

## PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT4302887

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CHUNG CHANG	01/18/2016
CHEN LI	01/19/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	HALLIBURTON ENERGY SERVICES, INC.
<b>Street Address:</b>	3000 N. SAM HOUSTON PARKWAY E.
<b>City:</b>	HOUSTON
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	77032-3219
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15508874
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	140846-032301US
<b>NAME OF SUBMITTER:</b>	ESTHER MORON
<b>SIGNATURE:</b>	/Esther Moron/
<b>DATE SIGNED:</b>	03/03/2017
<b>Total Attachments: 4</b>	
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## ASSIGNMENT

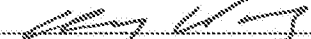
For good and valuable consideration given to me by Halliburton Energy Services, Inc., and any other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, Chung Chang (“ASSIGNOR”), having jointly or solely made an invention in “Acoustic Logging Tool Utilizing Fundamental Resonance” (“INVENTION”), while in the employ or hire either as an employee or consultant of Halliburton Energy Services, Inc., a Corporation organized and existing under the laws of the State of Delaware, doing business at 3000 N. Sam Houston Parkway E., Houston, Texas, 77032-3219 (“ASSIGNEE”), do hereby assign, sell, and convey to ASSIGNEE, its successors, and assigns, ASSIGNOR’s entire right, title, and interest throughout the world in and to:

1. Said INVENTION in “Acoustic Logging Tool Utilizing Fundamental Resonance;”
2. Patent Cooperation Treaty patent application on said INVENTION entitled, “Acoustic Logging Tool Utilizing Fundamental Resonance,” filed as:<sup>1</sup> PCT Patent Application No. PCT/US2015/061110 on November 17, 2015 Attorney’s Reference No. 140846-032300WO
3. All applications for patent or like protection on the INVENTION that have now been or may in the future be made anywhere in the world, including any continuation, continuation-in-part, and any other utility applications;
4. All patents and like protection that have now been or may in the future be granted on the INVENTION anywhere in the world;
5. All substitutions, divisions, continuations, continuations-in-part, renewals, reissues, extensions, and the like of the applications and patents and like grants, including without limitation, those obtained or permissible under past, present, and future laws and statutes;
6. All rights of action on account of past, present, and future unauthorized use of the INVENTION and for infringement of the patents and like protection anywhere in the world;
7. The right in ASSIGNEE to file in its name applications for patents and like protection for the INVENTION in any country or countries in the world; and
8. All rights of priority associated with the INVENTION, applications, patents, and like protection anywhere in the world.

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<sup>1</sup> ASSIGNOR further authorizes the handling attorneys to insert the serial number and filing date of the patent application identified by the listed file numbered as soon as it is known as well as to attach and update a schedule of any further application serial numbers or patent numbers related to the INVENTION as they become known.

ASSIGNOR covenants that ASSIGNOR, its heirs, legal representatives, assigns, administrators, and executors will, at the expense of ASSIGNEE, its successors, and assigns, execute all papers and perform such other acts as may be reasonably necessary to give ASSIGNEE, its successors, and assigns, the full benefit of this Assignment. Further, ASSIGNOR warrants that the INVENTION is not encumbered by another assignment or obligation of assignment to a third-party and that ASSIGNOR has the full ability and authority to assign and encumber the INVENTION.

ASSIGNOR:  \_\_\_\_\_

Name: Chung Chang

Date: 11/2/2016

## ASSIGNMENT


For good and valuable consideration given to me by Halliburton Energy Services, Inc., and any other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, Chen Li ("ASSIGNOR"), having jointly or solely made an invention in "Acoustic Logging Tool Utilizing Fundamental Resonance" ("INVENTION"), while in the employ or hire either as an employee or consultant of Halliburton Energy Services, Inc., a Corporation organized and existing under the laws of the State of Delaware, doing business at 3000 N. Sam Houston Parkway E., Houston, Texas, 77032-3219 ("ASSIGNEE"), do hereby assign, sell, and convey to ASSIGNEE, its successors, and assigns, ASSIGNOR's entire right, title, and interest throughout the world in and to:

1. Said INVENTION in "Acoustic Logging Tool Utilizing Fundamental Resonance;"
2. Patent Cooperation Treaty patent application on said INVENTION entitled, "Acoustic Logging Tool Utilizing Fundamental Resonance," filed as:<sup>1</sup> PCT Patent Application No. PCT/US2015/061110 on November 17, 2015 Attorney's Reference No. 140846-032300WO
3. All applications for patent or like protection on the INVENTION that have now been or may in the future be made anywhere in the world, including any continuation, continuation-in-part, and any other utility applications;
4. All patents and like protection that have now been or may in the future be granted on the INVENTION anywhere in the world;
5. All substitutions, divisions, continuations, continuations-in-part, renewals, reissues, extensions, and the like of the applications and patents and like grants, including without limitation, those obtained or permissible under past, present, and future laws and statutes;
6. All rights of action on account of past, present, and future unauthorized use of the INVENTION and for infringement of the patents and like protection anywhere in the world;
7. The right in ASSIGNEE to file in its name applications for patents and like protection for the INVENTION in any country or countries in the world; and
8. All rights of priority associated with the INVENTION, applications, patents, and like protection anywhere in the world.

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ASSIGNOR covenants that ASSIGNOR, its heirs, legal representatives, assigns, administrators, and executors will, at the expense of ASSIGNEE, its successors, and assigns, execute all papers and perform such other acts as may be reasonably necessary to give ASSIGNEE, its successors, and assigns, the full benefit of this Assignment. Further, ASSIGNOR warrants that the INVENTION is not encumbered by another assignment or obligation of assignment to a third-party and that ASSIGNOR has the full ability and authority to assign and encumber the INVENTION.

ASSIGNOR:   
Name: Chen Li

Date: 1/19, 2016