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PATENTS ONLY

Atty Ref/Docket No.: 1880.276WO1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  
Clint P. Lozinsky, Jon Troy Gosney and Boguslaw Wiecek  
Additional name(s) of conveying party(ies) attached?  
 Yes  No  
3. Nature of conveyance:

Assignment  Merger  
 Security Agreement  Change of Name  
 Other

Execution Date: September 4, 2009, September 3, 2009,  
September 30, 2009

2. Name and address of receiving party(ies):  
Name: Halliburton Energy Services, Inc.  
Street Address: 10200 Bellaire Blvd  
City: Houston State: TX Zip: 77072  
Additional name(s) & address(es) attached?  Yes  No

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. PCT/US2009/52849, filed August 5, 2009

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:  
Name: Mark V. Muller  
Address:  
Schwegman, Lundberg & Woessner, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402-0938

6. Total number of applications and patents involved: 1  
7. Total fee (37 CFR 3.41): \$ 40.00  
 Enclosed  
 Authorized to be charged to deposit account 19-0743  
8. Please charge any additional fees or credit any over 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.

Mark V. Muller/Reg. No. 37,509  
Name of Person Signing

Mark V. Muller  
Signature

MARCH 29, 2010  
Date

Total number of pages including 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

GH \$40.00 190743 US0952849

## ASSIGNMENT

WHEREAS, We, Clint P. Lozinsky, residing at 10-3040 Spence Wynd SW, Edmonton, Alberta T6X 1N7, Canada, and Jon Troy Gosney, residing at 422 S. Holland, Bellville, TX 77418, and Boguslaw Wiecek, residing at 830 - 116A Street NW, Edmonton, Alberta T6J 6Z8, Canada, made certain new and useful inventions and improvements which are described in an application for U.S. Letters Patent on August 5, 2009, which application was assigned U.S. patent application serial number PCT/US09/52849, and is entitled AZIMUTHAL ORIENTATION DETERMINATION:

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

SELL, ASSIGN AND TRANSFER to Halliburton Energy Services, Inc. (the "Assignee"), a corporation of the State of Delaware, having a place of business at 10200 Bellaire Blvd, 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*

*No Provisional claim for priority is being made at this time.*

*No U.S. Non-Provisional claim for priority is being made at this time.*

*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

**ASSIGNMENT**

Client Ref. No. 2009-IP-020239 PCT/E-Biling 2009-IPRO-020239

Assignors: Clint P. Lozinsky et al.

Title: AZIMUTHAL ORIENTATION DETERMINATION

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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. 2009-IP-020239 PCT/E-Biling 2009-IPRO-020239

Assignors: Clint P. Lozinsky et al.

Title: AZIMUTHAL ORIENTATION DETERMINATION

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Docket No: 1880.276WO1

Serial Number: PCT/US09/52849

IN TESTIMONY WHEREOF, I have hereunto set my hand this 3 day of

September, 2009.

Jon Troy Gosney

STATE OF Texas )

)ss

COUNTY OF Harris )

On this 3 day of September, 2009 before me personally appeared Jon Troy Gosney, 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.

[SEAL]



Notary Public

ASSIGNMENT

Client Ref. No. 2009-IP-020239 PCT/E-Biling 2009-IPRO-020239

Assignors: Clint P. Lozinsky et al.

Title: AZIMUTHAL ORIENTATION DETERMINATION

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Docket No: 1880.276W01

Serial Number: PCT/US09/52849

IN TESTIMONY WHEREOF, I have hereunto set my hand this 30 day of

September, 2009.

Boguslaw Wiecek

Boguslaw Wiecek

Country

~~STATE~~ OF Canada )

Province

COUNTY OF Alberta )

On this 30 day of September, 2009 before me personally appeared Boguslaw Wiecek, 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.

[SEAL]

Nadia D. Koziak

No Expire on Commission

Notary Public in and for the Province of Alberta, Canada

Nadia D. Koziak  
Barrister & Solicitor