PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------------------------|----------------|
| RAYMOND STANLEY KASEVICH | 09/11/2014 |
| JEB XIAOBING RONG | 09/11/2014 |
| JAMES PRESTON KOFFER | 09/30/2014 |
| MARK DEAN LOONEY | 09/09/2015 |
| MARGARETHA CATHAINA MARIA RIJKEN | 09/05/2014 |

RECEIVING PARTY DATA

| Name: | CHEVRON U.S.A. INC. |
|-----------------|---------------------|
| Street Address: | P.O. BOX 6006 |
| City: | SAN RAMON |
| State/Country: | CALIFORNIA |
| Postal Code: | 94583-0806 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14568779 |

CORRESPONDENCE DATA

Fax Number: (925)832-2051

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.

Phone: 925-842-1868

Email: patents@chevron.com

Correspondent Name: CHEVRON CORPORATION

Address Line 1: P.O. BOX 6006

Address Line 4: SAN RAMON, CALIFORNIA 94583-0806

| ATTORNEY DOCKET NUMBER: | T-9622B |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | ANA C. JAQUEZ |
| SIGNATURE: | /Ana C. Jaquez/ |
| DATE SIGNED: | 09/10/2015 |

Total Attachments: 5

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PATENT REEL: 036533 FRAME: 0516



PATENT REEL: 036533 FRAME: 0517 Attorney Docket No.: T-9622B

ASSIGNMENT

WHEREAS, I / We,

Raymond Stanley Kasevich of Mt. Washington, MA
Jeb Xiaobing Rong of Mt. Washington, MA

James Preston Koffer of Delta, CO

Mark Dean Looney of The Woodlands, TX

Margaretha Cathaina Maria Rijken of Houston, TX

have invented new and useful improvements in

"SYSTEM AND METHODS FOR CONTROLLED FRACTURING IN FORMATIONS"

set forth in an application for Letters Patent of the United States bearing Serial No. <u>14/568,779</u> and filed on <u>12/12/2014</u>, (the hereinafter named assignee being authorized to insert said Serial Number and filing date when ascertained); and

WHEREAS, CHEVRON U.S.A. INC., a corporation organized and existing under and by virtue of the laws of the Commonwealth of Pennsylvania, and having a regular and established place of business at San Ramon, State of California, is desirous of acquiring the entire right, title and interest in and to said invention, said application, and in and to the Letters Patent, Utility Models, and Inventors' Certificates to be granted and issued thereof in the United States of America and in any and all countries foreign thereto:

NOW, THEREFORE, for a valuable consideration, the receipt of which is hereby acknowledged, I / We, hereby sell, assign, transfer and set over unto said *CHEVRON U.S.A. INC.*, its successors and assigns, the entire right, title and interest in and to said invention, said application, including all priority rights associated with said application under provisions of international conventions, treaties, or otherwise, and all divisions, continuations, reexaminations, and reissues thereof, and in and to all Letters Patent, Utility Models, and Inventors' Certificates to be granted and issued therefore and all reexamination certificates, reissues and extensions thereof, not only for, to and in the United States of America, but for, to and in all other countries. The aforesaid assignment includes the right in and to all income, royalties, damages and payments now or hereafter due or payable with respect to any Letters Patent, Utility Models, and Inventors' Certificates which may be granted in the United States of America and in any and all countries foreign thereto, and in and to all causes of action (either in law or in equity), and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment, as fully and entirely as the same would have been held and enjoyed by Assignors if this sale and assignment had not been made;

and I / We hereby authorize and request the Commissioner for Patents to issue said Letters Patent in accordance with this Assignment;

and I / We hereby covenant that we have full right to convey the entire interest herein assigned, and I / We have not executed, and will not execute, any agreement in conflict herewith and that the rights assigned herein are not otherwise encumbered by any grant, license or right;

Revised 12-07-2011 Page 1 of 2

PATENT REEL: 036533 FRAME: 0518 Title of the Invention: System and Methods For Controlled Fracturing In Formations

Attorney Docket No.: T-9622B

and I / We hereby further covenant and agree that we will communicate to said Assignee, its successors, legal representatives and assigns, any facts known to us respecting said inventions and discoveries; and furthermore, upon request, without additional compensation but at no expense to me / us, testify in any interference or legal proceedings involving said inventions, and sign any applications for reissue, division, continuation, continuation-in-part, renewal, substitute or extension thereof.

