

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

API 47-009-00262 County BROOKE District BUFFALO
Quad BETHANY Pad Name SAMUEL JONES BRK PAD 1 Field/Pool Name PANHANDLE FIELD WET
Farm name SAMUEL E. & JUDITH F. JONES Well Number SAMUEL JONES BRK 1H
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 4,448,995.34 Easting 537,355.59
Landing Point of Curve Northing 4,448,945.06 Easting 537,119.29
Bottom Hole Northing 4,451,141.66 Easting 536,209.72

Elevation (ft) 1,204' 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 11/30/18 Date drilling commenced 05/08/19 Date drilling ceased 05/25/19
Date completion activities began 09/20/19 Date completion activities ceased 10/05/19
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 264' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 612' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 397' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by [Signature]
5.11.20 935.1120

WV Department of
Environmental Protection

DEC 30 2019

RECEIVED
Office of Oil and Gas

API 47-009 - 00262 Farm name SAMUEL E. & JUDITH F. JONES Well number SAMUEL JONES BRK 1H

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	24	20	126'	NEW	J-55/94#		Y
Surface	17.5	13.375	369'	NEW	J-55/54.50#		Y; 15 BBLS RETURNED
Coal	SEE INTERMEDIATE						
Intermediate 1	12.25	9.625	1,823'	NEW	J-55/36#		Y; 37 BBLS RETURNED
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	14,441'	NEW	P-110/20#		Y; 60 BBLS RETURNED
Tubing		2.875	6,552'	NEW	P-110/6.50#		N
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	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	350	15.60	1.20	420	SURFACE	8
Coal	SEE INTERMEDIATE	735	15.60	1.19	874.65		
Intermediate 1	CLASS A					SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	2,660	15.60	1.20	3,192	SURFACE	24
Tubing							

Drillers TD (ft) 14,450' Loggers TD (ft) 14,450'

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

Plug back procedure N/A

Kick off depth (ft) 5,233'

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

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 _____

RECEIVED
 Office of Oil and Gas
 DEPARTMENT OF
 ENERGY
 DIVISION OF
 OIL AND GAS

API 47- 009 - 00262 Farm name SAMUEL E. & JUDITH F. JONES Well number SAMUEL JONES BRK 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus Shale</u>	<u>6,053'</u> TVD	<u>6,407'</u> MD
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
SHUT-IN PRESSURE Surface 1,288 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 4,888 mcfpd Oil 629 bpd NGL _____ bpd Water 574 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	<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 BAKER HUGES
Address 9110 GROGANS MILL ROAD City THE WOODLANDS State TX Zip 77380

Cementing Company C&J SERVICES INC.
Address 3990 ROGERDALE ROAD City HOUSTON State TX Zip 77042

Stimulating Company SWN WELL SERVICES
Address PO BOX 12359 City SPRING State TX Zip 77391

Please insert additional pages as applicable.

Completed by BOBBY WILLIS Telephone 832-796-2884
Signature [Signature] Title SENIOR REGULATORY ANALYST Date 12/27/2019

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

RECEIVED
Office of Oil and Gas
WV Department of
Environmental Protection
11-13-2019

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/20/2019
Job End Date:	10/1/2019
State:	West Virginia
County:	Brooke
API Number:	47-009-00262-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	Samuel Jones BRK 1
Latitude:	40.19051632
Longitude:	-80.56115310
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,057
Total Base Water Volume (gal):	12,227,186
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
Sand	SWN Well Services	Proppant		Listed Below			
HCL	SWN Well Services	Solvent		Listed Below			



RECEIVED
Office of Oil and Gas
DEC 3 0 2019
WV Department of
Environmental Protection



RECEIVED
Office of Oil and Gas
DEC 3 0 2019

WV Department of
Environmental Protection

Econo-CI200	SWN Well Services	Corrosion Inhibitor		Listed Below					
SCAL 16486A	Nalco	Scale Inhibitor		Listed Below					
Ecopol-FEAC	SWN Well Services	Iron Control		Listed Below					
SWN FRW-13LA	SWN Well Services	Friction Reducer		Listed Below					
BIOC11219A	Nalco	Biocide		Listed Below					
Base Water	Operator	Base Fluid		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	86.14143	Density = 8.345		
		Crystalline Silica, quartz		14808-60-7	100.00000	12.97638			
		Water		7732-18-5	85.00000	0.70713			
		Hydrochloric Acid		7647-01-0	15.00000	0.11206			
		Petroleum Distillates, Hydroreated		64742-47-8	25.00000	0.02418			
		Methanol		67-56-1	60.00000	0.01571			
		Benzyl-(C12-C16 Alky)-Dimethyl-Ammonium		68424-85-1	30.00000	0.00786			
		Chloride Glutaraldehyde		111-30-8	10.00000	0.00262			

