

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

API 47-095-02240 County Tyler District McElroy
Quad Shirley 7.5' Pad Name Dopey Field/Pool Name
Farm name John & Patty Montgomery Well Number Dopey 6
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 4365442.9 Easting 519592.8
Landing Point of Curve Northing 4365753.3 Easting 519346.7
Bottom Hole Northing 4367706.7 Easting 518060.6

Elevation (ft) 910.2' 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 12/11/15 Date drilling commenced 01/16/18 Date drilling ceased 01/29/18
Date completion activities began 06/25/18 Date completion activities ceased 07/13/18 RECEIVED
Verbal plugging (Y/N) N Date permission granted N/A Granted by Office of Oil and Gas
N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug WV Department of
Environmental Protection
JUN 03 2019

Freshwater depth(s) ft 176.91' 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 by: *JOB*
6/24/2019
Reviewed

API 47-095 - 02240 Farm name John & Patty Montgomery Well number Dopey 6

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	30"	26"	30'	New	J55-40LB/FT		Y
Surface	17 1/2"	13 3/8"	376'	New	J55-32LB/FT	42' & 335'	Y
Coal							
Intermediate 1	11"	8 5/8"	2078'	New	J-55/24#	85' & 1871'	Y
Intermediate 2							
Intermediate 3							
Production	7 7/8"	5 1/2"	14915'	New	P110-17LB/FT		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	403	15.6	1.1966	482	CTS	8
Coal							
Intermediate 1	Class A	646	15.6	1.1881	768	CTS	8
Intermediate 2							
Intermediate 3							
Production	Class A	2160	14.5	1.1746	2536	1000'	8
Tubing							

Drillers TD (ft) 14920' Loggers TD (ft) 14920'
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6179'

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'.

RECEIVED

Office of Oil and Gas

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS JUN 03 2019

WV Department of
Environmental Protection

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

API 47- 095 - 02240 Farm name John & Patty Montgomery Well number Dopey 6

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	6/25/18	14832	14718	97	Marcellus
2	6/26/18	14681	14549	72	Marcellus
3	6/26/18	14515	14340	72	Marcellus
4	6/29/18	14295	14153	72	Marcellus
5	6/30/18	14104	13935	72	Marcellus
6	6/30/18	13888	13759	72	Marcellus
7	6/30/18	13716	13545	72	Marcellus
8	7/1/18	13506	13346	72	Marcellus
9	7/1/18	13300	13136	72	Marcellus
10	7/1/18	13101	12972	72	Marcellus
11	7/3/18	12938	12768	72	Marcellus
12	7/3/18	12722	12575	72	Marcellus
13	7/3/18	12534	12355	72	Marcellus
14	7/4/18	12320	12200	72	Marcellus
15	7/4/18	12156	11971	72	Marcellus
16	7/5/18	11930	11777	72	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 (bbbls)	Amount of Nitrogen/other (units)
1	6/25/18	74.8	6859	6888	4288	217340	6689	N/A
2	6/26/18	75.6	7016	6958	3780	205040	6555	N/A
3	6/26/18	80.0	6909	6654	3562	216020	7015	N/A
4	6/29/18	79.0	7235	8045	3988	211180	8372	N/A
5	6/30/18	77.0	7160	6464	3397	210820	6297	N/A
6	6/30/18	79.9	7292	7409	3849	205020	6912	N/A
7	6/30/18	79.4	7007	6653	3560	205700	6541	N/A
8	7/1/18	69.2	6862	6568	3370	213880	6780	N/A
9	7/1/18	78.7	6863	7385	3767	172060	6686	N/A
10	7/1/18	69.9	6926	6516	3702	206180	6576	N/A
11	7/3/18	54.3	7820	6874	4815	212160	8637	N/A
12	7/3/18	76.9	7156	6214	4246	208580	6745	N/A
13	7/3/18	76.6	7081	8335	3680	207509	6725	N/A
14	7/4/18	77.4	6932	6603	3687	217220	6781	N/A
15	7/4/18	79.0	6882	7428	4594	218240	9749	N/A
16	7/5/18	79.8	7144	7011	3488	214400	6513	N/A

Please insert additional pages as applicable.

