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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3067521

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
QOREX, LLC	05/01/2012

RECEIVING PARTY DATA

Name:	HSBC BANK CANADA
Street Address:	407 - 8TH AVENUE, S.W.
City:	CALGARY, AB
State/Country:	CANADA
Postal Code:	T2P1ES

PROPERTY NUMBERS Total: 5

Property Type	Number
Patent Number:	7526149
Patent Number:	7894061
Application Number:	13208910
Application Number:	13209015
Application Number:	13209000

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Email: bakerm@dsmo.com

Correspondent Name: DICKSTEIN SHAPIRO LLP
Address Line 1: 1825 EYE STREET, NW
Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER: Z9991.1500

NAME OF SUBMITTER: MADELINE E. BAKER

SIGNATURE: /meb/

DATE SIGNED: 10/16/2014

Total Attachments: 10 source=Security#page1.tif source=Security#page2.tif source=Security#page3.tif

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PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT

THIS PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT (the "Agreement"), dated as of May ___, 2012, is entered into by and between QOREX, LLC, a Connecticut limited liability company ("Pledgor"), and HSBC Bank Canada, a Canadian chartered bank ("Lender").

WHEREAS, Pledgor is (or will be with respect to after-acquired property) the legal and beneficial owner and the holder of the Patents, Trademarks and Copyrights (as defined in Section 1 hereof); and

WHEREAS, pursuant to that certain Facility Letter dated as of February 27, 2012 (as it may hereafter from time to time be restated, amended, modified or supplemented, the "Facility Letter") among Lender, Petrospec Engineering Ltd. (the "Borrower") and the corporate guarantors named therein, the Lender has agreed to make certain loans to the Borrower; and

WHEREAS, the obligation of the Lender to make loans under the Facility Letter is subject to the condition, among others, that the Pledgor provide a secured guarantee of the obligations of Borrower under the Facility Letter; and

WHEREAS, pursuant to that certain Guarantee dated as of May ___, 2012 (as it may hereafter from time to time be restated, amended, modified or supplemented, the "Guarantee") made by Pledgor in favor of Lender, the Pledgor has agreed to guarantee the obligations of Borrower under the Facility Letter; and

WHEREAS, Pledgor is entering into this Agreement to, among other things, grant a security interest to the Lender in Pledgor's patents, trademarks, copyrights and other property, to secure Pledgor's obligations under the Guarantee.

NOW, THEREFORE, intending to be legally bound hereby, the parties hereto agree as follows:

1. Defined Terms.

- (a) Except as otherwise expressly provided herein, capitalized terms used in this Agreement shall have the respective meanings assigned to them in the Guarantee or, if not defined therein, in the Security Agreement between Pledgor and Lender of even date herewith (the "Security Agreement"). Where applicable and except as otherwise expressly provided herein, terms used herein (whether or not capitalized) shall have the respective meanings assigned to them in the Uniform Commercial Code as enacted in the State of New York, as amended from time to time (the "Code").
- (b) "Breach" shall mean any breach or violation by Borrower or Pledgor of, or misrepresentation by Borrower or Pledgor contained in, this Agreement, the Facility Letter or the Guarantee or any other agreement or instrument entered into by Borrower or Pledgor in connection therewith.

