

**OWNER:** Manzek Land Co. **FROM:** August 1, 2007 **TO:** Present **COUNTY:** Bradford **STATE:** PA **DESCRIPTION:** 21.10 acres –  
Newman Road, Warren Township **RE:**

<b>BOOK PAGE:</b>	<b>DEED TYPE:</b>	<b>DATE FILED:</b>	<b>GRANTOR/GRANT:</b>	<b>Description:</b>
Prior Deed Liber 671 Page 855	Warranty	9/27/1980	Clara A. Schultz to Manzek Land Co., Inc.	Conveys 30 acres on TR-719, Newman Road, Warren TWP

Manzek Land Co., Inc to  
John Korea & Andrew Schultz - same as deed 671, page 855

Oil & Gas Lease	10/23/09	Manzek Land Co., Inc. to Fortuna Energy, Inc. aka Talisman Energy, USA, Inc.
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### Summary of Lease:

- TERM: 5 years 10/23/2009 to 10/22/2014
- Sign up Bonus: \$5,500.00 per acre
- Extension: 3 years by paying \$5,500.00 per acre  
(Unless unitized into a drilling unit)
- Royalty: 20% - no deductions except adjusted for BTU content
- Free Gas: Up to 350,000 cu ft. per year as cash equivalent
- Pad Production: \$5,000.00 per acre if placed on leased land
- Note: Most of the parcel has been included in the Talisman Energy – DEWING Production Unit; well pad completed – well drilled; waiting to be hooked into gathering pipeline.

FORTUNA ENERGY INC.  
ORDER OF PAYMENT  
New Paid Up

DATE: October 23, 2009

On approval of the agreement associated herewith and on approval of terms and subject to verification of title to same, Fortuna Energy Inc. will make payment as indicated herein by check within 90 days of execution of this Order Of Payment by the Lessor as indicated below. No default shall be declared for failure to make payment until 60 days after receipt of written notice from payee of intention to declare such default.

PAY TO Manzek Land Company  
 the amount of Three Hundred Seventeen Thousand Eight Hundred and 00/100 Dollars (\$317,800.00) DON  
 Address RR-5 Box 93 Attention: Drake D. Nicholas, Receiver  
Montrose, Pennsylvania 16801 One South Market Square, 10<sup>th</sup> Floor, Harrisburg, PA 17108

Payee Social Security No. <sup>EIN</sup> <u>23-2001093</u>	Commonwealth / State	Township	County
- Manzek Land Company	PA	Orwell / Warren / Wilmot	Bradford
- Manzek Land Company	PA	Orwell / Warren / Wilmot	Bradford
- Manzek Land Company	PA	Orwell / Warren / Wilmot	Bradford
- Manzek Land Company	PA	Orwell / Warren / Wilmot	Bradford

Project Name: Friendsville Group Area #: 107401 Total Gross Acres: 57.8  
 New - yes Renewal - no

This payment is for Bonus Consideration and rental period October 23, 2009 to October 22, 2014 covering 57.8 gross acres which covers property described in the Oil and Gas Lease executed this day.

Tax Map ID #	Gross Acres	Mineral Ownership	%
Tax Map ID # 27-51-44	Gross Acres 14	Mineral Ownership 100	%
Tax Map ID # 56-39-88	Gross Acres 10.5	Mineral Ownership 100	%
Tax Map ID # 56-39-89	Gross Acres 10.6	Mineral Ownership 100	%
Tax Map ID # 58-127-66	Gross Acres 22.7	Mineral Ownership 100	%

This is payment in full for a Five (5) year Primary Term Paid-Up Oil & Gas Lease.

If Lessee receives evidence that Lessor does not have title to all or any part of the rights to the parcels above identified, Lessee may immediately withhold payments, or any portion thereof, that would otherwise be due and payable hereunder to Lessor until the adverse claim is fully resolved to the satisfaction of Lessee and this Lease shall remain valid and in full force and effect during any such period that payments are withheld, notwithstanding anything to the contrary contained herein. If Lessor owns more or less than the interest defined herein, Lessee may, without immediate notice to Lessor, increase or reduce the consideration payable hereunder proportionate to actual interest owned by Lessor; or in the case of a lesser interest, may surrender the lease without payment of any consideration whatsoever to Lessor.

Lessor Signature [Signature] Date of Lessor's Signature 11/9/09  
 By Its Receiver Drake D. Nicholas  
 Lessor Signature \_\_\_\_\_ Date of Lessor's Signature \_\_\_\_\_  
 Lessor Signature \_\_\_\_\_ Date of Lessor's Signature \_\_\_\_\_  
 Lessor Signature \_\_\_\_\_ Date of Lessor's Signature \_\_\_\_\_

Completed by: \_\_\_\_\_

Approved by [Signature] Date 12/18/09 Method \_\_\_\_\_

Note: If more than one person is listed on the same check, the first person named on the check will be forwarded a Form 1099, if required, for tax purposes. If you have questions regarding this, please contact Lessee

1 copy to lessor  
1 copy to office

MEMORANDUM OF LEASE

THIS MEMORANDUM OF LEASE dated the 23<sup>rd</sup> day of October, 2009

BETWEEN:

Manzek Land Company, Inc.  
~~600 E. Box 93, Montrose, Pennsylvania 18801~~

(hereinafter called the "Lessor")  
OF THE FIRST PART

*Don*

-and-

Attention: *Drake D. Nicholas*  
*One South Market Square, 12<sup>th</sup> Floor*  
*Harrisburg, PA. 17108*  
FORTUNA ENERGY INC., 337 Daniel Zenker Drive, Horseheads, NY 14845

(hereinafter called the "Lessee")  
OF THE SECOND PART

WHEREAS:

The Lessor and the Lessee have entered into an Oil and Gas Lease dated October 23, 2009 and made effective October 23, 2009, for a primary term of Five (5) years, on those premises described as all those certain tracts of land situate in the Townships of Orwell / Warren / Wilmot, County of Bradford, Commonwealth of Pennsylvania, and bounded as follows:

- On the North by: ;
- On the East by: ;
- On the South by: ;
- On the West by: ;

See Exhibit "A" - Additional Leaseholds - Attached  
Tax ID#:  
Deed or other instrument by which Lessor acquired title:

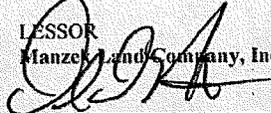
Consisting of 57.8 acres, more or less.

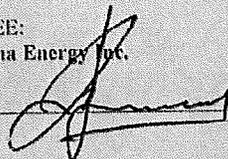
**NOW THEREFORE:** in consideration of the mutual covenants and agreements contained in this Agreement, the Lessor and the Lessee agree as follows:

1. This Memorandum of Lease has been executed for the purpose of indicating the existence of the aforesaid Lease and shall not be considered in any way a modification or alteration of the Lease Agreement.
2. The Lease further provides that the lease continues beyond its primary term for so long thereafter as the leased substances are produced from the said lands or any portion thereof is pooled, unitized or consolidated with other lands in accordance with the lease terms.
  - 2a. Lessee shall have the option to extend the Primary Term of this Lease for an additional three (3) year period by providing written notice of such intention to the Lessor before the expiry of the Primary Term.

IN WITNESS WHEREOF, Lessor hereunto sets hand and seal.

  
\_\_\_\_\_  
Witness  
\_\_\_\_\_  
(Seal)  
\_\_\_\_\_  
(Seal)  
\_\_\_\_\_  
(Seal)

LESSOR  
Manzek Land Company, Inc.  
  
\_\_\_\_\_  
By Its Receiver,  
*Drake D. Nicholas*  
\_\_\_\_\_  
Date 11/9/09  
\_\_\_\_\_  
Date  
\_\_\_\_\_  
Date  
\_\_\_\_\_  
Date

LESSEE:  
Fortuna Energy Inc.  
Per:   
\_\_\_\_\_  
Date 12/22/09

## EXHIBIT "A" - ADDITIONAL LEASEHOLDS

between  
*Manzek Land Company, as Lessor*  
and  
*Fortuna Energy Inc., as Lessee*  
dated the 23<sup>rd</sup> day of October, 2009

- 1.) The Leasehold is located, all or in part, in the Township of Orwell in the County of Bradford, in the Commonwealth of Pennsylvania, and is bounded substantially formerly or currently as follows:

On the North by lands of James Barcio, 27-51-46-1;  
On the East by lands of State Highway 1051;  
On the South by lands of Hall Road;  
On the West by lands of Edward Otto, 27-51-44-1;

Tax ID# 27-51-44; consisting of 14 acres more or less.

being the same lands acquired by the Lessor from Robert L. Arey, by virtue of deed dated July 3, 2008, and recorded at Control No. 200811305 of the Deed Records of Bradford County, Pennsylvania, on July 22, 2008.

- 2.) The Leasehold is located, all or in part, in the Township of Warren in the County of Bradford, in the Commonwealth of Pennsylvania, and is bounded substantially formerly or currently as follows:

On the North by lands of Stephen Yanochko, 56-39-86;  
On the East by lands of Manzek Land Co, Inc., 56-39-89;  
On the South by lands of Anthony Squadroni, 56-39-93;  
On the West by lands of Nicholas and Christine Johnson, 56-39-87;

Tax ID# 56-39-88; consisting of 10.5 acres more or less.

being the same lands acquired by the Lessor from Clara J. Schultz and Kimberly Janosky and Joseph Janosky, by virtue of deed dated August, 2007, and recorded at Control No. 200709289 of the Deed Records of Bradford County, Pennsylvania, on August 16, 2007.

- 3.) The Leasehold is located, all or in part, in the Township of Warren in the County of Bradford, in the Commonwealth of Pennsylvania, and is bounded substantially formerly or currently as follows:

On the North by lands of Township Road 729;  
On the East by lands of Robert Dewing, 56-39-77;  
On the South by lands of Anthony Squadroni, 56-39-93;  
On the West by lands of Manzek Land Company, Inc., 56-39-88;

Tax ID# 56-39-89; consisting of 10.6 acres more or less.

being the same lands acquired by the Lessor from Clara J. Schultz, by virtue of deed dated August 15, 2007, and recorded at Deed, Control No. 200709289 of the Deed Records of Bradford County, Pennsylvania, on August 16, 2007.

- 4.) The Leasehold is located, all or in part, in the Township of Wilmot in the County of Bradford, in the Commonwealth of Pennsylvania, and is bounded substantially formerly or currently as follows:

On the North by lands of Back Road;  
On the East by lands of Sugar Hill Road;  
On the South by lands of Charles & Mary Pollard, 58-127-65;  
On the West by lands of Back Road;

Tax ID# 58-127-66; consisting of 22.7 acres more or less.

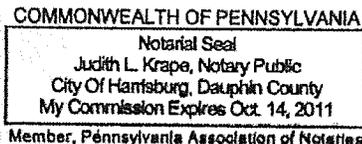
being the same lands acquired by the Lessor from Raymond V. Goodwin, by virtue of deed dated April 3, 2008, and recorded at Deed, Control No. 200804113 of the Deed Records of Bradford County, Pennsylvania, on April 7, 2008.

INDIVIDUAL ACKNOWLEDGEMENT

Commonwealth Of Pennsylvania  
County Of Dauphin

On this, the 10<sup>th</sup> day of ~~October~~ <sup>November</sup>, 2009, before me Drake D. Nicholas, the undersigned officer, personally appeared Manzek Land Company, Inc., By Its Receiver, known to me (or satisfactorily proven) to be the person whose names is/are subscribed to within the instrument, and acknowledged that he/she/they executed the same for the purposes therein contained. RECEIVES

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



Judith L. Krape  
Notary Public  
Printed Name: Judith L. Krape  
My Commission Expires: 10/14/2011

CORPORATE ACKNOWLEDGEMENT

Commonwealth Of Pennsylvania  
County Of \_\_\_\_\_

On this, the \_\_\_\_\_ day of October, 2009, before me, \_\_\_\_\_, the undersigned officer, personally appeared \_\_\_\_\_, who acknowledged himself / herself to be the \_\_\_\_\_ of Fortuna Energy Inc., a corporation, and that as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of said corporation by himself/herself as such officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

\_\_\_\_\_  
Notary Public  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

PARTNERSHIP ACKNOWLEDGEMENT

Commonwealth Of Pennsylvania  
County Of \_\_\_\_\_

On this, the \_\_\_\_\_ day of \_\_\_\_\_, before me, \_\_\_\_\_, the undersigned officer, personally appeared \_\_\_\_\_, a \_\_\_\_\_ partner, of \_\_\_\_\_, and acknowledged that he executed the same as an act of the partnership.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

\_\_\_\_\_  
Notary Public  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

**PAID-UP  
OIL AND GAS LEASE**

THIS PAID UP OIL AND GAS LEASE ("Lease") dated this 23<sup>rd</sup> day of October, 2009 ("Effective Date"), is by and between Manzek Land Company (the "Lessor") and Fortuna Energy Inc. (the "Lessee") (hereinafter the Lessee and Lessor are sometimes collectively referred to as the "Parties" and individually as a "Party").

**1. GRANTING CLAUSE.**

Lessor, for and in consideration of the sum of One Hundred Dollars (\$100.00), cash in hand paid, receipt of which is hereby acknowledged, the covenants and agreements herein contained, other good and valuable consideration the promises set forth in the Order of Payment, and intending to be legally bound hereby, subject to the conditions, terms, and provisions of this Lease, hereby demises, grants, leases, and lets exclusively unto the Lessee the following property, ("Leased Premises"), and all Oil and Gas on, under and from the Leased Premises; the Leased Premises located in the Townships of Orwell / Warren / Wilmot, in the County of Bradford, in the Commonwealth of Pennsylvania, and described as follows:

Property Tax Parcel Identification Number: \_\_\_\_\_ and is bounded currently as follows:

On the North by lands of \_\_\_\_\_

On the East by lands of \_\_\_\_\_

On the South by lands of \_\_\_\_\_

On the West by lands of \_\_\_\_\_

See Exhibit "A" - Additional Leaseholds - Attached

being the same lands acquired by the Lessor from \_\_\_\_\_, by virtue of deed dated \_\_\_\_\_, and recorded at \_\_\_\_\_ of the Deed Records of \_\_\_\_\_ County, Pennsylvania, on \_\_\_\_\_. For the purpose of calculating any fees, royalty or other sums to be paid to Lessor by Lessee hereunder, the lands and premises covered by this Lease shall be treated as comprising 57.8 acres, whether it be more or less, exclusively unto Lessee, without warranties or covenants of title of any nature or any other warranties or representations, except as specifically contained in this Lease, for the exclusive right to conduct Operations on the Leased Premises. This Lease is intended to cover all of Lessor's interests in the Oil and Gas estate in the tracts identified above, whether or not Lessor's interests in such tracts is correctly identified.

Lessor expressly excepts from this Lease and reserves to Lessor all other minerals of every kind and character except those herein defined as "Oil and Gas", to include, by way of example and not limitation, bluestone, stone, surface shale not containing hydrocarbons in any form or substance as customarily found from the surface down to a depth of 500 feet ("Surface Shale"), lignite, coal, uranium, sulphur, gravel, copper, limestone, sandstone, building aggregate, building stone, caliche, dirt, soil, top soil, clay, other hard rock products, carbon dioxide, water, whether surface or subsurface, or geothermal water, from the Leased Premises. The Lessee shall not place or allow to exist on the Leased Premises any Encumbrance. Lessor agrees that Lessee is permitted to produce Oil and Gas (and related water, gaseous or other mineral substances which are produced in connection with the Oil and Gas) from the Leased Premises and the exception and reservation above shall in no way interfere with or restrict Lessee's ability to do so.

**2. MEMORANDUM OF LEASE.**

Lessee will file a Memorandum of Lease for record in the real property records of the Recorder of Deeds in and for the County where the Leased Premises are located in lieu of filing the entirety of this Lease.

Upon the expiration or termination of this Lease as to any of the Leased Premises, Lessee agrees to execute and record at Lessee's expense, a release of the Lease as to the lands as to which this Lease was terminated. Such release shall be executed and filed by Lessee within thirty (30) days after the expiration or termination of this Lease as to all or any part of the Leased Premises. If Lessee fails to deliver or release within that period, Lessor may cause a release to be filed. Lessee shall reimburse Lessor for all deed recordation fees and reasonable attorneys' fees incurred in connection with such action.

**3. TERM OF THE LEASE.**

Subject to the other provisions herein contained, this Lease shall be for a term of five (5) years from and after Effective Date (herein called "Primary Term"), and so long thereafter as Oil and Gas are produced or are capable of being produced from a Well drilled on the Leased Premises or lands unitized therewith in Paying Quantities. Notwithstanding anything herein provided to the contrary, Lessee shall have the right to extend the Primary Term of this Lease for all or a part of the Leased Premises not incorporated in a Unit for a producing Well in accordance with Sections 5, and 9 hereof, for an additional three (3) years by delivering to Lessor on or before the expiration of the initial Primary Term written notice of such extension, together with payment of the amount of \$5,500.00 per acre of the Leased Premises so extended. No other action by Lessee shall be required in order to so extend the Primary Term. If Lessee so extends the Primary Term, the Primary Term shall thereafter automatically be for a term of eight (8) years from and after the Effective Date.

**4. PROSECUTION OF OPERATIONS.**

(a) Prior to the commencement of Operations on the Leased Premises, Lessee and Lessor will review Lessee's Development Plan for the Leased Premises. Lessor will have fourteen (14) days after receipt of Lessee's Development Plan to approve or disapprove the Development Plan, such approval not to be unreasonably withheld or conditioned. If Lessor does not respond in writing to Lessee within such fourteen (14) day period consistent with the provisions of Section 27 (h) hereof, the Development Plan will be deemed approved. In the event Lessor does not approve any portion of the Development Plan and Lessor and Lessee cannot otherwise agree, then Lessor shall be required to provide to Lessee within two (2) business days of Lessor's disapproval or condition a Commercially Reasonable alternative to the portion of the Development Plan, which Lessor has not approved or conditioned. If Lessor does not provide such Commercially Reasonable alternative within such two (2) business day period, the Development Plan will be deemed approved. Should Lessee disagree with Lessor's Commercially Reasonable alternative, then the Parties shall resolve the impasse in accordance with Section 27 (k) below. Lessee will use its best efforts to give Lessor not less than fourteen (14) days prior notice of its intent to commence Actual Drilling Operations or the construction of a Pipeline on the Leased Premises; provided, however, that for Operations that do not result in the disturbance of the soil, to include by way of example and not limitation surveying, mapping, photography, and the marking of trees, Lessee may request that the Lessor waive the fourteen (14) day requirement, which request Lessor shall not unreasonably deny.

(b) Upon the commencement of the Actual Drilling or Re-entry of any Well on this Lease, Lessee shall be obligated to conduct Operations with reasonable diligence and in accordance with good and workmanlike manner as would a prudent operator under the same or similar circumstances until such Well is completed as a producer of Oil and Gas in Paying Quantities or until such Well is plugged and abandoned in accordance with applicable law. All Operations shall be consistent with the PADEP Operators Manual.

(c) Lessee will conduct its Operations in such a way as not to unreasonably interfere with the Lessor's use of the Leased Premises. Lessee further agrees that all Operations hereunder will be conducted having due regard for the continued use of the Leased Premises by Lessor and its other lessees and assignees, transferees, assigns, tenants, successors, invitees.

(d) Lessee will take all steps necessary to fully comply with Section 208 of the Oil and Gas Act, "Protection of Water Supplies." Lessee shall test Lessor's domestic water supply using the procedures specified by 25 Pa. Code § 78.52 (as to quality and quantity) prior to commencement and following the conclusion of drilling operations on the Leased Premises or an Adjacent Well (as such term is defined in Paragraph 10 below) drilled by Lessee in order to ensure that the water supply is not adversely affected by said Operations. Lessee shall provide the results of such testing to Lessor within 20 days of receipt by Lessee. In the event that it is determined that such Operations have adversely affected the water supply, Lessee shall, at its own expense, take immediate steps to provide replacement water within 12 hours of Lessor's request and take steps reasonably necessary to return said water supply to pre-drilling conditions.

(e) Absent a separate agreement in writing to the contrary, Lessee is not entitled to utilize any surface water or subsurface water on the Leased Premises, except that Lessee shall be permitted to re-use any flowback water and any water produced as a direct consequence of Lessee's Actual Drilling Operations through any subsurface water supply, in compliance with applicable law.

(f) Lessee agrees to remove all its equipment from the Leased Premises within thirty (30) days following Lessee's completion of Operations on the Lease utilizing that equipment.

(g) Lessee retains full discretion to conduct such Operations on the Leased Premises as would a prudent operator to deal with any emergency without prior approval of or notice to the Lessor.

## 5. UNITIZATION.

(a) Subject to the other terms of this Section 5, Lessee, at its option, is hereby given the right and power to unitize the acreage covered by the Leased Premises or any portion thereof as to Oil and Gas, or either of them, with other contiguous lands or leases, regardless of ownership thereof, to develop and operate said Leased Premises, when to do so would, in the judgment of Lessee, as a prudent operator under the same or similar circumstances, promote the conservation of Oil and Gas in, under and that may be produced from the Leased Premises and which will result in the Leased Premises being Fully Developed. The unitization in one or more instances shall not exhaust the rights of the Lessee to unitize the Leased Premises or portions thereof into other Units. Lessee shall not have the option to amend the size of a previously formed Unit and the acreage contained therein except in accordance with the provisions of this Lease or by written consent of the Lessor. Consent not to be unreasonably withheld.

(b) On or before the expiration of the Primary Term hereof, the Lessee shall drill and complete an initial Horizontal Well capable of production from the Marcellus Shale Formation on the Leased Premises or on lands with which the Lease Premises is unitized in accordance with Section 5 (a) above ("Initial Well"). The Initial Well shall, subject to Section 5(c) below, initially constitute the Unit well for a Unit consisting of 640 acres, +/- 10%. Thereafter the Lessee shall drill and complete as Wells capable of commercial production, or plug and abandon same, on the Unit a minimum of three additional Horizontal Wells within five (5) years of the spud date for the Initial Well ("Minimum Obligation Wells"). Should the Lessee fail to drill and complete, or plug and abandon, the Minimum Obligation Wells or such number of Wells, whether Vertical or Horizontal to Fully Develop the Leased Premises, Lessee shall be entitled to extend the Primary Term of that portion of the Leased Premises not then incorporated into a Unit held by production in accordance with Section 3 above. In lieu of the payment of an additional lease bonus per acre to extend the Primary Term or the drilling of the remaining Minimum Obligation Wells, the Lessee may, at its discretion, release so much of the Leased Premises as not included within a 160 acre Unit, +/- 10% for each Horizontal Well or 40 acre Unit +/- 10% for each Vertical Well drilled by the Lessee.

Lessee's obligation to drill successive Horizontal Wells under this Section 5(b) shall be subject to Lessee's ability to conduct such Operations in light of existing geometric, geological and engineering capabilities and constraints. Lessee may drill one or more Vertical Well, but any Vertical Well drilled shall not be a substitute for a required Minimum Obligation Well. It is understood and agreed that Lessee's goal and obligation under this Section 5 and 9 below is to Fully Develop the Leased Premises.

(c) Should Lessee fail, for whatever reason, other than the existence of Force Majeure consistent with Section 25 hereof, to drill and complete the Minimum Obligation Wells required under Section 5(b) above and giving effect to Section 5 (e) below, then the Unit for any Vertical Well drilled and completed as a Well capable of commercial production shall be set at 40 acres, more or less, plus 10%. Any Horizontal Well actually drilled and completed as a well capable of commercial production shall be allocated a Unit in the form of a rectangle the width of which shall be 1320 feet and the length of which shall be the length of the horizontal distance measuring 660 feet from the end of the Horizontal Borehole back to the point at which the Horizontal Borehole penetrated the Marcellus Shale formation, plus or minus 10%. Lessee shall have no liability or obligation, and Lessor has no rights, arising from any failure by Lessee to drill Wells in accordance with the provisions of Sections 5(b) and 5(c).

(d) Operations upon and production in Paying Quantities from a Unit for a Well incorporating all or a portion of the Leased Premises shall be treated as if such operations were upon or such production was from the Leased Premises, whether or not the Well or Wells are physically located on the Leased Premises. The Leased Premises placed within a Unit shall be treated for all purposes as if it were covered by and included in this Lease.

(e) Notwithstanding the Unit sizes set forth above, if this Lease covers ten (10) acres or more of land, then not less than ten (10) acres of lands covered by this Lease shall be incorporated in any Unit established for any Well drilled by Lessee; provided, however, that should the Leased Premises then not included in a Unit ("Open Acreage") be twenty (20) acres or less, then the entire amount of the Open Acreage shall be incorporated within the Unit.

(f) Should the Leased Premises be incapable of being incorporated with a Unit of more than 160 acres, more or less, notwithstanding the provisions of Sections 5(b) and 5(c) above, the Lessee may drill either a Horizontal Well or Vertical Well, as would a prudent operator under the same or similar circumstances, to Fully Develop the Leased Premises.

(g) The Parties understand and agree that the Lessee may employ directional drilling techniques by which the surface location of a Well or Wells for a Unit may be located on lands not included within the production Unit.

(h) The Parties understand and agree that the Lessee has the right to Unitize Formations, other than the Marcellus Shale, from which Lessee is producing Oil and Gas in commercial quantities in accordance with the provisions of Section 5 (c) above and in accordance with applicable law, regulation, order and/or statute.

(i) Notwithstanding any language here to the contrary, Lessee shall have the right to adjust the size and configuration of any Unit formed under this Lease to comply with any rule, regulation or statute imposed by the PADEP, a successor agency thereof or thereto and/or the Commonwealth of Pennsylvania.

## 6. PAYMENT OF ROYALTY.

(a) Lessee shall make all payments due Lessor by check of Lessee mailed or delivered to the Lessor's address as set forth in Section 27(h) below unless notified otherwise by Lessor in writing. Lessor shall provide said notification, in accordance with Section 27 (h) below, at least 15 (fifteen) business days prior to any payment; lessee shall be entitled to rely on any existing payee designations and shall not be liable for any payments made due to receipt of notifications which are not timely or accurate.

(b) Lessee shall make or cause to be made payment of any sum due as Royalty within ninety (90) days following the month of production for which the Royalty is due and owing.

(c) Lessor shall be entitled to receive his/her/its Royalty for all Oil and Gas flared from a Well on the Leased Premises or any Well for a Unit in which a portion of the Leased Premises is incorporated for any period in which the Lessee continues to flare gas from such a Well beyond the time a prudent operator under the same or similar conditions would have ceased flaring the gas.

(d) If Lessor owns an interest in the above described Leased Premises less than the entire undivided fee simple estate therein and as stated herein, then all Royalties and payments shall be paid to Lessor only in the proportion which Lessor's interest in said Leased Premises bears to the entire undivided fee simple estate therein. In lieu of the royalties on production elsewhere provided in this Lease, Lessor shall receive on production from each pooled or combined unit only such portion of the royalty stipulated in this Lease as the amount on an acreage basis, that the Lessor's interest in the acreage placed in the Unit bears to the interests in all the acreage pooled or combined into a Unit.

(e) Shut-in Royalty. If at any time after the expiration of the Primary Term of this Lease as may be extended in accordance with Section 3 above, there is located on the Leased Premises a Well or Wells, or a portion of the Lease is included in a Unit or Units for a Well or Wells, capable of producing Oil and Gas in Paying Quantities and such Well or Wells are shut-in for a consecutive period of ninety (90) days or more (provided, however, that such ninety (90) day period shall not apply in the case of a shut-in relating to drilling operations on the Leased Premises pursuant to this Lease in which event no rights or obligations shall arise with respect to such shut-in until a reasonable time for the completion of drilling and the shut-in period longer than 90 days shall have

elapsed), this Lease shall not terminate and Lessee may maintain this Lease in force and effect as to the Unit for such Well or Wells and only as to the Unit for such Well or Wells, by paying Lessor annually an amount equal to that sum calculated by multiplying the number of acres of Leased Premises included in the Unit times \$25.00 ("Shut-in Royalty"). The first Shut-in Royalty payment shall be made of the Anniversary Date of the Lease following the consecutive period of ninety (90) days or more that any such Well or Wells are shut-in after the expiration of the Primary Term of this Lease, and on each successive Anniversary Date thereafter until the Well or Wells are placed into production or plugged and abandoned; provided, however, that if the Anniversary Date occurs within such 90 day period the initial annual payment shall be made within 30 days after the expiration of the 90 day period. Notwithstanding the foregoing, Lessee shall not be entitled to maintain this Lease as to such portion of the Leased Premises held by such Well or Wells by such payments for any period, or from time to time, in excess of a total of twenty-four (24) consecutive months or a cumulative total of forty-eight (48) months during the entire term of this Lease.

(f) Royalty - Take Or Pay. Lessor shall be entitled to its Royalty Share of any take or pay payment which directly relates to Oil and Gas produced, saved or sold from the Leased Premises in the same manner and subject to the same terms as said payments are made to Lessee, including but not limited to any reimbursement for post production cost, bonuses, premiums, and all other benefits in cash, kind or otherwise, derived, received or realized by, or to inure to the benefit of, Lessee, directly or indirectly from the barter, contribution, disposition, settlement, exchange, sale, severance or swap in place of any one or more Oil and Gas, payable or deliverable to Lessor as Royalty, within sixty (60) days from and after the final consummation of each such barter, contribution, disposition, settlement, exchange, sale, severance, or swap. Lessor acknowledges and agrees that this provision shall not apply to any contracts, agreements or arrangements entered into by Lessee in the nature of a hedging transaction

#### 7. HOUSE GAS.

At the Lessor's election, the Lessor may either:

(a) Lessor may, at the Lessor's sole cost, risk and expense, cause to be installed, by a person qualified to do so and approved by Lessee, a meter to measure all gas taken from Lessee's Well by Lessor, a Pipeline from one, and only one, should there be multiple Wells, Gas Well on the Leased Premises, and take Gas produced from said Well physically located on the Leased Premises for one building on the Leased Premises subject to the use and the right of abandonment of the Well by the Lessee. Lessor may take up to Three Hundred Fifty Thousand (350,000) cubic feet of gas in each year free of cost. Any and all gas taken by Lessor, if any, in excess of Three Hundred Fifty Thousand (350,000) cubic feet of gas taken each year shall be paid for at the Sales Price. Lessor shall, at Lessor's sole cost, risk and expense, maintain the said Pipeline, meters, regulators, and equipment in good repair and free of all gas leaks and operate the same so as not to cause waste or unnecessary leaks of gas. Lessee retains the right to approve the construction plans and contractor for the installation of all equipment, to include, by way of example and not limitation, the meter and the pipeline, required for the transmission and measurement of house gas. Lessee also retains the right to repair and maintain Lessor's equipment to Lessee's standards. Any cost associated therewith shall be fully reimbursed by Lessor to Lessee. If the Lessor shall take excess gas as aforesaid in any year and fail to pay for the same, the Lessee may deduct payment for such excess gas from any rentals or Royalties accruing to the Lessor hereunder. Lessor acknowledges that he has been advised as to the risks inherent in the taking of gas in this manner, and Lessor agrees to assume all such risks caused by Lessor's lines or equipment, Lessor agrees to hold Lessee and the Well operator and all parties in interest in any Well on the Leased Premises harmless from any claims of any nature whatsoever which may arise by the usage of gas from any such Well by Lessor, his heirs, executors, administrators, and assigns. The meter installed by Lessee shall be the exclusive measuring instrument for the determination of the Gas actually taken by Lessor. Lessee, and only Lessee, shall be responsible for and shall maintain such meter and remove, as and when necessary, all charts and other information necessary to determine the amount of Gas taken by Lessor; or

(b) Lessor may permanently waive any right to secure such reserve gas and in consideration of Lessor waiving such right, Lessee agrees to pay Lessor the cash equivalency for such gas at the average Sales Price received by Lessee for the preceding production year. Lessee shall make one annual payment the timing of such which shall be made in such a manner that allows the price computation to be made based upon the average monthly sales price of gas for the previous year's production of gas from the Leasehold, or if such Sales Price information is not available then the computation shall be made using the average monthly Sales Price of Lessee's production in the closest proximity to the Leasehold. If Lessor conveys a portion of its interest in the Leasehold, Lessor may convey its entitlement to the cash equivalency for the reserved gas as part of such conveyance, but may not subdivide such entitlement. If the Leasehold is pooled, unitized, or combined with other lands, the cash equivalent entitlement for reserved gas, as herein referred to, shall extend only to the Lessor upon whose property the surface location of the well is situated.

#### 8. DEVELOPMENT OF PREMISES.

(a) Lessee shall develop or cause the Leased Premises to be Fully Developed for Oil and Gas and market any Oil and Gas produced, as would a prudent operator under the same or similar circumstances.

(b) Lessee agrees and acknowledges that the Commonwealth of Pennsylvania recognizes an implied covenant of the Lessee of an oil and gas lease to develop Oil and Gas or allow the Lessor to move to terminate the Lessee's rights under the Lease ("Doctrine of Implied Covenant") Lessee agrees to fully comply with the Doctrine of Implied Covenant as set forth in the Pennsylvania Supreme Court Decision in the case of Jacobs v. CNG Transmission Corp., 565 Pa. 228, 772 A.2d 445 (2000). Lessee acknowledges Lessor's right to commence an action in Equity in a Court of Common Pleas of Pennsylvania to enforce the Doctrine of Implied Covenant. The Parties acknowledge and agree that Lessee's covenants of Full Development as set forth in this Lease, if met, fully satisfy the Lessee's obligations under the Doctrine of Implied Covenant.

## 9. CONTINUOUS DEVELOPMENT BEYOND PRIMARY TERM.

(a) Open Acreage. At the expiration of the Primary Term as extended (if extended), this Lease shall terminate as to any portion of the Leased Premises that has not been incorporated into a Unit, as set forth in Section 5, if a Unit has not been formed incorporating that portion of the Leased Premises and the Lessee is then not actively engaged in Operations related to the Operations on existing Wells thereon, the Actual Drilling of additional Wells or the Reworking a Well or Wells on the Leased Premises or within a Unit incorporating portions of the Leased Premises ("Continuous Drilling Operations") this Lease shall expire unless otherwise extended herein. If Lessee is engaged in Continuous Drilling Operations at the end of the Primary Term as extended, this Lease shall remain in force and effect as to all Open Acreage and depths during such Continuous Drilling Operations, and as long thereafter as Lessee continues to conduct Operations relating to the Actual Drilling of additional Wells or Reworking a Well or Wells, commencing Continuous Drilling Operations for each Well within 180 days following the removal of the drilling rig from the preceding Well site. At the end of the period of Continuous Drilling Operations, this Lease shall terminate as to acreage not Fully Developed.

(b) Units. Subject to Section 5 hereof, with respect to portions of the Leased Premises that have been incorporated into a Unit during the Primary Term as extended, this Lease shall continue with respect to each Unit in which a Well Producing in Paying Quantities has been drilled and completed during the Primary Term as extended.

