

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 095 - 02230 County Tyler District McElroy
Quad Shirley Pad Name Happy Field/Pool Name Happy
Farm name Bloom, Arthur & Lois Well Number Happy 5A
Operator (as registered with the OOG) Jay-Bee Oil & Gas, Inc.
Address 3570 Shields Hill Rd. City Cairo State WV Zip 26337

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4368954.6 Easting 521436.7
Landing Point of Curve Northing 4369174.5 Easting 521697.0
Bottom Hole Northing 4370792.5 Easting 521126.0

Elevation (ft) 1253.5' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
Synthetic OBM

Date permit issued 06/23/2015 Date drilling commenced 08/29/2016 Date drilling ceased 04/04/2017
Date completion activities began 06/07/2017 Date completion activities ceased 07/23/2017
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 60-90' Open mine(s) (Y/N) depths N
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths N
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed JCB Reviewed by:
3/14/2019

WR-35
Rev. 8/23/13

API 47-095 - 02230 Farm name Bloom, Arthur & Lois Well number Happy 5A

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	17"	16"	30'	New	J55-40		Y
Surface	15"	11 3/4"	450'	New	J55-32	50'	Y
Coal							
Intermediate 1	11"	8 5/8"	2485'	New	J55-24	1500'	Y
Intermediate 2							
Intermediate 3							
Production	7 7/8"	5 1/2"	13495'	New	P110-17		Y
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Class A	245	15.6	1.19	292	CTS	8
Coal							
Intermediate 1	Class A	651	15.2	1.27	827	CTS	8
Intermediate 2							
Intermediate 3							
Production	Class A	1938	14.5	1.17	2267	CTS	8
Tubing							

Drillers TD (ft) 13495 Loggers TD (ft) 13495

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6000

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Spiral centralizer every joint from TD back to start of 90 degree.

90 - 70 degree every second joint.

70 degree - KOP every third joint.

KOP - Surface centralizer placed every 500'.

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

WR-35
Rev. 8/23/13

API 47- 095 - 02230 Farm name Bloom, Arthur & Lois Well number Happy 5A

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	6/7/17	13472	13359	60	Marcellus
2	6/7/17	13324	13114	84	Marcellus
3	6/7/17	13079	12940	84	Marcellus
4	6/7/17	12905	12712	84	Marcellus
5	6/8/17	12677	12537	84	Marcellus
6	6/8/17	12502	12346	84	Marcellus
7	6/8/17	12311	12143	84	Marcellus
8	6/9/17	12108	11930	84	Marcellus
9	6/9/17	11895	11736	84	Marcellus
10	6/9/17	11701	11523	84	Marcellus
11	6/10/17	11488	11321	84	Marcellus
12	6/10/17	11286	11128	84	Marcellus
13	6/10/17	11093	10965	84	Marcellus
14	6/11/17	10930	10785	84	Marcellus
15	6/11/17	10705	10553	84	Marcellus
16	6/11/17	10517	10345	84	Marcellus

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	6/7/17	78	7652	8487	4772	176300	6671	N/A
2	6/7/17	77	7475	6838	4903	176700	4820	N/A
3	6/7/17	80	7110	7082	4440	174900	4190	N/A
4	6/7/17	80	7280	6508	4525	182600	4757	N/A
5	6/8/17	80	7110	7082	4440	174900	4190	N/A
6	6/8/17	80	7250	6456	3908	180700	4642	N/A
7	6/8/17	80	7140	6736	4677	180200	4532	N/A
8	6/9/17	79	6876	6535	4191	180000	4599	N/A
9	6/9/17	79	7620	6839	4035	180700	4313	N/A
10	6/9/17	80	7068	6782	4796	176000	4102	N/A
11	6/10/17	78	7015	7537	4717	176900	4646	N/A
12	6/10/17	75	7226	7388	4996	175900	3866	N/A
13	6/10/17	80	7159	6952	4094	180100	4055	N/A
14	6/11/17	79	6822	6946	3909	181000	4047	N/A
15	6/11/17	80	6953	7227	4533	176500	4212	N/A
16	6/11/17	79	6945	7252	3913	178800	4502	N/A

Please insert additional pages as applicable.

