

**PINE CLIFF ENERGY LTD.
AMENDED AND RESTATED FLOATING
CHARGE DEBENTURE IN FAVOUR OF
HER MAJESTY THE QUEEN
IN RIGHT OF ALBERTA**

RECITALS:

- A. **PINE CLIFF ENERGY LTD.**, a body corporate having its head office at the City of Calgary, in the Province of Alberta (hereinafter called the “**Corporation**”), entered into a Floating Charge Debenture dated effective August 10, 2016, in favour of Her Majesty the Queen in Right of Alberta (who and whose successors and assigns are hereinafter called the “**Lender**”), by its agent, Alberta Investment Management Corporation (the “**Original Debenture**”), whereby the Lender advanced the First Advance to the Corporation and subscribed for and purchased 30,000 Tranche 1 Units for the Tranche 1 Units Subscription Price; and
- B. The Corporation and the Lender wish, among other things, to increase the amount of the principal sum and to amend and restate the Original Debenture;

NOW THEREFORE in consideration of the covenants and agreements herein contained the parties hereto covenant and agree as follows:

1. The Corporation, for value received, hereby acknowledges itself indebted and promises to pay to the Lender on September 30, 2020 (the “**First Advance Maturity Date**”) the sum of THIRTY MILLION (\$30,000,000.00) DOLLARS (the “**First Advance**”), and on July 31, 2022 (the “**Second Advance Maturity Date**”) the sum of NINETEEN MILLION (\$19,000,000) DOLLARS (the “**Second Advance**”, and the aggregate sum of the First Advance and the Second Advance is hereinafter called the “**principal sum**”) in lawful currency of Canada, at c/o 1100 – 10830 Jasper Avenue, Edmonton AB T5J 2B3, or at such other place as the Lender may direct in writing, together with interest thereon as follows:
 - (a) in the case of the First Advance, at the rate of 6.75% per annum, calculated and payable semi-annually on January 31 and July 31 of each year following the date hereof, all remaining accrued interest to be paid together with the outstanding principal sum on the First Advance Maturity Date; and
 - (b) in the case of the Second Advance, at the rate of 7.05% per annum, calculated and payable semi-annually on January 31 and July 31 of each year following the date hereof, all remaining accrued interest to be paid together with the outstanding principal sum on the Second Advance Maturity Date.

Interest shall accrue (i) in the case of the First Advance, from the First Advance Date, and (ii) in the case of the Second Advance, from the Second Advance Date, to the date the principal sum is repaid in full and shall be paid as well after as before maturity, default and judgment. Any sum owing by way of interest that is not paid when due shall bear interest at the said rate until paid.

2. In this Debenture, including this section and any schedules hereto, unless there is something in the subject matter or context inconsistent therewith:

“**Account Debtor**” means any Person producing, purchasing, taking, processing or receiving any Hydrocarbons produced from or allocable to the interest of the Corporation in the Mortgaged

Property, or having in its possession any such Hydrocarbons or proceeds therefrom, or otherwise obligated to pay any account receivable or other debt due, owing or accruing due to the Corporation in respect of the Mortgaged Property;

“**Applicable Laws**” means all applicable statutes, laws (including common law), regulations, by-laws, rules, judicial or arbitral or ministerial or departmental or regulatory judgments, orders, decisions, rulings or awards, binding on or affecting the Person referred to in the context in which that word is used;

“**ASC**” means the Alberta Securities Commission;

“**Business Day**” means any day other than: (i) a Saturday, (ii) a Sunday, or (iii) a day on which the principal chartered banks located in Edmonton, Alberta are not open for business;

“**Change of Control**” means and shall be deemed to have occurred if and when:

- (a) any Person or Persons acting jointly or in concert (within the meaning ascribed to such phrase in the *Securities Act* (Alberta)) shall beneficially own or control, directly or indirectly, voting shares in the capital of the Corporation which have or represent more than 50% of all the votes entitled to be cast by shareholders for an election of the board of directors of the Corporation;
- (b) other than in the case of directors who have died or have been found to be of unsound mind by a court of competent jurisdiction, individuals who were elected as members of the board of directors of the Corporation by the most recent resolutions of the shareholders of the Corporation shall no longer constitute a majority of the board of directors of the Corporation at any time prior to the next following resolutions of the shareholders of the Corporation relating to the election of the same; or
- (c) other than in the case of directors who have died or have been found to be of unsound mind by a court of competent jurisdiction, individuals who were members of the board of directors of the Corporation immediately prior to resolutions of the shareholders of the Corporation relating to the election of directors shall not constitute a majority of the board of directors following such election;

“**Charge**” has the meaning set out in Section 3;

“**Closing**” means the closing of the Private Placement;

“**Closing Date**” means July 13, 2018;

“**Closing Time**” means 3:00 p.m. MST on the Closing Date;

“**Common Shares**” means common shares in the capital of the Corporation;

“**Documents**” means this Debenture, any Notes (as defined below) and any and all security and evidence of debt, certificates, notices, instruments and other documents previously delivered in connection with the First Advance or to be delivered to the Lender in connection with the Second Advance, in each case as may be amended, modified, supplemented or restated from time to time and, when used in relation to any Person, the term “Documents” shall mean and refer to the Documents executed and delivered by such Person;

“Environmental Laws” means all Applicable Laws with respect to the environment or environmental or public health and safety matters contained in statutes, regulations, rules, ordinances, orders, judgments, approvals, notices, permits or policies, guidelines or directives having the force of law;

“Event of Default” has the meaning set out in Section 8;

“Exchange” means the Toronto Stock Exchange, or such other exchange on which the Common Shares are listed and posted for trading;

“Facilities” means, in relation to the Lands, the interest of the Corporation in all equipment, real and personal property and rights used or useful in the exploration, development, processing, transportation, production and storage of Hydrocarbons from the Lands and in operation and maintenance of the Lands, or any of them, now or hereafter owned including the interest of the Corporation referable to the Lands, in and to any and all pipeline permits and licenses, wells and future wells, buildings, plants, erections, production equipment, improvements, pipelines, pipeline connections, meters, generators, motors, compressors, treating and processing equipment, pumps, tanks, communication equipment and other machinery, apparatus and equipment now or hereafter placed or installed on or in the Lands or outside the Lands either as part of or useful in the production of Hydrocarbons from the Lands or as part of or useful in the operation of a pipeline system or systems to transport, gather or convey Hydrocarbons from such Lands where such system connects with a pipeline or pipelines owned by a third party operating pipelines in the province or territory where such property is located; all surface rights, easements, lands, rights of way, authorizations and agreements and any interest in any of them; now or hereafter owned or acquired covering, related to or used or useful in connection with the foregoing and each part thereof and lands through which the same pass; all permits, licenses and authorizations now held or hereafter acquired, used or useful in the operation of the foregoing and each part thereof as the same may now or hereafter be amended, extended, renewed or replaced and any replacements thereof;

“First Advance Date” means August 10, 2016;

“Hydrocarbons” means solid, liquid and gaseous hydrocarbons and any natural gas whether consisting of a single element or of two or more elements in chemical combination or uncombined and any other substances, whether a hydrocarbon or not, produced in association therewith and, without restricting the generality of the foregoing, includes oil-bearing shale, oil sands, crude oil, petroleum, helium, sulphur and hydrogen sulphide;

“Lands” means all lands in which the Corporation now or hereafter holds an interest, including without limitation, all freehold and leasehold interests;

“lien hereto” or **“lien hereof”** or **“lien of this Debenture”** means the mortgages and charges created or expressed to be created or required to be created by the Corporation by any provision of this Debenture;

“Material Adverse Effect” means a material adverse effect on:

- (a) the financial condition of the Corporation;

- (b) the ability of the Corporation to observe or perform its obligations under the Documents to which it is a party or the validity or enforceability of such Documents or any material provision thereof;
- (c) the property, business, operations, liabilities or capitalization of the Corporation; or
- (d) the security interests created by the Documents, the priority thereof or any right or remedy of the Lender thereunder;

“Mortgaged Property” means all of the undertaking, property and assets, both present and future, of the Corporation, of whatsoever nature and kind and wheresoever situated, that are from time to time subject to any mortgage, lien, assignment, transfer, hypothec, pledge or charge created under or secured by this Debenture or by any indenture supplementary hereto;

“NI 45 106” means National Instrument 45 106 – *Prospectus Exemptions*;

“Note(s)” has the meaning set forth in Section 36;

“Obligations” means, at any time and from time to time, all of the obligations, indebtedness and liabilities (present or future, absolute or contingent, matured or not) of the Corporation to the Lender or under, pursuant or relating to the Documents and whether the same are from time to time reduced and thereafter increased or entirely extinguished and thereafter incurred again and including, without limitation, the outstanding principal sum, interest, fees, legal and other costs, charges and expenses, and other amounts payable by the Corporation under this Debenture;

“Permitted Debt” means the following:

- (a) the Obligations;
- (b) Permitted Shareholder Loans; and
- (c) debt pursuant to the Senior Lender Documents.

