

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

API 47-009-00184 County BROOKE District BUFFALO
Quad BETHANY Pad Name JOHN HUPP BRK PAD Field/Pool Name PANHANDLE FIELD WET
Farm name JOHN W. HUPP & LINDA H. DOUBLE Well Number JOHN HUPP BRK 205H
Operator (as registered with the OOG) SWN PRODUCTION COMPANY, LLC
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,447,432.420 Easting 536,704.883
Landing Point of Curve Northing 4,447,752.070 Easting 537,110.173
Bottom Hole Northing 4,449,847.190 Easting 536,261.063

Elevation (ft) 1275.6 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)
SOBM

Date permit issued 02/02/2017 Date drilling commenced 05/15/2017 Date drilling ceased 09/01/2017
Date completion activities began 02/09/2018 Date completion activities ceased 03/13/2018
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 450 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 977 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 497 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

RECEIVED
Office of Oil and Gas
MAY 02 2018
WV Department of
Environmental Protection

Reviewed
C. J. [Signature] 5.10.18

Reviewed by: _____

API 47-009 - 00184 Farm name JOHN W. HUPP & LINDA H. DOUBLE Well number JOHN HUPP BRK 205H

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	26	20	126	NEW	J-55/94#		Y
Surface	17.5	13.375	580	NEW	J-55/54.51.20#	481'	Y
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	1897	NEW	J-55/36#		Y
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	14638	NEW	HCP-110/20#		Y
Tubing		2.375	6966	NEW	P-110/4.7#		N
Packer type and depth set							

Comment Details External Casing Packer @ 466.6'

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	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	772	15.60	1.20	926.4	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	714	15.60	1.18	842.52	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	930/1390	15.60	1.21/1.19	1125.3/1654.1	SURFACE	24
Tubing							

Drillers TD (ft) 14638 Loggers TD (ft) 14638
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5650

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 _____
 SURFACE: 7 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 INTERMEDIATE: 24 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 PRODUCTION: 181 CENTRALIZERS - EVERY THIRD JOINT FROM SURFACE TO TOP OF CURVE, THEN EVERY JOINT UNTIL TD

RECEIVED
Office of Oil and Gas
MAY 02 2018
WV Department of Environmental Protection

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 _____

API 47- 009 - 00184 Farm name JOHN W. HUPP & LINDA H. DOUBLE Well number JOHN HUPP BRK 205H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>MARCELLUS</u>	<u>6200</u> TVD	<u>6898</u> MD
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1198 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 3760 mcfpd Oil 559 bpd NGL _____ bpd Water 957 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	
	<u>0</u>		<u>0</u>		
	<u>SEE</u>	<u>ATTACHMENT</u>	<u>3</u>		

Please insert additional pages as applicable.

Drilling Contractor SWN DRILLING COMPANY
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Logging Company WEATHERFORD
Address 2000 St. James Place City Houston State TX Zip 77056

Cementing Company SCHLUMBERGER WELL SERVICES
Address 1080 US Hwy 33 East City Weston State WV Zip 26452

Stimulating Company US WELL SERVICES
Address 533 Industrial Park Dr. City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

Completed by BOBBY WILLIS Telephone 832-796-2884
Signature [Signature] Title REGULATORY ANALYST Date 5/1/18

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

RECEIVED
Office of Oil and Gas
MAY 02 2018
WV Department of
Environmental Protection

