



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Monday, March 27, 2023
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit Modification Approval for FRANZ THOMAN OHI 201H
47-069-00352-00-00

Change in Lateral Path/ Leases

SWN PRODUCTION COMPANY, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450

A blue ink signature of James A. Martin, written in a cursive style.

James A. Martin
Chief

Operator's Well Number: FRANZ THOMAN OHI 201H
Farm Name: FRANZ THOMAN
U.S. WELL NUMBER: 47-069-00352-00-00
Horizontal 6A New Drill
Date Modification Issued: 03/27/2023

Promoting a healthy environment.

07/14/2023

Chk # 1072985
Amt: \$5,000.00
Date: 3/7/23

Expedited
API NO. 47-069 - 00352
OPERATOR WELL NO. Franz Thoman OHI 201H
Well Pad Name: Franz Thoman OHI
4706900352

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: SWN Production Co., LLC 494512924 069-Ohio 4-Richlar 641-Tiltonsville
Operator ID County District Quadrangle

2) Operator's Well Number: Franz Thoman OHI 201H Well Pad Name: Franz Thoman OHI

3) Farm Name/Surface Owner: Franz Thoman Public Road Access: Cherry Hill Road CR 3

4) Elevation, current ground: 1138' Elevation, proposed post-construction: 1138'

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Up-Dip well to the North, Target Top TVD- 5827', Target Base TVD- 5882', Anticipated Thickness- 55', Associated Pressure- 3823
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8) Proposed Total Vertical Depth: 5863'

9) Formation at Total Vertical Depth: Marcellus MAR 16 2023

10) Proposed Total Measured Depth: 23,150' WV Department of Environmental Protection

11) Proposed Horizontal Leg Length: 16480.83

12) Approximate Fresh Water Strata Depths: 326'

13) Method to Determine Fresh Water Depths: Minimum casing depth required by DEP, no nearby water wells

14) Approximate Saltwater Depths: 470' Salinity Profile

15) Approximate Coal Seam Depths: 343'

16) Approximate Depth to Possible Void (coal mine, karst, other): Approximately 343'

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: _____

Depth: _____


Seam: _____

Owner: _____

Strader Ground
03/14/2023

07/14/2023

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	110'	110' ✓	CTS
Fresh Water	13 3/8"	New	J-55	54.4#	430'	430' ✓	451 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	1747'	1747' ✓	649 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	23150'	23150'	lead 4473sx/Tail 1860sx/100' Inside 
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.20/30% Excess
Fresh Water	13 3/8"	17.5"	0.380	2730	633	Class A	1.20/30% Excess
Coal	See	Surface	Casing				
Intermediate	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/40% Excess
Production	5 1/2"	8 3/4"-8 1/2"	0.361	14360 ✓	10500	Class A	1.19/5% Excess
Tubing							
Liners							

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MAR 16 2023

WV Department of
Environmental Protection

PACKERS

Kind:				
Sizes:				
Depths Set:				

Strader Grewel
03/14/2023

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and stimulate any potential zones between and including the Benson to Marcellus. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface or run external casing packer/cementing stage tool above void interval and perform 2 stage cementing operation dependent upon depth of void. Run casing not less than 20' below void nor more than 75' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50' below and cts.)

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. In some instances, additional toe prep may be performed by pumping additional water in the toe of the well prior to perforating and pumping Stage 1 to ensure that the toe guns/toe sleeves are fully open prior to pumping stage 1. The well is produced through surface facilities consisting of high pressure production unites, horizontal separation units, water and oil storage tanks. Max press and anticipated max rate- 12,500 psi @ 100 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.65

22) Area to be disturbed for well pad only, less access road (acres): 12.98

23) Describe centralizer placement for each casing string:

All casing strings will be ran with a centralizer at a minimum of 1 per every 3 joints of casing.

24) Describe all cement additives associated with each cement type:

See Attachment ***

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25) Proposed borehole conditioning procedures:

All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and continuing until operator is satisfied with borehole conditions.

