

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

API 47 - 009 - 00302 County BROOKE District BUFFALO
Quad TILTONSVILLE, OH/BETHANY, WV Pad Name EDWARD ZATTA BRK PAD Field/Pool Name PANHANDLE FIELD WET
Farm name COSS ROAD FARM, LLC Well Number EDWARD ZATTA BRK 8H
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 4,455,166.91 Easting 531,257.47
Landing Point of Curve Northing 4,455,840.03 Easting 530,993.45
Bottom Hole Northing 4,452,556.51 Easting 532,501.70

Elevation (ft) 1218' 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 2/25/2020 Date drilling commenced 9/14/2020 Date drilling ceased 9/29/2020
Date completion activities began 1/08/2021 Date completion activities ceased 1/30/2021
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

Freshwater depth(s) ft 276 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 565 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 244 Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) N

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Reviewed by:
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[Signature]
08/27/2021
8-11-21

API 47-009 - 00302 Farm name COSS ROAD FARM, LLC Well number EDWARD ZATTA BRK 8H

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	350'	NEW	J-55/54.50#	179.4'; 96.2'	Y, 35 BBLS
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	1,425'	NEW	J-55/36#		Y, 65 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	19,452'	NEW	P-110/20#		Y, 92 BBLS
Tubing		2.375	7,383'	NEW	P-110/6.5#		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	318	15.60	1.21	384.78	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	627	15.60	1.19	746.13	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	627	15.60	1.19	746.13	SURFACE	24
Tubing							

Drillers TD (ft) 19,452 Loggers TD (ft) 19,452
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5,858'

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 _____

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Well Name:

Edward Zatta BRK 8H

47009003020000

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	276.00	276.00	
Top of Salt Water	565.00	565.00	NA	NA	
Pittsburgh Coal	244.00	244.00	409.00	409.00	
Pottsville (ss)	409.00	409.00	729.00	729.00	
Raven Cliff (ss)	729.00	729.00	1359.00	1359.00	
Big Injun (ss)	1359.00	1359.00	1919.00	1873.00	
Berea (siltstone)	1919.00	1873.00	6470.00	5182.00	
Rhinestreet (shale)	6470.00	5182.00	6715.00	5410.00	
Cashaqua (shale)	6715.00	5410.00	6778.00	5464.00	
Middlesex (shale)	6778.00	5464.00	6859.00	5524.00	
Burket (shale)	6859.00	5524.00	6884.00	5541.00	
Tully (ls)	6884.00	5541.00	6957.00	5589.00	
Mahantango (shale)	6957.00	5589.00	7102.00	5661.00	
Marcellus (shale)	7102.00	5661.00	NA	NA	GAS

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NO DISCHARGE

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Discharge Monitoring Report
Oil and Gas General Permit

Company Name: SWN PRODUCTION COMPANY, LLC
API No: 47-009-00302 County: BROOKE
District: BUFFALO Well No: EDWARD ZATTA BRK 8H
Farm Name: COSS ROAD FARM, LLC

Discharge Date/s From:(MMDDYY) _____ To: (MMDDYY) _____
Discharge Times. From: _____ To: _____

Total Volume to be Disposed from this facility (gallons): _____
Disposal Option(s) Utilized (write volumes in gallons): _____

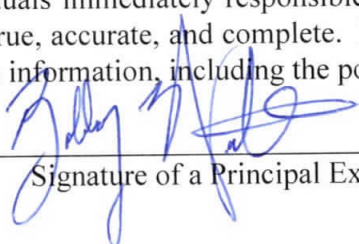
- (1) Land Application: _____ (Include a topographical map of the Area.)
- (2) UIC: _____ Permit No. _____
- (3) Offsite Disposal: _____ Site Location: _____
- (4) Reuse: _____ Alternate Permit Number: _____
- (5) Centralized Facility: _____ Permit No. _____
- (6) Other method: _____ (Include an explanation)

Follow Instructions below to determine your treatment category:

- Optional Pretreatment test: _____ Cl- mg/l _____ DO mg/l
1. Do you have permission to use expedited treatment from the Director or his representative?
(Y/N) _____ If yes, who? _____ and place a four (4) on line 7.
If not go to line 2
 2. Was Frac Fluid or flowback put into the pit? (Y/N) _____ If yes, go to line 5. If not, go to line 3.
 3. Do you have a chloride value pretreatment (see above)? (Y/N) _____ If yes, go to line 4
If not, go to line 5.
 4. Is the Chloride level less than 5000 mg/l? (Y/N) _____ If yes, then enter a one (1) on line 7.
 5. Do you have a pretreatment value for DO? (See above) (Y/N) _____ If yes, go to line 6
If not, enter a three (3) in line 7.
 6. Is the DO level greater than 2.5 mg/l?(Y/N) _____ If yes, enter a two (2) on line 7. If not, enter a three (3) on line 7.
 7. _____ is the category of your pit. Use the Appropriate section.
 8. Comments on Pit condition: _____

Name of Principal Exec. Officer: _____
Title of Officer: _____
Date Completed: _____

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.


Signature of a Principal Exec. Officer or Authorized agent.

4/7/2021

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Category 1
Sampling Results

API No : _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	5	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl	5,000	_____	5,000	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

*** Al is only reported if the pH is above 9.0

Category 2
Sampling Results

API No : _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	10	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____

** Include a description of your aeration technique.

*** Al is only reported if the pH is above 9.0

Date: _____

Aeration Code: _____

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Category 3
Sampling Results

API No : _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	20	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____

Date: _____

** Include a description of your aeration technique.

Aeration Code: _____

*** Al is only reported if the pH is above 9.0.

Category 4
Sampling Results

API No: _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	1	_____	N/A	N/A	Days
Fe	Monitor	_____	Monitor	_____	mg/l
D.O.	Monitor	_____	Monitor	_____	mg/l
Settleable Sol.	Monitor	_____	Monitor	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Activated Carbon (0.175)		_____	N/A	N/A	lb/BI
Date Site Reclaimed	N/A	N/A			10 days from dis.
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____

Date: _____

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/8/2021
Job End Date:	1/23/2021
State:	West Virginia
County:	Brooke
API Number:	47-009-00302-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	EDWARD ZATTA BRK 8H
Latitude:	40.24636700
Longitude:	-80.63240000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	5,778
Total Base Water Volume (gal):	22,899,517
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
Produced Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	85.30952	Density = 8.34
Produced Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	4.33550	Density = 8.50

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Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.41196	
LEGEND(TM) LD-7750W	MultiChem	Scale Control					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
Sand-Premium White-40/70	Halliburton	Proppant					
				Listed Below			
MC MX 8-4743	MultiChem	Additive					
				Listed Below			
FE-2A	Halliburton	Additive					
				Listed Below			
	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
HYDROCHLORI C ACID, 22 BAUME	Halliburton	Solvent					

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				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	9.82277	
			Complex Amine Compound	Proprietary	60.00000	0.03355	
			Hydrochloric acid	7647-01-0	30.00000	0.03185	
			Sodium nitrate	7631-99-4	60.00000	0.02111	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01678	
			Methanol	67-56-1	100.00000	0.00505	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00280	
			Surfactant	Proprietary	5.00000	0.00280	
			Sodium molybdate	10102-40-6	5.00000	0.00176	
			Citric acid	77-92-9	60.00000	0.00169	
			Ethoxylated alcohols	Proprietary	5.00000	0.00057	
			Alkoxylated polyhydric alcohol	Proprietary	1.00000	0.00056	
			Organic chloride compound	Proprietary	1.00000	0.00056	
			Sodium chloride	7647-14-5	5.00000	0.00044	
			Phosphoric Acid Salt	Proprietary	5.00000	0.00040	
			Modified thiourea polymer	Proprietary	30.00000	0.00006	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00006	
			Yeast extract	8013-01-2	0.10000	0.00004	
			Sodium acetate	127-09-3	0.10000	0.00004	
			Monopotassium phosphate	7778-77-0	0.10000	0.00004	
			Sodium lactate	72-17-3	0.10000	0.00004	
			Formaldehyde	50-00-0	0.10000	0.00001	
			Propargyl alcohol	107-19-7	5.00000	0.00001	

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			Hexadecene	629-73-2	5.00000	0.00001	
			Sodium hydroxide	1310-73-2	0.01000	0.00001	
			Nitrated acetate salt	Proprietary	0.01000	0.00001	
			Organic salt #2	Proprietary	0.01000	0.00001	
			Organic salt #1	Proprietary	0.01000	0.00001	
			Sodium glycolate	2836-32-0	0.01000	0.00001	
			Acrylamide	79-06-1	0.01000	0.00001	

