

PATENT ASSIGNMENT

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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>Philip Duncan Church</td> <td>11/13/2012</td> </tr> <tr> <td>Robert Peter Claridge</td> <td>11/13/2012</td> </tr> <tr> <td>Peter John Gould</td> <td>11/15/2012</td> </tr> <tr> <td>Richard Gordon Townsley</td> <td>11/13/2012</td> </tr> </tbody> </table>		Name	Execution Date	Philip Duncan Church	11/13/2012	Robert Peter Claridge	11/13/2012	Peter John Gould	11/15/2012	Richard Gordon Townsley	11/13/2012		
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<table border="1"> <tr> <td>Name:</td> <td>QINETIQ LIMITED</td> </tr> <tr> <td>Street Address:</td> <td>Cody Technology Park</td> </tr> <tr> <td>Internal Address:</td> <td>Ively Road</td> </tr> <tr> <td>City:</td> <td>Farnborough, Hampshire</td> </tr> <tr> <td>State/Country:</td> <td>UNITED KINGDOM</td> </tr> <tr> <td>Postal Code:</td> <td>GU14 0LX</td> </tr> </table>		Name:	QINETIQ LIMITED	Street Address:	Cody Technology Park	Internal Address:	Ively Road	City:	Farnborough, Hampshire	State/Country:	UNITED KINGDOM	Postal Code:	GU14 0LX
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CORRESPONDENCE DATA													
<p>Fax Number: 3129130002 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 3129130001 Email: hughes@mbhb.com Correspondent Name: McDonnell Boehnen Hulbert & Berghoff LLP Address Line 1: 300 S. Wacker Drive Address Line 2: Suite 3100 Address Line 4: Chicago, ILLINOIS 60606</p>													
ATTORNEY DOCKET NUMBER:	13-063-WO-US												
NAME OF SUBMITTER:	A. Blair Hughes												
<p>Total Attachments: 3 source=13-063-WO-US Assignment#page1.tif source=13-063-WO-US Assignment#page2.tif source=13-063-WO-US Assignment#page3.tif</p>													

CH \$40.00 13811331

DEED OF ASSIGNMENT OF PATENT APPLICATION

BY AND BETWEEN

(Inventors) Philip Duncan CHURCH
Robert Peter CLARIDGE
Peter John GOULD
Richard Gordon TOWNSLEY
and
(Assignee) QINETIQ LIMITED
(Address) Company No. 3796233, whose Registered Office is at Cody Technology Park, Ively
Road, Farnborough, Hampshire GU14 0LX United Kingdom (hereinafter referred to
as "the Assignee")

THIS DEED NOW WITNESSES

In accordance with their contract(s) of employment, and to the extent that it may be required to perfect the Assignee's ownership of the invention under the laws of any territory of the world, the undersigned hereby assign(s) to the Assignee the undersigned's entire right, title, and interest throughout the world – including in particular for the United States, its territories, dependencies, and possessions – in the invention identified in the Assignee's records as:

Improvements in and Relating to Oil Well Perforators (Case No. P7711/USW)

and in all applications for patents therefor and in all patents which may be granted therefor, for which the undersigned has (have) executed on even date herewith an application for a patent in the United States of America or an International application for a patent designating the United States of America, or if not on even date, then has executed on _____ or has already filed in _____
(Application Serial No. US/_____ or PCT/GB2011/001119 filed on 26 July 2011)

13/811,331 filed January 21, 2013

The undersigned acknowledge(s) an obligation of assignment of this invention to the Assignee at the time the invention was made.

The undersigned agree(s) to execute all papers and documents necessary in connection with the application or any interference which may be declared and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient and further to perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

The undersigned hereby authorize(s) and request(s) the United States Commissioner of Patents to issue any and all Letters Patent of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the firm of:

McDonnell Boehnen Hulbert & Berghoff Law Offices
300 South Wacker Drive Chicago, Illinois 60606-6709
United States of America

the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

EXECUTED AS A DEED by the undersigned on the date(s) opposite the undersigned signature(s).

Signature of Inventor	<u>Philip Duncan</u> Philip Duncan CHURCH	Date	<u>13 November 2012</u>
Witnessed by	<u>RJ C</u> RORY JOHN CORNISH	Date	<u>13 NOVEMBER 2012</u>
Signature of Inventor	<u>R. Claridge</u> Robert Peter CLARIDGE	Date	<u>13 NOVEMBER 2012</u>
Witnessed by	<u>Matthew Edward Williams</u> MATTHEW EDWARD WILLIAMS	Date	<u>13 NOVEMBER 2012</u>
Signature of Inventor	_____	Date	_____
	Peter John GOULD		
Witnessed by	_____	Date	_____
Signature of Inventor	<u>Richard Gordon</u> Richard Gordon TOWNSLEY	Date	<u>13 NOVEMBER 2012</u>
Witnessed by	<u>RJ Cornish</u> RORY JOHN CORNISH	Date	<u>13 NOVEMBER 2012</u>

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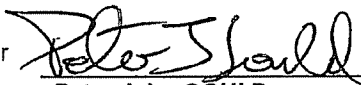
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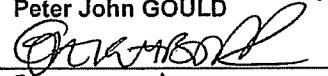
Signature of Inventor _____ Date _____
Philip Duncan CHURCH

Witnessed by _____ Date _____

Signature of Inventor _____ Date _____
Robert Peter CLARIDGE

Witnessed by _____ Date _____

Signature of Inventor  Date 15/11/12
Peter John GOULD

Witnessed by  Date 15/11/12
CLAIRE NEIGHBOUR

Signature of Inventor _____ Date _____
Richard Gordon TOWNSLEY

Witnessed by _____ Date _____