“Permitted Encumbrances” means any of the following:

- (a) any present or future mortgage, charge or security interest in favour of the Senior Lenders;
- (b) any present or future mortgage, charge or security interest securing Permitted Shareholder Loans;
- (c) liens for taxes not yet due or the validity of which is being contested in good faith by the Corporation and liens for the excess of the amount of any past due taxes for which a final assessment has not been received over the amount of such taxes as estimated by a responsible representative of the Corporation and in each case in respect of which the Corporation has accrued on its books an amount sufficient to fully pay and satisfy the same;
- (d) undetermined or inchoate liens or charges incidental to current operations which have not at the time been duly registered in accordance with Applicable Law against the Corporation or the property thereof and of which no notice has been served upon the

Corporation in accordance with such law and in respect of which the Corporation, if the debt protected by the lien or charge is due, has accrued on its books an amount sufficient to fully pay and satisfy the same;

- (e) liens incurred or created in the ordinary course of business on the assets of the Corporation in favour of any other Person who is conducting the development or operation of the assets to which such liens relate, for the costs and expenses of such development or operation which would otherwise have been paid by the Corporation and in respect of which the Corporation, if the costs and expenses are due, has accrued on its books an amount sufficient to fully pay and satisfy the same;
- (f) liens on Hydrocarbons or the proceeds of sale of Hydrocarbons arising or granted by the Corporation in the ordinary course of the Corporation's business pursuant to a processing or transmission arrangement entered into by the Corporation in the ordinary course of business, securing the payment of the fees, costs and expenses attributable to the processing or transmission (as the case may be) of any such Hydrocarbons under any such processing or transmission arrangement, but only insofar as such liens relate to obligations which are at such time not past due;
- (g) easements or rights in land granted to public utilities, pipeline owners, common carriers or similar bodies or to any municipality or governmental or other public authority which are not of such nature as to prevent or materially affect the use of the assets of the Corporation subject thereto for the purposes of the Corporation;
- (h) any encumbrances or security now or at any time hereafter given by the Corporation to the Lender; and
- (i) any other encumbrances or security interests specifically permitted by the Lender pursuant to an instrument in writing executed by the Lender and addressed to the Corporation, which specifically references the provisions of this Debenture and describes any such encumbrance or security interest so permitted, provided that, except for the security referred to in sub-paragraph (a) which ranks in priority to the Charge, nothing in this definition shall in and of itself constitute or be deemed to constitute an agreement or acknowledgment by the Lender that such permitted encumbrances or indebtedness subject to or secured by any such permitted encumbrances ranks (apart from the effect of the security interest included in or inherent in any such permitted encumbrance) in priority to the security or the indebtedness of the Corporation granted or incurred under or pursuant to this Debenture;

“Permitted Shareholder Loans” means unsecured or secured debt of the Corporation owing to one or more shareholders of the Corporation provided that: (a) the principal amount of all such Permitted Shareholder Loans do not, in the aggregate at any time, exceed Cdn.\$25,000,000; (b) such debt is otherwise on terms and conditions satisfactory to the Lender, acting reasonably; (c) such debt is fully subordinated to the Obligations, pursuant to, and which is then subject to, a shareholder subordination agreement, in form reasonably satisfactory to the Lender; and (d) the maturity date of such debt is no earlier than the First Advance Maturity Date.

“Person” means any individual, corporation, partnership, joint venture, association, joint stock company, trust, unincorporated organization, government or any agency or political subdivision thereof, or any other form of entity;

“**Petroleum and Natural Gas Rights**” means any freehold, leasehold, permit, working, royalty, overriding royalty, net profits, fee, mineral or other interest, estate or right in or in respect of any Hydrocarbons;

“**Private Placement**” means the private placement of up to 19,000 Tranche 2 Units for aggregate gross proceeds of \$19,000,000;

“**Receiver**” means any receiver of all or any part of the Mortgaged Property appointed pursuant to Section 10 either by the Lender or by a court having jurisdiction and includes a receiver-manager;

“**Second Advance Date**” means July 13, 2018;

“**Securities**” means this Debenture, the Tranche 2 Units and the Tranche 2 Warrants comprised in the Tranche 2 Units subscribed for by the Lender pursuant to this Debenture and, as the context may require, the Tranche 2 Warrant Shares underlying such Tranche 2 Warrants;

“**Securities Laws**” means, as applicable, the securities laws, regulations and rules, and the blanket rulings and policies and written interpretations of, and multilateral or national instruments adopted by, the ASC, as well as the rules and policies of the Exchange;

“**Senior Lender Documents**” means the restated credit agreement, dated as of August 10, 2016, among the Corporation, as borrower, the Senior Lenders, as lenders, and The Toronto-Dominion Bank, as agent of the Senior Lenders, as amended by a first amending agreement dated as of December 5, 2016, a second amending agreement dated April 12, 2017, a third amending agreement dated November 24, 2017, a fourth amending agreement dated May 31, 2018 and a fifth amending agreement dated as of July 13, 2018 and as the same may be further amended, restated, supplemented or replaced from time to time, together with all of the security or other documents relating thereto;

“**Senior Lenders**” means the Corporation’s existing lending syndicate, or any senior lenders that replace the existing lending syndicate in respect of senior credit facilities similar to the credit facilities established by the existing lending syndicate, in each case whether in their capacities as lenders, hedge counterparties or cash management providers;

“**Subsidiary**” has the meaning given to such term in the *Business Corporations Act* (Alberta);

“**this Debenture**”, “**hereby**”, “**hereof**” and “**hereunder**” means this instrument, the schedule hereto and every instrument entered into supplementary hereto or in implementation hereof;

“**Tranche 1 Unit**” means one promissory note with a par value of \$1,000 and 150 Tranche 1 Warrants to purchase Common Shares in the capital of the Corporation;

“**Tranche 1 Units Subscription Price**” means \$30,000,000;

“**Tranche 1 Warrant**” means a common share purchase warrant of the Corporation, each of which entitles the holder thereof to purchase one Tranche 1 Warrant Share for an exercise price of \$1.38 per Tranche 1 Warrant Share for a period of 2 years expiring on August 10, 2018;

“**Tranche 1 Warrant Share**” means a Common Share underlying a Tranche 1 Warrant;

“**Tranche 2 Unit**” means one promissory note with a par value of \$1,000 and 150 Tranche 2 Warrants to purchase Common Shares in the capital of the Corporation;

“**Tranche 2 Units Subscription Price**” means \$19,000,000;

“**Tranche 2 Warrant**” means a common share purchase warrant of the Corporation, each of which entitles the holder thereof to purchase one Tranche 2 Warrant Share for an exercise price of \$0.5104 per Tranche 2 Warrant Share for a period of 3 years expiring on July 13, 2021;

“**Tranche 2 Warrant Share**” means a Common Share underlying a Tranche 2 Warrant;

“**United States**” means the United States of America, its territories and possessions, any State of the United States and the District of Columbia;

“**U.S. Person**” has the meaning set forth in Rule 902(k) of Regulation S under the U.S. Securities Act. Without limiting the foregoing, but for greater clarity in this Agreement, a U.S. Person includes, subject to the exclusions set forth in Regulation S, (1) any natural person resident in the United States, (2) any partnership or corporation organized or incorporated under the laws of the United States, (3) any estate or trust of which any executor, administrator or trustee is a U.S. Person, (4) any discretionary account or similar account (other than an estate or trust) held by a dealer or other fiduciary organized, incorporated, or (if an individual) resident in the United States, and (5) any partnership or corporation organized or incorporated under the laws of any non U.S. jurisdiction which is formed by a U.S. Person principally for the purpose of investing in securities not registered under the U.S. Securities Act, unless it is organized or incorporated, and owned, by U.S. Accredited Investors who are not natural persons, estates or trusts; and

“**U.S. Securities Act**” means the United States Securities Act of 1933, as amended.