**JOHN HUPP BRK 205H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	2/10/2018	14,401	14,508	42
2	2/11/2018	14,261	14,368	31
3	2/12/2018	14,121	14,228	42
4	2/12/2018	13,981	14,088	42
5	2/13/2018	13,841	13,948	42
6	2/13/2018	13,701	13,808	42
7	2/14/2018	13,561	13,668	42
8	2/14/2018	13,421	13,528	42
9	2/14/2018	13,281	13,388	42
10	2/15/2018	13,141	13,248	42
11	2/15/2018	13,001	13,108	42
12	2/15/2018	12,861	12,968	42
13	2/16/2018	12,721	12,828	42
14	2/16/2018	12,581	12,688	42
15	2/16/2018	12,441	12,548	42
16	2/17/2018	12,301	12,408	42
17	2/17/2018	12,161	12,268	42
18	2/17/2018	12,021	12,128	42
19	2/18/2018	11,881	11,988	42
20	2/18/2018	11,741	11,848	42
21	2/18/2018	11,601	11,708	42
22	2/19/2018	11,461	11,568	42
23	2/19/2018	11,321	11,428	42
24	2/19/2018	11,181	11,288	42
25	2/19/2018	11,041	11,288	84
26	2/20/2018	10,901	11,008	42
27	2/20/2018	10,761	10,868	42
28	2/20/2018	10,621	10,728	42
29	2/21/2018	10,481	10,588	42
30	2/21/2018	10,341	10,448	42
31	2/23/2018	10,201	10,308	42
32	2/23/2018	10,061	10,168	42
33	2/24/2018	9,921	10,028	42
34	2/24/2018	9,781	9,888	42
35	2/24/2018	9,641	9,748	42
36	2/24/2018	9,501	9,608	42
37	2/25/2018	9,361	9,468	42
38	2/25/2018	9,221	9,328	42
39	2/25/2018	9,081	9,188	42
40	2/25/2018	8,941	9,048	42
41	2/26/2018	8,801	8,908	42
42	2/26/2018	8,661	8,768	42
43	2/26/2018	8,521	8,628	42
44	2/27/2018	8,381	8,488	42
45	2/27/2018	8,241	8,348	42
46	2/28/2018	8,101	8,208	42
47	2/28/2018	7,961	8,068	42
48	2/28/2018	7,821	7,928	42
49	3/1/2018	7,681	7,788	42
50	3/1/2018	7,541	7,648	42
51	3/1/2018	7,401	7,508	42
52	3/1/2018	7,261	7,368	42
53	3/2/2018	7,121	7,228	42
54	3/2/2018	6,981	7,088	42

RECEIVED
Office of Oil and Gas
MAY 02 2018
WV Department of
Environmental Protection

