505577805 07/18/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PRESTON ANDREW MAY	06/01/2018
ERIC BENJAMIN FRANTZ	06/01/2018

RECEIVING PARTY DATA

Name:	HALLIBURTON ENERGY SERVICES, INC.	
Street Address:	3000 N. SAM HOUSTON PARKWAY E.	
City:	HOUSTON	
State/Country:	TEXAS	
Postal Code:	77032	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16478938

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NAME OF SUBMITTER:	ANGIE DAVIS	
SIGNATURE:	/Angie Davis/	
DATE SIGNED:	07/18/2019	

Total Attachments: 3

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> PATENT REEL: 049789 FRAME: 0561

505577805

ASSIGNMENT OF INTELLECTUAL PROPERTY RIGHTS IN PATENT APPLICATION

Whereas we, the undersigned inventors, have invented certain new and useful innovations as set forth in the patent application entitled:

HIGH-INTENSITY ACOUSTIC TREATMENT OF COLLOIDAL MINERAL SUSPENSIONS FOR WELLBORE OPERATIONS

the specification of which was filed with the U.S. Receiving Office of the PCT on May 31, 2018 and assigned application no. PCT/US2018/035378.

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we acknowledge, we:

- 1. Agree to assign, transfer, convey, and sell, hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to Halliburton Energy Services, Inc., a corporation of the State of Texas having a principal place of business at 3000 N. Sam Houston Parkway E., Houston, Texas 77032-3219 ("Assignee"), the entire right, title, and interest in and to:
 - (a) all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent application, implicitly or explicitly;
 - (b) the above-referenced patent application, the right to claim priority to the above-referenced patent application, all applications based in whole or in part upon the above-referenced patent application, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent application;
 - (c) all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, reexaminations, post-grant reviews, inter partes reviews and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and

PATENT REEL: 049789 FRAME: 0562 Assignment of Intellectual Property Rights in Application

Patent Application Entitled: High-Intensity Acoustic Treatment of Colloidal Mineral Suspensions for

Wellbore Operations

Attorney Docket: 061429-1078084 (2018-IPM-102058 U1 PCT)

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- (d) all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. §154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.
- 2. Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us, as well as our heirs, legal representatives, and assigns.
- 5. Promise and affirm that we have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.

Dated: 6-1-18	Presta andrew mer
	Preston Andrew May
STATE OF TEXAS	
COUNTY OF Harris	
Before me, a Notary Public in and f of June, 2018, personally appe signed and acknowledged the foregoing As	for the State of <u>lexas</u> , on this <u>state</u> day eared Preston Andrew May , who being duly sworn, ssignment as his free act and deed.
(Seal) TRACY TIDWELL Notary ID #12807462-5 My Commission Expires October 12, 2021	NOTARY PUBLIC My Commission Expires:

Assignment of Intellectual Property Rights in Application

Patent Application Entitled: High-Intensity Acoustic Treatment of Colloidal Mineral Suspensions for

Wellbore Operations

Attorney Docket: 061429-1078084 (2018-IPM-102058 U1 PCT)

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Dated: 6.1.18 _____ Trin Berjamin

Eric Benjamin Frantz

STATE OF ILLAS

COUNTY OF Harris

Before me, a Notary Public in and for the State of <u>lexas</u>, on this <u>lexas</u>, on this <u>lexas</u>, on this <u>lexas</u>, 2018, personally appeared Eric Benjamin Frantz, who being duly sworn, signed and acknowledged the foregoing Assignment as his free act and deed.

(Sea

TRACY TIDWELL
Notary ID #12807462-5
My Commission Expires
October 12, 2021

NOTARY PUBLIC
My Commission Expires:

PATENT REEL: 049789 FRAME: 0564

RECORDED: 07/18/2019