3. The Corporation, as security for the payment of the principal sum, interest and all other Obligations from time to time secured hereby and as security for the performance and observance of the covenants and agreements on the part of the Corporation herein contained, hereby:
 - (a) grants, mortgages, charges, assigns and transfers to the Lender, as and by way of a floating charge, all property, assets and undertaking of the Corporation, including without limitation:
 - (i) all freehold and leasehold real property interests;
 - (ii) the Petroleum and Natural Gas Rights now held or hereafter acquired or reacquired by the Corporation in the Lands;
 - (iii) all lands now held or hereafter acquired or reacquired that are or may be pooled or unitized with the Lands;
 - (iv) the Facilities;
 - (v) all rental payments payable under any lease of the Lands, the Petroleum and Natural Gas Rights in the Lands and of the Facilities, or any payment or right to payment that arises in connection with any interest of the Corporation in the Lands, the Petroleum and Natural Gas Rights therein and the Facilities;

- (vi) all leases, licences, permits, reservations, agreements, authorizations and other instruments now held or hereafter acquired or reacquired under which the Corporation derives, holds, or maintains:
 - A. the Petroleum and Natural Gas Rights and all rights, benefits, privileges and advantages of the Corporation to be derived therefrom; and
 - B. the Facilities and all rights, benefits, privileges and advantages of the Corporation to be derived therefrom;
- (vii) all leases, licences, privileges, easements, rights-of-way, rights of ingress or egress and other surface rights now held or hereafter acquired or required under which the Corporation derives or holds the right:
 - A. to drill for, produce, store, gather, treat or process petroleum, natural gas and related Hydrocarbons from its Petroleum and Natural Gas Rights; and
 - B. in and to the Facilities; and
- (b) grants a security interest to the Lender in: all present and after acquired personal property of the Corporation and proceeds thereof.

Until the security hereby constituted shall have become enforceable and the Lender shall have determined to enforce the same (and except as hereinafter provided), the Corporation may, in the ordinary course of the business of the Corporation and for the purpose of carrying on the same, sell, assign, lease, dispose of and deal with the Mortgaged Property; PROVIDED THAT the Corporation shall not, and the Corporation hereby covenants that it will not, without the prior written consent of the Lender, make, give, create, grant, incur or assume any mortgage, pledge, hypothec, lien, charge, encumbrance, assignment, security interest or other security, upon the Mortgaged Property or any part thereof, other than the Permitted Encumbrances, ranking or purporting to rank in priority to or pari passu with the grant, mortgage, charge, assignment, transfer and security interest created and secured hereby (hereinafter referred to as the “**Charge**”).

TO HAVE AND TO HOLD the Mortgaged Property and rights hereby conferred on the Lender for the use and purposes and with the power and authority and subject to the terms, conditions, provisos, covenants and stipulations herein expressed.

The Charge shall not extend or apply to the last day of the term of any lease, whether oral or written, now held or hereafter acquired by the Corporation but should such Charge become enforceable and the Lender shall have determined to enforce the same, the Corporation shall thereafter stand possessed of such last day and shall hold it in trust to assign the same to any Person who may acquire such term or the part thereof hereby charged in the course of any enforcement of the said Charge or any realization of the subject matter thereof.

- 4. (a) The Corporation will, at the request of the Lender after the occurrence of an Event of Default, furnish the Lender with the names of all Account Debtors.
- (b) After the occurrence of an Event of Default, the Lender may notify any or all Account Debtors and may direct such parties to make all payments to the Lender. The Corporation acknowledges that any payments on or other proceeds of the Mortgaged Property

received by the Corporation from such parties after notification of the lien of this Debenture to such parties or after the occurrence of an Event of Default shall be received and held by the Corporation in trust for the Lender and shall be turned over to the Lender upon request. The Lender shall not be liable to ascertain the Account Debtors or for the collection of any such accounts or amounts nor shall the Lender, by reason of this Section 4(b) or by reason of any steps, actions, notices or proceedings taken or given to enforce such rights be or be deemed to be a mortgagee in possession of the Mortgaged Property or any part thereof nor be liable or accountable for any monies except those actually received.

- (c) Nothing contained herein shall detract from or limit the absolute obligation of the Corporation to make payment of all Obligations at the time and in the manner provided herein and to perform and observe any other act or condition which it is required to perform or observe hereunder, regardless of whether the rental or other payments assigned and secured by Section 3 hereof are sufficient to pay the same, or whether the assignment or charge herein is operative and the rights under this Section 4 shall be in addition to all other security of any and every character now or hereafter held by the Lender for the obligations of the Corporation secured hereby.

5. The Corporation represents, warrants and covenants to and agrees with the Lender as follows:

- (a) the Corporation is a corporation validly existing and in good standing under the laws of the Province of Alberta duly registered in all other jurisdictions where the nature of its property or character of its business requires registration, and has all necessary power and authority to own its properties and carry on its business as presently carried on;
- (b) the Corporation has taken all necessary corporate action to authorize the execution, delivery and performance of the Documents to which it is a party and to observe and perform the provisions thereof in accordance with the terms therein contained;
- (c) none of the authorization, execution or delivery of this Debenture or the other Documents or performance of any obligation pursuant hereto or thereto requires or will require, pursuant to Applicable Laws, any approval or consent of any governmental authority having jurisdiction (except such as has already been obtained and are in full force and effect) nor is in conflict with or contravention of (i) the Corporation's articles, by-laws or other constating documents or any resolutions of directors or shareholders agreement or (ii) the provisions of any other indenture, instrument, undertaking or other agreement to which the Corporation is a party or by which it or its properties or assets are bound, the contravention of which would have or would reasonably be expected to have a Material Adverse Effect;
- (d) the Documents constitute valid and legally binding obligations of the Corporation enforceable against it in accordance with their respective terms, subject to applicable bankruptcy, insolvency and other laws of general application limiting the enforceability of creditors' rights and to the fact that equitable remedies are only available in the discretion of the court;
- (e) the Corporation has good right, full power and lawful authority to charge the Mortgaged Property according to the true intent and meaning of this Debenture (subject to any consent required from the Senior Lenders or the holders of the Permitted Shareholder Loans);

- (f) other than Geomark Exploration Ltd., Geomark Minerals USA Inc., WMC International Limited and Pine Cliff Border Pipelines Limited, the Corporation has no Subsidiaries;
- (g) the Mortgaged Property is free and clear of all mortgages, liens, charges, encumbrances and security interests other than Permitted Encumbrances;
- (h) the Corporation has good and marketable title to its property, assets and undertaking, subject to Permitted Encumbrances and to minor defects of title which, individually and in the aggregate, do not materially affect its rights of ownership therein or the value thereof.
- (i) the Corporation has made available to the Lender all material information necessary to make any representations, warranties and statements contained in this Debenture and such information is not misleading in any material respect in light of the circumstances in which they are given;
- (j) as at the date of this Debenture, there are no actions, suits or proceedings pending or, to the knowledge of the Corporation, threatened against or affecting the Corporation, its property or any of its undertakings and assets, at law, in equity or before any arbitrator or before or by any governmental authority having jurisdiction in the premises in respect of which there is a reasonable likelihood of a determination adverse to the Corporation and which, if determined adversely, would have or would reasonably be expected to have a Material Adverse Effect;
- (k) the Corporation and its property, businesses and operations are in compliance with all Applicable Laws (including, without limitation, all applicable Environmental Laws), all applicable directives, judgments, decrees, injunctions and orders rendered by any governmental authority or court of competent jurisdiction, its articles, by laws and other constating documents, all agreements or instruments to which it is a party or by which its property or assets are bound, and any employee benefit plans, except to the extent that failure to so comply would not have and would not reasonably be expected to have a Material Adverse Effect;
- (l) to the best of the knowledge Corporation, after due inquiry, the Corporation and its properties, assets and undertakings taken as a whole comply in all respects and the businesses, activities and operations of same and the use of such properties, assets and undertakings and the processes and undertakings performed thereon comply in all respects with all Environmental Laws except to the extent that failure to so comply would not have and would not reasonably be expected to have a Material Adverse Effect; further, the Corporation does not know, and has no reasonable grounds to know, of any facts which result in or constitute or are likely to give rise to non-compliance with any Environmental Laws, which facts or non-compliance have or would reasonably be expected to have a Material Adverse Effect;
- (m) the Corporation has not received any notice that the Corporation is a potentially responsible party for a federal, provincial, regional, municipal or local clean up or corrective action in connection with any of its respective properties, assets and undertakings where such clean up or corrective action has or would reasonably be expected to have a Material Adverse Effect;
- (n) the Corporation shall, unless the Lender otherwise consents in writing:

- (i) pay the principal sum, interest and other Obligations hereby secured in accordance with the terms of this Debenture;
- (ii) carry on and continuously conduct its business in a lawful, efficient, diligent and businesslike manner;
- (iii) warrant and forever defend all and singular the Mortgaged Property unto the Lender against every Person whomsoever lawfully claiming or attempting to claim the same or any part thereof;
- (iv) comply with all of its covenants and obligations under the Senior Lender Documents and forthwith advise the Lender in writing of any Borrowing Base Shortfall (as defined in the Senior Lender Documents), any Default (as defined in the Senior Lender Documents), any Event of Default (as defined in the Senior Lender Documents) or any Material Adverse Effect;
- (v) keep and maintain proper books of account and records accurately covering all aspects of the business and affairs of the Corporation and to permit authorized officers, employees or agents of the Lender to inspect the same during regular business hours;
- (vi) promptly pay when due all business, income and profits taxes properly levied or assessed against the Corporation, its business, operations, revenues, incomes or profits, save and except when and so long as the validity of any such tax is in good faith contested by the Corporation, in which event the Corporation shall, if required by the Lender, furnish security satisfactory to it for the full amount of any of such taxes being so contested;
- (vii) fully pay and discharge as and when the same become due and payable all taxes (including local improvement rates), rates, duties and assessments that may be levied, rated, charged or assessed against the Mortgaged Property, or any part thereof, and if the Corporation fails to pay any of such taxes, rates, duties or assessments and if it is not in good faith contesting the same, the Lender may, but shall not be obligated to, pay the same, and any amounts so paid by the Lender shall become and form part of the principal sum secured hereby and shall bear interest at the rate aforesaid until paid;
- (viii) at all times promptly observe, perform, execute and comply with all Applicable Laws, every governmental authority and agency whether federal, provincial, municipal or otherwise, including, without limiting the generality of the foregoing, those dealing with zoning, use, occupancy, subdivision, parking, historical designations, fire, access, pollution of the environment, toxic materials or other environmental hazards, public health and safety, and all private covenants and restrictions affecting the Mortgaged Property or any portion thereof, and from time to time, upon request of the Lender, to provide to the Lender evidence of such observance and compliance, and at its own expense to make any and all improvements thereon or alterations to the Mortgaged Property, structural or otherwise, and to take all such other action as may be required at any time by any such present or future law, rule, requirement, order, direction, by-law, ordinance, work order or regulation;

- (ix) at all times ensure that Geomark Minerals USA Inc., WMC International Limited and Pine Cliff Border Pipelines Limited are not Material Subsidiaries (as defined in the Senior Lender Documents) and advise the Lender if Geomark Minerals USA Inc., WMC International Limited or Pine Cliff Border Pipelines Limited's intend to grant any encumbrances or security and, five Business Days prior to the granting of such encumbrances or security, cause Geomark Minerals USA Inc., WMC International Limited or Pine Cliff Border Pipelines Limited, as applicable, to provide the Lender any Documents required by the Lender in its sole discretion;
- (x) advise the Lender of its intention to form any Subsidiary after the date hereof and prior to formation thereof and, within 30 days of formation, cause such Subsidiary to provide the Lender any Documents required by the Lender in its sole discretion; and
- (xi) only use the Second Advance for working capital and general corporate purposes (including the payment of interest and closing costs) and for no other purpose whatsoever;
- (o) the Corporation shall not, unless the Lender consents in writing:
 - (i) change in any material respect the nature of its business or operations from the types of businesses and operations carried on by the Corporation on the date hereof;
 - (ii) create, issue, incur, assume or permit to exist any encumbrance on any of its property, undertakings or assets other than Permitted Encumbrances;
 - (iii) incur any debt for borrowed money (other than Permitted Debt and trade debt incurred in the ordinary course of the Corporation's business), unless and until, prior to incurring such debt, the Person to whom such debt is owed enters into a subordination and postponement agreement with the Lender, in a form acceptable to the Lender in its sole discretion;
 - (iv) make an principal repayments on the Permitted Shareholder Loans prior to the First Advance Maturity Date;
 - (v) liquidate, dissolve or wind up or take any steps or proceedings in connection therewith;
 - (vi) sell, transfer or otherwise dispose of any of its property or assets other than in the ordinary course of business of the Corporation;
 - (vii) enter into any contract, agreement or transaction whatsoever, including for the sale, purchase, lease or other dealing in any property or the provision of any services (other than office and administration services provided in the ordinary course of business), with any party not dealing at arm's length with the Corporation except upon fair and reasonable terms, which terms are not less favourable to the Corporation than it would obtain in an arm's length transaction and, if applicable, for consideration which equals the fair market value of such property or other than at a fair market rental as regards leased property; or

- (viii) enter into any transaction whereby all or substantially all of its undertaking, property and assets would become the property of any other Person whether by way of reconstruction, reorganization, recapitalization, consolidation, amalgamation, merger, transfer, sale or otherwise.
- 6.
- (a) The Corporation covenants that at all times during the continuation of this Debenture, it will insure and keep insured against all reasonably insurable hazards. Unless otherwise agreed to in writing by the Lender, the losses under all such insurance shall be payable firstly to the Senior Lender until all obligations owing to it are extinguished, then to the Lender, as their respective interests may appear.
 - (b) The Corporation agrees that so long as it remains indebted to the Lender, it will, unless otherwise requested in writing by the Lender, maintain with reputable insurers third party public liability and property damage insurance covering all operations of the Corporation within limits of coverage usually carried by others owning or operating the same or a similar type and size of business as that being conducted by the Corporation, all in accordance with the requirements imposed by the Senior Lender Documents.
 - (c) The Corporation will, upon the request of the Lender, deliver to the Lender certified copies of all policies or contracts of insurance being carried by the Corporation pursuant to the terms hereof, together with such certificates of insurance as the Lender may reasonably require and evidence that the premiums on all such insurance have been paid.
 - (d) In the event of loss under any of the insurance referred to in this Section 6, the Lender, at its option, may apply the insurance proceeds payable to the Lender, if any, on account of the principal sum and interest secured hereby or may apply the same to rebuilding, repairing and restoring the Mortgaged Property, or may apply the same partly for one purpose and partly for the other purpose.
7. The Corporation will at all times do, execute, acknowledge and deliver or cause to be done, executed, acknowledged and delivered all and every such further acts, deeds, mortgages, transfers and assurances in law as the Lender shall reasonably require for better assuring, mortgaging, assigning and confirming unto the Lender all and singular the undertaking and all of the property and assets of the Corporation hereby charged or intended so to be or which the Corporation may hereafter become bound to charge to and in favour of the Lender and for the better accomplishing and effectuating of the intentions of this Debenture. In addition, the Corporation shall furnish to the Lender copies of all material Senior Lender Documents forthwith after execution thereof and, at any time and from time to time, all materials and information relating to the Corporation or its business that the Lender reasonably requires in order to assess (i) compliance by the Corporation of its obligations and covenants under the Documents and/or the Senior Lender Documents, (ii) the financial condition of the Corporation, or (iii) whether an Event of Default has occurred, and the Corporation shall permit the agents and representatives of the Lender, upon reasonable notice, to attend at the Corporation's offices during normal business hours to review and inspect such materials as are necessary to make such assessment.
8. The Obligations secured by this Debenture shall become immediately due and payable, whether with or without prior demand therefor, and the security hereby constituted shall become immediately enforceable in each and every of the following events (each of such events being hereinafter called an "**Event of Default**"):