JOHN HUPP BRK 205H
ATTACHMENT 2
STIM REPORT

STAGE NUM	Stim 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
1	2/11/2018	88	7,588	8,411	4,126	283,700	9,085	
2	2/12/2018	88	8,285	8,899	4,012	286,580	5,100	
3	2/12/2018	94	8,551	8,941	3,840	288,640	5,600	
4	2/13/2018	97	8,232	8,966	3,832	293,000	5,803	
5	2/13/2018	89	8,027	9,033	4,133	293,440	4,984	
6	2/13/2018	89	7,702	9,041	4,178	289,780	4,825	
7	2/14/2018	91	7,750	8,884	4,402	286,160	6,002	
8	2/14/2018	87	7,708	8,703	4,230	293,420	4,790	
9	2/15/2018	89	8,107	9,166	3,907	292,760	5,011	
10	2/15/2018	82	7,593	8,772	4,302	292,420	5,008	
11	2/15/2018	92	7,870	8,823	4,021	291,620	4,927	
12	2/16/2018	92	7,700	8,529	4,016	295,560	5,879	
13	2/16/2018	91	7,813	8,339	4,967	295,820	4,621	
14	2/16/2018	94	7,728	8,787	4,266	297,740	4,440	
15	2/17/2018	89	7,835	8,593	4,321	293,520	4,586	
16	2/17/2018	89	7,778	8,382	4,301	296,400	4,553	
17	2/17/2018	95	7,687	8,592	4,257	295,520	4,373	
18	2/18/2018	93	7,511	8,080	4,227	290,020	4,373	
19	2/18/2018	87	7,512	7,940	4,359	291,920	4,215	
20	2/18/2018	90	7,211	8,446	4,198	290,960	4,332	
21	2/19/2018	92	7,400	8,133	4,256	288,400	4,053	
22	2/19/2018	92	7,631	8,333	4,351	291,740	3,962	
23	2/19/2018	86	7,425	8,991	4,232	290,400	3,993	
24	2/19/2018	95	7,400	7,936	4,175	287,540	3,744	
25	2/20/2018	87	7,279	8,066	4,422	290,700	4,062	
26	2/20/2018	94	7,816	8,567	4,180	292,680	3,989	
27	2/20/2018	83	7,260	7,715	4,156	287,280	3,970	
28	2/21/2018	88	7,574	8,429	4,508	287,280	3,979	
29	2/21/2018	93	7,402	7,797	4,273	287,280	3,532	
30	2/23/2018	100	7,330	7,792	4,567	292,120	4,169	
31	2/23/2018	99	73,393	8,497	4,714	290,640	4,024	
32	2/24/2018	100	7,345	8,122	4,731	287,320	3,587	
33	2/24/2018	100	6,904	7,253	4,762	291,020	3,475	
34	2/24/2018	99	6,817	7,241	4,629	290,320	3,766	
35	2/24/2018	101	6,957	7,201	4,570	292,040	3,908	
36	2/25/2018	100	6,880	7,060	4,418	291,620	3,884	
37	2/25/2018	101	7,114	7,354	4,549	290,060	3,815	
38	2/25/2018	99	6,747	6,971	4,554	287,340	3,864	
39	2/25/2018	99	6,748	7,151	4,930	291,600	3,736	
40	2/26/2018	100	7,004	7,376	4,725	292,740	3,542	
41	2/26/2018	101	7,064	7,519	4,328	286,340	3,351	
42	2/26/2018	100	6,992	7,605	4,851	288,980	3,725	
43	2/27/2018	100	6,810	7,149	4,829	295,520	3,513	
44	2/27/2018	100	6,908	7,363	5,037	289,980	3,418	
45	2/28/2018	100	6,673	7,133	5,085	289,840	3,451	
46	2/28/2018	99	6,828	7,405	4,699	293,060	3,433	
47	2/28/2018	100	6,570	6,967	4,891	292,460	3,437	
48	3/1/2018	103	6,890	7,608	4,665	293,740	3,482	
49	3/1/2018	103	6,159	7,124	5,061	292,320	3,248	
50	3/1/2018	99	6,768	7,481	4,489	291,720	3,332	
51	3/1/2018	99	6,639	7,033	4,654	292,420	3,332	
52	3/2/2018	100	6,665	6,970	4,250	290,040	3,502	
53	3/2/2018	101	6,769	7,589	4,564	289,420	3,252	
54	3/2/2018	100	6,775	7,504	4,889	294,460	3,092	

RECEIVED
Office of Oil and Gas
MAY 02 2018
WV Department of
Environmental Protection



Well Name: John Hupp BRK 205H

47009001840000

LITHOLOGY/FORMATION	TOP DEPTH, MD (FT)	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, MD (FT)	BOTTOM DEPTH, TVD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	0.00	0.00	450.00	450.00	
Top of Salt Water	977.00	977.00	NA	NA	
Pittsburgh Coal	497.00	497.00	502.00	502.00	
Pottsville (ss)	617.00	617.00	744.00	744.00	
Mauch Chunk (shale)	852.00	852.00	1536.00	1536.00	
Raven Cliff (ss)	959.00	959.00	1226.00	1226.00	
Maxton (ss)	1311.00	1311.00	1434.00	1434.00	
Greenbriar (ls)	1536.00	1536.00	1678.00	1678.00	
Big Injun (ss)	1678.00	1678.00	1813.00	1813.00	
Berea (siltstone)	2167.00	2167.00	2210.00	2210.00	
Rhinestreet (shale)	6100.00	5740.00	6272.00	5875.00	
Cashaqua (shale)	6272.00	5875.00	6368.00	5945.00	
Middlesex (shale)	6368.00	5945.00	6473.00	6017.00	
Burket (shale)	6473.00	6017.00	6496.00	6031.00	
Tully (ls)	6496.00	6031.00	6574.00	6078.00	
Mahantango (shale)	6574.00	6078.00	6769.00	6165.00	
Marcellus (shale)	6898.00	6200.00	NA	NA	Gas

RECEIVED
 Office of Oil and Gas
 WV Department of
 Environmental Protection
 MAY 02 2018

