                             | Smith International, Inc |
| 11-WD136-US-NP     | USA      | National Patent                      | 13/563378      | 31 Jul 2012 | 9228406  | Live | Extended Whipstock And Mill Assembly                                   | Smith International, Inc |
| 11-WD32-CA-PCT     | USA      | National Patent                      | 13/723107      | 20 Dec 2012 | 9347268  | Live | System And Method To Facilitate The Drilling Of A Deviated Borehole    | Smith International, Inc |
| 11-WD32-GB-EPT     | Canada   | PCT National Stage                   | 2830721        | 01 Mar 2012 | 2830721  | Live | High Performance Wellbore Departure And Drilling System                | Smith International, Inc |
| 11-WD32-GB-EPT     | UK       | PCT National Stage                   | 12/51728.2     | 01 Mar 2012 | 2675981  | Live | High Performance Wellbore Departure And Drilling System                | Smith International, Inc |
| 11-WD32-NO-EPT     | Norway   | PCT National Stage                   | 12/51728.2     | 01 Mar 2012 | 2675981  | Live | High Performance Wellbore Departure And Drilling System                | Smith International, Inc |
| 11-WD32-US-CNT     | USA      | National Patent Continuation         | 14/568806      | 13 Mar 2015 | 9915098  | Live | SYSTEMS FOR FORMING LATERAL WELLBORES                                  | Smith International, Inc |
| 11-WD32-US-NP      | USA      | National Patent                      | 13/410134      | 01 Mar 2012 | 9004159  | Live | High Performance Wellbore Departure And Drilling System                | Smith International, Inc |
| 11-WD51-US-NP      | USA      | National Patent                      | 13/440708      | 05 Apr 2012 | 8739900  | Live | System And Method For Coupling A Drill Bit To A Whipstock              | Smith International, Inc |
| 11-WD52-US-NP      | USA      | National Patent                      | 13/447188      | 14 Apr 2012 | 8997895  | Live | System And Method For Coupling An Impregnated Drill Bit To A Whipstock | Smith International, Inc |
| 98-AS17-US-CIP[1]  | USA      | National Patent Continuation-in-Part | in-10314705    | 09 Dec 2002 | 6840320  | Live | Optimized Window For Side Tracking Operations                          | Smith International, Inc |
| 98-AS17-US-CPA     | USA      | National Patent Continuing           | 09/288401      | 08 Apr 1999 | 6499538  | Live | Optimized Window For Side Tracking Operations                          | Smith International, Inc |
| 99-DS33-US-NP[1]   | USA      | National Patent                      | 09/911294      | 23 Jul 2001 | 6629565  | Live | Abandonment And Retrieval Apparatus And Method (Strip Saver)           | Smith International, Inc |
| 99-RBA83-US-PCT    | USA      | National Patent                      | 09/762252      | 20 Jul 1999 | 6484802  | Live | Downhole Scraper Assembly                                              | Smith International, Inc |
| 99-RBA86-US-PCT    | USA      | PCT National Stage                   | 09/637399      | 28 Nov 2001 | 6860631  | Live | Whipstock Casing Milling System                                        | Smith International, Inc |
| 99-RBA87-US-CNT[1] | USA      | National Patent Continuation         | 10/694069      | 27 Oct 2003 | 6945328  | Live | (Torque Locked Motor) Locking Motor Shaft                              | Smith International, Inc |
| 99-RBA87-US-PCT    | USA      | PCT National Stage                   | PCT/GB00/02843 | 02 Jul 2000 | 6659203  | Live | (Torque Locked Motor) Locking Motor Shaft                              | Smith International, Inc |
| 99-RBA94-US-NP     | USA      | National Patent                      | 09/936235      | 02 Nov 2001 | 6675897  | Live | Single Cycle Two Stage Bypass Valve                                    | Smith International, Inc |
| IS12.2635-US-NP    | USA      | National Patent                      | 14/053983      | 15 Oct 2013 | 9816328  | Live | Friction Welded Heavy Weight Drill Pipes                               | Smith International, Inc |
| IS12.2844-US-NP    | USA      | National Patent                      | 14/107918      | 16 Dec 2013 | 9512890  | Live | Milling Cutter Having Undulating Chip Breaker                          | Smith International, Inc |