API 47-095 - 02230 Farm name Bloom, Arthur & Lois Well number Happy 5A

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	6/11/17	10297	10167	84	Marcellus
18	6/12/17	10109	9953	84	Marcellus
19	6/12/17	9914	9775	84	Marcellus
20	6/12/17	9729	9563	84	Marcellus
21	6/13/17	9517	9319	84	Marcellus
22	6/13/17	9280	9130	84	Marcellus
23	6/13/17	9090	8948	84	Marcellus
24	6/14/17	8903	8766	84	Marcellus
25	6/14/17	8730	8560	84	Marcellus
26	6/17/17	8515	8385	84	Marcellus
27	6/17/17	8314	8168	84	Marcellus
28	6/17/17	8124	7976	84	Marcellus
29	6/17/17	7937	7766	84	Marcellus

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
17	6/11/17	80	7041	7262	4140	179400	4147	N/A
18	6/12/17	79	6590	7296	5783	180200	3918	N/A
19	6/12/17	75	6830	6681	4252	172700	5345	N/A
20	6/12/17	80	6671	6708	4800	180800	3950	N/A
21	6/13/17	81	6932	7776	4422	180600	3775	N/A
22	6/13/17	81	6808	7112	3690	184600	4641	N/A
23	6/13/17	78	7135	7387	4163	180900	4005	N/A
24	6/14/17	80	6651	6855	3942	181000	3899	N/A
25	6/14/17	81	6940	7859	4565	180200	4392	N/A
26	6/17/17	82	6912	7078	4357	180100	4780	N/A
27	6/17/17	81	6722	8029	3829	178900	4386	N/A
28	6/17/17	79	7094	7579	4037	177700	4344	N/A
29	6/17/17	81	6901	7060	4214	182100	4516	N/A

Please insert additional pages as applicable.

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Discharge Monitoring Report
Oil and Gas General Permit

Company Name: Jay-Bee Oil & Gas, Inc.
API No: 47-095-02230 County: Tyler
District: McElroy Well No: Happy 5A
Farm Name: Bloom, Arthur & Lois
Discharge Date/s From:(MMDDYY) _____ To: (MMDDYY) _____
Discharge Times. From: _____ To: _____
Total Volume to be Disposed from this facility (gallons): NO DISCHARGE
Disposal Option(s) Utilized (write volumes in gallons):

- (1) Land Application: _____ (Include a topographical map of the Area.)
- (2) UIC: _____ Permit No. _____
- (3) Offsite Disposal: _____ Site Location: _____
- (4) Reuse: _____ Alternate Permit Number: _____
- (5) Centralized Facility: _____ Permit No. _____
- (6) Other method: _____ (Include an explanation)

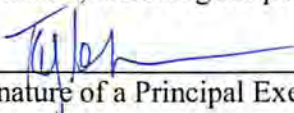
Follow instructions below to determine your treatment category:

Optional Pretreatment test: n/a Cl- mg/l n/a DO mg/l

1. Do you have permission to use expedited treatment from the Director or his representative?
(Y/N) N If yes, who? n/a and place a four (4) on line 7.
If not go to line 2
2. Was Frac Fluid or flowback put into the pit? (Y/N) N If yes, go to line 5. If not, go to line 3.
3. Do you have a chloride value pretreatment (see above)? (Y/N) n/a If yes, go to line 4
If not, go to line 5.
4. Is the Chloride level less than 5000 mg/l? (Y/N) n/a If yes, then enter a one (1) on line 7.
5. Do you have a pretreatment value for DO? (See above) (Y/N) n/a If yes, go to line 6
If not, enter a three (3) in line 7.
6. Is the DO level greater than 2.5 mg/l?(Y/N) n/a If yes, enter a two (2) on line 7. If not, enter a three (3) on line 7.
7. n/a is the category of your pit. Use the Appropriate section.
8. Comments on Pit condition: n/a

Name of Principal Exec. Officer: Tyler DuFour
Title of Officer: Office Manager
Date Completed: 3/1/19

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the 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.



Signature of a Principal Exec. Officer or Authorized agent.

