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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Jim Justice, Governor  
Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

JAY-BEE OIL & GAS, INC.  
1720 RT. 22 E

UNION, NJ 070830000


Re: Permit Modification Approval for P2S6  
47-073-02566-00-00

Extend Horizontal

JAY-BEE OIL & GAS, INC.

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin  
Chief

Operator's Well Number: P2S6  
Farm Name: MORGAN VALLEY FARMS  
U.S. WELL NUMBER: 47-073-02566-00-00  
Horizontal 6A / New Drill  
Date Issued: 8/4/2017

Promoting a healthy environment.

08/04/2017

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**WELL WORK PERMIT APPLICATION**

1) Well Operator: Jay-Bee Oil & Gas, Inc. 24610 Pleasants Union Ben's Run 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: P2S6 Well Pad Name: P2

3) Farm Name/Surface Owner: Morgan Valley Farms Public Road Access: Beech Run Rd / CR 36

4) Elevation, current ground: 722.5' Elevation, proposed post-construction: 712.2'

5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_

Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_

Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus, Target Depth 5700', 41-60' thick, 3500# pressure

8) Proposed Total Vertical Depth: 5,700'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14,371'

11) Proposed Horizontal Leg Length: 7,259'

12) Approximate Fresh Water Strata Depths: 110'

13) Method to Determine Fresh Water Depths: Middle Island Creek

14) Approximate Saltwater Depths: 955'

15) Approximate Coal Seam Depths: N/A

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes \_\_\_\_\_ No

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_

Depth: \_\_\_\_\_

Seam: \_\_\_\_\_

Owner: \_\_\_\_\_

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18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<b>Size (in)</b>	<b>New or Used</b>	<b>Grade</b>	<b>Weight per ft. (lb/ft)</b>	<b>FOOTAGE: For Drilling (ft)</b>	<b>INTERVALS: Left in Well (ft)</b>	<b>CEMENT: Fill-up (Cu. Ft.)/CTS</b>
Conductor	16	New	J55	40	30'	30'	8.22 CTS
Fresh Water	11 3/4	New	J55	32	300'	300'	142.25 CTS
Coal							
Intermediate	8 5/8	New	J55	24	2,000'	2,000'	508.43 CTS
Production	5 1/2	New	P110	17	14,371'	14,371'	2,317 CF1000' from surface
Tubing	N/A						
Liners	N/A						

<b>TYPE</b>	<b>Size (in)</b>	<b>Wellbore Diameter (in)</b>	<b>Wall Thickness (in)</b>	<b>Burst Pressure (psi)</b>	<b>Anticipated Max. Internal Pressure (psi)</b>	<b>Cement Type</b>	<b>Cement Yield (cu. ft./k)</b>
Conductor	16	17 1/2	.495	3,000#	50	Class A	1.19
Fresh Water	11 3/4	15	.333	1,500#	1,000	Class A	1.26
Coal							
Intermediate	8 5/8	11	.264	2,950#	1,500	Class A	1.45
Production	5 1/2	7 7/8	.304	15,000#	2,500	Type 1 Cement	1.34
Tubing	N/A						
Liners	N/A						

**PACKERS**

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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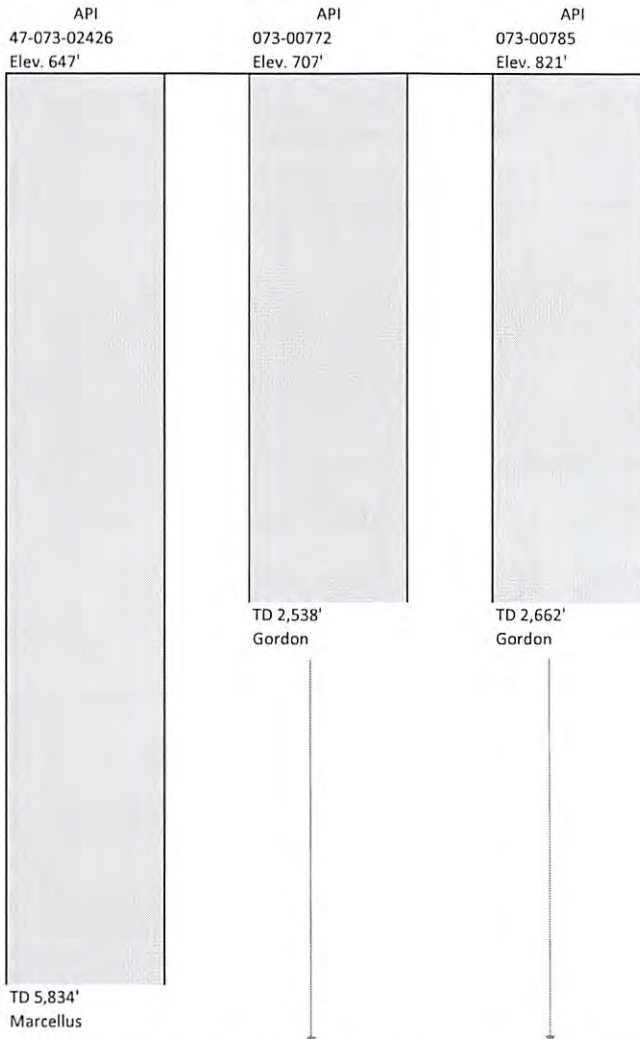
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WV Department of  
Environmental Protection

4707302566 MOD

Area of Review

P2S6 - 47-073-02566 (Updated 8-1-2017)



Operator	Triad Hunter		Security Gas & Oil Co., Inc	Security Gas & Oil Co., Inc
Well Name	Lanford 508		Robert Butcher 3	Robert Butcher 1
Perforated Formations	Marcellus		Gordon	Gordon
Unperforated Producing Formations	Elk		Gordon	Gordon
	Alexander		Gantz	Gantz
	Benson		Berea	Berea
	Riley		Weir	Weir
	Speechley		Big Injun	Big Injun
	Warren		Keener	Keener
	Gordon		Big Lime	Big Lime
	Gantz		Maxon	Maxon
	Berea		Big Dunkard	Big Dunkard
	Weir		Little Dunkard	Little Dunkard
	Big Injun		Cow Run	Cow Run
	Keener			
	Big Lime			
	Maxon			
	Big Dunkard			
	Little Dunkard			
Cow Run				

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**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
P7220 (D)	Morgan Valley Farms	BB Land, LLC	12.5%	307-490
P7251	Lori Jean Barbarow	BB Land, LLC	12.5%	259-482
P7221 (Z,Y)	Triad Hunter, LLC	BB Land, LLC	12.5%	270-266
P7221A	Francis Kaess	BB Land, LLC	12.5%	309-499
P7214	Morgan Valley Farms	BB Land, LLC	12.5%	307-487
P7215	Rodney Ray Holmes	BB Land, LLC	12.5%	306-025
P7065,P7066(V)	Ridgetop Capital	BB Land, LLC	12.5%	294-254
PA101	John & Edith Smith	BB Land, LLC	12.5%	At Recorder

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

Affidavit BB Land, LLC Jay-Bee Oil & Gas, Inc,

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Jay-Bee Oil & Gas, Inc  
By: Shane Dowell  
Its: Office Manager

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**ACREAGE TRADE AGREEMENT**

THIS AGREEMENT ("Agreement") is made and entered into effective April 21, 2017, hereinafter the "Effective Date", by and between **Antero Resources Corporation**, whose address is 1615 Wynkoop Street, Denver, CO 80202, hereinafter referred to as "Antero", and Jay-Bee Production Company, **Jay Bee Exploration I, LLC, JB Exploration I, LLC, JBU, LLC and Jay-Bee Royalty, LLC, BB Land, LLC** whose address is 3570 Shields Hill Road, Cairo, WV 26337, hereinafter referred to as "Jay Bee", for and in consideration of the mutual covenants herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged. Antero and Jay Bee are sometimes referred to together herein as the "Parties", and individually as a "Party". The terms and conditions of this Agreement are as follows:

WHEREAS, Antero has interest in certain oil and gas leases, which interests are described in more detail on Exhibit "A" attached hereto (the "Antero Leases") and Jay Bee has interest in certain oil and gas leases and fee mineral assets, which interests are described in more detail on Exhibit "B" attached hereto (the "Jay Bee Leases" and "Jay Bee Fee Assets"). The Antero Leases and the Jay Bee Leases are sometimes referred to collectively as the "Oil and Gas Leases" and individually as an "Oil and Gas Lease". The Jay Bee Fee Assets are sometimes referred to collectively as the "Fee Assets" and individually as a "Fee Asset". The Parties desire to make an exchange of the Oil and Gas Leases and Fee Assets insofar and only insofar as they pertain to the those geologic formations lying from the top of the Rhinestreet formation to one hundred feet (100') below the top of the Trenton formation (such depths and formations hereinafter referred to as the "Target Rights"). The geologic formations covered by the Oil and Gas Leases and Fee Assets other than the Target Rights are hereinafter referred to as the "Retained Rights".

**I. PURPOSE**

The purpose of this Agreement is for Antero and Jay Bee to make an exchange of the Oil and Gas Leases and the Fee Assets, insofar and only insofar as to the Target Rights, in accordance with the terms and conditions of this Agreement.

- Antero will assign to Jay Bee the Antero Leases (only as to the Target Rights) covering approximately 595.2818 net acres in Pleasants and Tyler Counties, West Virginia
- Jay Bee will assign to Antero the Jay Bee Leases (only as to the Target Rights) covering approximately 339.9987 net acres in Pleasants County, West Virginia
- Jay Bee will lease to Antero the Jay Bee Fee Assets (only as to the Target Rights) covering approximately 51.407 net acres in Pleasants and Tyler Counties, West Virginia

The Parties agree that the acreage exchanged at Closing will be equal on an NRI Acreage basis. "NRI Acreage" or "NRI Acre" means, as computed separately with respect to each Oil and Gas Lease or Fee Asset, the net acreage covered by such Oil and Gas Lease or Fee Asset, multiplied by (a) the transferring Party's net revenue interest in such Oil and Gas Lease or (b) the net revenue interest in the new Antero leasehold rights to be created pursuant to this Agreement for such Fee Asset, as applicable.

**II. EXHIBITS**

- A. Schedule of Antero Leases
- B. Schedule of Jay Bee Leases and Jay Bee Fee Assets
- C. Map of Antero and Jay Bee lands
- D. Form of Assignment
- E. Form of Lease
- F. Antero Leasehold Dedications
- G. Jay Bee Leasehold Dedications

**III. EXCHANGE OF ACREAGE**

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- A. Simultaneous Transfer at Closing. On the Closing Date set forth herein, the Parties shall simultaneously deliver and execute the following leases and assignments:
- (1) Pursuant to the form of assignment attached hereto as Exhibit "D" (as to the Antero Leases) Antero shall grant, transfer, assign and convey to Jay Bee the Antero Leases shown on Exhibit "A", but only as to the Target Rights.
  - (2) Pursuant to (i) the form of assignment attached hereto as Exhibit "D" (as to the Jay Bee Leases) and (ii) the form of lease attached hereto as Exhibit "E" (as to the Jay Bee Fee Assets), Jay Bee shall lease, grant, transfer, assign and convey to Antero the Jay Bee Leases and Jay Bee Fee Assets shown on Exhibit "B", but only as to the Target Rights.
- B. Closing. The date of closing ("Closing Date") shall be July 14, 2017, or at such other time as mutually agreed upon by and between the Parties hereto.
- C. Exchange. The Exchange made by the Parties on the Closing Date shall be the simultaneous delivery of assignments and leases on the forms set forth in Article III.A., above.

#### IV. TITLE EXAMINATION

- A. Due Diligence Period; Access to Title and Other Information. The "Due Diligence Period" is that period of time commencing with the Effective Date and continuing until fourteen (14) days before the Closing Date. Each Party shall make available at its offices (or such other place as may be mutually agreeable, including sending copies and or/scans) to the other applicable Party and its representatives its Oil and Gas Lease and Fee Asset files and all other lease information relating to the acquisition, title and maintenance of the Oil and Gas Leases and Fee Assets such as ownership, encumbrance or contract records (not including those contracts or agreements recited on Exhibit F and G, pertaining to leasehold and/or acreage dedication) including all title opinions, well records, production records, surface use agreements in its possession. No Party shall be obligated to perform any title work, including making current any abstracts or title opinions.
- B. Title Defects. For purposes of this Agreement, any Oil and Gas Lease or Fee Asset shall be deemed to be encumbered by a "Title Defect" with respect to the assigning Party if any one or more of the following statements is true:
- (1) the net mineral acreage subject to such Oil and Gas Lease or the Fee Asset is less than the net mineral acreage which is set forth on Exhibit "A" or Exhibit "B", as the case may be, for such Oil and Gas Lease or Fee Asset;
  - (2) the net revenue interest for such Oil and Gas Lease or Fee Asset is less than the net revenue interest which is set forth on Exhibit "A" or Exhibit "B", as the case may be, for such Oil and Gas Lease or Fee Asset;
  - (3) the assigning Party's title to such Oil and Gas Lease or Fee Asset is not free and clear of all liens, encumbrances, charges, adverse claims, burdens and defects that may adversely affect the ownership, development, operation or value of the Oil and Gas Lease or Fee Asset;
  - (4) the assigning Party is in default under some material provision of such Oil and Gas Lease or Fee Asset including, but not limited to, any failure to tender bonus or other consideration payable thereunder;
  - (5) the assigning Party's title to such Oil and Gas Lease or Fee Asset is or would be insufficient against competing claims of bona fide purchasers for value without notice and other persons entitled to protection of applicable recording laws;

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- (6) the term of such Oil and Gas Lease is shorter than that described in Exhibit "A" or Exhibit "B", as the case may be;
- (7) the location of the lands is different than those described in Exhibit "A" or Exhibit "B", as the case may be;
- (8) such Oil and Gas Lease is not valid, subsisting, in full force and effect and fully enforceable under its terms and conditions;
- (9) the Target Rights associated with such Oil and Gas Lease or Fee Asset do not cover those geologic formations lying from the top of the Rhinestreet formation to 100' below the top of the Onondaga formation ("Marcellus Depths");
- (10) the Target Rights associated with such Oil and Gas Lease or Fee Asset do not cover those geologic formations lying from 100' below the top of the Onondaga formation to 100' below the top of the Trenton formation ("Utica Depths");

C. Notice of Title Defects. Upon discovery of any Title Defect, the acquiring Party shall notify the assigning Party in writing of the nature and extent of, and number of NRI Acres affected by said defect. Any Title Defect not brought to an assigning Party's attention on or before close of business at 5:00 P.M. Mountain Time, on the last day of the Due Diligence Period shall be deemed waived by the acquiring Party for all purposes. An assigning Party may elect to cure any Title Defect to the reasonable satisfaction of the acquiring Party; provided that all such curative is accomplished at least five (5) days prior to the Closing Date. An Oil and Gas Lease or Fee Asset that is asserted to be subject to a Title Defect is referred to herein as a "Defective Asset".

D. Remedies for Title Defects.

In the event of any Title Defect affecting an Oil and Gas Lease or Fee Asset not timely cured to the reasonable satisfaction of the acquiring Party, the acquiring Party shall have the unilateral right to:

- (1) extend the Closing Date for ten (10) days in order to allow the assigning Party additional time in which to cure the Title Defect to the acquiring Party's satisfaction, or
- (2) proceed with the Closing without such Title Defect being cured to the acquiring Party's satisfaction and accept the Defective Asset in the Closing, or
- (3) exclude the Defective Asset(s) and reduce the NRI Acreage to be assigned by the acquiring Party at Closing by the amount of NRI Acreage in the Defective Asset(s).

Failure to timely elect by the acquiring Party shall be deemed an election under Paragraph D. (3). Notwithstanding, and in addition to, any election of the acquiring Party with respect to any uncured Title Defects prior to such Closing, the Parties shall proceed with the acreage reconciliation process set forth in Section IV.E below.

E. Acreage Reconciliation. The Parties acknowledge and agree that the goal of the transactions contemplated in this Agreement upon consummation of the Closing is for Antero, on the one hand, and Jay Bee, on the other, to assign and to acquire (i) equal amounts of NRI Acreage, as to the Marcellus Depths, and (ii) equal amounts of NRI Acreage, as to the Utica Depths. Therefore, immediately after the end of the Due Diligence Period, and taking into account any elections of an acquiring Party under Section IV.D, the Parties shall calculate the total NRI Acreage (i) for the Jay Bee Leases assigned and Jay Bee Fee Assets leased at Closing covering the Marcellus Depths (the "Total Jay Bee Marcellus NRI Acreage"), (ii) for the Jay Bee Leases assigned and Jay Bee Fee Assets leased at Closing covering the Utica Depths (the "Total Jay Bee Utica NRI Acreage").

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NRI Acreage”), (iii) for the Antero Leases assigned at Closing covering the Marcellus Depths (the “Total Antero Marcellus NRI Acreage”), and (iv) for the Antero Leases assigned at Closing covering the Utica Depths (the “Total Antero Utica NRI Acreage”). If the total NRI Acreage to be exchanged at Closing is not equal the Parties shall reconcile as outlined below:

- (1) If the Total Jay Bee Marcellus NRI Acreage is less than the Total Antero Marcellus NRI Acreage there shall be a “Marcellus Shortfall,” Antero shall be the “Marcellus Overage Party” and Jay Bee shall be the “Marcellus Shortfall Party.” If the Total Antero Marcellus NRI Acreage is less than the Total Jay Bee Marcellus NRI Acreage there shall also be a “Marcellus Shortfall,” Jay Bee shall be the “Marcellus Overage Party” and Antero shall be the “Marcellus Shortfall Party.” Prior to the Closing, the Marcellus Shortfall Party shall select, in its sole discretion, the Oil and Gas Lease(s) and/or Fee Assets (or portions thereof) covering the Marcellus Depths owned by the Marcellus Overage Party and otherwise subject to the Closing that shall be excluded from the Closing in order to equalize (to the greatest extent possible) the Total Jay Bee Marcellus NRI Acreage and the Total Antero Marcellus NRI Acreage; provided that the Marcellus Shortfall Party may not select to exclude acreage comprising less than the entirety of any tax map parcel. If, after completion of the reconciliation process set forth in the immediately preceding sentence, the remaining Marcellus Shortfall, if any, still exceeds twenty (20) NRI Acres, then the Parties shall work together in good faith prior to the Closing to reduce the remaining Marcellus Shortfall to no more than twenty (20) NRI Acres. Once the remaining Marcellus Shortfall, if any, is less than twenty (20) NRI Acres, the Marcellus Overage Party may elect, in its sole discretion, to reduce the net revenue interest delivered on any Oil and Gas Lease or Fee Asset owned by the Marcellus Overage Party by reserving an overriding royalty interest in any such Oil and Gas Lease or increasing the landowner’s royalty in the lease covering such Fee Asset, as applicable, thereby reducing the NRI Acres conveyed by the Marcellus Overage Party, provided however, that in no event shall the net revenue interest delivered be below 81% on any such Oil and Gas Lease or Fee Asset conveyed or leased by the Marcellus Overage Party. Any overriding royalty interest reserved or land owner royalty owned by either party shall have a maximum deduction of 30 cents per dthm for any and all fees. If, following completion of the process set forth in the two immediately preceding sentences, a Marcellus Shortfall still remains, the Parties shall proceed to Closing, whereupon the Marcellus Shortfall Party as of Closing shall have the obligation, prior to six (6) months after Closing, to assign to the Marcellus Overage Party free of cost, and on the same terms and conditions as this Agreement, additional NRI Acres covering the Marcellus Depths, acceptable to the Marcellus Overage Party in its reasonable discretion, in the amount equal to the Marcellus Shortfall existing as of Closing.
- (2) If the Total Jay Bee Utica NRI Acreage is less than the Total Antero Utica NRI Acreage there shall be a “Utica Shortfall,” Antero shall be the “Utica Overage Party” and Jay Bee shall be the “Utica Shortfall Party.” If the Total Antero Utica NRI Acreage is less than the Total Jay Bee Utica NRI Acreage there shall also be a “Utica Shortfall,” Jay Bee shall be the “Utica Overage Party” and Antero shall be the “Utica Shortfall Party.” Prior to the Closing, the Utica Shortfall Party shall select, in its sole discretion, the Oil and Gas Lease(s) and/or Fee Assets (or portions thereof) covering the Utica Depths owned by the Utica Overage Party and otherwise subject to the Closing that shall be excluded from the Closing in order to equalize (to the greatest extent possible) the Total Jay Bee Utica NRI Acreage and the Total Antero Utica NRI Acreage; provided that the Utica Shortfall Party may not select to exclude acreage comprising less than the entirety of any tax map parcel. If, after completion of the reconciliation process set forth in the immediately preceding sentence, the remaining Utica Shortfall, if any, still exceeds twenty (20) NRI Acres, then the Parties shall work together in good faith prior to the Closing to reduce the remaining Utica Shortfall to no more than twenty (20) NRI Acres. Once the remaining Utica Shortfall, if any, is less than twenty (20) NRI Acres, Utica Overage Party may elect, in its sole discretion, to reduce the net revenue interest delivered on any Oil and Gas Lease or Fee Asset

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owned by the Utica Overage Party by reserving an overriding royalty interest in any such Oil and Gas Lease or increasing the landowner's royalty in the lease covering such Fee Asset, as applicable, thereby reducing the NRI Acres conveyed by the Utica Overage Party, provided however, that in no event shall the net revenue interest delivered be below 81% on any such Oil and Gas Lease or Fee Asset conveyed or leased by the Utica Overage Party. Any overriding royalty interest reserved or land owner royalty owned by either party shall have a maximum deduction of 30 cents per dthm for any and all fees. If, following completion of the process set forth in the two preceding sentences, a Utica Shortfall still remains, the Parties shall proceed to Closing, whereupon the Utica Shortfall Party as of Closing shall have the obligation, prior to six (6) months after Closing, to assign to the Utica Overage Party free of cost, and on the same terms and conditions as this Agreement, additional NRI Acres covering the Utica Depths, acceptable to the Utica Overage Party in its reasonable discretion, in the amount equal to the Utica Shortfall existing as of Closing.

#### V. RIGHT OF TERMINATION

The acquiring Party shall have the right, but not the obligation, to terminate this Agreement if the Defective Assets pertaining to Title Defects asserted by the acquiring Party, that have not been timely cured to the reasonable satisfaction of the acquiring Party prior to Closing, exceed 100 NRI Acres of Marcellus Depths.

#### VI. REPRESENTATIONS AND WARRANTIES

A. Special Warranty. Assignments under this Agreement exchanged between Antero and Jay Bee shall be on the form attached hereto as Exhibit "D". Leases under this Agreement granted to Antero by Jay Bee shall be on the form attached hereto as Exhibit "E". The Parties shall also provide such other supporting documents as may be necessary or convenient to affect the transfer of interest contemplated herein. The transferring Party specially warrants title against claims of persons claiming by, through or under the transferring Party only, but not otherwise, and with no other warranty of title, either express or implied. Any assignment or lease hereafter executed shall specifically refer to, and be made subject to, the terms and conditions hereof. Furthermore, the Parties represent and warrant that the Oil and Gas Leases and Fee Assets scheduled to be transferred or leased hereunder are not subject to any dedications to gas marketing or transportation contracts not set forth on Exhibit F or Exhibit G attached hereto.

B. Antero represents and warrants to Jay Bee the following:

Except as set forth on Exhibit F, the Antero Leases are not bound by any material agreements or subject to any monetary or in kind through-put fees or charges in connection with processing, gathering or transportation; and the Antero Leases are not bound by futures, hedge, swap, collar, put, call, floor, cap, option or other material contracts.

C. Jay Bee represents and warrants to Antero the following:

Except as set forth on Exhibit G, the Jay Bee Leases or Jay Bee Fee Assets are not bound by any material agreements or subject to any monetary or in kind through-put fees or charges in connection with processing, gathering or transportation; and the Jay Bee Leases or Jay Bee Fee Assets are not bound by futures, hedge, swap, collar, put, call, floor, cap, option or other material contracts.

#### VII. RETAINED RIGHTS

A. Concurrent Surface Use and Subsurface Easement. To the extent the surface of the Fee Assets or the lands covered by the Oil and Gas Leases are owned by a Party within this Agreement, such Party grants to the other Party the right of concurrent access and use of the surface. To the extent the Retained Rights in the Fee Assets or the lands covered by

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the Oil and Gas Leases are owned by a Party within this Agreement, such Party grants to the other Party the right to drill through the Retained Rights to the extent necessary for the other Party to explore, and develop the Target Rights conveyed to the such Party pursuant to this Agreement. The Parties within this Agreement agree to cooperate in good faith in the exercise of the rights granted under this Paragraph VII.A. so as to not unreasonably interfere with the operations of the other Party, provided however, that in the event of a conflict, the operations of the Party owning the Target Rights shall take precedence over the Party owning the surface or Retained Rights.

- B. Take Over Right. Jay Bee shall use all commercially reasonable efforts to ensure that any Jay Bee Leases that are held in force by production from the Retained Rights, continue to be so held. In the event that any well on the Jay Bee Leases (or lands pooled therewith) drilled to or producing from the Retained Rights is not capable of producing oil and/or gas in paying quantities, or ceases to produce oil and/or gas in paying quantities, and such well is the only well capable of production in paying quantities on the respective Jay Bee Lease, and Jay Bee desires to plug and abandon such well, then Jay Bee shall provide written notice (the "Abandonment Notice") to Antero at least thirty (30) days prior to the anticipated plugging and abandonment of such well in order to permit Antero the option, in its sole discretion, to take over operation of such well. In the event that Antero desires to take over the operation of such well, then Antero shall provide written notice (the "Take Over Notice") to Jay Bee within thirty (30) days of receiving such Abandonment Notice applicable thereto. Promptly following such receipt of such Take Over Notice, Jay Bee shall assign to Antero, free and clear of all encumbrances created by Jay Bee, all of its right, title and interest in such well pursuant to a mutually agreeable form of assignment containing no warranties except for a special warranty of title by, through and under Jay Bee. If Antero takes over the operations of any such well, then they agree to add such well to their bond, plug and abandon such well and reclaim, restore and clean up the drillsite location and access routes associated therewith in accordance with all applicable laws and the terms of the applicable Oil and Gas Lease. If Antero elects not to take over the operations of such well within the time period specified, then Jay Bee agrees to plug and abandon such well and reclaim, restore and clean up the drillsite location and access routes associated therewith in accordance with all applicable laws and the terms of the applicable Oil and Gas Lease.

#### VIII. MISCELLANEOUS

- A. Titles for Convenience Only. The headings used in this Agreement are inserted for convenience only and shall be disregarded in construing this Agreement.
- B. Severability. It is the intent of the Parties that the provisions contained in this Agreement shall be severable. Should the whole or any portion of a condition be held void or invalid, as a matter of law, such holding shall not affect other portions thereof which can be given effect without the invalid or void portion.
- C. Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the Parties hereto and to their respective legal representatives, successors and assigns.
- D. Compliance With Laws And Regulations. The Parties shall each comply with all laws, rules and regulations of government authority in its operations hereunder.
- E. Governing Law. This Agreement shall be governed by, construed, interpreted and applied in accordance with the laws of the State of West Virginia excluding any choice of law rules which would refer the matter to the laws of another jurisdiction.
- F. Equality of Exchange. Each Party acknowledges that the Parties intend to effectuate a simultaneous tax-deferred exchange transaction pursuant to Section 1031 of the Internal Revenue Code and Section 1.1031 of the Treasury Regulations. Jay Bee intends to treat the Jay Bee Leases and Jay Bee Fee Assets as its relinquished (disposition) property and to treat the Antero Leases as its replacement (acquisition) property. Antero intends to treat the Antero Leases as its relinquished (disposition) property and to treat the Jay Bee Leases and Jay Bee Fee Assets as its replacement (acquisition) property. Each Party's rights, title and interest (but not obligations) pursuant to this Agreement will be assigned

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to the other Party for the purpose of completing a simultaneous tax-deferred exchange transaction. Each Party agrees that the Jay Bee Leases, Jay Bee Fee Assets and the Antero Leases are like-kind property, that the property transferred by each Party and the property received by each Party will be held for productive use in a trade or business or for investment and that the property transferred by each Party and the property received by each Party is not property held primarily for sale. Each Party agrees to the Equality of Exchange and that there is no property being exchanged (e.g., cash) that does not meet the tax-deferred exchange treatment accorded by Section 1031 (e.g., taxable boot). Notwithstanding the foregoing, no Party makes any representation or warranties as to any particular tax treatment that may be afforded to the other Party by reason of such exchange transaction (or any actions taken in connection therewith), and no Party shall be responsible in any way for the other Party's compliance or noncompliance with Section 1031 of the Internal Revenue Code and the Treasury Regulations promulgated thereunder.

- G. Notices. Any notice given hereunder shall be in writing and shall be delivered personally by electronic mail, or by registered or certified mail, postage prepaid to the Parties at the following addresses during normal business hours:

FIRST PARTY:

Antero Resources Corporation  
Attn: Houston Eagleston (heagleston@anteroresources.com)  
1615 Wynkoop St.  
Denver, CO 80202

SECOND PARTY:

Jay Bee Exploration I, LLC  
Attn: Randy Broda (rbroda@jaybeoil.com)  
3570 Shields Hill Road  
Cairo, WV 26337

And

Jay Bee Exploration I, LLC  
Attn: Debbie Morgan (dmorgan@jaybeoil.com)  
1720 Route 22 East  
Union, NJ 07083

Each Party may change its address at any time and from time to time by giving written notice to the other Parties. An acknowledged electronic mail message may also be construed as notice.


- H. Title Opinions. Antero agrees to provide Jay Bee with copies of any certified title work done for any of the Jay Bee Fee Assets leased by Antero pursuant to this Agreement. Antero and Jay Bee make no representation as to the accuracy of said certified title work.
- I. Entire Agreement. This Agreement and its Exhibits constitute the entire understanding between the Parties with respect to the subject matter hereof, superseding all related negotiations, prior discussions and prior agreements and understandings. No amendment hereto shall be binding unless mutually agreed to in a written instrument specifically made subject to this Agreement.
- J. Counterpart Execution. This Agreement may be executed in a number of counterparts, each of which shall be considered an original for all purposes, but shall not be binding until fully executed by all Parties. Electronic signatures transmitted by email via .PDF format shall be considered binding.
- K. Conditions to Closing. At Closing, Antero shall deliver executed instruments satisfactory to Jay Bee permanently releasing the portions of such Antero Leases assigned pursuant to this Agreement from the agreements set forth on Exhibit F, and Jay Bee shall deliver executed instruments satisfactory to Antero permanently releasing the portions of such

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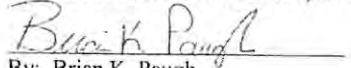
Jay Bee Leases or Jay Bee Fee Assets assigned pursuant to this Agreement from the agreements set forth on Exhibit G

IN WITNESS WHEREOF, this Agreement is executed this 21 day of April, 2017 but effective as of the date hereinabove provided.

**ANTERO RESOURCES CORPORATION**

  
By: Brian A. Kuhn  
Its: Senior Vice President- Land

**JAY BEE EXPLORATION I, LLC.**

  
By: Brian K. Paugh  
Its: Vice President-Land

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**Exhibit 'A'**

Attached hereto and made part of that certain Acreage Trade Agreement dated April 21, 2017  
by and between Antero Resources Corporation and Jay-Bee Exploration I, et al.

