

PATENT ASSIGNMENT

Electronic Version v1.1

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SUBMISSION TYPE:	NEW ASSIGNMENT						
NATURE OF CONVEYANCE:	ASSIGNMENT						
CONVEYING PARTY DATA							
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Mikko Jaaskelainen</td> <td>06/11/2013</td> </tr> <tr> <td>Ian Bradford Mitchell</td> <td>06/11/2013</td> </tr> </tbody> </table>		Name	Execution Date	Mikko Jaaskelainen	06/11/2013	Ian Bradford Mitchell	06/11/2013
Name	Execution Date						
Mikko Jaaskelainen	06/11/2013						
Ian Bradford Mitchell	06/11/2013						
RECEIVING PARTY DATA							
Name:	Halliburton Energy Services, Inc.						
Street Address:	10200 Bellaire Blvd.						
City:	Houston						
State/Country:	TEXAS						
Postal Code:	77072						
PROPERTY NUMBERS Total: 1							
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13915166</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13915166		
Property Type	Number						
Application Number:	13915166						
CORRESPONDENCE DATA							
Fax Number:	8777697945						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
Phone:	(617) 542-5070						
Email:	apsi@fr.com						
Correspondent Name:	Fish & Richardson						
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Address Line 4:	Minneapolis, MINNESOTA 55440-1022						
ATTORNEY DOCKET NUMBER:	17697-0044001						
NAME OF SUBMITTER:	Joni McGuire						
Signature:	/Joni McGuire/						
Date:	06/11/2013						
Total Attachments: 3 source=Assignment 17697-0044001#page1.tif source=Assignment 17697-0044001#page2.tif source=Assignment 17697-0044001#page3.tif							

CH \$40.00 13915166

ASSIGNMENT

For valuable consideration, we, Ian Bradford Mitchell, of 5303 Mason Road #2224, Katy, TX 77450; Mikko Jaaskelainen, of 4011 Bell Hollow Lane, Katy, TX 77494; hereby assign to HALLIBURTON ENERGY SERVICES, INC., a corporation of Delaware, having a place of business at 10200 Bellaire Blvd., Houston, Texas 77072, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled GENERATING BROADBAND LIGHT DOWNHOLE FOR WELLBORE APPLICATION, filed 6/11/2013, and assigned U.S. Serial Number 13/915,166, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

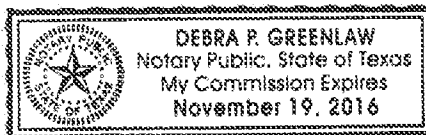
Mikko Jaaskelainen
Mikko Jaaskelainen

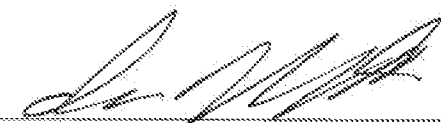
DATE: 6/11/13

STATE OF TEXAS §
 §
COUNTY OF Harris §

On the 11th day of June, 2013, before me, the undersigned notary public, personally appeared Mikko Jaaskelainen, known to me to be the person whose name is subscribed on the foregoing instrument.

Debra P. Greenlaw
Notary Public, State of Texas



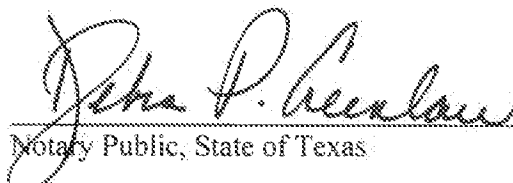


Ian Bradford Mitchell

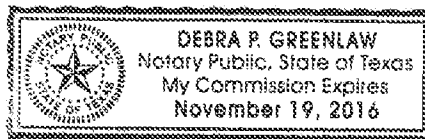
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STATE OF TEXAS §
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On the 11th day of June 2013, before me, the undersigned notary public, personally appeared Ian Bradford Mitchell, known to me to be the person whose name is subscribed on the foregoing instrument.



Notary Public, State of Texas



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