PATENT ASSIGNMENT

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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:			ASSIGNMENT		
CONVEYING PARTY DA	ATA				
		N	lame	Execution Date	
Raj Pai				01/26/2011	
Marian Morys				02/08/2011	
Phap Hung Lien				01/26/2011	
RECEIVING PARTY DA	Τ Δ				
RECEIVING PARTY DA	IA				
Name:	Halliburton Ener	rgy Sei	rvices, Inc.		
Street Address:	10200 Bellaire B	Blvd			
City:	Houston				
State/Country:	TEXAS				
Postal Code:	77072				
		135763			
Property Type Number					
CORRESPONDENCE D	ATA				
Fax Number:	60579118	857			
			the fax attempt is unsuccessful.		
Phone:	61237369				
Email: Correspondent Name:	jolinares@ Schwegm		rc.com idberg & Woessner, P.A.		
Address Line 1:	PO Box 29		inderg & Woessher, T.A.		
Address Line 4:			NNESOTA 55402		
ATTORNEY DOCKET NUMBER:			1880.303US1		
NAME OF SUBMITTER:		Janine Olinares			
Total Attachments: 6 source=1880 303US1 - Assignment#page1.tif source=1880 303US1 - Assignment#page2.tif source=1880 303US1 - Assignment#page3.tif source=1880 303US1 - Assignment#page4.tif source=1880 303US1 - Assignment#page5.tif source=1880 303US1 - Assignment#page6.tif					

RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 1880.303US1 Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Halliburton Energy Services, Inc. Raj Pai, Marian Morys, Phap Hung Lien Street Address: 10200 Bellaire Blvd Additional name(s) of conveying party(ies) attached? City: Houston State: TX Zip: <u>77072</u> Country: United States of America []Yes [X]No Additional name(s) & address(es) attached? []Yes [X]No 3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: January 26, 2011, February 8, 2011, <u>January 26, 2011</u> 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. 13/576,318, filed July 31, 2012 as a National Stage filing under 35 U.S.C. 371 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41):\$ 40.00 Name: David R. Cochran []Enclosed [X]Authorized to be charged to deposit account Address: 19-0743 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.

<u>Da</u> Nai

To the best of my knowledge and belief, the foregoing information is fue and correct and any attached copy is a true copy of the original document.

vid R. Cochran/Reg. No. 46,632	1 Marriel & Wenna	/ 27 March 2013
ne of Person Signing	Signature	Date
	Total number of pages includi	ng cover sheet: 6

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: 030095 FRAME: 0295

ASSIGNMENT

WHEREAS, We, <u>Raj Pai</u>, residing at 11527 Legend Manor Drive, Houston, TX 77082, and <u>Marian Morys</u>, residing at 835 Tremont Drive, Downingtown, PA 19335, and <u>Phap Hung Lien</u>, residing at 10339 Ray Brook Lane, Houston, TX 77089, made certain new and useful inventions and improvements which are described in an application for PCT Letters Patent entitled <u>COMPENSATED OPTICAL DETECTION APPARATUS</u>, SYSTEMS, AND METHODS;

WHEREAS, We hereby authorize and request the attorneys, representing Halliburton Energy Services, Inc. on this application, at Schwegman, Lundberg & Woessner, P.A., located at I21 South Eighth Street, Suite 1600, Minneapolis, MN 55402, to insert here in parentheses (Ser. No. PCI/US11/23607; Filing Date: February 3, 2011) the filing date and application number of said application when known.

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</u> <u>Bellaire Blvd</u>, <u>Houston</u>, TX <u>77072</u>, 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 PCT 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. 61/301,787, filed on February 5, 2010.

No International or foreign claim for priority is being made at this time.

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

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
Client Ref. No. 2010-IP-030335 PCT / EBilling: 2010-IPRO-039646
Assignors: Raj Pai et al.
THE: COMPENSATED OPTICAL DETECTION APPARATUS, SYSTEMS, AND METHODS
Page 3 of 5

· <u></u>	<u>January</u> , 20,	WHEREOF, I have hereunto set my hand this <u>26</u> th day of <u>11</u> .
		Raj Pai
S	TATE OF <u>Testaje</u>)
C	COUNTY OF Harris)ss)
ir	ai. to me known and known	y of \sqrt{a} A use 20 , 20 before me personally appeared Rai to me to be the person described in and who executed the foregoing cknowledged to me that he/she executed the same for the uses and
A CONTRACTOR		July Kyn Johle

- 3-

Dockel No: 1880.303WO1

ASSIGNMENT Climit Ref. No. 2010-19-030335 PCT / EBilling, 2010-19RO-039646 Assignors: Raj Pai et sl. This: COMPENSATED OPTICAL DETECTION APPARATUS, SYSTEMS, AND METHODS Page 4 of 5

	OF, I have hereunto set my	hand this $\underline{\mathcal{S}}_{}$ day of
February 2011.	h	Mrs
	Гм	arlan Morys
STATE OF TRANS)	
)55	•
COUNTY OF HEREE	3	

On this <u>b</u> day of <u>FRANCENCE</u>, 20 11 before me personally appeared <u>Marian Morys</u>, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.



Docket No; 1880 303WO1

ASSIGNMENT
Client Ref. No. 2010-IP-030335 PCT / EBilling: 2010-IPRO-039646
Assignors: Raj Pai et al.
Tille: COMPENSATED OPTICAL DETECTION APPARATUS, SYSTEMS, AND METHODS
Page 5 of 5

IN TESTIMONY WHEI	EOF, I have hereunt	o set my hand this 🧾	ay of
January 2011			
Q.		No.	
	·····	penhon	
		/ Pháp Hung Lien	
STATE OF TEXES)		
)55		
COUNTY OF Arriv	Y		

On this 26^{44} day of $\sqrt{40000}$, 20^{11} before me personally appeared Phap Hung Lien, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.



Johle See Junio

Docket No: 1880.303WO1

Notary Public

PATENT REEL: 030095 FRAME: 0300