## 10. OFFSET WELL PROVISIONS.

Should a Well be drilled and completed on lands adjacent to the Leased Premises as a Well capable of production in Paying quantities with a bottom hole location of 660 feet or less from the boundary of the Leased Premises ("Adjacent Well"), but the Unit for such Adjacent Well does not include any portion of the Leased Premises in the Unit therefore, then within six (6) months of Lessee's knowledge of the completion of said Adjacent Well as a Well capable of commercial production, the Lessee shall take such action as would a prudent operator under the same or similar conditions, to protect the drainage of any and all Oil and Gas from Formations underlying the Leased Premises, to include, if necessary, the drilling of an offset well or Lessee's exercise of its rights under Subsection 27(l) as extended.

## 11. INDEMNIFICATION AND OBLIGATION TO PAY DAMAGES.

(a) Lessee assumes all risk and liability of any kind and nature incident to, occasioned by, or resulting in any manner, directly or indirectly, from Lessee's operations hereunder. Lessee agrees to keep the Leased Premises fully protected against Encumbrances of every character arising in connection with, or resulting from, its Operations pursuant to this Lease.

(b) Lessee agrees to defend, indemnify and hold harmless Lessor against any and all Encumbrances and Claims of any kind, other than a claim arising out of Section 7 hereof and attributable, either directly or indirectly to Lessor's taking and use of House Gas, for damages, fines, penalties, and rollback of taxes on the Leased Premises, including, by way of example and not limitation, Environmental Impact Claims, all damages to crops, livestock, pets, fish, animals, roads, bridges, timber, water sources, buildings, improvements, and all other real and personal property as well as for damage to the surface of the land, personal injury or death sustained by any person or persons whosoever, natural or corporate, in connection with, or resulting from Lessee's operations hereunder, and whether or not involving active or passive negligence on the part of the Lessee or its agents, contractors, or employees, except in the event, that such active or passive negligence on the part of the Lessee or its agents, contractors, or employees is adjudicated not to be the primary cause of such damages, expenses of litigation, occasioned by, or on account of, any action by any person pursuant to the authority granted to Lessee in this Lease.

(c) Prior to the commencement of Operations, Lessee shall provide to Lessor a certificate evidencing Lessee's general liability insurance in an amount not less than One Million Dollars (\$1,000,000) for a Vertical Well and Two Million Dollars (\$2,000,000) per occurrence for a Horizontal Well, workman's compensation and disability insurance in amounts consistent with the requirements of the Commonwealth of Pennsylvania, general Environmental insurance of not less than Two Million Dollars (\$2,000,000) per occurrence, and care, custody and control insurance in an amount not less than Five Million Dollars (\$5,000,000) per occurrence. For so long as Lessee is conducting Operations on the Leased Premises, Lessee shall maintain such coverage in full force and effect and Lessor shall be named as an additional insured on a One Million Dollar (\$1,000,000) policy for general liability insurance, Environmental insurance and care custody and control insurance. Lessee will also provide Lessor, prior to the commencement of any Operations on the Leased Premises, a certificate of insurance evidencing insurance in amounts not less than the amounts listed above. Each policy will be an occurrence policy and not a claims made policy, and shall not be cancelled without prior notice to Lessor. To the maximum extent permitted by law, Lessee will indemnify, defend and hold Lessor, and, if applicable, Lessor's family members, officers, directors, employees, agents, tenants, successors and assigns harmless from any and all claims, liabilities, demands, suits, losses, damages and costs (including, without limitation, all attorney fees but excluding any damage reimbursement paid by Lessee to Lessor under another specific provision of this Lease) to the extent arising out of Lessee's Operations on the Leased Premises including, without limitation, any claims that Operator's Operations are either illegal, unauthorized, or improper under the Development Plan and/or the laws, rules and regulations of the Commonwealth of Pennsylvania or any of its agencies. The provisions of this Section shall survive termination of this Lease.

## 12. TITLE RECORDS.

(a) If Lessee obtains a work product associated with title including but not limited to title commitment, title insurance policy, title opinion, title notes, run sheets, title reports on any portion of the Leased Premises, Lessee will

provide a copy of title material to Lessor, within thirty (30) days of Lessor's written request, without warranty as to accuracy, but which material may be used by Lessor for Lessor's purposes. In the event such examination reveals any title defect as to the interest of Lessor, Lessee shall notify Lessor of the nature of such defect and Lessor and Lessee agree to work together to cure such defect as expeditiously as possible to the end that Lessor's rights, to the extent possible under the circumstances, may be protected. If such examination reveals rights outstanding in any third party, Lessee shall notify Lessor of such outstanding rights and the identity and location of such third parties if known to the Lessee, thereby allowing Lessor to acquire such interests. In the event that the Lessor does not expeditiously acquire such interest, (but in no event more than three (3) months following notice from Lessee), then Lessee shall be free to secure a Lease from such outstanding interest owner. Notwithstanding the foregoing to the contrary, should the Lessee consistent with a Development Plan approved or deemed approved by the Lessor, be engaged in the actual mobilization of drilling activities on the Leased Premises at the time issues arise as to the Lessor's ownership of the entire interest claimed by Lessor in either the surface or oil and gas estate as set forth in the Granting Clause above, then the Lessee shall be entitled to take such actions as are reasonably necessary, to include taking a lease from a third party covering any disputed portion of the Leased Premises in question, so as to allow Lessee the right to continue with its drilling activities as set forth in the approved or deemed approved Development Plan. Lessee shall have the right to place in suspense any payments which are subject to a bona-fide title dispute.

(b) Lessee acknowledges that except as otherwise expressly set forth in this Lease, Lessee is taking the leased premises AS IS without any express or implied warranty. Lessor makes no warranty of title in entering into this Lease

(c) In the event that the Lessee requires a subordination agreement, the Lessee shall make that request directly to the Lender and the Lessee shall pay all expenses associated to the Lender and the Lessee shall pay all expenses associated with securing the subordination agreement. No cost, expense, or obligation in this regard rests with the Lessor. Lessor shall, at no cost to the Lessor, reasonably assist the Lessee in obtaining the subordination and will sign any necessary requests for information or subordination needed by Lessee to accomplish such subordination or similar agreement. In the event Lessor is in default on any payment(s) under a mortgage or other encumbrance covering the Lease Premises and if Lessor's interest in the Leased Premises is then subject to forfeiture, sheriff's or tax sale of the Leased Premises, Lessee shall have the right to apply all payments to payment and satisfaction of the mortgage or other encumbrance.

### 13. SURFACE USE AGREEMENT.

(a) This Lease permits the Lessee to use the surface of the Leased Premises for any Operation directly associated with or related to a Well on the Leased Premises or a Unit in which a portion of the Leased Premises is included to include, by way of example and not limitation, the Drilling of a Well, the laying of Pipelines, installation of tank batteries, meter sites, separators, antenna stations associated with meter monitoring and compressor stations. Use of the surface of the Leased Premises for any purpose not associated with or supporting a Well on the Leased Premises or on a Unit in which a portion of the Leased Premises is included, shall be governed by a separate surface rights agreement and not by this Lease. The Parties agree to negotiate the terms and conditions of the surface use agreement in good faith.

### 14. LEASED PREMISES RULES.

Lessee agrees that all its employees, contractors, subcontractors, representatives and agents will adhere to the following rules ("Rules").

(a) Lessee shall provide to each of its employees, contractors, subcontractors, agents and representatives with a copy of these Rules and to expressly inform each employee, contractor, subcontractor, agent and representative that he or she must abide by these Rules and by the terms of the Lease. Lessee agrees to designate in writing an individual responsible for Lessee's compliance with all terms and conditions of this Lease. Lessee covenants and agrees no employee, contractor, subcontractor, agent or representative of Lessee, or any other person allowed to come upon the Leased Premises by Lessee, shall be permitted to:

(i) Remove any artifacts, shrubs, rocks, including without limitation Surface Shale and bluestone, or other natural features from the land, unless otherwise required or permitted to do so by this agreement or the Lease; or hunt, fish, swim, or camp on the Leased Premises; or allow any dog to run free on the Leased Premises; or discard any papers, boxes, sacks, containers, hazardous waste material, trash or litter of any kind on the Leased Premises. No motor vehicles or vessels are, or will be, allowed on recreational waters.

(ii) Cross any outside boundary fence on the Leased Premises other than through the designated entrance gate or travel through the Leased Premises unless the Development Plan specifically permits, requires or contemplates travel through the Leased Premises, or do any excavation, cut any trees, build any roads, power lines or stations, tanks, building or other structures except in the manner and at locations specified in the Development Plan, this Lease, or by Lessor; or travel any road not designated by the Development Plan, this Lease or by Lessor. Lessee shall coordinate with Lessor regarding the entry of the Leased Premises for any and all work undertaken by Lessee in connection with the preparation of the Plan Development or permit applications ("Predevelopment Access"). Lessor's consent to such Predevelopment Access shall not be unreasonably withheld.

(b) Nothing contained herein shall prevent the Lessee and any Lessor from mutually agreeing to separate terms and conditions affecting the surface use of the particular Leased Premises owned by a Lessor, whose Leased Premises are covered by the Lease referenced herein.

## 15. PROHIBITED ACTIVITIES.

Lessee is prohibited from:

(a) Causing or contributing to soil erosion or sedimentation; or polluting the soil or waters of the reservoirs, springs, streams, rivers, water wells, or other sources of potable water upon or under the Leased Premises; or damaging, harming, injuring or interfering with the Lessor's reasonable use of the Leased Premises.

(b) Failing to make reasonable commercial accommodations prior to or during Drilling of a well with regard to Lessor's interest in other mineral rights, including, without limitation, the mining of bluestone, stone, gravel, coal and Surface Shale.

(c) Allowing any waste oil, saltwater, frac water, or other fluids used in or produced by the Operations to flow onto the surface of the Leased Premises, or into any drains, creeks or ravines on the Leased Premises.

(d) Unless otherwise agreed to by the Lessor, commencing the Drilling of a Well on the surface if the Leased Premises contains less than ten (10) acres and all or substantially all of the drilling location is to be located on the Leased Premises, unless such prohibition is explicitly waived in writing by the Lessor.

(e) Use of the surface or subsurface for the storage of Oil and Gas or other supplies, equipment or other property of Lessee for Operations not directly associated with a Well on the Leased Premises or a Well the Unit for which encompasses all or a portion of the Leased Premises unless specifically agreed to in a separate writing by Lessor.

(f) No water injection wells or water disposal wells will be drilled on the Leased Premises and no existing Well will be converted to a water injection well or water disposal well without the express written consent of Lessor.

## 16. INGRESS AND EGRESS.

(a) In order to minimize surface damages, Lessee agrees and obligates itself to use existing roads insofar as reasonably practicable and not to construct more than one road to any Pad without the written consent of Lessor which shall not be unreasonably withheld. Lessee agrees to make necessary arrangements to share roads, access and/or approaches to the Leased Premises in order to minimize surface damage and habitat fragmentation. Subject to the "Rules" of Section 14 above, the Lessee shall have the rights of ingress and egress to the Leased Premises for the purposes granted under this Lease.

(b) Lessor shall have the right in common with Lessee to use roads constructed in connection with Lessee's Operations in such manner as not to interfere unreasonably with Lessee's Operations. Lessee shall use all roads on the Leased Premises in such manner as to not unreasonably interfere with the Lessor's reasonable use of the Lease Premises.

(i) Lessee agrees to keep road construction to a minimum. Any roads built by Lessee shall be at Lessee's sole expense. All passage shall be limited to improved roads except as otherwise specifically authorized by this Lease. Road construction material shall be clean and not contaminated material or contaminated stone.

(c) All roadways constructed or used by Lessee shall be kept and maintained by Lessee in a good state of repair and condition at Lessee's sole cost, risk and expense and so returned to Lessor at the expiration of any lease. Roads in poor condition or impassable due to muddy conditions shall not be widened to permit passage, but rather the actual roadway will be built up to prevent such condition and kept in good repair, and all roadways shall be graded not less than once each year as and if needed. Road width shall be limited to twenty (20) feet except in areas where a greater width is necessary to accommodate ingress and egress by equipment needed for operations. Access road shall be either in sloped, out sloped, or crowned as specified by the Development Plan. Ditches with necessary culverts shall be constructed on all roads.

