

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

API 47-069-00269 County OHIO District LIBERTY
Quad VALLEY GROVE Pad Name OCC A OHI PAD Field/Pool Name PANHANDLE
Farm name BOARD OF COMMISSIONERS OF OHIO COUNTY Well Number OCC A OHI 405H
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 4,436,645.78 Easting 534,271.96
Landing Point of Curve Northing 4,437,135.47 Easting 534,865.10
Bottom Hole Northing 4,439,341.83 Easting 533,876.48

Elevation (ft) 1095.9 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 04/04/2018 Date drilling commenced 04/05/2018 Date drilling ceased 05/27/2018
Date completion activities began 09/22/2018 Date completion activities ceased 11/12/2018
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 432' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 586' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 500' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed
[Signature] 4-3-19

Reviewed by: _____

WR-35
Rev. 8/23/13

API 47-069 - 00269 Farm name BOARD OF COMMISSIONERS OF OHIO COUNTY Well number OCC A OHI 405H

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	549'	NEW	J-55/54.50#	436.7'	Y, 28 BBLS
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	1,860'	NEW	J-55/36#		Y, 40 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	15,248'	NEW	HCP-110/20#		Y, 10 BBLS
Tubing		2.375	7,265'	NEW	P-110/4.7#		N
Packer type and depth set							

Comment Details The 5 1/2" and 9 5/8" casing strings were both cut out and have an overshot casing patch near surface. The patches successfully hold strong throughout the completion and fracture stimulation of the well.

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	483	15.60	1.20	579.6	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	705	15.60	1.19	838.95	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	2,815	15.60	1.19	3,349.85	SURFACE	24
Tubing							

Drillers TD (ft) 15,248' Loggers TD (ft) 15,248'
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5,970'

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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PRODUCING FORMATION(S)	DEPTHS	
MARCELLUS	6,229'	TVD 7,096' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1,631 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 5,461 mcfpd Oil 749 bpd NGL _____ bpd Water 540 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.

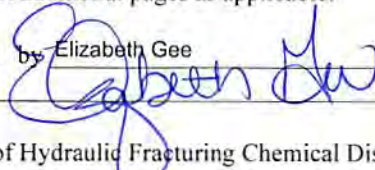
Drilling Contractor SWN DRILLING COMPANY
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Logging Company BAKER HUGHES
Address 17021 ALDINE WESTFIELD City HOUSTON State TX Zip 77073

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

Stimulating Company SWN WELL SERVICES
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Please insert additional pages as applicable.

Completed by Elizabeth Gee Telephone 832-796-7632
Signature  Title Staff Regulatory Analyst Date 01/30/2019

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

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**OCC A OHI 405H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	9/6/2018	15,141	15,043	36
2	9/26/2018	15,008	14,898	42
3	9/27/2018	14,864	14,754	42
4	9/28/2018	14,720	14,610	42
5	9/28/2018	14,576	14,466	42
6	9/29/2018	14,432	14,322	42
7	9/29/2018	14,288	14,174	42
8	9/30/2018	14,144	14,034	42
9	9/30/2018	14,000	13,887	42
10	10/1/2018	13,859	13,746	42
11	10/1/2018	13,712	13,602	42
12	10/2/2018	13,568	13,458	42
13	10/3/2018	13,424	13,314	42
14	10/3/2018	13,280	13,170	42
15	10/4/2018	13,136	13,026	42
16	10/4/2018	12,992	12,882	42
17	10/4/2018	12,848	12,738	42
18	10/5/2018	12,704	12,594	42
19	10/5/2018	12,560	12,450	42
20	10/6/2018	12,416	12,306	42
21	10/7/2018	12,272	12,162	42
22	10/7/2018	12,128	12,018	42
23	10/8/2018	11,984	11,874	42
24	10/8/2018	11,837	11,730	42
25	10/9/2018	11,696	11,586	42
26	10/10/2018	11,552	11,442	42
27	10/10/2018	11,408	11,301	42
28	10/11/2018	11,264	11,154	42
29	10/11/2018	11,120	11,010	42
30	10/12/2018	10,976	10,866	42
31	10/13/2018	10,832	10,722	42
32	10/13/2018	10,688	10,578	42
33	10/13/2018	10,547	10,434	42
34	10/14/2018	10,400	10,290	42
35	10/14/2018	10,256	10,146	42
36	10/15/2018	10,112	10,004	42
37	10/16/2018	9,968	9,858	42
38	10/17/2018	9,824	9,714	42
39	10/17/2018	9,680	9,570	42
40	12/30/2018	9,531	9,426	42
41	10/18/2018	9,392	9,286	42
42	10/18/2018	9,248	9,138	42

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STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
43	10/19/2018	9,104	8,994	42
44	10/19/2018	8,960	8,850	42
45	10/19/2018	8,816	8,706	42
46	10/19/2018	8,672	8,562	42
47	10/22/2018	8,528	8,418	42
48	10/22/2018	8,384	8,276	42
49	10/23/2018	8,240	8,130	42
50	10/24/2018	8,096	7,986	42
51	10/25/2018	7,952	7,842	42
52	10/26/2018	7,802	7,698	42
53	10/26/2018	7,664	7,554	42
54	10/27/2018	7,520	7,410	42
55	10/27/2018	7,376	7,266	42
56	10/28/2018	7,232	7,122	42

