

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT2791580

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
EDWARD HARRIGAN	06/10/2013
JAHIR PABON	05/10/2013
SATISH KUMAR K N KUMAR	06/05/2013
SASHANK VASIREDDY	05/10/2013
MURAT OALAN	06/04/2013
SHUNFENG ZHENG	05/20/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SCHLUMBERGER TECHNOLOGY CORPORATION
<b>Street Address:</b>	300 SCHLUMBERGER DRIVE
<b>City:</b>	SUGAR LAND
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	77478
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	13722992
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Email:</b>	kdumas-scarber@slb.com
<b>Correspondent Name:</b>	KRISTINE DUMAS-SCARBER
<b>Address Line 1:</b>	10001 RICHMOND AVENUE
<b>Address Line 2:</b>	ROOM 4720
<b>Address Line 4:</b>	HOUSTON, TEXAS 77042
<b>ATTORNEY DOCKET NUMBER:</b>	IS12.2253-US-NP
<b>NAME OF SUBMITTER:</b>	KRISTINE DUMAS-SCARBER
<b>SIGNATURE:</b>	/Kristine Dumas-Scarber/
<b>DATE SIGNED:</b>	03/29/2014
<b>Total Attachments: 9</b>	
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### Assignment

WHEREAS, the undersigned inventors hereinafter referred to as the "Inventors" each said Inventor's address being listed below:

**Edward Harrigan**, a citizen of the United Kingdom, residing at 2606 Summer Trace Court, Richmond, TX 77406, USA;

**Jahir Pabon**, a citizen of the United States of America, residing at 73 Blake Street, Newton, MA 02460, USA;

**Satish Kumar K N Kumar**, a citizen of India, residing at Office No. 701, 7<sup>th</sup> Floor, Building 6, Commerzone, Survey No. 144/145, Samrat Ashok Path, 41006 Maharashtra, India ;

**Sashank Vasireddy**, a citizen of India, residing at 10502 Fountain Lake Drive, Apt. 2034, Stafford, TX 77477, USA;

**Murat Ocalan**, a citizen of Turkey, residing at 5927 Alameda Road, Unit 22718, Houston, TX 77004, USA ;

and

**Shunfeng Zheng**, a citizen of the United States of America, residing at 7211 Spring Run Lane, Katy, TX 77494, USA;

Have invented certain new and useful improvements in

### SYSTEM AND METHOD FOR PROVIDING OSCILLATION DOWNHOLE

as described and set forth in an application for Letters Patent of the United States of America, filed with the United States Patent and Trademark Office on December 20, 2012, Serial No. 13/722992, (Docket No. IS12.2253-US-NP). **This assignment is effective as of December 20, 2012.**

AND WHEREAS, the "**COMPANIES**", **listed in Schedule A**, are desirous of acquiring or confirming their acquisition of the entire right, title and interest in and to said invention, inventions or improvements, and in and to said application, and in and to any and all patents, both of the United States and of all foreign countries, that may be obtained therefore **as outlined in Schedule A;**

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, BE IT KNOWN, that the undersigned Inventors, for good and valuable considerations, the receipt and sufficiency of which hereby acknowledge, have sold, assigned, transferred and conveyed, and by this assignment do sell, assign, transfer and convey, unto said COMPANIES, their successors and assigns, the entire right, title and interest throughout the world, in and to the above-described invention, inventions or improvements described or set forth in said application, in any form or

embodiment thereof, and in and to said application, and in and to any applications filed in any foreign country based thereon, including the right to file foreign applications under the provisions of any convention or treaty; and in and to any confirmation, divisional, continuation, continuation-in-part, or substitute application which may be filed on said invention, inventions or improvements in the United States or in any foreign country; and in and to any and all patents, certificates, utility models, reissues, extensions, additions or confirmations thereof which may be granted in the United States or in any foreign country upon said invention, inventions or improvements,

TO HAVE AND TO HOLD the same to the full end of the term or terms for which any and all such United States and foreign patents and grants may be issued on said invention, inventions or improvements.