WV Department of Environmental Protection

API 47-095 - 02240 Farm name John & Patty Montgomery Well number Dopey 6

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	7/5/18	11725	11583	72	Marcellus
18	7/5/18	11542	11401	72	Marcellus
19	7/6/18	11366	11194	72	Marcellus
20	7/6/18	11144	10943	72	Marcellus
21	7/6/18	10910	10797	72	Marcellus
22	7/7/18	10752	10570	72	Marcellus
23	7/7/18	10518	10392	72	Marcellus
24	7/8/18	10342	10154	72	Marcellus
25	7/8/18	10110	9986	72	Marcellus
26	7/8/18	9938	9783	72	Marcellus
27	7/9/18	9739	9596	72	Marcellus
28	7/9/18	9565	9401	72	Marcellus
29	7/9/18	9369	9191	72	Marcellus
30	7/10/18	9142	8997	72	Marcellus
31	7/10/18	8958	8792	72	Marcellus
32	7/10/18	8754	8590	72	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 (bbbls)	Amount of Nitrogen/other (units)
17	7/5/18	79.8	6979	7004	3676	222240	7028	N/A
18	7/5/18	78.8	7142	6207	4002	195960	6189	N/A
19	7/6/18	70.7	7124	6366	3492	217640	6431	N/A
20	7/6/18	76.0	7537	6997	4022	211580	8085	N/A
21	7/6/18	70.1	6769	6125	3316	222140	6740	N/A
22	7/7/18	70.4	6524	7133	3465	217460	6836	N/A
23	7/7/18	79.3	6457	7018	3395	217960	6938	N/A
24	7/8/18	69.9	6632	7835	3279	222100	6760	N/A
25	7/8/18	80.3	6512	6892	3242	214420	7297	N/A
26	7/8/18	76.7	6745	6383	4062	216500	7340	N/A
27	7/9/18	80.0	6597	6813	4139	216080	6721	N/A
28	7/9/18	80.4	6553	6090	3637	215700	6903	RECEIVED N/A
29	7/9/18	82.1	6325	6119	3231	211540	6894	Office of Oil and Gas
30	7/10/18	82.4	6431	7098	3840	214900	6817	N/A
31	7/10/18	80.2	6393	5988	3775	214480	6716	N 03 2018 N/A
32	7/10/18	82.3	6446	6790	3848	218260	6913	Department of Environmental Protection N/A

Please insert additional pages as applicable.

API 47- 095 - 02240 Farm name John & Patty Montgomery Well number Dopey 6

PRODUCING FORMATION(S) DEPTHS

Marcellus 6609.5' TVD 14920' MD MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow Oil TEST Flow Pump

SHUT-IN PRESSURE Surface 2750 psi Bottom Hole N/A psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 7100 mcfpd 40 bpd Oil bpd NGL bpd Water 100 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP		BOTTOM		TOP DEPTH IN FT	BOTTOM DEPTH IN FT	MD	MD	NGL DEPTH IN FT	Water 100 bpd	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT	TVD	DEPTH IN FT	TVD							
See Attached.	0		0								

Please insert additional pages as applicable.

Drilling Contractor Patterson UTI
Address 10713 West Sam Houston Parkway North Suite 800 City Houston State TX Zip 77064

Logging Company Appalachian Well Surveys Inc
Address 10291 Ohio Avenue City Cambridge State OH Zip 43725

Cementing Company BJ Services
Address 3415 Millennium Blvd SE City Massillon State OH Zip 43725 RECEIVED Office of Oil and Gas

Stimulating Company FTS International
Address 7248 John Pattenway Jr. Blvd City Sireveport State LA Zip 71129 JUN 03 2019

Please insert additional pages as applicable.
Completed by Tyler Dufour Telephone 304-628-3111
Signature Tyler Title Office Manager Date 5/30/19
WV Department of Environmental Protection

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

OIL AND GAS RECLAMATION NOTICE

TO:

Name John & Patty Montgomery

Address 107 Basil Drive Weirton, WV 26047

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 - 02240 ;

Acreage 65 Acres ;

Watershed Indian Creek ;

District McElroy ;

County Tyler ;

Public Road Access _____ ;

Generally used farm name John & Patty Montgomery .