RECEIVED
Office of Oil and Gas

DEC 30 2011

WV Department of
Environmental Protection

**SAMUEL JONES BRK 1H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	20-Sep	14,352	14,261	36
2	9/20/2019	14,228	14,051	36
3	9/21/2019	14,017	13,840	36
4	9/21/2019	13,807	13,629	36
5	9/21/2019	13,596	13,419	36
6	9/21/2019	13,386	13,208	36
7	9/21/2019	13,175	13,002	36
8	9/22/2019	12,964	12,784	36
9	9/22/2019	12,754	12,576	36
10	9/22/2019	12,538	12,366	36
11	9/23/2019	12,329	12,155	36
12	9/23/2019	12,122	11,945	36
13	9/23/2019	11,911	11,734	36
14	9/24/2019	11,701	11,523	36
15	9/24/2019	11,490	11,313	36
16	9/24/2019	11,280	11,102	36
17	9/25/2019	11,069	10,892	36
18	9/25/2019	10,858	10,681	36
19	9/25/2019	10,648	10,470	36
20	9/26/2019	10,437	10,260	36
21	9/26/2019	10,227	10,049	36
22	9/26/2019	10,016	9,838	36
23	9/27/2019	9,805	9,628	36
24	9/27/2019	9,595	9,417	36
25	9/27/2019	9,384	9,207	36
26	9/27/2019	9,174	8,996	36
27	9/28/2019	8,963	8,785	36
28	9/28/2019	8,752	8,575	36
29	9/28/2019	8,542	8,367	36
30	9/29/2019	8,331	8,154	36
31	9/29/2019	8,121	7,943	72
32	9/29/2019	7,910	7,732	36
33	9/30/2019	7,699	7,522	36
34	9/30/2019	7,489	7,311	36
35	9/30/2019	7,278	7,101	36
36	10/1/2019	7,068	6,890	36
37	10/1/2019	6,857	6,679	36
38	10/1/2019	6,646	6,469	36

RECEIVED
Office of Oil and Gas

DEC 3 0 2019

WV Department of
Environmental Protection

**SAMUEL JONES BRK 1H
ATTACHMENT 2
STIM REPORT**

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/othe
1	9/20/2019	87	7,271	6,988	4,841	241,592	5,008	0
2	9/20/2019	88	7,543	5,502	4,270	421,942	7,722	0
3	9/21/2019	97	7,610	5,231	4,305	420,866	7,657	0
4	9/21/2019	99	7,510	3,928	4,953	419,578	7,673	0
5	9/21/2019	97	7,848	3,830	5,098	421,160	7,968	0
6	9/21/2019	97	7,711	4,140	4,358	421,888	7,549	0
7	9/21/2019	93	7,992	5,620	4,150	415,812	7,730	0
8	9/22/2019	87	8,072	5,648	4,602	423,162	7,093	0
9	9/22/2019	91	7,801	5,461	4,722	419,646	7,875	0
10	9/22/2019	91	7,821	5,593	4,260	419,308	7,403	0
11	9/23/2019	91	7,929	5,523	4,635	420,720	6,981	0
12	9/23/2019	92	7,357	5,331	4,525	420,489	7,151	0
13	9/24/2019	73	7,611	5,530	4,310	420,324	8,402	0
14	9/24/2019	97	7,216	5,491	4,718	420,413	6,879	0
15	9/24/2019	94	7,372	5,168	5,256	421,422	7,167	0
16	9/24/2019	69	8,227	5,215	4,251	420,899	8,157	0
17	9/25/2019	98	7,283	5,400	4,908	416,344	7,166	0
18	9/25/2019	56	6,694	5,218	4,273	416,344	12,668	0
19	9/26/2019	66	7,399	5,802	4,368	416,912	8,980	0
20	9/26/2019	97	7,076	5,120	4,933	415,314	7,204	0
21	9/26/2019	94	6,810	5,346	4,312	421,191	7,454	0
22	9/27/2019	94	6,844	5,423	4,211	420,345	7,474	0
23	9/27/2019	99	6,888	5,421	4,887	420,280	7,514	0
24	9/27/2019	98	6,919	5,342	4,800	421,616	7,603	0
25	9/27/2019	95	6,862	5,520	4,305	421,025	7,573	0
26	9/28/2019	94	6,928	5,561	4,290	421,329	7,489	0
27	9/28/2019	99	7,004	5,538	4,869	419,940	7,737	0
28	9/28/2019	90	7,090	5,084	4,380	421,434	8,243	0
29	9/29/2019	95	6,630	5,705	4,486	420,458	7,583	0
30	9/29/2019	98	6,726	5,106	4,539	419,603	7,538	0
31	9/29/2019	88	7,793	5,142	4,350	422,179	9,719	0
32	9/30/2019	94	6,871	5,331	4,375	420,644	7,425	0
33	9/30/2019	97	6,960	5,329	4,779	420,910	7,431	0
34	9/30/2019	94	6,638	5,423	4,487	420,636	7,519	0
35	10/1/2019	94	6,470	5,780	4,504	421,346	7,362	0
36	10/1/2019	99	6,729	5,761	4,904	419,624	8,320	0
37	10/1/2019	100	6,762	5,453	5,068	422,020	7,278	0
38	10/1/2019	97	6,650	5,347	4,839	417,324	7,788	0

RECEIVED
Office of Oil and Gas

DEC 30 2019

WV Department of
Environmental Protection

SWM

Southwestern Energy®

Well Name: Samuel Jones BRK 1H

47009002620000

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	264.00	264.00	
Top of Salt Water	612.00	612.00	NA	NA	
Pittsburgh Coal	397.00	397.00	545.00	545.00	
Pottsville (ss)	545.00	545.00	855.00	855.00	
Raven Cliff (ss)	855.00	855.00	1236.00	1236.00	
Maxton (ss)	1236.00	1236.00	1600.00	1600.00	
Big Injun (ss)	1600.00	1600.00	1714.00	1714.00	
Rhinestreet (shale)	5642.00	5504.00	5935.00	5761.00	
Cashoga (shale)	5935.00	5761.00	6001.00	5814.00	
Middlesex (shale)	6001.00	5814.00	6097.00	5884.00	
Burket (shale)	6097.00	5884.00	6119.00	5899.00	
Tully (ls)	6119.00	5899.00	6198.00	5948.00	
Mahantango (shale)	6198.00	5948.00	6407.00	6053.00	
Marcellus (shale)	6407.00	6053.00	NA	NA	GAS