* 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	12/31/2020	19,385	19,294	36
2	1/9/2021	19,260	19,081	36
3	1/9/2021	19,047	18,868	36
4	1/9/2021	18,834	18,655	36
5	1/10/2021	18,621	18,442	36
6	1/10/2021	18,416	18,229	72
7	1/10/2021	18,196	18,016	36
8	1/11/2021	17,983	17,799	36
9	1/11/2021	17,770	17,590	36
10	1/11/2021	17,557	17,378	36
11	1/11/2021	17,344	17,165	36
12	1/12/2021	17,131	16,953	36
13	1/12/2021	16,918	16,739	36
14	1/12/2021	16,702	16,526	36
15	1/12/2021	16,493	16,313	36
16	1/13/2021	16,280	16,100	36
17	1/13/2021	16,067	15,887	36
18	1/13/2021	15,854	15,675	36
19	1/13/2021	15,641	15,462	36
20	1/14/2021	15,428	15,249	36
21	1/14/2021	15,215	15,038	36
22	1/14/2021	15,002	14,822	36
23	1/14/2021	14,790	14,610	36
24	1/14/2021	14,577	14,397	36
25	1/15/2021	14,364	14,184	36
26	1/15/2021	14,151	13,968	36
27	1/15/2021	13,938	13,759	36
28	1/15/2021	13,725	13,546	36
29	1/16/2021	13,512	13,333	36
30	1/16/2021	13,302	13,120	36
31	1/16/2021	13,086	12,907	36
32	1/17/2021	12,874	12,694	36
33	1/17/2021	12,682	12,481	36
34	1/17/2021	12,448	12,268	36
35	1/17/2021	12,235	12,056	36
36	1/18/2021	12,022	11,843	36
37	1/18/2021	11,812	11,630	36
38	1/18/2021	11,595	11,417	36
39	1/18/2021	11,383	11,204	36
40	1/18/2021	11,171	10,991	36
41	1/19/2021	10,957	10,778	36
42	1/19/2021	10,745	10,565	36
43	1/19/2021	10,532	10,353	36
44	1/19/2021	10,319	10,140	36
45	1/20/2021	10,106	9,927	36
46	1/20/2021	9,893	9,716	36
47	1/20/2021	9,680	9,504	36
48	1/21/2021	9,468	9,288	36
49	1/21/2021	9,255	9,075	36
50	1/21/2021	9,044	8,862	36
51	1/21/2021	8,829	8,649	36
52	1/21/2021	8,616	8,437	36
53	1/22/2021	8,403	8,224	36
54	1/22/2021	8,190	8,011	36
55	1/22/2021	7,977	7,798	36
56	1/22/2021	7,764	7,585	36
57	1/23/2021	7,552	7,372	36
58	1/23/2021	7,339	7,159	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 (lbs)	Amount of water bbls	Amount of nitrogen/other
1	1/8/2021	88.15	8,092	6,796	3,962	201,160	5,673	0
2	1/9/2021	94.33	8,309	4,979	4,189	367,190	10,785	0
3	1/9/2021	94.08	8,428	4,759	4,169	365,030	10,267	0
4	1/9/2021	92.6	8,136	5,440	4,286	363,240	10,278	0
5	1/10/2021	93.54	8,480	5,434	4,256	366,560	10,400	0
6	1/10/2021	96.51	8,532	4,882	4,368	361,350	11,663	0
7	1/10/2021	95.55	8,301	5,524	4,257	364,330	10,367	0
8	1/11/2021	99.47	8,362	5,561	4,182	362,470	10,287	0
9	1/11/2021	99.68	8,477	4,671	4,267	363,420	10,096	0
10	1/11/2021	99.92	8,432	5,048	4,212	364,920	9,789	0
11	1/11/2021	99.18	8,329	5,385	4,182	368,910	10,071	0
12	1/12/2021	99.34	8,221	5,583	4,257	365,440	10,848	0
