

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

API 47 - 095 - 02147 County Tyler District McElroy  
Quad Shirley Pad Name Happy Field/Pool Name \_\_\_\_\_  
Farm name Bloom, Arthur & Lois Well Number Happy 2  
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 4,368,944.6 Easting 521,435.8  
Landing Point of Curve Northing 4,368,546.0 Easting 521,446.1  
Bottom Hole Northing 4,366,894.3 Easting 521,957.4

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)  
ABS 40

Date permit issued 10/08/2104 Date drilling commenced 1/12/2015 Date drilling ceased 3-19-2015  
Date completion activities began N/A Date completion activities ceased N/A  
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

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Reviewed by:

JK

API 47-095 - 02147 Farm name Bloom, Arthur & Lois Well number Happy 2

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	20/32/24		Y
Surface	15"	11 3/4"	496'	New	20/23/24	50'	Y
Coal							
Intermediate 1	11"	8 5/8"	2,460'	New	20/17/24	1500'	Y
Intermediate 2							
Intermediate 3							
Production	7 7/8"	5 1/2"	13,516'	New	20		Y
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Class A	260	15.2	1.26	235	CTS	8
Coal							
Intermediate 1	Class A	510	14.7	1.36	623	CTS	8
Intermediate 2							
Intermediate 3							
Production	Class A	1,875	14.4	1.30	2,341	CTS	8
Tubing							

Drillers TD (ft) 13,531' Loggers TD (ft) 13,531'  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 6,100'

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 \_\_\_\_\_

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WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

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WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	n/a				Marcellus
2					Marcellus
3					Marcellus
4					Marcellus
5					Marcellus
6					Marcellus
7					Marcellus
8					Marcellus
9					Marcellus
10					Marcellus
11					Marcellus
12					Marcellus
13					Marcellus
14					Marcellus
15					Marcellus
16					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								N/A
2								N/A
3								N/A
4								N/A
5								N/A
6								N/A
7								N/A
8								N/A
9								N/A
10								N/A
11								N/A
12								N/A
13								N/A
14								N/A
15								N/A
16								N/A

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Please insert additional pages as applicable.

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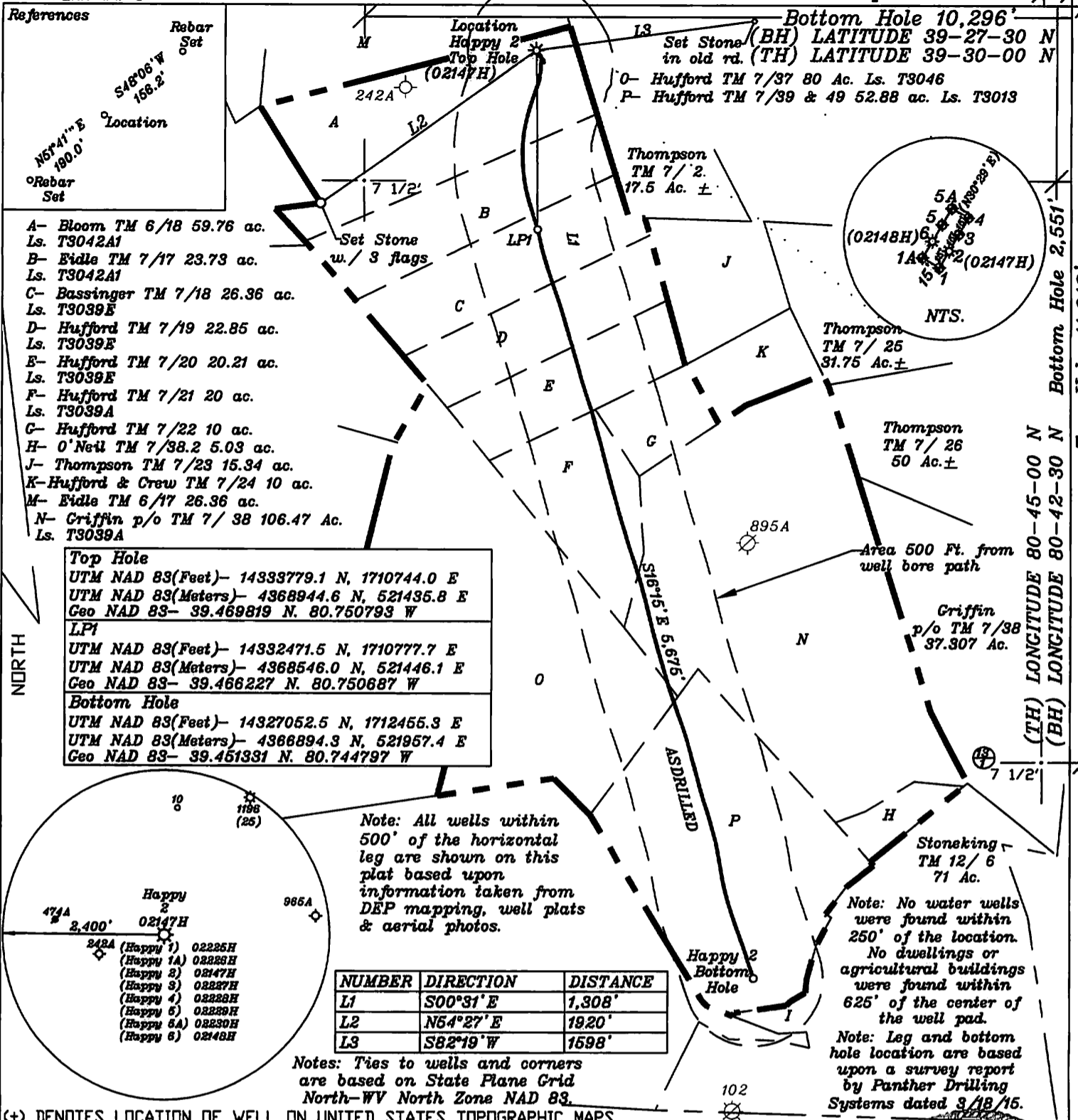
**Lithology**

