



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Wednesday, August 1, 2018
WELL WORK PERMIT
Horizontal 6A / New Drill

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

UNION, NJ 070830000

Re: Permit approval for P4N5
47-073-02575-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless 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: P4N5
Farm Name: JOHN A. SMITH & EDITH U. S
U.S. WELL NUMBER: 47-073-02575-00-00
Horizontal 6A New Drill
Date Issued: 8/1/2018

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

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: P4N5 Well Pad Name: P4

3) Farm Name/Surface Owner: John A. & Edith U. Smith Public Road Access: Arvilla Rd/CR 7

4) Elevation, current ground: 982.1 Elevation, proposed post-construction: 957.2

5) Well Type (a) Gas Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow Deep _____

Horizontal _____

6) Existing Pad: Yes or No No *DWA 11/8/17*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, Target Depth 5,995', 41-60' thick, 3500# pressure

8) Proposed Total Vertical Depth: 5,995'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 17,011'

11) Proposed Horizontal Leg Length: 8,867.4'

12) Approximate Fresh Water Strata Depths: 216'

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13) Method to Determine Fresh Water Depths: API 47-073-00798

09 2017

14) Approximate Saltwater Depths: N/A

15) Approximate Coal Seam Depths: N/A

WV Department of
Environmental Protection

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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WW-6B
(04/15)

API NO. 47- _____
OPERATOR WELL NO. P4N5
Well Pad Name: P4

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
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	17,011'	17,011'	2,774 CF1000 from surface
Tubing	N/A						
Liners	N/A						

DAH JLB
11-8-17 11/8/2017

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
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						

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PACKERS

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

WW-6B
(10/14)

API NO. 47- _____
 OPERATOR WELL NO. P4N5 _____
 Well Pad Name: P4 _____

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and Stimulate a new Horizontal Well. Using a top hole rig, we will drill top hole to kick off point by drilling the conductor, freshwater and intermediate holes. Using a directional rig we will drill the production holes.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

300-350' per stage 8,500bbls of water, 150,000-400,000lbs of sand, friction reducer, 1# per gallon, scale inhibitor and bacteria prevention 1/4# per gallon 2000 gallons 15% vol acid. 77bpm @ 6500# pressure.

DMH *GEB*
11-8-17 *11/8/2017*

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 23.66

22) Area to be disturbed for well pad only, less access road (acres): 14.90

23) Describe centralizer placement for each casing string:

Vertical - Every 500' Bow Centralizer, and 50' from top of ground. Horizontal every 42' Spiral Centralizer, Curve - Every 84' Spiral Centralizer.

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24) Describe all cement additives associated with each cement type:

15" hole for the 11 3/4 fresh water case, Class A Cement, 2% Calcium Chloride, 1/4# flake.
 11" hole for the 8 5/8 intermediate base, Class A Cement, 2% Calcium Chloride
 7 7/8" hole for the 5 1/2 production case, Type1 Cement, Fly Ash, Barite, Finetol 300L, R-3 Celio Flake, Sugar, CD-32, FL-62

25) Proposed borehole conditioning procedures:

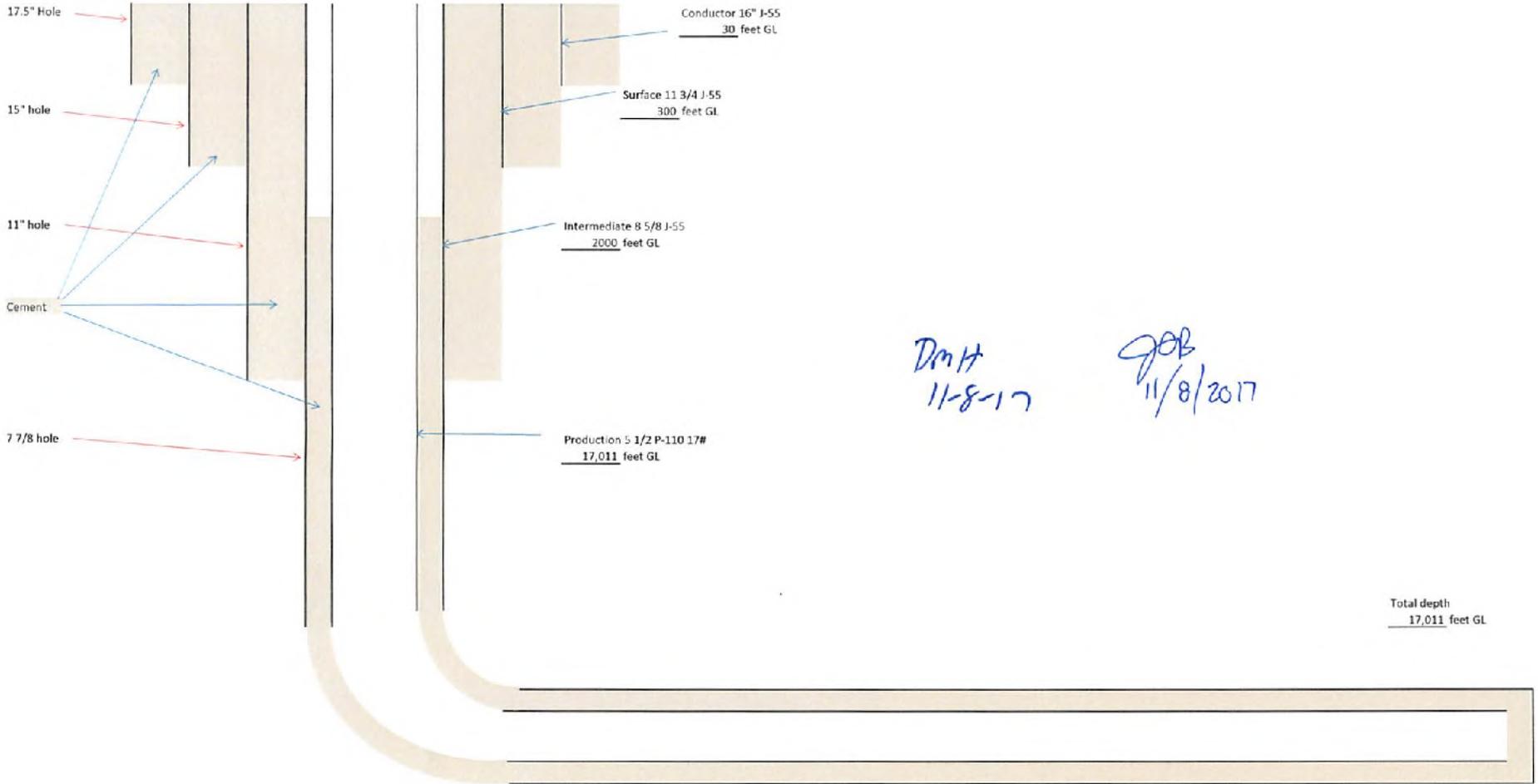
Air Hole: 15" hole for the 11 3/4 fresh water case - Circulate until clean with air. If soaping, slug then dry.
 Air Hole: 11" hole for the 8 5/8 intermediate base - Circulate until clean with air. If soaping, slug then dry.
 7 7/8" hole for the 5 1/2 production case - Circulate with mud and sweeps for two times bottoms up. If needed weight up mud until no cuttings retrieved, then circulate with mud and sweeps for two times bottoms up.

*Note: Attach additional sheets as needed.

Jay-Bee Oil & Gas Inc.
Well Name P4NS
GL Elevation 957.22
KB 14 feet

Date 11/3/2017
District Union
County Pleasants
State West Virginia

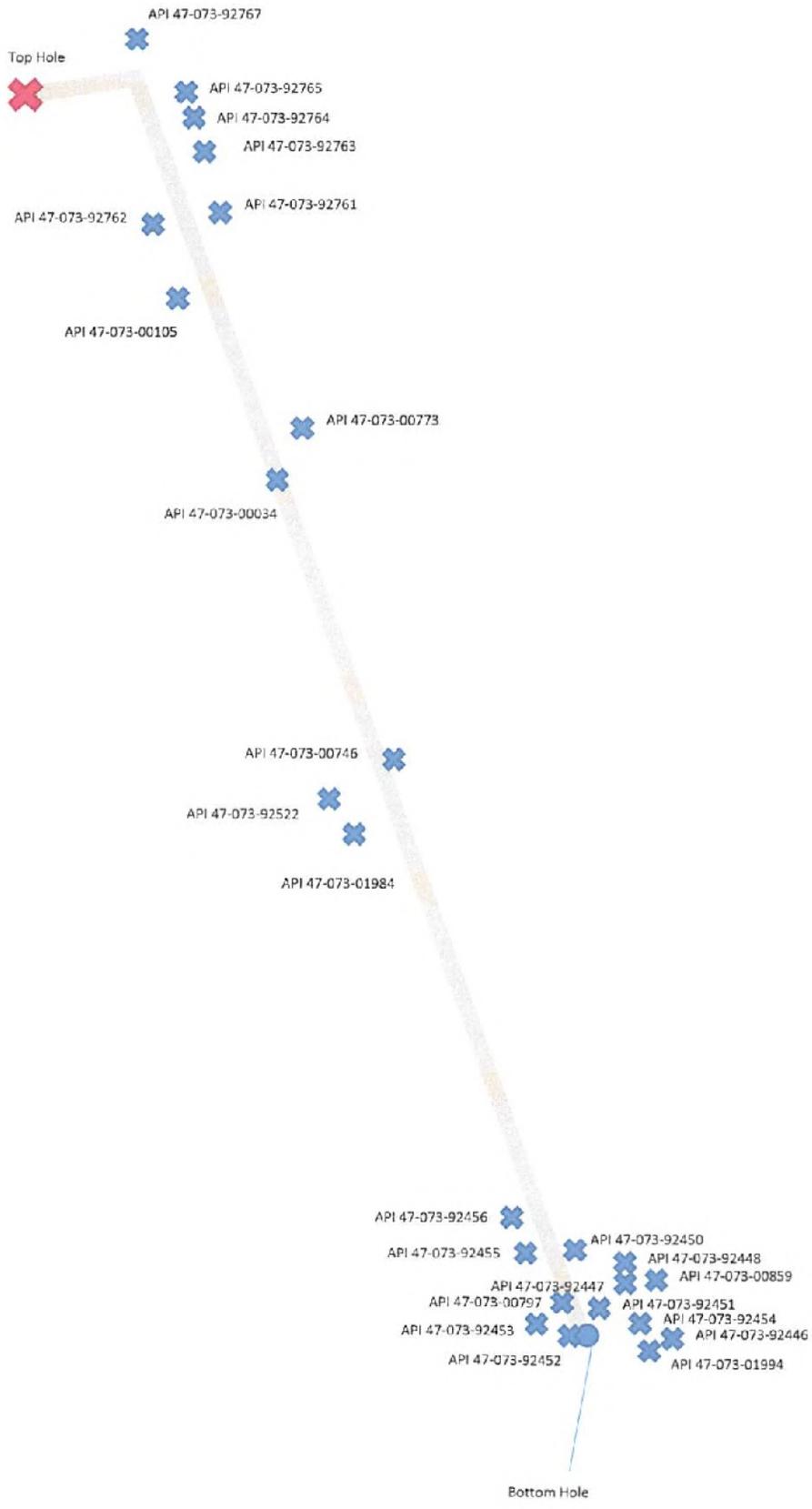
Input by: Shane Dowell



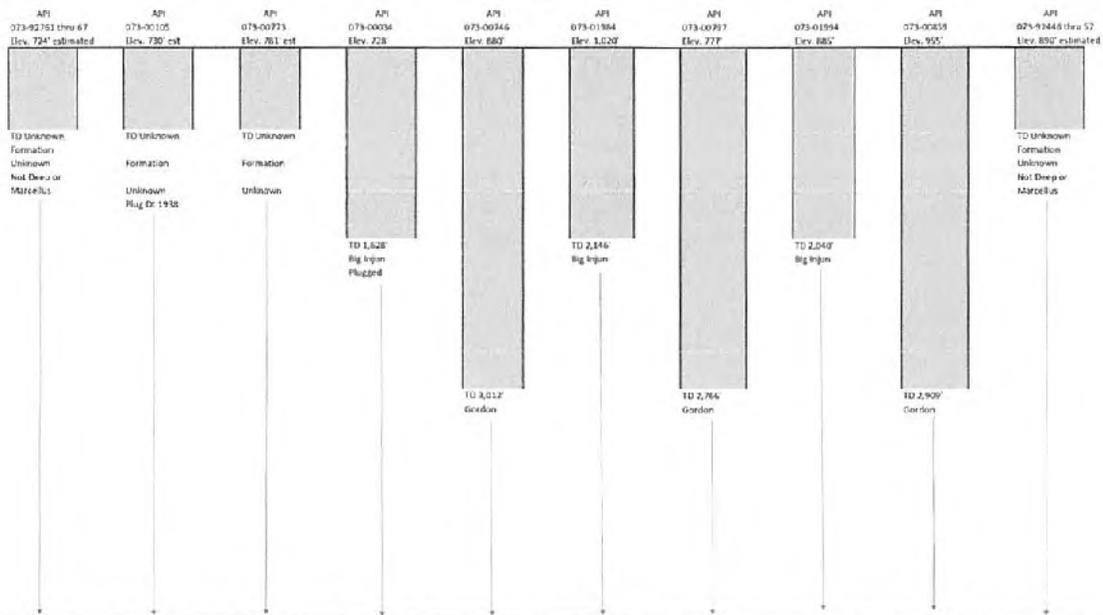
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13-02575

Well-Site Safety Plan Anti-Collision Schematic



Area of Review
P453 - API Pending



Operator	Unknown	Unknown	Secretary Gas and Oil Co	R. F. Sits	Triad Hunter LLC	Ecological Energy, Inc.	Triad Hunter LLC	Ecological Energy, Inc.	Ecological Energy, Inc.	Unknown
Well Name	Multiple	1	2	2	2	5	1	11	3	Multiple
Perforated Formations	Unknown	Unknown	Unknown	Injun	Gordon	Injun	Gordon	Injun	Gordon	Unknown
Unperforated Producing Formations	Unknown	Unknown	Unknown	Keener	Gordon	Keener	Gordon	Keener	Gordon	Unknown
				Big Lime	Gantz	Big Lime	Gantz	Big Lime	Gantz	
				Mason	Berea	Mason	Berea	Mason	Berea	
				Big Dunkard	Weir	Big Dunkard	Weir	Big Dunkard	Weir	
				Little Dunkard	Big Injun	Little Dunkard	Big Injun	Little Dunkard	Big Injun	
				Cow Run	Keener	Cow Run	Berea	Cow Run	Berea	
					Keener	Keener	Keener	Keener	Keener	
					Big Lime	Big Lime	Big Lime	Big Lime	Big Lime	
					Mason	Mason	Mason	Mason	Mason	
					Big Dunkard	Big Dunkard	Big Dunkard	Big Dunkard	Big Dunkard	
				Little Dunkard	Little Dunkard	Little Dunkard	Little Dunkard	Little Dunkard		
				Cow Run	Cow Run	Cow Run	Cow Run	Cow Run		

APPENDIX

WW-9
(4/16)

API Number 47 - 073 - 02575
Operator's Well No. P4N5

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Jay-Bee Oil & Gas, Inc. OP Code 24610

Watershed (HUC 10) Middle Island Creek Quadrangle Bens Run 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 47-085-09721)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Using Contract Haulers (API's 47-085-05151))

DMH
11-8-17
JEB
11/8/2017

Will closed loop system be used? If so, describe: Yes, Centrifuge Drying Shaker System for Top Hole & Horizontal section

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air Vertical / Horizontal OBM

-If oil based, what type? Synthetic, petroleum, etc. ABS 40 (Aliphatic Base System) Synthetic

Additives to be used in drilling medium? Barte, ABS MUL/VIS, Bentone990, CACL2, CalCarb,FLR, Lime,Multifiber,Permaseal,Nut Plug

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) Landfill

-Landfill or offsite name/permit number? Meadowfill/Permit 101219WV

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

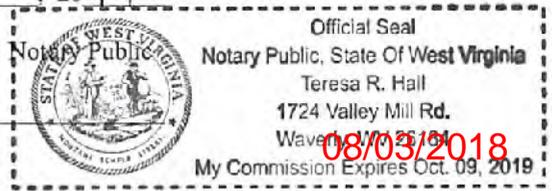
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

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WV Department of Environmental Protection

Company Official Signature [Signature]
Company Official (Typed Name) Shane Dowell
Company Official Title Office Manager

Subscribed and sworn before me this 8th day of November, 2017

Teresa R. Hall
My commission expires Oct 9th 2019



73-02575

Form WW-9

Operator's Well No. P4N5

Jay-Bee Oil & Gas, Inc.

Proposed Revegetation Treatment: Acres Disturbed 23.66 Prevegetation pH 6.8

Lime 2-3 Tons/acre or to correct to pH 6.8

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	KY Bluegrass	20
Field Bloomgrass	40	Creeping Red Fescue	30
Sudangrass	40	Perennial Ryegrass	10

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: Job

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Title: Oil + Gas Inspector Date: 11-8-17

Field Reviewed? Yes No

08/03/2018

P4N5

WELL SITE SAFETY PLAN

JAY-BEE OIL & GAS, INC

DmH
11-8-17

JEB
11/8/17
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WELL BORE TABLE FOR PROPERTY OWNERS				
TRACT	OWNER	TM PARCEL	ACRES	Lease Numbers
A	MIXER ET AL	11 / 25.2	4.687	
B	HOLMES	11 / 4	1.0	
C	HOLMES	11 / 3.1	1.75	
D	VERARDI & WINEMAN	11 / 6	0.92	P7195A
E	HOLMES	11 / 7	1.0	P7195
F	HOLMES	11 / 8	5.85	P7195
G	CORRIGAN	11 / 9	0.92	P7195B
H	CULPEPPER CATTLE COMPANY INC	11 / 10	0.92	P7195C
I	CULPEPPER CATTLE COMPANY INC	11 / 11	1.37	
J	LONAS	6 / 70.1	4.639	P7194B
K	VANNOY	6 / 26.1	0.916	
L	CEMETERY	6 / 104	1.0	
M	CECIL	6 / 27	1.0	
N	URBAN	6 / 17.1	1.0	
O	DALRYMPLE ET AL	6 / 15	2.86	
P	RENNER	6 / 3	59.314	
Q	URBAN	6 / 16	0.14	
R	CARROLL & RYAN	6 / 3.2	2.062	
S	URBAN	6 / 4	49.61	
T	LEECH	6 / 5	22.478	
U	GREEN	6 / 28.1	1.152	
V	GREEN	6 / 17	21.567	
W	PAYNE & GREEN	6 / 28	66.848	
X	SMITH	6 / 40	6.5	P7055
Y	MANKINS	6 / 39	25.5	
Z	BREMEN & ROBERTSON	6 / 45	30.0	P7185
AA	BARNHART	6 / 73	1.25	
BB	BLAKE	11 / 12	5.0	
CC	BOWIE	11 / 13	3.25	
DD	BOWIE	11 / 14	12.855	
EE	BOWIE	6 / 92	1.0	
FF	BOWIE	6 / 91	1.95	
GG	RENNER	6 / 90.3	20.791	P7072
HH	SMITH	6 / 106	21.46	P7190
II	BUZZARD	6 / 84	10.5	
JJ	REGULAR BAPTIST CHURCH OF JESUS CHRIST	6 / 108	2.0	
KK	JAY BEE OIL AND GAS, LLC.	6 / 85	27.53	
LL	CORRIGAN	6 / 105	2.165	
MM	LAUER	11 / 16.1	1.5	
NN	LAUER	11 / 16.2	3.29	
OO	BB LAND LLC	11 / 18	26.75	P7048
PP	JAY BEE OIL AND GAS INC	11 / 30	25.14	
QQ	HALL	11 / 34	38.34	
RR	HOLMES	11 / 25.11	10.649	
SS	JENSEN	6 / 68	0.5	P7194C
TT	JENSEN & BARNHART	6 / 69	1.0	P7194D

73-02575 H6A

08/03/2018



Jay Bee
 Oil & Gas
 DRILLING
 into the future

OPERATOR'S
 WELL #: PAN2
 DISTRICT: UNION
 COUNTY: PLEASANTS
 STATE: WV

WELL PLAT
 PAGE 2 OF 2
 DATE: 11/07/2017

**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
P7019	John & Edith Smith	BB Land, LLC	12.5%	298-532
P7206	Hazel Bunner	BB Land, LLC	12.5%	318-620
P7195	Roger & Kimberly Holmes	BB Land, LLC	12.5%	316-648
P7195B	Jerry Corrigan	BB Land, LLC	12.5%	321-227
P7194	Sarah E. Mees	BB Land, LLC	12.5%	307-605
P7198	Brady A. Smith	BB Land, LLC	12.5%	310-667

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

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

Office of Oil and Gas
WV Dept. of Environmental Protection

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

**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)**

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- (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
P7053	Donald Wagner	BB Land, LLC	12.5%	310-667
P7071	Ridgetop Capital IV, LP	BB Land, LLC	12.5%	294-254
P7055	Brady A. Smith	BB Land, LLC	12.5%	307-387
P7204	William Theodore Clovis	BB Land, LLC	12.5%	310-675
P7179	BB Land, LLC	BB Land, LLC	12.5%	301-112
Affidavit	BB Land, LLC	Jay-Bee Oil & Gas, Inc		

Received

1111 27 2018

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In Addition to the Office of Oil and Gas**

Office of Oil and Gas
Office of Environmental Protection

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- 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
 By: Shane Dowell
 Its: Office Manager



AFFIDAVIT FILED PURSUANT TO
W. Va. CODE §§ 22-6-8 & 22-6A-5(a)(5)

STATE OF WEST VIRGINIA

COUNTY OF RITCHIE, to-wit:

Randy Broda, President of Jay-Bee Oil & Gas, Inc. and Randy Broda, Managing Member of BB Land, LLC, being duly sworn, state as follows:

1. I, Randy Broda, am the President of the applicant, Jay-Bee Oil & Gas, Inc. In my capacity as President, I am qualified and authorized to certify and verify the information set forth or referenced herein on behalf of the applicant.

2. I, Randy Broda, am the Managing Member of BB Land, LLC, which holds the rights to extract, produce or market the oil or gas. In my capacity as Managing Member, I am qualified and authorized to certify and verify the information set forth or referenced herein on behalf of BB Land, LLC.

3. We certify that we are authorized by the holders of the right to extract, produce or market the oil or gas, if not the applicant, to state that the applicant has the right to extract, produce or market the oil or gas pursuant to the leasing and other continuing contract information provided in the application(s) for the P4N4, P4N4U, P4N5, P4S3, P4S4, P4S4U, wells (API No(s). to be determined), on Form WW-6A1.

4. We certify that we are authorized by the owner of the working interest in the well to state that it shall tender to the owner of the oil or gas in place not less than one eighth of the total amount paid to or received by or allowed to the owner of the working interest at the wellhead for the oil or gas so extracted, produced or marketed before deducting the amount to be paid to or set aside for the owner of the oil or gas in place, on all such oil or gas to be extracted, produced or marketed from the well.

5. We certify under the penalty of law that we have personally examined and are familiar with the information contained and referenced herein and that, based on our inquiries of those individuals immediately responsible for obtaining the information, we believe that the information is true, accurate and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

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Further, affiants sayeth naught.

[Signature]
Randy Broda, President of Jay-Bee Oil & Gas, Inc.

Taken, subscribed and sworn to before me, the undersigned Notary Public, this 25th day of August, 2017 by Randy Broda, President of Jay-Bee Oil & Gas, Inc., on behalf of the corporation.

My commission expires: April 18, 2022



[Signature]
NOTARY PUBLIC

[Signature]
Randy Broda, Managing Member of BB Land, LLC

Taken, subscribed and sworn to before me, the undersigned Notary Public, this 25th day of August, 2017 by Randy Broda, Managing Member of BB Land, LLC, on behalf of the company.

My commission expires: April 18, 2022



[Signature]
NOTARY PUBLIC

RECEIVED
Office of Oil and Gas

NOV 09 2017

WV Department of
Environmental Protection



JAY-BEE OIL & GAS, INC.

November 3, 2017

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

RE: P4N5 Well

Permitting Office:

As you know we have applied for a well permit for the P4N5 Well in Pleasants County, West Virginia. This pad is located on what we call the P7019 tract. County Route 7, 7/2 and 3/4 run north of this tract and our proposed well leg runs under these roadways.

You have requested that we review the courthouse records to determine if the Department of Highways has any right to the minerals underneath this section of roadway. Our outside counsel has reviewed documents in the Pleasants County Courthouse and could find no agreement that conveys mineral interests to the Department of Highways. Therefore Jay-Bee believes it has obtained leases from all mineral interest holders necessary to proceed with drilling on this tract after the permit is issued.

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

Sincerely,

Shane Dowell
Office Manager

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Office of Oil and Gas

NOV 09 2017

WV Department of
Environmental Protection

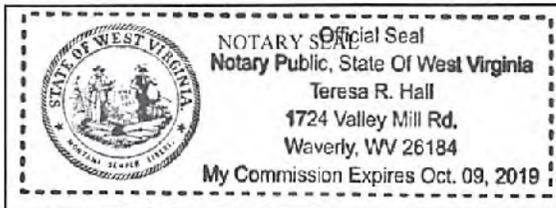
WW-6AC
(1/12)

Certification of Notice is hereby given:

THEREFORE, I Shane Dowell, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Jay-Bee Oil & Gas, Inc.
By: Shane Dowell
Its: Office Manager
Telephone: 304-628-3111

Address: 3570 Shields Hill Rd.
Cairo, WV 26337
Facsimile: 304-628-3119
Email: sdowell@jaybeeoil.com



Subscribed and sworn before me this 8th day of November 2017.

Teresa R. Hall Notary Public

My Commission Expires Oct 9th 2019

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

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WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- -
OPERATOR WELL NO. P4NS
Well Pad Name: P4

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Office of Oil and Gas
NOV 09 2017

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

08/03/2018

WW-6A
(8-13)

API NO. 47- _____ - _____
OPERATOR WELL NO. P4N5
Well Pad Name: P4

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

NOV 09 2017

WV Department of
Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

08/03/2018

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- _____
OPERATOR WELL NO. P4N5 _____
Well Pad Name: P4 _____

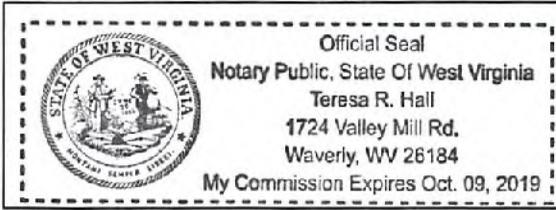
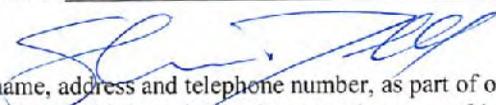
Notice is hereby given by:

Well Operator: Jay-Bee Oil & Gas, Inc.
Telephone: 304-628-3111
Email: sdowell@jaybeoil.com

Address: 3570 Shields Hill Rd.
Cairo, WV 26337
Facsimile: 304-628-3119

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.



Subscribed and sworn before me this 8th day of Nov., 2019.

Teresa R. Hall Notary Public

My Commission Expires Oct 9th 2019

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Office of Oil and Gas
NOV 09 2017
WV Department of
Environmental Protection

P4 WW6A Notices

<i>First</i>	<i>Surname</i>	<i>Address</i>	<i>City</i>	<i>State</i>	<i>Zip</i>
John & Edith	Smith	4556 Arvilla Rd	Friendly	WV	26146
BB Land, LLC		75 Crosswinds Drive	Bridgeport	WV	26330
Jay-Bee Oil & Gas, Inc.		3570 Shields Hill Rd	Cairo	WV	26337
Linda Lou Fetty et al		2385 Left French Creek Road	St. Marys	WV	26170
HFP, LLC		PO Box 418	Kenova	WI	25530
Darin	Barber	11378 Dupont Rd.	Washington	WV	26181
Roger & Kimberly	Holmes	1049 Sugar Valley Rd	Friendly	WV	26146
Douglas & Lori	Renner	27 Renner Lane	Friendly	WV	26146
Pamela Jo & Charles	Bowie	261 Sugar Valley Rd	Friendly	WV	26146
Pamela Jo	Bowie	261 Sugar Valley Rd	Friendly	WV	26146
Melissa	Blake	283 Sugar Valley Rd	Friendly	WV	26146

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 Office of Oil and Gas
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 WV Department of
 Environmental Protection

4707302575

73-02575

WW-70
Rev. 7/01

Affidavit of Personal Service

State Of West Virginia

County Of Ritchie

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A) / WW-3(A) / WW-4(A) / WW-5(A) / WW-6(A) X WSSP x
- (2) Application on Form WW-2(B) X / WW-3(B) / WW-4(B) / WW-5(B) / WW-6(B) X E&S x
- (3) Plat showing the well location on Form WW-6, and x WW-6A5 x MSDS x
- (4) Construction and Reclamation Plan on Form WW-9 X
- (5) WW6A1 X WMP X WW6RW/AW

--all with respect to operator's Well No. PAN2, PAN2U, PAN3, P453, P454, P454U located in Union District, Pleasants County, West Virginia, upon the person or organization named--

Jay-Bee Oil & Gas, Inc.

--by delivering the same in Ritchie County, State of West Virginia on the 8-25-2017 day of August, 2017 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him / her / or, because he / she / refused to take it when offered it, by leaving it in his / her / presence.

Handing it to a member of his or her family above the age of 16 years named who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

Handing it to , a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

Handing it to the general partner, named , or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

Handing it to the corporation's employee X / officer / director / attorney in fact / named Travis Yost

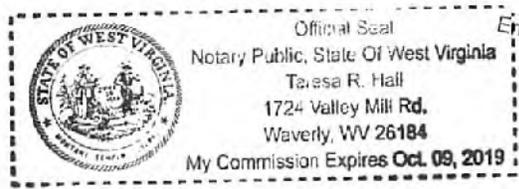
[Signature]
(Signature of person executing service)

Taken, subscribed and sworn before me this 25th day of August 2017.
My commission expires Oct 09 2019

Teresa R. Hall
Notary Public

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Office of Oil and Gas
NOV 09 2017

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)



WV Department of Environmental Protection

08/03/2018

WW-70
Rev. 7/01

Affidavit of Personal Service

State Of West Virginia

County Of Harrison

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A) / WW-3(A) / WW-4(A) / WW-5(A) / WW-6(A) X WSSP x
- (2) Application on Form WW-2(B) X / WW-3(B) / WW-4(B) / WW-5(B) / WW-6(B) X E&S x
- (3) Plat showing the well location on Form WW-6, and x WW-6A5 x MSDS x
- (4) Construction and Reclamation Plan on Form WW-9 X
- (5) WW6A1 X WMP X WW6RW/AW

--all with respect to operator's Well No. P4N2, P4N2U, P4N5, P4S3, P4S4, P4S4U located in Union District, Pleasants County, West Virginia, upon the person or organization named--

Jay-Bee Oil & Gas, Inc.

--by delivering the same in Harrison County, State of West Virginia on the 0-25-2017 day of August, 2017 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him / her / or, because he / she / refused to take it when offered it, by leaving it in his / her / presence.

Handing it to a member of his or her family above the age of 16 years named who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

Handing it to , a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

Handing it to the general partner, named , or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

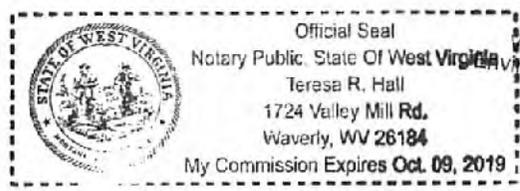
Handing it to the corporation's employee / officer X / director / attorney in fact / named Brian Paugh

[Signature]
(Signature of person executing service)

Taken, subscribed and sworn before me this 25th day of August, 2017.
My commission expires Oct 9th 2019

Teresa R. Hall
Notary Public

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)



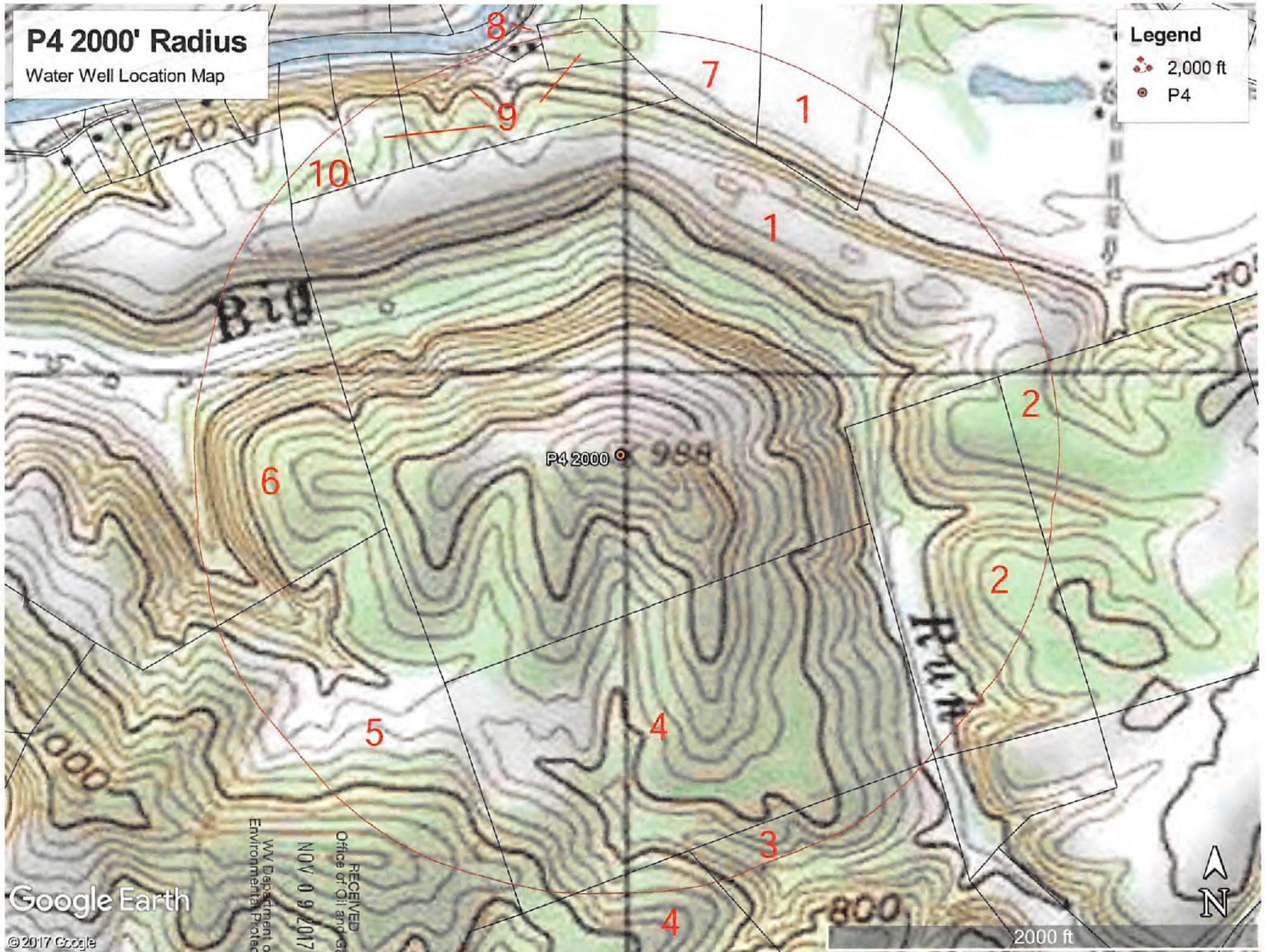
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WV Department of Environmental Protection

P4 2000' Radius

Water Well Location Map

Legend

- 2,000 ft
- P4



Google Earth

© 2017 Google

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WV Department of
Environmental Protection

93-02575



2000 ft

P4 Water Well Reference

<i>Reference</i>	<i>Map</i>	<i>Parcel</i>	<i>First</i>	<i>Surname</i>	<i>Address</i>	<i>City</i>	<i>State</i>	<i>Zip</i>
1	11; 6	16; 106	John & Edith	Smith	4556 Arvilla Rd	Friendly	WV	26146
2	11	32.1, 18	BB Land, LLC		75 Crosswinds Drive	Bridgeport	WV	26330
3	11	30, 31	Jay-Bee Oil & Gas, Inc.		3570 Shields Hill Rd	Cairo	WV	26337
4	11	28, 29	HFP, LLC		PO Box 418	Kenova	WI	25530
5	11	27	Darin	Barber	11378 Dupont Rd.	Washington	WV	26181
6	11	5	Roger & Kimberly	Holmes	1049 Sugar Valley Rd	Friendly	WV	26146
7	6	90.3	Douglas & Lori	Renner	27 Renner Lane	Friendly	WV	26146
8	6	91	Pamela Jo & Charles	Bowie	261 Sugar Valley Rd	Friendly	WV	26146
9	6; 11	92; 14, 13	Pamela Jo	Bowie	261 Sugar Valley Rd	Friendly	WV	26146
10	11	12	Melissa	Blake	283 Sugar Valley Rd	Friendly	WV	26146

73-02575

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NOV 09 2017
WV Department of
Environmental Protection

WW-2B1

Well No. P4N5

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

	Contractor Name	Reliance Laboratories
<input checked="" type="checkbox"/>	Well operator's private laboratory	
	Well Operator	Jay-Bee Oil & Gas, INC
	Address	3570 Shields Hill Rd / 1720 Route 22 East Cairo, WV 26337 / Union, NJ 07083
	Telephone	304-628-3111

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

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Office of Oil and Gas

NOV 09 2017

WV Department of
Environmental Protection

08/03/2018

73-02575

WW-6A3
(1/12)

Operator Well No. P4N5, P4N5U

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY**

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 10/17/2017 **Date of Planned Entry:** 10/24/2017

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

<input type="checkbox"/> SURFACE OWNER(s) Name: _____ Address: _____ _____ Name: _____ Address: _____ _____ Name: _____ Address: _____ _____	<input type="checkbox"/> COAL OWNER OR LESSEE Name: _____ Address: _____ _____ <input checked="" type="checkbox"/> MINERAL OWNER(s) Name: <u>Sarah E. Mees</u> Address: <u>223 Autumn Run Rd Friendly WV 26146</u>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.426306 x -81.069806</u>
County: <u>Pleasants</u>	Public Road Access: <u>Arvilla Rd.</u>
District: <u>Union</u>	Watershed: <u>Middle Island Creek</u>
Quadrangle: <u>Ben's Run 7.5'</u>	Generally used farm name: _____

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Jay-Bee Oil & Gas, Inc.
 Telephone: 304-628-3111
 Email: sdowell@jaybeeoil.com

Address: 3570 Shields Hill Rd.
Cairo, WV 26337
 Facsimile: 304-628-3119

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Office of Oil and Gas

NOV 09 2017

WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

08/03/2018

73-02575

P4N5 Plat Notice Recipients

Surface Owner	Address	City	State	Zip
Sarah E. Mees	223 Autumn Run Rd	Friendly	WV	26146
Brady A. Smith	2374 US Route 685	Xenia	OH	45385
Wilma Jane Benefiel	417 Susan St.	New Martinsville	WV	26155
Ridgetop Capital IV LP	PO Box 1183	McMurray	PA	15317
Ridgetop Capital IV LP	PO Box 1183	McMurray	PA	15317
BB Land LLC	PO Box 380	Bridgeport	WV	26330
Brady A. Smith	2374 US Route 685	Xenia	OH	45385
William Theodore Clovis	170 Live Oak Lane	St. Marys	WV	26170
BB Land LLC	PO Box 380	Bridgeport	WV	26330
Patricia Gail Price	37 Riverside Dr. W.	Madison	WV	25130
Kathy Barnhart Law	4049 Benedict Lane	Oak Harbour	WA	98177
Betty L. Howell	2219 Lindy Circle	St. Marys	WV	26170
Michael Evan Barnhart	PO Box 1318	Anna Maria	FL	34216
Robert Dean Northcraft	319 Creekside Dr.	Keller	TX	76248
Barbara Ann Hutchison	140 Mitchell Dr.	Newport	OH	45768
Ralph Alan Bennett	12400 Sunridge Circle	Strongsville	OH	44136
William P. Turner	195 Poinciana St.	Newport	OH	45768
Gala L. Buchanan	111 Ardmore Avenue	Weirton	WV	26062
Dorothy Marie Oberg	227 Woodridge Drive E-204	Wintersville	OH	43953
Beverly Bass	880 Highway 105E #14	Sour Lake	TX	77659
Barbara Ann Barnhart Korn	P.O. Box 518	Norfolk	AR	72658
Cynthia Lynn Barnhart Corkran	2 Button Bush Court	Wimberley	TX	78676
Crystal Dawn Barnes	606 1/2 Riverside Dr.	St. Marys	WV	26170
Elizabeth Joy Peckens	100 Sandpiper Vlg.	St. Marys	WV	26170
Denver Clark Adams	410 1/2 Gallaheer St.	St. Marys	WV	26170
Lloyd C Adams, Jr.	10144 Wick Road	Friendly	WV	26146
Pamela Sharon Hanna	832 Herman Ave	Bowling Green	KY	42104
Doreen Lee Freeman	465 Walnut Point Road	Heathsville	VA	22473
Thomas G. Bennett	170 Powers Rd.	Weirton	WV	26062
George Steven Adams	1987 Broad Run Rd.	St. Marys	WV	26170
Gregory Barnhart	3625 Winged Foot Drive	Beaumont	TX	77707
Roger Gerald Barnhart	P.O. Box 69085	Odessa	TX	79769
David B. Barnhart	1509 Round Hill Rd.	Oak Hill	WV	25901
Brian Nelson Barnhart	1501 Shan Dr. S.	Mobile	AL	36693
Christopher Reed Barnhart	3710 Watonga Parkway	Houston	TX	77092
Robert Wilmer Bennett	91 Cherry Hill Road	Davison	MI	48423
Roger Philip Bennett	139 Walker Manor Circle	Colliers	WV	26035
Beverly J. Bierce	122 Warwick Ln	East Palatka	FL	32131
Louis F. Bowen	213 Stephens St.	Paden City	WV	26159
James W. Dearth	HC 69 Box 12	Bens Run	WV	26146
Jerry H. Graham	830 Cole Coffman Rd.	Marietta	OH	45750
Janey B. Graham	109 Lindsey Ave.	Marietta	OH	45750
Ted G. Howell	2839 Eldersville Rd.	Follansbee	WV	26037
Kenneth R. Howell	89 Braxton Rd.	Weirton	WV	26062
Charles E. Howell	1000 Harmon Creek Rd.	Colliers	WV	26035
Irene Pearl McPherson	4607 7th Avenue	Vienna	WV	26105
Julian O. Northcraft	1244 Arbor Rd., Apt B404	Winston-Salem	NC	27104
Junior Alvin Nichols POA Joyce Ann Burleigh	1519 Glendale Drive	Fairborn	OH	45324
Judith L. Thompson	89 Mountaineer Way	Williamstown	WV	26187
Timothy Earl Turner	310 Danas Run Rd.	Newport	OH	45768
John A. Smith & Edith U. Smith	4556 Arvilla Road	Friendly	WV	26146

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WV Department of
Environmental Protection

08/03/2018

WW-70
Rev. 7/01

Affidavit of Personal Service

State Of West Virginia

County Of Ritchie

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A)___/ WW-3(A)___/ WW-4(A)___/ WW-5(A)___/ WW-6(A)X WSSP x
- (2) Application on Form WW-2(B)X/ WW-3(B)___/ WW-4(B)___/ WW-5(B)___/ WW-6(B)X E&S x
- (3) Plat showing the well location on Form WW-6, and X WW-6A5 x MSDS x
- (4) Construction and Reclamation Plan on Form WW-9 X
- (5) WW8A1 X WMP X WW6RW/AW

--all with respect to operator's Well No. P4N2, P4N2U, P4N3, P4S3, P4S4, P4S4U located in Union District, Pleasants County, West Virginia, upon the person or organization named--

Jay-Bee Oil & Gas, Inc.

--by delivering the same in Ritchie County, State of West Virginia on the 25-2017 day of August, 2017 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

[] Handing it to him___/ her___/ or, because he___/ she___/ refused to take it when offered it, by leaving it in his___/ her___/ presence.

[] Handing it to a member of his or her family above the age of 16 years named _____ who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

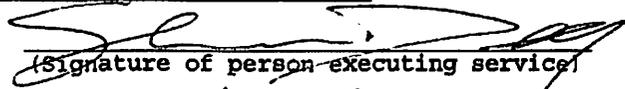
[] Handing it to _____, a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

[] Handing it to the general partner, named _____, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

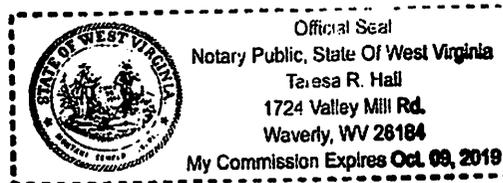
[X] Handing it to the corporation's employee X / officer___/ director___/ attorney in fact___/ named Travis Yost


(Signature of person executing service)

Taken, subscribed and sworn before me this 28th day of August 2017.
My commission expires Oct 09 2019

Teresa R. Hall
Notary Public

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)



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Office of Oil and Gas
NOV 09 2017
WV Department of
Environmental Protection

WW-70
Rev. 7/01

Affidavit of Personal Service

State Of West Virginia
County Of Harrison

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A)___/ WW-3(A)___/ WW-4(A)___/ WW-5(A)___/ WW-6(A)X WSSP x
- (2) Application on Form WW-2(B)X/ WW-3(B)___/ WW-4(B)___/ WW-5(B)___/ WW-6(B)X E&S x
- (3) Plat showing the well location on Form WW-6, and X WW-6A5 x MSDS x
- (4) Construction and Reclamation Plan on Form WW-9 X
- (5) WWBA1 X WMP X WWBRWAW

--all with respect to operator's Well No. P4N2, P4N2U, P4N6, P4S1, P4S4, P4S4U located in Union District, Pleasants County, West Virginia, upon the person or organization named--

Jay-Bee Oil & Gas, Inc.

--by delivering the same in Harrison County, State of West Virginia on the 8-25-2017 day of August, 2017 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him___/ her___/ or, because he___/ she___/ refused to take it when offered it, by leaving it in his___/ her___/ presence.

Handing it to a member of his or her family above the age of 16 years named _____ who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

Handing it to _____, a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

Handing it to the general partner, named _____, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

Handing it to the corporation's employee___/ officerX/ director___/ attorney in fact___/ named Brian Paugh

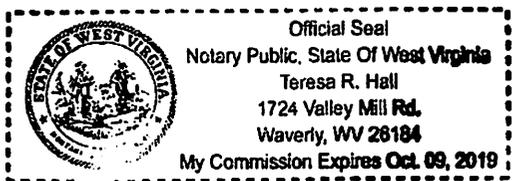
[Signature]
(Signature of person executing service)

Taken, subscribed and sworn before me this 25th day of August 2017
My commission expires Oct 9th 2019

Teresa R. Hall
Notary Public

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Office of Oil and Gas
NOV 09 2017

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)



WV Department of Environmental Protection



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

July 19, 2018

Jill M. Newman
Deputy Commissioner

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the P4 Pad, Pleasants County
P4N5 Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #03-2018-0350 issued to Jay-Bee Oil & Gas, Inc. for access to the State Road for a well site located off of Pleasants County Route 7 SLS.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

A handwritten signature in cursive script that reads "Gary K. Clayton".

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Shane Dowell
Jay-Bee Oil & Gas, Inc.
CH, OM, D-6
File



JAY-BEE OIL & GAS, INC.

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

RE: Frac Additives

Permitting Office:

As requested on the Well Permit Checklist, the CAS numbers are referenced for all submitted permits on WW6B, page 1, and listed below:

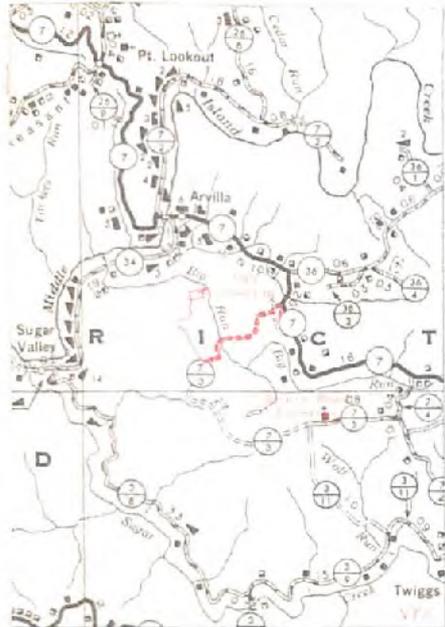
- Water (7732-18-5)
- Sand (14808-60-7, 1344-28-1, 1309-37-1, 13463-67-7)
- Friction Reducer (64742-47-8)
- Scale Inhibitor (107-21-1, 111-46-6)
- Bacteria Prevention (111-30-8, 7173-51-5, 68424-85-1, 64-17-5)
- 15% Vol Acid (7647-01-0)
- Citric Acid (77-92-9)
- Guar Gum (9000-30-0)
- Corrosion Inhibitor (67-56-1, 107-19-7)
- Surfactant (111-76-2)

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

Sincerely,

Shane Dowell
Office Manager

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WV Department of
Environmental Protection



West Virginia
Topo Sheet
410 20
Scale 1:50,000
1997, 2001

P4 Well Pad Site Plan Modification

Union District, Pleasant County, WV
Prepared for JAY BEE OIL & GAS

Date May 07, 2018

**APPROVED
WVDEP OOG**

W/J 6/8/2018



Sheet	Description
01	Cover
02	Index & Aides
03	Details
04	Details
05	Details
06	Details
07	Road Plan & Profile
08	Road Plan & Profile
09	Road Plan & Profile
10	Road Plan & Profile
11	Road Plan & Profile
12	Road Plan & Profile
13	Road Plan & Profile
14	Road Plan & Profile
15	Road Plan & Profile
16	Road Plan & Profile
17	Road Plan & Profile
18	Road Plan & Profile
19	Road Plan & Profile
20	Road Plan & Profile
21	Plan
22	Cut-Fill Diagram
23	Full Section
24	Road Cross Section
25	Road Cross Section
26	Road Cross Section
27	Road Cross Section
28	Road Cross Section
29	Road Cross Section
30	Reclamation Plan

Revisions:
05-07-2018 Revised Road
05-15-2018 Revised Detail

WEST VIRGINIA 811
CALL BEFORE YOU DIG! Dial 811 or 800.245.4848
www.WV811.com

Note:
No water wells were found within 250' of the well location. No springs were found within 100' of the center of the well.



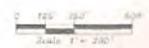
CENTER EAM
Geographic NAD 83
Latitude 39.456756
Longitude 81.669548
CENTER ROAD INC.
(Sta. 0+00)
Geographic NAD 83
Latitude 39.425722
Longitude 81.665316

Note: Stream and Wetland delineation are from Atlas Botany report dated November 27, 2017. All property lines shown are approximate and have not been field verified. Stream Impact chart on Sheet 2.

Jay Fisher
Dy 5-2-1

DATE LAST OF MODIFICATIONS
(EIGHT 10:31 AM) 2018

Design Certification
The drawings, construction notes and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection, Office of Oil and Gas.
The information reflects a gas well pad and access road.
Dennis L. Fisher RPE 6524
Dennis L. Fisher PE
05/11/2018 Date



North Central Engineering, LLC
Dennis L. Fisher, RPE
P.O. Box 829
2nd Floor, WV 26106
Cell: 504-677-4129
F-Mail: Dennis.Fisher@NorthCentralEngineering.com

Jackson Surveying Inc.
COVER
SHEET 1
P4 Well Pad
877 S. Main St.
Charmway, WV 26029
304-622-0801

