

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

API 47-051-02284 County MARSHALL District LIBERTY
Quad LITTLETON, WV Pad Name SHAWN HARLAN MSH PAD Field/Pool Name VICTORY FIELD WET
Farm name SCOTT L. HARLAN & SHAWN D. HARLAN Well Number SHAWN HARLAN MSH 10H
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 4,398,289.075 Easting 532,276.979
Landing Point of Curve Northing 4,398,520.790 Easting 532,534.459
Bottom Hole Northing 4,395,530.014 Easting 535,761.877

Elevation (ft) 1,391.2' 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 12/05/2019 Date drilling commenced 1/14/2020 Date drilling ceased 1/30/2020
Date completion activities began 5/02/2020 Date completion activities ceased 7/01/2020
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A
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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 489' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 750' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1116' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
Janet Huber
12/17/2020

API 47-051 - 02284 Farm name SCOTT L. HARLAN & SHAWN D. HARLAN Well number SHAWN HARLAN MSH 10H

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	589'	NEW	J-55/54.50#		Y; 15 BBLS
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	2,735'	NEW	J-55/36#		Y; 72 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	22,183'	NEW	HCP-110/20#		Y
Tubing				NEW			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	492	15.60	1.19	585.48	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	1,110	16.00	1.11	1,232.1	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4,045'	15.60	1.18	4,773.1	SURFACE	24
Tubing							

Drillers TD (ft) 22,183' Loggers TD (ft) 22,138'

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

Plug back procedure N/A

Kick off depth (ft) 6,420'

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 _____ WV Department of Environmental Protection

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/3/2020
Job End Date:	6/17/2020
State:	West Virginia
County:	Marshall
API Number:	47-051-02284-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	SHAWN HARLAN MSH 10
Latitude:	39.73388066
Longitude:	-80.62332963
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,350
Total Base Water Volume (gal):	23,465,188
Total Base Non Water Volume:	0



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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
SWN FRW-11LC	SWN Well Services	Friction Reducer					
				Listed Below			
Ecopol-FEAC	SWN Well Services	Iron Control					
				Listed Below			

HCL	SWN Well Services	Solvent					
				Listed Below			
Base Water	Operator	Base Fluid					
				Listed Below			
Sand	SWN Well Services	Proppant					
				Listed Below			
Econo-CI200	SWN Well Services	Corrosion Inhibitor					
				Listed Below			
Plexaid 655WG	SWN Well Services	Scale Inhibitor					
				Listed Below			
Tolicide PS 50A	SWN Well Services	Biocide					
				Listed Below			

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

			Water	7732-18-5	100.00000	90.59850	Density = 8.345
			Crystalline Silica, quartz	14808-60-7	100.00000	8.77889	
			Water	7732-18-5	85.00000	0.49537	
			Hydrochloric Acid	7647-01-0	15.00000	0.06947	
			Petroleum Distillates, Hydrotreated	64742-47-8	25.00000	0.03094	
			Tetrakis	55566-30-8	55.00000	0.01473	
			Glycerin	56-81-5	50.00000	0.00288	
			Ammonium Chloride	12125-02-9	2.00000	0.00248	

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			Oleic Acid Diethanolamide	93-83-4	1.50000	0.00186
			Alcohols, C12-1, ethoxylated	68551-12-2	1.50000	0.00186
			Acetic Acid	64-19-7	37.50000	0.00093
			Diethylenetriamine penta	15827-60-8	10.00000	0.00058
			Methanol	67-56-1	80.00000	0.00057
			Citric Acid	77-92-9	22.50000	0.00056
			Acrylic acid terpolymer	397256-50-7	1.00000	0.00027
			Oxyalkylated fatty acid	68951-67-7	9.67400	0.00007
			Fatty acids	61790-12-3	5.02700	0.00004
			Modified thiourea polymer	68527-49-1	4.74600	0.00003
			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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Shipment Receipt

Address Information**Ship to:**

Laura Adkins
WV Dept of Environmental
Protection
601 57th Street

CHARLESTON, WV
25304
US
3049260450

Ship from:

Bobby Willis
10000 Energy Drive

SPRING, TX
77389
US
8327967466

Shipment Information:

Tracking no.: 771559845586
Ship date: 09/17/2020
Estimated shipping charges:

Package Information

Service type: Priority Overnight
Package type: FedEx Envelope
Number of packages: 1
Total weight: 1 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Use an already scheduled pickup at my location

Billing Information:

Bill transportation to: Regulatory 2-499
Your reference: 2060
PO no.: WR34.WR35.ShawnHarlan
Invoice no.: 1008650,1009015,1008469,101226
Department no.:

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Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note

FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; Consult the applicable FedEx Service Guide for details.