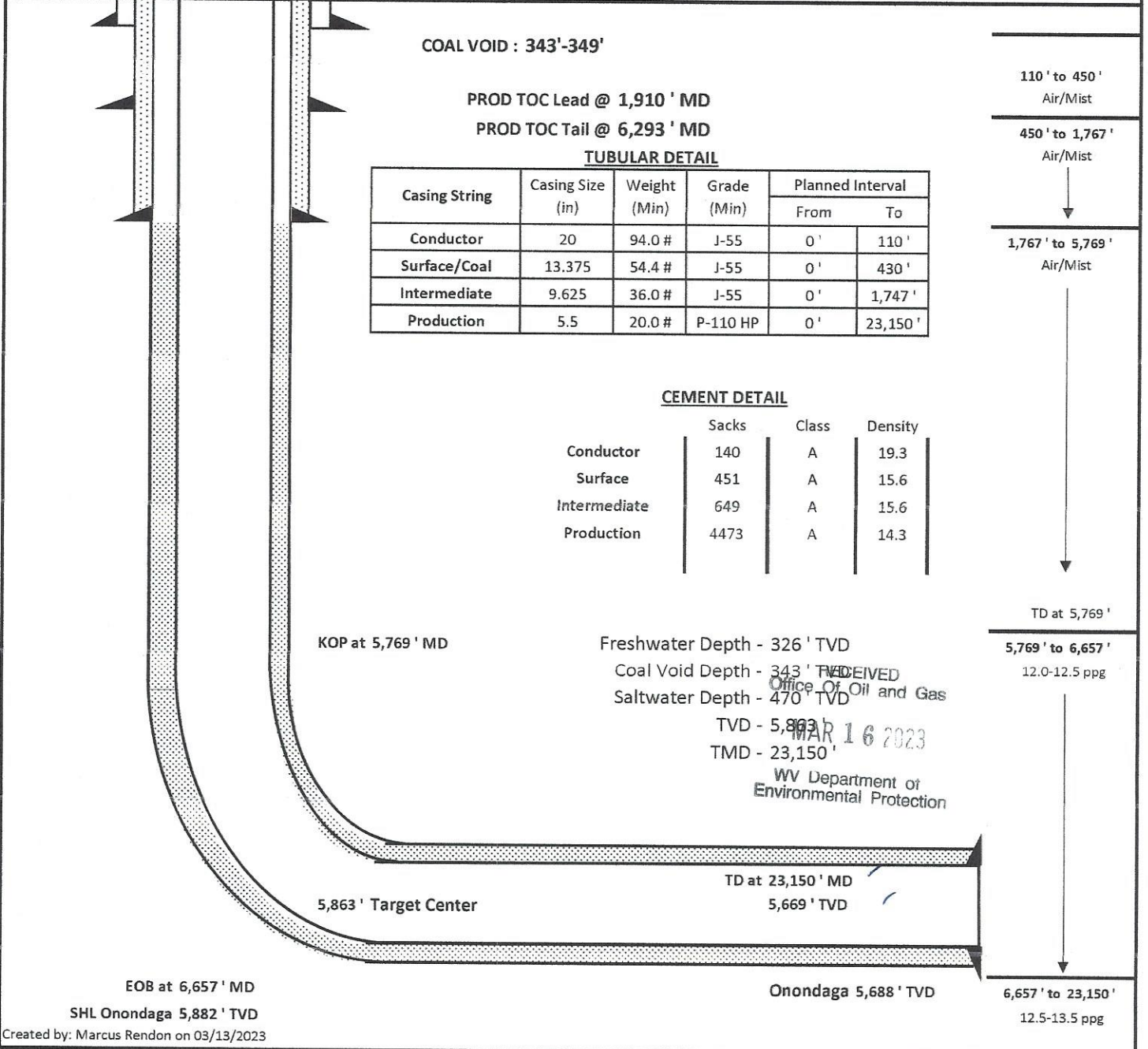
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Environmental Protection

*Note: Attach additional sheets as needed.

4706900552

Southwestern Energy Company	Proposed Drilling Program
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Well: FRANZ THOMAN OHI 201 Field: PANHANDLE FIELD WET County: OHIO SHL: 40.1367 Latitude -80.6599 Longitude BHL: 40.1827 Latitude -80.6843 Longitude KB Elev: 1,164 ft MSL KB: 26 ft AGL	Re-entry Rig: SDC 501 Prospect: Marcellus Shale State: WV GL Elev: 1,138 ft MSL
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 MAR 16 2023
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Marcus Rendon
 03/14/2023