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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/othr
1	9/26/2018	88	7,950	8,050	4,626	281,004	5,172	0
2	9/27/2018	94	7,093	8,364	4,477	284,358	5,034	0
3	9/27/2018	92	8,123	5,231	4,856	280,530	4,465	0
4	9/28/2018	96	8,296	4,917	3,907	278,478	4,270	0
5	9/29/2018	91	8,420	5,304	4,322	281,522	4,207	0
6	9/29/2018	94	8,127	6,301	4,884	280,192	3,890	0
7	9/30/2018	96	8,175	5,285	4,758	282,092	3,952	0
8	9/30/2018	98	8,375	5,861	4,141	249,770	3,914	0
9	10/1/2018	98	8,460	3,240	4,625	279,670	4,000	0
10	10/1/2018	98	8,227	4,477	4,857	281,710	3,712	0
11	10/1/2018	97	8,457	5,184	4,236	269,261	3,704	0
12	10/3/2018	88	7,758	5,074	4,671	283,030	5,320	0
13	10/3/2018	86	6,718	5,710	4,023	288,780	5,387	0
14	10/4/2018	89	7,978	5,956	4,458	279,920	4,109	0
15	10/4/2018	91	7,541	6,049	4,525	276,600	3,507	0
16	10/4/2018	91	7,562	6,001	4,251	279,590	3,817	0
17	10/5/2018	91	7,121	6,058	4,342	275,180	4,966	0
18	10/5/2018	95	7,223	6,114	4,589	280,740	4,170	0
19	10/6/2018	82	7,245	5,841	4,329	285,980	6,957	0
20	10/7/2018	92	7,723	6,245	4,648	281,060	4,571	0
21	10/7/2018	97	7,423	5,818	4,607	287,660	4,473	0
22	10/8/2018	100	7,710	6,113	4,415	282,220	5,008	0
23	10/8/2018	99	7,545	6,381	4,615	281,640	4,240	0
24	10/9/2018	100	7,912	2,853	4,512	281,700	4,712	0
25	10/10/2018	100	7,863	5,463	4,562	285,660	4,592	0
26	10/10/2018	99	7,852	5,889	4,863	281,360	4,418	0
27	10/11/2018	95	7,932	5,716	4,896	271,400	3,098	0
28	10/11/2018	98	7,458	6,331	5,236	281,260	3,820	0
29	10/12/2018	99	7,714	5,945	4,885	299,580	3,557	0
30	10/13/2018	95	7,654	6,149	4,840	284,580	3,252	0
31	10/13/2018	97	7,754	6,071	4,752	281,100	3,696	0
32	10/13/2018	100	7,532	5,903	4,867	277,640	4,004	0
33	10/14/2018	97	7,745	6,214	4,898	279,800	3,166	0
34	10/14/2018	100	7,811	5,986	4,756	281,680	3,861	0
35	10/15/2018	100	7,808	5,450	4,808	283,900	3,672	0
36	10/15/2018	99	7,810	5,912	4,769	279,140	2,991	0
37	10/17/2018	99	8,127	5,225	5,096	287,260	3,273	0
38	10/17/2018	98	7,856	3,671	5,191	285,480	3,384	0
39	10/17/2018	97	7,638	4,540	4,954	279,160	3,303	0
40	10/18/2018	99	7,332	4,682	4,963	275,360	3,325	0
41	10/18/2018	98	7,550	5,434	5,063	282,290	3,623	0
42	10/18/2018	94	7,650	5,725	5,225	274,330	3,539	0
43	10/19/2018	99	7,405	6,557	5,213	270,330	3,347	0
44	10/19/2018	98	7,485	6,020	4,763	269,170	3,249	0
45	10/19/2018	98	7,625	6,313	4,380	275,960	3,137	0
46	10/21/2018	98	7,432	4,652	5,448	266,040	3,187	0
47	10/22/2018	98	7,387	4,608	5,099	265,830	3,480	0
48	10/22/2018	99	6,981	6,982	5,234	272,760	3,032	0
49	10/24/2018	96	7,687	4,388	4,313	270,060	3,258	0
50	10/24/2018	95	7,650	4,905	4,809	273,050	3,495	0
51	10/26/2018	99	7,775	4,987	5,113	273,420	3,008	0
52	10/26/2018	99	7,305	5,621	5,102	282,702	3,177	0
53	10/27/2018	98	7,650	6,517	5,090	280,270	2,911	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 (lbs)	Amount of water bbls	Amount of nitrogen/othe
54	10/27/2018	97	7,350	5,705	4,965	282,840	4,064	0
55	10/28/2018	99	6,975	4,867	4,882	289,300	2,916	0
56	10/29/2018	98	6,950	6,345	4,953	282,220	2,996	0

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Well Name: OCC A OHI 405H

47069002690000

Attachment 3

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	432.00	432.00	
Top of Salt Water	586.00	586.00	NA	NA	
Pittsburgh Coal	500.00	500.00	608.00	608.00	
Pottsville (ss)	608.00	608.00	928.00	928.00	
Raven Cliff (ss)	928.00	928.00	1342.00	1342.00	
Maxton (ss)	1342.00	1342.00	1649.00	1644.00	
Big Injun (ss)	1649.00	1644.00	2167.00	2161.00	
Berea (siltstone)	2167.00	2161.00	5730.00	5619.00	
Rhinestreet (shale)	6123.00	5643.00	6455.00	5911.00	
Cashaqua (shale)	6455.00	5911.00	6548.00	5977.00	
Middlesex (shale)	6548.00	5977.00	6670.00	6053.00	
Burket (shale)	6670.00	6053.00	6703.00	6072.00	
Tully (ls)	6703.00	6072.00	6762.00	6106.00	
Mahantango (shale)	6762.00	6106.00	7096.00	6229.00	
Marcellus (shale)	7096.00	6229.00	NA	NA	GAS

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/26/2018
Job End Date:	10/29/2018
State:	West Virginia
County:	Ohio
API Number:	47-069-00269-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	OCC A OHI 405
Latitude:	40.07938723
Longitude:	-80.59803423
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,204
Total Base Water Volume (gal):	8,962,296
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
SCAL16486A	Nalco	Scale Inhibitor					
				Listed Below			
Econo-CI200	SWN Well Services	Corrosion Inhibitor					
				Listed Below			

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BIOC11219A	Nalco	Biocide					
				Listed Below			
FLOJET DRP 1130X	SWN Well Services	Friction Reducer					
				Listed Below			
HCL	SWN Well Services	Solvent					
				Listed Below			
Sand	SWN Well Services	Proppant					
				Listed Below			
FLOJET DR 9000LPP	SWN Well Services	Friction Reducer					
				Listed Below			
Base Water	Operator	Base Fluid					
				Listed Below			
Ecopol-FEAC	SWN Well Services	Iron Control					
				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	81.26131	Density = 8.345
			Crystalline Silica, quartz	14808-60-7	100.00000	16.96126	
			Water	7732-18-5	85.00000	1.43306	
			Hydrochloric Acid	7647-01-0	15.00000	0.24448	
			Petroleum Distillates, Hydrotreated	64742-47-8	45.00000	0.04600	

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			Methanol	67-56-1	60.00000	0.01709	
			Ethylene glycol	107-21-1	10.00000	0.01192	
			Benzyl-(C12-C16 Alky)- Dimethyl-Ammonium	68424-85-1	30.00000	0.00854	
			Acetic Acid	64-19-7	37.50000	0.00326	
			Chloride Glutaraldehyde	111-30-8	10.00000	0.00285	
			Alcohols, C12- C16,Ethoxylated propoxylated	68213-24-1	2.00000	0.00204	
			Fatty alcohols ethoxylated	Proprietary	2.00000	0.00204	
			Methanol	67-56-1	80.00000	0.00200	
			Citric Acid	77-92-9	22.50000	0.00195	
			Amine Triphosphate	Proprietary	30.00000	0.00170	
			Oxyalkylated fatty acid	68951-67-7	9.67400	0.00024	
			Fatty acids	61790-12-3	5.02700	0.00013	
			Modified thiourea polymer	68527-49-1	4.74600	0.00012	
			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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Via Federal Express

January 30, 2019

State of West Virginia
Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: SWN Production Company, LLC
Operator ID: 494512924
Regulatory Filings: WR-34 and WR-35

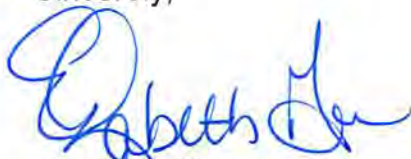
To Whom It May Concern:

Please find enclosed forms WR-34 Discharge Monitoring Report and WR-35 Well Operator's Report of Well Work along with supporting documentation, for the wells listed below.