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/11/2018
Job End Date:	3/2/2018
State:	West Virginia
County:	Brooke
API Number:	47-009-00184-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	John Hupp BRK 205
Latitude:	40.17646431
Longitude:	-80.56888640
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,170
Total Base Water Volume (gal):	9,436,624
Total Base Non Water Volume:	156,000



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
SCAL16486A	Nalco	Scale Inhibitor					
				Listed Below			
Sand	SWN Well Services	Proppant					
				Listed Below			

RECEIVED
 Office of Oil and Gas
 MAY 02 2018
 Department of Environmental Protection

FLOJET DR 9000LPP	SWN Well Services	Friction Reducer					
				Listed Below			
Base Water	Operator	Base Fluid					
				Listed Below			
BIOC11219A	Nalco	Biocide					
				Listed Below			
HCL	SWN Well Services	Solvent					
				Listed Below			
Econo-CI200	SWN Well Services	Corrosion Inhibitor					
				Listed Below			
Ingredients	Listed Above	Listed Above					
				Listed Below			
Ecopol-FEAC	SWN Well Services	Iron Control					
				Listed Below			

Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.

		Water	7732-18-5	100.00000	82.03904	Density = 8.345
		Crystalline Silica, quartz	14808-60-7	100.00000	16.37571	
		Water	7732-18-5	85.00000	1.27605	
		Hydrochloric Acid	7647-01-0	15.00000	0.21767	
		Petroleum Distillates, Hydrotreated	64742-47-8	45.00000	0.04079	

RECEIVED
 Office of Oil and Gas
 MAY 02 2018
 WV Department of
 Environmental Protection

			Methanol	67-56-1	60.00000	0.01661	
			Ethylene glycol	107-21-1	10.00000	0.01073	
			Benzyl-(C12-C16 Alky)- Dimethyl-Ammonium	68424-85-1	30.00000	0.00830	
			Acetic Acid	64-19-7	37.50000	0.00297	
			Chloride Glutaraldehyde	111-30-8	10.00000	0.00277	
			Methanol	67-56-1	80.00000	0.00182	
			Alcohols, C12- C16,Ethoxylated propoxylated	68213-24-1	2.00000	0.00181	
			Fatty alcohols ethoxylated	Proprietary	2.00000	0.00181	
			Citric Acid	77-92-9	22.50000	0.00178	
			Amine Triphosphate	Proprietary	30.00000	0.00167	
			Oxyalkylated fatty acid	68951-67-7	9.67400	0.00022	
			Fatty acids	61790-12-3	5.02700	0.00011	
			Modified thiourea polymer	68527-49-1	4.74600	0.00011	
			Potassium acetate	127-08-2	0.02200	0.00000	
			Formaldehyde	50-00-0	0.00400	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(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

RECEIVED
Office of Oil and Gas
MAY 02 2018
WV Department of
Environmental Protection