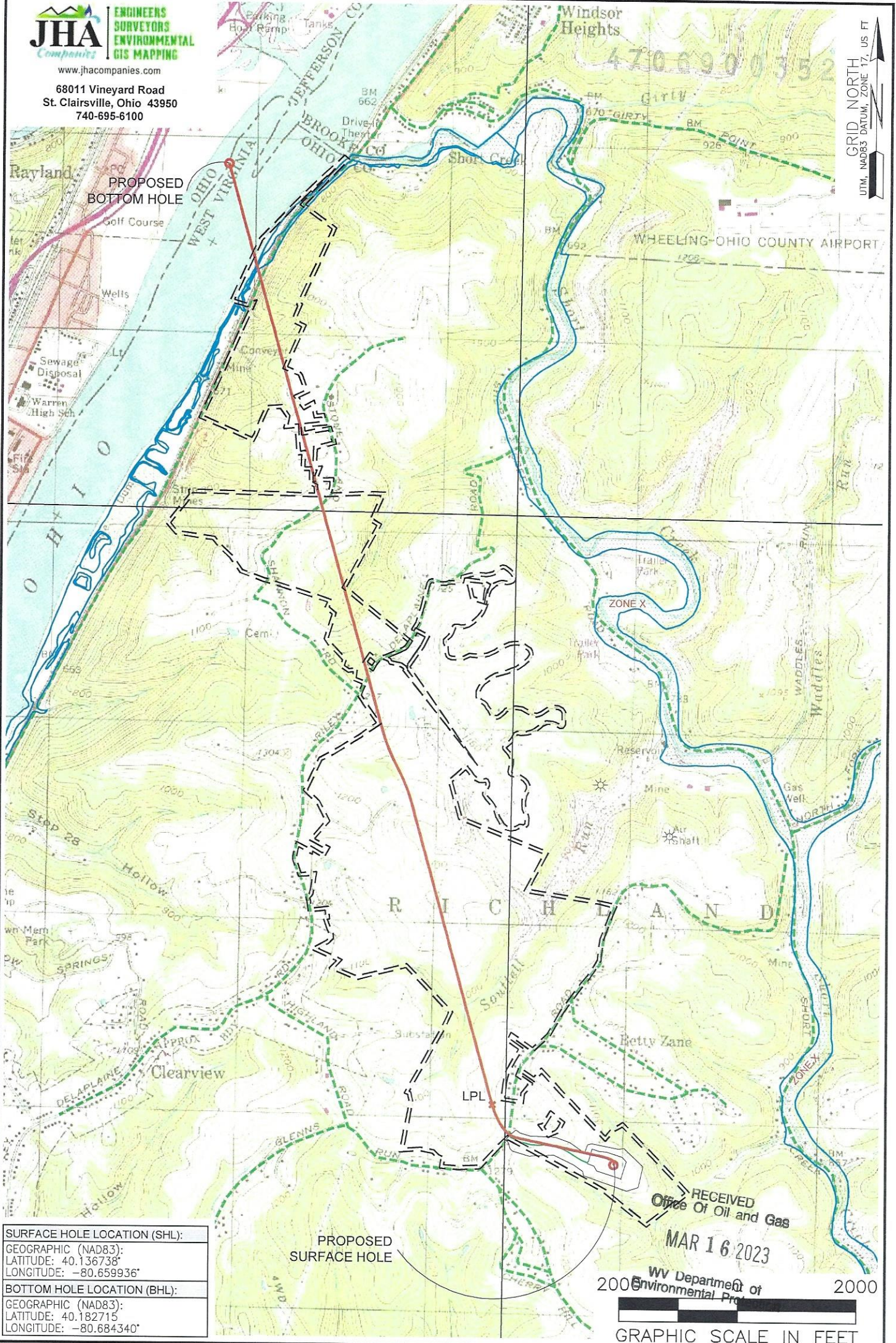
07/14/2023

4706900352

API	Operator	Status	Latitude	Longitude	Vertical TD	Producing Formation	Producing Zones Not Perforated
47-069-00303	SWN PRODUCTION COMPANY	ACTIVE	40.136730	-80.659902	5881'	MARCELLUS	
47-069-00310	SWN PRODUCTION COMPANY	ACTIVE	40.136722	-80.659867	5879'	MARCELLUS	
47-069-00311	SWN PRODUCTION COMPANY	ACTIVE	40.136714	-80.659833	5877'	MARCELLUS	
47-069-00312	SWN PRODUCTION COMPANY	ACTIVE	40.136659	-80.659892	5945'	MARCELLUS	
47-069-00313	SWN PRODUCTION COMPANY	ACTIVE	40.136706	-80.659799	5884'	MARCELLUS	
47-069-00322	SWN PRODUCTION COMPANY	ACTIVE	40.136651	-80.659858	5875'	MARCELLUS	
47-069-00314	SWN PRODUCTION COMPANY	ACTIVE	40.136643	-80.659824	5885'	MARCELLUS	

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SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83):
LATITUDE: 40.136738°
LONGITUDE: -80.659936°
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83):
LATITUDE: 40.182715°
LONGITUDE: -80.684340°

- 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.

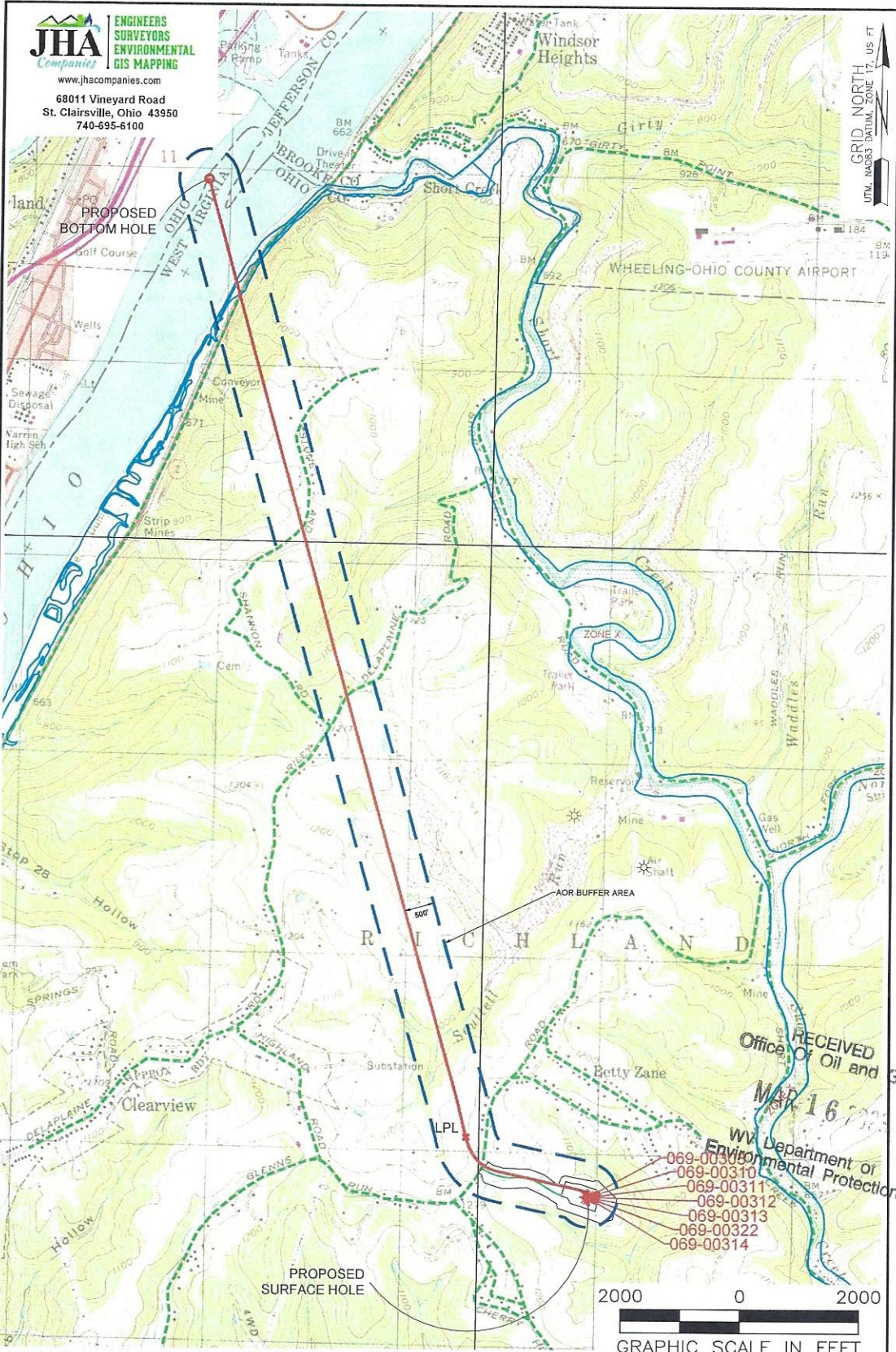
- LEGEND:**
- PROPOSED SURFACE HOLE / BOTTOM HOLE
 - ☼ EXISTING / PRODUCING WELLHEAD
 - LPL* LANDING POINT LOCATION
 - 🌊 FLOOD PLAIN
 - ACCESS ROAD
 - PUBLIC ROAD
 - ACCESS ROAD TO PREV. SITE
 - == LEASE BOUNDARY
 - PROPOSED PATH