- (a) if the Corporation makes a default in the performance of or payment, in whole or in part, of the principal or interest payable under or pursuant to any instrument, document or agreement which creates or evidences any indebtedness or obligation, present or future, direct or indirect, absolute or contingent, matured or not, wherever or however incurred, owed to the Lender or any Obligations secured hereby;
- (b) if any representation or warranty made by the Corporation herein or in any other Document shall prove to have been incorrect or misleading in any material respect on and as of the date made and, if curable, the facts or circumstances which make such representation or warranty incorrect or misleading are not remedied and the representation or warranty in question remains incorrect or misleading more than 30 days after the Lender notifies the Corporation of the same;
- (c) if the Corporation makes default in the observance or performance of any other covenant, agreement or condition herein on the part of the Corporation to be kept, observed or performed, including, without limitation, the failure to issue shares pursuant to any warrants;
- (d) if an order is made or an effective resolution is passed for the winding-up of the Corporation, or if a petition is filed for the winding-up of the Corporation;
- (e) if the Corporation becomes insolvent, or makes an unauthorized assignment or bulk sale of its assets, or if a petition in bankruptcy is filed or presented against the Corporation;
- (f) if any proceeding with respect to the Corporation is commenced under the *Companies' Creditors Arrangements Act* (Canada) or the *Bankruptcy and Insolvency Act* (Canada);
- (g) if any execution, sequestration, writ of extent or any other process of any court becomes enforceable against the Corporation, or if a distress or analogous process is levied upon the property of the Corporation or any part thereof, provided that such execution, sequestration, writ of extent or other process is not in good faith being contested by the Corporation;
- (h) if the Corporation ceases or threatens to cease to carry on its business or if the Corporation commits or threatens to commit any act of bankruptcy;
- (i) if there is a Change of Control;
- (j) except as permitted hereunder, if the Corporation shall permit any sum which has been admitted as due by the Corporation or is not disputed to be due by it and which forms or is capable of being made a charge upon any of the Mortgaged Property in priority to or pari passu with the Charge to remain unpaid for thirty (30) days after proceedings have been taken to enforce the same as a charge upon the Mortgaged Property ranking in priority to or pari passu with the Charge; or
- (k) if the Corporation makes default in the due payment, performance or observance, in whole or in part, of any debt, liability or obligation of the Corporation to the Senior Lender or any other secured creditor, and such default continues after the expiry of any cure periods relating thereto.

9. The Lender may waive any breach by the Corporation of any of the provisions contained in this Debenture or any default by the Corporation in the observance or performance of any covenant, agreement or condition required to be kept, observed or performed by the Corporation under the terms of this Debenture; PROVIDED ALWAYS that no act or omission of the Lender in the premises shall extend to or be taken in any manner whatsoever to affect any subsequent breach or default or to affect the rights of the Lender resulting therefrom.

10. (a) If an Event of Default shall have occurred and be continuing, the Lender may, in its discretion, but subject to any restrictions imposed by the Senior Lender under the Senior Lender Documents, appoint a Receiver (which term shall herein include a receiver and manager) of the Mortgaged Property, of the rents, issues, profits, revenues and income thereof or of any part or parts of any of the foregoing, and upon any such appointment by the Lender the following provisions shall apply:
 - (i) the appointment of any Receiver by the Lender hereunder shall be made in writing signed by the Lender and such writing shall be conclusive evidence for all purposes of such appointment. The Lender may from time to time in the same manner remove any Receiver so appointed and if it so chooses, appoint another in his stead. Notwithstanding anything to the contrary hereby expressed or implied, in making any such appointment of a Receiver hereunder, the Lender shall be deemed to be acting as the attorney for the Corporation and the Corporation does hereby irrevocably appoint the Lender as its attorney for that purpose;
 - (ii) the Lender, in its discretion, may appoint one or more Receivers hereunder in respect of all or any part or parts of the Mortgaged Property, as may be designated in writing by the Lender when making any such appointment;
 - (iii) any such Receiver shall have the power:
 - A. to take possession of, collect and to get in all or any part of the Mortgaged Property and for that purpose to take proceedings in the name of the Corporation or otherwise and to make any arrangement or compromise;
 - B. to carry on or concur in carrying on all or any part of the business of the Corporation; and
 - C. to sell or to concur in selling all or any part of the Mortgaged Property in such manner as may seem advisable to the Receiver, and to effect such sale by conveying the same in the name and on behalf of the Corporation or otherwise in respect thereof;
 - (iv) every such Receiver may, in the discretion of the Lender, be vested with all or any of the powers and discretions conferred on the Lender under this Debenture;
 - (v) the Lender may from time to time fix the reasonable remuneration of every such Receiver and may direct the payment thereof (in priority to the Lender), out of the Mortgaged Property and the rents, profits, revenues and income therefrom or the proceeds thereof;

- (vi) the Lender may from time to time require any Receiver to give security for the performance of his duties as such Receiver and may fix the nature and amount thereof, but the Lender shall not be bound to require any such security from the Receiver;
 - (vii) every such Receiver may, with the consent in writing of the Lender, borrow money for the purpose of maintaining, protecting or preserving the Mortgaged Property or any part thereof, or for the purpose of carrying on the business of the Corporation, and any Receiver may issue certificates (in this subsection called “**receiver’s certificates**”) for such sums as will, in the opinion of the Lender, be sufficient for obtaining security upon the Mortgaged Property or any part thereof for the amounts from time to time so required by the Receiver, and such receiver’s certificates may be payable either to order or to bearer and may be payable at such time or times, and shall bear such interest as the Lender may approve and the Receiver may sell, pledge or otherwise dispose of the receiver’s certificates in such manner and may pay such commission on the sale thereof, as the Lender may consider reasonable, and the amounts from time to time payable by virtue of such receiver’s certificates shall form a charge upon the Mortgaged Property in priority to the amounts secured under this Debenture;
 - (viii) every such Receiver shall, with respect to the responsibility for his acts or omissions, be deemed to be the agent for the Corporation, and in no event the agent of the Lender. The Lender shall not, in making or consenting to such appointment, incur any liability to any Receiver for his remuneration or otherwise howsoever be liable or responsible for the acts or omissions, including the negligence, misconduct or misfeasance, on the part of any such Receiver;
 - (ix) except as may be otherwise directed in writing by the Lender, all monies from time to time received by such Receiver shall be paid over to the Lender to be held by it as part of the Mortgaged Property; and
 - (x) the Lender may pay over to any Receiver any monies constituting part of the Mortgaged Property to the extent that the same may be applied for the purposes hereof by such Receiver, and the Lender may from time to time determine what funds such Receiver shall be at liberty to keep on hand with a view to the performance of his duties hereunder as such Receiver.
11. If an Event of Default shall have occurred and be continuing, the Lender may in its discretion, in lieu of appointing a Receiver as provided for in Section 10(a) hereof, apply to any court or courts of competent jurisdiction for the appointment of one or more Receivers of the Mortgaged Property, of the rents, issues, profits, revenues and income thereof or of any part or parts of any of the foregoing, with such powers as the court or courts making such appointment or appointments shall confer including, without limiting the generality thereof, all or any of the powers set forth in Section 10(a) hereof. Any Receiver or Receivers so appointed by a court shall be subject to the supervision of that court.
12. Nothing done by the Lender or by any Receiver or Receivers in possession of the Mortgaged Property shall render the Lender a mortgagee in possession or responsible as such, or in any way limit or curtail the remedies of the Lender as a mortgagee or creditor under any Applicable Law or statute.

13. If the security hereby constituted shall become enforceable, the Lender may, subject to Applicable Law and the Senior Lender Documents, either before or after any entry, sell and dispose of all or any part of the Mortgaged Property either as a whole or in several portions thereof, at public auction or by public tender or by private sale at such time or times and on or subject to such terms and conditions as the Lender may determine, and it shall be lawful for the Lender to make such sale, either for cash or upon credit or partly for cash and partly upon credit, and with or without advertisement, and upon such reasonable conditions as to upset, reserve bid or price and as to terms of payment as the Lender may deem proper, and the Lender may also rescind or vary any contract of sale that may have been entered into and resell with or under any of the powers conferred hereunder and adjourn any such sale from time to time and may execute and deliver to the purchaser or purchasers of the Mortgaged Property or any part thereof good and sufficient title to the same, the Lender being hereby constituted irrevocably the attorney of the Corporation for the purpose of making such sale and for executing all deeds and documents pertaining thereto and any such sale made as aforesaid shall be a perpetual bar both in law and in equity against the Corporation and all other Persons claiming such property or any part thereof, by, from, through or under the Corporation.
14. The Corporation acknowledges that if a stay of proceedings is issued against the Corporation pursuant to the *Bankruptcy and Insolvency Act* (Canada), the *Companies' Creditors Arrangement Act* (Canada) or otherwise, the Lender would be irreparably harmed and materially prejudiced if any proceeds of the Mortgaged Property were used for any purpose other than the repayment of the Obligations secured by this Debenture, and the Corporation hereby acknowledges and agrees that any proceeds of the Mortgaged Property received by the Corporation while such stay is in effect shall be received by and held by the Corporation in trust for the Lender.
15. If the Corporation should fail to comply with any covenant or agreement contained herein, the Lender or agent of the Lender may, but shall not be obligated to, do whatever is necessary to rectify such failure, and all sums so expended by the Lender or its agent shall forthwith become due and be payable by the Corporation to the Lender and until paid shall form part of the principal sum secured hereby and shall bear interest at the aforesaid rate.
16. The Corporation agrees to pay to the Lender forthwith upon demand: (a) all reasonable costs, charges and expenses (including legal fees on a solicitor and his own client basis) of, or incurred by, the Lender in connection with this Debenture or the Mortgaged Property or any part thereof; and (b) all reasonable costs, charges and expenses (including legal fees on a solicitor and his own client basis) of, or incurred by the Lender in connection with recovering or enforcing payment of any of the Obligations owing hereunder including all costs, charges and expenses incurred in connection with taking possession, preserving, collecting or realizing upon the Mortgaged Property, together with interest thereon at the aforesaid rate from the date of incurring such costs, charges and expenses.
17. Upon payment by the Corporation to the Lender of the principal sum, interest and all Obligations secured by this Debenture and provided the security hereby constituted shall not have become enforceable, the Lender shall, upon the written request of the Corporation, deliver up this Debenture to the Corporation and shall, at the expense of the Corporation, release and discharge the security hereby constituted and execute and deliver to the Corporation such deeds or other documents as shall be requisite to release and discharge this Debenture and the security afforded hereby; provided, however, that this Debenture may be assigned, pledged, hypothecated or deposited by the Corporation as security for advances or loans to or for indebtedness or other obligations or liabilities of the Corporation and in such event this Debenture shall not be deemed to have been discharged or redeemed by reason of the account of the Corporation having ceased

to be in debit balance while this Debenture remains so assigned, pledged, hypothecated or deposited.

18. No postponement or partial release or discharge of the Charge in respect of all or any part of the Mortgaged Property shall in any way operate or be construed so as to release and discharge the security hereby constituted in respect of the Mortgaged Property except as therein specifically provided, or so as to release or discharge the Corporation from its liability to the Lender to fully pay and satisfy the principal sum, interest and all other Obligations remaining unpaid by the Corporation to the Lender.
19. The Corporation acknowledges and agrees that in the event it amalgamates with any other corporation or corporations it is the intention of the Corporation and the Lender that the term "Corporation" when used herein shall apply to each of the amalgamating corporations and to the amalgamated corporation, such that the Charge shall secure the indebtedness of each of the amalgamating corporations and the amalgamated corporation to the Lender at the time of amalgamation and any indebtedness of the amalgamated corporation to the Lender thereafter arising. The Charge shall attach to all of the "Mortgaged Property" owned by each corporation amalgamating with the Corporation, and by the amalgamated corporation, at the time of amalgamation, and shall attach to any "Mortgaged Property" thereafter owned or acquired by the amalgamated corporation when such becomes owned or is acquired.
20. The Corporation will indemnify the Lender and its successors and assigns against any and all liabilities, actions, claims, judgments, costs, charges and legal fees that may be made against or incurred by the Lender, by reason of the assertion that the Lender has received funds that may be claimed by third Persons, either before or after the payment in full of all Obligations either before or after the release either wholly or partially of the Charge; and the Lender shall have the right to defend against any such claims, actions and charges and claim from the Corporation all expenses incurred by the Lender in connection therewith, together with all reasonable legal fees as may be paid by the Lender in connection therewith. It is understood and agreed that the covenants and conditions of this Section 20 shall at all times be construed to be a personal covenant in favour of the Lender and shall not run with the Mortgaged Property, and that such covenants and indemnity shall remain in full force and effect notwithstanding the payment of the principal sum, interest and all other Obligations secured by this Debenture and the release, either partially or wholly, of the Charge, or any foreclosure hereof.
21. The principal sum, interest and other Obligations hereby secured will be paid by the Corporation and shall be assignable by the Lender free from any right of set-off or counterclaim by the Corporation or any equities between the Corporation and the Lender. The Corporation may not assign this Debenture or any of its obligations hereunder without the prior written consent of the Lender, which consent may be arbitrarily withheld.
22. Neither the execution and delivery nor the registration of this Debenture shall for any reason whatsoever obligate or bind the Lender to advance any monies, or having advanced a portion obligate the Lender in any way to advance the balance thereof; but nevertheless, the Charge shall take effect forthwith upon execution of this Debenture and shall operate as security for the actual amount of all the debts and liabilities, present or future, direct or indirect, absolute or contingent, matured or not, at any time owing by the Corporation to the Lender or remaining unpaid.
23. The security hereby constituted is in addition to, and not in substitution for, any other security now or hereafter held by the Lender and no payment to the Lender shall constitute payment on account of the principal sum, interest or other Obligations from time to time owing hereunder

unless specifically so appropriated in writing by the Lender. The taking of any action or proceedings or refraining from so doing, or any other dealing with any other security for the monies secured hereby shall not release or affect the security of this Debenture and the taking of the security hereby granted or any proceedings hereunder for the realization of the security hereby granted shall not release or affect any other security held by the Lender for the Obligations hereby secured.

24. Any notice that may be given by the Lender in accordance with this Debenture shall be in writing and may be given at any time either by delivering or by mailing the same addressed to the Corporation at its address specified on the signature page hereof. Any notice delivered to the Corporation shall be deemed to have been given on the Business Day during which the same was so delivered to the Corporation and any notice mailed to the Corporation shall be conclusively deemed to have been received by the Corporation on the third Business Day following that on which it was so mailed.
25. The Corporation hereby authorizes the Lender to file or register such financing statements, financing change statements and other documents as the Lender may deem appropriate to perfect on an ongoing basis and continue the Charge, and to protect and preserve the Mortgaged Property and the Corporation hereby irrevocably constitutes and appoints the Lender the true and lawful attorney of the Corporation, with full power of substitution, to do any of the foregoing in the name of the Corporation whenever and wherever it may be deemed necessary or expedient, with the Lender providing copies thereof to the Corporation in due course.
26. The Corporation hereby acknowledges receipt of a copy of this Debenture, and waives its right to receive a copy of any financing statement or financing change statement registered by the Lender.
27. To the full extent that it may lawfully do so, the Corporation hereby:
 - (a) waives and disclaims any benefit of, and shall not have or assert any right under any statute or rule of law pertaining to, the marshalling of assets, the exemption of homestead, the administration of estates, or any other matter whatever, to defeat, reduce or affect the rights of the Lender under the terms of this Debenture to a sale of the Mortgaged Property or any part thereof or for the collection of all amounts secured hereby; and
 - (b) agrees that it shall not have or assert any right or equity of redemption or any right under any statute or otherwise to redeem the Mortgaged Property or any part thereof after the sale hereunder to any Person whether such sale is by the Lender, any Receiver or otherwise, notwithstanding, if such should be the case, that the Lender may have purchased same.
 - (c) agrees that the *Land Contracts (Actions) Act* (Saskatchewan) shall have no application to any action (as defined in such Act) taken with respect to any Charge herein; and
 - (d) agrees that the *Limitation of Civil Rights Act* (Saskatchewan) shall have no application to:
 - (i) this Debenture or any instrument or agreement in implementation hereof,
 - (ii) any Charge or security for the payment of money made, given or created pursuant to any of the foregoing instruments,