LeaseID	LSR ID	JB ID #	Lessor	Lessee	LeaseDate	Expiration	Term	Lease Status	Royalty	GrossAc	NetAc	State	County	District	Vol/Pg	Legal	NRI	NRI Ac
17512	17512		Hoover, Linda L.	Antero Resources Corporation	9/17/2012	9/17/2017	5 Years	Term	0.16	2.0000	0.6667	WV	Tyler	McElroy	412/599	5-11-14.1	0.8400	0.560028
18449	18449		Baker, Kay F.	Antero Resources Corporation	9/17/2012	9/17/2017	5 Years	Term	0.16	2.0000	0.6667	WV	Tyler	McElroy	415/88	5-11-14.1	0.8400	0.559994
18450	18450		Woodburn, William F., a married man	Antero Resources Corporation	10/17/2012	10/17/2017	5 Years	Term	0.16	2.0000	0.6667	WV	Tyler	McElroy	417/106	5-11-14.1	0.8400	0.559994
88627	36532		Hoover, Linda L.	Antero Resources Corporation	1/31/2014	1/31/2019	5 Years	Term	0.2	1.2397	0.0866	WV	Tyler	McElroy	458/591	5-11-13.1	0.8000	0.07084
68628	36533		Woodburn, William F.	Antero Resources Corporation	1/31/2014	1/31/2019	5 Years	Term	0.2	1.2397	0.0756	WV	Tyler	McElroy	458/563	5-11-13.1	0.8000	0.460448
63450	34819		Forester, Michelle S.	Antero Resources Corporation	2/12/2014	2/12/2019	5 Years	Term	0.18	32.2500	2.6864	WV	Tyler	McElroy	457/449	5-11-2	0.8200	2.202869
63451	34820		Seago, Kathy Ann	Antero Resources Corporation	2/12/2014	2/12/2019	5 Years	Term	0.18	32.2500	8.0625	WV	Tyler	McElroy	457/451	5-11-2	0.8200	6.61125
63452	34821		Weigle, Brian M.	Antero Resources Corporation	2/12/2014	2/12/2019	5 Years	Term	0.18	32.2500	2.6864	WV	Tyler	McElroy	457/453	5-11-2	0.8200	2.202869
63453	34822		Weigle, Steven C., II	Antero Resources Corporation	2/12/2014	8/17/1901	5 Years	Term	0.18	32.2500	2.6864	WV	Tyler	McElroy	457/455	5-11-2	0.8200	2.202869
78932	41238		Baker, Nancy Mae	Antero Resources Corporation	9/26/2014	10/17/2019	5 Years	Term	0.18	8.1700	0.3404	WV	Tyler	Ellsworth	466/708	2-26-39	0.8200	0.279136
										3.9880	0.0837	WV	Tyler	Ellsworth	2-26-43		0.8200	0.068634
61565	34277		Baker, Jerrie Francis	Antero Resources Corporation	2/26/2014	2/26/2019	5 Years	Term	0.15	24.3040	6.0760	WV	Pleasants	Union	288/275	007-12-28.3, 29	0.8500	5.1646
61566	34278		Riffle, Tina Louise	Antero Resources Corporation	2/26/2014	2/26/2019	5 Years	Term	0.15	24.3040	6.0760	WV	Pleasants	Union	299/71	007-12-28.3, 29	0.8500	5.1646
61567	34279		Rymer, Billy	Antero Resources Corporation	2/26/2014	2/26/2019	5 Years	Term	0.15	24.3040	6.0760	WV	Pleasants	Union	297/510	007-12-28.3, 29	0.8500	5.1646
61568	34280		Rymer, Bobby Joe	Antero Resources Corporation	2/26/2014	2/26/2019	5 Years	Term	0.15	24.3040	6.0760	WV	Pleasants	Union	299/73	007-12-28.3, 29	0.8500	5.1646
63055	34656		Lowther, Marvin Joe and Sandra	Antero Resources Corporation	2/20/2014	2/20/2019	5 Years	Term	0.15	12.3650	12.3650	WV	Pleasants	Union	297/499	7-12-29.1, 7-12-28.4	0.8500	10.51025
68630	36535		Coartney, Lillian Lenora	Antero Resources Corporation	6/7/2014	6/7/2019	5 Years	Term	0.15	67.7400	67.7400	WV	Pleasants	Union	299/46	007-12-1	0.8400	56.9016
69932	37096		Coartney, Terry M. & Vanessa J.	Antero Resources Corporation	6/25/2014	6/26/2019	5 Years	Term	0.16	2.7600	2.7600	WV	Pleasants	Union	299/44	007-12-1	0.8400	2.3184
71670	37812		Smith, John A. & Edith Ulrich	Antero Resources Corporation	7/29/2014	7/29/2019	5 Years	Term	0.16	212.1700	205.6913	WV	Pleasants	Union	301/674	7-11-16, 07-6-106, 106.1	0.8400	198.5807
74562	39479		Ash, Mary Rose	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	84.0900	2.5902	WV	Pleasants	Union	305/359	007-12, 2, 2.1, 2.2, 2.3	0.8200	2.123939
74563	39480		Jewell, Joyce Ann	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	84.0900	2.5902	WV	Pleasants	Union	305/363	007-12, 2, 2.1, 2.2, 2.3	0.8200	2.123939
74564	39481		Stead, Jay	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	84.0900	2.3358	WV	Pleasants	Union	300/678	007-12, 2, 2.1, 2.2, 2.3	0.8200	1.915381
74565	39482		Stead, Pat	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	84.0900	2.3358	WV	Pleasants	Union	305/499	007-12, 2, 2.1, 2.2, 2.3	0.8200	1.915381
74566	39483		Castin, Sherry	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	84.0900	2.3358	WV	Pleasants	Union	305/493	007-12, 2, 2.1, 2.2, 2.3	0.8200	1.915381
74567	39484		Smith, Otto B.	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	94.1400	5.2300	WV	Pleasants	Union	305/369	007-12, 2, 2.1, 2.2, 2.3, 3	0.8200	4.2886
74568	39485		Wells, Patrick Joseph	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	94.1400	5.8658	WV	Pleasants	Union	305/377	007-12, 2, 2.1, 2.2, 2.3, 3	0.8200	4.662385
74569	39486		Rhodes, Douglas E.	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	94.1400	5.2300	WV	Pleasants	Union	306/244	007-12, 2, 2.1, 2.2, 2.3, 3	0.8200	4.2886
74570	39487		Davis, Janice J.	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	94.1400	5.2300	WV	Pleasants	Union	305/635	007-12, 2, 2.1, 2.2, 2.3, 3	0.8200	4.288608
74571	39488		Smittle, Helena Sue	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	94.1400	5.2300	WV	Pleasants	Union	305/540	007-12, 2, 2.1, 2.2, 2.3, 3	0.8200	4.2886
74572	39489		Metz, Ruth	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	94.1400	5.2300	WV	Pleasants	Union	305/365	007-12, 2, 2.1, 2.2, 2.3, 3	0.8200	4.288592
74573	39490		Mason, Donald E.	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	87.8400	24.1678	WV	Pleasants	Union	305/534	007-12-2, 2.2, 2.3, 3	0.8200	19.81758
74574	39491		Wells, Rebecca E.	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	53.3400	2.9933	WV	Pleasants	Union	305/542	007-12-2, 2.2, 2.3, 3	0.8200	2.429931
75165	39662		Richeson, Warren E.	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	84.0900	7.0075	WV	Pleasants	Union	305/497	007-12, 2, 2.1, 2.2, 2.3	0.8200	5.74615
75166	39663		Wells, George R. & Carolyn K.	Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	0.18	94.1900	8.7756	WV	Pleasants	Union	305/501	007-12-2, 2.1, 2.2, 2.3	0.8200	7.195976
77375	40693		Barbarow, Lori Jean	Antero Resources Corporation	10/30/2014	10/30/2019	5 Years	Term	0.15	67.0000	33.5000	WV	Pleasants	Union	305/344	007-7-32, 32.3	0.8500	28.475
78902	41231		Bunner, Hazel A.	Antero Resources Corporation	11/18/2014	11/18/2019	5 Years	Term	0.15	165.0000	61.8750	WV	Pleasants	Union	/	007-11-27	0.8500	52.99375
81332	42131		Knight, Frank G. and Connie	Antero Resources Corporation	12/19/2015	12/19/2019	5 Years	Term	0.18	52.5640	21.5512	WV	Pleasants	Union	302/372	7-7-po7	0.8200	17.67198
81333	42132		Mathers Knight.	Antero Resources Corporation	12/18/2014	12/18/2019	5 Years	Term	0.18	52.5640	21.5512	WV	Pleasants	Union	302/374	7-7-po7	0.8200	17.67198
83221	43153		Conaway, Charles O.	Antero Resources Corporation	12/22/2014	12/22/2019	5 Years	Term	0.15	67.0000	8.3750	WV	Pleasants	Union	302/366	7-7-32, 7-7-32.2	0.8500	7.11875
83222	43154		Conaway-Torok, Margaret	Antero Resources Corporation	12/22/2014	12/22/2019	5 Years	Term	0.15	67.0000	8.3750	WV	Pleasants	Union	302/364	7-7-32, 7-7-32.2	0.8500	7.11875
83405	43237		Munday, William R.	Antero Resources Corporation	10/30/2014	10/30/2019	5 Years	Term	0.15	7.0000	3.5000	WV	Pleasants	Union	304/19	7-7-32.3	0.8500	2.975
83406	43238		Cain, Kimberly S.	Antero Resources Corporation	10/30/2014	10/30/2019	5 Years	Term	0.15	7.0000	3.5000	WV	Pleasants	Union	305/350	7-7-32.4	0.8500	2.975
84797	44183		Capp, John W.	Antero Resources Corporation	10/15/2014	10/15/2019	5 Years	Term	0.15	22.9625	0.5741	WV	Pleasants	Union	/	007-6-106, 106.1	0.8500	0.48796
84798	44184		Snodgrass, Alaina	Antero Resources Corporation	10/30/2014	10/30/2019	5 Years	Term	0.15	22.9625	0.5741	WV	Pleasants	Union	304/236	007-6-106, 106.1	0.8500	0.48796
84799	44185		Blakney, Lynn	Antero Resources Corporation	10/15/2014	10/15/2019	5 Years	Term	0.15	22.9625	0.5741	WV	Pleasants	Union	304/232	007-6-106, 106.1	0.8500	0.48796
84800	44186		Capp, Tillie	Antero Resources Corporation	10/15/2014	10/15/2019	5 Years	Term	0.15	22.9625	0.5741	WV	Pleasants	Union	303/372	007-6-106, 106.1	0.8500	0.48796
90228	47447		Schulberg, Arnold L.	Antero Resources Corporation	12/22/2014	12/22/2019	5 Years	Term	0.15	67.0000	16.7500	WV	Pleasants	Union	306/497	7-7-32, 7-7-32.2	0.8500	14.2375
<b>Total</b>										<b>595.2818</b>							<b>498.8268</b>	