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MAR 16 2023
WV Department of Environmental Protection
2000
GRAPHIC SCALE IN FEET

07/14/2023

WELL OPERATOR:
SWN PRODUCTION COMPANY, LLC
ADDRESS:
1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508
SURFACE OWNER:
FRANZ THOMAN

WELL (FARM) NAME:
FRANZ THOMAN OHI
WELL # 201H
SERIAL # XXXX
COUNTY: OHIO
CODE: 069
DISTRICT: RICHLAND
API # 47-069-XXXX
USGS 7 1/2 QUADRANGLE MAP NAME:
TILTONVILLE, OH-WV



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.

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- LPL LANDING POINT LOCATION
- FLOOD PLAIN
- NATURAL WATERWAY
- ACCESS ROAD
- PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- LEASE BOUNDARY
- PROPOSED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: FRANZ THOMAN OHI	WELL # 201H	SERIAL # XXXX
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	COUNTY: OHIO	CODE: 069	DISTRICT: RICHLAND
SURFACE OWNER: FRANZ THOMAN	USGS 7 1/2 QUADRANGLE MAP NAME: TILTONVILLE, OH-WV		API # 47-069-XXXX

R:\PROJECTS\SWN\2018-781_FRANZ THOMAN PAD\CADD\PLATS\PROPOSED\201H\FRANZ THOMAN OHI 201H.DWG
WEDNESDAY JULY 06 2022 04:08PM

COMPLETION ID 2501170563
PAD ID 3001170565

07/14/2023

LATITUDE: 40°10'00" SURFACE HOLE (2000' SCALE)

LATITUDE: 40°12'30" BOTTOM HOLE (2000' SCALE)

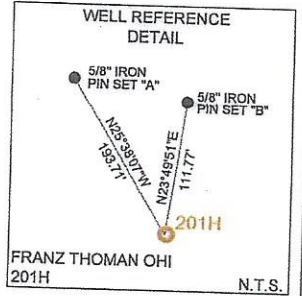
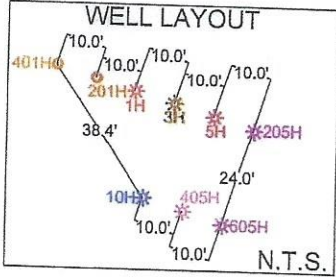
9763'

4987'



www.jhacompanies.com

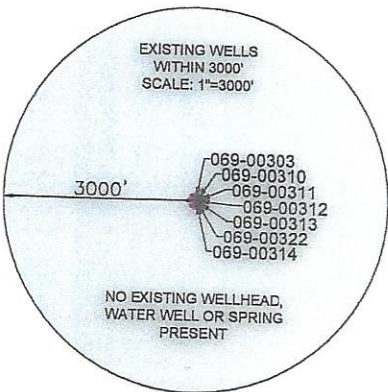
68011 Vineyard Road
St. Clairsville, Ohio 43950
740-695-6100



NOTES ON SURVEY

1. COORDINATE SYSTEM IS UTM NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
2. 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.
3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. NO DWELLINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD
5. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
6. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF THE LIMITS OF DISTURBANCE.
7. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.