The estimated shipping charge may be different than the actual charges for your shipment. Differences may occur based on actual weight, dimensions, and other factors. Consult the applicable [FedEx Service Guide](#) or the FedEx Rate Sheets for details on how shipping charges are calculated.

**SHAWN HARLAN MSH 10H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	3/4/2020	22,138	22,049	36
2	5/3/2020	22,013	21,833	36
3	5/4/2020	21,803	21,619	36
4	5/5/2020	21,586	21,406	36
5	5/5/2020	21,372	21,192	36
6	5/6/2020	21,159	20,979	36
7	5/8/2020	20,184	20,002	36
8	5/9/2020	19,971	19,793	36
9	5/10/2020	19,759	19,581	36
10	5/11/2020	19,548	19,370	36
11	5/11/2020	19,336	19,158	36
12	5/15/2020	18,925	18,748	36
13	5/16/2020	18,713	18,534	36
14	5/16/2020	18,498	18,323	36
15	5/17/2020	18,290	18,116	36
16	5/17/2020	18,078	17,900	36
17	5/18/2020	17,862	17,689	36
18	5/18/2020	17,656	17,478	36
19	5/19/2020	17,444	17,266	36
20	5/19/2020	17,233	17,055	36
21	5/20/2020	17,022	16,840	36
22	5/20/2020	16,813	16,632	36
23	5/22/2020	16,599	16,421	36
24	5/27/2020	16,387	16,209	36
25	5/28/2020	16,172	16,003	36
26	5/28/2020	15,965	15,787	36
27	5/28/2020	15,753	15,575	36
28	5/29/2020	15,542	15,364	36
29	5/30/2020	15,331	15,152	36
30	5/30/2020	15,115	14,941	36
31	5/30/2020	14,908	14,730	36
32	5/31/2020	14,696	14,514	36
33	5/31/2020	14,485	14,307	36
34	6/1/2020	14,272	14,095	36
35	6/1/2020	14,062	13,884	36
36	6/2/2020	13,851	13,673	36
37	6/2/2020	13,640	13,461	36
38	6/3/2020	13,428	13,250	36
39	6/4/2020	13,217	13,037	36
40	6/4/2020	13,008	12,827	36
41	6/5/2020	12,794	12,616	36
42	6/5/2020	12,583	12,404	36

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43	6/5/2020	12,371	12,193	36
44	6/6/2020	12,160	11,982	36
45	6/6/2020	11,948	11,770	36
46	6/7/2020	11,737	11,559	36
47	6/7/2020	11,526	11,352	36
48	6/8/2020	11,314	11,136	36
49	6/8/2020	11,103	10,925	36
50	6/8/2020	10,892	10,713	36
51	6/9/2020	10,680	10,505	36
52	6/9/2020	10,469	10,291	36
53	6/10/2020	10,257	10,079	36
54	6/11/2020	10,046	9,868	36
55	6/12/2020	9,835	9,657	36
56	6/12/2020	9,623	9,450	36
57	6/13/2020	9,412	9,234	36
58	6/14/2020	9,201	9,022	36
59	6/14/2020	8,989	8,811	36
60	6/15/2020	8,778	8,602	36
61	6/16/2020	8,566	8,388	36
62	6/16/2020	8,353	8,177	36
63	6/16/2020	8,144	7,965	36
64	6/17/2020	7,932	7,751	36

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**SHAWN HARLAN MSH 10H
ATTACHMENT 2
STIM REPORT**