RECEIVED
Office of Oil and Gas

DEC 12 2011

Office of Oil and Gas

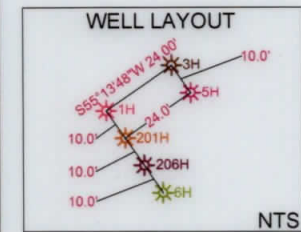
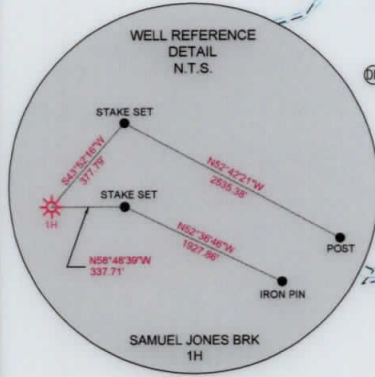


68011 Vineyard Road
St. Clairsville, Ohio 43950
740-695-6100

LATITUDE: 40°15'00" SURFACE HOLE ← 5444'

LATITUDE: 40°15'00" BOTTOM HOLE

9232'



SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448995.34 EASTING: 537355.59
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448885.06 EASTING: 537149.44
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4451142.49 EASTING: 536211.08
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448995.34 EASTING: 537355.59
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448945.06 EASTING: 537119.29
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4451141.66 EASTING: 536209.72

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. 2041



(+) 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: **SWN** Production Company, LLC **SWN** Production Company™

SAMUEL JONES BRK
OPERATOR'S WELL #: 1H
API WELL #: 47 009 00262
STATE COUNTY PERMIT

WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS LIQUID INJECTION STORAGE SHALLOW

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,204.2'

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: BETHANY, WV

SURFACE OWNER: SAMUEL E. & JUDITH F. JONES ACREAGE: ±164.74

OIL & GAS ROYALTY OWNER: RESOURCE MINERAL HEADWATER I, LP ACREAGE: ±164.74

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

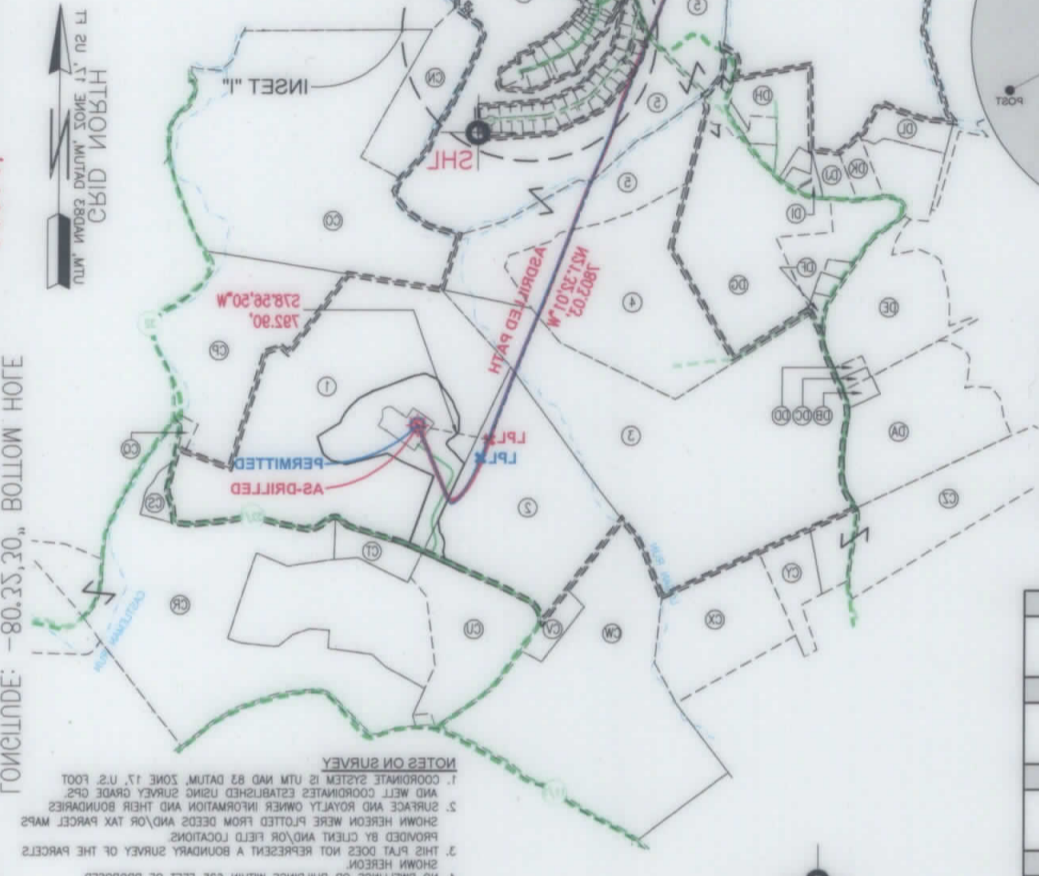
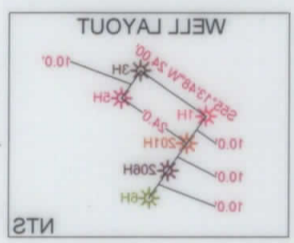
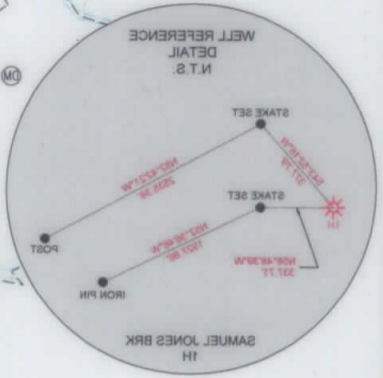
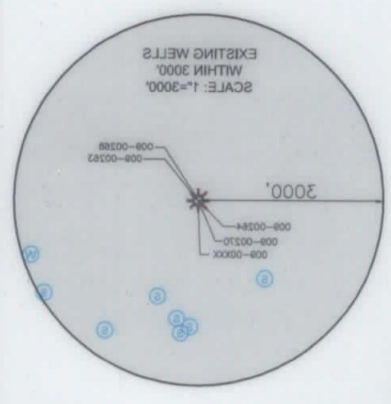
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,090' TVD 14,450' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