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See Exhibit A  
See Exhibit A



**Exhibit 'B'**

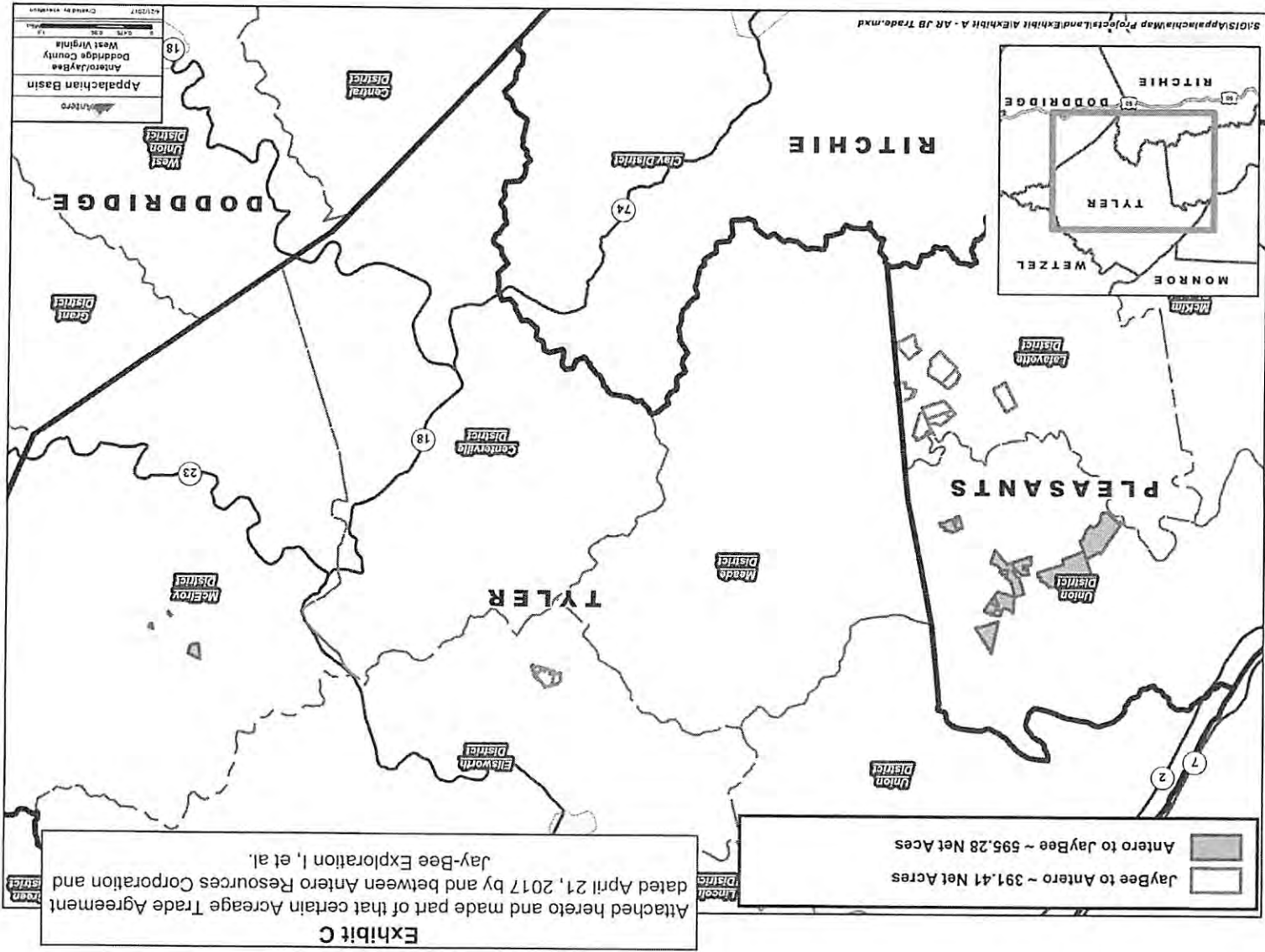
Attached hereto and made part of that certain Acreage Trade Agreement dated April 21, 2017  
by and between Antero Resources Corporation and Jay-Bee Exploration I, etal.

TRACT ID	Lessor	Lessee	Lease Date	Expiration Date	Lease Term	Lease Gross Acres	Lease NRI Acres	Lease Net Acres	NRI	Royalty	Legal	County	District
P4076	CLYDINIA R HIGGINS	BB PRODUCTION	9/5/2014	9/5/2019	5 Yrs	49.8000	60.0000	0.8300	0.1700	4-8-2	Pleasants	Lafayette	
P4068	JACK O WAUGH, JR	BB PRODUCTION	9/3/2014	9/3/2019	5 Yrs	60.0000	12.7500	15.0000	0.8500	0.1500	4-5-7	Pleasants	Lafayette
P4047	WILLOW RUN ENERGY, LLC	BB PRODUCTION	2/14/2014	2/14/2019	5 Yrs	65.2750	13.8709	16.3188	0.8500	0.1500	4-5-4	Pleasants	Lafayette
P4047	RIDGETOP CAPITAL IV, LP	BB PRODUCTION	2/7/2017	2/7/2022	5 Yrs	65.2750	9.7913	12.2391	0.8000	0.2000	4-5-4	Pleasants	Lafayette
P4048	RIDGETOP CAPITAL IV, LP	BB PRODUCTION	2/7/2017	2/7/2022	5 Yrs	30.5125	6.1025	7.6281	0.8000	0.2000	4-5-5	Pleasants	Lafayette
P4049	RIDGETOP CAPITAL IV, LP	BB PRODUCTION	2/7/2017	2/7/2022	5 Yrs	7.3000	1.4600	1.8250	0.8000	0.2000	4-5-6	Pleasants	Lafayette
P4064	EDWARD H. JR & NICOLETTE STAATS	BB PRODUCTION	8/22/2014	8/22/2019	5 Yrs	40.0000	34.0000	40.0000	0.8500	0.1500	4-8-3	Pleasants	Lafayette
P4031	BRENDA SUE DAVIS	BB PRODUCTION	8/16/2013	8/16/2018	5 Yrs	83.8700	0.6477	0.7488	0.8650	0.1350	4-8-45	Pleasants	Lafayette
P4031	CINDY RAY	BB PRODUCTION	9/10/2013	9/10/2018	5 Yrs	83.8700	0.3239	0.3744	0.8650	0.1350	4-8-45	Pleasants	Lafayette
P4031	ROBERT W NICHOLS	BB PRODUCTION	8/23/2013	8/23/2018	5 Yrs	83.8700	0.6477	0.7488	0.8650	0.1350	4-8-45	Pleasants	Lafayette
P4031	VERNICE NEELY	BB PRODUCTION	8/28/2013	8/28/2018	5 Yrs	83.8700	0.1080	0.1248	0.8650	0.1350	4-8-45	Pleasants	Lafayette
P4031	CAROLE S ARBOGAST	BB PRODUCTION	9/3/2014	9/3/2019	5 Yrs	83.8700	0.1619	0.1872	0.8650	0.1350	4-8-45	Pleasants	Lafayette
P4031	LINDA G KOPAC	BB PRODUCTION	9/2/2014	9/2/2019	5 Yrs	83.8700	0.1619	0.1872	0.8650	0.1350	4-8-45	Pleasants	Lafayette
P4031	JOYCE A LISAC	BB PRODUCTION	8/22/2014	8/22/2019	5 Yrs	83.8700	0.1619	0.1872	0.8650	0.1350	4-8-45	Pleasants	Lafayette
P4047	RICHARD J PHILLIPS	BB PRODUCTION	8/25/2014	8/25/2019	5 Yrs	83.8700	0.1619	0.1872	0.8650	0.1350	4-8-45	Pleasants	Lafayette
P4048	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	65.2750	9.9136	12.2391	0.8100	0.1900	4-5-4	Pleasants	Lafayette
P4048	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	30.5125	6.1788	7.6281	0.8100	0.1900	4-5-5	Pleasants	Lafayette
P4049	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	1.4783	1.8250	1.8250	0.8100	0.1900	4-5-6	Pleasants	Lafayette
P4044	BELLA ROSS	BB PRODUCTION	-	-	HBP	68.5000	56.1700	68.5000	0.8203	0.1800	4-8-24	Pleasants	Lafayette
P4044	BELLA ROSS	BB PRODUCTION	-	-	HBP	9.9920	8.1966	9.9920	0.8203	0.1800	4-8-24.1	Pleasants	Lafayette
P4045	CLAYTON E & JANICE CUNNINGHAM	BB PRODUCTION	5/29/1984	-	HBP	105.7500	89.6396	105.7500	0.8477	0.1553	4-8-8	Pleasants	Lafayette
T6010	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	13.0000	10.5300	13.0000	0.8100	0.1900	2-26-42	Elsworth	Tyler
T6009	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	31.7620	10.7197	13.2342	0.8100	0.1900	2-26-p043	Elsworth	Tyler
T6009A	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	6.4788	2.1866	2.6985	0.8100	0.1900	2-26-39	Elsworth	Tyler
T6009B	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	1.8750	0.6328	0.7813	0.8100	0.1900	2-26-40	Elsworth	Tyler
<b>Total</b>						<b>325.7957</b>	<b>391.4058</b>						

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July 14, 2017

JB Exploration I, LLC  
3570 Shields Hill Road  
Cairo, WV 26337

Re: Amendment to Acreage Trade Agreement dated and made effective April 21, 2017 ("Acreage Trade"), by and between Antero Resources Corporation ("Antero") and JB Exploration I, LLC ("JB").

Dear Mr. Paugh:

Antero and JB have mutually agreed to extend the closing date under the Acreage Trade to allow additional time to cure asserted defects. Therefore, Antero proposes to amend the Closing Date set forth in Paragraph III.B of that certain Acreage Trade Agreement dated April 21, 2017, from July 14, 2017 to July 21, 2017.

Additionally, Parties desire to amend Acreage Trade Agreement, as follows so as to include certain additional leases:

1. Exhibit A shall be amended to include the following lease:

COUNTY	DISTRICT	LESSOR	LEASE DATE	CONVEYED GROSS ACRES	BK	PG	CONVEYED TAX ID	CONVEYED NET ACRES	CONVEYED NRI ACRES
Pleasants	Union	John A. Smith and Edith Smith	7/28/2014	26.0	298	354	7-12-26	26.0	21.84

2. Exhibit B shall be amended to include the following lease:

COUNTY	DISTRICT	LESSOR	LEASE DATE	GROSS ACRES	BK	PG	TAX ID	NET ACRES	NRI ACRES
Doddridge	Southwest	Martha Caldwell	3/28/2006	100.04	206	372	7-13-60, 60.1	20.08	16.2648
Doddridge	Southwest	Martha Caldwell	4/1/2006	100.04	206	384	7-13-60, 60.1	" "	" "
Doddridge	Southwest	George A. Hickman	4/5/2006	100.04	206	400	7-13-60, 60.1	20.08	16.2648
Doddridge	Southwest	Mae H. Lewis	4/4/2006	100.04	206	416	7-13-60, 60.1	20.08	16.2648
Doddridge	Southwest	Claris H. Fleming	4/5/2006	100.04	206	618	7-13-60, 60.1	20.08	16.2648
Doddridge	Southwest	Claude A. Hickman	4/26/2006	100.04	207	138	7-13-60, 60.1	20.08	16.2648

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08/04/2017




Except for this amendment, all other terms and provisions of the Acreage Trade shall remain in force and effect. Capitalized terms not defined herein shall have the meaning set forth in the Acreage Trade.

If you are in agreement with the foregoing proposal, please execute this letter in the space provided below and return an executed copy of this letter at your earliest convenience. Facsimile or .pdf signatures shall be considered binding. If you have any questions, please give Houston Eagleston a call at (303) 357-6737.

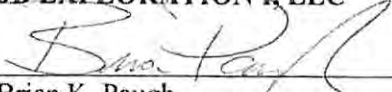
Sincerely,

**ANTERO RESOURCES CORPORATION**

  
\_\_\_\_\_  
W.J. Pierini  
Vice President- Land

AGREED AND ACCEPTED THIS 14<sup>th</sup> DAY OF JULY, 2017.

**JB EXPLORATION I, LLC**

  
\_\_\_\_\_  
Brian K. Paugh  
Vice President- Land

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08/04/2017

4707302566 MOD



**JAY-BEE OIL & GAS, INC.**

August 2, 2017

Permitting Office  
Office of Oil and Gas  
West Virginia Dept. of Environmental Protection  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

RE: P2S6 Modification

Dear Mr. Westbrook:

Please keep the attached "Acreage Trade Agreement" and "Amendment to Acreage Trade Agreement" letter confidential, as we are providing it as proof of leased acreage until we receive the recorded version of the "Acreage Trade Agreement" back. At that time, the agreement and amendment will be public information and confidentiality will no longer be required.

If you would have any questions concerning this matter, please feel free to contact our office at the numbers listed below.

Sincerely,

A handwritten signature in black ink, appearing to read "Shane Dowell". The signature is fluid and cursive.

Shane Dowell  
Office Manager

**RECEIVED  
OFFICE OF OIL AND GAS**

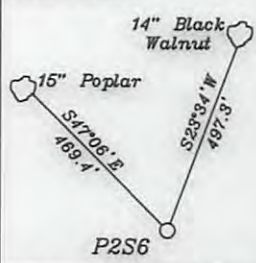
**AUG 02 2017**

3570 Shields Hill Rd, Cairo, WV 26337 • Phone 304-628-3111 • Fax 304-628-3119

**08/04/2017**

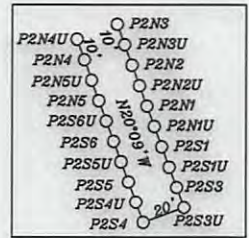


References:



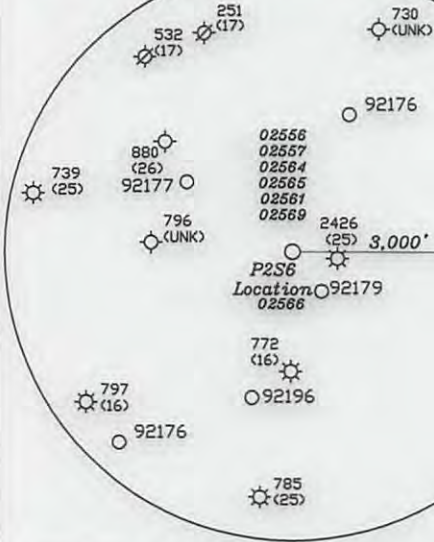
NUMBER	DIRECTION	DISTANCE
L1	S22°21'W	370'
L2	N04°38'W	573'
L3	S65°10'W	912'

----- 500' from Bore Path  
 - - - - - Final Lease Line



- A- Renner T.M. 7/32.1 2.5 Ac P7251A
- B- Barbarow T.M. 7/32.2 6.254 Ac P7251
- C- Morgan Valley Farms, Inc T.M. 7/24.2 9.13 Ac P7220
- D- Morgan Valley Farms, Inc. T.M. 7/24 27.45 Ac P7220
- E- Beech Run Church & Cemetery T.M. 7/24.1 2 Ac P7220A
- F- Bunner, et al T.M. 7/24.5 0.5 Ac P7220D
- G- Cornell T.M. 7/24.4 0.723 Ac P7220B
- H- Cemetery T.M. 12/35 P7221B
- I- Hall T.M. 12/19.1 1 Ac PA104
- J- Louther T.M. 12/29.1 1.03 Ac P7254A
- K- Louther T.M. 12/28.4 11.34 Ac P7254C
- L- Renner, et al T.M. 12/29.4 0.578 Ac
- M- Renner, et al T.M. 12/29.3 2.291 Ac
- N- Baker T.M. 12/28.3 1.102 Ac
- O- Templeton T.M. 12/28.2 2.33 Ac
- P- Murphy T.M. 12/29.2 0.177 Ac
- Q- Hamilton T.M. 12/18 42 Ac
- R- Crowe T.M. 12/28.5 21 Ac
- S- Crowe T.M. 12/28.1 3.1 Ac
- T- Hileman, et al T.M. 12/19 2 Ac PA104
- U- Wise T.M. 12/20 1.83 Ac P7065 & P7068
- V- Street T.M. 12/12.1 17 Ac P7065 & P7068
- W- Miller, et al T.M. 12/4 1.5 Ac P7221
- X- Kaess T.M. 12/39 0.64 Ac P7221A
- Y- Kaess T.M. 12/5 1 Ac P7221
- Z- Kaess T.M. 7/29&30 97.364 Ac P7221

NORTH



- AA- Wm. Munday T.M. 7/ 32.3 7 Ac P7251B
- BB- Cain T.M. 7/ 32.4 7 Ac P7251C
- CC- Parsons T.M. 7/6.2 1 Ac
- DD- Cain T.M. 7/6.1 1 Ac
- EE- Creene T.M. 7/18.1 1 Ac
- FF- Wells T.M. 12/3 10.03 Ac P7212A & B

- Notes:
- All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats, & aerial photos.
  - Ties to wells and corners are based on State Plane Grid North-WV North Zone NAD 83.
  - A spring bears S47°08'W 228.6 from this location.
  - No dwellings or buildings were found within 625' from the center of the proposed pad. No perennial stream is located within 100' of LOD. No producing trout stream located within 300' of LOD.

Top Hole  
 Geo NAD 83- 39.435383 N, 81.042563 W  
 UTM NAD 83(Meters)-4365094.17 N, 496337.05 E  
 UTM NAD 83(Feet)-14321146.45 N, 1628399.12 E  
 State Plane NAD 83(Feet)-  
 344432.63 N, 1532837.26 E

Landing Point  
 Geo NAD 83- 39.434292 N, 81.045471 W  
 UTM NAD 83(Meters)-4364973.27 N, 496086.76 E  
 UTM NAD 83(Feet)-14320749.82 N, 1627577.99 E  
 State Plane NAD 83(Feet)-  
 344049.634 N, 1532009.326 E

Bottom Hole  
 Geo NAD 83- 39.416603 N, 81.033634 W  
 UTM NAD 83(Meters)-4363009.64 N, 497104.77 E  
 UTM NAD 83(Feet)-14314307.46 N, 1630917.89 E  
 State Plane NAD 83(Feet)-  
 337550.153 N, 1535242.310 E

(+) DENDTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. 1  
 SCALE 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION GPS  
submeter unit

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) David L Jackson  
 R.P.E. \_\_\_\_\_ P.S. 708



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE May 25, 2017  
 OPERATOR'S WELL NO. P2S6  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL X GAS X LIQUID INJECTION    WASTE DISPOSAL    STATE 47 COUNTY 073 PERMIT 02566 MOD  
 (IF "GAS") PRODUCTION X STORAGE    DEEP    SHALLOW X

LOCATION: ELEVATION 712.2' WATER SHED Middle Island Creek  
 DISTRICT Union COUNTY Pleasants  
 QUADRANGLE Bens Run 7 1/2'

SURFACE OWNER Morgan Valley Farms, Inc. ACREAGE 27.451 Ac.  
 OIL & GAS ROYALTY OWNER Morgan Valley Farms, Inc. LEASE ACREAGE 08/04/2017  
 LEASE NO. P7220

PROPOSED WORK: DRILL X CONVERT    DRILL DEEPER    REDRILL    FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION    PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON    CLEAN OUT AND REPLUG     
 TARGET FORMATION Marcellus ESTIMATED DEPTH TVD = 5,700'; TMD = 14,371'  
 WELL OPERATOR Jay-Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda  
 ADDRESS 1720 Route 22 E, Union, NJ 07083 ADDRESS 3570 Shields Hill Rd., Cairo, WV 26337



**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
P7220 (D)	Morgan Valley Farms	BB Land, LLC	12.5%	307-490
P7251	Lori Jean Barbarow	BB Land, LLC	12.5%	259-482
P7221 (Z,Y)	Triad Hunter, LLC	BB Land, LLC	12.5%	270-266
P7221A	Francis Kaess	BB Land, LLC	12.5%	309-499
P7214	Morgan Valley Farms	BB Land, LLC	12.5%	307-487
P7215	Rodney Ray Holmes	BB Land, LLC	12.5%	306-025
P7065,P7068(V)	Ridgetop Capital	BB Land, LLC	12.5%	294-254
PA101	John & Edith Smith	BB Land, LLC	12.5%	At Recorder

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

Affidavit                      BB Land, LLC                      Jay-Bee Oil & Gas, Inc,

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator



The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Jay-Bee Oil & Gas, Inc *Shane Dowell*  
 By: Shane Dowell  
 Its: Office Manager

RECEIVED  
Office of Oil and Gas

JUN 29 2017

WV Department of  
Environmental Protection