PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
VICTOR GAWSKI	01/15/2010
JOHN KENNETH SNYDER	01/13/2010

RECEIVING PARTY DATA

Name:	HALLIBURTON ENERGY SERVICES, INC.	
Street Address:	10200 BELLAIRE BLVD	
City:	HOUSTON	
State/Country:	TEXAS	
Postal Code:	77072	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14710088

CORRESPONDENCE DATA

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Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER, P.A.

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ATTORNEY DOCKET NUMBER:	1880.153US2	
NAME OF SUBMITTER:	KATHY DURCH	
SIGNATURE:	/Kathy Durch/	
DATE SIGNED:	06/24/2015	

Total Attachments: 5

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> PATENT REEL: 035963 FRAME: 0295

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RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 1880.153US2 Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Halliburton Energy Services, Inc. Victor Gawski, John Kenneth Snyder Street Address: 10200 Bellaire Blvd Additional name(s) of conveying party(ies) attached? City: <u>Houston</u> State: <u>TX</u> Zip: <u>77072</u> Country: United States of America []Yes [X]No 3. Nature of conveyance: Additional name(s) & address(es) attached? []Yes [X]No [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: January 15, 2010, January 13, 2010 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Serial No. 14/710,088 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence 7. Total fee (37 CFR 3.41):\$ 0.00 concerning document should be mailed: Name: <u>Jacques A. Loock</u> []Enclosed []Authorized to be charged to deposit account 19-Address: 0743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 8. Please charge any additional fees or credit any over Minneapolis, MN 55402--0938 payments to our Deposit Account No.: 19-0743 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. June 24, 2015 Jacques A. Loock/Reg. No. 70,140 Name of Person Signing Total number of pages including cover sheet: 5 Mail documents to be recorded with required cover sheet information to: **Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services**

P.O. Box 1450

Alexandria, VA 22313-1450

PATENT REEL: 035963 FRAME: 0296

ASSIGNMENT

WHEREAS, We, Victor Gawski, residing at Moss Side Farm, Whitecairns, Aberdeenshire AB23 8XA, United Kingdom, and John Kenneth Snyder, residing at 1531 Malone Close, Edmonton, AB Canada T6R 0H3, made certain new and useful inventions and improvements which are described in an application for U.S. Letters Patent on March 24, 2009, which application was assigned U.S. patent application serial number 12/442,637, and is entitled MONITOR AND CONTROL OF DIRECTIONAL DRILLING OPERATIONS AND SIMULATIONS;

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned do hereby:

SELL, ASSIGN AND TRANSFER to <u>Halliburton Energy Services</u>, Inc. (the "Assignee"), a corporation of the State of <u>Delaware</u>, having a place of business at <u>10200 Bellaire Blvd</u>, Houston, TX 77072, the entire right, title and interest for the United States and all foreign countries in and to: any and all inventions and improvements which are disclosed in the identified application for U.S. Letters Patent, and which may be further identified below; such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries on any of such inventions and/or improvements (including any applications for utility models); all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions and/or improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and to claim priority based on the identified application;

AUTHORIZE AND REQUEST that any attorney associated with U.S. PTO Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any information identifying this application, or any related application, below, after execution of this Assignment;

Additional Application Information

U.S. Provisional Application Serial No. 60/827,209, filed on September 27, 2006.

International Application Serial No. PCT/US2007/020867, filed on September 27, 2007.

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

PATENT REEL: 035963 FRAME: 0297 ASSIGNMENT
Client Ref. No. 2006-IP-021867US/E-Billing No. 2009-IPRO-019270
Assignors: Victor Gawski et al.
Serial Number: 12/442,637
Title: MONITOR AND CONTROL OF DIRECTIONAL DRILLING OPERATIONS AND SIMULATIONS

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

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the undersigned will (1) execute all provisional, non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers; (3) communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for such improvements; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such improvements in the Assignee, or for securing, maintaining and enforcing proper patent protection for such improvements;

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned, and is to extend to the benefit of the successors, assigns and nominees of the Assignee.

AGREED as of the date of my signature below:

ASSIGNMENT	Docket No: 1880.153US1
Client Ref. No. 2006-IP-021867US/E-Billing No. 2009-IPRO-019270 Assignors: Victor Gawski et al. Title: MONITOR AND CONTROL OF DIRECTIONAL DRILLING OPERATIONS AND SI Page 3 of 4	Serial Number: 12/442,637 MULATIONS
IN TESTIMONY WHEREOF, I have hereunto set my ha	and this 15 day of
JANUARY 2010. Utla	L -
STATE OF Grampian, Victo	or Gawski
county of <u>Aserdeen</u>	
On this day of 2000 before no Victor Gawski, to me known and known to me to be the person describle foregoing instrument, and he/she duly acknowledged to me that he the uses and purposes therein set forth.	ibed in and who executed
[SEAL]	
7 Golden Softore Notary Publi	ic

ASSIGNMENT Client Ref. No. 2006-IP-021867US/E-Billing No. 2009-IPRO-019270 Assignors: Victor Gawski et al. Title: MONITOR AND CONTROL OF DIRECTIONAL DRILLING OPERATION Page 4 of 4	Docket No: 1880,153US1 Serial Number: 12/442,637 NS AND SIMULATIONS
IN TESTIMONY WHEREOF, I have hercunto s	et my hand this 13th day of
January , 2010.	
The state of the s	
Const. N/S	John Kenneth Snyder
FROUNDE PLOERING	
CANADA)ss	•
L COUNTY OF	
On this 13th day of 5000 , 2010 Kenneth Snyder, to me known and known to me to be the per the foregoing instrument, and he/she duly acknowledged to not the uses and purposes therein set forth.	rson described in and who executed
[SEAL]	
TERRENCE N. KUHARCHUK	ary Public

PATENT REEL: 035963 FRAME: 0300

RECORDED: 06/24/2015