OIL AND GAS RECLAMATION NOTICE

TO:

Name Arthur T. & Lois J. Bloom

Address 193 Genteel Road, Wellsburg WV, 26070

Name _____

Address _____

Name _____

Address _____

Pursuant to West Virginia Code 22-7, notice is hereby given that the undersigned well operator is commencing the reclamation of the surface disturbance caused by well work required by West Virginia Code 22-6-30 on the tract of land as follows:

API Permit No. 47- 095 - 02230 _____ ;
Acreage 59.76 _____ ;
Watershed Walnut Fork & Woodburn Run _____ ;
District McElroy _____ ;
County Tyler _____ ;
Public Road Access _____ ;
Generally used farm name Bloom, Arthur & Lois _____ .

This tract of land was utilized in connection with the well work authorized by the permit listed above issued by the Office of Oil and Gas of the West Virginia Department of Environmental Protection.

Any claim for oil and gas production damage compensation from the undersigned must be made within 2 years of the publication of this notice.

Well Operator Jay-Bee Oil & Gas, Inc.

Address 3570 Shields Hill Rd.
Cairo, WV 26337

Telephone 304-628-3111

Lithology

Happy 5A 47-095-02230

FORMATION	TOP	BOTTOM
MISC. RED ROCK & SHALES	0	2349
LIME	2349	2449
INJUN	2449	2566
SHALE	2566	2913
GORDON STRAY	2913	2933
SHALE	2933	3129
GORDON	3129	3159
SHALE	3159	3438
BAYARD	3438	3447
SHALE	3447	3776
WARREN	3776	3874
SHALE	3874	4110
BALLTOWN	4110	4273
SHALE	4273	4711
2ND RILEY	4711	4819
SHALE	4819	4970
3RD RILEY	4970	5011
SHALE	5011	5068
BENSON	5068	5071
SHALE	5071	5313
ALEXANDER	5313	5484
SHALE	5484	5729
ELK	5729	5777
SHALE	5777	6141
HAMILTON	6141	6315
SHALE	6315	6971
UPPER MARCELLUS	6971	6977
PARCELL LIME	6977	7012
SHALE	7012	7066
LOWER MARCELLUS	7066	

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/7/2017
Job End Date:	6/17/2017
State:	West Virginia
County:	Tyler
API Number:	47-095-02230-00-00
Operator Name:	Jay-Bee Oil & Gas, Inc.
Well Name and Number:	Happy 5A
Latitude:	39.46990900
Longitude:	-80.75078300
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,045
Total Base Water Volume (gal):	7,484,778
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

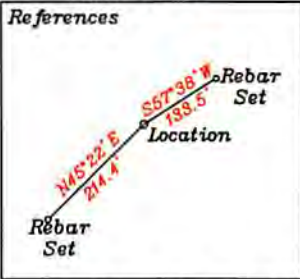
Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Company 1	Carrier/Base Fluid	Water	7732-18-5	100.00000	91.84195	None
Sand (Proppant)	Producers Service Corp	Proppant	Silica Substrate	14808-60-7	100.00000	7.64035	None
15% IC Acid	Producers Service Corp	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.05911	None
STIMLUBE F	Producers Service Corp	Friction Reducer	Petroleum Distillates	64742-47-8	30.00000	0.02015	None
			Alcohols, ethoxylated	68439-50-9	3.10000	0.00208	None
			Alcohols, ethoxylated	68002-97-1	3.10000	0.00208	None
			Alcohols, ethoxylated	68551-12-2	3.10000	0.00208	None
PRO GEL 4.0L	Producers Service Corp	Gel	Guar Gum Blend	9000-30-0	100.00000	0.01763	None
SCALECLEAR 112	Producers Service Corp	Scale Inhibitor	Ethylene Glycol	107-21-1	40.00000	0.00914	None

BIOCLEAR 1430	Producers Service Corp	Biocide							
			Glutaraldehyde	111-30-8		20.00000		0.00319	None
			Alkyl dimethyl benzyl ammonium chloride	68424-85-1		5.00000		0.00080	None
			Dimethylamine	68439-70-3		0.50000		0.00008	None
PRO BREAK 4	Producers Service Corp	Gel Breaker							
			Sucrose	57-50-1		46.00000		0.00002	None
			Ethylene Glycol	107-21-1		14.00000		0.00001	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.									
Other Chemical(s)	Listed Above	See Trade Name(s) List							
			Alcohols, ethoxylated	38551-12-2		3.10000		0.00208	
			Alcohols, ethoxylated	38002-97-1		3.10000		0.00208	
			Alcohols, ethoxylated	38439-50-9		3.10000		0.00208	
			Alkyl dimethyl benzyl ammonium chloride	68424-85-1		5.00000		0.00080	
			Dimethylamine	68439-70-3		0.50000		0.00008	
			Ethylene Glycol	107-21-1		14.00000		0.00001	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)