Happy 2 47-095-02147

<b>FORMATION</b>	<b>TOP</b>	<b>BOTTOM</b>
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	7038
LOWER MARCELLUS	7038	

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- References**
- A- Bloom TM 6/18 59.76 ac. Ls. T3042A1
  - B- Fidle TM 7/17 23.73 ac. Ls. T3042A1
  - C- Bassinger TM 7/18 26.36 ac. Ls. T3039E
  - D- Hufford TM 7/19 22.85 ac. Ls. T3039E
  - E- Hufford TM 7/20 20.21 ac. Ls. T3039E
  - F- Hufford TM 7/21 20 ac. Ls. T3039A
  - G- Hufford TM 7/22 10 ac.
  - H- O'Neil TM 7/38.2 5.03 ac.
  - J- Thompson TM 7/23 15.34 ac.
  - K- Hufford & Crew TM 7/24 10 ac.
  - M- Fidle TM 6/17 26.36 ac.
  - N- Griffin p/o TM 7/ 38 106.47 Ac. Ls. T3039A

**Top Hole**  
 UTM NAD 83(Feet)- 14333779.1 N, 1710744.0 E  
 UTM NAD 83(Meters)- 4368944.6 N, 521435.8 E  
 Geo NAD 83- 39.469819 N, 80.750793 W

**LP1**  
 UTM NAD 83(Feet)- 14332471.5 N, 1710777.7 E  
 UTM NAD 83(Meters)- 4368546.0 N, 521446.1 E  
 Geo NAD 83- 39.466227 N, 80.750687 W

**Bottom Hole**  
 UTM NAD 83(Feet)- 14327052.5 N, 1712455.3 E  
 UTM NAD 83(Meters)- 4368894.3 N, 521957.4 E  
 Geo NAD 83- 39.461331 N, 80.744797 W

NUMBER	DIRECTION	DISTANCE
L1	S00°31'E	1,308'
L2	N64°27'E	1920'
L3	S82°19'W	1598'

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

Note: 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.  
 Note: Leg and bottom hole location are based upon a survey report by Panther Drilling Systems dated 3/18/15.

