

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

API 47-069-00317 County OHIO District RICHLAND  
Quad TILTONSVILLE, OH-WV Pad Name EDWARD DREMAK-OHI-PAD1 Field/Pool Name PANHANDLE FIELD WET  
Farm name ANDREW JOHN EVICK Well Number EDWARD DREMAK OHI 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 4,445,429.67 Easting 529,670.36  
Landing Point of Curve Northing 4,445,100.64 Easting 529,829.61  
Bottom Hole Northing 4,441,274.60 Easting 531,012.45  
Elevation (ft) 1087.9' 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 10/10/2019 Date drilling commenced 12/12/2019 Date drilling ceased 12/22/2019  
Date completion activities began 3/23/2020 Date completion activities ceased 5/5/2020  
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 259' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 750' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 270' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

  
Reviewed by: 9-10-20

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API 47-069 - 00317 Farm name ANDREW JOHN EVICK Well number EDWARD DREMAK OHI 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	377'	NEW	J-55/54.50#	295.3' / 254.1'	Y
Coal							
Intermediate 1	12.25	9.625	1650'	NEW	J-55/36#		Y; 35 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	19,483'	NEW	HCP-110/20#		Y; 20 BBLS
Tubing		2.875	6206'	NEW	P-110/6.50#		N
Packer type and depth set							

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CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	Type of Placement	WV Department of Environmental Protection	
								Conductor	Production
Conductor	CLASS A	GROUT TO SURFACE				SURFACE		24	
Surface	CLASS A	602	15.60	1.19	716.38	SURFACE		8	
Coal	SEE SURFACE								
Intermediate 1	CLASS A	483	15.60	1.20	579.6	SURFACE		8	
Intermediate 2									
Intermediate 3									
Production	CLASS A	3,462	15.60	1.19	4,119.78	SURFACE		24	
Tubing									

Drillers TD (ft) 19,483' Loggers TD (ft) 19,483'  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5,085'

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





**EDWARD DREMAK OHI 8H  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom IMD	Perf Top MD2	# SHOTS PER STG
1	3/10/2020	19,398	19,307	36
2	3/25/2020	19,271	19,094	36
3	3/25/2020	19,061	18,884	36
4	3/26/2020	18,851	18,674	36
5	3/26/2020	18,641	18,464	36
6	3/27/2020	18,431	18,254	36
7	3/27/2020	18,221	18,044	36
8	3/27/2020	18,008	17,834	36
9	3/28/2020	17,801	17,624	36
10	3/28/2020	17,591	17,415	36
11	3/29/2020	17,382	17,205	36
12	3/29/2020	17,172	16,995	36
13	3/29/2020	16,962	16,785	36
14	3/29/2020	16,752	16,575	36
15	3/30/2020	16,542	16,365	36
16	3/30/2020	16,332	16,155	36
17	3/30/2020	16,122	15,945	36
18	3/30/2020	15,912	15,735	36
19	3/31/2020	15,702	15,525	36
20	3/31/2020	15,492	15,315	36
21	3/31/2020	15,282	15,105	36
22	3/31/2020	15,072	14,895	36
23	4/1/2020	14,862	14,682	36
24	4/1/2020	14,652	14,475	36
25	4/1/2020	14,442	14,265	36
26	4/1/2020	14,232	14,055	36
27	4/2/2020	14,022	13,846	36
28	4/2/2020	13,813	13,636	36
29	4/2/2020	13,603	13,426	36
30	4/3/2020	13,393	13,216	36
31	4/3/2020	13,183	13,006	36
32	4/4/2020	12,969	12,796	36
33	4/4/2020	12,763	12,586	36
34	4/4/2020	12,553	12,376	36
35	4/4/2020	12,343	12,166	36
36	4/4/2020	12,133	11,956	36
37	4/5/2020	11,923	11,746	36
38	4/5/2020	11,713	11,536	36
39	4/5/2020	11,503	11,326	36
40	4/5/2020	11,293	11,116	36
41	4/6/2020	11,083	10,906	36
42	4/6/2020	10,873	10,696	36
43	4/6/2020	10,663	10,487	36

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**EDWARD DREMAK OHI 8H  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom IMD	Perf Top MD2	# SHOTS PER STG
44	4/7/2020	10,454	10,277	30
45	4/7/2020	10,244	10,067	36
46	4/7/2020	10,034	9,857	36
47	4/8/2020	9,824	9,647	36
48	4/8/2020	9,614	9,437	36
49	4/9/2020	9,404	9,227	36
50	4/9/2020	9,194	9,017	36
51	4/9/2020	8,984	8,807	36
52	4/10/2020	8,774	8,597	36
53	4/10/2020	8,564	8,387	36
54	4/10/2020	8,348	8,177	36
55	4/11/2020	8,144	7,967	36
56	4/11/2020	7,934	7,757	36
57	4/11/2020	7,724	7,547	36
58	4/12/2020	7,512	7,337	36
59	4/12/2020	7,304	7,127	36
60	4/12/2020	7,094	6,918	36
61	4/13/2020	6,885	6,706	36
62	4/13/2020	6,675	6,498	36
63	4/13/2020	6,465	6,288	36
64	4/13/2020	6,255	6,078	36

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EDWARD DREMAK OHI 8H  
ATTACHMENT 2  
STIM REPORT

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Breakdown	ISIP (psi)	Amount of Propanol/Inject Water	Amount of Nitrogen	Amount of Nitrogen/other
1	3/25/2020	81	7,518	8,567	3,923	238,000	6,623	0
2	3/25/2020	88	7,723	5,250	4,511	409,240	8,365	0
3	3/26/2020	89	8,154	5,314	4,103	415,120	8,370	0
4	3/26/2020	94	7,973	4,968	4,259	415,120	8,038	0
5	3/27/2020	89	8,311	4,999	3,922	393,360	7,344	0
6	3/27/2020	97	8,135	4,935	4,623	413,120	7,883	0
7	3/27/2020	87	8,178	5,674	4,622	418,960	7,505	0
8	3/27/2020	91	8,487	5,977	4,611	373,900	7,225	0
9	3/28/2020	97	8,184	5,428	4,269	416,910	8,195	0
10	3/28/2020	96	8,123	5,893	4,281	415,160	7,867	0
11	3/29/2020	89	7,967	5,848	4,462	417,580	7,891	0
12	3/29/2020	97	8,124	5,736	4,312	416,380	7,961	0
13	3/29/2020	94	8,204	5,006	4,971	399,300	7,556	0
14	3/29/2020	91	8,235	5,526	4,687	425,180	7,787	0
15	3/30/2020	93	8,127	5,544	4,479	411,020	7,357	0
16	3/30/2020	91	8,115	5,712	4,199	411,480	7,762	0
17	3/30/2020	93	7,971	5,787	4,611	409,140	7,441	0
18	3/30/2020	97	7,877	5,987	4,523	416,360	7,975	0
19	3/31/2020	98	8,139	5,838	4,606	413,120	7,447	0
20	3/31/2020	97	8,090	5,956	4,087	412,440	7,246	0
21	3/31/2020	98	8,067	5,806	4,124	412,900	7,663	0
22	3/31/2020	98	8,006	5,967	4,761	416,960	8,380	0
23	4/1/2020	99	7,980	5,799	4,836	409,840	7,267	0
24	4/1/2020	98	8,200	6,024	4,446	420,020	7,749	0
25	4/1/2020	99	8,160	5,917	4,432	419,040	7,808	0
26	4/1/2020	94	7,785	5,729	4,419	420,060	7,580	0
27	4/2/2020	98	8,193	5,654	4,540	420,560	7,861	0
28	4/2/2020	90	7,627	5,881	4,465	416,860	7,532	0
29	4/3/2020	94	7,756	6,051	4,457	418,520	7,569	0
30	4/3/2020	97	8,191	4,972	4,310	415,620	7,570	0
31	4/3/2020	99	8,025	6,601	4,432	412,700	7,422	0
32	4/4/2020	97	7,899	5,566	4,573	411,700	7,476	0
33	4/4/2020	98	8,052	5,758	4,368	412,300	7,475	0
34	4/4/2020	100	7,796	5,302	4,459	416,940	7,671	0
35	4/4/2020	94	7,954	5,266	4,461	416,460	7,679	0
36	4/5/2020	90	8,011	5,108	4,326	427,640	7,819	0
37	4/5/2020	98	7,895	5,530	4,522	415,380	7,656	0
38	4/5/2020	98	8,004	5,302	4,408	421,200	7,574	0
39	4/5/2020	99	7,501	5,269	4,358	420,320	7,350	0
40	4/5/2020	98	7,535	5,185	4,478	419,710	7,299	0
41	4/6/2020	96	7,857	5,208	4,450	422,080	7,400	0
42	4/6/2020	100	7,609	5,364	4,250	417,900	7,528	0
43	4/7/2020	95	7,313	5,338	4,478	412,680	7,259	0
44	4/7/2020	96	7,971	5,610	4,427	413,240	7,246	0
45	4/7/2020	99	7,548	5,154	4,423	419,880	7,828	0
46	4/8/2020	99	7,559	5,311	4,391	418,840	7,377	0
47	4/8/2020	98	7,593	5,416	4,359	419,540	7,389	0
48	4/9/2020	100	7,478	5,268	4,089	419,160	7,482	0
49	4/9/2020	98	7,645	5,204	4,330	420,600	7,325	0
50	4/9/2020	99	7,118	5,606	4,316	412,720	7,290	0
51	4/10/2020	98	7,536	5,645	4,474	410,980	7,217	0
52	4/10/2020	100	7,527	5,780	4,307	413,520	7,443	0
53	4/10/2020	93	7,708	5,326	4,312	415,760	7,328	0

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ATTACHMENT 2  
STIM REPORT**