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- (c) "Obligations" shall mean any obligation, liability or indebtedness of Pledgor, howsoever created, arising or evidenced, whether direct or indirect, absolute or contingent, now or hereafter existing, or due or to become due, under, arising out of or in connection with the Guarantee, the Facility Letter, the Loans thereunder, or any other agreements or instruments executed by Pledgor in connection therewith.
- (d) "Patents, Trademarks and Copyrights" shall mean and include all of Pledgor's present and future right, title and interest in and to the following: all trade names, patent applications, patents, trademark applications, trademarks and copyrights, whether now owned or hereafter acquired by Pledgor, including, without limitation, those listed on Schedule A hereto, including all proceeds thereof (such as, by way of example, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, and the goodwill of the business to which any of the patents, trademarks and copyrights relate.
- (e) "Payment Demand" shall mean Lender has made a demand for Payment in Full and Payment in Full has not been made.
- (f) "Payment in Full" shall mean the indefeasible payment in full in cash of the Loans under the Facility Letter and all other Secured Obligations, termination of all commitments of Lender under the Facility Letter and expiration or termination of all letters of credit issued pursuant to the Facility Letter.
- (g) "Secured Obligations" shall mean and include the following: all now existing and hereafter arising Obligations of Pledgor to the Lender under, arising out of or in connection with the Guarantee, the Facility Letter, the Loans thereunder, or any of the other agreements or instruments executed by Pledgor in connection therewith, including without limitation all obligations of Pledgor to Lender for principal, interest, fees, indemnities, reimbursement obligations, costs, expenses or otherwise.
- 2. To secure Payment in Full, Pledgor hereby grants and conveys a security interest to the Lender in the entire right, title and interest of Pledgor in and to all of its Patents, Trademarks and Copyrights.
 - 3. Pledgor covenants and warrants that:
- (a) the Patents, Trademarks and Copyrights listed on <u>Schedule A</u> hereto are subsisting and have not been adjudged invalid or unenforceable, in whole or in part;
- (b) to the best of such Pledgor's knowledge, each of the Patents, Trademarks and Copyrights listed on <u>Schedule A</u> hereto is valid and enforceable;
- (c) except as set forth on <u>Schedule B</u> hereto, such Pledgor is the sole and exclusive owner of the entire and unencumbered right, title and interest in and to each of its Patents, Trademarks and Copyrights, free and clear of any liens, charges and encumbrances, including without limitation pledges, assignments, licenses, shop rights and covenants by such Pledgor not

to sue third persons, other than Liens in favor of the Lender and Permitted Liens (as defined in the Security Agreement);

- (d) such Pledgor has the corporate, limited liability company, or partnership, as the case may be, power and authority to enter into this Agreement and perform its terms;
- (e) no claim has been made to such Pledgor or, to the knowledge of such Pledgor, any other person, that the use of any of the Patents, Trademarks and Copyrights does or may violate the rights of any third party;
- (f) such Pledgor has used, and will continue to use for the duration of this Agreement, proper statutory notice in connection with its use of the Patents, Trademarks and Copyrights, except for those Patents, Trademarks and Copyrights that are hereafter allowed to lapse in accordance with Paragraph 10 hereof;
- (g) such Pledgor will not change its state of incorporation, formation or organization, as applicable without providing thirty (30) days prior written notice to the Lender;
- (h) such Pledgor will not change its name without providing thirty (30) days prior written notice to the Lender; and
- (i) such Pledgor shall preserve its limited liability company existence and shall not (i) in one, or a series of related transactions, merge into or consolidate with any other entity, the survivor of which is not such Pledgor, or (ii) sell all or substantially all of its assets.
- 4. Pledgor agrees that, until the Payment in Full, it will not enter into any agreement (for example, a license agreement) which is inconsistent with such Pledgor's obligations under this Agreement, without the Lender's prior written consent which shall not be unreasonably withheld, except such Pledgor may license technology (i) to Borrower and the Corporate Guarantors (as defined in the Facility Letter) and (ii) in the ordinary course of business to suppliers and customers to facilitate the manufacture and use of such Pledgor's products without the Lender's consent.
- 5. If, before Payment in Full, Pledgor shall own any new trademarks or any new copyrightable or patentable inventions, or any patent application or patent for any reissue, division, continuation, renewal, extension, or continuation in part of any Patent, Trademark or Copyright or any improvement on any Patent, Trademark or Copyright, the provisions of this Agreement shall automatically apply thereto and such Pledgor shall give to the Lender prompt notice in writing of any such future patents, patent applications, trademark applications, statements of use or use or other change in the status of any intent-to-use trademark applications, trademark registrations, copyright applications and copyright registrations. Pledgor and the Lender agree to modify this Agreement by amending <u>Schedule A</u> to include any future patents, patent applications, trademark applications, statements of use or use or other change in the status of any intent-to-use trademark applications, trademark registrations, copyright registrations.
- 6. The Lender shall have, in addition to all other rights and remedies given it by this Agreement and those rights and remedies set forth in the Facility Letter, the Guarantee and the