DESIGNATED AGENT: BRITTANY WOODY ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

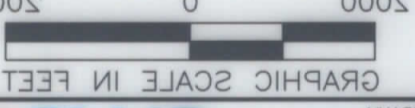
LEGEND: ● EXISTING BOTTOM HOLE ⊙ EXISTING SPRING ⊙ EXISTING / PRODUCING WELLHEAD ⊙ EXISTING LANDING POINT LOCATION ⊙ PROPOSED SURFACE HOLE / BOTTOM HOLE ⊙ PROPOSED LANDING POINT LOCATION	REVISIONS:	DATE: 12-13-2019 API NO: 47-009-00262 DRAWN BY: D. REED SCALE: 1" = 2000' DRAWING NO: 2019-0265 WELL LOCATION PLAT
⊙ EXISTING WATER WELL — SURVEYED BOUNDARY = = = = LEASE BOUNDARY — AS DRILLED PATH — PROPOSED PATH		

CONCLUIDE: -80.35.30, SURFACE HOLE 14914, 2444'
 LATITUDE: 40.15.00" SURFACE HOLE
 LATITUDE: 40.15.00" BOTTOM HOLE



NOTES ON SURVEY

- COORDINATE SYSTEM IS UTM AND 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/OR FIELD LOCATIONS.
- THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO BUILDINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF ROAD.
- NO PERMANENT STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY OCCURRING TROUGH STREAMS WITHIN 200 FEET OF THE LIMITS OF DISTURBANCE.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- THIS AS-DRILLED PLAN IS PREPARED FROM THE FINAL WELL PLAT PREPARED BY ELK LAKE SERVICES, LLC AND THE DRILLING INFORMATION IS PROVIDED TO JHA COMPANY.



BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4451141.88 EASTING: 528208.75
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448845.08 EASTING: 527149.44
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4451142.48 EASTING: 528211.08
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448885.24 EASTING: 527352.59
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448885.08 EASTING: 527149.44
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448885.24 EASTING: 527352.59

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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.

COMPANY: SWN Production Company, LLC
SWN
 Production Company, LLC

API WELL #: 47
STATE: WV
COUNTY: BROOKE
PERMIT: 009 00562
OPERATOR'S WELL #: 1H
SAMUEL JONES BRK

UNITED STATES TOPOGRAPHIC MAPS
 ACCURACY: 1/500
MINIMUM DEGREE OF PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAD 88, US FT)

WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS LIQUID INJECTION STORAGE SHALLOW

WATERSHED: UPPER OHIO SOUTH

DISTRICT: BUFFALO

COUNTY: BROOKE

SURFACE OWNER: SAMUEL E. & JUDITH F. JONES

OIL & GAS ROYALTY OWNER: RESOURCE MINERAL HEADWATER I, LP

ACREAGE: ±184.74

QUADRANGLE: BETHANY, WV

ELEVATION: 1,504.5'

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: 6'090', TD 14'450', TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC

DESIGNATED AGENT: BRITANY WOODY

ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201

CITY: MORGANTOWN

STATE: WV

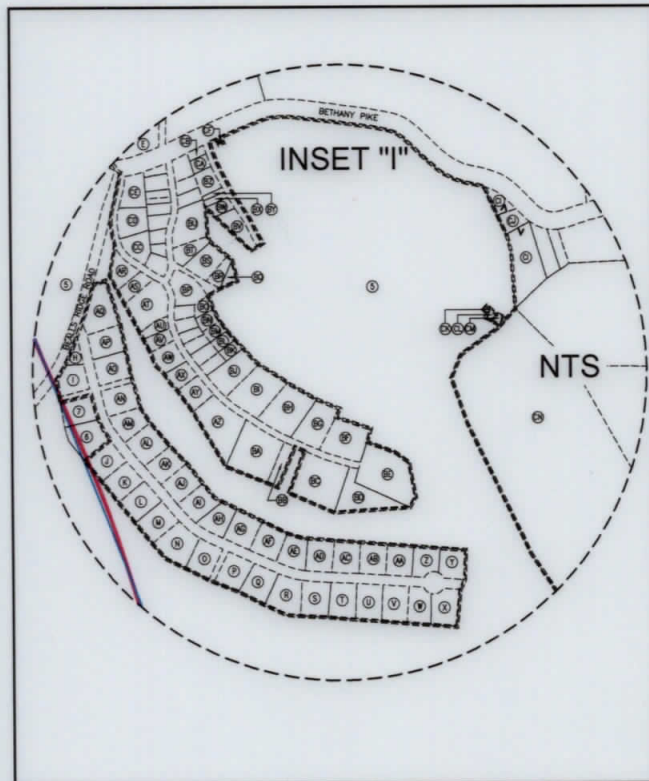
ZIP CODE: 26508

LEGEND:	PROPOSED SURFACE HOLE \ BOTTOM HOLE
EXISTING \ PRODUCING WELLS	PROPOSED LANDING POINT LOCATION
EXISTING BOTTOM HOLE	EXISTING LANDING POINT LOCATION
EXISTING SPRING	EXISTING \ PRODUCING WELLS
EXISTING WATER WELL	PROPOSED SURFACE HOLE \ BOTTOM HOLE
REVISIONS:	PROPOSED LANDING POINT LOCATION
DATE: 12-13-2019	PROPOSED PATH
API NO: 47-009-00562	AS-DRILLED PATH
DRAWN BY: D. REED	LEASE BOUNDARY
SCALE: 1" = 2000'	SURVEYED BOUNDARY
DRAWING NO: 2019-0285	EXISTING SPRING
WELL LOCATION PLAT	EXISTING WATER WELL

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	SAMUEL E. & JUDITH F. JONES (S) RESOURCE MINERALS HEADWATER I, LP (R)	03-B43-60
TRACT	SURFACE OWNER	TAX PARCEL
2	ANNA MAE NORDEN	03-B48-22
3	BRIAN DAVID CORWIN	03-B43-22
4	BRIAN DAVID CORWIN (L/E: MARION PYLE STONE)	03-B43-25
5	BETHANY COLLEGE	03-B38-31
6	JOHN M. LIPINSKI	02-B43F-04
7	RICHARD L. & FELICITY RUGGIERO	02-B43F-03
8	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS	BETHANY PIKE
9	BETTIE BECK LEONETTI	03-B43-05

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	ALLEN JOHNSON, WARREN JOHNSON, CHARLES JOHNSON & ET AL	03-B38-36
B	RUTH GERMON, JEFFREY WOY, SUE MOORE, PATRICIA WEST & SARA WOY	03-B38-37
C	DANNY M. & SANDRA L. HOLLADAY	03-B43-03
D	GARLAND KISNER	03-B43-04
E	BETHANY COLLEGE	03-B38-31
F	TRUSTEES OF BETHANY COLLEGE	02-B43B-01
G	YVONNE B. MYERS	02-B43B-02
H	BETHANY COLLEGE	02-B43F-10
I	WILFRID W. CSAPLAR & SAKUNTHALA W. GUNASEGARAM	02-B43F-02
J	LINDA GRAHAM	02-B43F-05
K	ROBERT P., JR. & PENNY K. RAHR	02-B43F-06
L	FRANK M. & MARIAN REVEN	02-B43F-07
M	JOSEPH P. & BARBARA A. PETTINI	02-B43F-08
N	JOHN THOMAS & ANNE E. BURNS	02-B43F-09
O	JOHN C. & SUSAN L. GIESMANN	02-B43F-10
P	EDWARD A. DULLY	02-B43F-11
Q	ERIC H. BOWN	02-B43F-12
R	BETHANY COLLEGE	02-B43F-13
S	FLUJIKO OGURI SAWTARIE	02-B43F-14
T	JOHN & PATRICIA CUNNINGHAM	02-B43F-15
U	SHARMA R. & CRYSTAL DARSHAN	02-B43F-16
V	ANDREW C. & PAULA L. SACHS	02-B43F-17
W	BETHANY COLLEGE	02-B43F-18
X	BETHANY COLLEGE	02-B43F-19
Y	BETHANY COLLEGE	02-B43F-20
Z	BETHANY COLLEGE	02-B43F-21
AA	BETHANY COLLEGE	02-B43F-22
AB	BETHANY COLLEGE	02-B43F-23
AC	THE TRUST OF GENE CHARLES VALENTINE	02-B43F-24
AD	DEBORAH C. FENDON	02-B43F-25
AE	THE TRUST OF GENE CHARLES VALENTINE	02-B43F-26
AF	ROBERT L. MCVICAR	02-B43F-27
AG	CURTIS LEE & LOUANN NEEL	02-B43F-28
AH	JOHN & CYNTHIA HOFFMAN	02-B43F-29
AI	ROSEMARY JEANNE COBB	02-B43F-30
AJ	ALBERT R., JR. & SUSAN BUCKELEW	02-B43F-31
AK	THOMAS L. & LAURI L. ELTRINGHAM	02-B43F-32
AL	JOHN & DEBRA HULL (LIVING TRUST)	02-B43F-33
AM	KENNETH & JUDITH MORGAN	02-B43F-34
AN	JAMES R., JR. & CAROLYN FORRESTER	02-B43F-35
AO	DOUGLAS H. & HOLLY HERVEY	02-B43F-36
AP	THOMAS FURBEE & KATHERINE SHELEK	02-B43F-37
AQ	THOMAS FURBEE & KATHERINE SHELEK	02-B43F-38
AR	BETHANY COLLEGE	02-B43F-39
AS	BETHANY COLLEGE	02-B43F-40
AT	THE TRUSTEES OF BETHANY COLLEGE	02-B43F-41
AU	BETHANY COLLEGE	02-B43F-42
AV	BETHANY COLLEGE	02-B43F-43
AW	SHIRLEY J. KEMP	02-B43F-44
AX	BETHANY COLLEGE	02-B43F-46
AY	DOUGLAS G. NIELSEN	02-B43F-47
AZ	THOMAS M. AYERS	02-B43F-48
BA	JANICE L. FORSTY (L/E: MARY J. FORSTY)	02-B43F-49
BB	JOANNE SYKES	02-B43F-50
BC	JOANNE SYKES	02-B43F-51
BD	WAYNE NEIL BOUWENS & JAY ALAN BOUWENS	02-B43F-52
BE	WAYNE NEIL BOUWENS & GRETCHEN JOHNSTON	02-B43F-53
BF	KOSMAS MOURATIDIS	02-B43F-54
BG	JOHN & PATRICIA L. CUNNINGHAM	02-B43F-55
BH	ASHLEY L. & A. SCOTT KANOTZ	02-B43F-56
BI	RYAN & BROOKE SMITH	02-B43F-57
BJ	RANDALL J. & CYNTHIA WEPPLER	02-B43F-58
BK	BETHANY COLLEGE	02-B43F-79
BL	BETHANY COLLEGE	02-B43F-78
BM	BETHANY COLLEGE	02-B43F-77
BN	BETHANY COLLEGE	02-B43F-76
BO	BETHANY COLLEGE	02-B43F-75
BP	JOHN W. & CORAL LOZIER	02-B43F-65
BQ	DOMINICK A. & THERESA D'AURORE	02-B43F-04