| In witness whereof, | I / We have signed my / our name(s) on the da | ate set fo | orth below. |
|---------------------------------------|--|------------|-------------|
| Inventor Signature: Inventor Name: | Raythond Stanley Kaseylon | Date: | |
| Witness Signature: | J 3do X. Rove | Date: | a/11/14 |
| Witness Name: | . Jeb Rong | | |
| Inventor Signature: Inventor Name: | Jeb Xiaobing Rong | Date: | |
| Witness Signature: | formont forly talk | Date: | 9/11/14 |
| Witness Name: | Rymin Starley Kose V | d | , , , |
| Inventor Signature: | James Preston Koffer | Date: | |
| | | Date: | |
| Witness Name: | | | |
| Inventor Signature: Inventor Name: | Mark Dean Looney | Date: | |
| Witness Signature: | | Date: | |
| Witness Name: | the state of the s | | |
| Inventor Signature: Inventor Name: | Margaretha Cathaina Maria Rijken | Date: | |
| Witness Signature: | - Andrews - Andr | Date: | |
| Witness Name: | | | |

Revised 12-07-2011

Title of the Invention: System and Methods For Controlled Fracturing In Formations Altorney Docket No.: 7-96228

and I I We hereby further covenant and agree that we will communicate to said Assignee, its successors, legal representatives and assigns, any facts known to us respecting said inventions and discoveries; and furthermore, upon request, without additional compensation but at no expense to me I us, testify in any interference or legal proceedings involving said inventions, and sign any applications for reissue, division, continuation, continuation, in-part, reviewal, substitute or extension thereof.

In witness whereof, I / We have signed my / our name(s) on the date set forth below.

| Inventor Signature: | Raymond Stanley Kasevich | Date: | |
|---------------------------------------|-------------------------------------|---------|-----------|
| Witness Signature: | | Date: | : |
| Witness Name: | | | |
| Inventor Signature: Inventor Name: | Jeb Xiaobing Rong | Date: | |
| Witness Signature: | 4,000 | Date: | |
| Witness Name: | | | |
| Witness Signature: | James Preston Koffer Lindson Allen | Date: _ | 9/30/2014 |
| Inventor Signature: Inventor Name: | Mark Dean Looney | Date: _ | |
| Witness Signature: | | Date: | |
| Witness Name: | | | |
| Inventor Signature: Inventor Name: | Margaretha Cathaina Maria Rijken | Date: | |
| Witness Signature: | | Date: | |
| Witness Name: | | | |

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Page 2 of 2

Title of the Invention: System and Methods For Controlled Fracturing In Formations

Attorney Docket No.: T-9622

and I / We hereby further covenant and agree that we will communicate to said Assignee, its successors, legal representatives and assigns, any facts known to us respecting said inventions and discoveries; and furthermore, upon request, without additional compensation but at no expense to me / us, testify in any interference or legal proceedings involving said inventions, and sign any applications for reissue, division, continuation, continuation-in-part, renewal, substitute or extension thereof.

| In witness whereof, | I / We have signed my / our name(s) on the d | ate set forti | h below. |
|--|--|---------------|----------|
| Inventor Signature: | | Date: | |
| Inventor Name: | Raymond Stanley Kasevich | | |
| Witness Signature: | | Date: | |
| Witness Name: | | | × |
| Inventor Signature: Inventor Name: | Jeb Xiaobing Rong | Date: | |
| Witness Signature: | | Date: _ | |
| Witness Name: | | | |
| Inventor Signature: | James Preston Koffer | Date: | |
| Inventor Name: | | Data | |
| witness Signature: | | Date | |
| Witness Name: Inventor Signature: Inventor Name: | Mark Dean Looney | Date: | 9/9/2015 |
| Witness Signature: | Deborah Looney | Date: _ | 919/2015 |
| Witness Name: | Deborah Looney | | ; ; |
| Inventor Signature: Inventor Name: | Margaretha Cathaina Maria Rijken | Date: | |
| Witness Signature: | | Date: | |
| Witness Name: | | | |

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Title of the Invention: System and Methods For Controlled Fracturing In Formations

Attorney Docket No.: T-9622B

and I / We hereby further covenant and agree that we will communicate to said Assignee, its successors, legal representatives and assigns, any facts known to us respecting said inventions and discoveries; and furthermore, upon request, without additional compensation but at no expense to me / us, testify in any interference or legal proceedings involving said inventions, and sign any applications for reissue, division, continuation, continuation-in-part, renewal, substitute or extension thereof.

In witness whereof, I / We have signed my / our name(s) on the date set forth below.

| Inventor Signature: Inventor Name: | Raymond Stanley Kasevich | Date: |
|---|-----------------------------------|----------------|
| | | Date: |
| Witness Name: | | |
| Inventor Signature: | Jeb Xiaobing Rong | Date: |
| | | Date: |
| Witness Name: | | |
| Inventor Signature: Inventor Name: | James Preston Koffer | Date: |
| Witness Signature: | | Date: |
| Witness Name: | | |
| Inventor Signature: Inventor Name: | Mark Dean Looney | Date: |
| Witness Signature: | | Date: |
| Witness Name: | | |
| Inventor Signature: Inventor Name: Witness Signature: Witness Name: | Margaretha Cathanna Iviana Hijken | Date: 4-5-2014 |

Revised 12-07-2011

RECORDED: 09/10/2015

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