STAGE NUM	Stim Date	Ave Pump	Ave Treatment		Max Breakdown	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/other	
		Rate (BPM)	Pressure (PSI)	Pressure (PSI)	ISIP (PSI)				
1	5/3/2020	86	8,863		0	3,769	196,060	6,580	0
2	5/4/2020	76	8,711	6,110	3,982	322,090	9,510		0
3	5/5/2020	77	9,178	6,617	4,256	304,860	8,619		0
4	5/5/2020	87	8,893	5,073	4,952	302,800	8,946		0
5	5/5/2020	84	9,016	4,894	4,439	308,430	9,460		0
6	5/6/2020	83	9,335	6,259	4,113	112,480	7,193		0
7	5/8/2020	67	8,895	6,342	4,472	304,620	15,457		0
8	5/9/2020	88	9,272	6,190	5,064	307,370	13,730		0
9	5/10/2020	84	9,355	5,806	5,361	308,470	8,372		0
10	5/11/2020	84	9,219	6,119	5,495	306,670	8,662		0
11	5/11/2020	83	9,341	6,177	5,250	67,050	8,189		0
12	5/15/2020	88	9,278	5,987	4,675	302,520	12,397		0
13	5/16/2020	89	9,017	5,681	4,782	303,970	8,267		0
14	5/17/2020	99	8,135	5,811	4,816	301,340	8,915		0
15	5/17/2020	96	9,279	6,371	6,086	307,350	10,272		0
16	5/18/2020	95	9,174	5,839	5,628	304,650	8,581		0
17	5/18/2020	99	9,473	6,183	4,783	308,460	8,649		0
18	5/19/2020	95	9,139	6,035	5,561	307,640	8,731		0
19	5/19/2020	87	8,504	6,122	4,406	306,150	8,566		0
20	5/20/2020	99	9,163	5,882	5,512	309,760	8,661		0
21	5/20/2020	93	8,728	6,012	4,896	304,230	7,606		0
22	5/22/2020	90	8,902	6,158	4,326	322,020	8,326		0
23	5/26/2020	94	9,157	5,611	5,378	311,520	8,577		0
24	5/27/2020	86	8,876	6,253	5,508	299,880	8,524		0
25	5/28/2020	88	8,990	6,617	6,298	300,150	8,222		0
26	5/28/2020	93	9,109	6,010	5,306	299,100	8,639		0
27	5/29/2020	93	9,144	6,150	5,300	308,540	8,353		0
28	5/29/2020	90	9,043	5,678	4,947	316,210	9,554		0
29	5/30/2020	86	9,025	6,174	4,300	312,180	9,252		0
30	5/30/2020	92	9,054	5,667	4,564	325,580	8,778		0
31	5/31/2020	88	8,823	5,563	5,840	284,010	7,969		0
32	5/31/2020	89	8,697	5,260	5,262	305,010	8,328		0
33	6/1/2020	87	9,205	5,705	4,635	246,980	10,563		0
34	6/1/2020	91	8,802	5,962	6,301	308,340	7,550		0
35	6/1/2020	92	8,481	5,479	4,779	308,340	8,428		0
36	6/2/2020	94	8,508	5,287	5,697	315,200	8,753		0
37	6/3/2020	91	8,581	5,995	4,740	308,160	8,168		0
38	6/3/2020	96	8,644	5,091	4,988	314,870	8,715		0
39	6/4/2020	94	8,511	5,225	5,413	312,850	8,433		0
40	6/4/2020	87	8,397	5,820	5,219	316,050	9,599		0
41	6/5/2020	92	8,481	5,523	4,660	307,410	8,252		0
42	6/5/2020	93	8,560	6,313	5,135	245,270	7,572		0
43	6/6/2020	96	8,528	6,186	4,756	302,960	8,243		0
44	6/6/2020	94	8,455	5,968	5,340	310,960	8,572		0
45	6/7/2020	90	8,193	6,210	5,625	254,960	9,401		0
46	6/7/2020	94	8,180	5,745	5,088	304,950	7,953		0
47	6/7/2020	95	8,425	5,895	5,357	309,780	8,172		0
48	6/8/2020	96	8,337	5,380	4,320	296,220	8,441		0
49	6/8/2020	87	8,283	5,682	4,600	306,530	7,327		0
50	6/9/2020	95	8,288	6,065	4,250	307,500	8,714		0
51	6/9/2020	98	8,112	5,842	6,145	308,080	8,439		0
52	6/10/2020	96	8,357	5,476	5,283	303,540	8,362		0
53	6/11/2020	100	8,542	5,892	5,178	303,540	8,380		0
54	6/12/2020	93	8,021	5,741	4,461	302,480	8,905		0
55	6/12/2020	88	8,118	5,082	4,607	307,090	10,047		0
56	6/13/2020	100	8,036	6,325	4,476	304,220	8,373		0
57	6/14/2020	100	8,092	6,536	5,018	308,960	8,512		0
58	6/14/2020	100	8,053	5,728	4,579	302,720	8,327		0
59	6/15/2020	98	8,036	6,399	4,778	316,050	8,102		0
60	6/16/2020	97	8,000	6,105	4,823	306,230	7,950		0
61	6/16/2020	99	8,371	6,241	4,859	318,520	8,568		0
62	6/16/2020	100	7,883	6,025	4,654	313,920	8,575		0
63	6/17/2020	100	7,765	5,989	4,871	317,760	8,234		0
64	6/17/2020	100	7,927	6,183	4,807	302,820	7,849		0