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
BR	BETHANY COLLEGE	02-B43F-73
BS	THOMAS PAUL LYONS	02-B43F-72
BT	THOMAS PAUL LYONS	02-B43F-71
BU	GRAY WILLIAMSON & SYDMA HATZPOULOS	02-B43B-15
BV	ROBERT & MELINDA KREISBERG	02-B43F-80
BW	BETHANY COLLEGE	02-B43B-16
BX	BETHANY COLLEGE	02-B43B-17
BY	HARRY W. & SANDRA K. GROUX	02-B43B-18
BZ	HARRY W. & SANDRA K. GROUX	02-B43B-19
CA	BETHANY COLLEGE	02-B43B-20
CB	BETHANY COLLEGE	02-B43B-21
CC	DONNA SUE MARTIN LOVATO	02-B43F-67
CD	NED THOMAS & BILLIE JO FALCON	02-B43B-06
CE	EARL R. & PAMELA KEENER	02-B43B-05
CF	MANUFACTURERS LIGHT & HEAT COMPANY	02-B43B-27
CG	JOHN HEIRS HUFF	02-B43B-40
CH	BETHANY COLLEGE	03-B38-31
CI	WILLIAM HEIRS MITCHELL	02-B43B-22
CJ	DONALD STEVEN MITCHELL	02-B43F-83
CK	TOWN OF BETHANY	02-B43F-86
CL	TOWN OF BETHANY	02-B43F-87
CM	TOWN OF BETHANY	02-B43F-88
CN	TOWN OF BETHANY	02-B43-32
CO	TRUST OF GENE C. VALENTINE	03-B43-33
CP	MARY LOU FONNER	03-B43-58
CQ	TRACY T. PUSKARICH	03-B43-59
CR	ROBERT M. & CHARLOTTE A. CHAMBERS	03-B48-24
CS	ALBERT GLENN & REBECCA ANN AYERS	03-B43-61
CT	ROBERT M. & CHARLOTTE A. CHAMBERS	03-B48-23
CU	ANNA MAE NORDEN	03-B48-??
CV	PAUL ROBERT & WENDY KAY SEIDEWITZ	03-B48-18.1
CW	LAWRENCE RAY & JUDITH A. PYLE	03-B48-18
CX	CHARLES W. & CHARLOTTE BONAR	03-B48-15
CY	CHARLES W. & CHARLOTTE BONAR	03-B48-14
CZ	CHARLES W. & CHARLOTTE BONAR	03-B48-10
DA	WILLIAM BRITT COX	03-B43-21
DB	MARION PYLE STONE	03-B43-20
DC	MARION PYLE STONE	03-B43-19
DD	SILVEA MAZZELLA WHITEHEAD	03-B43-18
DE	JOYCE ANN MCGEEHAN	03-B43-17
DF	JOYCE ANN MCGEEHAN	03-B43-23
DG	BRIAN CORWIN	03-B43-26
DH	JOHN BECK	03-B43-06
DI	MARY WELLS CHAMBERS	03-B43-11
DJ	MARY WELLS CHAMBERS	03-B43-12
DK	MARY WELLS CHAMBERS	03-B43-13
DL	WINDSOR POWER HOUSE COAL COMPANY	03-B43-15
DM	ELLEN B. SANFORD	03-B38-56
DN	TERRY P. & KAREN THOMPSON	03-B38-38



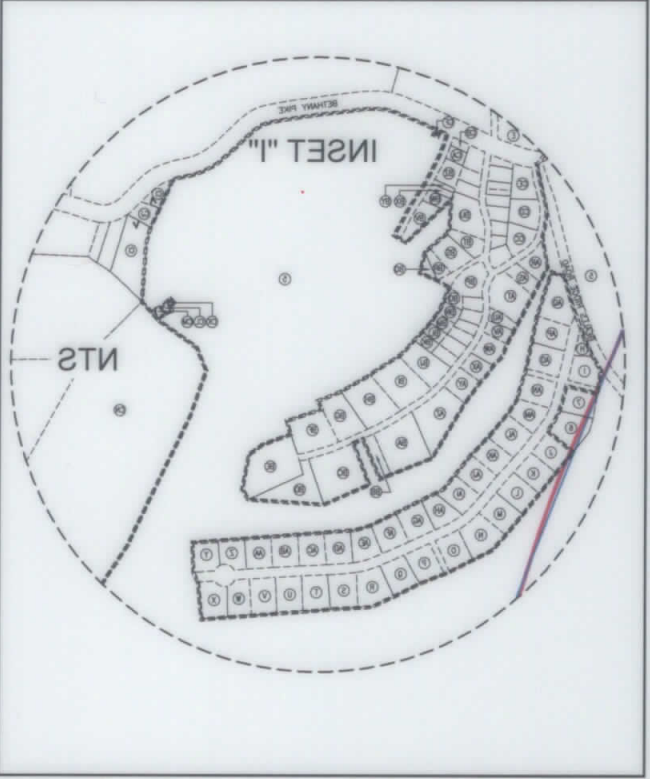
REVISONS:		COMPANY: SWN Production Company, LLC		DATE: 12-13-2019	
		OPERATOR'S: SAMUEL JONES BRK		API NO: 47-009-00262	
		WELL #: 1H		DRAWN BY: D. REED	
		DISTRICT: BUFFALO		SCALE: N/A	
		COUNTY: BROOKE		DRAWING NO: 2019-0265	
		STATE: WV		WELL LOCATION PLAT	

COMPLETION ID 2501163279
PAD ID 3001163336

TRACT	SURFACE OWNER	TAX PARCEL
1	SAMUEL E. & JUDITH F. JONES (2) RESOURCE MINERALS HEADQUARTERS LP (R)	03-B43-80
2	ANNA MAE NORDEN	03-B43-22
3	BRIAN DAVID CORWIN	03-B43-22
4	BRIAN DAVID CORWIN (L\;E: MARION PYLE STONE)	03-B43-22
5	BETHANY COLLEGE	03-B38-31
6	JOHN M. LIPINSKI	03-B43F-04
7	RICHARD J. & FELICITY RUGGERO	03-B43F-03
8	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS	BETHANY PIKE
9	BETTIE BECK LEONETTI	03-B43-02

TRACT	SURFACE OWNER	TAX PARCEL
A	ALLEN JOHNSON, WARREN JOHNSON, CHARLES JOHNSON & ET AL	03-B38-36
B	RUTH GERMON, JEFFREY WOY, SUE MOORE, PATRICIA WEST & SARA WOY	03-B38-37
C	DANNY M. & SANDRA J. HOLLADAY	03-B43-03
D	GARLAND KISNER	03-B43-04
E	BETHANY COLLEGE	03-B38-31
F	TRUSTEES OF BETHANY COLLEGE	03-B43B-01
G	YVONNE B. MYERS	03-B43B-02
H	BETHANY COLLEGE	03-B43F-10
I	WILFRID W. CASPLAR & SAKUNTALAJA W. GUINSEGRAM	03-B43F-02
J	LINDA GRAHAM	03-B43F-05
K	ROBERT P., JR. & PENNY K. RAHR	03-B43F-08
L	FRANK M. & MARIAN REVZI	03-B43F-07
M	JOSEPH P. & BARBARA A. FETTINI	03-B43F-08
N	JOHN THOMAS & ANNE E. BURNS	03-B43F-09
O	JOHN C. & SUSAN J. GERSMANN	03-B43F-10
P	EDWARD A. DULLY	03-B43F-11
Q	ERIC H. BOWEN	03-B43F-12
R	BETHANY COLLEGE	03-B43F-13
S	FLUKO OGURI SAWTARE	03-B43F-14
T	JOHN & PATRICIA CUNNINGHAM	03-B43F-15
U	SHARMA R. & GRYSTAT DARGHAN	03-B43F-16
V	ANDREW C. & PAULA J. SACHS	03-B43F-17
W	BETHANY COLLEGE	03-B43F-18
X	BETHANY COLLEGE	03-B43F-19
Y	BETHANY COLLEGE	03-B43F-20
Z	BETHANY COLLEGE	03-B43F-21
AA	BETHANY COLLEGE	03-B43F-22
AB	BETHANY COLLEGE	03-B43F-23
AC	THE TRUST OF GENE CHARLES AVENTINE	03-B43F-24
AD	DEBORAH C. FENDON	03-B43F-25
AE	THE TRUST OF GENE CHARLES AVENTINE	03-B43F-26
AF	ROBERT J. MCVIGAR	03-B43F-27
AG	CURTIS LEE & LOUANN NEEL	03-B43F-28
AH	JOHN & CYNTHIA HOFFMAN	03-B43F-29
AI	ROSEMARY JEANIE COBB	03-B43F-30
AJ	ALBERT R., JR. & SUSAN BUCKLEW	03-B43F-31
AK	THOMAS J. & LAURIE J. ELTINGHAM	03-B43F-32
AL	JOHN & DEBRA HULL (LIVING TRUST)	03-B43F-33
AM	KENNETH & JUDITH MORGAN	03-B43F-34
AN	JAMES R., JR. & CAROLYN FORESTER	03-B43F-35
AO	DOUGLAS H. & HOLLY HERVEY	03-B43F-36
AP	THOMAS FURBE & KATHERINE SHELK	03-B43F-37
AQ	THOMAS FURBE & KATHERINE SHELK	03-B43F-38
AR	BETHANY COLLEGE	03-B43F-39
AS	BETHANY COLLEGE	03-B43F-40
AT	THE TRUSTEES OF BETHANY COLLEGE	03-B43F-41
AU	BETHANY COLLEGE	03-B43F-42
AV	BETHANY COLLEGE	03-B43F-43
AW	SHIRLEY J. KEMP	03-B43F-44
AX	BETHANY COLLEGE	03-B43F-45
AY	DOUGLAS G. NIELSEN	03-B43F-47
AZ	THOMAS M. AYERS	03-B43F-48
BA	JANICE J. FORSTY (L\;E: MARY J. FORSTY)	03-B43F-49
BB	JOANNE SYKES	03-B43F-50
BC	JOANNE SYKES	03-B43F-51
BD	WAYNE NEIL BOWENS & JAY ALAN BOWENS	03-B43F-52
BE	WAYNE NEIL BOWENS & GREGG JOHNSTON	03-B43F-53
BF	KOSMAS MOURATIDIS	03-B43F-54
BG	JOHN & PATRICIA J. CUNNINGHAM	03-B43F-55
BH	ASHLEY J. & A. SCOTT KANOTZ	03-B43F-56
BI	RYAN & BROOKE SMITH	03-B43F-57
BJ	RANDALL J. & CYNTHIA WEPPLER	03-B43F-58
BK	BETHANY COLLEGE	03-B43F-59
BL	BETHANY COLLEGE	03-B43F-78
BM	BETHANY COLLEGE	03-B43F-77
BN	BETHANY COLLEGE	03-B43F-76
BO	BETHANY COLLEGE	03-B43F-75
BP	JOHN W. & CORAL LOZIER	03-B43F-85
BQ	DOMINICK A. & THERESA D'AURORA	03-B43F-04

TRACT	SURFACE OWNER	TAX PARCEL
BR	BETHANY COLLEGE	03-B43F-73
BS	THOMAS PAUL LYONS	03-B43F-72
BT	THOMAS PAUL LYONS	03-B43F-71
BU	GRAY WILLIAMSON & SYDRA HATZPOULOS	03-B43B-12
BV	ROBERT & MELINDA KREISBERG	03-B43F-80
BW	BETHANY COLLEGE	03-B43B-16
BX	BETHANY COLLEGE	03-B43B-17
BY	HARRY W. & SANDRA K. GROUX	03-B43B-18
BZ	HARRY W. & SANDRA K. GROUX	03-B43B-19
CA	BETHANY COLLEGE	03-B43B-20
CB	BETHANY COLLEGE	03-B43B-21
CC	DONNA SUE MARTIN TOVATO	03-B43F-87
CD	NED THOMAS & BILLIE JO FALCON	03-B43B-06
CE	EARL R. & PAMELA KEENER	03-B43B-05
CF	MANUFACTURERS LIGHT & HEAT COMPANY	03-B43B-27
CG	JOHN HEIRS HUFF	03-B43B-40
CH	BETHANY COLLEGE	03-B43B-31
CI	WILLIAM HEIRS MITCHELL	03-B43B-22
CJ	DONALD STEVEN MITCHELL	03-B43F-83
CK	TOWN OF BETHANY	03-B43F-86
CL	TOWN OF BETHANY	03-B43F-87
CM	TOWN OF BETHANY	03-B43F-88
CN	TOWN OF BETHANY	03-B43-32
CO	TRUST OF GENE C. AVENTINE	03-B43-23
CP	MARY LOU FOWNER	03-B43-28
CQ	TRACY T. PRISKARICH	03-B43-29
CR	ROBERT M. & CHARLOTTE A. CHAMBERS	03-B48-24
CS	ALBERT GLEN & REBECCA ANN AYERS	03-B43-81
CT	ROBERT M. & CHARLOTTE A. CHAMBERS	03-B48-23
CU	ANNA MAE NORDEN	03-B48-27
CV	PAUL ROBERT & WENDY KAY SEIDENWITZ	03-B48-18,1
CW	LAWRENCE RAY & JUDITH A. PYLE	03-B48-18
CX	CHARLES W. & CHARLOTTE BONAR	03-B48-12
CY	CHARLES W. & CHARLOTTE BONAR	03-B48-14
CZ	CHARLES W. & CHARLOTTE BONAR	03-B48-10
DA	WILLIAM BRITT COX	03-B43-21
DB	MARION PYLE STONE	03-B43-20
DC	MARION PYLE STONE	03-B43-19
DD	SILVEA MAZZELLA WHITEHEAD	03-B43-18
DE	JOYCE ANN MCGEEHAN	03-B43-17
DF	JOYCE ANN MCGEEHAN	03-B43-22
DG	BRIAN CORWIN	03-B43-25
DH	JOHN BECK	03-B43-08
DI	MARY WELLS CHAMBERS	03-B43-11
DJ	MARY WELLS CHAMBERS	03-B43-12
DK	MARY WELLS CHAMBERS	03-B43-13
DL	WINDSOR POWER HOUSE COAL COMPANY	03-B43-15
DM	ELLEN B. SANFORD	03-B38-26
DN	TERRY P. & KAREN THOMPSON	03-B38-28



REVISIONS:

COMPANY:	SWN Production Company, LLC		
OPERATOR'S:	SAMUEL JONES BRK		
WELL #:	1H		
DISTRICT:	BUFFALO	COUNTY:	BROOKE
		STATE:	WV
DATE: 12-13-2019 API NO: 47-009-00282 DRAWN BY: D. REED SCALE: N/A DRAWING NO: 2019-0282 WELL LOCATION PLAN			

PBD ID 300112328
COMPLETION ID 250112328