AND said Inventors do hereby authorize and request the issuing authority to issue any and all of said United States and foreign patents on said application or applications to said **COMPANIES**, their successors and assigns, as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said **COMPANIES**, their successors and assigns.

AND said Inventors do hereby covenant and warrant that said Inventors have full right to convey the entire right, title and interest herein assigned free and clear of all licenses, encumbrances and liens whatsoever, and that no said Inventors has executed and will execute any instruments in conflict herewith.

AND said Inventors, for the conditions aforesaid, do hereby covenant and agree to and with the said **COMPANIES**, their successors and assigns, that each Inventor, his or her executors, administrators, or other personal representatives, shall and will do all lawful acts and things, make all rightful oaths, and make, execute and deliver any and all other instruments in writing, and any and all further applications, papers, powers, affidavits, assignments, disclaimers and other documents, which in the opinion of counsel for said **COMPANIES**, their successors and assigns, may be required or necessary in this or in any foreign country more effectually to secure to and vest in said **COMPANIES**, their successors and assigns, the entire right, title and interest in and to said invention, inventions or improvements, application or applications, patents, rights, titles, benefits, privileges, and advantages hereby sold, assigned, confirmed, transferred and conveyed.

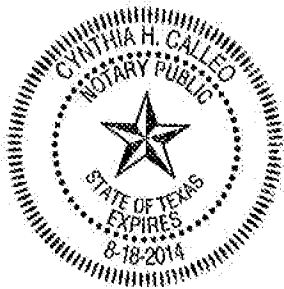
IN WITNESS WHEREOF I, **Edward Harrigan**, have hereunto set my hand and seal this  
10th day of June, 2013.

Edward Harrigan  
**Edward Harrigan**

STATE OF Texas  
COUNTY OF Fort Bend

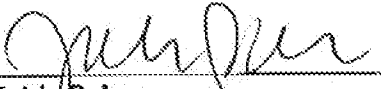
BEFORE ME this 10 day of June, 2013, personally appeared **Edward Harrigan**, to me known to be the person who is described in and who executed the foregoing assignment instrument and acknowledged to me that he executed the same of his own free will for the purpose therein expressed.

Seal



Cynthia Calleo  
Notary Public

IN WITNESS WHEREOF I, **Jahir Pabon**, have hereunto set my hand and seal this 10  
day of May, 2013.

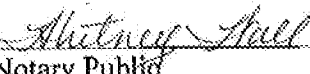
  
**Jahir Pabon**

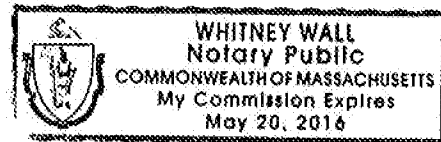
STATE OF Massachusetts

COUNTY OF Middlesex

BEFORE ME this 10<sup>th</sup> day of May, 2013, personally appeared **Jahir Pabon**, to  
me known to be the person who is described in and who executed the foregoing assignment  
instrument and acknowledged to me that he executed the same of his own free will for the  
purpose therein expressed.

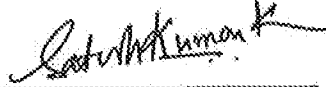
Seal

  
Notary Public



Docket Number IS12.2253-US-NP

IN WITNESS WHEREOF I, Satish Kumar K N Kumar, have hereunto set my hand and seal  
this 5<sup>th</sup> day of JUNE, 2013.


  
Satish Kumar K N Kumar

BE IT KNOWN that Satish Kumar K N Kumar, is to me known to be the individual described  
in the foregoing assignment, that on this 5<sup>th</sup> day of JUNE, 2013, I was  
personally present and did see him sign and execute the foregoing assignment; and, that he did  
acknowledge to me that he executed the same as his free act and deed for the uses and purposes  
therein set forth.

  
Witness  
Liza Negumakova

Allerød, Denmark

Post Office Address

  
Witness  
SEBASTIAN BROCKIA LEO

Allerød, Denmark

Post Office Address

IN WITNESS WHEREOF I, **Sashank Vasireddy**, have hereunto set my hand and seal this  
10 day of MAY, 2013.