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Well Name: **Shawn Harlan MSH 10H**

47051022840000

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	489.00	489.00	489.00	489.00	
Top of Salt Water	750.00	750.00	NA	NA	
Pittsburgh Coal	1116.00	1116.00	1118.00	1118.00	
Pottsville (ss)	1211.00	1211.00	1550.00	1549.00	
Raven Cliff (ss)	1555.00	1553.00	1823.00	1820.00	
Maxton (ss)	1998.00	1996.00	2218.00	2215.00	
Big Injun (ss)	2281.00	2278.00	2516.00	2513.00	
Berea (siltstone)	2870.00	2866.00	2897.00	2893.00	
Rhinestreet (shale)	6573.00	6492.00	6896.00	6798.00	
Cashaqua (shale)	6896.00	6798.00	7039.00	6919.00	
Middlesex (shale)	7039.00	6919.00	7114.00	6976.00	
Burket (shale)	7166.00	7012.00	7207.00	7039.00	
Tully (ls)	7207.00	7039.00	7242.00	7060.00	
Mahantango (shale)	7242.00	7060.00	7494.00	7164.00	
Marcellus (shale)	7529.00	7154.00	NA	NA	GAS

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Latitude: 39°45'00"

SURFACE HOLE 11246'

Latitude: 39°45'00"

BOTTOM HOLE 11,570'

JACKSON SURVEYING INC.

2413 EAST PIKE ST. # 112
Clarksburg, WV 26301
304-623-5851

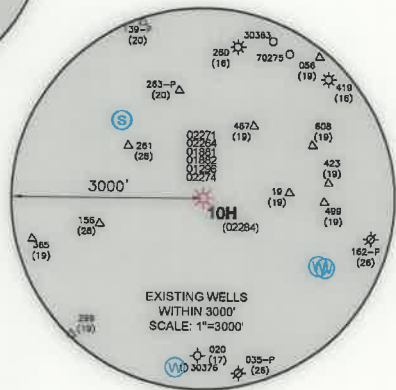
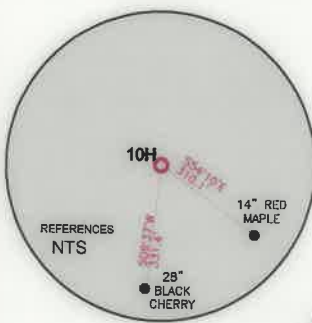
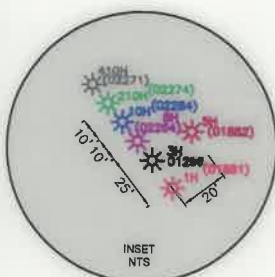
LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 61°45'04" W	2742.59	SHL TO LANDMARK	CNR FENCE POST
L2	S 26°51'52" E	511.49	SHL TO LANDMARK	LARGE STONE
LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L3	N 48°00'53" E	1136.46	CURVE LENGTH	SHL TO LPL