- (iii) any instrument or agreement entered into at any time hereafter by the Corporation renewing or extending or collateral to this Debenture or to any of the foregoing instruments, or
 - (iv) the rights, powers or remedies of the Lender or any Receiver under any of the foregoing instruments.
- 28. The Charge is intended to attach when this Debenture is signed by the Corporation and, with respect to after-acquired property, when the Corporation acquires an interest in such property.
- 29. Wherever the singular or masculine or neuter is used in this Debenture, the same shall be construed as meaning the plural or feminine or body corporate and vice versa, where the context so requires.
- 30. Subject to the provisions in the Senior Lender Documents, the Corporation shall, as soon as practicable following receipt by the Corporation of a request by the Lender to provide fixed charge security over any Petroleum and Natural Gas Rights of the Corporation (and in any event not more than five Business Days following such request), the Corporation shall furnish or cause to be furnished to the Lender, at the sole cost and expense of the Corporation, fixed charge security over such Petroleum and Natural Gas Rights of the Corporation as are specified by the Lender, in the form of a supplemental debenture to this Debenture.
- 31. The Corporation will assist the Lender to ensure that this Debenture and all supplementary and corrective instruments and all additional mortgage and security documents described in Sections 7 and 30, and all documents, caveats, cautions, memorials, security notices, financing statements and assurances in respect thereof are promptly filed and refiled, registered and re-registered and deposited and re-deposited in such manner, in such offices and places, and at such times and as often as may be required by law or as may be necessary or desirable to perfect and preserve the Charge created or intended to be created hereby as a first priority Charge against all present and after-acquired property and the rights conferred or intended to be conferred upon the Lender by the Charge herein contained (subject to the rights of the Senior Lender).
- 32. No waiver of any right of the Lender hereof shall be valid unless in writing delivered to the Corporation as herein provided. No amendment hereunder shall be valid or effective for any purpose unless consented to in writing by the Lender.
- 33. In the event that any term or provision in this Debenture shall, to any extent, be invalid or unenforceable, the remaining terms and provisions of this Debenture shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by Applicable Law.
- 34. This Debenture shall be governed by and construed in accordance with the laws in force in the Province of Alberta and for the purposes of any legal proceedings in respect of this Debenture, the Corporation irrevocably submits to the jurisdiction of the courts of the Province of Alberta. There shall be no application of any conflict of laws rule which is inconsistent with this section.
- 35. Without limiting the provisions of the Senior Lender Documents, and subject to the terms of the Subordination and Postponement Agreement, dated August 10, 2016, as amended by an amending agreement dated as of July 13, 2018 (as the same may be further amended, restated, supplemented or replaced from time to time, the “**Subordination and Postponement Agreement**”), among the Corporation, the Lender, Geomark Exploration Ltd. and The Toronto-Dominion Bank acting as agent for the Senior Lenders, the security constituted by this Debenture

shall be subordinate to the mortgages, charges and security interests now or hereafter granted by the Corporation to the Senior Lenders and this Debenture and the rights and entitlements of the Lender hereunder or in connection herewith, and the obligations, liabilities and indebtedness of the Corporation hereunder, are all subject to such Subordination and Postponement Agreement.

36. In the event of a conflict between the terms and conditions of this Debenture and any promissory note or other instrument, document or agreement which creates or evidences any indebtedness or obligation owed by the Corporation to the Lender (collectively, the “**Note(s)**”), the terms and conditions of the Debenture shall prevail to the extent necessary to resolve the conflict. In the event of any conflict between the terms and conditions of (a) the Documents and (b) the Subordination and Postponement Agreement, the terms and conditions of the Subordination and Postponement Agreement shall prevail to the extent necessary to resolve the conflict.
37. Subject to the Senior Lender Documents and the Subordination and Postponement Agreement:
- (a) prior to the first anniversary of the First Advance Date, the Corporation shall be entitled to prepay all or a portion of the principal amount of the First Advance and interest accrued thereon, subject to payment to the Lender of prepayment fee equal to the amount of interest that would have been payable on the pre-paid principal amount of the First Advance, had such principal amount remained outstanding up to and including the second anniversary of the First Advance Date;
 - (b) from and after the second anniversary of the First Advance Date, the Corporation shall be entitled to prepay all or a portion of the principal amount of the First Advance and interest accrued thereon, without bonus or penalty;
 - (c) prior to the second anniversary of the Second Advance Date, the Corporation shall be entitled to prepay all or a portion of the principal amount of the Second Advance and interest accrued thereon, subject to payment to the Lender of prepayment fee equal to the amount of interest that would have been payable on the pre-paid principal sum hereunder, had such principal amount remained outstanding up to and including the second anniversary of the Second Advance Date;
 - (d) from and after the second anniversary of the Second Advance Date, but prior to the third anniversary of the Second Advance Date, the Corporation shall be entitled to prepay all or a portion of the principal amount of the Second Advance and interest accrued thereon, subject to payment to the Lender of prepayment fee equal to, in each instance of prepayment, the product derived from the following formula:

$$\text{PA} \times 1.05 \times (\text{DT}/365)$$

where:

- (i) PA = the prepaid principal amount of the Second Advance, and
 - (ii) DT = the number days from and including the second anniversary of the Second Advance Date to and including the date of payment of the PA;
- (e) from and after the third anniversary of the Second Advance Date, the Corporation shall be entitled to prepay all or a portion of the principal amount of the Second Advance and interest accrued thereon, without bonus or penalty.

38. The Lender hereby acknowledges that it made an irrevocable subscription for and offer to purchase 30,000 Tranche 1 Units from the Corporation on August 10, 2016 at the Tranche 1 Units Subscription Price, as principal for its own account and not for the benefit of any other Person, and received 4,500,000 Tranche 1 Warrants from the Corporation on August 10, 2016 pursuant to such subscription.
39. The Lender hereby confirms its irrevocable subscription for and offer to purchase 19,000 Tranche 2 Units from the Corporation, as principal for its own account and not for the benefit of any other Person, on and subject to the terms and conditions set out in this Debenture at the Tranche 2 Units Subscription Price.
40. The Lender was on the First Advance Date, and is as of the Closing Date, an “accredited investor” within the meaning of NI 45 106 and falls within the following specific category of accredited investor in section 1.1 of NI 45 106:
- “(f) except in Ontario, the Government of Canada or a jurisdiction of Canada, or any crown corporation, agency or wholly owned entity of the Government of Canada or a jurisdiction of Canada.”
41. The Lender, which is not a U.S. Person, was not offered the Securities in the United States and did not sign this Debenture in the United States, hereby represents and warrants to, and covenants with, the Corporation as follows, and acknowledges that the Corporation is relying on such representations and warranties in connection with the transactions contemplated herein:
- (a) that the Lender is resident in the Province of Alberta;
 - (b) that the Lender is not a U.S. Person nor is it subscribing for the Securities for the account of a U.S. Person or for resale in the United States, that the Securities have not been offered to the Lender in the United States and that this Debenture has not been signed in the United States;
 - (c) that the Lender will not offer, sell or otherwise dispose of the Securities in the United States or to a U.S. Person unless (i) the Corporation has consented to such offer, sale or distribution and such offer, sale or disposition is made in accordance with an exemption from the registration requirements under the U.S. Securities Act and the securities laws of all applicable states of the United States or (ii) the U.S. Securities and Exchange Commission has declared effective a registration statement in respect of such Securities;
 - (d) that the subscription for the Securities has not been made through or as a result of, and the distribution of the Securities is not being accompanied by, any advertisement, including in printed public media, radio, television or telecommunications, including electronic display, or as part of a general solicitation; and
 - (e) that the funds representing the Tranche 2 Units Subscription Price which will be advanced by the Lender to the Corporation hereunder will not represent proceeds of crime for the purposes of the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act* (Canada) (the “PCMLTFA”) and the Lender acknowledges that the Corporation may in the future be required by law to disclose the Lender’s name and other information relating to this Debenture and the Lender’s subscription for Securities hereunder and thereunder, on a confidential basis, pursuant to the PCMLTFA, and that:
 - (i) to the best of its knowledge, none of the funds representing the Tranche 2 Units

Subscription Price to be provided by the Lender A. have been or will be derived from or related to any activity that is deemed criminal under the laws of Canada, the United States or any other jurisdiction or B. are being tendered on behalf of a Person who has not been identified to the Lender; and (ii) it will promptly notify the Corporation if it discovers that any of such representations ceases to be true, and to provide the Corporation with appropriate information in connection therewith.

