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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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 Stylesheet Version v1.2

EPAS ID: PAT6244790

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| <b>SUBMISSION TYPE:</b>      | NEW ASSIGNMENT |
| <b>NATURE OF CONVEYANCE:</b> | ASSIGNMENT     |

**CONVEYING PARTY DATA**

| Name  | Execution Date |
|---|----------------|
| CHINA UNIVERSITY OF PETROLEUM (EAST CHINA)      | 07/17/2020     |
| CNPC ENGINEERING TECHNOLOGY R&D COMPANY LIMITED | 07/17/2020     |

**RECEIVING PARTY DATA**

|                          |   |
|--------------------------|---|
| <b>Name:</b>             | CHINA UNIVERSITY OF PETROLEUM (EAST CHINA)      |
| <b>Street Address:</b>   | NO. 66, CHANGJIANG WEST ROAD                    |
| <b>Internal Address:</b> | HUANGDAO DISTRICT, QINGDAO                      |
| <b>City:</b>             | SHANDONG  |
| <b>State/Country:</b>    | CHINA   |
| <b>Name:</b>             | CNPC ENGINEERING TECHNOLOGY R&D COMPANY LIMITED |
| <b>Street Address:</b>   | BUILDING 1, YARD 5, HUANGHE STREET              |
| <b>Internal Address:</b> | CHANGPING DISTRICT                              |
| <b>City:</b>             | BEIJING   |
| <b>State/Country:</b>    | CHINA   |
| <b>Postal Code:</b>      | 102206  |
| <b>Name:</b>             | CHINA NATIONAL PETROLEUM CORPORATION            |
| <b>Street Address:</b>   | NO. 9 DONGZHIMEN NORTH STREET                   |
| <b>City:</b>             | BEIJING   |
| <b>State/Country:</b>    | CHINA   |

**PROPERTY NUMBERS Total: 5**

| Property Type  | Number   |
|----------------|----------|
| Patent Number: | 9683160  |
| Patent Number: | 9701884  |
| Patent Number: | 10040984 |
| Patent Number: | 9771509  |
| Patent Number: | 10392552 |

**CORRESPONDENCE DATA**

**Fax Number:** (216)241-0816

*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.*

**PATENT**

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**ATTORNEY DOCKET NUMBER:** 35742.04038 04037 04060

**NAME OF SUBMITTER:** YIZHOU LIU

**SIGNATURE:** /Mary Gillette for YIZHOU LIU/

**DATE SIGNED:** 08/11/2020

**Total Attachments: 3**

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**ASSIGNMENT**

This Assignment is made between CHINA UNIVERSITY OF PETROLEUM (EAST CHINA), having a place of business at NO. 66, CHANGJIANG WEST ROAD, HUANGDAO DISTRICT QINGDAO, SHANDONG, CHINA and CNPC ENGINEERING TECHNOLOGY R&D COMPANY LIMITED, having a place of business at BUILDING 1, YARD 5, HUANGHE STREET, CHANGPING DISTRICT, BEIJING, CHINA (Assignors) and CHINA NATIONAL PETROLEUM CORPORATION, having a place of business at NO. 9 DONGZHIMEN NORTH STREET, BEIJING CHINA (Assignee).

WHEREAS, Assignors own all rights, title and interest in and to the INVENTIONS listed on Exhibit A attached, and desires to transfer and assign, and Assignee is desirous of acquiring, one-third of all of the rights, title and interest in and to the INVENTIONS.

THEREFORE, Assignors hereby acknowledges receipt of good and valuable consideration, does hereby sell, assign and transfer unto Assignee the rights, title and interest in and to the INVENTIONS listed on Exhibit A, and any and all patents and patent applications worldwide (including but not limited to all provisional, non-provisional, national, regional, convention, divisional, renewal, substitute, design, utility model, continuation, continuation-in-part, PCT, Paris Convention and all other applications based in whole or in part upon said inventions or upon said applications, and any and all patents and reissues, reexaminations and extension of patents granted worldwide for said inventions or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said applications and said patents; said Assignee being hereby authorized to file said applications in any or all countries on any or all said inventions) that have been filed or that have been or may be granted on the INVENTIONS or any part thereof. The rights transferred and assigned hereby to be held and enjoyed by Assignee, its successors, and assigns to the full ends of the respective terms or periods for which the rights are pending, in force, or have been or may be granted or extended, as fully and entirely as the same would have been held and enjoyed by Assignors had no assignment of said right, title and interest been made.

FURTHER, Assignors hereby covenants and agrees to assist Assignee in the prosecution

of any and all patent applications assigned hereby and in any interference, opposition, or other legal proceeding that may arise involving the INVENTIONS, and, upon request, to execute without further consideration all papers necessary or desirable for the preparation or prosecution of any divisional, continuation, renewal, reissue, reexamination, or other applications in any country that might be deemed necessary or desirable by Assignee to fully secure its respective right, title and interest in and to the INVENTIONS or any application based thereon or claiming priority thereto, or in and to the INVENTIONS, as aforesaid. All rights and privileges, including the right to sue for and receive all damages from past infringements of the INVENTIONS, will be held and enjoyed by Assignee, its successors, assigns and other legal representatives.

FURTHER, Assignors hereby authorizes and requests the authorized officials of all countries to issue to Assignee any letters patent that may be granted based on the INVENTIONS transferred and assigned hereby.

CHINA UNIVERSITY OF PETROLEUM (EAST CHINA)

By:     Sun Jinsheng      
Name:     Sun Jinsheng     Title:     Professor      
Date:     2020.07.17    

CNPC ENGINEERING TECHNOLOGY R&D COMPANY LIMITED

By:     Sun Jinsheng      
Name:     Sun Jinsheng     Title:     Professor      
Date:     2020.07.17

EXHIBIT A

|   |               |  |
|---|---------------|--|
| 1 | US 9683160B1  | Composition comprising a nanometer film structured reservoir protecting agent and a water block preventing agent, and drilling fluid containing the same and use thereof for drilling in low-permeability reservoirs |
| 2 | US 9701884B1  | Nanometer film structured reservoir protecting agent, drilling fluid containing the same and use thereof in low-permeability reservoirs  |
| 3 | US 10040984B1 | Water-based drilling fluid for protecting high-permeability reservoirs, and preparation method and use thereof   |
| 4 | US 9771509B1  | Polymer elastic particle reservoir protecting agent and drilling fluid containing the same   |
| 5 | US 10392552B2 | Water-based drilling fluid for protecting fractured reservoirs, and preparation method and use thereof   |