## PATENT ASSIGNMENT

## Electronic Version v1.1

Stylesheet Version v1.1

| SUBMISSION TYPE:   |   | NEW ASSIGNMENT            |                |                |  |  |  |
|--|---|---------------------------|----------------|----------------|--|--|--|
| NATURE OF CONVEYANCE:  |   | ASSIGNMENT                |                |                |  |  |  |
| CONVEYING PARTY DATA   |   |                           |                |                |  |  |  |
| N  |   |                           | lame           | Execution Date |  |  |  |
| Yunlai Yang  |   |                           |                | 05/08/2012     |  |  |  |
| RECEIVING PARTY DATA   |   |                           |                |                |  |  |  |
| Name:  | Saudi Arabia  | Saudi Arabian Oil Company |                |                |  |  |  |
| Street Address:  | 1 Eastern Avenue                                    |                           |                |                |  |  |  |
| City:  | Dhahran   |                           |                |                |  |  |  |
| State/Country:   |   | SAUDI ARABIA              |                |                |  |  |  |
| Postal Code:   | 31311   |                           |                |                |  |  |  |
| PROPERTY NUMBERS Total: 1  |   |                           |                |                |  |  |  |
| Property Type  |   |                           | Number         |                |  |  |  |
| Application Number: 13554  |   | 13554                     | 077            |                |  |  |  |
| CORRESPONDENCE DATA  |   |                           |                |                |  |  |  |
| Fax Number:  | mber: 7132211212                                    |                           |                |                |  |  |  |
| Phone:   | 713.221.1564  |                           |                |                |  |  |  |
| Email:   | 7132211212<br>713.221.1564<br>jeanne.dunn@bgllp.com |                           |                |                |  |  |  |
| Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail. |   |                           |                |                |  |  |  |
| Correspondent Name   |   |                           |                |                |  |  |  |
| Address Line 1:  | P.O. Box 61389                                      |                           |                |                |  |  |  |
| Address Line 4: Houston, TEXAS 77208   |   |                           |                |                |  |  |  |
| ATTORNEY DOCKET NUMBER:  |   |                           | 004159.007058  |                |  |  |  |
| NAME OF SUBMITTER:   |   |                           | Jeanne E. Dunn |                |  |  |  |
| Total Attachments: 2<br>source=007058_Assignment#page1.tif<br>source=007058_Assignment#page2.tif               |   |                           |                |                |  |  |  |

## **ASSIGNMENT**

WHEREAS, I, YUNLAI YANG, (hereinafter referred to as "ASSIGNOR"), have made certain improvements or inventions described in a Non-Provisional Patent Application titled APPARATUS, COMPUTER READABLE MEDIUM, AND PROGRAM CODE FOR EVALUATING ROCK PROPERTIES WHILE DRILLING USING DOWNHOLE ACOUSTIC SENSORS AND A DOWNHOLE BROADBAND TRANSMITTING SYSTEM, which claims the benefit of U.S. Provisional Patent Application No. 61/539,165, filed with the U.S. Patent and Trademark Office on September 26, 2011, and have executed the patent application with the United States Patent and Trademark Office filed concurrently herewith (hereinafter "Patent Application"); and

WHEREAS, Saudi Arabian Oil Company, a Company with Limited Liability of Saudi Arabia, with a business address of 1 Eastern Avenue, Dhahran 31311, Saudi Arabia (hereinafter referred to as "SAUDI ARAMCO"), is desirous of acquiring the entire right, title and interest in and to the aforesaid improvements or inventions throughout the world, and all right, title and interest in, to and under any and all Letters Patent of the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, receipt whereof is hereby acknowledged, I do hereby sell, assign and transfer to SAUDI ARAMCO, its successors and assigns, all right, title and interest in and to said Patent Application set forth above, the invention or inventions therein shown and described and any improvements on said invention or inventions heretofore or hereafter made throughout the world, any and all divisions, continuations, or continuations-in-part of said Patent Application and all patents, United States and foreign, to be granted upon any such applications or for the invention or inventions thereof, any reissues, reexaminations, continuations, continuations-in-part or extensions of said patents, and all rights for past infringement related to any patents issued or to be issued thereon, the same to be held and enjoyed by them for their own use and benefit, and for the use and benefit of their successors, assigns, or other legal representatives, to the end of the term or terms for which patents are granted as fully and entirely as the same would have been held and enjoyed by the

## PATENT REEL: 028612 FRAME: 0585

ASSIGNOR if this assignment and sale had not been made.

And I hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States on said invention or inventions resulting from said Patent Application and from any and all divisions, continuations, continuations-in-part, and any reissues thereof, to SAUDI ARAMCO, as assignee of our entire interest, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith.

And I further hereby covenant and agree that I will, at any time, upon request, execute and deliver any and all papers that may be necessary or desirable to perfect the title of said invention or inventions and to such Letters Patent as may be granted therefor, to SAUDI ARAMCO, its successors, assigns, or other legal representatives, and that if SAUDI ARAMCO shall desire to file any divisional, continuation, or continuation-in-part applications or to secure a reexamination or reissue of such Letters Patent, or to file a disclaimer relating thereto, will upon request, sign all papers, make all rightful oaths and do all lawful acts requisite for the filing of such divisional, continuation, or continuation-in-part application for reissue and the procuring thereof, and for the filing of such disclaimer, without further compensation, but at the expense of said assignee, its successors, or other legal representatives.

And I do further covenant and agree that I will, at any time upon request, communicate to SAUDI ARAMCO, its successors, assigns or other legal representatives, such facts relating to said invention or inventions and Letters Patent or the file history thereof as may be known to me, and testify as to the same in any interference or other litigation when requested so to do, without further compensation, but at the expense of said assignee, its successors, or other legal representatives.

| EXECUTED THIS <u>8</u> day of | May         | , 2012 |
|-------------------------------|-------------|--------|
|                               | ta é-       | P      |
|                               | YUNLAI YANG | ()     |

3883403.1

**RECORDED: 07/23/2012**