42. The Lender acknowledges and agrees as follows, and acknowledges that the Corporation is relying on such statements in connection with the transactions contemplated herein:
- (a) THAT THERE ARE RISKS ASSOCIATED WITH THE PURCHASE OF AND INVESTMENT IN THE SECURITIES AND THE LENDER IS KNOWLEDGEABLE AND HAS SUBSTANTIAL EXPERIENCE IN BUSINESS AND FINANCIAL MATTERS AND IS CAPABLE OF EVALUATING THE MERITS AND RISKS OF AN INVESTMENT IN THE SECURITIES AND PROTECTING THE LENDER'S OWN INTEREST, AND FULLY UNDERSTANDS THE RESTRICTIONS ON RESALE OF THE SECURITIES AND IS CAPABLE OF BEARING THE ECONOMIC RISK OF ITS INVESTMENT IN THE SECURITIES;
 - (b) that no securities commission, agency, governmental authority, regulatory body, stock exchange or other regulatory body has reviewed or passed on the investment merits of the Securities;
 - (c) that there is no government or other insurance covering the Securities;
 - (d) that there are restrictions on the ability of the Lender to resell the Securities and it is the responsibility of the Lender to find out what those restrictions are and to comply with them before selling any Securities;
 - (e) the Corporation has advised the Lender that the Corporation is relying on an exemption from the requirement to provide the Lender with a prospectus under applicable Securities Laws and, as a consequence of acquiring the Securities pursuant to this exemption, certain protections, rights and remedies provided by those Securities Laws, including, in most circumstances, statutory rights of rescission or damages, will not be available to the Lender;
 - (f) that the Lender will consult its own legal advisors with respect to trading in the Securities when issued and with respect to the resale restrictions imposed by the Securities Laws of the jurisdiction in which the Lender resides and other applicable securities laws, and acknowledges that no representations have been made respecting the applicable hold periods imposed by the Securities Laws or other resale restrictions applicable to the Securities which restrict the ability of the Lender to resell such securities, that the Lender is solely responsible to find out what these restrictions are and the Lender is solely responsible (and the Corporation is not in any way responsible) for compliance with such applicable resale restrictions and the Lender is aware that it may not be able to resell any of the Securities except in accordance with limited exemptions under the Securities Laws and other applicable securities laws;
 - (g) that, if required by applicable Securities Laws or the Corporation, the Lender will execute, deliver and file or assist the Corporation in filing any and all reports, undertakings and other documents with respect to the issue and/or sale of the Securities

as may be required by any securities commission, stock exchange or other regulatory authority;

- (h) that the certificates representing the Securities will bear or be bound by, a legend substantially in the following form and with the necessary information inserted:

“UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THIS SECURITY MUST NOT TRADE THE SECURITY BEFORE NOVEMBER 14, 2018.”

and on the certificates representing any Tranche 2 Warrant Shares issued to the Lender prior to the date that is four months and a day from the closing date:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE LISTED ON THE TORONTO STOCK EXCHANGE (“TSX”); HOWEVER, THE SAID SECURITIES CANNOT BE TRADED THROUGH THE FACILITIES OF TSX SINCE THEY ARE NOT FREELY TRANSFERABLE, AND CONSEQUENTLY ANY CERTIFICATE REPRESENTING SUCH SECURITIES IS NOT “GOOD DELIVERY” IN SETTLEMENT OF TRANSACTIONS ON TSX.;

provided that, at any time subsequent to the date which is four months and one day after the Closing Date, any certificate representing the Tranche 2 Warrant Shares containing such legends may be exchanged for a certificate or certificates bearing no such legends. The Corporation hereby covenants and agrees that it will use its best efforts to deliver or to cause to be delivered a certificate or certificates representing such Tranche 2 Warrant Shares bearing no such legends within three Business Days after receipt of the legended certificate or certificates.

- (i) that the Lender has been offered the opportunity to ask questions and receive answers from management concerning the Corporation, the Securities and the terms and conditions of this Private Placement and any such request for information has been complied with to the Lender’s satisfaction;
- (j) that the Lender has not received or been provided with a prospectus, an offering memorandum (as such term is defined in the *Securities Act* (Alberta)) or any other offering document describing the business and affairs of the Corporation; and
- (k) that no Person has made any written or oral representations:
 - (i) that any Person will resell or repurchase the Tranche 2 Warrants or Tranche 2 Warrant Shares; or
 - (ii) as to the future price or value of the Tranche 2 Warrants or Tranche 2 Warrant Shares;

43. The Lender acknowledges, agrees and, in respect of Subsection 43(f), authorizes as follows:

- (a) that this Debenture requires the Lender to provide certain personal information (the “**Lender Information**”) to the Corporation, that such Lender Information is being collected by the Corporation for the purposes of completing the Private Placement, which

includes determining the Lender's eligibility to purchase the Securities under the Securities Laws and other applicable securities laws, preparing and registering certificates representing the Securities to be issued to the Lender, as the case may be, and completing filings required by any stock exchange or securities regulatory authority;

- (b) that if the Lender is resident in or otherwise subject to the Securities Laws applicable in a jurisdiction of Canada, the Lender Information will be disclosed by the Corporation to the applicable securities regulatory authority (or authorities) or regulator in Canada;
 - (c) that Lender Information may also be disclosed by the Corporation to: (i) stock exchanges, (ii) revenue or taxing authorities and (iii) any of the other parties involved in the Private Placement, including legal counsel, and may be included in record books in connection with the Private Placement;
 - (d) that by executing this Debenture, the Lender is deemed to be consenting to the foregoing collection, use and disclosure of the Lender Information;
 - (e) that Lender Information disclosed to a securities regulatory authority (or authorities) or regulator in Canada is collected by such body or bodies under the authority granted in securities legislation, and that such Lender Information is being collected for the purposes of the administration and enforcement of the securities legislation of the applicable jurisdiction; and
 - (f) the Lender authorizes the indirect collection of the Lender Information by the applicable securities regulatory authority (or authorities) or regulator; and
 - (g) the Lender acknowledges that it may contact the official at the applicable authority or regulator as set out below, who can answer questions about the indirect collection of Lender Information by such authority or regulator:
 - (i) Alberta Securities Commission, Suite 600, 250 – 5th Street SW, Calgary, Alberta T2P 0R4, Attention: Corporate Secretary and Senior Legal Counsel, Tel: (403) 297-6454, Toll free in Canada: 1-877-355-0585.
44. The Lender acknowledges and agrees that the representations, warranties, covenants and acknowledgements made by the Lender in this Debenture are made with the intention that they be relied upon by the Corporation and its counsel in determining the Lender's eligibility to purchase the Securities under the Securities Laws. The Lender further agrees that by accepting the Securities, the Lender will be representing and warranting that such representations, warranties, acknowledgements and covenants are true as at the Closing Time with the same force and effect as if they had been made by the Lender at the Closing Time and that they will survive the purchase by the Lender of the Securities and will continue in full force and effect notwithstanding any subsequent disposition by the Lender of any of the Securities.
45. The representations, warranties and covenants of the Lender contained in this Debenture will survive the Closing and, notwithstanding such Closing or any investigation made by or on behalf of the Corporation with respect thereto, will continue in full force and effect for the benefit of the Corporation.

46. The registration shall be made in accordance with the following:

Address: c/o1100 – 10830 Jasper Avenue, Edmonton, AB T5J
2B3 Attention: *[Intentionally Redacted - Personal Information]*
Phone: *[Intentionally Redacted - Personal Information]*
Fax: *[Intentionally Redacted - Personal Information]*
Email: *[Intentionally Redacted - Personal Information]*

47. This Debenture and all its provisions shall enure to the benefit of, and be binding upon, the Lender, the Corporation and their respective successors and permitted assigns.
48. This Debenture amends and restates the Original Debenture, and together with all other Documents, constitutes the entire agreement between the parties to this Debenture with respect to the matters contemplated herein as of the date hereof, and supersedes the Original Debenture and all prior negotiations and discussions, whether oral or written, with respect to the matters contemplated herein; provided that, nothing in this Agreement shall constitute a release or novation of any indebtedness or obligations outstanding under the Original Debenture or the Documents and all indebtedness and obligations outstanding under the Original Debenture and the Documents shall continue as indebtedness and obligations outstanding under this Debenture. Notwithstanding any provision hereof, where an accrued prior right under the Original Debenture exists as at the Closing Date, then such accrued prior right shall continue to be governed by the Original Debenture, unless otherwise provided in this Debenture.

[Signature page of Corporation follows]

IN WITNESS WHEREOF, the Corporation has executed this Debenture as of the 13 day of July, 2018.

PINE CLIFF ENERGY LTD.

Per: "signed"

[Intentionally Redacted – Personal Information]

[Intentionally Redacted – Personal Information]

Address of chief executive
office of the Corporation:

#850, 1015 – 4th Street SW
Calgary, Alberta T2R 1J4

[Signature page of Lender follows]

IN WITNESS WHEREOF, the Corporation has executed this Debenture as of the 13th day of
July _____, 2018.

HER MAJESTY THE QUEEN IN RIGHT OF
ALBERTA, BY ITS AGENT, ALBERTA
INVESTMENT MANAGEMENT
CORPORATION

Per: *signed*

Name:

Title: