

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

OCT 23 2024

WV Department of  
Environmental Protection

API 47009003380000 County BROOKE District BUFFALO  
 Quad BETHANY, WV Pad Name WORTHLEY-BRK-PAD1 Field/Pool Name PANHANDLE FIELD - WET  
 Farm Name KIMBERLY CARMAN WORTHLEY Well Number WORTHLEY BRK 206  
 Operator (as registered with the OOG) SWN Production Company LLC  
 Address PO Box 12359 City Spring State TX  
 Zip 77391-2359

As Drilled Location NAD83/UTM Attach an as-drilled plat, profile view, and deviation survey

Top Hole	Northing	<u>4,451,767.09</u>	Easting	<u>537,849.58</u>
Landing Point of Curve	Northing	<u>4,451,517.94</u>	Easting	<u>537,406.04</u>
Bottom Hole	Northing	<u>4,447,877.58</u>	Easting	<u>539,155.31</u>

Elevation (ft) 1157.2' GL Type of Well  New  Existing Type of Report  Interim  Final

Permit Type  Deviate  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow

Type of Operation  Convert  Deepen  Drill  Plug Back  Redrill  Re-Work  Stimulate

Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other

Type of Completion  Single  Multiple Fluids Produce  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  
 See attached Mud Summary Report

Date permit issued 2024-04-09 Date drilling commenced 2024-05-18 Date drilling ceased 2024-05-27

Date Completion activities began 2024-07-20 Date Completion activities ceased 2024-09-21

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	<u>521'</u>	Opm mine(s) (Y/N) depths	<u>N</u>
Salt water depth(s) ft	<u>637'</u>	Void(s) encountered (Y/N) depths	<u>N</u>
Coal depth(s) ft	<u>330'</u>	Cavern(s) encountered (Y/N) depths	<u>N</u>
Is coal being mined in area (Y/N)	<u>N</u>		

Reviewed by:

*[Signature]*  
2/10/2025

APPROVED

API 47009003380000 Farm name KIMBERLY CARMAN WORTHLEY Well number WORTHLEY BRK 206

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Wt lb/ft	Grade	Basket Depth	Did cement circulate (Y/N) *Provide details below*
Conductor	20.000	20.000	136	NEW	94.00	J-55		Y
Surface	17.500	13.375	580	NEW	54.50	J-55	283.7 / 296.27	Y/ 35 BBLs
Coal	SEE SURFACE			NEW			241.6 / 338.42	
Intermediate 1	12.250	9.625	1712	NEW	36.00	J-55		Y/ 35 BBLs
Intermediate 2								
Intermediate 3								
Production	8.500	5.500	19931	NEW	20.00	P-110 HP		Y/ 25 BBLs
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>2</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	316	15.6	1.19	376.04	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	905	15.6	1.19	1076.95	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	3825	14.5	1.29	4934.25	SURFACE	24
Tubing							

Drillers TD (ft) 19980 Loggers TD (ft) 19980  
 Deepest formation penetrated MARCELLUS Plug back to (ft) 19868  
 Plug back procedure N/A

Kick off depth (ft) 5588' MD

Check all wireline logs run  caliper  density  deviated/directional  induction  sonic  
 neutron  resistivity  gamma ray  temperature  
 Well cored  Yes  No  Conventional  Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING:  
 SURFACE: 8 CENTRALIZERS - EVERY THIRD JOINT OF CASING  
 INTERMEDIATE: 20 CENTRALIZERS - EVERY THIRD JOINT OF CASING  
 PRODUCTION: 418 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 AS OPEN HOLE  Yes  No Details \_\_\_\_\_

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)
SEE ATTACHMENT 1					

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	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
SEE ATTACHMENT 2								

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS
MARCELLUS	5974' TVD <u>6449' MD</u>

Please insert additional pages applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 2332 psi Bottom Hole          psi DURATION OF TEST (hrs) 24

OPEN FLOW GAS 13.265 mcpd OIL 890 bpd NGL          bpd WATER 760 bpd GAS MEASURED BY  Estimate  Orifice  Pilot

LITHOLOGY/ FORMATION TOP DEPTH IN FT BOTTOM DEPTH IN FT TOP DEPTH IN FT BOTTOM DEPTH IN FT DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESH WATER, BRINE, OIL, GAS, H2S, ETC)

LITHOLOGY/ FORMATION	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESH WATER, BRINE, OIL, GAS, H2S, ETC)
					SEE ATTACHMENT 3

Please insert additional pages as applicable

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

Logging Company SCHLUMBERGER Address 110 SCHLUMBERGER DRIVE City SUGAR LAND State TX Zip 77478

Cementing Company SCHLUMBERGER Address 110 SCHLUMBERGER DRIVE City SUGAR LAND State TX Zip 77478

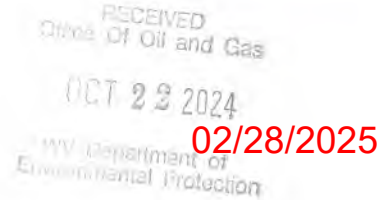
Company SWN DRILLING COMPANY Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Please insert additional pages as applicable.

Completed by DENISE GRANTHAM Telephone 832-796-6139 Signature Denise Grantham Title REGULATORY SPECIALIST Date 10.21.2024

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of FRACFOCUS Registry





## Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	07/20/2024
Job End Date:	08/05/2024
State:	West Virginia
County:	Brooke
API Number:	47-009-00338-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	WORTHLEY BRK 206H
Latitude:	40.215464
Longitude:	-80.555185
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6096
Total Base Water Volume (gal)*:	21167944
Total Base Non Water Volume:	112760.2



Water Source	Percent
Surface Water, < 1000TDS	82.87%
Produced Water	17.13%

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### 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
Base Water	Operator	Base Fluid					
FERRIPLEX 80	SWN Well Services	Iron Control Agent					
FSTI-CI-02	SWN Well Services	Corrosion Inhibitor					
Hydrochloric Acid	SWN Well Services	Solvent					
PLEXAID 655NM	SWN Well Services	Scale Inhibitor					
PLEXSLICK 930	SWN Well Services	Friction Reducer					
Sand	SWN Well Services	Proppant					
TOLCIDE 4FRAC	SWN Well	Biocide					

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Services							
Items above are Trade Names. Items below are the individual ingredients.							
			Water	7732-18-5	100.00000	88.10996	
			Crystalline Silica, Quartz	14808-60-7	100.00000	11.68905	
			HYDROCHLORIC ACID	7647-01-0	37.00000	0.14715	
			Hydrotreated light distillate	64742-47-8	30.00000	0.01680	
			Copolymer of 2-propenamamide	Proprietary	60.00000	0.01680	
			Phosphonium, tetrakis(hydroxymethyl)-, sulfate (2:1)	55566-30-8	50.00000	0.00599	
			Oleic Acid Diethanolamide	93-83-4	5.00000	0.00420	
			Surfactant	Proprietary	3.00000	0.00420	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	10.00000	0.00120	
			Sodium erythorbate	6381-77-7	98.00000	0.00083	
			Ethylene glycol	107-21-1	40.00000	0.00061	
			Ethanol	64-17-5	1.50000	0.00060	
			Diethylenetriamine penta (methylene phosphonic acid)	15827-60-8	10.00000	0.00043	
			Cinnamaldehyde	104-55-2	19.00000	0.00029	
			1-Octanol	111-87-5	19.00000	0.00029	
			1-Decanol	112-30-1	19.00000	0.00029	
			N,N-Dimethylformamide	68-12-2	19.00000	0.00029	
			Triethyl phosphate	78-40-0	19.00000	0.00029	
			Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-	9016-45-9	19.00000	0.00029	
			2-Butoxyethanol	111-76-2	10.00000	0.00015	
			Isopropyl alcohol	67-63-0	10.00000	0.00015	
			Tar bases, quinoline derivatives, benzyl chloride-quaternized	72480-70-7	10.00000	0.00015	

\* 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%

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)

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Well Name: WORTHLEY BRK 206H

47009003380000

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	521.00	521.00	
Top of Salt Water	637.00	637.00	NA	NA	
Pittsburgh Coal	330.00	330.00	334.00	334.00	
Raven Cliff (ss)	798.00	798.00	1058.00	1058.00	
Maxton (ss)	1204.00	1201.00	1364.00	1357.00	
Big Injun (ss)	1535.00	1522.00	1639.00	1622.00	
Berea (siltstone)	1967.00	1930.00	2101.00	2055.00	
Rhinestreet (shale)	5704.00	5422.00	5981.00	5672.00	
Cashaqua (shale)	5981.00	5672.00	6053.00	5732.00	
Middlesex (shale)	6053.00	5732.00	6137.00	5797.00	
Burket (shale)	6137.00	5797.00	6158.00	5813.00	
Tully (ls)	6158.00	5813.00	6237.00	5866.00	
Mahantango (shale)	6237.00	5866.00	6449.00	5974.00	
Marcellus (shale)	6449.00	5974.00	NA	NA	GAS

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**WORTHLEY BRK 206H**  
**ATTACHMENT 1**  
**PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
1	6/30/2024	19,868	19,772	36
2	7/20/2024	19,738	19,561	36
3	7/20/2024	19,528	19,351	36
4	7/21/2024	19,318	19,141	36
5	7/21/2024	19,108	18,931	36
6	7/21/2024	18,898	18,721	36
7	7/21/2024	18,688	18,511	36
8	7/22/2024	18,478	18,301	36
9	7/22/2024	18,268	18,091	36
10	7/22/2024	18,058	17,881	36
11	7/23/2024	17,848	17,671	36
12	7/23/2024	17,638	17,461	36
13	7/23/2024	17,428	17,251	36
14	7/23/2024	17,218	17,041	36
15	7/24/2024	17,008	16,831	36
16	7/24/2024	16,798	16,621	36
17	7/24/2024	16,588	16,411	36
18	7/25/2024	16,378	16,201	36
19	7/25/2024	16,168	15,991	36
20	7/25/2024	15,958	15,781	36
21	7/25/2024	15,748	15,571	36
22	7/26/2024	15,538	15,361	36
23	7/26/2024	15,328	15,151	36
24	7/26/2024	15,118	14,941	36
25	7/26/2024	14,908	14,731	36
26	7/26/2024	14,698	14,521	36
27	7/27/2024	14,488	14,311	36
28	7/27/2024	14,278	14,101	36
29	7/27/2024	14,068	13,891	36
30	7/27/2024	13,858	13,681	36
31	7/28/2024	13,648	13,471	36
32	7/28/2024	13,438	13,261	36
33	7/28/2024	13,228	13,051	36
34	7/29/2024	13,018	12,841	36
35	7/29/2024	12,808	12,631	36
36	7/29/2024	12,598	12,421	36
37	7/29/2024	12,388	12,211	36
38	7/30/2024	12,178	12,001	36
39	7/30/2024	11,968	11,791	36
40	7/30/2024	11,758	11,581	36
41	7/30/2024	11,548	11,371	36
42	7/31/2024	11,338	11,161	36

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**WORTHLEY BRK 206H  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
43	7/31/2024	11,128	10,951	36
44	7/31/2024	10,918	10,741	36
45	7/31/2024	10,708	10,531	36
46	8/1/2024	10,498	10,321	36
47	8/1/2024	10,288	10,111	36
48	8/1/2024	10,078	9,901	36
49	8/1/2024	9,868	9,691	36
50	8/1/2024	9,658	9,481	36
51	8/2/2024	9,448	9,271	36
52	8/2/2024	9,238	9,061	36
53	8/3/2024	9,028	8,851	36
54	8/3/2024	8,818	8,641	36
55	8/3/2024	8,608	8,431	36
56	8/3/2024	8,398	8,221	36
57	8/3/2024	8,188	8,011	36
58	8/4/2024	7,978	7,801	36
59	8/4/2024	7,768	7,591	36
60	8/4/2024	7,558	7,381	36
61	8/4/2024	7,348	7,171	36
62	8/5/2024	7,138	6,961	36
63	8/5/2024	6,928	6,751	36
64	8/5/2024	6,718	6,541	36

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WORTHLEY BRK 206H  
 ATTACHMENT 2  
 STIM REPORT

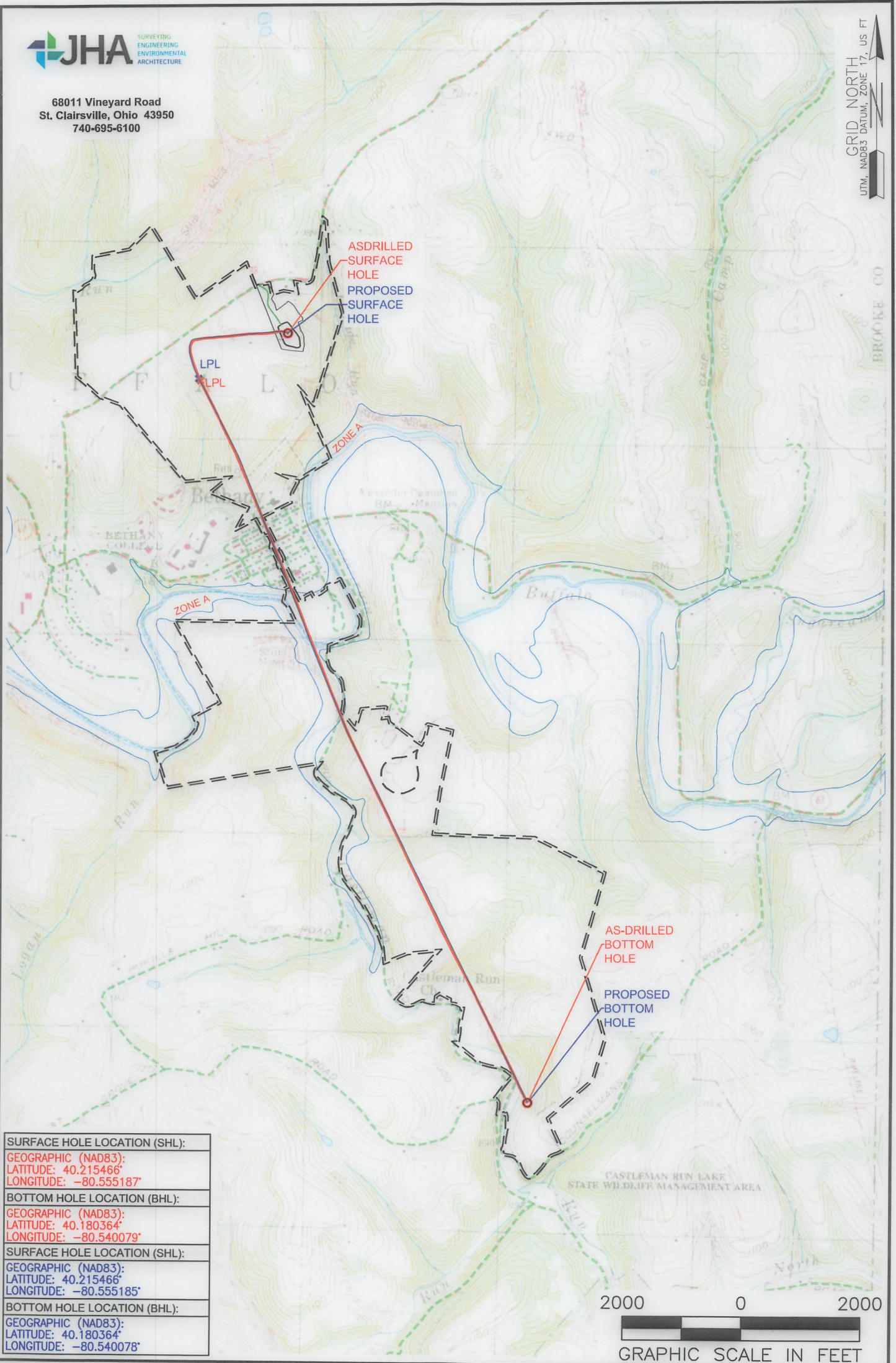
STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/othe
1	7/20/2024	88	6,097	10,043	4,102	198,100	8,140	0
2	7/20/2024	96	6,198	5,445	4,700	372,420	8,699	0
3	7/21/2024	97.4	9,420	6,425	5,038	379,740	7,976	0
4	7/21/2024	92.5	8,603	5,968	4,389	372,820	8,321	0
5	7/21/2024	96	7,018	6,008	5,000	353,840	8,040	0
6	7/21/2024	95.3	9,061	5,705	4,720	375,540	8,138	0
7	7/22/2024	97.4	9,451	5,890	4,738	373,360	8,196	0
8	7/22/2024	93.1	9,235	6,433	4,320	370,780	7,777	0
9	7/22/2024	89	8,941	5,926	5,000	356,520	7,980	0
10	7/22/2024	97.3	9,535	6,020	4,915	374,150	8,022	0
11	7/23/2024	98.3	9,213	5,800	4,849	375,310	7,695	0
12	7/23/2024	92	6,426	5,628	3,789	358,830	7,716	0
13	7/23/2024	90	4,797	6,200	5,150	351,090	10,201	0
14	7/24/2024	87.6	8,218	6,070	4,610	357,230	7,539	0
15	7/24/2024	84.5	7,742	5,829	4,603	373,420	7,662	0
16	7/24/2024	98	5,850	5,950	4,900	309,400	7,224	0
17	7/24/2024	98.9	9,187	6,160	5,324	367,240	7,220	0
18	7/25/2024	99.4	8,999	5,875	4,770	371,900	7,326	0
19	7/25/2024	92.5	8,360	6,520	4,686	376,430	7,829	0
20	7/25/2024	98	8,820	5,830	5,100	377,050	7,403	0
21	7/25/2024	91	8,105	5,945	5,150	394,830	7,307	0
22	7/26/2024	96.2	8,083	5,860	4,709	374,620	7,668	0
23	7/26/2024	92.2	8,171	5,749	4,430	370,970	7,951	0
24	7/26/2024	94.8	8,035	5,833	5,000	369,780	7,767	0
25	7/26/2024	99.4	8,506	6,080	4,960	346,300	7,397	0
26	7/27/2024	99.4	8,316	5,930	5,325	372,460	7,386	0
27	7/27/2024	94.7	8,168	5,726	3,995	375,220	7,632	0
28	7/27/2024	96.5	8,275	6,149	4,539	331,500	7,222	0
29	7/27/2024	94.1	7,593	5,485	4,900	369,950	8,340	0
30	7/28/2024	98.2	8,312	6,185	4,882	375,400	8,106	0
31	7/28/2024	93.4	8,051	5,804	4,610	350,080	7,241	0
32	7/28/2024	92.4	7,666	6,335	4,825	373,670	7,850	0
33	7/29/2024	96.7	8,294	6,505	4,960	371,490	7,828	0
34	7/29/2024	93.1	7,783	6,167	4,255	376,680	7,882	0
35	7/29/2024	98	7,221	6,398	4,412	363,120	7,983	0
36	7/29/2024	99.4	7,679	5,860	5,000	371,310	7,884	0
37	7/30/2024	99.4	7,792	5,805	4,800	369,010	7,679	0
38	7/30/2024	95.2	7,463	6,044	4,222	374,250	7,906	0
39	7/30/2024	99.6	7,340	5,596	4,409	373,430	8,110	0
40	7/30/2024	99.4	7,738	5,605	4,800	368,350	7,951	0
41	7/30/2024	99.4	7,611	5,555	4,900	371,910	7,845	0
42	7/31/2024	99.4	7,399	5,600	4,890	371,360	7,738	0
43	7/31/2024	92.3	7,300	5,400	4,428	371,410	7,102	0
44	7/31/2024	93.5	7,247	5,620	4,985	373,860	7,075	0
45	7/31/2024	94.5	7,003	5,376	4,097	373,530	7,471	0
46	8/1/2024	94.2	7,200	5,803	4,402	372,320	7,389	0
47	8/1/2024	98.8	7,240	5,650	4,623	376,400	7,639	0
48	8/1/2024	94.9	7,271	5,530	4,558	372,830	7,844	0
49	8/1/2024	93.9	7,015	5,637	4,747	374,510	7,448	0
50	8/2/2024	94.9	7,023	5,758	4,554	377,030	8,206	0
51	8/2/2024	96	7,052	5,360	4,469	378,060	8,146	0
52	8/2/2024	93.9	7,055	5,588	4,325	374,920	9,541	0
53	8/3/2024	90	6,477	5,441	4,515	374,850	7,588	0

**WORTHLEY BRK 206H  
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
54	8/3/2024	90.4	6,773	5,691	5,124	371,050	7,952	0
55	8/3/2024	93.5	6,822	5,276	4,700	370,120	9,029	0
56	8/3/2024	94.5	6,529	5,569	3,980	373,680	7,894	0
57	8/4/2024	89.5	6,508	5,212	4,909	367,210	7,807	0
58	8/4/2024	85.5	6,264	5,390	4,718	374,060	7,836	0
59	8/4/2024	89.8	6,367	5,780	4,632	372,350	8,259	0
60	8/4/2024	86.9	6,291	5,253	4,475	378,370	8,187	0
61	8/5/2024	89.9	6,243	5,169	4,617	377,600	8,864	0
62	8/5/2024	85	5,941	5,740	4,624	378,310	8,238	0
63	8/5/2024	80	5,897	5,416	4,774	378,310	8,688	0
64	8/5/2024	80	5,715	5,328	4,533	393,760	8,152	0

RECEIVED  
Office Of Oil and Gas  
OCT 23 2024  
WV Department of  
Environmental Protection





<b>SURFACE HOLE LOCATION (SHL):</b>
GEOGRAPHIC (NAD83): LATITUDE: 40.215466° LONGITUDE: -80.555187°
<b>BOTTOM HOLE LOCATION (BHL):</b>
GEOGRAPHIC (NAD83): LATITUDE: 40.180364° LONGITUDE: -80.540079°
<b>SURFACE HOLE LOCATION (SHL):</b>
GEOGRAPHIC (NAD83): LATITUDE: 40.215466° LONGITUDE: -80.555185°
<b>BOTTOM HOLE LOCATION (BHL):</b>
GEOGRAPHIC (NAD83): LATITUDE: 40.180364° LONGITUDE: -80.540078°

**NOTES ON SURVEY**

1. 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.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
3. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

**LEGEND:**

- EXISTING BOTTOM HOLE
- ⊗ EXISTING / PRODUCING WELLHEAD
- LPL\* EXISTING LANDING POINT LOCATION
- PROPOSED SURFACE HOLE / BOTTOM HOLE
- LPL\* PROPOSED LANDING POINT LOCATION

**02/28/2025**

- ACCESS ROAD
- PUBLIC ROAD
- FLOOD PLAN
- LEASE BOUNDARY
- AS-DRILLED PATH
- PROPOSED PATH

<b>WELL OPERATOR:</b> SWN PRODUCTION COMPANY, LLC	<b>WELL (FARM) NAME:</b> WORTHLEY BRK		<b>WELL #</b> 206H	<b>SERIAL #</b> XXXX
<b>ADDRESS:</b> 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	<b>COUNTY:</b> BROOKE	<b>CODE:</b> 009	<b>DISTRICT:</b> BUFFALO	<b>API #</b> 47-009-00338
<b>SURFACE OWNER:</b> KIMBERLY CARMAN WORTHLEY	<b>USGS 7 1/2 QUADRANGLE MAP NAME:</b> BETHANY, WV			



LATITUDE: 40°15'00" SURFACE HOLE (2000' SCALE) | 3,843'

11,268'

LATITUDE: 40°12'30" BOTTOM HOLE (2000' SCALE)

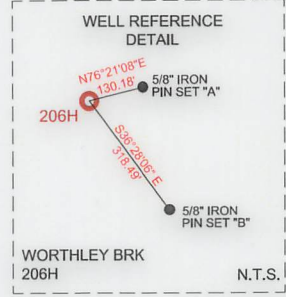


68011 Vineyard Road  
St. Clairsville, Ohio 43950  
740-695-6100

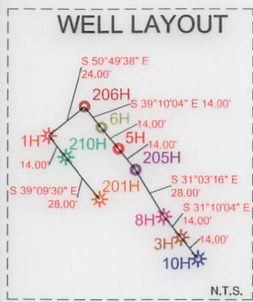
GRID NORTH  
UTM, NAD83 DATUM, ZONE 17, US FT

**NOTES ON SURVEY**

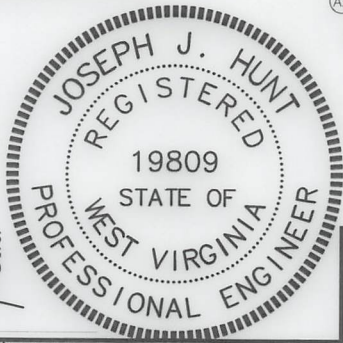
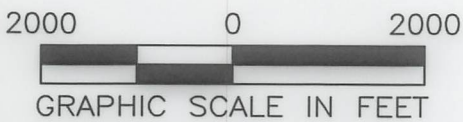
- COORDINATE SYSTEM IS UTM NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
- THIS PLAT DOES NOT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



LINE	BEARING	DISTANCE
L1	N68°15'05"W	1,723.02'
L2	N16°03'59"W	687.37'



<b>SURFACE HOLE LOCATION (SHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4451767.12 EASTING: 537849.70	<b>SURFACE HOLE LOCATION (SHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4451767.09 EASTING: 537849.58
<b>LANDING POINT LOCATION (LPL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4451528.99 EASTING: 537397.34	<b>LANDING POINT LOCATION (LPL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4451517.94 EASTING: 537406.04
<b>BOTTOM HOLE LOCATION (BHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4447877.61 EASTING: 539155.37	<b>BOTTOM HOLE LOCATION (BHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4447877.58 EASTING: 539155.31



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.E. 19809

COMPANY:



WORTHLEY BRK
OPERATOR'S WELL #: 206H
API WELL #: 47 009 00338
STATE COUNTY PERMIT



(\*) 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 SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)

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

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1157.2'

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: BETHANY, WV

SURFACE OWNER: KIMBERLY CARMAN WORTHLEY ACREAGE: ±40.0

OIL & GAS ROYALTY OWNER: COLONIAL CORP, A NEVADA CORP, & KIMBERLY J. CARMAN AKA KIMBERLY J. WORTHLEY, A MARRIED WOMAN DEALING IN HER SASP ACREAGE: ±40.0

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 02/28/2025

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,202' TVD 19,980' TMD

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

LEGEND:	
EXISTING BOTTOM HOLE	ACCESS ROAD
EXISTING / PRODUCING WELLHEAD	PUBLIC ROAD
EXISTING LANDING POINT LOCATION	FLOOD PLAIN
PROPOSED SURFACE HOLE / BOTTOM HOLE	LEASE BOUNDARY
PROPOSED LANDING POINT LOCATION	ASDRILLED PATH
	PROPOSED PATH

REVISIONS:	
	DATE: 06-18-2024
	API NO: 47-009-00338
	DRAWN BY: Z. WOOD
	SCALE: 1" = 2000'
	DRAWING NO: 2023-1649
	WELL LOCATION PLAT

10,232'

LONGITUDE: 80°37'30" BOTTOM HOLE (2000' SCALE)

LONGITUDE: 80°32'30" SURFACE HOLE (2000' SCALE)

12,603'



LATITUDE: 40°15'00" SURFACE HOLE (2000' SCALE)

3,843'

11,268'

LATITUDE: 40°12'30" BOTTOM HOLE (2000' SCALE)

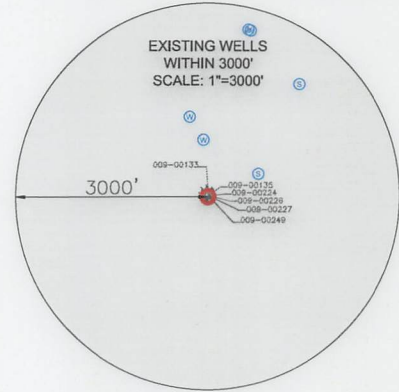
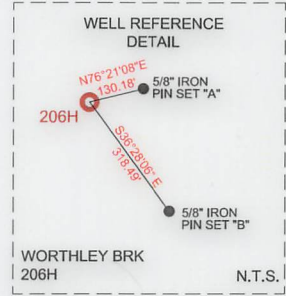


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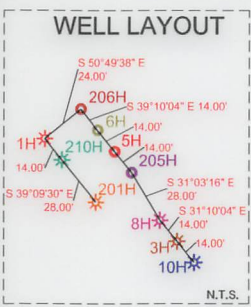
GRID NORTH  
UTM, NAD83 DATUM, ZONE 17, US FT

NOTES ON SURVEY

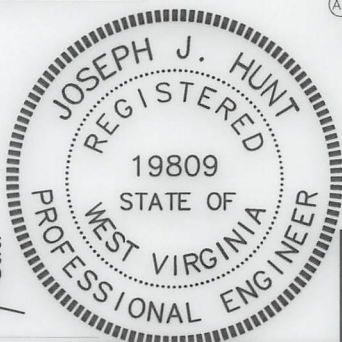
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P.E. 19809



(+) 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 SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)

COMPANY:

**SWN**

**SWN** <sup>RT</sup> <sub>A-V+</sub>

Production Company, LLC

Production Company™

WORTHLEY BRK

OPERATOR'S WELL #: 206H

API WELL #: **47** **009** **00338**  
STATE COUNTY PERMIT

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

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1157.2'

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: BETHANY, WV

SURFACE OWNER: KIMBERLY CARMAN WORTHLEY ACREAGE: ±40.0

OIL & GAS ROYALTY OWNER: COLONIAL CORP, A NEVADA CORP, & KIMBERLY J. CARMAN AKA KIMBERLY J. WORTHLEY, A MARRIED WOMAN DEALING IN HER SASP ACREAGE: ±40.0

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CONVERT  PLUG & ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY) **AS-DRILLED** **02/28/2025**

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CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

DESIGNATED AGENT: BRITTANY WOODY  
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LEGEND:

EXISTING BOTTOM HOLE	ACCESS ROAD
EXISTING / PRODUCING WELLHEAD	PUBLIC ROAD
EXISTING LANDING POINT LOCATION	FLOOD PLAN
PROPOSED SURFACE HOLE / BOTTOM HOLE	LEASE BOUNDARY
PROPOSED LANDING POINT LOCATION	ASDRILLED PATH
	PROPOSED PATH

REVISIONS:	DATE:
	06-18-2024
	API NO: 47-009-00338
	DRAWN BY: Z. WOOD
	SCALE: 1" = 2000'
	DRAWING NO: 2023-1649
	WELL LOCATION PLAT

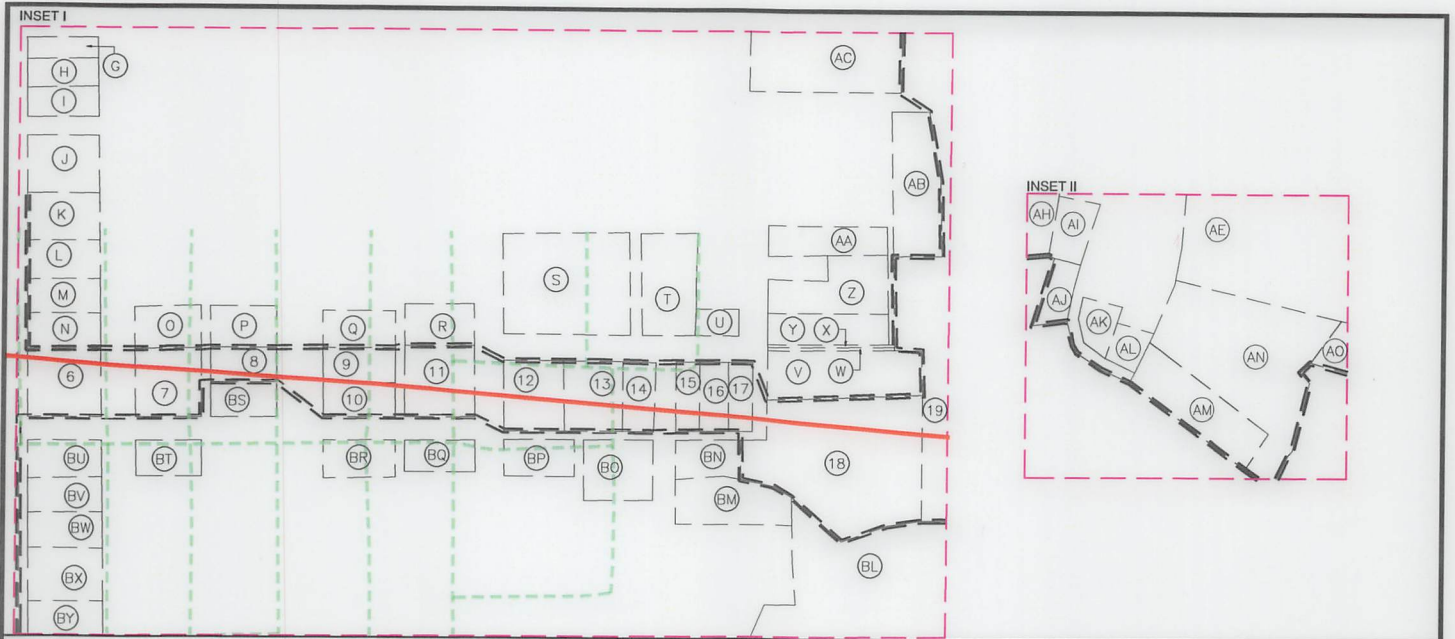
10,232'

12,603'

LONGITUDE: 80°37'30" BOTTOM HOLE (2000' SCALE)

LONGITUDE: 80°32'30" SURFACE HOLE (2000' SCALE)





WELL BORE TABLE FOR SURFACE/ROYALTY OWNERS

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	"WORTHLEY KIMBERLY CARMAN (S) COLONIAL CORP, A NEVADA CORP, & KIMBERLY J. CARMAN AKA KIMBERLY J. WORTHLEY, A MARRIED WOMAN DEALING IN HER SASP(R)"	3-B38-27
TRACT	SURFACE OWNER	TAX PARCEL
2	BETHANY COLLEGE	3-B38-31
3	BETHANY COLLEGE	2-B43C-127
4	BETHANY COLLEGE	2-B43C-1
5	BETHANY COLLEGE	2-B43C-2
6	WEIRTON SHOPPING PLAZA INC	2-B43C-14
7	MATT AMAISMEIER INC	2-B43C-26
8	BETHANY COLLEGE	2-B43C-46
	STATE OF WEST VIRGINIA, DIVISION OF HIGHWAYS	BETHANY PIKE
9	CHIVERS GLENN L	2-B43C-64
10	TENNEY JOHN	2-B43C-63
11	METZ EVERETT	2-B43C-80
12	HULL ELIZABETH	2-B43C-95
13	BUNNELL THEODORE W	2-B43C-96
14	GRAHAM JACOB	2-B43C-97
15	SCHWERTFEGER RUSSELL G KIMBERLY S JTWS	2-B43C-98
16	MORRIS JOSEPH C & PENNY J JTWS	2-B43G-3
17	DISCIPLES OF CHRIST(AKA) CHRISTIAN CHURCH IN WV	2-B43G-2
18	DISCIPLES OF CHRIST AKA CHRISTIAN CHURCH IN WV AKA	2-B43G-9
19	BETHANY COMMUNITY RECREATIONAL ASSOCIATION	2-B43G-15
20	PRESLIE ROWAN LLC	3-B43-33
21	PRESLIE ROWAN LLC	3-B43-49.3
22	DONINI SAMUEL J & MELANIE A (JTWS)	3-B43-49.6
23	DONINI SAMUEL J & MELANIE A (JTWS)	3-B43-49.4
24	DONINI SAMUEL & MELANIE	3-B43-57
25	WV ST OF DEPT OF COMM DIV OF NAT RE WILDLIFE RES SEC	3-B43-62
26	HOGAN ANDREW P	3-B48-34
27	STATE ROAD COMMISSION	3-B48-42
28	MCNICHOLAS JOHN WALTER III	3-B48-36
ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	HENSLER JEFFREY W	3-B38-27.1
B	OWEN MARK WEAVER & KREUTZ; VIRGINIA BEALL	3-B38-19
C	ELSON LANCE M	3-B38-21
D	HENSLER JEFFREY A (LC) KIMBERLY WORTHLEY (SELLER)	3-B38-25
E	BETHANY COLLEGE	3-B43-66
F	BETHANY COLLEGE	2-B43C-3
G	MCFADDEN FLOYD A & KAREN K TR OF MCFADDEN TR AGREE 2012	2-B43C-6
H	VAN METER JAMES & MARY LOUISE TOD VAN METER THOMAS J	2-B43C-7
I	TOD VAN METER THOMAS J	2-B43C-8
J	MOUGIANIS INDUSTRIES INC	2-B43C-9
K	VEMURI HOME & GARDEN LLC	2-B43C-10
L	BONE ROBERT O	2-B43C-11
M	FRANKE ALEXANDRA E	2-B43C-12
N	DEAL SHAWN T & BROOKE L	2-B43C-13
O	HACKETT DANELLE CHAMBERS	2-B43C-27
P	ZETA TAU ALPHA	2-B43C-45
Q	TOWN OF BETHANY	2-B43C-65
R	CUNNINGHAM JOHN S & PATRICIA L (SURV)	2-B43C-79

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
S	EPSILON PROPERTY ASSOCIATION OF SIGMA NU	2-B43C-104
T	BETA BETA ASSOCIATION OF KAPPA ALPHA ORDER	2-B43C-115.1
U	GARVEY WILLIAM J GARVEY GINA M (JTWS)	2-B43C-115
V	PAULS THEODORE N & REBECCA K (SURV)	2-B43G-10
W	PAULS THEODORE N & REBECCA K (SURV)	2-B43G-20
X	SWIGER MARK J & DAWN S	2-B43G-22
Y	SWIGER MARK J & DAWN S (SURV)	2-B43G-11
Z	COUNSELMAN PHILLIP KENT JR & ANGELA ISABEL (SURV)	2-B43G-12
AA	SCHWERTFEGER JAY ALAN & MARY FRANCES (SURV) (TOD)	2-B43G-14
AB	BETHANY TOWN OF	2-B43G-16
AC	SCHWERTFEGER RUSSELL ETAL (LE- ALVAH RUSSELL&LOIS SCHWERTFEGER	2-B43C-120
AD	BETHANY COLLEGE	3-B38-31
AE	BETHANY COLLEGE	3-B43-66
AF	GULF COAST BANK & TRUST CO	3-B43-35.8
AG	GULF COAST BANK & TRUST CO	3-B43-56
AH	COLLINS RANDY & VANESSA (JTWS)	3-B43-34
AI	OWENS RAYMOND	3-B43-44
AJ	STARR STEPHEN J & DEBRA L (JTWS)	3-B43-45
AK	RIPLEY NICKOLAS	3-B43-46
AL	BAYLESS MARY M & RICHARD L (SURV)	3-B43-47
AM	COLLINS RANDY L & VANESSA J (SURV)	3-B43-49.1
AN	COLLINS RANDY & VANESSA (JTWS)	3-B43-49.5
AO	COLLINS RANDY L & VANESSA J (SURV)	3-B43-49.2
AP	COLLINS MARY E	3-B43-49
AQ	PRESLIE ROWAN LLC	3-B43-28
AR	ST OF WV DEPT OF COMM DIV OF NAT RE WILDLIFE RES SEC	3-B44-14
AS	COUNSELMAN CLIFFORD E	3-B49-2
AT	WV BUREAU OF COMMERCE DIV OF NATURAL RESOURCES	3-B49-1
AU	W VA DEPT OF NATURAL RESOURCES	3-B49-7
AV	MCNICHOLAS JOHN WALTER III	3-B48-36
AW	WOOD RICHARD A & MELANIE	3-B48-29
AX	TABLE ROCK REALTY LLC	3-B48-30
AY	CAMMARATA NICHOLAS J & JENNIFER C (SURV)	3-B48-25
AZ	HOGAN ANDREW P	3-B48-34
BA	HOGAN ANDREW P	3-B48-34
BB	JONES CHARLES H	3-B48-31
BC	SMITH KAREN K	3-B48-32
BD	CHAMBERS CHARLOTTE A	3-B48-24
BE	CHAMBERS CHARLOTTE A	3-B48-24
BF	FONNER MARY LOU	3-B43-58
BG	JONES SAMUEL E & JUDITH F IRREVOCABLE TRUST	3-B43-60
BH	CORWIN BRIAN DAVID	3-B43-22
BI	BETHANY COLLEGE	3-B38-31
BJ	BETHANY COLLEGE	2-B43F-89
BK	BETHANY TOWN OF	3-B43-32
BL	BETHANY COLLEGE	3-B43-31
BM	SMITH STACEY JO	2-B43G-5
BN	SCHWERTFEGER RUSSELL GORDON	2-B43G-4

02/28/2025

REVISIONS:

COMPANY:			
OPERATOR'S		WORTHLEY BRK	
WELL #:		206H	
DISTRICT:		COUNTY:	STATE:
BUFFALO		BROOKE	WV
		DATE:	06-18-2024
		API NO:	47-009-00338
		DRAWN BY:	Z. WOOD
		SCALE:	N/A
		DRAWING NO:	2023-1649
		WELL LOCATION PLAT	



ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
BO	HARRY DANIEL GIBSON & NANCY SMITH	2-B43C-99
BP	GOIN DOUGLAS A & CAROL P JTWS	2-B43C-94
BQ	RUDOLPH ERIC BLAIN REV TR RUDOLPH ERIC BLAIN TRUS	2-B43C-81
BR	TENNEY JOHN	2-B43C-62
BS	JC SOCCER PROPERTIES LLC	2-B43C-47
BT	CRAFT ANN B	2-B43C-25
BU	BETHANY COLLEGE	2-B43C-15
BV	RZEPKA LORA MOREN (LE-HELEN MOREN)	2-B43C-16
BW	VRM LLC	2-B43C-17
BX	SANFORD HARRY ESTIL (ETAL)	2-B43C-18
BY	BETHANY COLLEGE	2-B43C-19
BZ	BETHANY COLLEGE	2-B43C-126
CA	BETHANY COLLEGE	2-B43B-30
CB	BETHANY COLLEGE	2-B43B-29
CC	OWENS DAVID G;WALTERS LINDA (LE-ROY R OWENS)	3-B38-32
CD	JOHNSON ALLEN;WARREN; CHARLES ETAL	3-B38-36
CE	PELUCETTE FAMILY TRUST	3-B37-63
CF	STARVAGGI INDUSTRIES INC	3-B37-53
CG	FEDAK MARK A & GEORGIA M (SURV)	3-B38-14
CH	HENSLER JEFFREY W	3-B38-28
CI	HENSLER JEFFREY W	3-B38-27.1
CJ	BROWN CHARLES F & DONNA	3-B38-30
CK	HENSLER JEFFREY	3-B38-26
CL	UNKNOWN	3-B43-7

02/28/2025

REVISIONS:


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OPERATOR'S		WORTHLEY BRK	
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