API	Well Name
47-069-00239	OCC A OHI 5H
47-069-00241	OCC A OHI 205H
47-069-00269	OCC A OHI 405H

If you have any questions or require additional information, please contact me via email at liz_gee@swn.com or telephone at (832) 796-7632.

Sincerely,



Elizabeth Gee
Staff Regulatory Analyst
SW Appalachia Division

/lg
Encl.

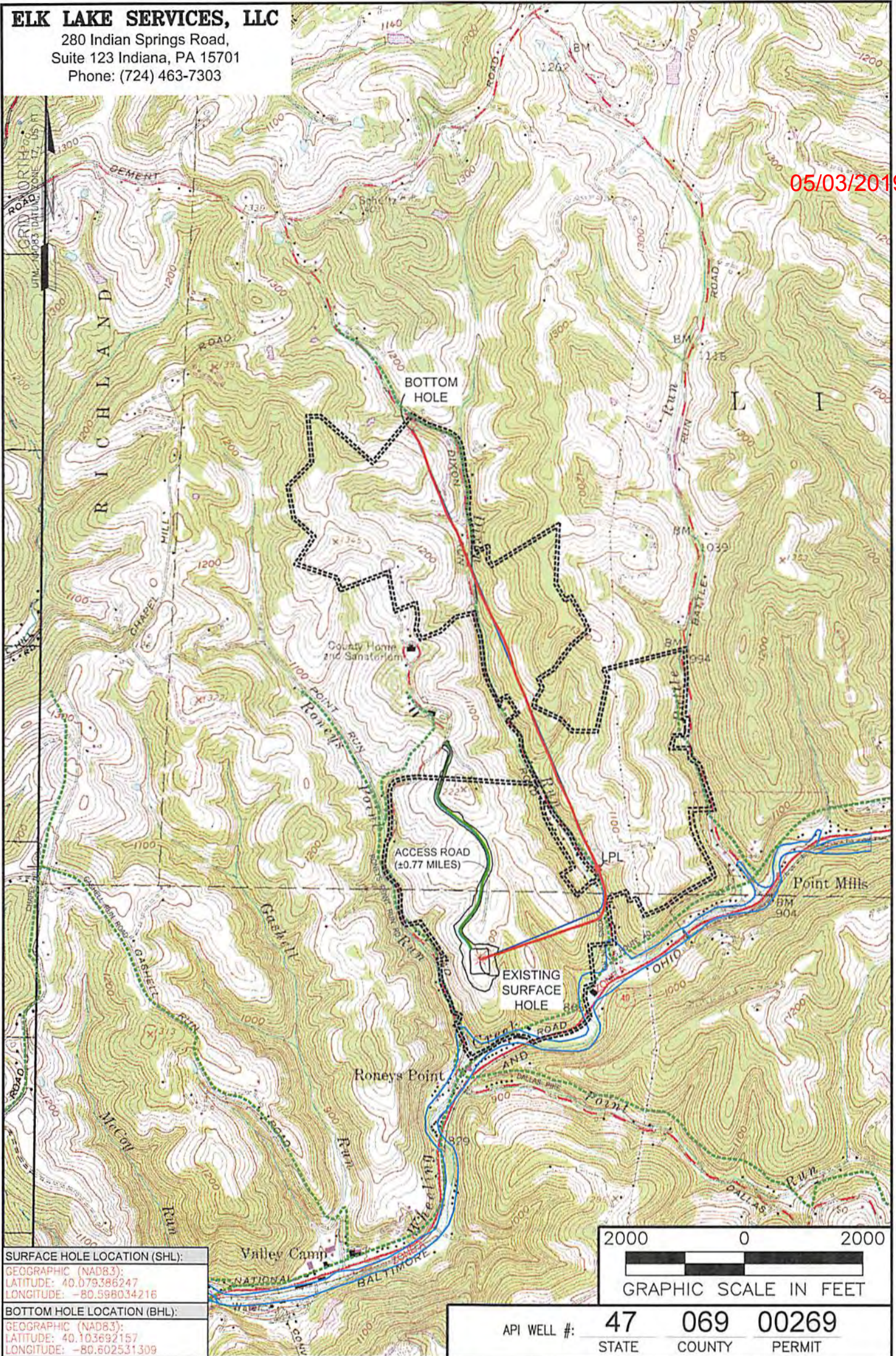
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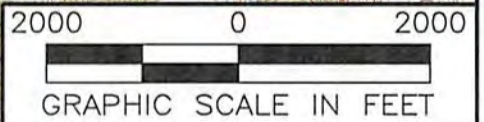
ELK LAKE SERVICES, LLC

280 Indian Springs Road,
Suite 123 Indiana, PA 15701
Phone: (724) 463-7303

05/03/2019



SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83):
LATITUDE: 40.079386247
LONGITUDE: -80.598034216
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83):
LATITUDE: 40.103692157
LONGITUDE: -80.602531309



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.

API WELL #:	47	069	00269
	STATE	COUNTY	PERMIT

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

WELL OPERATOR:
SWN PRODUCTION COMPANY, LLC
ADDRESS:
1300 FORT PIERPONT DR STE 201, MORGANTOWN, WV 26508
SURFACE OWNER:
BOARD OF COMMISSIONERS OF OHIO COUNTY

WELL (FARM) NAME:	OCC A OHI	WELL #	405H	SERIAL #	XXXX
COUNTY	OHIO COUNTY - 69	DISTRICT:	LIBERTY		
USGS 7 1/2 QUADRANGLE MAP NAME VALLEY GROVE, WV					

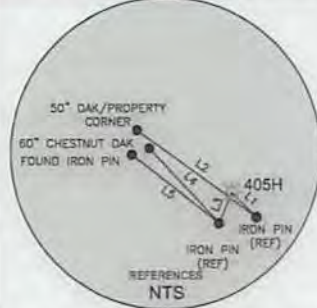
ELK LAKE SERVICES, LLC

280 Indian Springs Road,
Suite 123 Indiana, PA 15701
Phone: (724) 463-7303

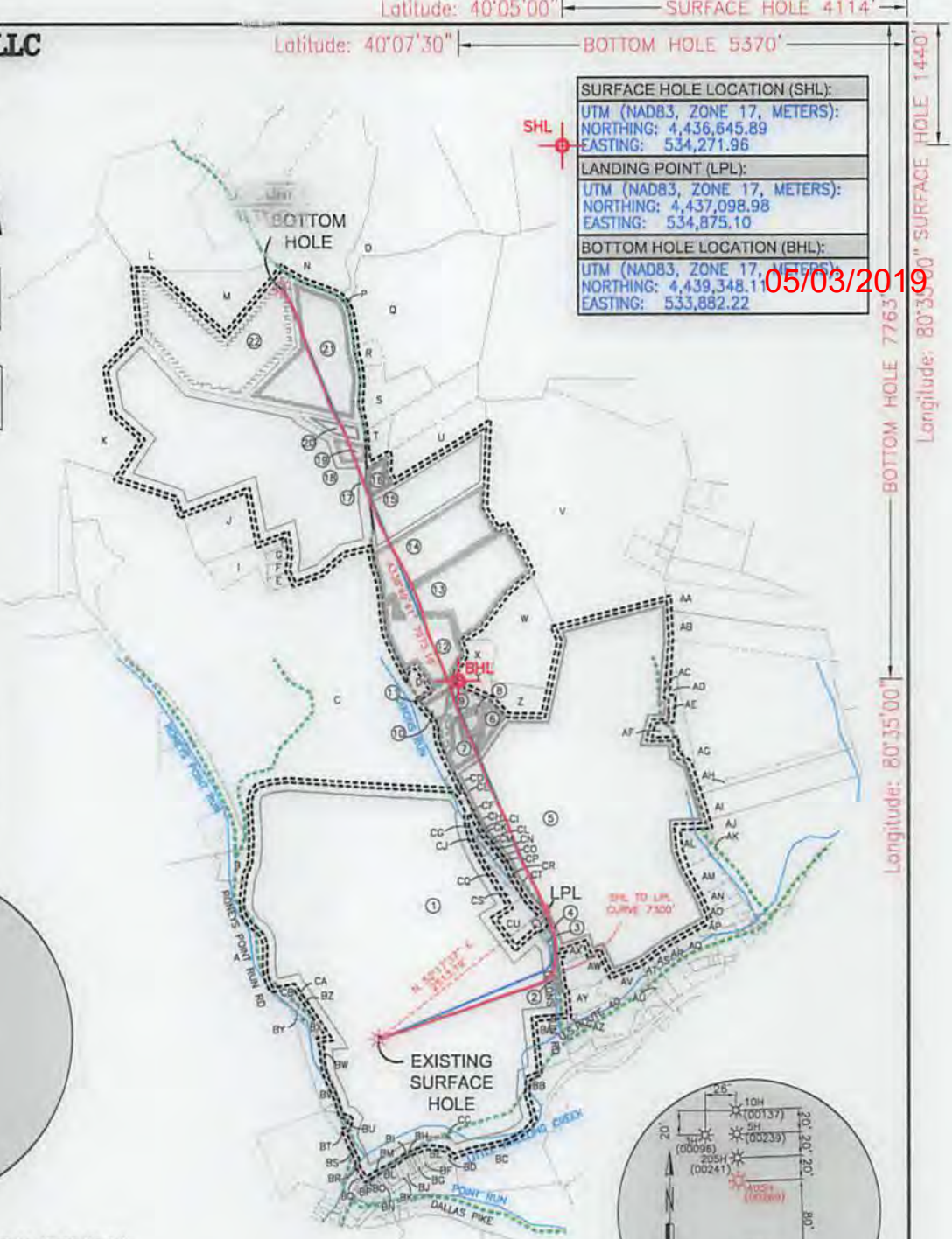
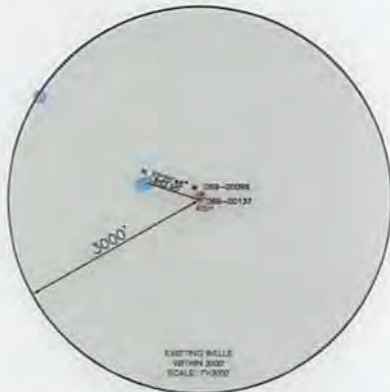
SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,436,645.78
EASTING: 534,271.96
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,437,135.47
EASTING: 534,865.10
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,439,341.83
EASTING: 533,876.48

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

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,436,645.89
EASTING: 534,271.96
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,437,098.98
EASTING: 534,875.10
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,439,348.11
EASTING: 533,882.22



LINE	BEARING	DISTANCE
L1	S 45°48'36" E	362.29'
L2	N 54°04'01" W	1537.24'
L3	S 23°01'40" W	343.03'
L4	N 42°52'24" W	1063.48'
L5	N 51°48'01" W	1151.55'



05/03/2019

WELL RESTRICTIONS

- NO OCCUPIED DWELLINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
- NO AGRICULTURE BUILDINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
- WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 853 FEET OF PROPOSED WELL.
- PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS ARE WITHIN THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
- 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

- 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.
- 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. 2164



COMPANY: **SWN** Production Company, LLC

<p>(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS</p> <p>WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034</p>	MINIMUM DEGREE OF ACCURACY: 1/200	OCC A OHI
	PROVEN SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)	OPERATOR'S WELL #: 405H
	API WELL #:	47 069 00269
		STATE COUNTY PERMIT

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

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1095.9'

DISTRICT: LIBERTY COUNTY: OHIO COUNTY QUADRANGLE: VALLEY GROVE

SURFACE OWNER: BOARD OF COMMISSIONERS OF OHIO COUNTY ACREAGE: ±262.850

OIL & GAS ROYALTY OWNER: BOARD OF COMMISSIONERS OF OHIO COUNTY ACREAGE: ±262.850

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

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) AS-DRILLED

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6.247' TVD 15.248' TMD

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

ADDRESS: 1300 FORT PIERPONT DR STE 201 ADDRESS: 1300 FORT PIERPONT DR STE 201

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

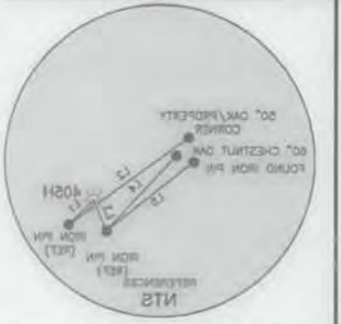
LEGEND:	— SURVEYED BOUNDARY	REVISIONS:	DATE: 01-22-2019
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	— DRILLING UNIT	UPDATED WELL TIE DETAIL	3-29-18
⊙ EXISTING / PRODUCING WELLHEAD	— LEASE BOUNDARY		FILE NO: 16-78
LPL* LANDING POINT LOCATION	— EXISTING PATH		DRAWN BY: JMB
⊙ EXISTING WATER WELL	— PROPOSED PATH		SCALE: 1" = 2000'
⊙ EXISTING SPRING			DRAWING NO: 1
			WELL LOCATION PLAT 1