13	1/12/2021	98.91	8,304	3,525	4,177	370,380	10,240	0
14	1/12/2021	100.54	8,348	5,621	4,173	366,710	9,531	0
15	1/12/2021	99.76	8,213	5,587	4,126	362,059	9,415	0
16	1/13/2021	99.63	8,326	5,280	4,197	365,280	9,630	0
17	1/13/2021	95.9	8,361	5,231	4,203	364,363	9,790	0
18	1/13/2021	96.21	8,176	5,309	4,154	359,350	9,225	0
19	1/13/2021	97.12	8,278	5,443	4,143	365,790	9,409	0
20	1/14/2021	98.21	8,168	5,251	4,127	363,270	9,229	0
21	1/14/2021	99.09	8,319	5,606	4,205	365,689	9,420	0
22	1/14/2021	99.98	8,134	5,500	4,169	363,915	9,423	0
23	1/14/2021	96.64	8,081	5,653	4,115	364,440	9,211	0
24	1/15/2021	99.66	7,946	5,455	4,062	368,770	9,573	0
25	1/15/2021	100.38	7,689	5,190	4,208	366,420	9,344	0
26	1/15/2021	100.73	7,626	5,645	4,092	369,864	9,326	0
27	1/15/2021	99.99	7,454	5,769	4,130	366,780	9,124	0
28	1/16/2021	100.05	7,154	5,491	4,065	367,810	9,336	0
29	1/16/2021	100.06	7,756	5,072	4,004	370,160	9,842	0
30	1/16/2021	100.14	7,349	5,125	4,286	360,752	9,008	0
31	1/16/2021	99.17	7,289	5,092	4,163	362,470	9,199	0
32	1/17/2021	99.04	7,806	5,201	3,985	363,250	9,367	0
33	1/17/2021	99.92	7,592	5,488	4,275	365,343	9,108	0
34	1/17/2021	100.27	7,426	5,652	4,147	364,440	9,006	0
35	1/17/2021	100.09	7,224	5,492	4,103	366,310	9,286	0
36	1/18/2021	101.09	7,286	5,319	4,014	360,900	9,145	0
37	1/18/2021	99.95	7,415	5,736	3,889	363,032	8,985	0
38	1/18/2021	100.27	7,286	5,492	4,247	363,317	9,050	0
39	1/18/2021	99.66	7,468	5,471	4,264	367,500	9,256	0
40	1/19/2021	100.09	7,302	5,484	4,209	361,890	9,102	0
41	1/19/2021	100.25	7,029	5,302	4,012	363,336	9,349	0
42	1/19/2021	100.02	7,177	4,858	4,308	362,038	9,400	0
43	1/19/2021	100.62	7,103	5,114	3,942	364,662	9,190	0
44	1/19/2021	100.4	7,233	4,603	3,845	358,710	9,353	0
45	1/20/2021	100.24	6,844	4,185	3,889	357,840	9,220	0
46	1/20/2021	100.17	7,490	5,537	4,287	360,109	9,234	0
47	1/20/2021	100.06	7,780	5,275	4,033	364,670	9,125	0
48	1/21/2021	99.97	7,454	4,918	4,102	359,280	9,227	0
49	1/21/2021	100.14	7,126	4,895	3,831	365,517	9,135	0
50	1/21/2021	99.86	7,385	5,260	4,119	360,913	9,168	0
51	1/21/2021	100.43	6,454	4,870	3,755	360,140	9,201	0
52	1/22/2021	100.67	6,264	4,495	3,847	360,540	9,227	0
53	1/22/2021	100.03	6,325	5,020	4,018	358,910	9,214	0
54	1/22/2021	99.99	6,025	5,020	3,933	341,858	8,915	0
55	1/22/2021	100.14	6,148	4,569	3,796	366,221	8,950	0
56	1/22/2021	100.51	5,957	4,569	3,891	366,100	9,124	0
57	1/23/2021	100.49	5,940	4,569	3,936	357,270	9,130	0
58	1/23/2021	100.23	5,858	4,569	4,078	364,020	9,431	0

RECEIVED
Office of Oil and Gas

APR 8 2021

WV Department of
Environmental Protection

08/27/2021

LATITUDE: 40°15'00" SURFACE HOLE | 2088'

LATITUDE: 40°15'00" BOTTOM HOLE

9734'

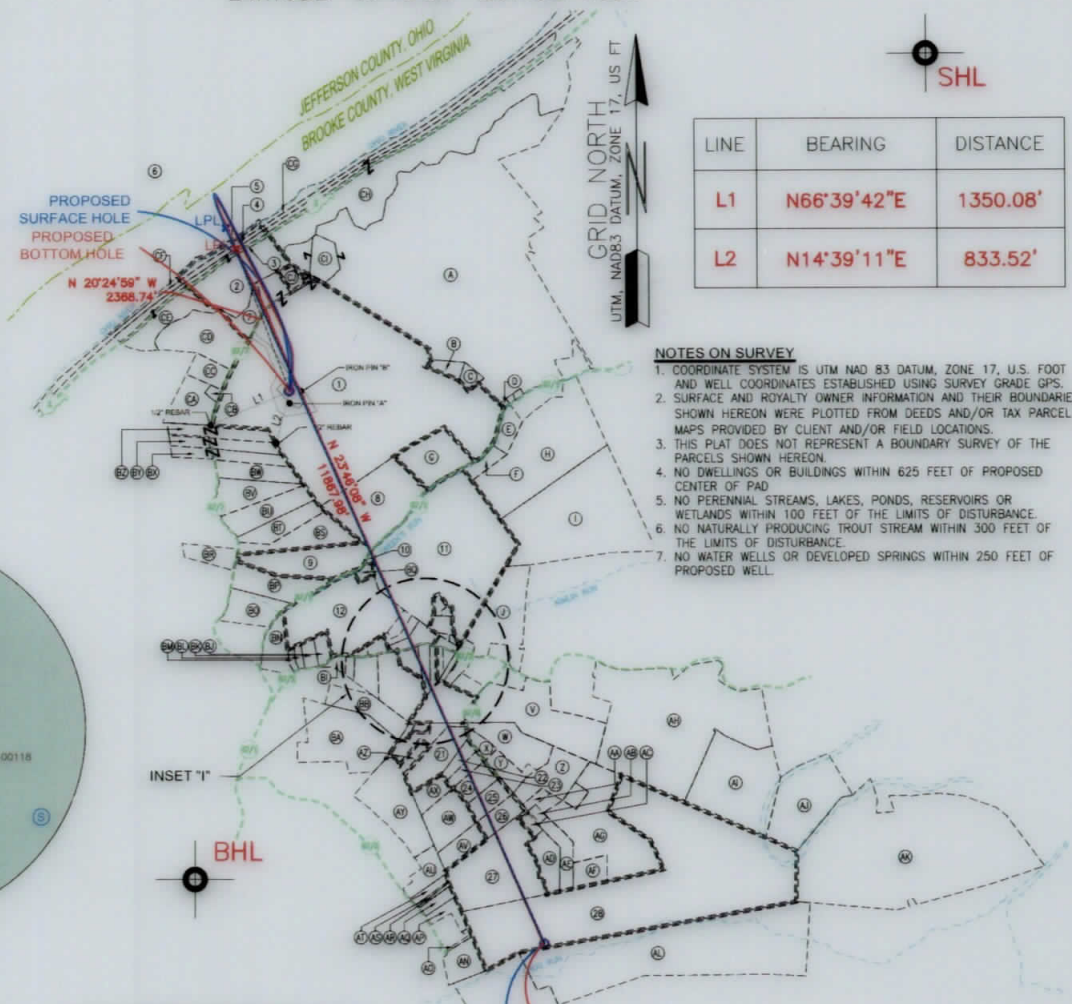
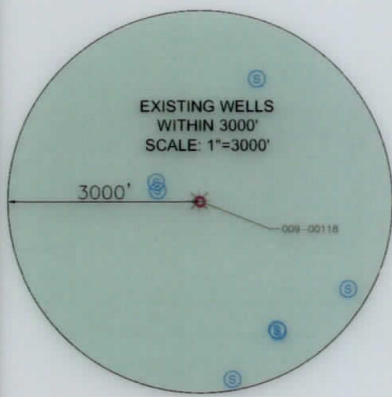
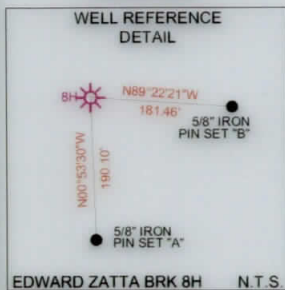
9923'