STAGE NUM	Stim Date	Ave Pump		Max Breakdown	ISIP (PSI)	Amount of		Amount of nitrogen/othe
		Rate (BPM)	Ave Treatment			Proppant (lbs)	water bbbls	
54	4/11/2020	99	7,017	5,213	4,302	417,280	7,134	0
55	4/11/2020	100	7,350	5,802	4,479	422,430	7,249	0
56	4/11/2020	100	7,307	5,411	4,408	419,540	7,375	0
57	4/11/2020	99	7,216	5,454	4,262	420,220	7,084	0
58	4/12/2020	100	7,330	6,125	4,128	418,220	7,305	0
59	4/12/2020	100	7,187	5,175	4,432	415,680	7,187	0
60	4/12/2020	99	6,949	5,123	4,329	424,468	7,361	0
61	4/13/2020	101	7,025	5,659	4,289	417,260	7,055	0
62	4/13/2020	99	7,530	5,150	4,284	415,020	7,208	0
63	4/13/2020	99	7,476	6,004	4,201	423,010	7,438	0
64	4/13/2020	96	7,795	5,518	4,312	414,700	7,272	0

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Well Name:

Edward Dremak OHI 8H

47069003170000

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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	259.00	259.00	
Top of Salt Water	750.00	750.00	NA	NA	
Pittsburgh Coal	270.00	270.00	276.00	276.00	
Pottsville (ss)	377.00	377.00	780.00	780.00	
Raven Cliff (ss)	780.00	780.00	1066.00	1066.00	
Maxton (ss)	1066.00	1066.00	1381.00	1377.00	
Big Injun (ss)	1381.00	1377.00	1873.00	1865.00	
Berea (siltstone)	1873.00	1865.00	5302.00	5270.00	
Rhinestreet (shale)	5302.00	5270.00	5599.00	5508.00	
Cashagua (shale)	5599.00	5508.00	5665.00	5555.00	
Middlesex (shale)	5665.00	5555.00	5764.00	5622.00	
Burket (shale)	5764.00	5622.00	5787.00	5638.00	
Tully (ls)	5787.00	5638.00	5869.00	5691.00	
Mahantango (shale)	5869.00	5691.00	6029.00	5771.00	
Marcellus (shale)	6029.00	5771.00	NA	NA	GAS



## Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/25/2020
Job End Date:	4/13/2020
State:	West Virginia
County:	Ohio
API Number:	47-069-00317-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	EDWARD DREMAK OH 18
Latitude:	40.15869896
Longitude:	-80.65160036
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	5,873
Total Base Water Volume (gal):	20,157,456
Total Base Non Water Volume:	0



## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
HCL	SWN Well Services	Solvent					
				Listed Below			
Plexaid 655WG	SWN Well Services	Scale Inhibitor					
				Listed Below			



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			Ammonium Chloride	12125-02-9	2.00000	0.00194
			Alcohols, C12-1, ethoxylated	68551-12-2	1.50000	0.00145
			Oleic Acid	93-83-4	1.50000	0.00145
			Diethanolamide			
			Acetic Acid	64-19-7	37.50000	0.00080
			Methanol	67-56-1	80.00000	0.00049
			Citric Acid	77-92-9	22.50000	0.00048
			Oxalkylated fatty acid	68951-67-7	9.67400	0.00006
			Acrylic acid terpolymer	397256-50-7	1.00000	0.00005
			Fatty acids	61790-12-3	5.02700	0.00003
			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 D 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)

LATITUDE: 40°10'00" SURFACE HOLE (2000' SCALE) | 7431' | 3083' | 2928'

LATITUDE: 40°07'30" BOTTOM HOLE (2000' SCALE)

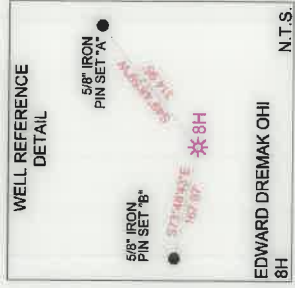
LONGITUDE: 80°37'30" SURFACE HOLE (2000' SCALE) | 1380' | 2928'

