504116322 11/30/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4162992

		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ				
		Name	Execution Date		
SEAN CRAWLEY			11/18/2016		
JAIME RAMOS-MARTIN	1EZ		11/18/2016		
ALEJANDRO A. VALEN		IAVILIO	11/18/2016		
NIZAR CHEMINGUI			11/18/2016		
RECEIVING PARTY DA					
Name:	PGS GI	EOPHYSICAL AS			
Street Address:	P.O. BC	DX 251 LILLEAKER			
City:	OSLO				
State/Country:	NORW	ΑY			
Postal Code:	0216				
Application Number:		15364585			
		20005057			
Application Number: Application Number:		62265657			
		62265657			
Application Number: CORRESPONDENCE D	ΟΑΤΑ	(612)659-9344			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i>	DATA be sent to		ccessful, it will be sent via US Mail.		
Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if p	DATA De sent to provided	(612)659-9344 • the e-mail address first; if that is unsu	ccessful, it will be sent via US Mail.		
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Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1:	DATA be sent to provided	(612)659-9344 the e-mail address first; if that is unsu if that is unsuccessful, it will be sent 612-659-9340 pgs.docketing@bipl.net BROOKS, CAMERON & HUEBSCH, PLL 1201 MARQUETTE AVENUE SOUTH	via US Mail.		
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Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone:	DATA e sent to provided	(612)659-9344 the e-mail address first; if that is unsu if that is unsuccessful, it will be sent 612-659-9340 pgs.docketing@bipl.net BROOKS, CAMERON & HUEBSCH, PLL 1201 MARQUETTE AVENUE SOUTH	via US Mail.		
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Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	DATA be sent to provided	(612)659-9344 the e-mail address first; if that is unsu if that is unsuccessful, it will be sent 612-659-9340 pgs.docketing@bipl.net BROOKS, CAMERON & HUEBSCH, PLL 1201 MARQUETTE AVENUE SOUTH SUITE 400 MINNEAPOLIS, MINNESOTA 55403	via US Mail.		
Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	DATA be sent to provided	(612)659-9344 the e-mail address first; if that is unsu if that is unsuccessful, it will be sent 612-659-9340 pgs.docketing@bipl.net BROOKS, CAMERON & HUEBSCH, PLL 1201 MARQUETTE AVENUE SOUTH SUITE 400 MINNEAPOLIS, MINNESOTA 55403 PGS-15144-US-ORG1	via US Mail.		

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ASSIGNMENT

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

SELL, ASSIGN AND TRANSFER to PGS Geophysical AS (the "Assignee"). having a place of business at P.O. Box 251 Lilleaker, 0216, Oslo, Norway, the entire right, title and interest in the application for United States Provisional Application Serial No. 62/265.657 which has been filed on 10-Dec-2015 and is entitled "Full Waveform Inversion Gradient Computation by a Non-Specular Reflection Imaging Condition" and United States Non-Provisional Application Serial No. 15/364,585, filed on November 30, 2016, and is entitled "Velocity Model Update with an Inversion Gradient" and for the United States and all other countries in and to all improvements which are disclosed in such application, and all divisional, continuing, substitute, renewal, reissue, provisional and all other applications for patent which have been or shall be filed in the United States and all other countries or international or regional patent offices on any of such improvements, all original and reissued patents which have been or shall be issued in the United States and all other countries or regional or international patent offices on such improvements, and specifically including the right to file applications in other countries or international or regional patent offices under the provisions of any convention or treaty and claim priority based on such United States application;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and other patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other

> Assignment PGS-15144-US-ORG1

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papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements;

TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

Signature:	<u> </u>	Law.	11/10/2016
Name:	Sean Crawley		*

Place of Signature UNCT

BEFORE ME, the undersigned witness, on this 18^{16} day of them ber, 2016, personally appeared <u>Sean Crassles</u>, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed.

Witness's Signature Witness's Printed

Witness's Address

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	$, \cap$			
Signature:	Ala			
Name:	Jaime Ramos-Martinez			

Date: 11 18 2016

Place of Signature HOUS FON TX, USA

BEFORE ME, the undersigned witness, on this _____ day of _____, 2016, personally appeared ______, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed.

Witness's Signature

SHAOPING LU Witness's Printed Name

1518 Olive Garden, Houston TX 77077 Witness's Address

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Signature:	- AA->	Date: /1-18 - 2016
Name:	Alejandro A. Valenciano Mavilio	
Place of Si	gnature Houston, 7	-X, USA

BEFORE ME, the undersigned witness, on this _____ day of _____, 2016, personally appeared ______, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed.

Witness's Signature ZIJIAN LIU Witness's Printed Name 27906 Hunters Rock In, Kaiy TX 77494 Witness's Address Date: Nov-18-2016 Signature: Name: Nizar Chemingui Houston, TX, US, Place of Signature BEFORE ME, the undersigned witness, on this 18 day of November, 2016, personally appeared Nizar Cheming vi, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed. Witness's Signature

SHAOPING LU

Witness's Printed Name

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1518 Olive Garden, Houston TX 77077

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