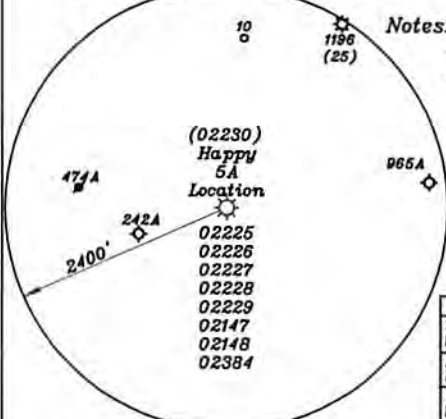
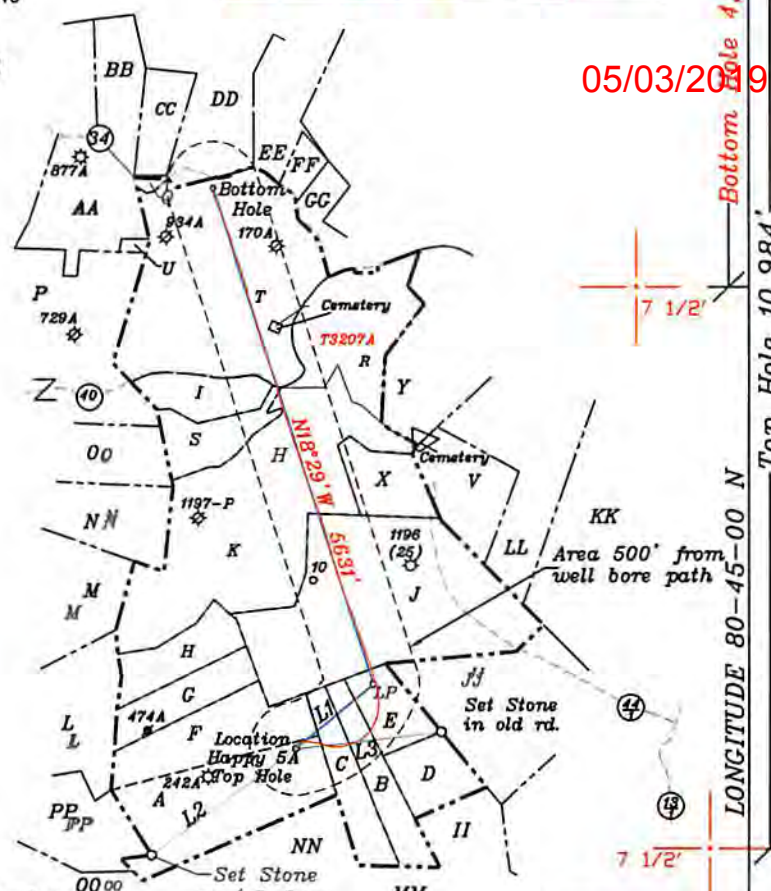
LATITUDE 39-30-00 N

V- Bryant TM 3-21 18.66 Ac
 X- Bryant & Alpheus Tennent Hrs. TM 3-20 15 Ac. T3076A
 Y- Alma Bees & Trees Farm TM 3-2 51.86 Ac.

3) No water wells were found within 250' of the location. No dwellings or agricultural buildings were found within 625' of the center of the well pad.