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,398,288.853
EASTING: 532,277.172

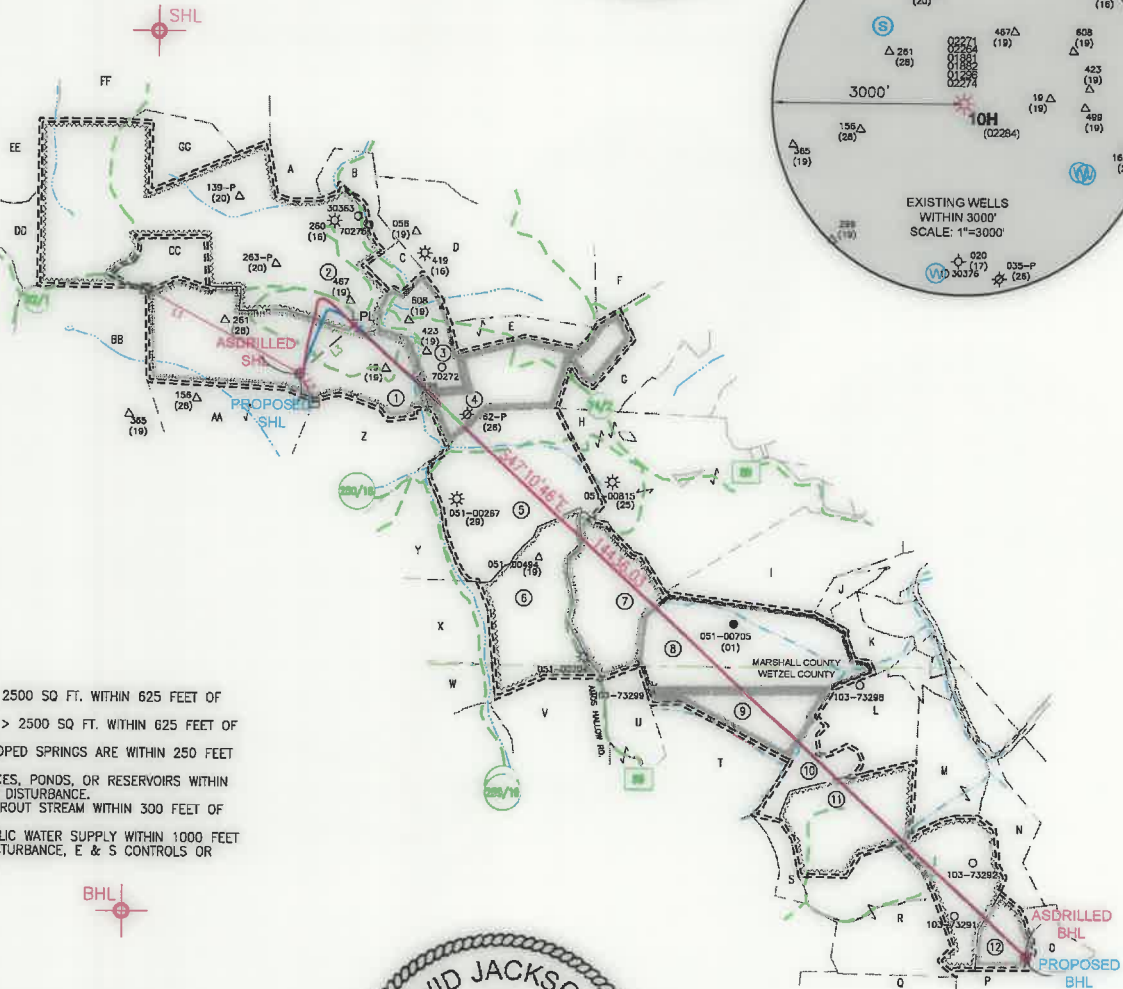
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,398,505.942
EASTING: 532,561.308

BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,395,530.234
EASTING: 535,759.580

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,398,289.075 EASTING: 532,276.979
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,398,520.790 EASTING: 532,534.459
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,395,530.014 EASTING: 535,761.877



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



WELL RESTRICTIONS

1. NO OCCUPIED DWELLINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
2. NO AGRICULTURE BUILDINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
3. NO WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 250 FEET OF PROPOSED WELL.
4. NO PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
5. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
6. NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD. LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

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.