Sashank Vasireddy  
**Sashank Vasireddy**

STATE OF Texas  
COUNTY OF Fort Bend

BEFORE ME this 10 day of May, 2013, personally appeared **Sashank Vasireddy**, to me known to be the person who is described in and who executed the foregoing assignment instrument and acknowledged to me that he executed the same of his own free will for the purpose therein expressed.

Seal

Cynthia H. Calleo  
Notary Public





Docket Number IS12,2253-US-NP

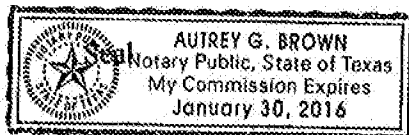
IN WITNESS WHEREOF I, Murat Ocalan, have hereunto set my hand and seal this  
4<sup>TH</sup> day of JUNE, 2013.

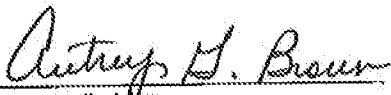
  
Murat Ocalan

STATE OF Texas

COUNTY OF Brazoria

BEFORE ME this 4<sup>th</sup> day of June, 2013, personally appeared Murat Ocalan, to  
me known to be the person who is described in and who executed the foregoing assignment  
instrument and acknowledged to me that he executed the same of his own free will for the  
purpose therein expressed.



  
Notary Public

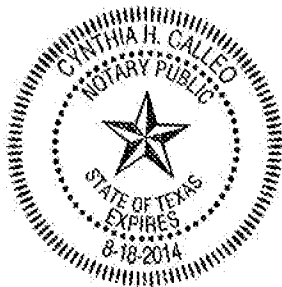
IN WITNESS WHEREOF I, **Shunfeng Zheng**, have hereunto set my hand and seal this 20th day of May, 2013.

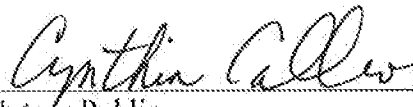
  
Shunfeng Zheng

STATE OF Texas  
COUNTY OF Fort Bend

BEFORE ME this 20 day of May, 2013, personally appeared **Shunfeng Zheng**, to me known to be the person who is described in and who executed the foregoing assignment instrument and acknowledged to me that he executed the same of his own free will for the purpose therein expressed.

Seal



  
Notary Public

**Schedule A  
“COMPANIES”**

**SCHLUMBERGER TECHNOLOGY CORPORATION**

Corporation of: United States of America

Located at: 300 Schlumberger Drive, Sugar Land, Texas 77478 U.S.A.

Assignee for applications in: United States of America

**SCHLUMBERGER CANADA LIMITED**

Corporation of: Canada

Located at: 525-3<sup>rd</sup> Avenue S.W., Calgary, Alberta, Canada T2P 0G4

Assignee for applications in: Canada

**SERVICES PETROLIERS SCHLUMBERGER**

Corporation of: France

Located at: 42 rue Saint Dominique, 75007 Paris, France

Assignee for applications in: France

**SCHLUMBERGER HOLDINGS LIMITED**

Corporation of: British Virgin Islands

Located at: P.O. Box 71, Craigmuir Chambers, Road Town, 1110 Tortola, British Virgin Islands

Assignee for applications in: Japan, The Netherlands, United Kingdom

**SCHLUMBERGER TECHNOLOGY B.V.**

Corporation of: the Netherlands

Located at: Parkstraat 83-89, 2514 JG The Hague, The Netherlands

Assignee for applications in: GCC and all other countries.

**PRAD RESEARCH AND DEVELOPMENT LIMITED**

Corporation of: British Virgin Islands

Located at: P.O. Box 71, Craigmuir Chambers, Road Town, 1110 Tortola, British Virgin Islands

Assignee for applications in: Angola, Bahrain, Bangladesh, Benin, Cambodia, Cameroon, Chad, China,

Congo, Gabon, Ghana, Guinea-Bissau, India, Ivory Coast, Jordan, Libya, Mauritania, Morocco,

Mozambique, Myanmar, Namibia, Nigeria, Philippines, Senegal, Sudan, Syria, Taiwan, Togo, UAE,

Vietnam, Zaire.