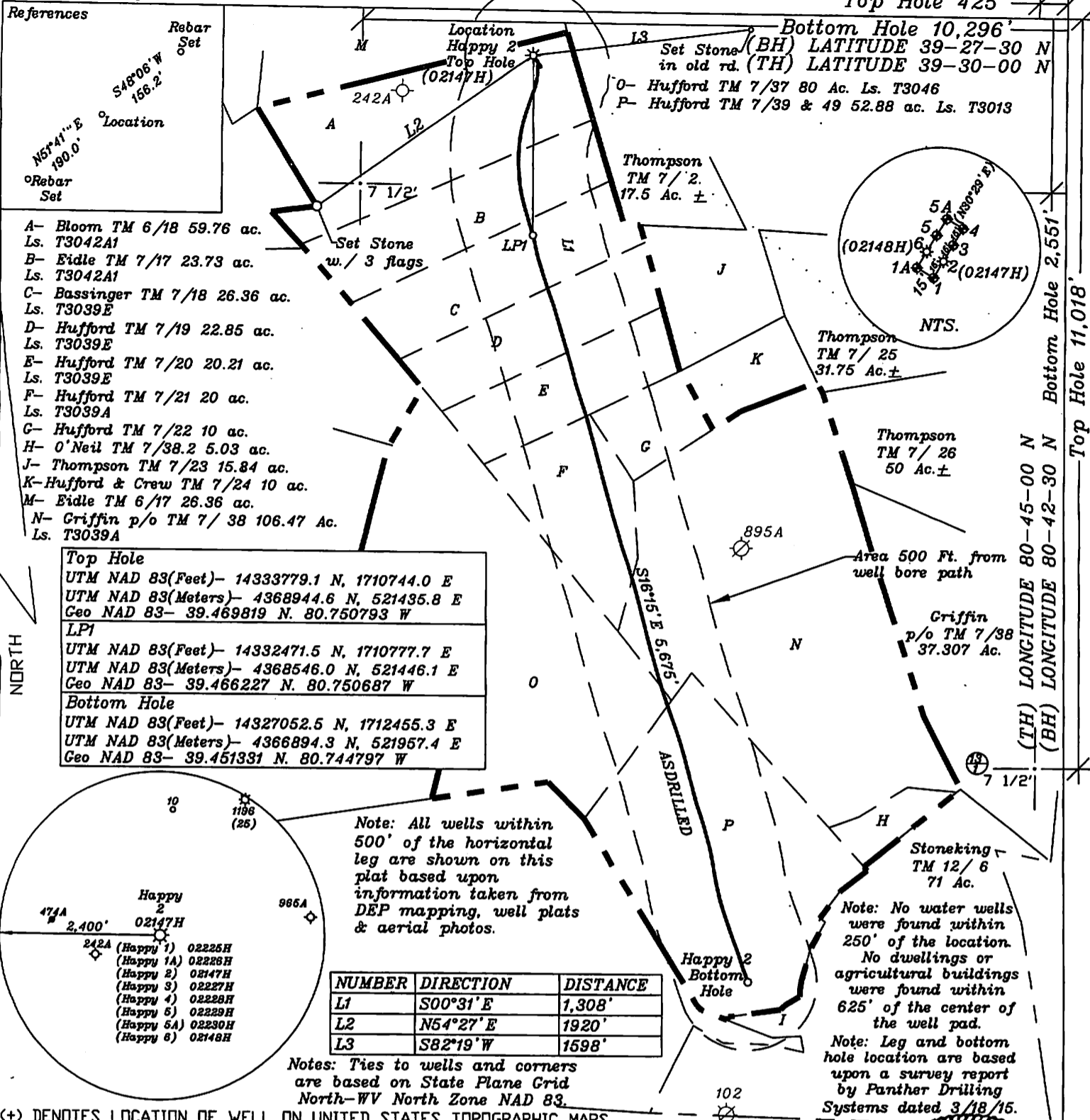
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____ DRAWING NO. <u>1</u> SCALE <u>1" = 1000'</u> MINIMUM DEGREE OF ACCURACY <u>1 in 200</u> PROVEN SOURCE OF ELEVATION <u>GPS</u> <u>submeter unit</u>	I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY. (SIGNED) _____ R.P.E. _____ L.I.S. <u>708</u>	
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STATE OF WEST VIRGINIA Division of Environmental Protection OFFICE OF OIL AND GAS WELL TYPE: OIL GAS <u>X</u> LIQUID INJECTION WASTE DISPOSAL _____ (IF 'GAS') PRODUCTION <u>X</u> STORAGE DEEP SHALLOW <u>X</u> STATE COUNTY PERMIT LOCATION: ELEVATION <u>1257'</u> WATER SHED <u>Walnut Fork &amp; Woodburn Run</u> DISTRICT <u>McElroy</u> COUNTY <u>Tyler</u> QUADRANGLE <u>TH Shirley 7 1/2', BH Center Point 7 1/2'</u> SURFACE OWNER <u>Arthur &amp; Lois Bloom</u> ACREAGE <u>59.76 ac.</u> OIL & GAS ROYALTY OWNER <u>John Lambert Ice</u> LEASE ACREAGE <u>412.26 ac</u>	DATE <u>September 22, 2015</u> OPERATOR'S WELL NO. <u>Happy 2</u> API WELL NO. <u>ASDRILLED</u> 47 - 095 - ESTIMATED DEPTH <u>TVD= 7,075 - TMD= 13,531' ±</u> WELL OPERATOR <u>Jay-Bee Oil &amp; Gas, Inc.</u> DESIGNATED AGENT <u>Randy Broda</u> ADDRESS <u>1720 Rt. 22, East Union, NJ 07083</u> ADDRESS <u>3570 Shields Hill Rd., Cairo, WV 26337</u>
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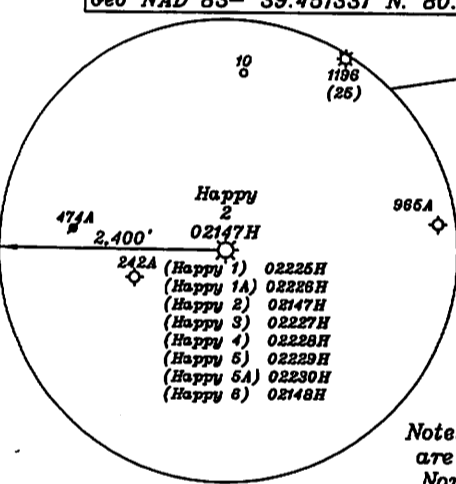
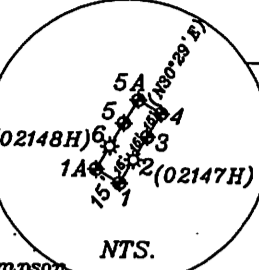
LEASE NO. & ACREAGE: "See ownership list above for lease numbers"