## 17. LOCATION OF DRILLING SITE, FACILITIES, SURFACE LOCATION (S) AND PIPELINE (S).

(a) The installation, location and construction of all drilling locations, Pipeline rights-of-way, tank batteries, compressor stations, drips or any other surface location shall be coordinated with and done at a site or sites, all as more fully set forth in the Development Plan.

(b) In preparation of any Pad, Pipeline, or other Surface Location, the top soil shall be removed separately from the subsoil, removing and separately stockpiling not less than twelve (12) inches of said top soil, or remove the topsoil to two (2) inches below the bottom of the topsoil layer and in the reclamation of said Well location, the subsoil shall be replaced first and the top soil shall be replaced last, so as to conserve the integrity of the top soil.

(c) During the drilling of a Vertical Well, a Pad shall not exceed three (3) acres of useable area in size, and the Pad for a Horizontal Well shall not exceed 6 acres in the aggregate of useable area. Within 90 days following the completion of a Well or the final Well of a Continuous Drilling Operation, or the plug and abandonment thereof, subject to weather conditions, as soon as reasonably practicable following the completion of the Well, Lessee shall remove all drilling fluids, solids, and liners from the Leased Premises except as otherwise provided in this Lease or by law and/or regulation, restore any area where the fluids and solids may have been stored temporarily, and reclaim the Pad as provided for herein.

(d) In no event shall the Pad for any producing Well or group of Wells contain more than two (2) acres, more or less, without the prior written permission of Lessor, which shall not be unreasonably withheld.

(e) No Well will be drilled or surface structure erected within 750 feet of any residence, barn or other dwelling structure and no right-of-way shall be taken or Pipeline installed within 300 feet of any residence, barn or other dwelling structure, without in each case the prior written consent of Lessor which shall not be unreasonably withheld. In each instance, Lessee shall comply with 58 P.S. § 601.205, "Well Location Restrictions;" provided, however, for any water body occupying five acres or more ("Five Acre Lake") Lessee will not prepare a Pad or Drill a Well within 500 feet measured horizontally from the Five Acre Lake, as identified on the most current 7.5 minute topographic quadrangle map of the United States Geological Survey.

(f) No Pipeline shall be laid on, under or across the Leased Premises except a Pipeline associated with a Well on the Leased Premises or a Well for a Unit in which the Leased Premises, or a portion thereof, is included, without the written consent of Lessor, in accordance with Section 13 above.

#### 18. DAMAGES and TAXES.

(a) Lessee understands that the Leased Premises may be under and subject to one or more tax abatement programs and government subsidy programs governed by the Commonwealth of Pennsylvania or the Federal government, to include by way of example and not limitation, the Pennsylvania Clean and Green Program, CRP, EQIP, AG Easement and CREP, and Lessee, its successors and assigns, accepts responsibility for and agrees to reimburse Lessor for any rollback of and future increase in Lessor's real estate taxes and/or school taxes, recapture of government subsidies or payments resulting from or attributable to Lessee's actions and/or Operations on the Leased Premises. Lessee shall reimburse Lessor for and/or actually pay Lessor's real estate taxes and/or school taxes recaptured government payments, plus interest and penalties, if any, assessed on that portion of the Leased Premises excluded from such program as a result of Lessor's entering into this Lease and/or Lessee's operations on the Leased Premises. Lessee shall reimburse Lessor for the construction of any temporary area or structure so as to allow Lessor's reasonable use of the Leasehold Assets should Lessor's use of the Leasehold Assets be impeded by Lessee's Operations on the Leased Premises. Lessor agrees to reimburse Lessee for any recoupment by Lessor of any taxes or other obligations actually paid by Lessor for which Lessee has actually reimbursed Lessor under this Section 18 (a), but not otherwise.

(b) In addition to all other requirements and provisions contained herein, Lessee agrees to pay a sum not less than Five Thousand Dollars (\$5,000.00) per acre disturbed by Lessee in the conduct of a single Operation on the Leased Premises, to include, by way of example and not limitation the creation of a Pad, compressor station, separator station or metering site. Such payments shall be made prior to commencement of any conduct of Operations on Leased Premises. Provided, however, the Lessee shall only have to pay the surface rental sum once for each proposed Operation or surface disturbance. By way of example and not limitation, the Lessee would only pay the Lessor once for the creation of a Pad and the road(s) leading to the Pad no matter how many Wells were drilled from that Pad; however if the Lessee were to subsequently erect a compressor station in a different location on the Leased Premises, the Lessor would be entitled to receive surface damages for the compressor site as well.

(c) Lessee agrees to pay to Lessor the Value of any improvement or any Lessor's Leasehold Asset and Use destroyed, injured, or impaired as the result of the conduct of any Operations on the Leased Premises. If Lessee replaces or repairs the asset destroyed, injured, or impaired, the amount due shall be the Value of the temporary loss, injury, or impairment of the asset, if any. Payment under this paragraph shall be due within 30 days of the determination of Value.

#### (d) Pipelines and Power and Utility Lines.

(i) All Pipelines and other lines located by Lessee on the Leased Premises shall be buried such that the top of the buried pipeline or other line shall be at a depth of at least thirty-six inches (36") below the surface where it is reasonably practicable to do so. Lessor reserves the right to occupy, use and cultivate the lands affected by such Pipelines, and to grant such rights to others, so long as such use does not interfere with Lessee's Operations. If Lessee fails to use any Pipeline for a period in excess of twenty-four (24) consecutive months, the Pipeline shall be deemed abandoned and Lessee shall promptly take all actions necessary or desirable to clean up, mitigate the effects of use, and render the Pipeline environmentally safe and fit for abandonment in place. All such clean up and mitigation shall be performed in compliance with all Environmental Laws and other applicable federal, state and local laws and regulations.

(ii) Any permanent utility cable, Pipeline or other subsurface installation placed on the Leased Premises by or on behalf of Lessee shall be buried and permanently marked by vertical pipe posts not smaller than two (2) inches in diameter or width placed at each side of every road and driveway crossing, at each hedgerow, at the property line, fence, or stone row, and at the edges of each field or woods it crosses, directly above or within one inch of the actual buried structure, and said posts shall be placed at least two (2) feet deep and project at least four (4) feet above ground level.

(iii) Rights-of-way for any Pipeline or utility line permitted by this Lease and installed on the Leased Premises shall not exceed 60 feet in width during construction and reverting to 30 feet in width after construction.

(iv) Timber. Lessor and Lessee agree that prior to Lessee's disturbance of any timber for Lessee's Operations on the Leased Premises, Lessee shall designate that area that Lessee intends to disturb

and Lessor shall be entitled to harvest such timber for its own use and benefit. Lessee shall provide Lessor with all reasonable notice, consistent with the Development Plan, so as to allow Lessor the opportunity to harvest the timber to be disturbed should Lessor be so evidenced. Should Lessor elect not to or fail to harvest the designated timber on the Leased Premises as provided for above, then the Lessee may remove the timber in accordance with its plan of Operations for the Leased Premises as set forth in the Development Plan. All stumps will either be removed or ground and not buried.

(v) Lessee will reimburse Lessor for any and all Production Taxes imposed upon or which Lessor is required to pay, if and whenever levied, over and above those taxes levied on Lessor's interest in the Oil and Gas produced and for which Lessor receives a Royalty.

#### 19. DRILLING OPERATIONS - ABANDONMENT OF WELLS OR OTHER PROPERTY.

(a) Upon the abandonment of any producing Well drilled on the Leased Premises or upon the completion of any Well as a dry hole, Lessee shall, within sixty (60) days or upon termination of the Lease, whichever occurs first, plug the Wellbore in compliance with the requirements of applicable law, rules and regulations of the PADEP, any successor agency or the Commonwealth of Pennsylvania. Lessee shall install casing to fully and completely protect all fresh ground water zones.

#### 20. RECLAMATION AND MAINTENANCE.

(a) Lessee will make every reasonable effort to ensure that all surface areas used in connection with Lessee's Operations are treated in a manner to preserve the topsoil, minimize soil erosion and damage to existing foliage. Reclamation and maintenance of the surface of the Leased Premises will, to the extent reasonably practical, be set forth in the Development Plan as approved by the Parties hereto. At a minimum, the Lessee will separate topsoils from sub-soils and replace same in their pre-Operations layers upon the completion of Operations. Within 90 days following the completion or plugging and abandonment of a Well, the last Well of a Continuous Drilling Operation, which provides for the Actual Drilling of a new Well with 180 days following the removal of the drilling rig from the previous well site, or its equivalent under Section 5 hereof, or such time period and development schedule set forth in the approved Development Plan, which is the later to occur, Lessee will restore the surface of the Leased Premises to the same condition, contour and drainage as close as reasonably possible to the surface condition as it existed immediately prior to Lessee's Operations as would a prudent operator under the same or similar circumstances. It is the intent of the Parties hereto that a Pad should not be left barren and void of vegetation between the Drilling of Wells to Fully Develop the Leased Premises.

(b) The Lessee shall use commercially reasonable efforts to fill in all ruts and holes caused by its Operations and crowned with an eight inch (8") berm, restore the contour of the ground to its original condition as nearly as reasonably possible, and maintain the Leased Premises in that condition. Lessee shall bury the Pipelines and all utilities; double ditched in all locations, to such depth that the top of such Pipeline or other buried appurtenances be a minimum of thirty-six inches (36") below the surface where reasonably practical and subject to permit requirements. On any cultivated land, or land susceptible of cultivation, Pipelines shall be buried a minimum of thirty-six inches (36") to the top of such Pipeline or below plow depth, whichever is deeper, to be agreed between Lessor and Lessee. For purposes of this Lease, the term "double ditched" shall mean that the top soil shall be removed separately from the subsoil and in backfilling the ditch, the subsoil shall be replaced first and the top soil shall be replaced last in order to conserve the integrity of the top soil. If necessary, Lessee shall add additional cover after subsidence or rising in order to prevent surface depression or the rising of the Pipeline. Lessee shall remove from any drainage ditch or creek crossing all loose dirt from construction of such crossing and shall excavate all pipeline locations a minimum of thirty-six inches (36") below the original land surface and shall restore the grade to the original contour on either side of the ditch or creek along the right-of-way(s). Lessee shall then refill any excavation with the original excavated material, gravel or similar materials, to the original level of the ground and grade the ground to the original contour of the ground where the pipe goes across or through any natural drainage ditch or creek consistent with the provisions of Subsection 17(b) above. Lessee shall also fill and compact the ground in the Pipeline ditch where a pipe goes across any road. Lessee shall install drainage, sandbags, dams, and any means reasonably necessary to prevent water from traveling along the length of the Pipeline and causing erosion or wet areas along the Pipeline or buried utility.

(c) If at any time during the existence of a Surface Operation or at any time for two years following the existence of a Surface Operation, the soil should settle, wash or erode causing a depression, and such depression cannot reasonably be attributed to any other cause than Lessee's Operations, Lessee shall level such depression and smooth the surface to substantially the same level as existed before construction. Under such circumstances, at any time and from time to time while this Lease or any of its terms and provisions is in full force and effect, upon request of Lessor, Lessee agrees to correct, level and restore to the original ground level with topsoil or material specified by Lessor if such other material is of a lesser cost than topsoil, any further settlement of the soil that may occur following the previous filling or leveling of the same, by the Lessee, so as to fully restore and maintain the surface of Lessor's property, and protect Lessor's property against erosion.