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. 708

David L Jackson



3000 0 3000

GRAPHIC SCALE IN FEET

COMPANY:

SWN

SWN

Production Company, LLC

Production Company™



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)

SHAWN HARLAN MSH

OPERATOR'S WELL #: 10H

API WELL #: 47 051 02284
STATE COUNTY PERMIT

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

WATERSHED: LAUREL RUN OF FISH CREEK (HUC-10) ELEVATION: 1391.2'

DISTRICT: LIBERTY COUNTY: MARSHALL QUADRANGLE: LITTLETON

SURFACE OWNER: SCOTT L. HARLAN & SHAWN D. HARLAN ACREAGE: ±126.15

OIL & GAS ROYALTY OWNER: SEE (1) IN WELL BORE TABLE ON PAGE 2 ACREAGE: ±126.15

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

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) ASDRILLED

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,504 TVD 22,183 TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITTANY WOODY

ADDRESS: 1300 FORT PIERPONT RD. SUITE 200 ADDRESS: 1300 FORT PIERPONT RD. SUITE 200

CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND:			REVISIONS:	DATE: 09-01-2020
				DRAWN BY: N. MANO
				SCALE: 1" = 3000'
				DRAWING NO:
				WELL LOCATION PLAT

Longitude: 80°35'00"

BOTTOM HOLE 14,979'

Latitude: 80°32'30"

**JACKSON SURVEYING
INC.**

2413 EAST PIKE ST. # 112
Clarksburg, WV 26301
304-623-5851

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	SCOTT L. HARLAN & SHAWN D. HARLAN (S) JANET E. WILBUR A/K/A JANET T. WILBUR, A/K/A JANET E. TEAGARDEN WILBUR, DAVID A. TEAGARDEN, EVA T. STALKER (EVA T. STALKER, TRUSTEE OF THE EVA T. STALKER TRUST, DATED DECEMBER 28, 1989), JEANNE G. DECLUE (THE JEANNE GOVRO DE CLUE, REVOCABLE LIVING TRUST UDT JULY 9, 2001), STEPHEN E. JUSTMAN, HAYHURST COMPANY (CHESTNUT HOLDINGS, INC.), JACK HAMMERS, PAUL HAMMERS, TWILA ORA WHIPKEY (TWILA ORA WHIPKEY TRUST DATED 8/25/1999, WESBANCO BANK WHEELING, TRUSTEE), TONI JO MASON, ERICA M. MASON, O.E. BURGE (ONWARD E. BURGE, SARAH L. BURGE AND STEPHEN W. BURGE, TRUSTEES OF THE ONWARD E. BURGE TRUST DATED JUNE 21, 2010 & SARAH L. BURGE, ONWARD E. BURGE AND STEPHEN W. BURGE, TRUSTEES OF THE SARAH L. BURGE TRUST DATED JUNE 21, 2010), A.L. EVANS AND RACHEL EVANS, (DONNA K. ALLEN, MARY LOU KITTELBERGER, DEBRA A. LIKAVEC AND JOHN D. LIKAVEC, NANCY JO BLOCK, CHAD E. LONGFELLOW, HOLLY A. LONGFELLOW, TRACY L. BARNBY, LLOYD R. EVANS, GLORIA STINE, ROBERT W. CUBBAGE, CLIFFORD CUBBAGE, ROBERT W. CUBBAGE, KAREN CUBBAGE, DALE E. WORKMAN, SANDRA E. RUSH, ERMA NELDA JEFFERSON, LAURA K. BAKER, DEBORAH A. COLLINS, PATTY D. JEFFERSON, JOYCE L. LAMB, STACY L. LYONS CARLA CARSWELL DAVIS, MEL TODD CARSWELL, JENNIFER CARSWELL BRIERE, FRANK K. BONACICH, JR., JEAN J. MEIER, HOWARD RAY FURBEE, ROBERT DALE FURBEE, DOROTHY EVANS, ELLEN G. KIRKBRIDE, DARLENE KAY ALBORN, MARLENE FAY WAGMILLER, ELMER DEAN EVANS, JACK HAMMERS, PAUL HAMMERS, TWILA ORA WHIPKEY TRUST DATED 8/25/1999, WESBANCO BANK WHEELING, TRUSTEE, TONI JO MASON, ERICA MASON, O.E. BURGE AND SARAH LOU BURGE, H/W AND STEPHEN BURGE, (CHESTNUT HOLDINGS). (R)	07-28-01
TRACT	SURFACE OWNER	TAX PARCEL
2	C. MICHAEL BLAIR & LINDA L. BLAIR (S)	07-18-09
3	MASON DIXON FARMS, LLC. (S)	07-28-02
4	JAMES E. MORGAN-LIFE (S)	07-28-04
5	MATTHEW ALLAN RICHMOND (S)	07-28-05
6	CHRISTOPHER COX & NIKKI COX (S)	07-28-07
7	VINCENZO MICELI, ET UX (S)	07-28-06
8	EDWARD E. WADE JR. (S)	07-27-20
9	EDWARD E. WADE JR. (S)	01-02-14
10	BRIAN T. FERDA & VI-EVA FERDA (S)	01-02-13
11	LARRY RINE, ET AL (S)	p/o 01-02-08
12	WEST VIRGINIA DIVISION OF NATURAL RESOURCES (S)	01-02-09