ELK LAKE SERVICES, LLC

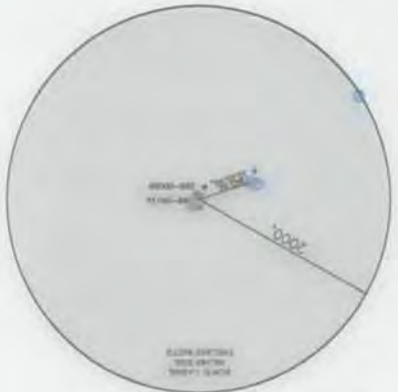
280 Indian Springs Road,
Suite 123 Indian, PA 15701
Phone: (724) 463-7303

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17 METERS): NORTHING: 4438,843.89 EASTING: 234,271.98
LANDING POINT (LPL): UTM (NAD83, ZONE 17 METERS): NORTHING: 4437,098.88 EASTING: 234,872.10
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17 METERS): NORTHING: 4439,348.11 EASTING: 234,882.22

19/03/2019



LINE	BEARING	DISTANCE
L1	S 45°48'38" E	382.29
L2	N 24°04'01" W	1237.24
L3	S 23°01'40" W	343.03
L4	N 42°52'24" W	1063.48
L5	N 21°48'01" W	1121.25

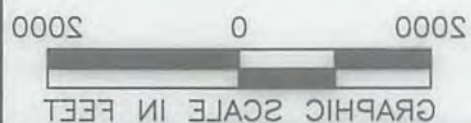


WELL RESTRICTIONS
 1. NO OCCUPIED DWELLINGS > 2500 SQ. FT. WITHIN 825 FEET OF CENTER OF PAD.
 2. NO AGRICULTURE BUILDINGS > 2500 SQ. FT. WITHIN 825 FEET OF CENTER OF PAD.
 3. WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 825 FEET OF PROPOSED WELL.
 4. PERENNIAL STREAMS, LAKES, OR RESERVOIRS ARE WITHIN 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 CONTROL 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 PLAN DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
 3. ALL METERS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.
 4. THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



SWN COMPANY: Production Company, LLC
 Production Company, LLC



WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: 1300 FORT PIERPONT DR STE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 DESIGNATED AGENT: BRITANY WOODY	UNITED STATES TOPOGRAPHIC MAPS (+) DENOTES LOCATION OF WELL ON DEGREE OF ACCURACY: 1/300 PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAD 88, US FT)	CHARLESTON, WV 25034 OFFICE OF OIL & GAS 601 57TH STREET WDEP
TARGET FORMATION: MARCELLUS CONVERT <input type="checkbox"/> PLUG & ABANDON <input type="checkbox"/> CLEAN OUT & REPLUG <input type="checkbox"/> OTHER CHANGE <input checked="" type="checkbox"/> (SPECIFY) AS-DRIILLED DRILL <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/>	WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input checked="" type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>	DISTRICT: LIBERTY COUNTY: OHIO COUNTY SURFACE OWNER: BOARD OF COMMISSIONERS OF OHIO COUNTY OIL & GAS ROYALTY OWNER: BOARD OF COMMISSIONERS OF OHIO COUNTY ACREAGE: ±262.850 QUADRANGLE: VALLEY GROVE ELEVATION: 1022.9'
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 ADDRESS: 1300 FORT PIERPONT DR STE 201 DESIGNATED AGENT: BRITANY WOODY	OPERATOR'S WELL #: 405H OCC A OHI API WELL #: 47 STATE COUNTY PERMIT	WATERSHED: UPPER OHIO SOUTH WDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034

ELK LAKE SERVICES, LLC

280 Indian Springs Road,
Suite 123 Indiana, PA 15701
Phone: (724) 463-7303


05/03/2019

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS			
TRACT	SURFACE OWNER / ROYALTY OWNER	TAX PARCEL	ACRES
1	BOARD OF COMMISSIONERS OF OHIO COUNTY (S/R)	3-L13-3	262.850
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
2	HARRY E. & CHERYL L. HOLMAN	6-T3-11	1.080
3	KEITH E. & CAROLYN J. BARON	3-L13-15	0.389
4	WV DOT, DIVISION OF HIGHWAYS	DIXONS RUN RD	N/A
5	RICHARD G. DEEVER	3-L13-16	178.043
6	SANDRA LYNN STEVENSON-MOKROS	3-L13-5-3	2.274
7	JAMES ALAN STEVENSON	3-L13-5-4	4.777
8	SANDRA LYNN STEVENSON-MOKROS	3-L13-5-7	1.404
9	DAVID W. STEVENSON ETAL	3-L13-5	1.360
10	JO ANN VANDERGRIFT (LE) AND ROBERT L YOUNG (REMAINDER)	3-L13-4-1	1.465
11	JO ANN VANDERGRIFT (LE) AND ROBERT L. YOUNG (REMAINDER)	3-L13-4-2	1.074
12	RONALD W. HOUCHINS	3-L13-4-3	14.387
13	RONALD W. HOUCHINS	3-L10-36-5	20.000
14	LANCE H., JR & SHAENAN G. MILLER	3-L10-36	20.000
15	DAVID A. & FLORENCE D. BLOWERS	3-L10-36-6	20.040
16	MICHELLE L. HORBATAK	3-L10-36-1	2.219
17	MICHELLE L. HORBATAK	3-L10-26-7	0.0092
18	THOMAS R. & SUE O. ABRAHAM, HIS WIFE	3-L10-26	98.6688
19	PATRICIA SMITH ETAL	3-L10-47	2.000
20	JOYCE E. KIMPEL	3-L10-48	2.850
21	JEAN P. AND LOUISE P. LOUSTAU(LE) AND CAROLINE L. BYRUM (REMAINDER)	3-L10-27	50.865
22	CAROLINE LOUSTAU BYRUM	3-L10-27-3	25.000

