502627869 01/09/2014

PATENT ASSIGNMENT COVER SHEET

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| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |

| Name | Execution Date |
|---------------|----------------|
| BARRY FREEL | 12/23/2013 |
| ROBERT GRAHAM | 12/23/2013 |

RECEIVING PARTY DATA

| Name: | IVANHOE ENERGY INC. | |
|-----------------|-----------------------------|--|
| Street Address: | 654-999 CANADA PLACE | |
| City: | VANCOUVER, BRITISH COLUMBIA | |
| State/Country: | CANADA | |
| Postal Code: | V6C 3E1 | |

PROPERTY NUMBERS Total: 2

| Property Type | Number |
|---------------------|----------|
| Patent Number: | 8062503 |
| Application Number: | 13286974 |

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| ATTORNEY DOCKET NUMBER: | 18153.4016 |
|-------------------------|--------------|
| NAME OF SUBMITTER: | MARK SHEAN |
| Signature: | /Mark Shean/ |
| Date: | 01/09/2014 |

Total Attachments: 2

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502627869 REEL: 031929 FRAME: 0442

ASSIGNMENT OF PATENT

WHEREAS, WE, BARRY FREEL, Citizen of Canada residing at 6489 Greely West Drive, Greely Ontario K4P 1E8; Canada and ROBERT GRAHAM, Citizen of Canada, residing at 91 Vesta Street, Ottawa, Ontario K2J 3Z2 Canada. (hereinafter referred to as "ASSIGNORS") have invented a certain invention entitled PRODUCTS PRODUCED FROM RAPID THERMAL PROCESSING OF HEAVY HYDROCARBON FEEDSTOCKS, for which a U.S. Application was filed under serial no. 09/955,267, which claims priority US Provisional Application no. 60/233,354, now U.S. Patent No. 7,270,743; a U.S. Continuation Application was filed under serial no. 11/713,520, now U.S. Patent No. 8,062,503; and a U.S. Continuation Application was filed under serial no. 13/286,974.

WHEREAS, Ivanhoe Energy Inc., a corporation organized and existing under and by virtue of the laws of Canada and having its principal place of business at 654-999 Canada Place, Vancouver, British Columbia, V6C 3E1 (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the exclusive right, title and interest in, to and under said invention and in, to and under any Patent or similar legal protection to be obtained therefor in the United States of America, its territorial possessions and in any and all countries foreign thereto.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, transfer and set over unto the said ASSIGNEE, its successors and assigns, the full and exclusive right, title and interest to said invention and to all Letters Patent or application or similar legal protection, not only in the United States and its territorial possessions, but in all countries foreign thereto to be obtained for said invention by said application, and to any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in the United States or a foreign country for the full term or terms for which the same may be granted, including all priority rights under the International Convention; and ASSIGNORS hereby authorize and request the United States Commissioner of Patents and Trademarks and any officials of foreign countries whose duty it is to issue patents or any legal equivalent thereof to issue said patents and equivalents to said ASSIGNEE, its successors and assigns, in accordance with this Assignment and hereby transfers all rights of action, power and benefit belonging to or accruing from the invention including the right to undertake proceedings to recover past and future damages and claim all other relief in respect of any acts of infringement thereof whether such acts shall have been committed before or after the date of this assignment.

ASSIGNORS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Agreement;

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and that ASSIGNOR will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents in the

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Patent Ref No. 18153.4016

| United States or in any foreign country, which may be necessary or desirable to carry out the purposes |
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| thereof. |
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