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



NORTH

Top Hole 11,018'  
 Bottom Hole 2,551'  
 (TH) LONGITUDE 80-45-00 N  
 (BH) LONGITUDE 80-42-30 N



NUMBER	DIRECTION	DISTANCE
L1	S00°31'E	1,308'
L2	N54°27'E	1920'
L3	S82°19'W	1598'

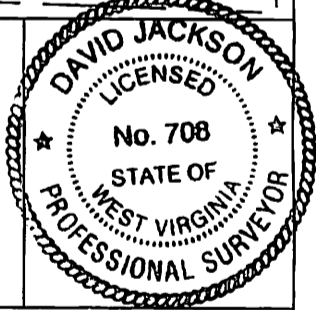
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**Note:** Leg and bottom hole location are based upon a survey report by Panther Drilling Systems dated 3/18/15.

FILE NO. \_\_\_\_\_  
 DRAWING NO. 1  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION GPS  
submeter unit

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

(SIGNED) Received  
Office of Oil & Gas L.L.S. 708



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

DATE September 22, 2015  
 OPERATOR'S WELL NO. Happy 2  
 API WELL NO. ASDRILLED

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

LOCATION: ELEVATION 1257' 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 412.26 ac

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

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR  
 STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW  
 FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ASDRILLED  
 PLUG AND ABANDON CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION Marcellus ESTIMATED DEPTH TVD= 7,075 - TMD= 13,531' ±  
 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