| IS12.3113-US-NP    | USA      | National Patent                      | 14/196767      | 06 Mar 2014 | 9617791  | Live | Sidetracking System And Related Methods                                | Smith International, Inc |
| IS12.3114-US-CIP   | USA      | National Patent Continuation-in-Part | 13/637667      | 15 Mar 2013 | 9353589  | Live | Multi CyclePipe Cutter And Related Methods                             | Smith International, Inc |
| IS12.3114-US-CNT   | USA      | National Patent Continuation         | 15/144944      | 03 May 2016 |          | Live | Multi-CyclePipe Cutter And Related Methods                             | Smith International, Inc |
| IS12.3152-US-NP    | USA      | National Patent                      | 14/098096      | 05 Dec 2013 | 9222328  | Live | Wellhead Latch And Removal Systems                                     | Smith International, Inc |
| IS13.3218-US-NP    | USA      | National Patent                      | 14/487942      | 16 Sep 2014 | 9856702  | Live | CUTTING ELEMENT FOR A DOWNHOLE TOOL                                    | Smith International, Inc |
| IS13.3358-US-CNT   | USA      | National Patent Continuation         | 15/288150      | 07 Oct 2016 |          | Live | Downhole Tool For Removing A Casing Portion                            | Smith International, Inc |
| IS13.3358-US-NP    | USA      | National Patent                      | 14/195542      | 03 Mar 2014 | 9464496  | Live | Downhole Tool For Removing A Casing Portion                            | Smith International, Inc |
| IS13.3673-US-NP    | USA      | National Patent                      | 14/104639      | 12 Dec 2013 | 9512880  | Live | Coring Bit To Whipstock Systems And Methods                            | Smith International, Inc |
| IS13.3674-US-NP    | USA      | National Patent                      | 61938356       | 10 Feb 2015 | 10113394 | Live | Multi-Stage Flow Device                                                | Smith International, Inc |
| IS13.3880-US-NP    | USA      | National Patent                      | 14/521952      | 23 Oct 2014 |          | Live | Mill With Adjustable Gauge Diameter                                    | Smith International, Inc |
| IS14.8558-US-NP    | USA      | National Patent                      | 14/815174      | 31 Jul 2015 |          | Live | Milling Tools With A Secondary Attrition System                        | Smith International, Inc |
| IS14.8748-US-NP    | USA      | National Patent                      | 14/789001      | 01 Jul 2015 | 10030459 | Live | Thru-Casing Milling                                                    | Smith International, Inc |
| IS16.0243-US-PSP   | USA      | National Patent                      | 62/850607      | 21-May-19   |          | Live | Hybrid Bit with cone Mounted to Fixed Blade                            | Smith International, Inc |
| IS15.1365-US-PSP   | USA      | National Patent                      | 62/916883      | 18-Oct-19   |          | Live | Use of Rotary Cutting Elements in Downhole Milling                     | Smith International, Inc |
| 11-FR36-US-NP+A735 | USA      | National Patent                      | 13/450941      | 4-Nov-15    | 9194201  | Live | System And Method For Deploying A Downhole Casing Patch                | Smith International, Inc |
| 99-DS44-US-PCT     | USA      | PCT National Stage                   | 09/463,460     | 27-Jan-00   | 6293342  | Live | Bypass Valve Closing Means                                             | Smith International, Inc |
|                    | USA      | National Patent                      | 09/293548      | 16-Apr-99   | 6289911  | Dead | Mud Saver Kelly Valve                                                  | Smith International, Inc |
|                    | USA      | National Patent                      | 09/905133      | 13-Jul-01   | 8650624  | Live | Mud Saver Kelly Valve                                                  | Smith International, Inc |
|                    | USA      | National Patent                      | 12/702006      | 2-Aug-10    | 8380154  | Live | Flow Diverter Ring for Mud Saver Valves                                | Smith International, Inc |
|                    | USA+B740 | National Patent                      | 09/523486      | 3-Oct-00    | 6612383  | Live | Method and Apparatus for Milling Well Casing and Drilling Formation    | Smith International, Inc |

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