PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4050044

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ARAMCO SERVICES COMPANY	09/01/2015

RECEIVING PARTY DATA

Name:	SAUDI ARABIAN OIL COMPANY
Street Address:	1 EASTERN AVENUE
City:	DHAHRAN
State/Country:	SAUDI ARABIA
Postal Code:	31311

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15263661

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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: 214-292-4039
Email: apsi@fr.com
Correspondent Name: FISH & RICHARDSON P.C.
Address Line 1: P.O. BOX 1022
Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	38136-0113001
NAME OF SUBMITTER:	PEGGY C. HARRIS
SIGNATURE:	/Peggy C. Harris/
DATE SIGNED:	09/13/2016

Total Attachments: 4
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INTELLECTUAL PROPERTY ASSIGNMENT
FROM ARAMCO SERVICES COMPANY
TO SAUDI ARABIAN OIL COMPANY

This Intellectual Property Assignment ("**Assignment**"), dated as of September 1, 2015, is made by Aramco Services Company, a Delaware corporation, having offices at 9009 West Loop South, Houston, Texas 77096-1719 ("**Assignor**"), in favor of Saudi Arabian Oil Company, a company with limited liability, duly organized and existing under the laws of the Kingdom of Saudi Arabia and established by Royal Decree M/8 dated 4/4/1409 H. ("**Assignee**") together recognized as "Parties".

RECITALS

WHEREAS, the parties previously executed an Intellectual Property Assignment, dated as of April 13, 2015, in which the Parties agreed that Assignor shall continue to assign intellectual property to Assignee on a quarterly basis; and

WHEREAS Assignor is the present owner of the rights, title and interest in the invention disclosures, patents and patent applications set forth in the attached Schedule A (the "**Intellectual Property**") as of September 1, 2015;

NOW, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, the Parties agree as follows:

1. Assignment of Intellectual Property. Assignor assigns to Assignee all of its rights, title and interest in and to the Intellectual Property, including, but not limited to:

(a) the right to make, use and sell the inventions associated with the Intellectual Property;

(b) the right to take all legal actions on account of past, present and future infringement of the Intellectual Property;

(c) the right to conduct and control all protection activities associated with the Intellectual Property as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment had not been made, including for example: the filing and prosecution of any and all patent applications, including divisions, continuations, and continuations-in-part of existing applications assigned by this Assignment; reexaminations, reissues or other administrative proceedings; and the payment of issuance and maintenance fees; and

(d) any and all rights and obligations held by the Assignor arising under the Assignment in relation to the Intellectual Property.

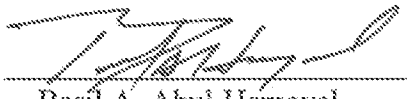
2. Further Assurances. Assignor hereby covenants and agrees that it will at any time, upon the request and at the expense of Assignee but without further compensation, cooperate with Assignee in the protection of the Intellectual Property, including: all lawful acts that may be necessary to perfect the title to the Intellectual Property, such as the execution and delivery of

formal documents; cooperate with Assignee in the enforcement or licensing of the Intellectual Property, including in any interference, reexamination, or other litigation; communicate to Assignee, its successors and assigns, any facts known respecting the Intellectual Property and its history, and generally do everything possible which the Assignee shall consider desirable for vesting title to improvements in the Intellectual Property.

3. Warranties. Assignor hereby warrants 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 Assignor, and that the full right to convey the same as herein expressed is possessed by the Assignor, to the extent set forth in Schedule A.

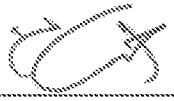
IN WITNESS WHEREOF, the Parties have executed this Assignment on the first date of the Term.

ARAMCO SERVICES COMPANY

By: 

Basil A. Abul-Hamayel
President

SAUDI ARABIAN OIL COMPANY

By: 

Ahmad Khowaiter
Chief Technology Officer

Intellectual Property Assignment
from Aramco Services Company to Saudi Arabian Oil Company

Schedule A
September 1, 2015

Title	ASC Docket Number	Application Date	Application Number	Inventors
Liquid Level, Corrosion, Scale Hydrocarbon Precipitation, Pressure Survey and Scale Depth Determination Using TM01 and TE01 Modes	ASC0035			Sunder Ramachandran (ASC) Aydin Babakhani (Intelligent Reservoir LLC – working under agreement by which all IP is owned by ASC as work for hire)
Methods to Increase Hydraulic Fracturing Efficiencies in Source Rock Reservoirs	ASC0037	9/3/15	62/213744	Katie Hull (ASC) Ghaithan Al-Muntasheri (ASC) David Jacobi (ASC) Younane N. Abousleiman (ASC)
Exhaust Blow-Down Period Reformate Generation and Re-Breath Between Paired Cylinders	ASC0041			Nayan Engineer (ASC)
Water-based Sealing Compositions Comprising Ethylene/Maleic Anhydride/Maleic Acid Terpolymer Gels	ASC0046			B. Raghava Reddy (ASC)
Non-aqueous Sealing Compositions Comprising Ethylene Copolymers Containing Epoxy Groups	ASC0048			B. Raghava Reddy (ASC)
Application of Nanomaterials in High Temperature Fracturing Fluid	ASC0057	8/4/15	62/200807	Leiming Li (ASC) Feng Liang (ASC) Ghaithan Al-Muntasheri (ASC)
A Method to Predict Changes in Capillary Pressure and Relative Permeabilities in Porous Medium Due to Mineral Precipitation and Dissolution	ASC0058			Shuo Zhang (ASC) HuiHai Liu (ASC)

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Downhole Temperature Trigger for Delayed-Release Breaker Systems	ASC0061			Pubudu Gammage (ASC) Matthew Hilfiger (ASC)
Method for Measurement of Hydrocarbon Content of Shale Gas Reservoir	ASC0065			Jinhong Chen (ASC) Dan Georgi (ASC) Hui-Hai Liu (ASC) Stacy Althaus (ASC)
Method and Device of Measuring Fluid Properties Using an Electromechanical Resonator	ASC0070	8/7/15	62/202512	Miguel Gonzalez (ASC) Max Deffenbaugh (ASC) Robert Adams (ASC) Ali Al Haddad (ASC)
Electromagnetic Logging (EM) Using EM Impulses from Tilted Antennas	ASC0072			Teruhiko Hagiwara (ASC)
Catalytic Fuel Reforming in Paired Cylinders	ASC0074			Jong H. Lee (ASC) Nayan Engineer (ASC)
High Performance Water Based Drilling Fluid for Higher Rate of Penetration	ASC0077			Pubudu Gammage (ASC) Shatha Alnaji (SAO)
Methods to Characterize the Tensile Strength of Kerogen in Shale by Micro-Beam Manufacturing and Testing	ASC0080	9/3/15	62/213752	

RECORDED: 09/13/2016

PATENT
REEL: 039721 FRAME: 0049