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

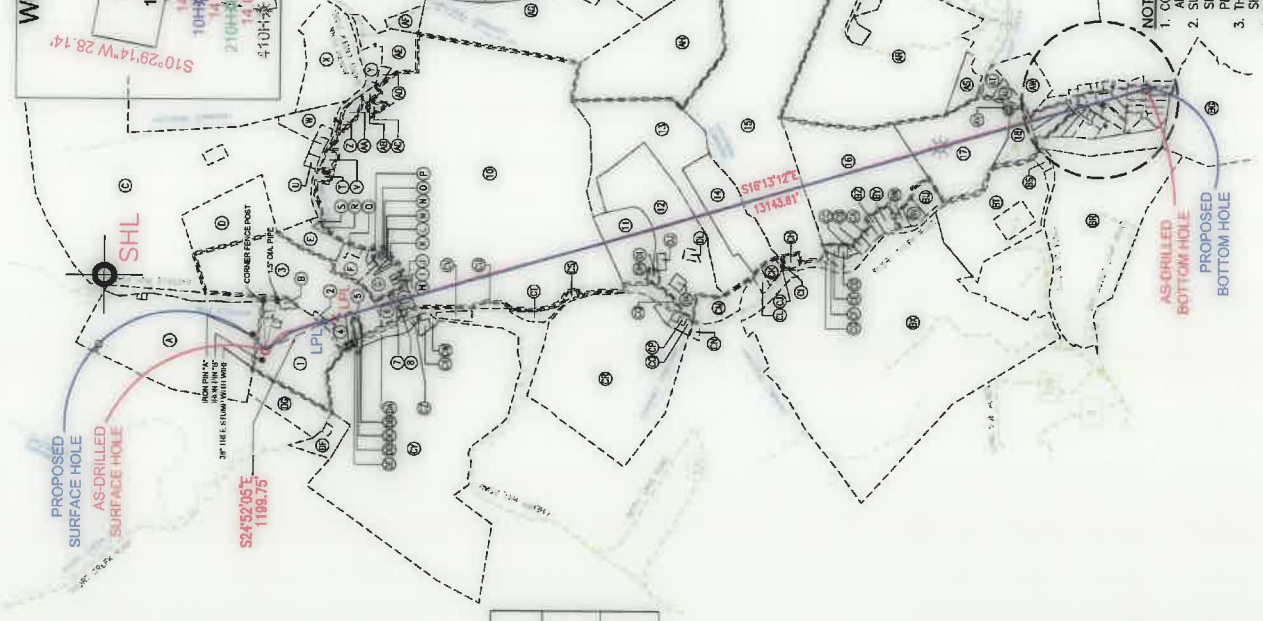
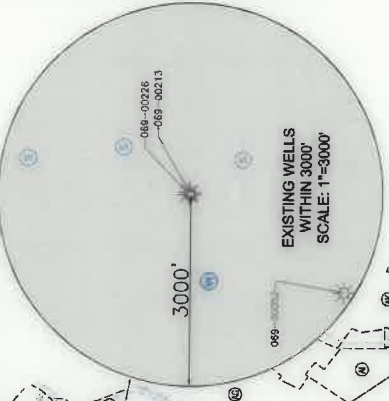
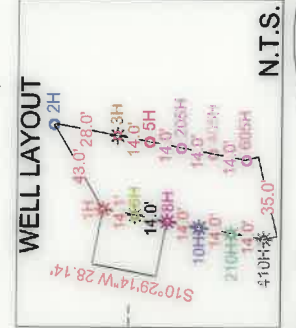
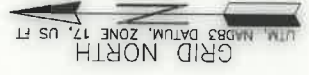
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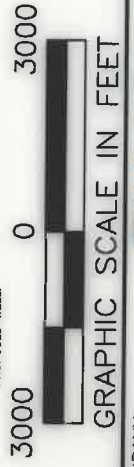
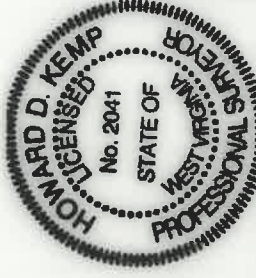
68011 Vineyard Road  
St. Clairsville, Ohio 43950  
740-695-6100



LINE	BEARING	DISTANCE
L1	S87°13'20"W	771.52'
L2	N76°50'10"W	793.86'



- 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 SURFACE HOLE.
  - NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE HOLE'S DISTURBANCE.
  - NO NATURALLY OCCURRING FRESH WATER STREAM WITHIN 500 FEET OF THE LIMITS OF DISTURBANCE.
  - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.



COMPANY: **SWN**  
Production Company, LLC Production Company™

P.S. 2041

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.

*Handwritten signature and date: 4/15/20*

EDWARD DREMAK OHI  
OPERATOR'S WELL #: 8H  
API WELL #: 47 069 00317  
STATE COUNTY PERMIT

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

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
WVDEP  
OFFICE OF OIL & GAS  
601 57TH STREET  
CHARLESTON, WV 25034

LIQUID INJECTION  STORAGE  SHALLOW   
ELEVATION: 1,087.9'  
QUADRANGLE: TILTONSVILLE, OH-WV & WHEELING, WV  
ACREAGE: ±34.19  
ACREAGE: ±34.19

WELL TYPE: OIL  WASTE DISPOSAL  PRODUCTION  DEEP  GAS   
WATERSHED: UPPER OHIO SOUTH  
DISTRICT: RICHLAND  
SURFACE OWNER: ANDREW JOHN EMICK  
OIL & GAS ROYALTY OWNER: EDWARD W. & JOANNE V. DREMAK

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

PERFORATE NEW FORMATION   
OTHER CHANGE  (SPECIFY) AS-DRILLED  
ESTIMATED DEPTH: 5,926' TWD 19,483' TMD

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

REVISIONS:

DATE: 04-08-2020  
API NO: 47-069-00317  
DRAWN BY: R. GRIMES  
SCALE: 1" = 3000'  
DRAWING NO: 2018-284  
WELL LOCATION PLAT

LEGEND:  
○ EXISTING BOTTOM HOLE  
★ EXISTING / PRODUCING WELLS  
LPL★ EXISTING LANDING POINT LOCATION  
LPL★ PROPOSED SURFACE HOLE / BOTTOM HOLE  
LPL★ PROPOSED LANDING POINT LOCATION  
— AS DRILLED PATH  
— PROPOSED PATH

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

COMPLETION ID 2501168627  
PAD ID 3601165800

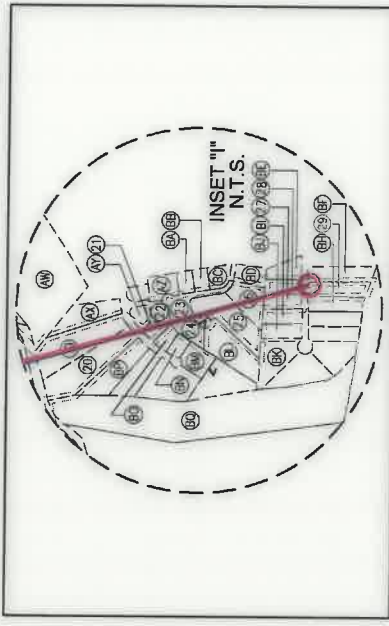
R:\PROJECTS\SWN\2018-284\_SWN-EDWARD DREMAK PAD\CADD\PLATS\AS-DRILLED\BH\EDWARD DREMAK OHI 8H.DWG  
WEDNESDAY APRIL 08 2020 08:10AM



WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	ANDREW JOHN EVICK (S) EDWARD W. & JOANNE V. DREMAK (R)	04-R5-54.0
<b>SURFACE OWNER</b>		
2	TUNNEL RIDGE, LLC	04-R8-08.18
3	WINDSOR POWER COAL COMPANY	04-R8-08.1
4	SUSAN L. CAIN	04-R8-08.3
5	TUNNEL RIDGE, LLC	04-R8-08.2
6	GORDON E. & DEBORAH P. DREMAK	04-R8-08.15
7	SAM L., JR. & AMY M. PELLEN	04-R8-08.7
8	SAM L., JR. & AMY M. PELLEN	04-R8-08.5
9	SAM L., JR. & AMY M. PELLEN	04-R8-08.0
10	AMERICAN DISPOSAL SERVICES OF WEST VIRGINIA, INC	04-R8-15.0
11	TUNNEL RIDGE, LLC	04-R8-21.2
12	TUNNEL RIDGE, LLC	04-R8-20.0
13	TUNNEL RIDGE, LLC	04-R8-22.0
14	TUNNEL RIDGE, LLC	04-R8-22.1
15	TUNNEL RIDGE, LLC	04-R8-61.4
16	TUNNEL RIDGE, LLC	04-R12-01.3
17	HOWARD L. & BETTY M. SHACKELFORD RELYKS, LLC	04-R11-35.2 04-R11-35.3
18		
19	BRIAN M. & KELLY J. PAPE	04-R12E-16.0
20	TIMOTHY & DEBRA LEWTON	04-R12E-15.0
21	SHANE T. & MICHELLE L. STACK	04-R12E-10.0
22	SHANE & MICHELLE STACK	04-R12J-38.14
23	ANDREW COHEN & PEGGY COHEN	04-R12J-38.0
24	THE PATRICIA M. CLINGENPEL REVOCABLE TRUST	04-R12J-38.10
25	JASON J. & AMANDA K. WADE	04-R12J-38.11
26	GREGORY R. GANTZER	04-R12J-38.6
27	JAMES C. PREECE & CHERI ARAGON	04-R12J-19.0
28	PAUL H. & ROSEMARY E. DIMMEY	04-R12J-20.0
29	THOMAS J. CONTI & NANCY J. CONTI, REVOCABLE TRUST DATED DECEMBER 21, 2015	04-R12J-10.0

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	ANDREW JOHN EVICK, SINGLE	04-R5-49.0
B	ANDREW JOHN EVICK, SINGLE	04-R5-54.1
C	OHIO COUNTY BOARD OF COMMISSIONERS	04-R5-55.0
D	OHIO COUNTY BOARD OF COMMISSIONERS	04-R5-10.0
E	AMERICAN DISPOSAL SERVICES OF WEST VIRGINIA, INC	04-R5-56.0
F	RODNEY SNYDER	04-R8-13.0
G	ARTHUR ENNIS, PEGGY CLARK & ALMA SINCAVICH	04-R8-09.0
H	MICHAEL W. DAVIS	04-R8-09.1
I	EUNICE MAE DAVIS	04-R8-09.3
J	EUNICE MAE DAVIS, BRYAN EVERETT DAVIS & CHARLOTTE DAVIS TOOTHMAN	04-R8-09.2
K	JOYCE ANN FARLEY	04-R8-10.1
L	JOYCE ANN FARLEY	04-R8-10.2
M	BETTY L. SNYDER (C/O: PAULLA MCGEE)	04-R8-10.0
N	MARK D. MATTHIAS	04-R8-11.1
O	MARK D. MATTHIAS	04-R8-11.0
P	RHONDA J. ROBBINS	04-R8-13.2
Q	RICKIE SNYDER	04-R8-14.0
R	AMERICAN DISPOSAL SERVICES OF WEST VIRGINIA, INC	04-R5-56.2
S	AMERICAN DISPOSAL SERVICES OF WEST VIRGINIA, INC	04-R5-56.1
T	LUTHER R., II & DEBORAH F. SMITH	04-R8-16.1
U	LISA NUZUM HAWORTH (F.K.A. LISA NUZUM GADD)	04-R5-55.3
V	DELBERT E. & CAROL L. HUFFMAN	04-R8-16.2
W	SHORT CREEK CEMETERY ASSOCIATION, TRUSTEES	04-R5-57.0
X	MARC SEMON	04-R6-37.1
Y	WV DOT, DIVISION OF HIGHWAYS	04-R8-00.0
Z	DELBERT E. HUFFMAN, JR.	04-R8-18.4
AA	LUTHER R. SMITH, JR.	04-R8-18.3
AB	LUTHER R. SMITH, JR.	04-R8-18.1
AC	JOHN E. HARWAT	04-R8-18.2
AD	LUTHER R. SMITH, JR.	04-R9-14.4
AE	JAMES W. PERRY, JOHN C. PERRY, JOSEPH P. PERRY & LEWIS A. PERRY	04-R9-14.2
AF	JAMES W. PERRY, JOHN C. PERRY, JOSEPH P. PERRY & LEWIS A. PERRY	04-R9-14.1
AG	JORDAN & GAYLE WEBER	04-R9-09.0
AH	AMERICAN DISPOSAL SERVICES OF WEST VIRGINIA, INC	04-R8-61.0
AI	LEWIS R. & ROSEANN F. HOPKINS	04-R9-05.0
AJ	WILLIAM ISAAC KNIGHT & MEREDITH SERTICH	04-R9-03.7
AK	LADONNA MARTIN-EVANS	04-R9-03.5
AL	BETH ANNE KENNEDY	04-R9-03.4
AM	RCK 2 GROUP	04-R9-01.0
AN	WILLIAM H. & CAROL L. REUTHER	04-R9-02.0
AO	BRADFORD & MANNETTA HARTLEY	04-R9-01.3
AP	GREGORY TAGGART	04-R9-50.0
AQ	DOMINIC J. & SHERIE D. COTTRELL	04-R12-19.30
AR	ELIAS JOSEPH	04-R12-01.0
AS	MARY ANN BURKHART, DAVID J. MILLER & VIRGINIA A. MILLER	04-R12-02.0
AT	STEPHANIE CIPRIANI	04-R12-06.2
AU	ROBERT J. & CANDISE S. CHALALANO	04-R12-06.1
AV	RAMONA G. THARP	04-R11-35.0

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
AW	LARRY C. BOWMAN & ET AL	04-R12-06.0
AX	RONALD A. & TRACIE L. THOMAS	04-R12E-17.0
AY	THOMAS & DAUNA MOORE	04-R12E-09.0
AZ	AMY LYNN MURRAY	04-R12J-38.12
BA	FRANCIS & ROSE MARY BUTCH	04-R12J-38.8
BB	FRANCIS & ROSE MARY BUTCH	04-R12J-38.9
BC	KIMBERLY BUTCH (A.K.A. KIMBERLY MAZUR)	04-R12J-38.4
BD	DANIEL C. & NANCY M. DUNMEYER	04-R12J-38.1
BE	BIMA M. MYERS	04-R12J-21.0
BF	JORDAN K. VILLANI	04-R12J-09.0
BG	OGLEBAY FOUNDATION, INC	04-R12-10.2
BH	DANIEL W. HOPKINS	04-R12J-11.0
BI	JOSEPH W. MURPHY	04-R12J-18.0
BJ	JOHN W. CARENBAUER & PAMELA RUTHERFORD	04-R12J-17.0
BK	NABIEL ALKHOURI & NESRIN KRISTIN ALKHOURI	04-R12J-16.0
BL	GREGORY R. GANTZER	04-R12J-38.7
BM	HOWARD L. REID & PAMELA L. REID	04-R12J-36.0
BN	LINDSEY NOTTINGHAM	04-R12J-35.0
BO	THE PATRICIA M. CLINGENPEL REVOCABLE TRUST	04-R12J-38.3
BP	MARC A. POTTER	04-R12E-14.0
BO	BOY SCOUTS COUNCIL OF AMERICA, OHIO RIVER VALLEY COUNCIL	04-R11-40.0
BR	BOY SCOUTS COUNCIL OF AMERICA, HUROQUOIS	04-R11-36.0
BS	RUTH J. DEAN	04-R11-36.1
BT	CHRISTOPHER P. & CHERYL D. RILEY	04-R11-33.0
BU	JAMES V. & EDITH M. STANTON	04-R11-34.0
BV	JAMES & EDITH STANTON	04-R11-34.1
BW	JAMES V. & EDITH M. STANTON	04-R11-34.4
BX	SANDSCREST FOUNDATION, INC	04-R11-15.0
BY	TUNNEL RIDGE, LLC	04-R11-34.13
BZ	TUNNEL RIDGE, LLC	04-R11-34.9
CA	TUNNEL RIDGE, LLC	04-R11-34.1
CB	TUNNEL RIDGE, LLC	04-R11-34.2
CC	TUNNEL RIDGE, LLC	04-R11-34.5
CD	TUNNEL RIDGE, LLC	04-R11-34.6
CE	TUNNEL RIDGE, LLC	04-R11-34.3
CF	TUNNEL RIDGE, LLC	04-R11-34.12
CG	TUNNEL RIDGE, LLC	04-R8-61.2
CH	TUNNEL RIDGE, LLC	04-R8-61.1
CI	TUNNEL RIDGE, LLC	04-R8-74.0
CJ	TUNNEL RIDGE, LLC	04-R8-60.1
CK	TUNNEL RIDGE, LLC	04-R8-59.0
CL	TUNNEL RIDGE, LLC	04-R8-60.0
CM	KENDRA L. & RALPH J. HUFFMAN	04-R8-55.0
CN	JAMES KEVIN CRUPE, SR.	04-R8L-49.0
CO	MARILYN R. BLAKE	04-R8-27.0
CP	MARILYN L. BLAKE	04-R8-27.2
CQ	TUNNEL RIDGE, LLC	04-R8-21.1
CR	TUNNEL RIDGE, LLC	04-R8-27.7
CS	TUNNEL RIDGE, LLC	04-R8-27.6
CT	TUNNEL RIDGE, LLC	04-R8-15.4
CU	CHARLES M. & MARLEEN M. MILLER	04-R8-15.3
CV	WV DOT, DIVISION OF HIGHWAYS	04-R8-0
CW	DEBRA S. SHEPHERD	04-R8-15.2
CX	LOUIS R. HERCULES & ET AL	04-R8-07.0
CY	THE KATHLEEN S. CRAFT FOUNDATION & THE JOSEPH W. CRAFT III FOUNDATION	04-R8-08.8
CA	JUDITH K. TYLER	04-R8-08.16
DA	OHIO COUNTY COMMISSION	04-R8-08.17
DB	TUNNEL RIDGE, LLC	04-R8-08.9
DC	TUNNEL RIDGE, LLC	04-R8-08.9
DD	TUNNEL RIDGE, LLC	04-R8-08.14
DE	TUNNEL RIDGE, LLC	04-R8-08.6
DF	THE KATHLEEN S. CRAFT FOUNDATION & THE JOSEPH W. CRAFT III FOUNDATION	04-R5-52.0
DG	THE KATHLEEN S. CRAFT FOUNDATION & THE JOSEPH W. CRAFT III FOUNDATION	04-R5-53.0
DH	TUNNEL RIDGE, LLC	04-R8-20.5
DI	TUNNEL RIDGE, LLC	04-R8-20.2
DJ	TUNNEL RIDGE, LLC	04-R8-20.4
DK	TUNNEL RIDGE, LLC	04-R8-20.3
DL	TUNNEL RIDGE, LLC	04-R8-20.1



REVISIONS:

COMPANY: SWN Production Company, LLC		DATE: 04-08-2020	
OPERATOR'S: EDWARD DREMAK OHI		API NO: 47-069-00317	
WELL #: 8H		DRAWN BY: R. GRIMES	
DISTRICT: RICHLAND		SCALE: N/A	
COUNTY: OHIO		DRAWING NO: 2018-284	
STATE: WV		WELL LOCATION PLAT	

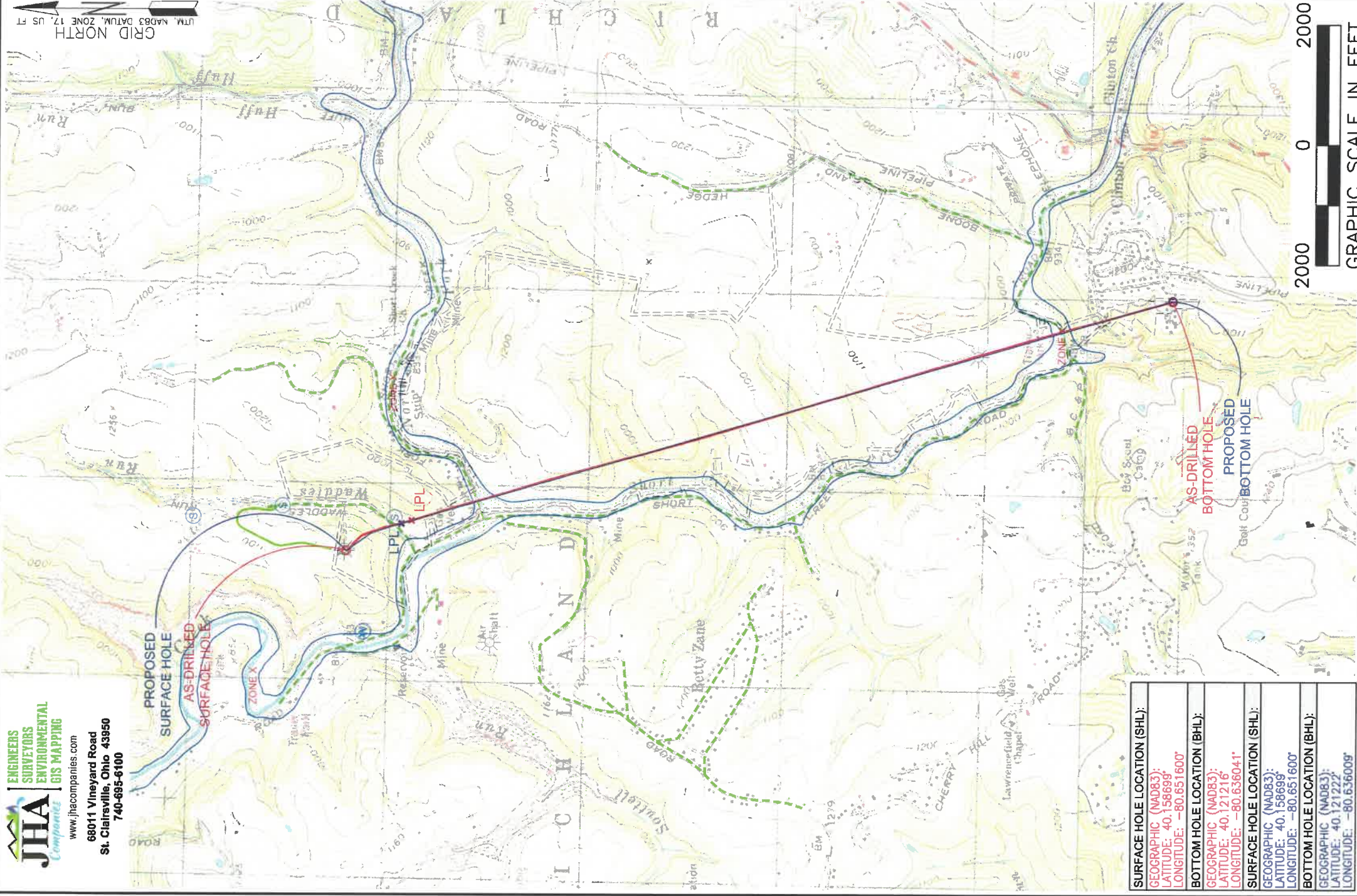






www.jhacompanies.com  
 68011 Vineyard Road  
 St. Clairsville, Ohio 43950  
 740-695-6100

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



<b>SURFACE HOLE LOCATION (SHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.158698°
LONGITUDE: -80.651600°
<b>BOTTOM HOLE LOCATION (BHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.121216°
LONGITUDE: -80.636041°
<b>SURFACE HOLE LOCATION (SHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.158698°
LONGITUDE: -80.651600°
<b>BOTTOM HOLE LOCATION (BHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.121222°
LONGITUDE: -80.636009°

**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 INSERTS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

**LEGEND:**

- EXISTING BOTTOM HOLE
- ✱ EXISTING / PRODUCING WELL-HEAD
- LPLX EXISTING LANDING POINT LOCATION
- PROPOSED SURFACE HOLE / BOTTOM HOLE
- LPLX PROPOSED LANDING POINT LOCATION
- ACCESS ROAD
- PUBLIC ROAD
- FLOOD PLAIN
- LEASE BOUNDARY
- AS-DRILLED PATH
- PROPOSED PATH

<b>WELL OPERATOR:</b>	<b>WELL (FARM) NAME:</b>	<b>WELL #</b>	<b>SERIAL #</b>
SWN PRODUCTION COMPANY, LLC	EDWARD DREMAK OHI	8H	XXXX
<b>ADDRESS:</b>	<b>COUNTY:</b>	<b>CODE:</b>	<b>DISTRICT:</b>
1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	OHIO	069	RICHLAND
<b>SURFACE OWNER:</b>	<b>USGS 7 1/2 QUADRANGLE MAP NAME:</b>	<b>API #</b>	<b>API #</b>
ANDREW JOHN EVICK	TILTONSVILLE, OH-WV & WHEELING, WV	47-069-00317	47-069-00317