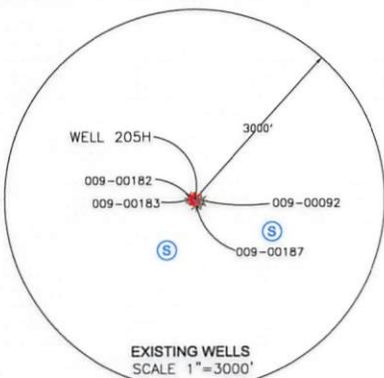
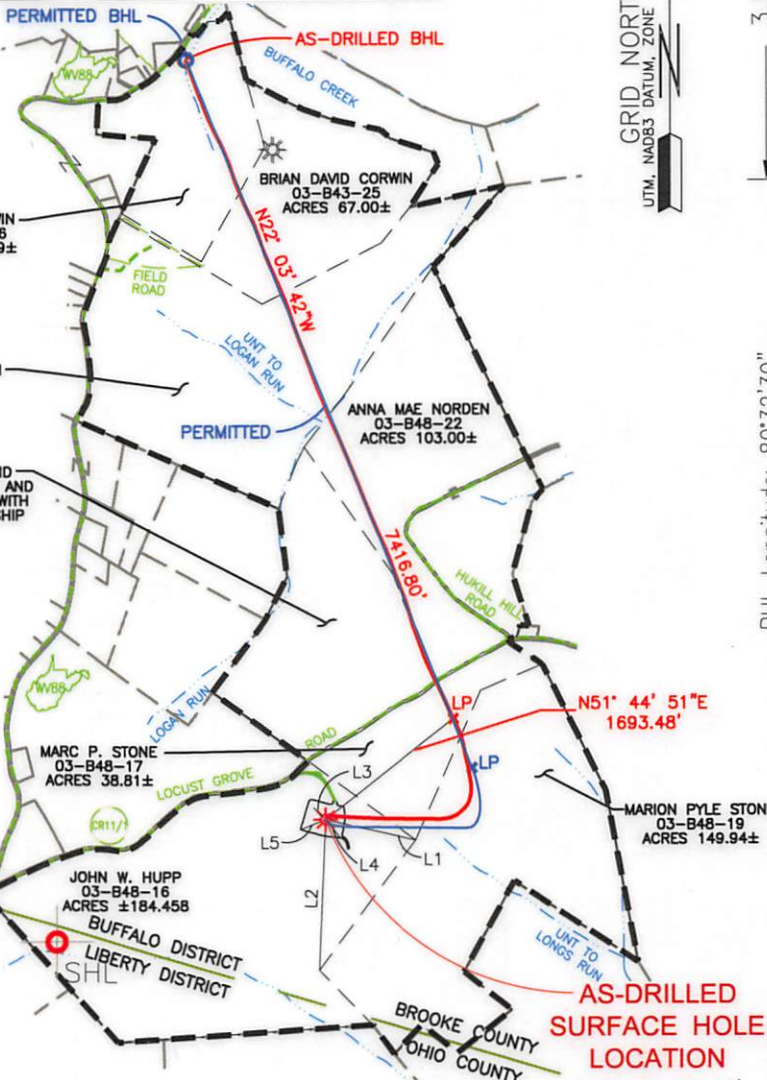


RETTEW Associates, Inc.
 27 Travato Street, Suite 101
 Bridgeport, WV 26330
 Phone (800) 738-8395
 Email: rettetw@rettetw.com
 Website: www.rettetw.com

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,447,432.420 EASTING: 536,704.883
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,447,752.070 EASTING: 537,110.173
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,449,847.190 EASTING: 536,261.063
SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,447,432.420 EASTING: 536,704.883
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,447,597.061 EASTING: 537,169.271
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,449,847.974 EASTING: 536,263.029

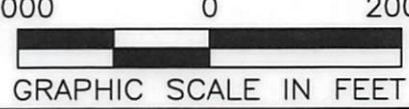
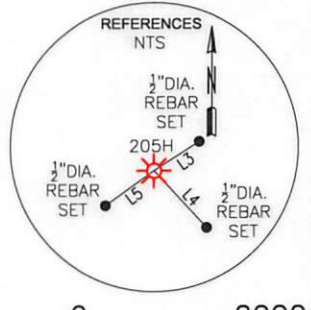
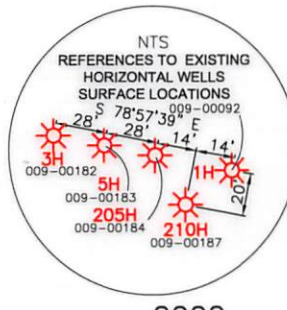
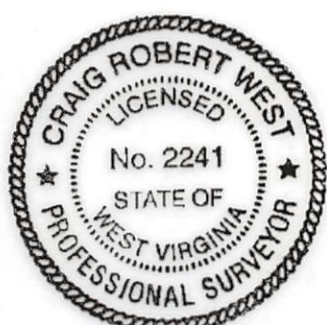
LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	S77°01'57"E	964.65'	SHL TO LANDMARK	
L2	S02°22'43"W	1569.54	SHL TO LANDMARK	
L3	N46°08'10"W	170.62	SHL TO REF. PNT.	1/2"Ø REBAR/CAP
L4	S38°08'56"E	251.46	SHL TO REF. PNT.	1/2"Ø REBAR/CAP
L5	S67°59'33"W	286.08	SHL TO REF. PNT.	1/2"Ø REBAR SET

AS-DRILLED



NOTES ON SURVEY

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.



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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2241 *Craig Robert West*

COMPANY: **SWN** Production Company, LLC **SWN** Production Company™

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)	COMPANY: JOHN HUPP BRK OPERATOR'S WELL #: 205H API WELL #: 49 STATE COUNTY PERMIT
	WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input checked="" type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>	WATERSHED: UPPER OHIO NORTH DISTRICT: BUFFALO COUNTY: BROOKE SURFACE OWNER: JOHN W. HUPP & LINDA H. DOUBLE OIL & GAS ROYALTY OWNER: JOHN W. HUPP & LINDA H. DOUBLE

DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) **As-Drilled**

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,224' TVD 14,638' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: P.O. BOX 1300 CITY: JANE LEW STATE: WV ZIP CODE: 26378

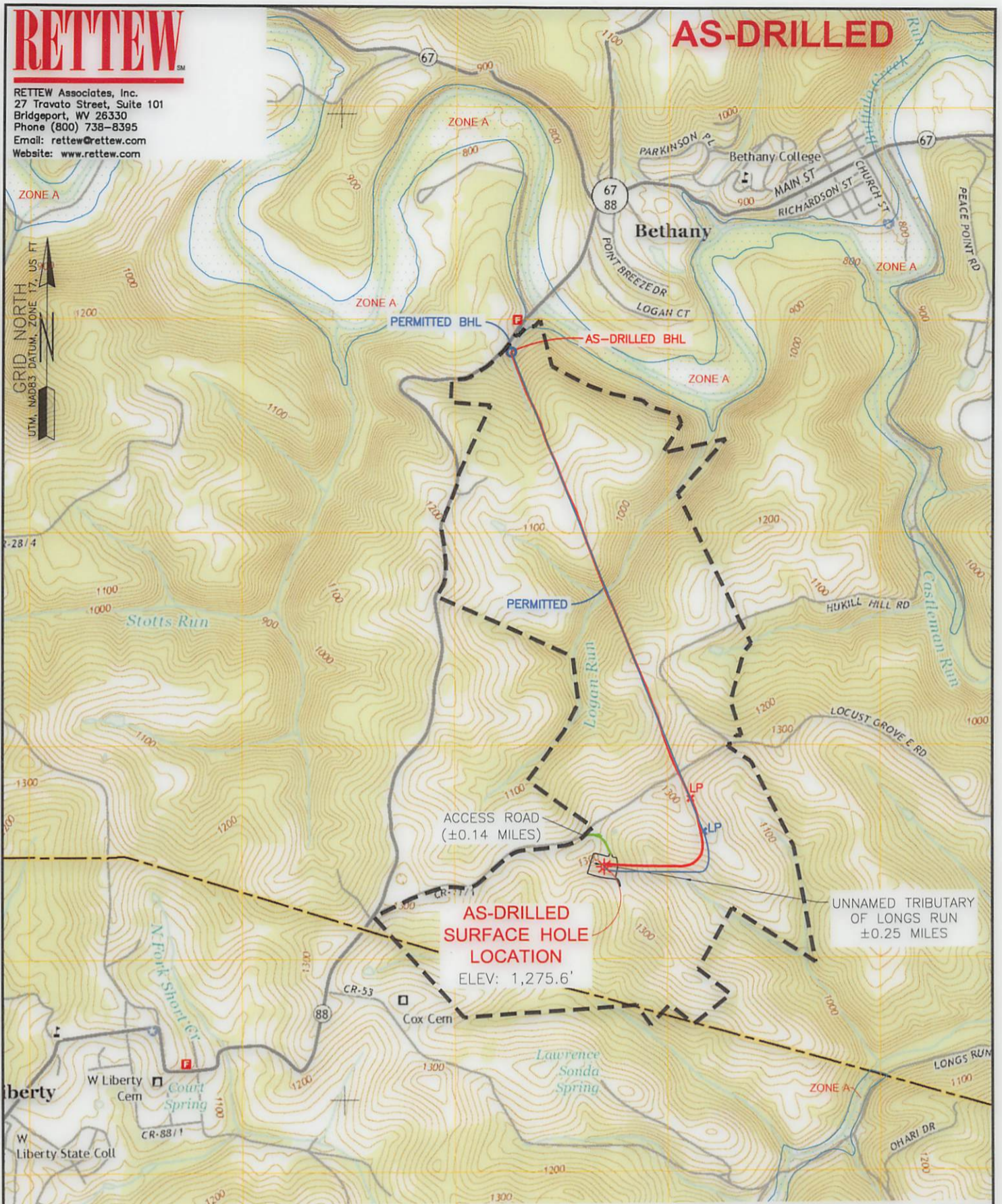
DESIGNATED AGENT: DEE SOUTHALL ADDRESS: P.O. BOX 1300 CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:	(S) EXISTING SPRING (W) EXISTING WATER WELL --- TIE LINE --- LEASE BOUNDARY --- ASDRILLED WELLPATH --- PERMITTED WELLPATH --- STREAM	REVISIONS: DATE: 11-13-2017 DRAWN BY: G.FLORES SCALE: 1" = 2000' DRAWING NO: 087569048 WELL LOCATION PLAT
----------------	--	--

