505659868 09/06/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5706673

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TOMMY LANGNES	04/05/2017
PRADYUMNA THIRUVENKATANATHAN	04/06/2017

RECEIVING PARTY DATA

Name:	BP EXPLORATION OPERATING COMPANY LIMITED
Street Address:	CHERTSEY ROAD, SUNBURY ON THAMES
City:	MIDDLESEX
State/Country:	UNITED KINGDOM
Postal Code:	TW16 7BP

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	16563544
Application Number:	16091519

CORRESPONDENCE DATA

Fax Number: (713)238-8008

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.

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THADDEUS J. FALESKI/CONLEY ROSE, P.C. **Correspondent Name:** Address Line 1: 575 N. DAIRY ASHFORD RD., SUITE 1102

Address Line 4: HOUSTON, TEXAS 77079

ATTORNEY DOCKET NUMBER:	3239-00411
NAME OF SUBMITTER:	THADDEUS J. FALESKI
SIGNATURE:	/Thaddeus J. Faleski/
DATE SIGNED:	09/06/2019

Total Attachments: 4

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PATENT REEL: 050298 FRAME: 0874 505659868

ASSIGNMENT

WHEREAS. WE, Pradyumna THIRUVENKATANATHAN and Tommy LANGNES, of Indian and Norwegian nationality respectively, and residing at Richmond upon Thames, Surrey, United Kingdom and Weybridge, Surrey, United Kingdom respectively, have made inventions relating to "Detecting Downhole Sand Ingress Locations" and "Detecting Downhole Events Using Acoustic Frequency Domain Features" which are the subject of BP Patent Case number 500843, filed on 7th April 2016 under United Kingdom Patent Application Number 1605969.3, and BP Patent Case number 501061, filed on 21st December 2016 under United States Patent Application Number 62/437318 (hereinafter the "Inventions").

WHEREAS WE, Pradyumna THIRUVENKATANATHAN and Tommy LANGNES when contributing to said Inventions and improvements thereto were employed by BP EXPLORATION OPERATING COMPANY LIMITED having a registered office at Chertsey Road, Sunbury on Tharnes, Middlesex, TW16 7BP, United Kingdom and being registered in England and Wales with company number 305943 and are joint inventors of said Inventions:

WHEREAS WE, Pradyumna THIRUVENKATANATHAN and Tommy LANGNES each acknowledges that all rights in said Inventions and improvements thereto and the right to file patent applications therefor in any and all countries of the world and to any and all patent applications therefor and any Letters Patent which may be issued thereupon in any and all countries of the world have vested in BP EXPLORATION OPERATING COMPANY LIMITED by contract of employment or through application of law;

WHEREAS said above-identified United States Patent Application Number 62/437318 was filed in the name BP CORPORATION NORTH AMERICA INC, having its address at 501 Westlake Park Boulevard, Houston, TX 77079, United States of America and a request to correct the applicant to identify BP EXPLORATION OPERATING COMPANY LIMITED was subsequently filed; and

WHEREAS it is the wish of all the parties that the entire right, title and interest in, to and under the said Inventions and any improvements thereon including priority rights and the right to file patent applications therefor in any and all countries of the world any, and all patent applications therefor in the USA and all other countries of the world, and any and all Letters Patent which may be issued thereupon in the USA and all other countries of the world, shall vest solely in said BP EXPLORATION OPERATING COMPANY LIMITED;

NOW THEREFORE, to the extent that specific assignment of the Inventions and/or improvements thereon and the right to file patent applications therefor in any country of the world is needed for the purpose of recording or registration in any patent office, industrial property office or like governmental authority, WE, the said Pradyumna THIRUVENKATANATHAN and Tommy LANGNES, and BP CORPORATION NORTH AMERICA INC. for valuable consideration, the receipt and adequacy of which we hereby acknowledge, agree to sell, assign, transfer and set over, and by these presents do hereby sell, assign, transfer and set over, unto BP EXPLORATION OPERATING COMPANY LIMITED, its successors and assigns, and BP EXPLORATION OPERATING COMPANY LIMITED agrees to accept and hereby does accept, the entire right, title and interest in, to

PATENT REEL: 050298 FRAME: 0875 and under the said Inventions and any improvements thereon including priority rights and the right to file patent applications therefor in any and all countries of the world, and the right to claim priority from any patent application (including but not limited to United Kingdom Patent Application Number 1605969.3 and United States Patent Application Number 62/437318) for said Inventions and any improvements thereon in any country of the world, and any and all patent applications (including but not limited to United Kingdom Patent Application Number 1605969.3 and United States Patent Application Number 62/437318) and Letters Patent for said Inventions and improvements in the USA and all other countries of the world, and all divisions, renewals and continuations thereof, and all reissues and extensions thereof, with effect from 7th April 2016.

And WE hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute any agreement or other instrument in conflict herewith.

And WE hereby further covenant and agree that we will communicate to the assignee herein, its successors, legal representatives and assigns any facts known to us respecting said Inventions, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing, renewal, reissue and extension applications, make all rightful declarations, and generally do everything possible to aid the assignee herein, its successors, legal representatives and assigns in obtaining and enforcing proper patent protection for said Inventions in the USA and all other countries of the world.

ted:	Pradyumna <u>THIRUVENKATANATHAN</u>	Witnessed
	_	PRINT NAME
ed:	Tommy <u>LANGNES</u>	Witnessed
	ů.	PRINT NAME

Agreed for BP CORPORATION NORTH AMERICA INC. :

Dated: 4/5/17

(signed)

(print name)

Page 2 of 3

and under the said Inventions and any improvements thereon including priority rights and the right to file patent applications therefor in any and all countries of the world, and the right to claim priority from any patent application (including but not limited to United Kingdom Patent Application Number 1605969.3 and United States Patent Application Number 62/437318) for said Inventions and any improvements thereon in any country of the world, and any and all patent applications (including but not limited to United Kingdom Patent Application Number 1605969.3 and United States Patent Application Number 62/437318) and Letters Patent for said Inventions and improvements in the USA and all other countries of the world, and all divisions, renewals and continuations thereof, and all reissues and extensions thereof, with effect from 7th April 2016.

And WE hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute any agreement or other instrument in conflict herewith.

And WE hereby further covenant and agree that we will communicate to the assignee herein, its successors, legal representatives and assigns any facts known to us respecting said Inventions, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing, renewal, reissue and extension applications, make all rightful declarations, and generally do everything possible to aid the assignee herein, its successors, legal representatives and assigns in obtaining and enforcing proper patent protection for said Inventions in the USA and all other countries of the world.

	Emmanus American Amer	
Dated: 05/04/17	Pradyumna THIRUVENKATANATHAN	Witnessed
· ·	1 0 000 \$ 00111103 1.101150 4 T. 18101-2 1-11 18-1 18 15-18	- Mullessen
	···	D.L. MASON PRINT NAME
٠		A Limes Parties
A. c.	1	497/
Dated: 4/4/17	Tommy LANGUES	Witnessed
•	4	~
9	*	EINNS (HORESTA) PRINT NAME
*	e e e e e e e e e e e e e e e e e e e	
Agreed for BP CORP	ORATION NORTH AMERICA INC. ;	
• 		
Dated:	(signed)	
	(print name)	

PATENT REEL: 050298∉FRAME: 0877

Accepted for B	P EXPL	ORATION	OPERATING	COMPANY LIMITED	•
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Dated : 6/04/2017 (signed) F M-Colunt (print name) F M Colunt

PATENT 3 of 3 REEL: 050298 FRAME: 0878

RECORDED: 09/06/2019