other agreements and instruments entered into in connection therewith, those allowed by applicable law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents, Trademarks and Copyrights may be located and, without limiting the generality of the foregoing, if a Breach or Payment Demand has occurred and is continuing, the Lender may immediately, without demand of performance and without other notice (except as set forth below) or demand whatsoever to Pledgor, all of which are hereby expressly waived, and without advertisement, sell at public or private sale or otherwise realize upon, in a city that the Lender shall designate by notice to such Pledgor, the whole or from time to time any part of the Patents, Trademarks and Copyrights, or any interest which such Pledgor may have therein. Notice of any sale or other disposition of the Patents, Trademarks and Copyrights shall be given to the Pledgor at least ten (10) days before the time of any intended public or private sale or other disposition of the Patents, Trademarks and Copyrights is to be made, which Pledgor hereby agrees shall be reasonable notice of such sale or other disposition. At any such sale or other disposition, the Lender may, to the extent permissible under applicable law, purchase the whole or any part of the Patents, Trademarks and Copyrights sold, free from any right of redemption on the part of Pledgor, which right is hereby waived and released.

- 7. If any Breach or Payment Demand shall have occurred and shall be continuing, Pledgor hereby authorizes and empowers the Lender to make, constitute and appoint any officer of the Lender, as the Lender may select in its exclusive discretion, as such Pledgor's true and lawful attorney-in-fact, with the power to endorse such Pledgor's name on all applications, documents, papers and instruments necessary for the Lender to use the Patents, Trademarks and Copyrights, or to grant or issue, on commercially reasonable terms, any exclusive or nonexclusive license under the Patents, Trademarks and Copyrights to any third person, or necessary for the Lender to assign, pledge, convey or otherwise transfer title in or dispose, on commercially reasonable terms, of the Patents, Trademarks and Copyrights to any third Person. Pledgor hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney, being coupled with an interest, shall be irrevocable so long as such Breach or Payment Demand is continuing.
- 8. At such time as Payment in Full shall have occurred, this Agreement shall terminate and the Lender will thereafter, upon Pledgor's request and at such Pledgor's expense, execute and deliver to Pledgor all deeds, assignments and other instruments as may be necessary or proper to remove the Lender's security interest in the Patents, Trademarks and Copyrights, subject to any disposition thereof which may have been made by the Lender pursuant hereto.
- 9. Any and all fees, costs and expenses, of whatever kind or nature, including reasonable attorney's fees and expenses incurred by the Lender in connection with the preparation of this Agreement and all other documents relating hereto and the consummation of this transaction, the filing or recording of any documents (including all taxes in connection therewith) in public offices, the payment or discharge of any taxes, counsel fees, maintenance fees, encumbrances, the protection, maintenance or preservation of the Patents, Trademarks and Copyrights, or the defense or prosecution of any actions or proceedings arising out of or related to the Patents, Trademarks and Copyrights, shall be borne and paid by the Pledgor.

- 10. Pledgor shall have the duty to prosecute diligently any patent applications of the Patents, Trademarks and Copyrights pending as of the date of this Agreement if commercially reasonable or thereafter until Payment in Full, to make application on unpatented but patentable inventions (whenever it is commercially reasonable in the reasonable judgment of such Pledgor to do so) and to preserve and maintain all rights in patent applications and patents included in the Patents, Trademarks and Copyrights, including without limitation the payment of all maintenance fees. Any expenses incurred in connection with such an application shall be borne by the Pledgor. Pledgor shall not abandon any Patent, Trademark or Copyright without the consent of the Lender, which shall not be unreasonably withheld.
- 11. Pledgor shall have the right to bring suit, action or other proceeding in its own name, and to join the Lender, if necessary, as a party to such suit so long as the Lender is satisfied that such joinder will not subject it to any risk of liability, to enforce the Patents, Trademarks and Copyrights and any licenses thereunder. Pledgor shall promptly, upon demand, reimburse and indemnify the Lender for all damages, costs and expenses, including reasonable legal fees, incurred by the Lender as a result of such suit or joinder by such Pledgor.
- 12. No course of dealing between Pledgor and the Lender, nor any failure to exercise nor any delay in exercising, on the part of the Lender, any right, power or privilege hereunder or under the Facility Letter, the Guarantee or the other agreements or instruments entered into in connection therewith shall operate as a waiver of such right, power or privilege, nor shall any single or partial exercise of any right, power or privilege hereunder or thereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.
- 13. All of the Lender's rights and remedies with respect to the Patents, Trademarks and Copyrights, whether established hereby or by any other agreements or by law, shall be cumulative and may be exercised singularly or concurrently.
- 14. The provisions of this Agreement are severable, and if any clause or provision shall be held invalid and unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part thereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any clause or provision of this Agreement in any jurisdiction.
- 15. This Agreement is subject to modification only by a writing signed by the parties, except as provided in Paragraph 5.
- 16. The benefits and burdens of this Agreement shall inure to the benefit of and be binding upon the respective successors and permitted assigns of the parties, <u>provided</u>, <u>however</u>, that Pledgor may not assign or transfer any of its rights or obligations hereunder or any interest herein and any such purported assignment or transfer shall be null and void.
- 17. This Agreement shall be deemed to be a contract under the laws of the State of New York and shall, pursuant to New York General Obligations Law 5-1401, for all purposes be governed by and construed and enforced in accordance with the laws of the State of New York.

- 18. Pledgor hereby irrevocably submits to the nonexclusive jurisdiction of any federal or state courts in the State of New York in any action or proceeding arising out of or relating to this Agreement, and Pledgor hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in such New York state or federal court. Pledgor hereby waives to the fullest extent it may effectively do so, the defense of an inconvenient forum to the maintenance of any such action or proceeding.
- 19. This Agreement may be executed in any number of counterparts, and by different parties hereto in separate counterparts, each of which, when so executed, shall be deemed an original, but all such counterparts shall constitute one and the same instrument. Pledgor acknowledges and agrees that a telecopy transmission to the Lender of the signature pages hereof purporting to be signed on behalf of Pledgor shall constitute effective and binding execution and delivery hereof by such Pledgor.
- 20. EACH OF PLEDGOR AND THE LENDER HEREBY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY A JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER, OR IN CONNECTION WITH THIS AGREEMENT OR ANY OTHER DOCUMENTS OR TRANSACTIONS RELATING THERETO.
- 21. All notices, requests, demands, directions and other communications (collectively, "notices") given to or made upon any party hereto under the provisions of this Agreement shall be as set forth in Section 9.9 of the Guarantee.
- 22. Pledgor acknowledges and agrees that, in addition to the other rights of the Lender hereunder and under the Facility Letter, the Guarantee and the other agreements and instruments entered into in connection therewith, because the Lender's remedies at law for failure of such Pledgor to comply with the provisions hereof relating to the Lender's rights (i) to inspect the books and records related to the Patents, Trademarks and Copyrights, (ii) to receive the various notifications such Pledgor is required to deliver hereunder, (iii) to obtain copies of agreements and documents as provided herein with respect to the Patents, Trademarks and Copyrights, (iv) to enforce the provisions hereof pursuant to which such Pledgor has appointed the Lender its attorney-in-fact, and (v) to enforce the Lender's remedies hereunder, would be inadequate and that any such failure would not be adequately compensable in damages, such Pledgor agrees that each such provision hereof may be specifically enforced.

[SIGNATURES APPEAR ON FOLLOWING PAGES]

-6-

[SIGNATURE PAGE TO PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers thereunto duly authorized, as of the date first above written.

QOREX, LLC				
By:				
Name: Kel KnuBer				
Title: Marages				
HSBC Bank Canada				
By:				
Name:				

[SIGNATURE PAGE TO PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers thereunto duly authorized, as of the date first above written.

QOREX, LLC

By:	
Name:	
Title:	_
HSBC Bank Canada	
By:	
Name:	
Title:	

KEVIN BALE
Assistant Vice President
Energy Financing

SCHEDULE A TO PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT

LIST OF REGISTERED PATENTS, TRADEMARKS, TRADE NAMES AND COPYRIGHTS

Debtor: Qorex, LLC

Issued U.S. Patents of Debtor

Patent No. <u>Title</u>

US 7,526,149 Dual Wavelength Strain-Temperature Brillouin

Sensing System And Method

US 7,894,061 Polarization Based Fiber Optic Downhole

Flowmeter

Pending U.S. Patent Applications of Debtor

Serial No. <u>Title</u>

High Temperature Fiber Optic Turnaround

13/209,015 Method For Performing Optical Distributed

Temperature Sensing (DTS) Measurements In

Hydrogen Environments

13/209,000 Low Profile, High Temperature, Hydrogen

Tolerant Optical Sensing Cable

STM 292099.1

SCHEDULE B TO PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT

LIST OF LIENS, CHARGES AND ENCUMBRANCES OTHER THAN PERMITTED LIENS

NONE

STM 292099.1

RECORDED: 10/16/2014