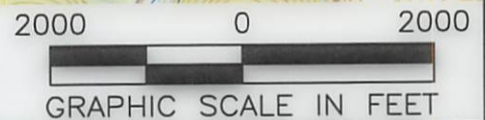
RETTEW

RETTEW Associates, Inc.
 27 Travato Street, Suite 101
 Bridgeport, WV 26330
 Phone (800) 738-8395
 Email: rettetw@rettetw.com
 Website: www.rettetw.com

AS-DRILLED



WELL: JOHN HUPP BRK 205H
 QUAD: BETHANY, WV-PA



NAME AND DISTANCE TO THE NEAREST STREAM: UN-NAMED TRIBUTARY TO LONGS RUN IS LOCATED ±0.25 MILES SOUTH EAST OF THE CENTER OF THE DRILL PAD.		STREAM CROSSING COORDINATES (NAD 83): NO NEW CROSSINGS.		COMPANY: 	
WELL RESTRICTIONS: WELL PAD, LOD, & E & S CONTROL FEATURES TO PERENNIAL STREAM, LAKE, POND, RESERVOIR OR WETLAND: >100 FEET WELL PAD, LOD, & E & S CONTROL FEATURES TO NATURALLY PRODUCING TROUT STREAM: >300 FEET WELL PAD, LOD, & E & S CONTROL FEATURES TO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY: >1000 FEET WELL SHL TO EXISTING WATER WELL OR DEVELOPED SPRING: >250 FEET CENTER OF PAD TO OCCUPIED DWELLING STRUCTURE: >625 FEET CENTER OF PAD TO AGRICULTURAL BUILDINGS LAGER THAN 2500 SQ FT: >625 FEET		OPERATOR'S JOHN HUPP BRK		WELL #: 205H	
FEMA FLOOD INFORMATION: BY GRAPHIC PLOTTING ONLY FEMA FIRM INCORPORATED AREA OF BROOKE COUNTY, WEST VIRGINIA; MAP NUMBERS 54009C0130D, 54009C0135D, 54009C0140D, 54009C0141D, 54009C0145D; EFFECTIVE DATE: APRIL 19, 2010. NO FLOOD ZONES ARE SITUATED WITHIN THE UNIT.		LOCATION: BUFFALO DISTRICT, BROOKE COUNTY, WEST VIRGINIA		SURFACE HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 40.176464° LONGITUDE: -80.568886°	
LEGEND: ● PROPOSED SURFACE HOLE / BOTTOM HOLE ★ EXISTING / PRODUCING WELLHEAD --- LEASE BOUNDARY --- ASDRILLED WELLPATH --- PERMITTED WELLPATH --- ACCESS ROAD --- HIGHWAY/INTERSTATE --- COUNTY ROAD		BOTTOM HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 40.198239° LONGITUDE: -80.573963°		REVISIONS: DATE: 11-13-2017 DRAWN BY: G.FLORES SCALE: 1" = 2000' DRAWING NO: 087569048 TOPOGRAPHIC MAP	