ADJOINING OWNERS TABLE			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	TIMMY B. & AMY LYNN MINCH	6-T3-5	161.800
B	CARL J. SHELLER	3-L13-24	2.198
C	BOARD OF COMMISSIONERS OF OHIO COUNTY	3-L13-3-1	227.648
D	RICHARD CLARK STEELE JR., AND ALEXANDRA MILENA PUSKARICH	3-L13-4	1.056
E	DAVID H. & DOROTHY L. NEWLAND	3-L10-26-1	1.000
F	ZELDA E. HALL	3-L10-26-3	0.992
G	EVELYN E. SCHULTZ	3-L10-26-4	1.135
H	HERMAN & MARTHA K. KRUPINSKI	3-L10-26-5	1.162
I	CHRISTOPHER BELLANCO	3-L10-26-6	5.166
J	WALTER D. & DEBORAH A. BARTOLOVICH	3-L10-26-2	12.002
K	ROBERT R. LUCHETTI	3-L10-23	162.8138
L	GLEN L. & REBECCA S. WALTERS	3-L10-28	39.880
M	CAROLINE LOUSTAU BYRUM	3-L10-27-1	10.000
N	LINDA A. GILMORE ETAL	3-L10-29	50.000
O	MICHAEL R. & KATHERINE A. PARSONS	3-L10-35-3	53.751
P	MICHAEL R. & KATHERINE A. PARSONS	3-L10-27-2	0.135
Q	BRUCE A. & BRENDA J. PARSONS	3-L10-35	54.236
R	FLORA DIETRICH	3-L10-35-1	2.02
S	HARRY F. & KRISTINE A. METZ	3-L10-35-2	9.29
T	CLARENCE A A WOOD	3-L10-36-7	2.091
U	MICHELLE L. HORBATAK	3-L10-36-3	10.312
V	CURTIS ROBERT HARRIS	3-L10-37	115.646
W	KIMBERLY ANN STEVENSON	3-L13-5-2	20.160
X	CECILEA DELGADO & JOSHUA MOORE	3-L13-5-6	2.413
Y	BRENDA JO STEVENSON & EDGAR DELGADO	3-L13-5-1	3.587
Z	KIMBERLY STEVENSON	3-L13-5-5	5.625
AA	ARCH J. DIERINGER JR.	3-L10-45-1	21.714
AB	C A EVANS AND R A DIERINGER	3-L13-21-1	15.00
AC	ARLEY NEMO	3-L13-16-1	0.387
AD	ARLEY NEMO	3-L13-20	1.180
AE	RICHARD DEEVER	3-L13-20-1	0.601
AF	GREGORY R. GANTZER	3-L13-19	1.550
AG	ARCH J. DIERINGER, JR.	3-L13-21	60.076
AH	ALVIN YODER	3-L13-21-2	3.468
AI	ALVIN YODER	3-L13-22	13.772
AJ	FRESH AIR FARM, INC.	8-VGB-11	39.000
AK	HORST LOHR	3-L13-17	0.562
AL	THOMAS E. SEIFERT	3-L13-17-2	4.012
AM	JAMES E. & MARY E. EBBERT	3-L13-18	3.220
AN	PATTY J. EBBERT	8-VGB-1	1.970
AO	NORMA J. & MICHAEL C. ELTRINGHAM	8-VGB-1-1	1.250
AP	A R. & HILDA M. WALKER	8-VGB-5	5.740
AQ	FRANKLIN COSTANZO	8-VGB-4	3.280
AR	MARY A. HILLBERRY AND GERRY L. TRAGER	8-VG10-3	2.000
AS	KARL L. SR. & CAROL J. KOSEM	8-VG10-2	2.510
AT	KARL L. SR. & CAROL J. KOSEM	8-VG10-2-1	1.490
AU	PAUL R. SR. AND CAROL G. TEMPLIN	8-VG10-1	1.370
AV	GERALD T. & ANNA M. MOORE	6-T3-15-3	3.697
AW	CHERYL L. AND HARRY E. HOLMAN	6-T3-13	3.580
AX	HARRY E. & CHERYL L. HOLMAN	6-T3-12	1.000

ADJOINING OWNERS TABLE			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
AY	GERALD T. & ANNA MOORE	6-T3-14	2.480
AZ	GERALD T. & ANNA MOORE	6-T3-14-1	0.242
BA	OHIO COUNTY COMMISSION	6-T3-28	5.108
BB	JDS INVESTMENTS LLC	6-T3-16	3.038
BC	MELODY E. GARRISON	6-T3-33	23.386
BD	JANIE K. KUHENS	6-T3-34	0.204
BE	SUPERIOR INDUSTRIAL LAUNDRIES	6-T30-26	1.060
BF	PAULA C. & ORION E. STEPHAN	6-T30-25	0.306
BG	HAROLD B. & D J. MOORE	6-T30-24	0.360
BH	ROBERT B. & EVELYN M. CLARK	6-T30-23	0.200
BI	MARVIN H. & K L. SWAIN	6-T30-22	0.200
BJ	PHK, LLC	6-T30-21	0.450
BK	TAMMY M. HAMMONS	6-T30-20	0.360
BL	EDDIE L. & TRACEY L. MCDANIELS	6-T30-19	0.770
BM	JUSTIN S. MARSH & ASHLEY L. FONNER	6-T30-18-1	0.260
BN	HOLLY M. FLACK	6-T30-18	0.223
BO	JOSEPH A. MCKENNEN II AND BARBARA ANN MCKENNEN (LE)	6-T30-17	0.550
BP	VALLEY COIN MACHINE COMPANY, LLC	6-T30-16	1.113
BQ	BOARD OF COMMISSIONERS OF OHIO COUNTY	6-T30-13	0.1128
BR	KENNETH L. NELSON	6-T30-10	0.246
BS	JOHN A. AND CINDY M. HUNTER	6-T30-11-1	0.920
BT	JOHN A. AND CINDY M. HUNTER	6-T30-11	1.461
BU	JOHN A. AND CINDY M. HUNTER	6-T30-12	0.270
BV	RANDY DALE & BRENDA JOYCE HANNING	6-T3-5-2	4.549
BW	RANDY DALE & BRENDA JOYCE HANNING	6-T3-5-1	0.217
BX	BOARD OF COMMISSIONERS OF OHIO COUNTY	6-T3-10	1.800
BY	BARBARA A. SHORES	6-T3-9	1.100
BZ	JAMES R. AND DARLA J. HUGHES	6-T3-8	0.340
CA	TRACEY E. & JOHN P. KETRON	6-T3-7	0.230
CB	ALFRED DERR JR.	6-T3-6	1.100
CC	VILLAGE OF VALLEY GROVE	6-T30-27	0.028
CD	KIMBERLY STEVENSON ETAL	3-L13-6-1	0.604
CE	BOARD OF COMMISSIONERS OF OHIO COUNTY	3-L13-6-3	0.080
CF	TYSON L. AND VANESSA LOVERIDGE	3-L13-6	0.521
CG	TYSON L. AND VANESSA LOVERIDGE	3-L13-6-4	0.210
CH	RHONDA L. FLANEGIN	3-L13-7	0.145
CI	JAMES E., III & CHRISTINE WHEELER	3-L13-8-1	0.164
CJ	JAMES E., III & CHRISTINE WHEELER	3-L13-8-2	0.296
CK	JAMES E., III & CHRISTINE WHEELER	3-L13-8	0.256
CL	BEVERLY J. WHEELER	3-L13-9	0.548
CM	BEVERLY J. WHEELER	3-L13-10	0.303
CN	KEITH E. & CAROLYN J. BARON	3-L13-11-2	0.047
CO	KEITH E. & CAROLYN J. BARON	3-L13-11	0.860
CP	JOYCE M. LEIFHEIT ETAL	3-L13-11-1	0.140
CQ	JOYCE M. LEIFHEIT ETAL	3-L13-12-3	0.968
CR	JOYCE M. LEIFHEIT ETAL	3-L13-12	0.824
CS	STEVEN P. SHEARER	3-L13-12-1	0.824
CT	STEVEN P. SHEARER	3-L13-12-2	0.450
CU	JAMES C. & DEBORAH L. KNIGHT	3-L13-13	5.444
CV	GARY L. & MARY C. DEMERSKI	3-L13-14	0.561

API WELL #: **47 069 00269**
STATE COUNTY PERMIT

REVISIONS:	COMPANY:		
	OPERATOR'S	OCC A OHI	DATE: 01-22-2019
	WELL #:	405H	FILE NO: 16-78
	DISTRICT:	LIBERTY	DRAWN BY: JMB
	COUNTY:	OHIO COUNTY	SCALE: N/A
	STATE:	WV	DRAWING NO: 1
			WELL LOCATION PLAT 1

ELK LAKE SERVICES, LLC

280 Indian Springs Road,
Suite 123 Indiana, PA 15701
Phone: (724) 463-7303

05/03/2019

TRACT	SURFACE OWNER	TAX PARCEL	ACRES
1	BOARD OF COMMISSIONERS OF OHIO COUNTY (2\R)	3-13-3	252.850
2	HARRY E. & CHERYL L. HOLMAN	8-13-11	1.080
3	KEITH E. & CAROLYN J. BARON	3-13-12	0.289
4	WV DOT, DIVISION OF HIGHWAYS	DIXONS RUN RD N/A	
5	RICHARD C. DEEVER	3-13-18	178.043
6	SANDRA LYNN STEVENSON-MOKROS	3-13-2-3	2.274
7	JAMES ALAN STEVENSON	3-13-2-4	4.277
8	SANDRA LYNN STEVENSON-MOKROS	3-13-2-7	1.404
9	DAVID W. STEVENSON ETAL	3-13-2	1.280
10	JO ANN VANDERGRIFT (LE) AND ROBERT J. YOUNG (REMAINDER)	3-13-4-1	1.482
11	JO ANN VANDERGRIFT (LE) AND ROBERT J. YOUNG (REMAINDER)	3-13-4-2	1.074
12	RONALD W. HOUCHINS	3-13-4-3	14.387
13	RONALD W. HOUCHINS	3-10-38-2	20.000
14	LANCE H., JR. & SHAUNAN G. MILLER	3-10-38	20.000
15	DAVID A. & FLORENCE D. BLOWERS	3-10-38-6	20.040
16	MICHELLE L. HORBATAK	3-10-38-1	2.219
17	MICHELLE L. HORBATAK	3-10-28-7	0.0092
18	THOMAS R. & SUE O. ABRAHAM, HIS WIFE	3-10-28	98.8888
19	PATRICIA SMITH ETAL	3-10-47	2.000
20	JOYCE E. KIMPEL	3-10-48	2.850
21	JEAN P. AND LOUISE P. LOUSTAN(LE) AND CAROLINE L. BYNUM (REMAINDER)	3-10-27	20.862
22	CAROLINE LOUSTAN BYNUM	3-10-27-3	22.000

TRACT	SURFACE OWNER	TAX PARCEL	ACRES
AY	GERALD T. & ANNA MOORE	8-13-14	2.480
AZ	GERALD T. & ANNA MOORE	8-13-14-1	0.242
BA	OHIO COUNTY COMMISSION	8-13-28	2.108
BB	JOS INVESTMENTS LLC	8-13-18	2.038
BC	MELROY E. GARRISON	8-13-23	23.388
BD	JAMIE K. KUHNIS	8-13-24	0.204
BE	SUPERIOR INDUSTRIAL LAUNDRIES	8-13-28	1.080
BF	PAUL A. C. & ORION E. STEPHAN	8-13-28	0.208
BG	HAROLD B. & D. J. MOORE	8-13-24	0.280
BH	ROBERT B. & EVELYN M. CLARK	8-13-23	0.200
BI	MARVIN H. & K. L. SWAIN	8-13-22	0.200
BJ	PHK, LLC	8-13-21	0.420
BK	TAMMY M. HAMMONS	8-13-20	0.260
BL	EDDIE L. & TRACEY L. MCDANIELS	8-13-19	0.770
BM	JUSTIN S. MARSH & ASHLEY L. FORTNER	8-13-18-1	0.220
BN	HOLLY M. FLACK	8-13-18	0.222
BO	JOSEPH A. MCKENNEY II AND BARBARA ANN MCKENNEY (LE)	8-13-17	0.220
BP	VALLEY COIN MACHINE COMPANY, LLC	8-13-16	1.113
BQ	BOARD OF COMMISSIONERS OF OHIO COUNTY	8-13-13	0.1128
BR	KENNETH L. NELSON	8-13-10	0.248
BS	JOHN A. AND CINDY M. HUNTER	8-13-11-1	0.920
BT	JOHN A. AND CINDY M. HUNTER	8-13-11	1.481
BV	JOHN A. AND CINDY M. HUNTER	8-13-12	0.210
BW	RANDY DALE & BRENDA JOYCE HANNING	8-13-2	4.248
BX	RANDY DALE & BRENDA JOYCE HANNING	8-13-2-1	0.217
BY	BOARD OF COMMISSIONERS OF OHIO COUNTY	8-13-10	1.800
BZ	BARBARA A. SHORES	8-13-8	1.100
CA	JAMES R. AND DARLA J. HUGHES	8-13-8	0.240
CB	TRACEY E. & JOHN P. KETRON	8-13-7	0.230
CC	ALFRED DEER, JR.	8-13-6	1.100
CD	VILLAGE OF VALLEY GROVE	8-13-27	0.028
CE	KIMBERLY STEVENSON ETAL	3-13-8-1	0.804
CF	BOARD OF COMMISSIONERS OF OHIO COUNTY	3-13-8-3	0.080
CG	TYSON J. AND VANESSA LOVERIDE	3-13-8	0.221
CH	TYSON J. AND VANESSA LOVERIDE	3-13-8-4	0.210
CI	RHONDA L. FLANEGIN	3-13-7	0.142
CJ	JAMES E., III & CHRISTINE WHEELER	3-13-8-1	0.184
CK	JAMES E., III & CHRISTINE WHEELER	3-13-8-2	0.288
CL	JAMES E., III & CHRISTINE WHEELER	3-13-8	0.258
CM	BEVERLY J. WHEELER	3-13-9	0.248
CN	BEVERLY J. WHEELER	3-13-10	0.202
CO	KEITH E. & CAROLYN J. BARON	3-13-11-2	0.047
CP	KEITH E. & CAROLYN J. BARON	3-13-11	0.880
CQ	JOYCE M. LEICHT ETAL	3-13-11-1	0.140
CR	JOYCE M. LEICHT ETAL	3-13-12-3	0.988
CS	JOYCE M. LEICHT ETAL	3-13-12	0.824
CT	STEVEN P. SHEARER	3-13-12-1	0.824
CU	STEVEN P. SHEARER	3-13-12-2	0.250
CV	JAMES C. & DEBORAH L. KNIGHT	3-13-13	2.444
	GARY L. & MARY C. DEMERSKI	3-13-14	0.881

TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	TIMMY B. & AMY LYNN MINCH	8-13-2	181.800
B	CARL J. SHELTER	3-13-24	2.188
C	BOARD OF COMMISSIONERS OF OHIO COUNTY	3-13-2-1	222.848
D	RICHARD CLARK STEELE, JR. AND ALEXANDRA MILKEM PUSKASICH	3-13-4	1.028
E	DAVID H. & DOROTHY L. NEWLAND	3-10-28-1	1.000
F	ZELDA E. HALL	3-10-28-2	0.992
G	EVELYN E. SCHULTZ	3-10-28-4	1.122
H	HERMAN & MARTHA K. KRUPINSKI	3-10-28-2	1.182
I	CHRISTOPHER BELANCO	3-10-28-8	2.188
J	WALTER D. & DEBORAH A. BARTOLOVICH	3-10-28-2	12.002
K	ROBERT R. LUCCHETTI	3-10-22	182.878
L	GLEN J. & REBECCA S. WALTERS	3-10-28	28.880
M	CAROLINE LOUSTAN BYNUM	3-10-27-1	10.000
N	LINDA A. GILMORE ETAL	3-10-29	20.000
O	MICHAEL R. & KATHERINE A. PARSONS	3-10-22-2	22.251
P	MICHAEL R. & KATHERINE A. PARSONS	3-10-27-2	0.122
Q	BRUCE A. & BRENDA J. PARSONS	3-10-22	24.228
R	FLORA DIETRICH	3-10-22-1	2.02
S	HARRY F. & KRISTINE A. METZ	3-10-22-2	9.29
T	CLARENCE A. A. WOOD	3-10-28-7	2.091
U	MICHELLE L. HORBATAK	3-10-28-3	10.212
V	CURTIS ROBERT HARRIS	3-10-22	112.888
W	KIMBERLY ANN STEVENSON	3-13-2-2	20.180
X	CECILEA DELGADO & JOSHUA MOORE	3-13-2-8	2.412
Y	BRENDA JO STEVENSON & EDGAR DELGADO	3-13-2-1	2.987
Z	KIMBERLY STEVENSON	3-13-2-2	2.822
AA	ARCH J. DIERINGER, JR.	3-10-42-1	21.714
AB	C A EVANS AND R A DIERINGER	3-13-21-1	12.00
AC	ARLEY NEMO	3-13-18-1	0.287
AD	ARLEY NEMO	3-13-20	1.180
AE	RICHARD DEEVER	3-13-20-1	0.807
AF	GREGORY R. GANTZER	3-13-19	1.880
AG	ARCH J. DIERINGER, JR.	3-13-21	80.278
AH	ALVIN YODER	3-13-21-2	2.488
AI	ALVIN YODER	3-13-22	12.222
AJ	FRESH AIR FARM, INC.	8-V08-11	28.000
AK	HORST LOHR	3-13-17	0.282
AL	THOMAS E. SEIFERT	3-13-17-2	4.012
AM	JAMES E. & MARY E. EBBERT	3-13-18	2.220
AN	PATTY J. EBBERT	8-V08-1	1.870
AO	NORMA J. & MICHAEL C. ELTRINGHAM	8-V08-1-1	1.220
AP	A R. & HILDA M. WALKER	8-V08-2	2.240
AQ	FRANKLIN COSTANZO	8-V08-4	2.280
AR	MARY A. HILLBERRY AND GERRY L. TRAGER	8-V10-3	2.000
AS	KARL L. SR. & CAROL J. KOSEM	8-V10-2	2.210
AT	KARL L. SR. & CAROL J. KOSEM	8-V10-2-1	1.480
AU	PAUL R. SR. AND CAROL G. TEMPLIN	8-V10-1	1.270
AV	GERALD T. & ANNA M. MOORE	8-13-12-2	2.927
AW	CHERYL L. AND HARRY E. HOLMAN	8-13-13	2.280
AX	HARRY E. & CHERYL L. HOLMAN	8-13-12	1.000

API WELL #: 47
STATE: OHIO COUNTY PERMIT 00269

SWN
Production Company

DATE: 01-22-2019
FILE NO: 18-78
DRAWN BY: JMB
SCALE: N/A
DRAWING NO: 1
WELL LOCATION PLAT 1

OPERATOR'S: OCC A OHI
WELL #: 405H
DISTRICT: OHIO COUNTY
LIBERTY: OHIO COUNTY
STATE: WV

REVISIONS:

COMPANY:

OPERATOR'S:

WELL #:

DISTRICT:

LIBERTY:

DATE: 01-22-2019
FILE NO: 18-78
DRAWN BY: JMB
SCALE: N/A
DRAWING NO: 1
WELL LOCATION PLAT 1