

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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EPAS ID: PAT4180272

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HOWARD DAVID YINGST	12/09/2016
CHAO WANG	12/09/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ION GEOPHYSICAL CORPORATION
<b>Street Address:</b>	2105 CITYWEST BOULEVARD, SUITE 400
<b>City:</b>	HOUSTON
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	77042-2839
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15375471
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(612)340-8827
<i>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.</i>	
<b>Phone:</b>	612-340-2600
<b>Email:</b>	docketing-dv@dorsey.com
<b>Correspondent Name:</b>	DORSEY & WHITNEY LLP
<b>Address Line 1:</b>	50 SOUTH SIXTH STREET, SUITE 1500
<b>Address Line 2:</b>	INTELLECTUAL PROPERTY PRACTICE GROUP
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55402-1498
<b>ATTORNEY DOCKET NUMBER:</b>	P257826.US.02
<b>NAME OF SUBMITTER:</b>	EMMA L. HUTTON
<b>SIGNATURE:</b>	/Emma L. Hutton/
<b>DATE SIGNED:</b>	12/12/2016
<b>Total Attachments: 4</b>	
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**ASSIGNMENT**

WHEREAS, we, Howard David Yingst, residing in Houston Texas, and Chao Wang, residing in Houston, Texas (hereinafter individually and collectively the "Assignor"), have invented certain new and useful systems, devices, and methods disclosed and described in a provisional patent application titled "SYSTEM AND METHOD FOR TIME DOMAIN RECONSTRUCTED WAVEFIELD FWI (TDRWFI)" which can be identified in the United States Patent and Trademark Office ("USPTO") by Application No. 62/266,516, filed on December 11, 2015 (the "Provisional Application") with attorney docket no. P257826.US.01, by Application No. 15/375,471, filed on December 12, 2016 (the "Utility Application") with attorney docket no. P257826.US.02, and Application No. PCT/US16/66103, filed on December 12, 2016 (the "International Application") with attorney docket no. P257826.WO.01; and

WHEREAS, Assignor desires to assign any and all right, title and interest to said Provisional Application, and any provisional, non-provisional, continuation, continuation-in-part, divisional, international, foreign, regional and convention applications corresponding thereto, and any and all Letters Patent of the United States and countries and regions foreign thereto which may grant or have granted thereto or be lodged in relation thereto, any reissue or reexamination thereof or to be obtained therefor, any renewals, or substitutes thereof, and in and to any and all priority rights or priority claims, International Convention rights, any and all rights to collect past damages for infringement of any and all Letters Patent of the United States and countries and regions foreign thereto which may be published, which may grant, or have granted thereto or be lodged in relation thereto, and other benefits accruing to or to accrue to Assignor with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto (the "Patent Rights");

WHEREAS, ION Geophysical Corporation, a corporation organized and existing under the laws of the State of Delaware, and having its principal place of business at 2105 CityWest Boulevard, Suite 400, Houston, Texas 77042-2839 (the "Assignee"), desires to acquire any and all, right, title, and interest of Assignor in and to the invention(s), the Patent Rights, and in, to, and under any and all Letters Patent to be obtained therefor;

NOW THEREFORE, for the sum of \$1.00 and other good and valuable consideration to me in hand paid, the receipt and sufficiency of which are hereby acknowledged, Assignor has sold, assigned, and transfer and by these presents does hereby sell, assign and transfer to the said Assignee, and said Assignee's legal representatives, successors and assigns, any and all of the entire right, title and interest in and to the invention, Patent Rights, and any and all Letters Patent to be obtained therefor;