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.

RECEIVED
Office of Oil and Gas

Well Operator Jay-Bee Oil & Gas, Inc.

Address 3570 Shields Hill Rd.

Cairo, WV 26337

Telephone 304-628-3111

JUN 03 2019

WV Department of
Environmental Protection

Lithology Dopey 6 47-095-02240

FORMATION	TOP	BOTTOM
MISC. RED ROCK & SHALES	0	1960
LIME	1960	2060
INJUN	2060	2177
SHALES	2177	2524
GORDON STRAY	2524	2544
SHALES	2544	2740
GORDON	2740	2770
SHALES	2770	3049
BAYARD	3049	3058
SHALES	3058	3387
WARREN	3387	3485
SHALES	3485	3721
BALLTOWN	3721	3884
SHALES	3884	4322
2ND RILEY	4322	4430
SHALES	4430	4581
3RD RILEY	4581	4622
SHALES	4622	4679
BENSON	4679	4682
SHALES	4682	4924
ALEXANDER	4924	5095
SHALES	5095	5340
ELK	5340	5388
SHALES	5388	5717
HAMILTON	5717	5891
SHALES	5891	6547
UPPER MARCELLUS	6547	6570
PARCELL LIME	6570	6605
SHALES	6605	6627
LOWER MARCELLUS	6627	0

RECEIVED
Office of Oil and Gas

JUN 03 2019

WV Department of
Environmental Protection

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/25/2018
Job End Date:	7/13/2018
State:	West Virginia
County:	Tyler
API Number:	47-095-02240-00-00
Operator Name:	Jay-Bee Oil & Gas, Inc.
Well Name and Number:	Dopey 6
Latitude:	39.43831100
Longitude:	-80.77232300
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,000
Total Base Water Volume (gal):	11,625,264
Total Base Non Water Volume:	81,283



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Supplied by Operator	Base Fluid					
Other Chemical	Listed Above	See Trade Name (s) List					
Water Environmental Protection	Office of Oil and Gas						
			Water	7732-18-5	100.00000	91.45690	
			Water	7732-18-5	55.00000	0.01421	

RECEIVED
Office of Oil and Gas
JUN 03 2019
West Virginia Department of Environmental Protection

10.1%-15.0% HCL	FTSI	Acid				
30/50 White	FTSI	Proppant				
20/40 White	FTSI	Proppant				
			Listed Below			
			Listed Below			
			Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.						
14808-60-7		Silica, Quartz	14808-60-7	100.00000	4.27374	
14808-60-7		Silica, Quartz	14808-60-7	100.00000	2.82918	
14808-60-7		Silica, Quartz	14808-60-7	100.00000	0.74200	
7647-01-0		Hydrogen Chloride	7647-01-0	15.00000	0.08295	
9003-05-8		Cationic Polyacrylamide	9003-05-8	30.00000	0.02538	
64742-47-8		Distillates (petroleum), hydrotreated light	64742-47-8	30.00000	0.02538	
6419-19-8		Phosphonic Acid, {Nitrotris (methylene)} Tris	6419-19-8	35.00000	0.00904	
533-74-4		Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	533-74-4	24.00000	0.00635	
1310-73-2		Sodium Hydroxide	1310-73-2	23.00000	0.00608	
78330-21-9		Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	5.00000	0.00423	
64742-47-8		Petroleum Distillate	64742-47-8	55.00000	0.00363	
64741-85-1		Raffinates, Sorption Process	64741-85-1	55.00000	0.00363	
9000-30-0		Guar gum	9000-30-0	55.00000	0.00363	
29712-30-9		Phosphonic Acid, {(Dimethylamino) Methylene} Bis -	29712-30-9	5.00000	0.00129	

RECEIVED
 Office of Oil and Gas
 JUN 03 2019
 WV Department of
 Environmental Protection

RECEIVED
Office of Oil and Gas

JUN 03 2019

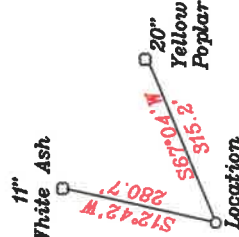
WV Department of
Environmental Protection

			67-56-1	90.00000	0.00088
			Sodium Perborate Tetrahydrate	10486-00-7	98.00000
			Phosphorous Acid	10294-56-1	2.00000
			Suspending Agent	1302-78-9	5.00000
			Quartz	14808-60-7	4.00000
			Orthophosphoric acid	7664-38-2	0.75000
			Isotridecanol, ethoxylated	9043-30-5	2.00000
			Fatty Acids, Tall Oil	61790-12-3	10.00000
			Thiourea-formaldehyde Copolymer	68527-49-1	10.00000
			Alcohol Ethoxylate Surfactants	Proprietary	10.00000
			Propargyl Alcohol	107-19-7	5.00000
			N-olefins	Proprietary	3.00000
			Sodium Metaborate	7775-19-1	1.40000
			Hydrochloric acid	7647-01-0	0.00500
					0.00000

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%
*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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(f) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

References

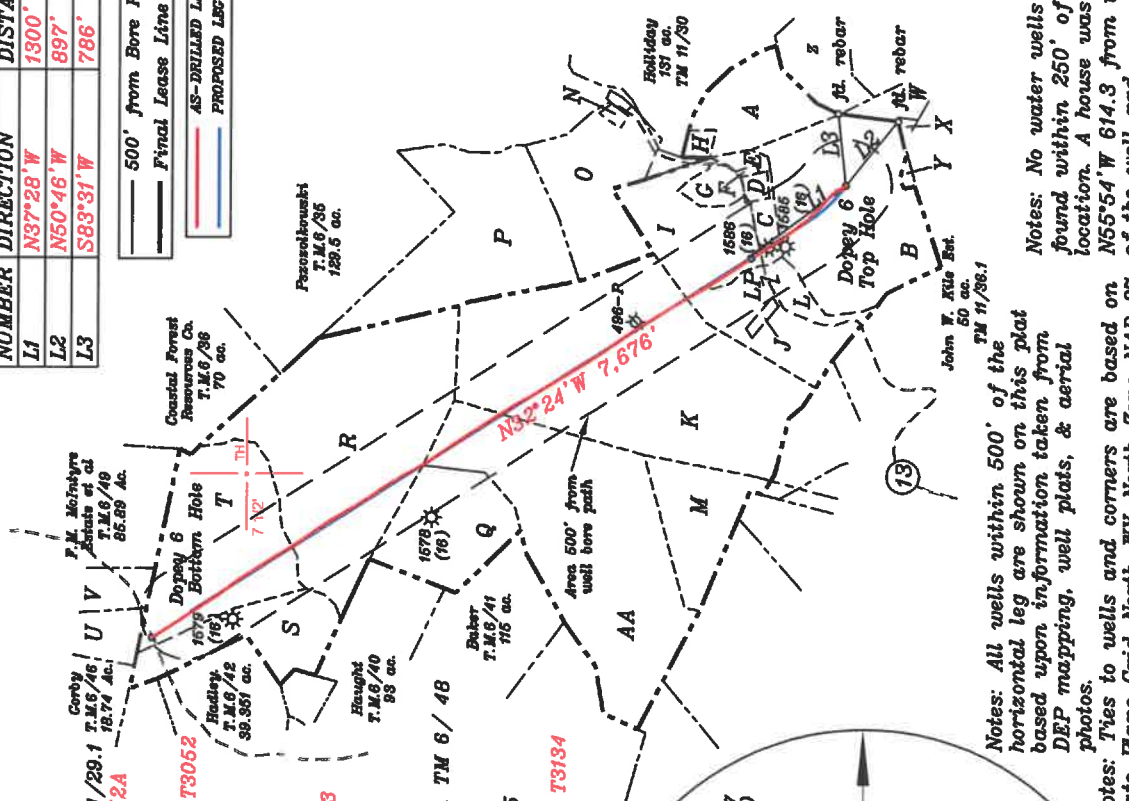


Bottom Hole 11,313' LATITUDE 39-27-30 N
Top Hole 6,455'