#### 21. FENCES.

(a) No right-of-way(s) shall ever be fenced by Lessee, however Lessor reserves the right to fence any right-of-way(s) herein leased, and Lessor, its heirs, assigns and successors in interest, shall have full use and enjoyment of the Leased Premises including, but not limited to, those uses herein expressly provided, except as the same may be necessary for the purpose herein granted or leased to the Lessee.

(b) If requested by Lessor, all areas containing Lessee's equipment, wellheads, compressors, meters, or other equipment of whatever type or kind shall be fenced. Lessee shall paint all above ground equipment so as to blend in and harmonize with the surrounding environment.

(c) All Well access roads shall be gated and fenced at the point at which such roads depart from either public roads or roads existing on Leased Premises as of the date of this Lease, unless otherwise agreed in writing by Lessor.

## 22. ENVIRONMENTAL INFORMATION TO BE PROVIDED.

(a) If Lessee receives any written notice, correspondence, citation, order, warning, complaint, inquiry, claim or demand that is not legally privileged, made confidential by applicable law or contract, or protected as trade secrets concerning any alleged Environmental Impact at, on, or from the Leased Premises, Lessee will promptly provide Lessor a copy of such notice, correspondence or other communication.

(b) Lessee shall provide to the Lessor, with any submittal by Lessee to any governmental agency, a complete copy (including exhibits and attachments) of any reports or notices required by Environmental Laws, regarding the Environmental Impact Claim.

## 23. ENVIRONMENTAL RESPONSE AND COMPLIANCE ACTIONS.

(a) If the Leased Premises or other property is or becomes contaminated or otherwise damaged or injured by Operations of Lessee or by its employees, agents, contractors, sub lessees, or any other Party under Lessee's direction or control, as a result of Hazardous Substances on, at, or from the Leased Premises then Lessee shall (i) notify the Lessor promptly of such contamination or damage upon Lessee's actual knowledge of such contamination or damage, (ii) promptly take reasonable actions to control any such Release or contamination, and (iii) promptly take all reasonable actions necessary or required under applicable Environmental Laws to mitigate any immediate threat to human health or the environment. Lessee shall then undertake any further repairs or corrective actions, in a timely manner and in full compliance with applicable Environmental Laws, as are necessary to remove or remediate contamination in accordance with all applicable laws, rules and regulations and at a minimum, return the Leased Premises to its prior condition as nearly as reasonably practicable.

(b) In the event the Lessor undertakes any corrective action for which Lessee is obligated but fails to do so after written Notice to Lessee in accordance with Section 27(h) below, including but not limited to repairs, restoration or remediation, in the exercise of Lessor's rights under this Section 23, Lessee shall reimburse Lessor, upon written Notice by Lessor, for all costs Lessor incurs in association with such action.

(c) Lessee shall fully comply with the environmental practices and procedures set forth in the PADEP's Operator's Manual.

## 24. DISPOSAL OF WASTE.

(a) Lessee shall not dispose, discharge or bury anything on the Leased Premises, to include by way of example and not limitation, trash, pits, pit liners, well water, frac water, drilling fluids, or any other substance not existing naturally on the surface of the Leased Premises as of the Effective Date.

## 25. FORCE MAJEURE.

(a) When production or Operations are delayed by Lessee's inability to obtain, for reasons other than price, necessary equipment, services, Rights of way or material, despite reasonable efforts to obtain such items, or by fire, flood, adverse weather conditions, war, act of terrorism, sabotage, rebellion, insurrection, riot, strike or labor disputes, or failure of purchasers or carriers to take or transport such production, compressor malfunction, governmental laws, rules, orders or regulations, or by any other similar cause, not reasonably within Lessee's control (each, a "Force Majeure Event"), this Lease shall not terminate because of such delay. Lessee shall not be liable for breach of any provisions or implied covenants of this Lease when production or Operations are prevented or delayed by or as a result of a Force Majeure Event. The benefits of this provision shall only be available when the Force Majeure Event claimed as an excuse is the direct cause of the delay in performance and only for so long as Lessee is exercising all economically reasonable efforts to overcome or avoid such constraints. This provision does not protect Lessee against the consequences of the negligence, the violation of any applicable laws, rules, regulations, or orders of any governmental authority, or misconduct of Lessee; its agents, employees, or contractors; or by the operator of any Well under any joint operating agreement, if other than Lessee. No delay in the payment of money will be excused by any Force Majeure Event and no delay of more than one (1) year will be excused by any Force Majeure Event. As a condition to the applicability of this provision Lessee shall promptly provide written Notice to Lessor, in accordance with Section 27(h) below, of any claim of excuse based on a Force Majeure Event providing reasonably full particulars of the basis and purpose of the claim of a Force Majeure Event.

## 26. EVENT OF DEFAULT; TERMINATION.

(a) An event of default ("Event of Default") shall mean the occurrence of any of the following:

(i) failure by Lessee to make any Royalty or other payments ("Monetary Compensation") required by this Lease following, as applicable: (A) the Lessor's execution of this Lease; (B) the Lessor's execution of an applicable division order; (C) the resolution of any cloud or multiple claims to the Monetary Compensation if the making of Monetary Compensation has been suspended due to

claims by multiple parties or title issues; (D) by operation of law; or (E) the establishment of successorship to a deceased Lessor;

(ii) failure by Lessee to maintain required insurance as provided in Section 11(c) hereof;

(iii) failure by Lessee to deal with any Environmental Claim in the manner required by this Lease;

(iv) contamination of any surface or subsurface water source or supply by Lessee; and

(b) Upon the occurrence of an Event of Default, discovery of which is disclosed in writing by the discovering Party to the non-discovery Party in accordance with the Notice provisions of Subsection 27(h) below, Lessee shall have (i) thirty (30) days after the receipt of or the giving of Notice of such Event of Default, within which to cure all Events of Default; provided, however, that if the Event of Default under (a) (ii) above cannot be cured within such thirty (30) day period, Lessee shall be afforded up to an additional sixty (60) day period within which to effectuate a cure so long as Lessee shall have commenced such cure within the initial thirty (30) day period and thereafter diligently continue to cure such Event of Default. If an Event of Default occurs under (a)(iii) or (a) (iv) and cannot be cured within such thirty (30) day period then Lessee shall have a reasonable period of time within which to cure such Event of Default so long as Lessee shall have commenced such cure of the Event of Default within the initial thirty (30) day period and thereafter diligently continues to cure such Event of Default.

(c) If Lessee fails to cure an Event of Default within the periods specified in Subsection 26(b) above, Lessor has the right to terminate this Lease after ten (10) business days written Notice to Lessee, whereupon Lessee's rights to enter upon the Leased Premises are forthwith withdrawn excepting only for the purpose of removing all of its property from the Leased Premises and its obligation to restore the Leased Premises as required in this Lease; provided, however, that such termination notice shall not be effective if Lessee cures the Event of Default within such ten (10) business day period. Upon termination, (i) except as set forth in Subsection (e) below, this Lease shall be of no further force or effect, (ii) Lessor may cause the Memorandum of Lease to be released from the record of the County and (iii) neither Party shall have any further rights or obligations hereunder except as set forth in Sections 19, 20, 23, 24 and 27 (k) hereof.

(d) An Event of Default shall only include those specifically enumerated events set forth in Sections 26(a) (i) – (iv) above. The Lessor reserves the right subject to Section 27(k) hereof, to commence, whether at law or in equity, an action to address the breach or alleged breach of any other condition or covenant of this Lease.

(e) Upon termination of the Lease in accordance with Subsections 26(c) and (d) above, Lessee shall:

(i) Release all Open Acreage;

(ii) Retain all Lease rights for Wells and the Units therefore for which an Event of Default has not occurred; and

(iii) Forfeit and release back to Lessor or cause to be plugged and abandoned at Lessor's election, the Well or Wells giving rise to or to which an Event of Default is attributable.

(f) Upon the termination of this Lease, Lessee agrees to execute and record in the County Court House at Lessee's expense, a release of the Lease.

## 27. MISCELLANEOUS.

(a) **Successors and Assigns.** The provisions of this Lease are binding upon the parties hereto, and their respective heirs, legal representatives, successors and assignees, transferees or receivers. Lessor's and Lessee's acceptance and agreement to all of the terms and provisions of this Lease are evidenced by their execution of the original and duplicate copy of the original of this Lease.

(b) **Enforceability of Lease.** To the extent any provision of this Lease may be determined to be void, illegal or otherwise unenforceable, the same will have no effect on the enforceability of the balance hereof. This Lease shall in all circumstances be construed against invalidation, termination, or forfeiture. The parties hereby expressly agree that in the event any provision of this Lease is determined to be invalid, illegal, unenforceable or in conflict with any applicable Federal law or law of the Commonwealth of Pennsylvania, the provision shall be reformed in such manner as to be valid, legal, and enforceable.

(c) **Right of Audit.** Lessee grants to Lessor the right to annually examine, audit, and/or inspect the books, records and accounts of Lessee pertinent to the purpose of verifying the accuracy of the reports and statements furnished to Lessor, and for checking the amount of payments lawfully due Lessor under this Lease. In exercising this right, Lessor shall give Lessee reasonable notice of its intended audit and such audit shall be conducted during normal business hours at the offices of Lessee. Should such audit conclude that Lessee has paid to Lessor less than 97% of what is required to be paid hereunder, then the cost of the audit shall be borne by Lessee. Should the audit reveal no such inaccuracy, the cost of the audit shall be borne by Lessor.

(d) **Reports.** Upon Lessor written request, Lessee shall provide Lessor with copies of all Reports that are not confidential or include information that protects Lessee's competitive advantage in their operations in the area. Reports will be provided within 30 days of receipt of written request.

(e) **Governing Law.** This Lease shall be governed by, and construed and enforced in accordance with, the law of the Commonwealth of Pennsylvania, without regard to principles of conflicts of law.

(f) **Headings and Paragraph Numbers.** The heading of the Sections, captions, titles and paragraph numbers of this Lease are for the convenience of reference only, are not to be considered a part hereof, and shall not limit or otherwise affect any of the terms hereof.

(g) **Lease Modification.** This Lease cannot be changed or modified, except by a written instrument signed by Lessor and Lessee.

(h) **Notice:** Any notice, request demand, statement or other communication required or permitted hereunder shall be in writing and shall be deemed to have been duly given upon receipt by the addressee if: (i) hand delivered, or sent by facsimile or electronic transmission (with the original delivered to the addressee by the close of business the first business day following the day of the facsimile transmission); (ii) by overnight courier; or (iii) by United States mail, certified mail, return receipt requested or by, and shall be sent to or delivered to the parties at the following addresses:

TO LESSOR:

Manzek Land Company

RR 5 Box 92 Attention: Drake D. Nicholas, Receiver

Montrose, Pennsylvania 18801 One South Market Square, 12<sup>th</sup> Floor, Harrisburg, PA, 17108

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With a copy to:

Name:

Street Address:

City, State Zip:

TO LESSEE:

Fortuna Energy Inc.

337 Daniel Zenker Drive

Horseheads, New York 14845

Or to such other address as such Party may designate by ten (10) days advance written notice to the other Party. The original of any Notice given by facsimile transmission shall be delivered to the addressee by close of business the next business day after the day of the facsimile transmission.

(i) **Survival.** All of the duties, obligations and indemnities of the Lessee under the Lease that arise prior to the termination of the Lease shall survive the termination of the Lease. The terms and conditions of this Lease shall survive any assignment, sublease or conveyance of any instrument affected hereby, and it is expressly understood and agreed that no amendment hereto shall be effective unless said amendment shall be in writing and signed by both Lessor and Lessee. The duties, obligations and indemnities of the Lessor under this Lease that arise prior to the termination of the Lease shall survive the termination of the Lease.