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
A	MASON DIXON FARMS, LLC.	07-18-07
B	LLOYD A. KARR, ET UX	07-19-33
C	M. ZACHARY BLAIR	07-19-35
D	DONALD Z. ROMACK, ET UX	07-19-36
E	JAMES E. MORGAN-LIFE	07-28-03
F	JENNIFER L. ROMACK TRUST, ET AL	07-19-38
G	JAMES E. MORGAN-LIFE	07-26-14
H	JOHN E. RIGGS JR. & DELENA RIGGS	07-27-02
I	JOSEPH L. SCHANCK & KATHERINE SCHANCK	07-27-18
J	W. VA. WILDLIFE RESOURCES SECTION	07-27-17
K	BRIAN T. FERDA, ET UX	07-27-15
L	BRIAN T. FERDA & VI-EVA FERDA	01-02-04
M	STEPHEN ROSS MCINTYRE	01-02-05
N	WM. BALTZ, TR. OF VH & F CLUB, ET AL	01-02-5.1
O	BRIAN T. FERDA	01-05-7.1
P	WILLIAM E. RENNER & WILLIAM J. RENNER	01-05-07
Q	WILLIAM E. RENNER	01-05-04
R	LARRY RINE, ET AL	p/o 01-02-08
S	LARRY G. RINE & JANA L. RINE	01-05-03
T	MARY E. PYLES	01-02-03
U	FLOYD B. JOHNSON	01-02-02
V	FLOYD B. JOHNSON	01-02-01
W	WILMA JARRELL, ET AL	01-01-07
X	APPALACHIA MIDSTREAM SERVICES, LLC.	01-01-06
Y	APPALACHIA MIDSTREAM SERVICES, LLC.	07-28-08
Z	CARL R. RICHMOND & EILEEN R. RICHMOND	07-28-13
AA	G. DAVID EVICK	07-28-14
BB	JAMES E. MORGAN-LIFE	07-29-04
CC	C. MICHAEL BLAIR & LINDA L. BLAIR	07-18-9.1
DD	RONALD K. NEELY & DONA L. NEELY	07-18-10
EE	HOY GLENN CROW, ET UX	07-18-11
FF	MASON DIXON FARMS, LLC.	07-18-8.1
GG	BERNARD P. TWIGG AND SHARON ANN TWIGG	07-18-08

REVISIONS:

COMPANY:

SWN
Production Company, LLC

SWN ^{R+} ^A ^{V+} ^o
Production Company™

OPERATOR'S SHAWN HARLAN MSH

API #

DATE: 09-01-2020

WELL #: 10H

47-051-02284

DRAWN BY: N. MANO

DISTRICT:
LIBERTY

COUNTY:
MARSHALL

STATE:
WV

SCALE: N/A

DRAWING NO:
WELL LOCATION PLAT 2