UPON SAID CONSIDERATION, the Assignor hereby covenants and agrees with the said Assignee that it will not execute any writing or do any act whatsoever conflicting with these presents, and that it will, at any time upon request, without further or additional consideration, but at the expense of the said Assignee, execute such additional assignments and other writings and do such additional acts as said Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, provisionals, non-provisionals, continuations, continuations-in-part, continuing prosecutions, divisionals, renewals, reissues, reexamined or extended Letters Patent of the United States, or of any and all foreign countries, on said Patent Rights, and execute confirmatory assignments or acknowledgments of this assignment as necessary for full enjoyment of the Patent Rights and for recording in foreign patent offices, and in enforcing any rights or choses in action accruing as a result of such Patent Rights, by giving

testimony in any proceedings or transactions involving such Patent Rights, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties;

UPON SAID CONSIDERATION, Assignor represents and warrants that Assignor has the right, title, and authority to execute this Assignment and to convey any and all right, title, and interest in the Patent Rights, and that Assignor has not conveyed nor will convey hereafter all or part of the Patent Rights to a third party;

ASSIGNOR HEREBY AUTHORIZES said Assignee, its successors, and assigns, or anyone it may properly designate, to apply for Letters Patent in the U.S. and any and all foreign countries and regions, in its own name if desired, and additionally to claim priority to the filing date of the Provisional Application and otherwise take advantage of the provisions of any international conventions.

ASSIGNOR HEREBY AUTHORIZES Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the application number, filing date, and title of the Provisional Application once known.

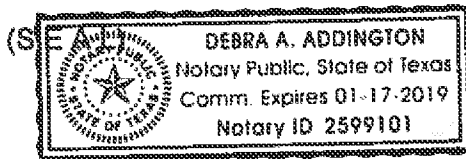
IN WITNESS WHEREOF, the Assignor hereunto has executed this Assignment upon the date indicated below.

Date: 12/9/2016

By: Howard David Yingst  
Howard David Yingst

STATE OF TEXAS )  
COUNTY OF HARRIS ) ss.

On this 9 day of December, 2016, before me a Notary Public in and for said county, personally appeared Howard David Yingst, who executed the foregoing instrument and acknowledged that he signed, sealed and delivered the same instrument as a free and voluntary act for the purposes and considerations therein expressed.



Debra A. Addington  
Notary Public

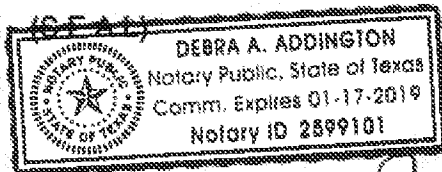
My commission expires: Jan 17 2019

Date: Dec 9 2016

By: [Signature]  
Chao Wang

STATE OF TEXAS )  
COUNTY OF Harris ) ss.

On this 9 day of December, 2016, before me a Notary Public in and for said county, personally appeared Chao Wang, who executed the foregoing instrument and acknowledged that he signed, sealed and delivered the same instrument as a free and voluntary act for the purposes and considerations therein expressed.



[Signature]  
Notary Public

My commission expires: Jan 17 2019

**ACCEPTANCE OF ASSIGNMENT**

The Assignee hereby acknowledges and accepts the foregoing assignment of rights by Assignor.

IN TESTIMONY WHEREOF, the Assignee, by its undersigned officer, confirms its acceptance on the date and in the place set forth below.

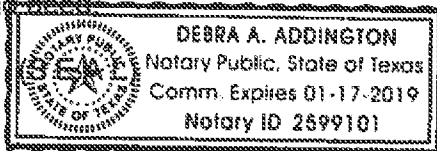
ION Geophysical Corporation

Date: Dec 9 2016

By: [Signature]  
Name: James S. Seely  
Title: VP

STATE OF Texas )  
COUNTY OF Harris ) ss.

On this 9 day of December, 2016, before me a Notary Public in and for said county, personally appeared James Seely, the above-mentioned representative of the Assignee, ION Geophysical Corporation, who executed the foregoing patent Assignment, and represented and acknowledged that he/she had the requisite corporate authority to execute and accept this patent Assignment and the same was executed as a free act and deed.



[Signature]  
Notary Public

My commission expires: Jan 17 2019