(j) **Consent to Assign.** Lessee may not assign this Lease without Lessor's written consent, which consent will not be unreasonably withheld or delayed. Any assignment of the Lease without the written consent of Lessor shall be void ab initio. Lessee shall remain fully liable to Lessor for all obligations imposed upon Lessee in the Lease attributable to the period prior to Lessee's assignment thereof, if any. Subject to the consent requirements set out above with respect to any assignment by Lessee, no change of ownership shall be binding on either Party hereof until thirty (30) days after such Party has been furnished a copy of the recorded instrument evidencing the assignment of interest in the Lease. Notwithstanding the foregoing, Lessor acknowledges and agrees that a change in control of Lessee and/or merger or consolidation of Lessee with or into another entity shall not constitute an assignment for purposes of this provision.

(k) **Dispute Resolution.** The Parties will attempt in good faith to resolve any and all controversies of every kind and nature between the parties to this Agreement arising out of or in connections with the existence, construction, validity, interpretation or maintaining, performance, non-performance, enforcement, operation, breach, continuance or termination of this Agreement (each, a "Dispute") promptly by negotiations between senior executives of the parties who have authority to settle the Dispute. The disputing Party shall give the other Party written notice of the Dispute. Within twenty (20) days after receipt of said notice, the receiving Party shall submit to the other a written response. The notice and response shall include (a) a statement of each Party's position and a summary of the evidence and arguments supporting its position, and (b) the name and title of the executive who will represent the Party. The executive shall meet at a mutually acceptable time and place within thirty (30) days of the date of the disputing Party's notice and thereafter as often as they reasonably deem necessary to exchange relevant information and to attempt to resolve the Dispute. If the matter has not been resolved within sixty (60) days of the

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disputing Party's notice, or if the Party receiving said notice will not meet within thirty (30) days, either Party may initiate an action in a Court of appropriate jurisdiction, to seek to recover from the other any costs, expenses, contribution, indemnification, or other such rights as may be allowed or permitted in this Agreement, whether at law or in equity. The losing Party in any action brought to compel performance of, or to recover for breach of any covenant or condition herein contained, or for declaratory relief, shall pay to the prevailing Party's reasonable fees, costs and expenses incurred prior to bringing such suit and its reasonable attorney and professional fees in addition to the amount of judgment and all other fees and all charges, costs and expenses incurred in such actions.

(l) **Right to Surrender.** Lessee shall have the right at any time to surrender and relinquish all or any part or portion of the Leased Premises, severed horizontally, vertically or both, that is not Fully Developed by executing and delivering to Lessor an instrument of release describing the land or portions thereof surrendered. Such release shall, upon the date of such delivery of same to Lessor, terminate this Lease as to the lands therein released. All unaccrued payment obligations of Lessee shall terminate upon said surrender.

(m) **Spotting of Vehicles and Equipment.** Lessee covenants that it will not use the Leased Premises for the parking or storage of vehicles or equipment not currently engaged in Lessee's Operations on the Leased Premises and that any vehicle and/or equipment located on the Leased Premises shall be promptly removed from the Leased Premises upon completion of Lessee's Operations on the Leased Premises involving such vehicles and/or equipment.

(n) **Interpretation**

(i) Terms defined in the singular shall have the corresponding plural meaning when used in the plural, and terms defined in the plural shall have the corresponding singular meaning when used in the singular.

(ii) References to agreements, certificates and other legal instruments include all subsequent amendments thereto, and changes to, and restatements or replacements of, such agreements, certificates or instruments that are duly entered into and effective against the parties thereto or their permitted successors and assigns.

(iii) A reference to a statute or to a regulation issued by a governmental authority includes the statute or regulation in force as of the date hereof, together with all amendments and supplements thereto and any statute or regulation substituted for such statute or regulations.

(iv) Unless otherwise expressly indicated, the term "day" means a calendar day and includes Saturdays, Sundays and holidays and a "year" shall mean a calendar year.

(v) The terms "include," "includes" or "including" means: include, includes or including without limitation (as the case may be).

(vi) In all cases, the masculine shall include the feminine and the feminine shall include the masculine tense.

**DEFINITIONS**

The following terms have the meanings set forth below:

"BTU," or "btu," means British Thermal Unit.

"Commercially Reasonable;" or "Commercially Reasonable Alternative," shall mean any alternate proposal or plan to an existing proposal or plan which does not exceed the price for the original proposal by twenty percent (20%) and which is equally acceptable giving consideration to engineering, topographical, geological and/or geometric conditions, to include, by way of example and not limitation surface and subsurface structures, terrain, and existing infrastructure.

"Completed Well," shall mean a Well drilled under the provisions of this Lease on the earlier to occur of: (i) the date on which the Wellhead is affixed to the casing head; or (ii) the date on which a Well is plugged and abandoned as a Well incapable of production in Paying Quantities.

"Development Plan," shall mean that plan developed by the Lessee and presented to the Lessor for Lessor's approval not less than thirty (30) days prior to any proposed Operations on the Leased Premises providing the general framework for Lessee's activities on the Leased Premises and shall be developed according to the requirements and standards set out in this Lease. Lessee agrees that it will not commence any surface disturbing activities on the Leased Premises, or any part thereof, unless and until the Lessor has approved the Development Plan in writing, which consent shall not be unreasonably withheld or delayed. The Development Plan may be and shall be upgraded, amended or revised by Lessee from time to time, as would a prudent operator under the same and similar conditions. Any material changes to the Development Plan shall be approved by the Lessor, in writing, prior to their implementation which approval shall not be unreasonably withheld or delayed. The Development Plan shall incorporate, by reference, the PADEP Operators Manual.

"Drilling", "Actual Drilling Operations", or "Re-entry," as used in this Lease will be considered to have begun the date on which a rig capable of drilling to the objective depth or horizontal target is on a permitted location and the drilling bit enters the earth for the drilling of a Well, or in the case of a reentry, the reentry of the service tool

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into the existing Wellbore, and actually commences the reworking Operations with continuous Operations being conducted to the objective depth or horizontal target in the Ordinary Course of Business, as would a prudent operator under the same or similar circumstances. Provided however, should the operator employ multiple rigs for the drilling of a Well, then the operator shall conduct such continuous drilling operations as would a prudent operator under the same or similar circumstances such that the Pad is not left idle between one rig and the next for more than 60 days.

"Encumbrance," shall mean any mortgage, lien, security interest, or other encumbrance, other than easements, rights-of-way and similar rights granted by Lessee in connection with its Operations under this Lease, inchoate liens and encumbrances, and liens and encumbrances only covering the rights and estates granted to Lessee pursuant to the Lease.

"Environmental Condition," shall mean any condition of the soil, subsurface, surface waters, ground waters, atmosphere or other environmental medium, whether or not yet discovered, which results, or could reasonably be expected to result, in any damage, loss, cost, expense, claim, demand, investigation, lien or liability relating to the Leased Premises under any Environmental Law resulting from Lessee's Operations.

"Environmental Laws," shall mean, by way of example and not limitation, the Resource Conservation and Recovery Act of 1976, as amended, the Clean Air Act, as amended, the Clean Water Act, as amended, and the Comprehensive Environmental Response, Compensation and Liability Act, as amended, Pennsylvania Solid Waste Management Act, 35 Pa. Stat. Ann. §6018.101 and all federal, state, and other governmental regulations, orders, interpretations or rulings issued there under, and other Legal Requirements relating to air or water quality, hazardous or solid wastes, hazardous substances the prevention or remediation of pollution or environmental damage, protection of the environment or any other environmental matters.

"Environmental Impact Claim," means any claim, suit, judgment, penalty, fine, loss, administrative proceeding, request for information, citation, notice, cost, or expense (including but not limited to any costs of investigation, study, cleanup, removal, response, mitigation, remediation, transportation, disposal, restoration, monitoring, consultant's fees, contractor's fees, and attorney's fees) which arises out of, is related to, or is based on (i) the presence, handling, treatment, storage, or actual or threatened release, dispersal, disposal, escape, or migration of any Hazardous Substance, Solid Waste or Environmental Condition at or from the Leased Premises resulting from or relating to Lessee's Operations, (ii) any alleged or actual violation of any Environmental Law resulting from or relating to Lessee's Operations; or (iii) any injury, loss or damage to person, livestock or property resulting from or relating to Lessee's Operations.

"Formation," shall mean a sedimentary bed or series of beds sufficiently alike or distinctive to form an identifiable geological unit capable of being mapped.

"Hazardous Substances," means substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "extremely hazardous wastes," "restricted hazardous wastes," "toxic substances," "toxic pollutants," "contaminants," "pollutants," "regulated substances," or words of similar import, under any applicable Environmental Law.

"Horizontal Well," shall mean a Well having a borehole, the bottom hole location of which is deviated a minimum of seventy (70) degrees from the vertical and the bottom hole location of which is at least five hundred (500) feet in length measured between the point at which the Wellbore penetrates the top of the Formation to be produced and the end point or terminus of the horizontal borehole within that Formation. A horizontal borehole is that portion of a Wellbore intentionally deviated from vertical within the Producing Formation.

"Fully Developed" and "Full Development" shall mean that all acreage of the Leased Premises contained in one or more Units shall be held by one or more Wells in accordance with the provisions of this Lease.

"Leased Premises," shall have the definition given in the Granting Clause hereof.

"Lessor's Leaseholder Assets and Uses," or "Leasehold Assets and Uses," shall mean those commercial and residential assets, activities and uses of the Leased Premises reserved by Lessor, including, without limitation, stone walls, houses, barns, windmills, water lines, tanks, timber, livestock, fish, livestock facilities, growing crops, agricultural facilities, buildings and structures, residences, pond, lake, stream, water wells, springs, fences, bridges, roads, trees, shrubbery, agriculture, dairy farming, ranching, fish farming, bluestone and other rock quarrying, commercial operation, mining, archaeological assets, and operation of youth camps.

"Legal Requirements," shall mean any law, statute, ordinance, decree, requirement, order, judgment, rule or regulation, including by way of example and not limitation the terms of any license, permit, certificate, or abandonment approval promulgated, issued or enacted by any governmental authority to include, without limitation, any bonding requirements of Lessee or other regulatory approval governing the conduct of Operations or activities on the Leased Premises.

"Lessee," as used herein shall have the definition given in the introductory paragraph hereto, its respective successors, affiliates, subsidiaries, legal representatives, and assignees, transferees and/or receivers.

"Lessor," shall have the definition given in the introductory paragraph hereto and his/her/its, heirs, successors, transferees, assigns or designated agents."

"Oil and Gas," shall, subject to any specific limitations provided below, mean oil, gas, casing head gas, coalbed methane, condensate, and any other liquid or gaseous hydrocarbons and hydrogen sulfide, and all constituents thereof, but only if produced in conjunction with the production of any liquid or gaseous hydrocarbons produced from the bore hole on the Leased Premises or lands pooled therewith, if and to the extent produced through a wellbore drilled pursuant to this Lease.

"Operation," or "Operations," shall mean activity on the Lease Premises for the purpose of or leading to the exploration, drilling, production, sale, transportation and marketing of Oil and Gas, to include by way of example and not limitation, seismic exploration (2-D and 3-D), surveying, surface preparation, road construction, creation of a right-of-way, laying, replacing, removing and repairing of a Pipeline(s), drilling, constructing, operating, maintaining, inspecting, calibrating, repairing, removing, measuring, reworking, recompleting, reclaiming, transporting, remediation, compression, treatment, dehydrating, plugging, abandonment and separation of hydrocarbons. Operations shall also include deepening, plugging back, side-tracking, redrilling in search of or in an endeavor to obtain production of Oil or Gas in Paying Quantities. All Operations shall be conducted, as would a prudent operator under the same and similar conditions.

"Ordinary Course of Business," shall mean the ordinary course of business and conduct of operations consistent with past custom and practice and shall include, without limitation, operations of a kind and nature conducted in a manner consistent with those of a reasonably prudent operator in the same or similar circumstances.

"Pad," means a surface location on which one or more Wells are drilled and, if commercial, completed, and if not commercial, plugged and abandoned and all lands associated or used in connection therewith.