NUMBER	DIRECTION	DISTANCE
L1	N50°46' E	1118'
L2	N53°43' E	1942'
L3	S83°28' W	1591'

- A- Bloom TM 6/18 59.76 Ac. T3042A1
- B- Thompson TM 7/3 17.5 Ac. T3040 & T3041AA
- C- Thompson TM 7/2 17.5 Ac. T3040 & T3041AA
- D- Thompson TM 7/5 11.66 Ac.
- E- Thompson TM 7/4 11.66 Ac. T3040 & T3041AA
- F- Eidle TM 6/17 26.36 Ac. T3042A1
- G- Bowser TM 6/16 15.82 Ac.
- H- McHenry TM 6/15 15.81 Ac.
- I- Pettit TM 2/31 11.5 Ac. T3209A
- J- Jay-Bee Oil & Gas TM 7/1.1 93.6 Ac. T3041
- K- R.Lemasters TM 2/26 87.06 Ac. T30867A
- L- Akers TM 6/14 60 Ac. T3042
- M- Samson TM 2/24 70.10 Ac. T3095A
- N- Thomaselli TM 2/14 29 Ac. T3088
- O- Jones p/o TM 2/12 31 Ac. T3087B
- P- Jones p/o TM 2/12 61 Ac. T3087A
- Q- H.Lemasters TM. 2-32 1 Ac.
- R- H.Lemasters TM. 3-1 40.84 Ac.
- S- D.Lemasters TM. 2-25 29 Ac. T3209
- T- Hannen TM. 2-27 98.86 Ac. T3086A1
- U- Reservation from tract AA (Bailey) 1 Ac.
- AA- Ferrell & Doak TM 2/11 31 Ac. T3085 T6A
- BB- Rick Staley et al TM 23-17 15.5 Ac. FoudT38D
- CC- Rick Staley et al TM 23-18 13 Ac. FoudT38I
- DD- L. Lemasters TM 23-19 14.75 Ac. T6805B
- EE- Eidle TM 23-26 26.36 Ac.
- FF- Anderson TM 3-26 6.65 Ac.
- GG- Eidle TM 24-7 31.64 Ac.
- HH- Thompson TM 7-3 17.5 Ac.
- II- Thompson TM 7-6 11.66 Ac.
- JJ- Jay Bee Royalty TM 7-1 46.84 Ac.
- KK- Weimer TM 3-23 102 Ac.
- LL- Weimer TM 3-22 6.22 Ac.



Notes: 1) Ties to wells and corners are based on State Plane Grid North-WV North Zone NAD 27.

2) All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats & aerial photos.

AS- DRILLED LEG
 PROPOSED LEG

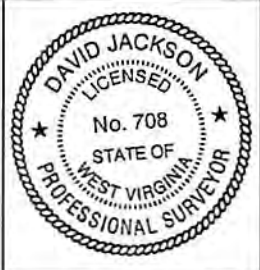
As Drilled	Proposed
Top Hole UTM NAD 83(Meters)- 4358954.6 N, 521436.7 E	Top Hole UTM NAD 83(Meters)- 4368964.7 N, 521436.7 E
Landing Point UTM NAD 83(Meters)- 4369174.5 N, 521697.0 E	Landing Point UTM NAD 83(Meters)- 4369171.2 N, 521688.8 E
Bottom Hole UTM NAD 83(Meters)- 4370792.5 N, 521126.0 E	Bottom Hole UTM NAD 83(Meters)- 4370792.2 N, 521132.8 E

(+) DENOTES 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 THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

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



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

DATE December 27, 2017
 OPERATOR'S WELL NO. Happy 5A
 API WELL NO. AsDrilled

WELL TYPE: OIL X GAS X LIQUID INJECTION WASTE DISPOSAL 47 095 02230
 (IF 'GAS') PRODUCTION STORAGE DEEP SHALLOW X STATE COUNTY PERMIT

LOCATION: ELEVATION 1256.4' WATER SHED Walnut Fork & Woodburn Run
 DISTRICT McElroy COUNTY Tyler
 QUADRANGLE TH Shirley 7 1/2', BH Center Point 7 1/2'

SURFACE OWNER Arthur & Lois Bloom ACREAGE 59.76 ac.
 OIL & GAS ROYALTY OWNER John Lambert Ice LEASE ACREAGE 452.8 ac.

LEASE NO. & ACREAGE: "See ownership list above for lease numbers"

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE DR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AsDrilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG

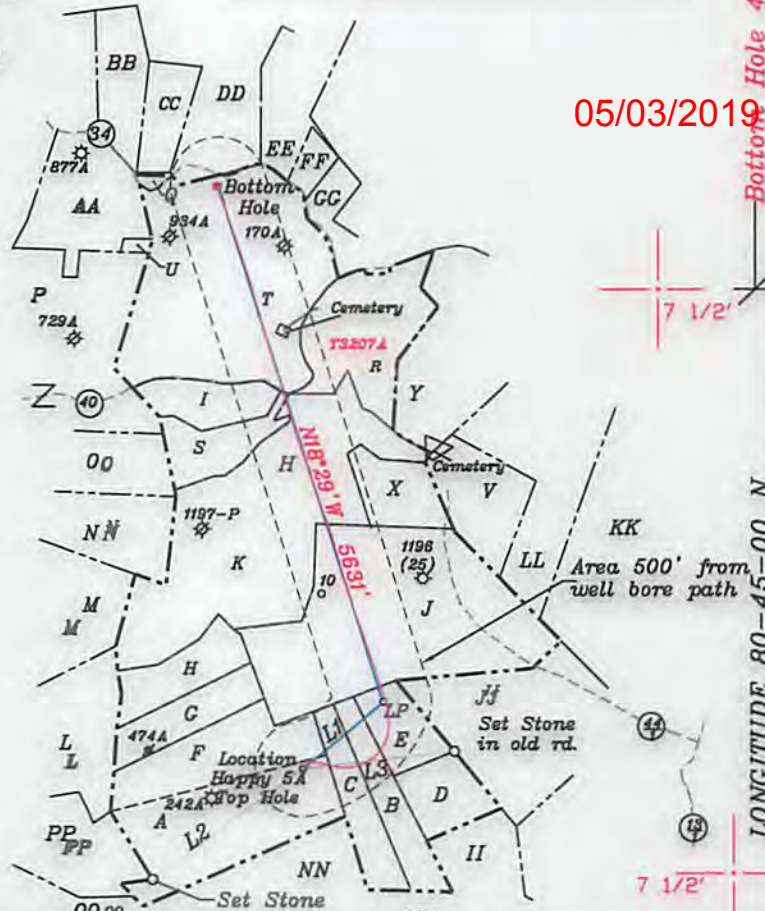
TARGET FORMATION Marcellus ESTIMATED DEPTH TVD=7,072' - TMD=13,495'
 WELL OPERATOR Jay-Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda
 ADDRESS 1720 Rt. 22, East Union, NJ 07083 ADDRESS 3570 Shields Hill Rd., Cairo, WV 26337



LATITUDE 39-30-00 N
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L3	S83°28'W	1591'

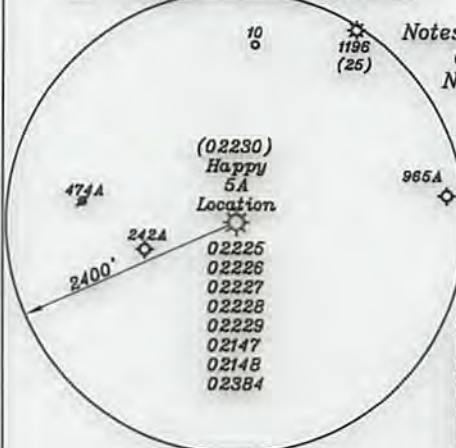
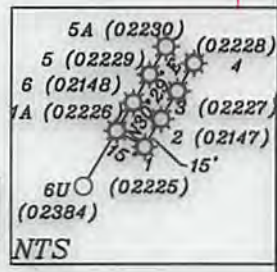
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- J- Jay-Bee Oil & Gas TM 7/1.1 93.6 Ac. T3041
- K- R.Lemasters TM 2/26 87.06 Ac. T3086T4
- L- Akers TM 6/14 60 Ac. T3042
- M- Samson TM 2/24 70.10 Ac. T3095A
- N- Thomaselli TM 2/14 29 Ac. T3088
- O- Jones p/o TM 2/12 31 Ac. T3087B
- P- Jones p/o TM 2/12 61 Ac. T3087A
- Q- H.Lemasters TM. 2-32 1 Ac.
- R- H.Lemasters TM. 3-1 40.84 Ac.
- S- D.Lemasters TM. 2-25 29 Ac. T3209
- T- Hannen TM. 2-27 98.86 Ac. T3086A1
- U- Reservation from tract AA (Bailey) 1 Ac.
- AA- Ferrell & Doak TM 2/11 31 Ac. T3085 T6A
- BB- Rick Staley et al TM 23-17 15.5 Ac. FoutT38D
- CC- Rick Staley et al TM 23-18 13 Ac. FoutT38I
- DD- L. Lemasters TM 23-19 14.75 Ac. T6805B
- EE- Idle TM 23-26 26.36 Ac.
- FF- Anderson TM 3-28 6.65 Ac.
- GG- Idle TM 24-7 31.64 Ac.
- HH- Thompson TM 7-3 17.5 Ac.
- II- Thompson TM 7-6 11.66 Ac.
- JJ- Jay Bee Royalty TM 7-1 46.84 Ac.
- KK- Weimer TM 3-23 102 Ac.
- LL- Weimer TM 3-22 6.22 Ac.



05/03/2019

Bottom Hole 4,926'
Top Hole 10,984'

Notes: 1) Ties to wells and corners are based on State Plane Grid North-WV North Zone NAD 27.
 2) All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats & aerial photos.



AsDrilled	Proposed
Top Hole UTM NAD 83(Meters)- 4368954.6 N, 521436.7 E	Top Hole UTM NAD 83(Meters)- 4368954.7 N, 521436.7 E
Landing Point UTM NAD 83(Meters)- 4369174.5 N, 521697.0 E	Landing Point UTM NAD 83(Meters)- 4369171.2 N, 521688.8 E
Bottom Hole UTM NAD 83(Meters)- 4370792.5 N, 521126.0 E	Bottom Hole UTM NAD 83(Meters)- 4370793.2 N, 521132.8 E

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

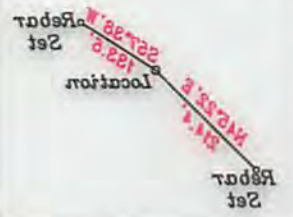
FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION GPS
submeter unit

I THE UNDERSIGNED, HEREBY CERTIFY THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.
 (SIGNED) David L. Jackson
 R.P.E. _____ P.S. 708



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS
 DATE December 27, 2017
 OPERATOR'S WELL NO. Happy 5A
 API WELL NO. AsDrilled
 WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 095 02230
 (IF 'GAS') PRODUCTION STORAGE DEEP SHALLOW X STATE COUNTY PERMIT
 LOCATION: ELEVATION 1256.4' WATER SHED Walnut Fork & Woodburn Run
 DISTRICT McElroy COUNTY Tyler
 QUADRANGLE TH Shirley 7 1/2', BH Center Point 7 1/2'
 SURFACE OWNER Arthur & Lois Bloom ACREAGE 59.76 ac.
 OIL & GAS ROYALTY OWNER John Lambert Ice LEASE ACREAGE 452.8 ac.

LEASE NO. & ACREAGE: "See ownership list above for lease numbers"
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AsDrilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG _____
 TARGET FORMATION Marcellus ESTIMATED DEPTH TVD=7,072' - TMD=13,495'
 WELL OPERATOR Jay-Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda
 ADDRESS 1720 Rt. 22, East Union, NJ 07083 ADDRESS 3570 Shields Hill Rd., Cairo, WV 26337



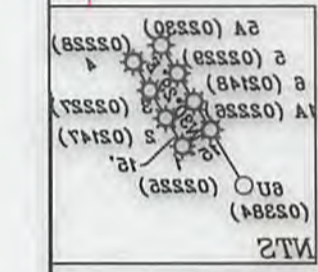
LATITUDE 39-30-00 N
 V- Bryant TM 3-21 18.88 Ac
 X- Bryant & Alpers Tennant Hrs TM 3-20
 15 Ac. T3078A
 Y- Alma Bees & Trees Farm TM 3-2 21.88 Ac.
 (3) No water wells were found within 250' of the location No dwellings or agricultural buildings were found within 625' of the center of the well pad.

NUMBER	DIRECTION	DISTANCE
L1	N50°48'E	1118'
L2	N53°43'E	1842'
L3	S83°28'W	1591'

Top Hole 433'
 Bottom Hole 1,224'

Job Hole 10' 388'
 Bottom Hole 4' 352'

LONGITUDE 80-42-00 W



Notes: 1) Ties to wells and corners are based on State Plane Grid North-WV North Zone NAD 83. 15.34 Ac. MM-Thompson TM 7/23
 2) All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats & aerial photos.
 3) As-Drilled LEG
 4) Proposed LEG

- 19-0205/050
- B-Thompson TM 7/3 17.5 Ac. T3040 & T3041A
- C-Thompson TM 7/5 11.88 Ac. T3040 & T3041A
- D-Thompson TM 7/4 11.88 Ac. T3040 & T3041A
- E-Thompson TM 7/4 11.88 Ac. T3040 & T3041A
- F-Eidle TM 6/18 28.38 Ac. T3042A
- G-Bowser TM 6/18 28.38 Ac. T3042A
- H-Moherty TM 6/15 15.81 Ac. T3042A
- I-Pettit TM 2/21 11.5 Ac. T3042A
- J-Jay-Bee Oil & Gas TM 7/11 93.6 Ac. T3041
- K-R Lemasters TM 2/28 87.08 Ac. T3087A
- L-Akers TM 6/14 80 Ac. T3042
- M-Samson TM 2/24 70.10 Ac. T3082A
- N-Thomassell TM 2/14 29 Ac. T3088
- O-Jones p/o TM 2/12 31 Ac. T3087B
- P-Jones p/o TM 2/12 31 Ac. T3087A
- Q-H Lemasters TM 3-22 1 Ac. T3087A
- R-H Lemasters TM 3-1 40.84 Ac. T3087A
- S-D Lemasters TM 3-22 29 Ac. T3087A
- T-Hanner TM 2-27 98.88 Ac. T3088A
- U-Reservoir from tract AA (Barley) 1 Ac. T3088A
- AA-Fertell & Dock TM 2/11 21 Ac. T3082 18A
- BB-Rick Staley et al TM 23-17 15.5 Ac. Fort138D
- CC-Rick Staley et al TM 23-18 13 Ac. Fort1381
- DD-L Lemasters TM 23-19 14.75 Ac. T8802B
- EE-Eidle TM 23-28 28.38 Ac. T8802B
- FF-Anderson TM 2-28 8.85 Ac. T8802B
- GG-Eidle TM 24-7 31.64 Ac. T8802B
- HH-Thompson TM 7-3 17.5 Ac. T8802B
- II-Thompson TM 7-6 11.88 Ac. T8802B
- JJ-Jay Bee Royalty TM 7-1 48.84 Ac. T8802B
- KK-Weimer TM 3-23 102 Ac. T8802B
- LL-Weimer TM 3-22 8.22 Ac. T8802B

As-Drilled	Proposed
UTM NAD 83(Meters) - 438824.6 N 521837.7 E	UTM NAD 83(Meters) - 438824.7 N 521837.7 E
UTM NAD 83(Meters) - 438917.5 N 521837.0 E	UTM NAD 83(Meters) - 438917.5 N 521837.0 E
UTM NAD 83(Meters) - 437092.5 N 521837.0 E	UTM NAD 83(Meters) - 437092.5 N 521837.0 E

(+) DENOTES 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 wrist

I THE UNDERSIGNED, HEREBY CERTIFY THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.
 (SIGNED) David L. Jackson
 P.S. 708 R.P.E.



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS
 WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION STORAGE DEEP SHALLOW X
 LOCATION: ELEVATION 1258.4' WATER SHED Walnut Fork & Woodburn Run
 DISTRICT McEvroy
 QUADRANGLE TH Shirely 7 1/2', BH Center Point 7 1/2'
 SURFACE OWNER Arthur & Lois Bloom
 OIL & GAS ROYALTY OWNER John Lambert Ice
 LEASE NO. & ACREAGE: "See ownership list above for lease numbers"
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Marcellus
 ESTIMATED DEPTH TVD=7,072' - TMD=13,495'
 DESIGNATED AGENT Randy Broda
 WELL OPERATOR Jay-Bee Oil & Gas, Inc.
 ADDRESS 2720 Rt. 22, East Union, NJ 07083
 ADDRESS 3570 Shields Hill Rd., Carro, WV 26037

DATE December 27, 2017
 OPERATOR'S WELL NO. Happy 5A
 API WELL NO. As-Drilled
 47 095 02230
 WASTE DISPOSAL STATE COUNTY PERMIT