Top Hole	UTM NAD83(meters)-4365443.0 N. 519592.7 E
Landing Point	UTM NAD83(meters)-4365583.4 N. 519462.1 E
Bottom Hole	UTM NAD83(meters)-4367592.2 N. 518143.0 E
Top Hole	UTM NAD83(meters)-4365442.9 N. 519592.8 E
Landing Point	UTM NAD83(meters)-4365753.3 N. 519346.7 E
Bottom Hole	UTM NAD83(meters)-4367706.7 N. 518060.6 E

- A- Jefferson Minerals, LLC 25.31 ac. TM 11/29.1
- B- Montgomery 65 ac. TM 11/27 T3055A
- C- Montgomery 2.18 ac. TM 11/14 T3052A
- D- Vincent 1.82 ac. TM 11/14.4
- E- Ritter (Life) 1.63 ac. TM 11/29
- F- Stillson 0.37 ac. TM 11/28
- G- Tallman 5.135 ac. TM 11/14.5
- H- Jefferson Minerals, LLC 2 ac. TM 11/28.1
- I- Tallman 28.631 ac. TM 11/14.3 T3052A
- J- Woodburn 1.2 ac. TM 11/19.1
- K- Underwood 136 ac. TM 11/4 T3158
- L- Woodburn et al 30.05 ac. TM 11/13 T3052
- M- Booher 25 ac. TM 11/10
- N- R. Dotson(Life) 1 ac. TM 11/5.2
- O- Dotson 37 ac. TM 11/5.1
- P- T. Dotson 62 ac. TM 11/5
- Q- Seago 32.25 ac. T.M.11/2
- R- Hoover et al 108 ac. T.M.6/37 T3183
- S- Coastal Forest Resources Co. 23 ac. T.M.6/39 Fruit733
- T- Coastal Lumber Co. 60 ac. T.M.6/38
- U- Gorbey 16.73ac. TM 6/ 47
- V- F.M. McIntyre Estate et al 19.78 ac. TM 6/ 48
- W- Woodburn et al 6.75 ac. TM 11/ 44
- X- Woodburn et al 1.5 ac. TM 11/ 44
- Y- Woodburn et al 0.755 ac. TM 11/ 45
- Z- Woodburn et al 35 ac. TM 11/ 43
- AA Coastal Lumber Co. 119 ac. TM 11/3 T3184

NUMBER	DIRECTION	DISTANCE
L1	N37°28' W	1300'
L2	N50°46' W	897'
L3	S83°31' W	786'

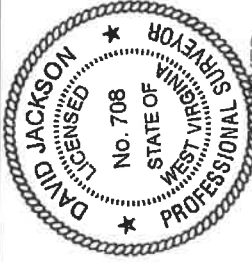


Notes: All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats, & aerial photos.

Notes: No water wells were found within 250' of the well location. A house was found N55°54' W 614.3 from the center of the well pad.

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

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



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

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

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

DATE February 15, Office of Oil and Gas
OPERATOR'S WELL NO. Dopey 6
API WELL NO. 47 095 STATE WV COUNTY Wayne

WELL TYPE: OIL AS-DRILLED LIQUID INJECTION AS-DRILLED WASTE DISPOSAL AS-DRILLED SHALLOW AS-DRILLED DEEP AS-DRILLED
(IF "GAS") PRODUCTION AS-DRILLED STORAGE AS-DRILLED WATER SHED Indian Creek

JUN 03 2019
02240
Department of Environmental Protection

DISTRICT McEroy COUNTY Tyler

QUADRANGLE Shirley 7 1/2'

SURFACE OWNER John & Patty Montgomery ACREAGE 65 ac.
OIL & GAS ROYALTY OWNER & LEASE NO. See ownership list above for Lease Numbers.

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

PLUG AND ABANDON AS-DRILLED CLEAN OUT AND REPLUG AS-DRILLED ESTIMATED DEPTH TVD 6,609.5'; TMD 14,920'
TARGET FORMATION Marcellus

WELL OPERATOR Jay Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda
ADDRESS 1720 Rt. 22, East Union, NJ 07083 ADDRESS 3570 Shields Hill Road, Cairo, WV 26337

LONGITUDE 80-45-00 W
Bottom Hole 149'
Top Hole 7,232'