"PADEP," means the Pennsylvania Department of Environmental Protection.

"PADEP's Operator Manual," shall mean that Oil and Gas Operator's Manual published by the PADEP from time to time.

"Paying Quantities" or a "Well Producing in Paying Quantities," or "Commercial Production," shall be as defined as a Well capable of making a profit over the costs of operations, marketing and payment of all royalties, exclusive of the costs associated with the drilling and completion of the Well.

"Pipeline(s)," as used herein shall include gathering lines, flow lines, and any other lines used for the transportation of oil and gas from the Wellhead to the transmission line of the first purchaser of the oil and gas, as well as any rights-of-way associated with those Pipelines affecting the Leased Premises.

"Pooled Unit," shall be synonymous with "Spacing Unit."

"Production Taxes," shall mean any and all taxes imposed, whether currently in existence or levied in the future, on the production, severance and or sale of Oil and Gas.

"Release," means any depositing, spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.

"Reports," shall mean all production reports, completion reports, plugging and abandonment, and such other reports as filed by the Lessee with the PADEP or any other Federal, State or local government, department or agency, whether currently required or required in the future, and any information regarding the Leased Premises placed into the public domain by the Lessee.

"Royalty", "Royalty Interest", "Lessor's Royalty" or "Royalty Share," wherever used herein, shall mean twenty percent (20%) of one hundred percent (100%) of the Sales Price of all Oil and Gas produced, saved or sold from a Well on the Leased Premises or a Unit in which a portion of the Leased Premises is located. The Sales Price for the Oil and Gas shall be determined at the Wellhead, adjusted for BTU content, without deductions for, gathering, separation, transportation, marketing, compression, dehydration, line loss, Production Taxes of whatever type and kind, compression fuel, pumping costs or other costs of the Lessee, of whatever type or kind, associated with the production of the Oil and Gas. The volume and/or heating value of the Oil and Gas produced from a Well or the Leased Premises or a Unit in which a portion of the Leased Premises is located shall be measured before the Oil and Gas leaves the Leased Premises and/or Unit. The Oil and Gas from one Well shall not be commingled with Oil and Gas from another Well prior to its measurement unless the Wells are in the same Unit. The testing and accuracy of all measuring devices for a Well shall be assured in the Ordinary Course of Business but not less than annually where the production for a Well or group of Wells measured by the measuring device is greater than 30,000 mcf/month and if less than 30,000 mcf/month then at least every two years.

"Sales Price," shall mean the price received by Lessee for its Oil and Gas sold in an arms-length transaction.

In the event Lessee elects to sell gas produced from the Leasehold to an affiliated party, then for purposes of computing royalty hereunder, the net proceeds after taxes shall be at least equivalent to the price paid for gas entering the Tennessee Gas Pipeline ("TGP") in North East Pennsylvania under a Zone 4 designation. Lessor and Lessee acknowledge and agree that there is no published index price for TGP Zone 4 as of the effective date of this Lease. Lessor and Lessee further agree to use a price proxy for the TGP Zone 4 index until such time as a published index is established for TGP Zone 4, or any replacement zone, should TGP modify its description of such pipeline zone. The price proxy to be utilized hereunder shall be the Dominion South Point, located in the pricing table entitled "Appalachia" under the column heading "midpoint" as published in the "Daily Price Survey" (\$/MMBtu) portion of the McGraw-Hill publication, "Platts Gas Daily." Royalties shall continue to be paid on a monthly basis,

but for purposes of computing royalties, the sale price of gas shall be calculated on a daily basis by multiplying the allocated daily sales volumes in MMBtu by the published gas index price per day.

Should the Platt Gas Daily index price used for royalty calculations hereunder no longer exist or no longer reasonably reflect market price in TGP Zone 4, Lessee shall survey the gas market and establish a revised price index. Royalty price index redeterminations shall occur no more than once every two (2) years. "Solid Waste," shall have the meaning ascribed thereto in the applicable Environmental Laws.

"Spacing Unit," shall have the meaning ascribed thereto by Title 25 of the Pennsylvania Administrative Code, Chapter 79, Section 79.1.

"Surface Location," shall mean any area upon any of the Leased Premises prepared or used for the purposes of any Operation of Lessee, to include, by example and not limitation, a Pad and a road.

"Unit," shall mean a Pooled Unit, Spacing Unit and/or a Voluntary Unit, evidence of which shall be filed of record in the records of the county clerk's office.

"Value for Lessor's Leasehold Assets and Uses," shall mean the fair market value in an arms-length transaction between a willing buyer and a willing seller immediately prior to the time of such Lessor's Leasehold Assets and Uses destruction, injury, or impairment. The Value of a partial destruction, injury, or impairment shall be the difference between the Value of the original Lessor's Leasehold Assets and Uses or service and the Value of Lessor's Leasehold Assets and Uses in its partially destroyed, injured, or impaired condition. Value shall be determined either by agreement of the parties or by an appraisal conducted by an appraiser expert in valuing Lessor's Leasehold Assets and Uses in question commissioned and paid for by the Lessee, whose report shall be provided in writing to Lessor within 90 days of notice by the Lessor to the Lessee of an inability to set the Value by agreement. If Lessor disagrees with the appraisal provided by the Lessee, Lessor may provide an alternative appraisal report within 90 days of receiving Lessee's appraiser's report. If the parties cannot reach agreement on the Value after reviewing both reports, the two appraisers shall select a third appraiser to review both reports and to determine the Value. The fee of the third appraiser shall be borne equally by the parties.

"Vertical Well," shall mean a Well that is not a Horizontal Well

"Voluntary Unit," shall mean a Unit formed by the Lessee in accordance with the laws of the Commonwealth of Pennsylvania and this Lease.

"Well" or "Wells" shall mean a Vertical Well or a Horizontal Well.

"Wellhead," shall mean the assembly of valves, pipes and fittings affixed to the casing of a Well and used to control the flow of Oil and Gas from a Well.

EXECUTED as of the Effective Date.

  
Witness

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(Seal)

LESSOR  
Manzek Land Company  
  
By Its *Receive*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LESSEE:

Fortuna Energy Inc.

Per:

  
James E. O'Driscoll  
Name / Title: President

## EXHIBIT "A" - ADDITIONAL LEASEHOLDS

between  
**Manzek Land Company, as Lessor**  
and  
**Fortuna Energy Inc., as Lessee**  
dated the 23<sup>rd</sup> day of October, 2009

- 1.) The Leasehold is located, all or in part, in the Township of Orwell in the County of Bradford, in the Commonwealth of Pennsylvania, and is bounded substantially formerly or currently as follows:

On the North by lands of James Barcio, 27-51-46-1;  
On the East by lands of State Highway 1051;  
On the South by lands of Hall Road;  
On the West by lands of Edward Otto, 27-51-44-1;

Tax ID# 27-51-44; consisting of 14 acres more or less.

being the same lands acquired by the Lessor from Robert L. Arey, by virtue of deed dated July 8, 2008, and recorded at Control No. 200811305 of the Deed Records of Bradford County, Pennsylvania, on July 22, 2008.

- 2.) The Leasehold is located, all or in part, in the Township of Warren in the County of Bradford, in the Commonwealth of Pennsylvania, and is bounded substantially formerly or currently as follows:

On the North by lands of Stephen Yanochko, 56-39-86;  
On the East by lands of Manzek Land Co, Inc., 56-39-89;  
On the South by lands of Anthony Squadroni, 56-39-93;  
On the West by lands of Nicholas and Christine Johnson, 56-39-87;

Tax ID# 56-39-88; consisting of 10.5 acres more or less.

being the same lands acquired by the Lessor from Clara J. Schultz and Kimberly Janosky and Joseph Janosky, by virtue of deed dated August, 2007, and recorded at Control No. 200709289 of the Deed Records of Bradford County, Pennsylvania, on August 16, 2007.

- 3.) The Leasehold is located, all or in part, in the Township of Warren in the County of Bradford, in the Commonwealth of Pennsylvania, and is bounded substantially formerly or currently as follows:

On the North by lands of Township Road 729;  
On the East by lands of Robert Dewing, 56-39-77;  
On the South by lands of Anthony Squadroni, 56-39-93;  
On the West by lands of Manzek Land Company, Inc., 56-39-88;

Tax ID# 56-39-89; consisting of 10.6 acres more or less.

being the same lands acquired by the Lessor from Clara J. Schultz, by virtue of deed dated August 15, 2007, and recorded at Deed, Control No. 200709289 of the Deed Records of Bradford County, Pennsylvania, on August 16, 2007.

- 4.) The Leasehold is located, all or in part, in the Township of Willmot in the County of Bradford, in the Commonwealth of Pennsylvania, and is bounded substantially formerly or currently as follows:

On the North by lands of Back Road;  
On the East by lands of Sugar Hill Road;  
On the South by lands of Charles & Mary Pollard, 58-127-65;  
On the West by lands of Back Road;

Tax ID# 58-127-66; consisting of 22.7 acres more or less.

being the same lands acquired by the Lessor from Raymond V. Goodwin, by virtue of deed dated April 3, 2008, and recorded at Deed, Control No. 200804113 of the Deed Records of Bradford County, Pennsylvania, on April 7, 2008.

INDIVIDUAL ACKNOWLEDGEMENT

Commonwealth Of Pennsylvania

County Of Dauphin

On this, the 10<sup>th</sup> 9<sup>th</sup> day of November, 2009, before me Drake D Nicholas, the undersigned ~~officer~~ receiver, personally appeared Manzek Land Company, By Its receiver, known to me (or satisfactorily proven) to be the person whose names is/are subscribed to within the instrument, and acknowledged that he/she/they executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Judith L. Krape, Notary Public  
City Of Harrisburg, Dauphin County  
My Commission Expires Oct. 14, 2011  
Member, Pennsylvania Association of Notaries

Judith L. Krape  
Notary Public  
Printed Name: Judith L. Krape  
My Commission Expires: 10/14/2011

CORPORATE ACKNOWLEDGEMENT

State / Commonwealth of \_\_\_\_\_

County Of \_\_\_\_\_

On this, the \_\_\_\_ day of \_\_\_\_\_, before me, \_\_\_\_\_, the undersigned officer, personally appeared \_\_\_\_\_, who acknowledged himself / herself to be the \_\_\_\_\_ of Fortuna Energy Inc., a corporation, and that as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of said corporation by himself/herself as such officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

\_\_\_\_\_  
Notary Public  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

PARTNERSHIP ACKNOWLEDGEMENT

Commonwealth Of Pennsylvania

County Of \_\_\_\_\_

On this, the \_\_\_\_ day of \_\_\_\_\_, before me, \_\_\_\_\_, the undersigned officer, personally appeared \_\_\_\_\_, a \_\_\_\_\_ partner, of \_\_\_\_\_, and acknowledged that he executed the same as an act of the partnership.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

\_\_\_\_\_  
Notary Public  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

Acknowledgement Page to an Oil and Gas Lease dated the 23<sup>rd</sup> day of October, 2009 between Manzek Land Company and Fortuna Energy Inc.

DIRECTION TO PAY

The above named Lessor hereby directs the above named Lessee that all payments due to Lessor under the foregoing Lease shall be paid to

DON

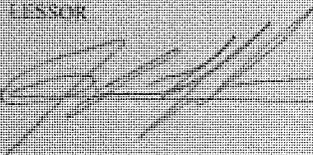
Manzek Land Company

~~Attention: Drake D. Nicholas, Receiver~~

~~Address: Pennsylvania 17004~~ One South Market Square, 12<sup>th</sup> Floor, Harrisburg, PA. 17108

The foregoing direction may be changed only by Lessor in writing:

LESSOR

  
Witness

Witness

(Seal)

(Seal)

(Seal)

Manzek Land Company



By its Receiver, Drake A. Nicholas

LESSEE:

Fortuna Energy Inc.

Per:



James F. O'Driscoll  
President

Name / Title: