

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

API 47-009-00299 County BROOKE District CROSS CREEK
Quad STEUBENVILLE EAST, OH Pad Name STATE OF WV DNR A BRK PAD Field/Pool Name PANHANDLE FIELD WET
Farm name STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR Well Number STATE OF WV DNR A 206H
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 4,463,501.89 Easting 539,500.63
Landing Point of Curve Northing 4,463,331.19 Easting 539,204.16
Bottom Hole Northing 4,456,194.31 Easting 541,928.69

Elevation (ft) 1,139.9' 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 2/7/2020 Date drilling commenced 10/20/2020 Date drilling ceased 11/20/2020
Date completion activities began 12/31/2020 Date completion activities ceased 2/18/2021
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

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Freshwater depth(s) ft 542 Open mine(s) (Y/N) depths N APR 20 2021
Salt water depth(s) ft 692 Void(s) encountered (Y/N) depths N WV Department of
Coal depth(s) ft 99 Cavern(s) encountered (Y/N) depths N Environmental Protection
Is coal being mined in area (Y/N) N

Reviewed by:
Bryce Hillyer
08/27/2021

API 47-009 - 00299 Farm name STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR Well number STATE OF WV DNR A 206H

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	125	NEW	J-55/94#		Y
Surface	17.5	13.375	652	NEW	J-55/54.50#	566.1	Y, 35 BBLS
Coal							
Intermediate 1	12.25	9.625	1,465	NEW	J-55/36#		Y, 27 BBLS
Intermediate 2	8.50	5.5	9,247	NEW	HCP-110/20#		
Intermediate 3					HCP-110/20#		
Production	8.75/8.50	5.5	30,074	NEW	P-110HP/20#		Y, 100 BBLS
Tubing		2.375	6,543	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	584	15.60	1.20	700.8	SURFACE	8
Coal							
Intermediate 1	CLASS A	579	15.60	1.19	689.01	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	6,614	15.60	1.30	8,598.2	SURFACE	24
Tubing							

Drillers TD (ft) 31,541' Loggers TD (ft) 31,541'

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

Plug back procedure N/A

Kick off depth (ft) 4,974'

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

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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API 47- 009 - 00299 Farm name STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR Well number STATE OF WV DNR A 206H

PRODUCING FORMATION(S)	DEPTHS		
MARCELLUS	5,657'	TVD	6,045' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

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

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

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
	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 BAKER HUGHES
Address 9110 GROGANS MILL ROAD City THE WOODLANDS State TX Zip 77380

Cementing Company SCHLUMBERGER WELL SERVICES
Address 1080 US-33 City WESTON State WV Zip 26452

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

Please insert additional pages as applicable.

Completed by BOBBY WILLIS Telephone 832-796-2884
Signature  Title SENIOR REGULATORY ANALYST Date 4/19/2021

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

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/1/2021
Job End Date:	1/29/2021
State:	West Virginia
County:	Brooke
API Number:	47-009-00299-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	STATE OF WV DNR A BRK 206
Latitude:	40.32110912
Longitude:	-80.53506069
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	5,842
Total Base Water Volume (gal):	41,374,746
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
Base Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	89.48635	Density = 8.345
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	85.00000	0.13137	

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Plexaid 655WG	SWN Well Services	Scale Inhibitor					
				Listed Below			
HCL	SWN Well Services	Solvent					
				Listed Below			
Tolicide PS 50A	SWN Well Services	Biocide					
				Listed Below			
Sand	SWN Well Services	Proppant					
				Listed Below			
Econo-CI200	SWN Well Services	Corrosion Inhibitor					
				Listed Below			
Ecopol-FEAC	SWN Well Services	Iron Control					
				Listed Below			
SWN FRW-11LC	SWN Well Services	Friction Reducer					
				Listed Below			

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

		Crystalline Silica, quartz	14808-60-7	100.00000	10.32954	
		Petroleum Distillates, Hydrotreated	64742-47-8	25.00000	0.02698	
		Tetrakis	55566-30-8	55.00000	0.00835	
		Hydrochloric Acid	7647-01-0	15.00000	0.00826	
		Glycerin	56-81-5	50.00000	0.00278	

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			Ammonium Chloride	12125-02-9	2.00000	0.00216	
			Alcohols, C12-1, ethoxylated	68551-12-2	1.50000	0.00162	
			Oleic Acid Diethanolamide	93-83-4	1.50000	0.00162	
			Diethylenetriamine penta	15827-60-8	10.00000	0.00056	
			Acrylic acid terpolymer	397256-50-7	1.00000	0.00015	
			Acetic Acid	64-19-7	37.50000	0.00011	
			Methanol	67-56-1	80.00000	0.00007	
			Citric Acid	77-92-9	22.50000	0.00007	
			Oxyalkylated fatty acid	68951-67-7	9.67400	0.00001	
			Fatty acids	61790-12-3	5.02700	0.00000	
			Modified thiourea polymer	68527-49-1	4.74600	0.00000	
			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)

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ATTACHMENT 1

PERF REPORT

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
1	12/22/2020	29,966	29,873	36
2	1/2/2021	29,731	29,652	36
3	1/3/2021	29,593	29,451	36
4	1/4/2021	29,418	29,241	36
5	1/4/2021	29,208	29,030	36
6	1/5/2021	28,997	28,820	36
7	1/5/2021	28,787	28,609	36
8	1/5/2021	28,576	28,399	36
9	1/6/2021	28,366	28,188	36
10	1/6/2021	28,155	27,978	36
11	1/7/2021	27,945	27,767	36
12	1/7/2021	27,734	27,557	36
13	1/7/2021	27,524	27,346	36
14	1/7/2021	27,313	27,136	36
15	1/8/2021	27,103	26,925	36
16	1/8/2021	26,892	26,715	36
17	1/8/2021	26,682	26,504	36
18	1/9/2021	26,471	26,294	36
19	1/9/2021	26,261	26,083	36
20	1/9/2021	26,050	25,873	36
21	1/10/2021	25,840	25,662	36
22	1/10/2021	25,629	25,452	36
23	1/10/2021	25,419	25,241	36
24	1/11/2021	25,208	25,031	36
25	1/11/2021	24,998	24,820	36
26	1/11/2021	24,787	24,610	36
27	1/11/2021	24,577	24,399	36
28	1/12/2021	24,366	24,189	36
29	1/12/2021	24,156	23,978	36
30	1/12/2021	23,945	23,768	36
31	1/12/2021	23,735	23,557	36
32	1/13/2021	23,524	23,347	36
33	1/13/2021	23,314	23,136	36
34	1/13/2021	23,103	22,926	36
35	1/13/2021	22,893	22,715	36
36	1/13/2021	22,682	22,505	36
37	1/14/2021	22,472	22,294	36
38	1/14/2021	22,261	22,084	36
39	1/14/2021	22,051	21,873	36
40	1/14/2021	21,842	21,663	36
41	1/15/2021	21,630	21,452	36
42	1/15/2021	21,419	21,242	36
43	1/15/2021	21,209	21,031	36
44	1/15/2021	20,998	20,821	36
45	1/16/2021	20,788	20,610	36
46	1/16/2021	20,577	20,400	36
47	1/16/2021	20,367	20,189	36
48	1/17/2021	20,156	19,979	36
49	1/17/2021	19,946	19,769	36
50	1/17/2021	19,735	19,558	36
51	1/17/2021	19,525	19,348	36
52	1/17/2021	19,314	19,137	36
53	1/18/2021	19,104	18,927	36
54	1/18/2021	18,893	18,716	36
55	1/18/2021	18,683	18,506	36
56	1/18/2021	18,472	18,295	36
57	1/19/2021	18,258	18,090	36
58	1/19/2021	18,052	17,874	36

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STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
59	1/19/2021	17,841	17,664	36
60	1/19/2021	17,631	17,453	36
61	1/19/2021	17,415	17,244	36
62	1/20/2021	17,210	17,012	36
63	1/20/2021	16,994	16,822	36
64	1/20/2021	16,789	16,611	36
65	1/20/2021	16,580	16,401	36
66	1/20/2021	16,368	16,190	36
67	1/21/2021	16,157	15,980	36
68	1/21/2021	15,947	15,768	36
69	1/21/2021	15,736	15,559	36
70	1/21/2021	15,526	15,348	36
71	1/21/2021	15,315	15,138	36
72	1/22/2021	15,105	14,927	36
73	1/22/2021	14,894	14,717	36
74	1/22/2021	14,684	14,506	36
75	1/22/2021	14,473	14,296	36
76	1/22/2021	14,263	14,085	36
77	1/22/2021	14,052	13,877	36
78	1/23/2021	13,842	13,664	36
79	1/23/2021	13,631	13,454	36
80	1/23/2021	13,421	13,243	36
81	1/23/2021	13,212	13,033	36
82	1/23/2021	13,000	12,822	36
83	1/23/2021	12,789	12,612	36
84	1/24/2021	12,577	12,407	36
85	1/24/2021	12,368	12,191	36
86	1/24/2021	12,158	11,980	36
87	1/24/2021	11,947	11,770	36
88	1/24/2021	11,737	11,559	36
89	1/24/2021	11,526	11,349	36
90	1/25/2021	11,316	11,138	36
91	1/25/2021	11,105	10,930	36
92	1/25/2021	10,895	10,713	36
93	1/25/2021	10,684	10,507	36
94	1/25/2021	10,474	10,296	36
95	1/25/2021	10,263	10,086	36
96	1/25/2021	10,058	9,875	36
97	1/26/2021	9,842	9,667	36
98	1/26/2021	9,632	9,459	36
99	1/26/2021	9,421	9,240	36
100	1/26/2021	9,214	9,033	36
101	1/26/2021	9,000	8,823	36
102	1/26/2021	8,790	8,612	36
103	1/26/2021	8,579	8,402	36
104	1/27/2021	8,369	8,192	36
105	1/27/2021	8,158	7,981	36
106	1/27/2021	7,948	7,771	36
107	1/28/2021	7,737	7,560	36
108	1/28/2021	7,527	7,350	36
109	1/28/2021	7,316	7,139	36
110	1/28/2021	7,106	6,929	36
111	1/28/2021	6,895	6,718	36
112	1/28/2021	6,688	6,506	36
113	1/28/2021	6,474	6,300	36

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ATTACHMENT 2

STIM REPORT

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant	Amount of water bbls	Amount of nitrogen/othe
1	1/1/2021	63.25	8,355	6,368	3,515	75,720	7,868	0
2	1/3/2021	71.78	8,173	6,403	3,876	361,160	12,921	0
3	1/3/2021	75.5	7,874	5,550	4,115	355,600	11,468	0
4	1/4/2021	79	8,318	5,743	4,243	353,920	10,840	0
5	1/4/2021	75.75	8,003	5,520	3,826	364,000	10,818	0
6	1/5/2021	83.11	9,031	5,193	4,135	366,500	10,409	0
7	1/5/2021	83.4	8,948	6,646	4,489	355,740	9,943	0
8	1/6/2021	83.56	8,938	5,745	4,521	357,140	10,245	0
9	1/6/2021	84	9,045	5,021	4,874	358,100	10,995	0
10	1/6/2021	81	8,689	4,386	5,078	356,750	10,025	0
11	1/7/2021	82.78	8,463	4,627	5,007	352,640	9,884	0
12	1/7/2021	86.78	8,741	5,547	5,538	365,120	10,610	0
13	1/7/2021	81.22	8,469	5,773	5,047	358,480	9,888	0
14	1/8/2021	64	7,254	4,402	4,974	355,940	9,877	0
15	1/8/2021	85.2	8,783	4,965	5,262	359,480	9,484	0
16	1/8/2021	86.78	8,762	4,328	5,053	358,640	9,620	0
17	1/9/2021	83.56	8,413	6,522	5,051	358,580	10,032	0
18	1/9/2021	84.67	8,681	5,472	5,146	360,560	9,920	0
19	1/9/2021	82	8,661	4,930	4,724	357,000	9,407	0
20	1/9/2021	87.9	9,059	4,826	4,919	357,160	9,338	0
21	1/10/2021	84	8,792	6,151	4,793	356,680	9,225	0
22	1/10/2021	79.8	8,524	4,945	4,879	354,960	9,254	0
23	1/10/2021	86.2	8,795	6,473	4,896	360,180	10,036	0
24	1/11/2021	82.6	8,529	5,954	4,753	352,560	9,252	0
25	1/11/2021	80	8,574	4,785	4,869	354,180	9,063	0
26	1/11/2021	84.8	8,746	4,531	4,648	352,920	8,960	0
27	1/11/2021	88.56	8,722	6,179	4,901	357,680	9,096	0
28	1/12/2021	89.2	8,575	6,228	4,861	361,040	8,987	0
29	1/12/2021	83.8	8,655	5,224	5,023	356,340	9,402	0
30	1/12/2021	82.7	8,613	6,565	4,854	357,880	9,190	0
31	1/12/2021	88.3	8,473	4,562	4,843	357,440	9,267	0
32	1/13/2021	87.4	8,397	6,432	4,926	366,540	9,174	0
33	1/13/2021	86.9	8,509	5,415	5,310	360,300	9,002	0
34	1/13/2021	88	8,608	4,369	5,338	356,500	8,823	0
35	1/13/2021	87.4	8,201	6,102	5,089	357,780	8,806	0
36	1/14/2021	91.56	8,445	4,408	4,869	356,220	8,918	0
37	1/14/2021	90	8,542	4,695	5,189	333,420	8,664	0
38	1/14/2021	88.4	8,511	4,638	5,185	357,080	8,787	0
39	1/14/2021	89.7	8,314	4,554	4,446	365,600	9,065	0
40	1/15/2021	86.67	8,202	6,118	4,585	355,480	10,189	0
41	1/15/2021	88.3	8,596	7,410	5,264	359,880	8,703	0
42	1/15/2021	88.7	8,612	5,425	4,924	359,180	8,700	0
43	1/15/2021	89.2	8,405	5,794	4,491	364,628	8,913	0
44	1/15/2021	94.23	8,166	4,815	4,545	359,800	10,777	0
45	1/16/2021	91.15	8,231	4,946	5,616	364,720	10,215	0
46	1/16/2021	95.89	8,304	4,775	4,681	363,910	9,046	0
47	1/16/2021	95.6	8,224	4,599	4,780	357,300	8,702	0
48	1/17/2021	95.1	8,257	6,504	4,513	354,620	8,667	0
49	1/17/2021	93.6	8,406	5,058	5,241	362,680	8,430	0
50	1/17/2021	94.4	8,522	5,864	5,190	361,800	8,341	0
51	1/17/2021	99	8,367	5,149	4,459	350,200	8,737	0
52	1/18/2021	100	8,074	3,917	4,511	351,220	8,620	0
53	1/18/2021	94.6	8,273	4,230	5,213	355,480	8,134	0
54	1/18/2021	95.1	8,527	4,503	5,364	376,520	8,513	0
55	1/18/2021	98.5	8,251	4,888	4,698	353,940	8,838	0
56	1/18/2021	98.9	8,245	5,719	4,651	353,920	8,629	0
57	1/19/2021	99.5	8,291	5,386	4,489	352,340	8,582	0

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ATTACHMENT 2

STIM REPORT

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant	Amount of water bbls	Amount of nitrogen/othe
58	1/19/2021	94.6	8,309	5,263	5,240	358,340	8,237	0
59	1/19/2021	96.1	8,201	4,007	5,110	358,700	8,333	0
60	1/19/2021	100	7,993	4,355	4,536	352,640	8,634	0
61	1/19/2021	100	7,988	5,267	4,678	351,760	8,168	0
62	1/20/2021	100	8,108	5,313	4,586	358,420	8,590	0
63	1/20/2021	97.1	8,099	6,196	4,451	354,900	8,727	0
64	1/20/2021	94	5,214	4,463	4,361	356,580	10,373	0
65	1/20/2021	95.33	7,949	5,763	4,340	360,360	8,699	0
66	1/20/2021	99.3	8,047	4,982	4,325	358,160	8,366	0
67	1/21/2021	100	7,924	4,984	4,378	350,580	8,208	0
68	1/21/2021	98.8	7,817	4,176	4,432	355,000	8,481	0
69	1/21/2021	98	8,068	5,738	4,330	350,880	8,374	0
70	1/21/2021	99.1	8,019	4,781	4,391	356,700	8,293	0
71	1/21/2021	99.7	8,071	5,556	4,294	349,120	8,014	0
72	1/22/2021	100	7,959	5,535	4,345	353,060	8,153	0
73	1/22/2021	99.2	8,126	6,088	4,563	352,740	8,139	0
74	1/22/2021	99.2	7,837	5,401	4,210	347,800	8,045	0
75	1/22/2021	99.7	7,767	4,983	4,413	351,180	7,950	0
76	1/22/2021	93.6	7,022	5,161	4,394	349,640	8,045	0
77	1/22/2021	100.5	7,413	5,037	4,262	353,700	7,892	0
78	1/23/2021	100	7,335	4,811	4,378	354,720	7,943	0
79	1/23/2021	99.8	7,704	5,248	4,401	355,020	7,973	0
80	1/23/2021	99.2	7,845	5,057	4,116	353,980	8,084	0
81	1/23/2021	100	7,850	5,311	4,145	353,060	8,129	0
82	1/23/2021	97	7,783	5,637	4,187	352,700	7,932	0
83	1/23/2021	93.6	7,355	4,394	4,337	358,440	8,126	0
84	1/24/2021	86.5	7,068	4,205	4,270	359,240	8,103	0
85	1/24/2021	99.88	7,634	5,285	4,105	269,880	8,140	0
86	1/24/2021	99.8	7,745	4,621	4,347	353,660	8,414	0
87	1/24/2021	99.8	7,682	5,220	7,125	353,360	8,237	0
88	1/24/2021	101	7,552	5,801	4,334	360,500	7,875	0
89	1/24/2021	100.9	7,407	4,802	4,264	351,740	7,912	0
90	1/25/2021	97.3	7,071	5,603	4,162	350,450	7,827	0
91	1/25/2021	99.8	7,465	5,501	4,235	357,580	7,970	0
92	1/25/2021	100.3	7,384	5,066	4,205	351,880	7,922	0
93	1/25/2021	100.6	7,309	5,425	4,062	357,780	8,182	0
94	1/25/2021	99.9	7,214	5,122	4,170	357,120	7,807	0
95	1/25/2021	101.2	6,894	4,855	4,324	358,000	7,687	0
96	1/25/2021	100.4	6,859	4,850	4,224	351,800	7,604	0
97	1/26/2021	100.5	7,357	4,961	4,262	352,160	7,431	0
98	1/26/2021	100	7,458	5,751	4,344	354,960	7,669	0
99	1/26/2021	99.4	7,307	4,476	4,304	351,560	7,881	0
100	1/26/2021	99	7,138	5,301	4,344	349,480	7,694	0
101	1/26/2021	99.8	6,641	4,765	4,239	355,280	7,645	0
102	1/26/2021	100.4	6,555	4,950	4,225	355,260	7,749	0
103	1/27/2021	100	6,719	4,255	4,026	352,580	7,932	0
104	1/27/2021	100	6,708	3,890	4,317	351,260	7,530	0
105	1/27/2021	100.9	6,880	6,401	4,221	347,620	7,449	0
106	1/27/2021	100	6,646	5,374	4,111	358,260	7,734	0
107	1/28/2021	99.6	6,857	5,326	4,220	348,460	7,471	0
108	1/28/2021	100	6,570	5,908	4,576	348,060	7,585	0
109	1/28/2021	100	6,615	5,850	4,755	351,420	7,219	0
110	1/28/2021	100	6,433	5,128	4,486	357,420	7,250	0
111	1/28/2021	100.5	6,260	5,800	4,224	355,680	7,694	0
112	1/28/2021	100.9	6,325	5,812	4,262	353,560	7,615	0
113	1/29/2021	101	6,269	5,336	3,489	349,960	8,478	0

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Office of Oil and Gas

APR 20 2021

WV Department of Environmental Protection

08/27/2021



Well Name: State of WV DNR A 206H 47009002990000

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	542.00	542.00	
Top of Salt Water	692.00	692.00	NA	NA	
Pittsburgh Coal	99.00	99.00	342.00	342.00	
Pottsville (ss)	342.00	342.00	691.00	691.00	
Raven Cliff (ss)	691.00	691.00	874.00	874.00	
Maxton (ss)	948.00	948.00	1241.00	1241.00	
Big Injun (ss)	1241.00	1241.00	1395.00	1395.00	
Berea (siltstone)	1677.00	1673.00	5339.00	5148.00	
Rhinestreet (shale)	5339.00	5148.00	5617.00	5394.00	
Cashaqua (shale)	5617.00	5394.00	5681.00	5444.00	
Middlesex (shale)	5681.00	5444.00	5759.00	5500.00	
Burket (shale)	5759.00	5500.00	5781.00	5516.00	
Tully (ls)	5781.00	5516.00	5876.00	5575.00	
Mahantango (shale)	5876.00	5575.00	6045.00	5657.00	
Marcellus (shale)	6045.00	5657.00	NA	NA	GAS

RECEIVED
 Office of Oil and Gas
 APR 20 2021
 WV Department of
 Environmental Protection

(2000' SCALE) LATITUDE: 40°20'00" SURFACE HOLE

9777'

(2000' SCALE) LATITUDE: 40°17'30" BOTTOM HOLE

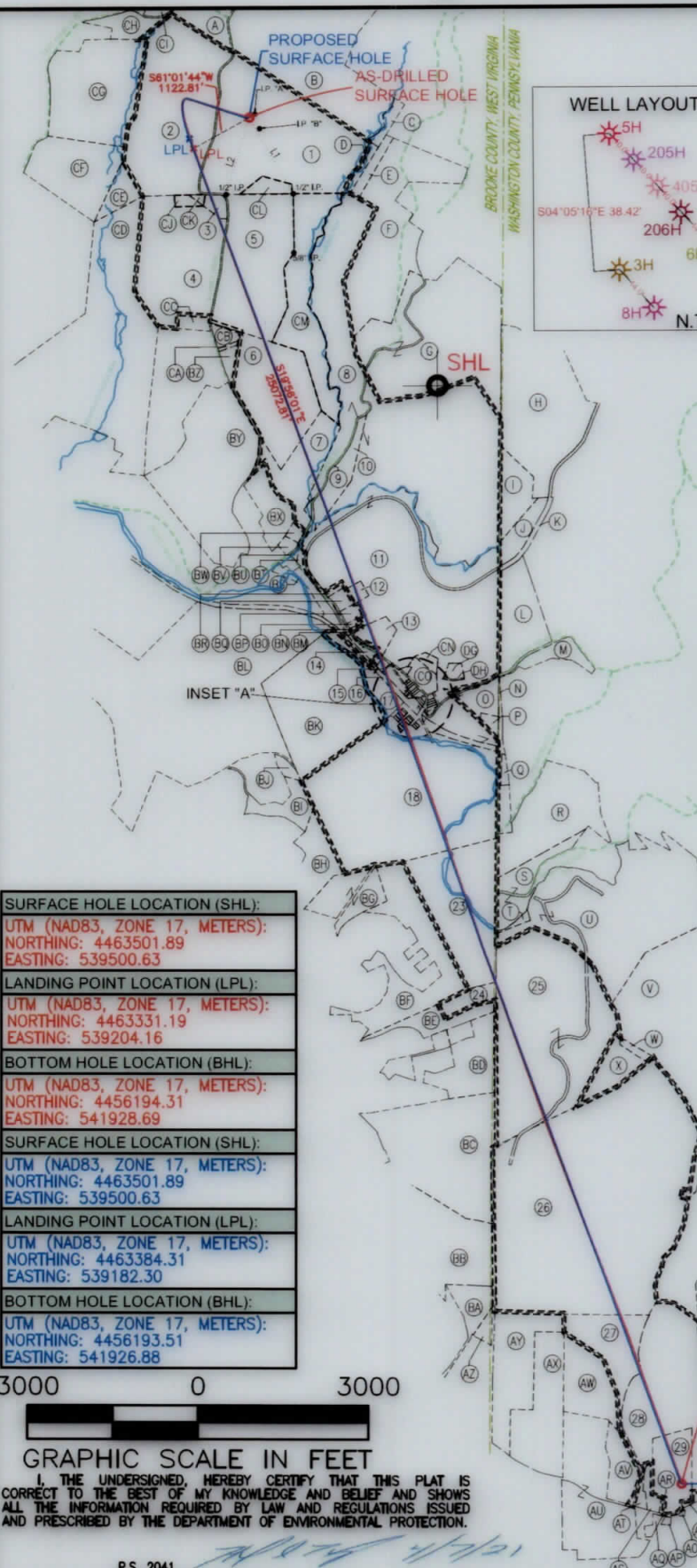
1943'

4454'

(2000' SCALE) LONGITUDE: 80°30'00" BOTTOM HOLE

13301'

(2000' SCALE) LONGITUDE: 80°30'00" SURFACE HOLE



SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4463501.89
EASTING: 539500.63
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4463331.19
EASTING: 539204.16
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4456194.31
EASTING: 541928.69
SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4463501.89
EASTING: 539500.63
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4463384.31
EASTING: 539182.30
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4456193.51
EASTING: 541926.88

3000 0 3000

GRAPHIC SCALE IN FEET
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 SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)

COMPANY: SWN Production Company, LLC

STATE OF WV DNR A

OPERATOR'S WELL #: BRK 206H

API WELL #: 47 STATE 009 COUNTY 299 PERMIT

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

WATERSHED: UPPER OHIO NORTH ELEVATION: 1139.9'

DISTRICT: CROSS CREEK COUNTY: BROOKE QUADRANGLE: STEUBENVILLE EAST, OH

SURFACE OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR ACREAGE: ±97.50

OIL & GAS ROYALTY OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR ACREAGE: ±97.50

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: 5,973' TVD 31,541' TMD

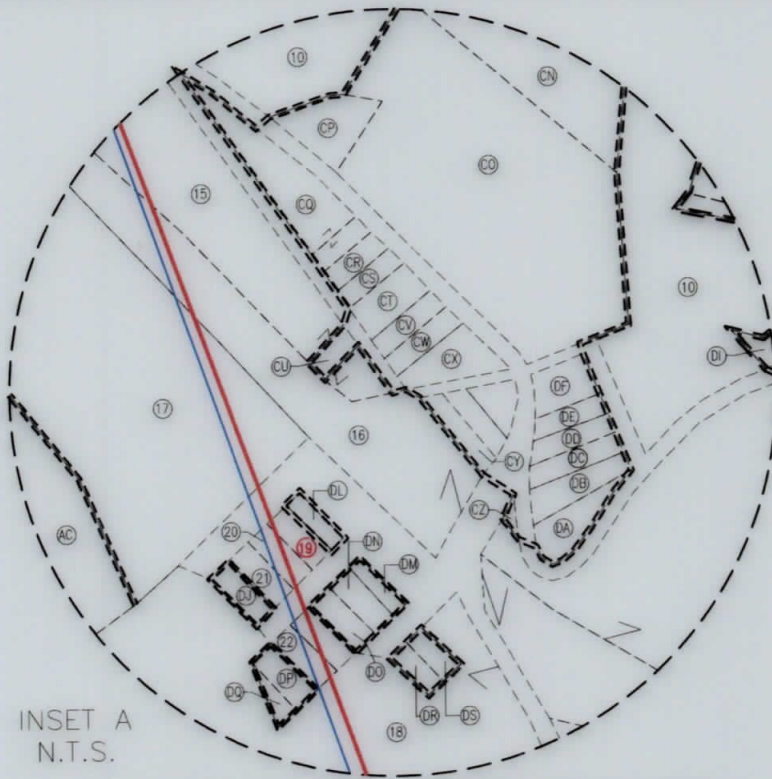
WELL OPERATOR: SWN PRODUCTION COMPANY, LLC
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

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

LEGEND:

	EXISTING BOTTOM HOLE		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: 04-06-2021
	API NO: 47-009-00299
	DRAWN BY: R.GRIMES
	SCALE: 1" = 3000'
	DRAWING NO: 2019-0789
	WELL LOCATION PLAT



INSET A
N.T.S.

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION (S/R)	04-CC16-0007.0001
TRACT	SURFACE OWNER	TAX PARCEL
2	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	04-CC16-0006.0000
3	FREDA M. DUNN & ROBERT SAUNDRA (L/E FREDA DUNN)	04-CC20-0001.0000
4	WILLIAM & ANNA MAE SAUNDERS	04-CC20-0002.0000
5	COLLIERS SPORTSMAN CLUB	04-CC20-0024.0000
6	COLLIERS SPORTSMAN CLUB	04-CC20-0021.0000
7	WILLIAM MORGAN & DORIS J. ROUSE	04-CC20-0020.0000
8	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	04-CC20-0025.0000
9	STATE OF WEST VIRGINIA DEPARTMENT OF HIGHWAYS	AMSPOKER ROAD
10	DEBORAH K. SLIDAY	04-CC20-0032.0000
11	NICKOLES 3 LLC	04-CC20-0033.0000
12	JEFFREY O. NICKOLES	04-CC20-0033.0001
13	JANE KIERCE	04-C24B-0004.0000
14	STATE OF WEST VIRGINIA, DEPARTMENT OF HIGHWAYS	04-C24B-0005.0000
15	ANNETTE MILLER (L/E FRANK & ANNA MAE MCQUILLAN)	04-C24B-0028.0000
16	NORFOLK & WESTERN RAILWAY CO.	04-C19K-0018.0000
17	NORFOLK & WESTERN RAILWAY CO.	04-C24B-0029.0000
18	MICHAEL OBER	04-CC24-0007.0000
19	MARY ELLEN MORRIS	04-C24B-0031.0000
20	MARY ELLEN MORRIS	04-C24F-0003.0000
21	MARY ELLEN MORRIS	04-C24F-0002.0000
22	MICHAEL OBER	04-C24F-0009.0000
23	EUGENE CRUNY	04-CC24-0130.0000
24	STARVAGGI INDUSTRIES	04-CC24-0129.0000
25	BROWNLEE LAND VENTURES	370-1-15-0
26	STATE LINE REAL ESTATE LLC	370-4-1-0
27	RONALD B. JR. & ROSEANNE POWELL	370-7-2-2
28	WILLIAM & GEORGE TACZAK	370-4-47-0
29	OWINGS FAMILY TRUST (JOANNE OWINGS TRUSTEES)	370-4-46-0

08/27/2021

REVISIONS:	COMPANY: SWN Production Company, LLC		SWN ^{Rt} / _A ^{V+} / ₀ Production Company™	
	OPERATOR'S STATE OF WV DNR A		DATE: 04-06-2021	
	WELL #: BRK 206H		API NO: 47-009-00299	
	DISTRICT: CROSS CREEK	COUNTY: BROOKE	DRAWN BY: R.GRIMES	
		STATE: WV	SCALE: N/A	
	DRAWING NO: 2019-0789			
	WELL LOCATION PLAT			

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	THE PALFALVY IRREVOCABLE TRUST (DENNIS PALFALVY III)	04-CC16-0005.0000
B	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0008.0001
C	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0008.0000
D	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC20-0046.0000
E	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC20-0026.0000
F	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC20-0027.0000
G	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC20-0031.0000
H	PENWEIR CONSTRUCTION COMPANY	380-14-4-0
I	PENWEIR CONSTRUCTION COMPANY	380-14-3-0
J	CALVIN H. MYERS JR.	380-14-2-0
K	PITTSBURGH & WEST VIRGINIA RAILROAD CO.	380-14-1-0
L	RANDY L. NICKOLES	380-15-19-0
M	WILLIAM & CAROLYN R. ROTELLINI	380-15-18-1
N	*UNKNOWN*	*UNKNOWN*
O	JEFFREY O. NICKOLES	04-C24B-0009.0000
P	PITTSBURGH & WEST VIRGINIA RAILWAY CO.	04-C24F-0014.0000
Q	JERRY & LINDA MCNEELY	380-15-1-2
R	ROBERT ROTELLINI & ANDREA L. PUSKARICH	380-15-9-0
S	EUGENE CRUNY & JERAM A. JOSEPH	380-15-8-0
T	EUGENE CRUNY & JERAM A. JOSEPH	370-1-16-0
U	DANIEL BANOVICH	370-1-1-0
V	PETER J. KLOVANICH INC.	370-1-12-0
W	BROWNLEE LAND VENTURES	370-1-15-0
X	KENNETH D. JR. & CECILIA C. VARNER	370-1-14-0
Y	KENNETH D. JR. & CECILIA C. VARNER	370-4-2-0
Z	ANGELO F. & PHILIP FALCONI	370-4-3-0
AA	DAVID L. & KELLY L. PERRIN	370-4-52-7
AB	DAVID L. & KELLY L. PERRIN	370-4-52-8
AC	DAREN L. PERRIN	370-4-52-9
AD	JASON STENGER	370-4-52-5
AE	MARK & CYNTHIA CECCHINI	370-4-52-6
AF	MARK & CYNTHIA CECCHINI	370-4-52-4
AG	MARK & CYNTHIA CECCHINI	370-4-52-2
AH	BRICE W. & ALICIA DUTTON	370-4-52-3
AI	JOHN P. JR. DIBBLE & RACHELE E. PADILLA	370-4-52-0
AJ	JOHN M. RYNAWEC	370-8-1-1-8-0
AK	JOHN RYNAWEC SR.	370-8-1-1-8-2
AL	DUANE C. & RUTH ANN RYNAWEC	370-8-1-1-8-1
AM	GARY W. DUPAIN	370-8-1-1-7-0
AN	DONALD ALBERT SELLA & LISA HAMILTON	370-8-1-1-6-0
AO	TRUDI PITTMAN RUSH	370-8-1-2-1-0
AP	FRANCIS M. JR. & MARGARET T. COOKE	370-8-1-3-4-0
AQ	LOWER BUFFALO PRESBYTERIAN CHURCH	370-8-1-3-2-0
AR	NORMA V. HADDON	370-8-1-1-3-0
AS	NORMA V. HADDON	370-8-1-1-1-0
AT	WILLIAM & GEORGE TACZAK	370-8-1-1-1-1
AU	ROBERT G. & NANCY L. BRIGGS	370-7-0-0-2-0
AV	DAVID J. & JOANNE K. DEMPSTER	370-7-0-0-2-3
AW	CHERYL BUTYA	370-7-0-0-2-1
AX	JOSEPH J. DEPETRO III	370-7-0-0-1-0
AY	RYAN M. & BROOKE N. SMITH	370-7-0-0-1-1
AZ	NEAL E. & JOANNE W. SMITH	4-CC29-194.2
BA	RUTH ANN STEWART & MADELOD DAWN JACKSON	4-CC29-194
BB	ROBERT LEE FRESHWATER	4-CC29-134
BC	DEBRA CYPHERT(1/2) MATTHEW FAIR(1/4) SUSAN BRUFFY(1/4)	4-CC29-57
BD	ELLEN CATTARUZZA	4-CC29-39
BE	MICHAEL D. & LOIS J. JONES	4-CC29-128
BF	DEAN SMITH	4-CC24-99
BG	DEAN SMITH	4-CC24-98
BH	GEORGE L. BRADLEY	4-CC24-55
BI	RAYMOND S. & DENNIS P. CROSS	4-CC24-13
BJ	WHEELING ENERGY WORKS LTD	4-CC24-8
BK	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	4-CC24-3
BL	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	4-CC23-325

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
BM	DEBRA MCQUILLAN ETAL (L/E FRANK L. & ANNA MAE MCQUILLAN)	4-C24B-27
BN	STATE OF WEST VIRGINIA, DEPARTMENT OF HIGHWAYS	4-C24B-3
BO	EDWARD L. & CAROL J. THOMPSON	4-C24B-2
BP	JEFFREY, RANDY, & GREGORY NICKOLES (SURVIVORSHIP)	4-C24B-1
BQ	JAMES & CHARLENE JOHNSON	4-CC20-43
BR	TIMOTHY J. DISERIO	4-CC20-42
BS	NORFOLK & WESTERN RAILROAD CO.	4-C24B-29
BT	ROBERT G. HIGGINBOTHAM JR.	4-CC20-41
BU	RON GASPARINE	4-CC20-40
BV	WILLIAM & MILDRED T. MARINO	4-CC20-35
BW	ROBERT & DELORIS CLINE	4-CC20-34
BX	LINDY L. & SANTY GALIANO	4-CC20-19.1
BY	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	4-CC20-6
BZ	SUSAN D. & DENNIS M. BREEN	4-CC20-22
CA	SUSAN D. & DENNIS BREEN (SURVIVORSHIP)	4-CC20-23.1
CB	WILLIAM C & ANNA MAE SAUNDERS	4-CC20-23
CC	STACI & PATRICK BREEN	4-CC20-3
CD	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	4-CC19-168
CE	JASON P. NUZUM	4-CC19-113
CF	JASON P. NUZUM	4-CC15-70
CG	PETER D. & RUTH M. BLASKOVICH	4-CC15-71
CH	LENORA J. RINEHART	4-CC15-74
CJ	LARRY E. REED	4-CC15-68.1
CK	DAVID C. DAMI	4-CC20-2.1
CL	DAVID C. DAMI	4-CC20-1.1
CM	COLLIERS SPORTSMANS CLUB	4-CC20-45
CN	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	4-CC20-25.1
CO	NICKOLES 3 LLC	4-CC20-33
CP	ANNETTE MILLER	4-C24B-7
CQ	GREGORY NICKOLES	4-C24B-6
CR	DEBRA MCQUILLAN ETAL (L/E FRANK L. & ANNA MAE MCQUILLAN)	4-C24B-27
CS	FRANKLIN WINSKI	4-C24B-25
CT	FRANKLIN WINSKI	4-C24B-24
CU	ALICE M. STEVENS	4-C24B-23
CV	DEBRA MCQUILLAN & ANNETTE MILLER (L/E FRANK L. & ANNA MAE MCQUILLAN)	4-C24B-19
DK	REMOVED	REMOVED
DV	DENNIS F. MCQUILLAN	4-C24B-22
DW	DENNIS F. MCQUILLAN	4-C24B-21
CX	KATHY E. LAWRENCE	4-C24B-20
CY	GREG & CAROL NICKOLES	4-C24B-18
CZ	JAMES & CHARLENE JOHNSON (SURVIVOR)	4-C24B-10
DA	GREG & CAROL NICKOLES	4-C24B-11
DB	GREG & CAROL NICKOLES	4-C24B-12
DC	GREG & CAROL NICKOLES	4-C24B-13
DD	GREG & CAROL NICKOLES	4-C24B-14
DE	H3 LLC	4-C24B-15
DF	NICKOLES 3 LLC	4-CC20-33
DG	RANDY L. NICKOLES	4-C24B-8
DH	RANDY L. NICKOLES	4-C24B-33
DI	JEFFREY NICKOLES	4-C24B-9
DJ	MICHAEL L. OBER	4-C24F-1
DL	MARY ELLEN MORRIS	4-C24B-30
DM	ROBERT & PEGGY ANKROM (JTWS)	4-C24F-6
DN	ROBERT & PEGGY ANKROM (JTWS)	4-C24F-7
DO	JOSEPH & LINA (SURVIVOR)	4-C24F-8
DP	MICHAEL L. OBER	4-C24F-10
DQ	*UNKNOWN*	4-C24F-11
DR	ROBERT & PEGGY ANKROM (JTWS)	4-C24F-12
DS	ROBERT & PEGGY ANKROM (JTWS)	4-C24F-13

08/27/2021

REVISIONS:	COMPANY: 		DATE: 04-06-2021	
	OPERATOR'S: STATE OF WV DNR A		API NO: 47-009-00299	
	WELL #: BRK 206H		DRAWN BY: R.GRIMES	
	DISTRICT: CROSS CREEK	COUNTY: BROOKE	STATE: WV	SCALE: N/A
				DRAWING NO: 2019-0789
				WELL LOCATION PLAT