LONGITUDE: 80°35'00" BOTTOM HOLE

LONGITUDE: 80°37'30" SURFACE HOLE



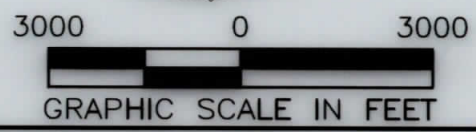
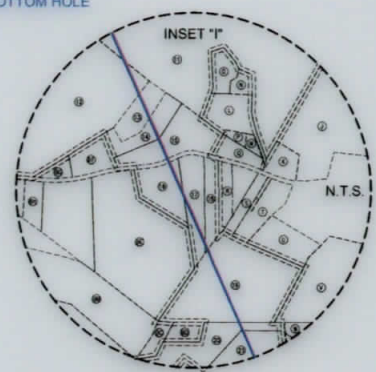
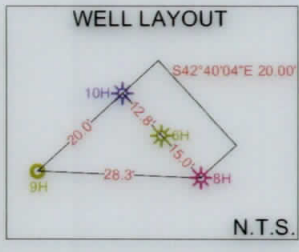
68011 Vineyard Road
St. Clairsville, Ohio 43950
740-695-6100



LINE	BEARING	DISTANCE
L1	N66°39'42"E	1350.08'
L2	N14°39'11"E	833.52'

- 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.

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4455166.91 EASTING: 531257.47
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4455840.03 EASTING: 530993.45
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4452556.51 EASTING: 532501.70
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4455167.97 EASTING: 531256.51
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4455940.82 EASTING: 530945.54
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4452555.64 EASTING: 532506.08



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 *[Signature]* 3/26/21

<p>(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS</p> <p>WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034</p>	<p>MINIMUM DEGREE OF ACCURACY: 1/200</p> <p>PROVEN SURVEY SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)</p>	<p>COMPANY: SWN Production Company, LLC</p> <p>EDWARD ZATTA BRK</p> <p>OPERATOR'S WELL #: 8H</p> <p>API WELL #: 47 STATE 009 COUNTY 00302 PERMIT</p>
	<p>WELL TYPE: OIL WASTE DISPOSAL PRODUCTION <input checked="" type="checkbox"/> DEEP GAS <input checked="" type="checkbox"/> LIQUID INJECTION STORAGE SHALLOW <input checked="" type="checkbox"/></p> <p>WATERSHED: UPPER OHIO SOUTH ELEVATION: 1218.0'</p> <p>DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: TILTONVILLE, OH/BETHANY, WV</p> <p>SURFACE OWNER: COSS ROAD FARM, LLC ACREAGE: ±183.28</p> <p>OIL & GAS ROYALTY OWNER: MY THREE SONS HOLDINGS, LP ACREAGE: ±183.28</p> <p>DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION</p> <p>CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE <input checked="" type="checkbox"/> (SPECIFY) AS-DRILLED</p> <p>TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,860' TVD 19,452' TMD</p>	<p>WELL OPERATOR: SWN PRODUCTION COMPANY, LLC</p> <p>DESIGNATED AGENT: BRITTANY WOODY</p> <p>ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201</p> <p>CITY: MORGANTOWN STATE: WV ZIP CODE: 26508</p>
<p>LEGEND:</p> <ul style="list-style-type: none"> EXISTING BOTTOM HOLE EXISTING / PRODUCING WELLHEAD EXISTING LANDING POINT LOCATION PROPOSED SURFACE HOLE / BOTTOM HOLE PROPOSED LANDING POINT LOCATION ACCESS ROAD PUBLIC ROAD FLOOD PLAIN LEASE BOUNDARY ASDRILLED PATH PROPOSED PATH 	<p>REVISIONS:</p> <p>DATE: 03-26-2021</p> <p>API NO: 47-009-00302</p> <p>DRAWN BY: R.GRIMES</p> <p>SCALE: 1" = 3000'</p> <p>DRAWING NO: 2019-0789</p> <p>WELL LOCATION PLAT</p>	

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	COSS ROAD FARM, LLC (S) MY THREE SONS HOLDINGS, LP (R)	03-831-114.0
TRACT	SURFACE OWNER	TAX PARCEL
2	HFS LIMITED LIABILITY COMPANY	03-831-01.0
3	STATE OF WEST VIRGINIA	STATE ROUTE 2
4	WEST VIRGINIA DEPARTMENT OF HIGHWAYS	03-827-11.0
5	HFS LIMITED LIABILITY COMPANY	03-831-02.0
6	STATE OF WEST VIRGINIA	OHIO RIVER
7	COSS ROAD FARM, LLC	03-831-119.0
8	KEITH R. FRANCIS	03-831-113.0
9	RANDOLPH L. & TAMMY R. CLARK	03-831-140.0
10	JOSEPH C. & KRISTIE J. GASVODA	03-831-112.0
11	MASLO FARMS, LLC (A PENNSYLVANIA LLC)	03-832-20.0
12	HAROLD STARKEY	03-831-104.0
13	STEVEN S. IVERSON & DEBRA L. IVERSON	03-831-101.0
14	STEVEN S. IVERSON & DEBRA L. IVERSON	03-831-102.1
15	GARY THOMAS	03-831-100.0
16	SHIRRELL HUGGINS	03-831-99.0
17	GORDON & SUSAN MCCLOUD	03-832-168.0
18	LORRIE ELLEN WOOLWINE	03-832-167.0
19	JOHN H. BROWN & KIMBERLY A. NEELEY	03-832-154.0
20	MARLYN LEE BROWN	03-832-152.0
21	KEVIN S. WEEKLEY	03-832-151.0
22	MICHAEL A. TAYLOR	03-837-02.0
23	HARLEY J. LEMASTERS	03-837-01.0
24	LAWRENCE D., JR. & TAMMY LYNN CAMPBELL (L/E: LAWRENCE & JUDY CAMPBELL)	03-837-03.0
25	HARLEY J. & LARRY W. LEMASTERS	03-837-04.0
26	EDWARD MICHAEL EVANKO, SR.	03-837-05.0
27	HARLEY J. LEMASTERS	03-837-21.0
28	SCHAPPA AND COMPANY, INC	03-837-22.0

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	MELUNDA B. WOOLWINE	03-832-25.0
B	HFS LIMITED LIABILITY COMPANY	03-832-24.0
C	HFS LIMITED LIABILITY COMPANY	03-832-23.0
D	WILLIAM RUSSELL WALNOHA	03-832-22.2
E	GREGORY DEDITCH	03-832-01.0
F	MARY CATHERINE WALNOHA	03-832-18.0
G	ROBERT BLACKBURN & JAMES BLACKBURN	03-832-21.0
H	DAVID JOSEPH VIDERMAN, JR., GEORGE LAWRENCE & ET AL	03-832-13.0
I	MASLO FARMS, LLC (A PENNSYLVANIA LLC)	03-832-19.0
J	MICHAEL S. & MELISSA D. BLAK	03-832-174.0
K	RUSSELL L. & TINA I. RICE	03-832-174.1
L	JOSEPH J. PETTINI	03-832-172.0
M	JAMES E. TAYLOR	03-832-170.0
N	PAMELA J. HUFF	03-832-172.1
O	PAMELA J. HUFF	03-832-173.0
P	DONALD R. THOMAS (T.O.D. STEVEN L. THOMAS)	03-832-171.0
Q	DONALD R. THOMAS (T.O.D. STEVEN L. THOMAS)	03-832-169.0
R	RODNEY D. SCHERICH	03-832-166.0
S	RICHARD M. GROOMS & DIANE KAY LEMASTERS	03-832-164.0
T	DOROTHY J. MISCH (F.K.A. DOROTHY J. MACGREGOR)	03-832-149.0
U	KENNETH IVERSON	03-832-155.0
V	NILA BOYD, CLINTON MCCORD, JOHN MCCORD, REBA MCCORD & CAROLYN JONES	03-832-148.0
W	HARLEY J. LEMASTERS	03-832-149.0
X	HARLEY J. LEMASTERS	03-832-150.0
Y	HARLEY J. LEMASTERS	03-837-09.0
Z	RONDALD D. & JEAN A. TAYLOR	03-837-11.0
AA	HARLEY J. LEMASTERS	03-837-20.0
AB	MICHAEL MCCLOUD	03-837-18.0
AC	MICHAEL A. MCCLOUD	03-837-17.0
AD	THOMAS & CAROLYN CARBASHO	03-837-16.0
AE	THOMAS W. & CAROLYN L. CARBASHO	03-837-15.0
AF	JAMES W. & DENISE L. MYERS	03-837-14.0
AG	HARLEY J. LEMASTERS	03-837-13.0
AH	CITY OF WELLSBURG, COMBINED WATER & SEWER BOARD	03-832-140.2
AI	KEVIN D. & BRIDGET KOSUT	03-837-42.0
AJ	JAMIE L. UHLER	03-837-43.0
AK	MARK A. CHRISTMAN	03-837-45.0
AL	SCHAPPA AND COMPANY, INC	03-837-23.0
AM	VICKIE C. LOUCHERY & SHEENA R. LOUCHERY	03-837-103.0
AN	RALPH, JR. & CAROL J. WALNOHA	03-837-34.0
AO	RALPH, JR. & CAROL J. WALNOHA	03-837-33.0
AP	JAMES W. & LISA GIBSON	03-837-28.0
AQ	AARON J. & KATE M. GIBSON	03-837-28.1
AR	ROBERT W. & BRENDA L. FONNER	03-837-27.0
AS	ROBERT W. & BRENDA L. FONNER	03-837-26.0
AT	DEAN S. & KELLI M. MILLER	03-837-25.0
AU	KEVIN N. HUFF (T.O.D. JOHN W. & HELEN L. HUFF)	03-837-24.0
AV	HARLEY J. LEMASTERS	03-837-06.0
AW	CHRISTINE PHILLIPS	03-837-07.0
AX	JOHN M. & ROBIN L. SNYDER	03-837-08.0
AY	KEVIN N. HUFF	03-836-38.0
AZ	MARILYN LEE BROWN	03-836-39.0
BA	LONNIE BLAKE	03-831-89.0
BB	LONNIE & CARRIE R. BLAKE	03-831-92.0
BC	KEVIN R. & SHIRLEY W. FIBER	03-831-93.0
BD	KEVIN R. & SHIRLEY W. FIBER	03-832-153.0
BE	STEVEN L. THOMAS	03-831-98.0
BF	CHERYLL L. STEMPEL	03-831-102.0
BG	CHERYLL L. STEMPEL	03-831-103.0
BH	ARCHIE VERNON LUDWIG	03-831-96.0
BI	ARCHIE VERNON LUDWIG	03-831-95.0
BJ	CORY LARKINS	03-831-105.0
BK	PAULA FAYE HANCOCK & TIMOTHY NALE	03-831-106.0
BL	TIMOTHY L. SR. & JANET L. NOEL	03-831-107.0
BM	ROGER W. & HEATHER N. DOYLE	03-831-108.0
BN	WILLIAM & BEVERLY LOUGH	03-831-110.0
BO	ANDREW ULLOM & JEFFREY H. LYNN	03-831-142.0
BP	RANDOLPH & TAMMY CLARK	03-831-141.0
BQ	JOSEPH C. & KRISTIE J. GASVODA	03-831-111.0
BR	JAMES W. GRAMM	03-831-127.0
BS	KEITH R. FRANCIS	03-831-139.0
BT	THOMAS & PAULINE SALEM	03-831-138.0
BU	RODGER & CONNIE SUMMERS	03-831-137.0
BV	JERRY L. & ANGEL L. MCCLELLAND	03-831-136.0
BW	CURTIS R. & DONNA J. BARONO	03-831-135.0
BX	RONALD C. PARKS	03-831-134.0
BY	ROBERT J., SR. & MARGARET E. STEWART	03-831-133.0
BZ	ROBERT J., SR. & MARGARET E. STEWART	03-831-132.0
CA	RAY WALNOHA	03-831-115.0
CB	AUDREY L. HOLDEN	03-831-116.0
CC	BARBARA A. TAYLOR	03-831-117.0
CD	COSS ROAD FARM, LLC	03-831-118.0
CE	HFS LIMITED LIABILITY COMPANY	03-831-04.0
CF	HFS LIMITED LIABILITY COMPANY	03-831-03.0
CG	CAMPBELL TRANSPORTATION COMPANY, INC	03-827-10.0
CH	HFS LIMITED LIABILITY COMPANY	03-827-12.0
CI	JAMES L. & SONORA K. ELLIOTT	03-831-121.0
CJ	EDWARD MACAK	03-831-120.0

08/27/2021

REVISIONS:	

			
COMPANY:			
OPERATOR'S		EDWARD ZATTA BRK	
WELL #:		8H	
DISTRICT:	COUNTY:	STATE:	
BUFFALO	BROOKE	WV	
		DATE:	03-26-2021
		API NO:	47-009-00302
		DRAWN BY:	R.GRIMES
		SCALE:	N/A
		DRAWING NO:	2019-0789
		WELL LOCATION PLAT	