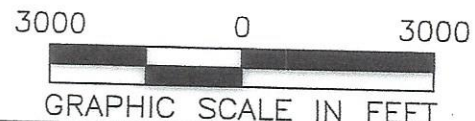
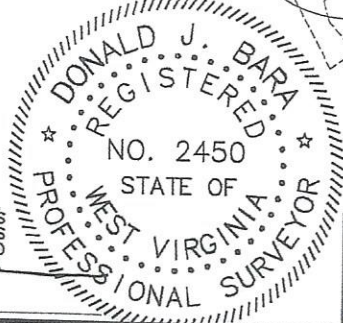
LINE	BEARING	DISTANCE
L1	N 57°21'41" W	1100.06'
L2	N 81°13'00" W	1367.06'



SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4442989.37 EASTING: 528969.82
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4443282.38 EASTING: 528339.61
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448084.83 EASTING: 526872.73

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. 2450



COMPANY: **SWN** Production Company, LLC

OPERATOR'S WELL #: FRANZ THOMAN OHI 201H
API WELL #: 47 STATE 069 COUNTY PERMIT 00352

(+) 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)

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

WATERSHED: UPPER OHIO SOUTH
DISTRICT: RICHLAND COUNTY: OHIO
SURFACE OWNER: FRANZ THOMAN
OIL & GAS ROYALTY OWNER: FRANZ THOMAN

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

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

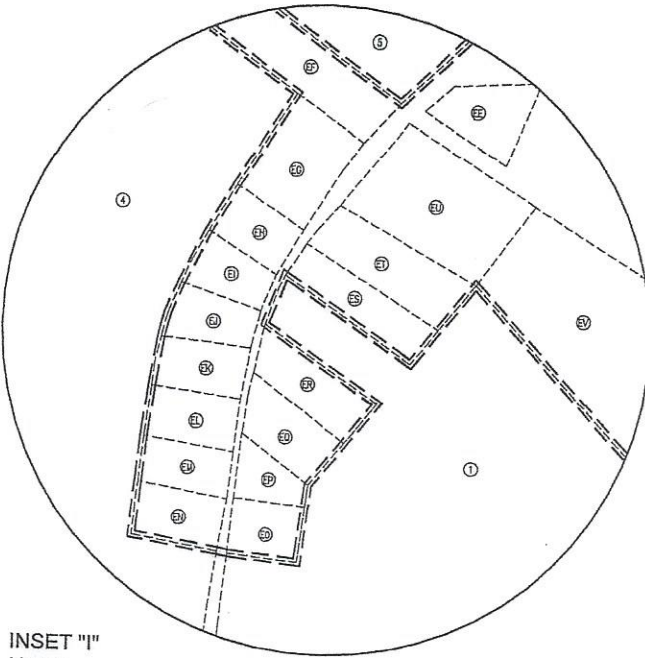
TARGET FORMATION: MARCELLUS
ESTIMATED DEPTH: 5,863' TVD 23,150' TMD

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

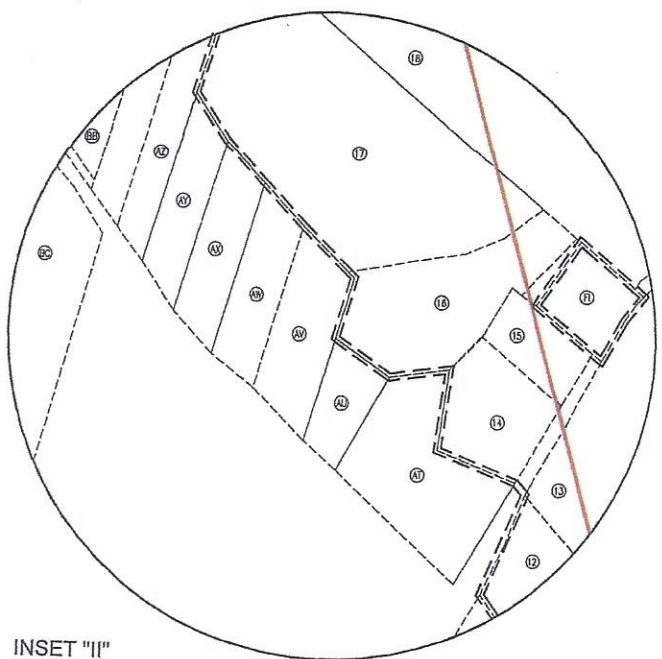
DESIGNATED AGENT: BRITTANY WOODY
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

<p>LEGEND:</p> <ul style="list-style-type: none"> ○ PROPOSED SURFACE HOLE / BOTTOM HOLE ⊙ EXISTING / PRODUCING WELLHEAD LPL* LANDING POINT LOCATION ⊕ EXISTING WATER WELL ⊙ EXISTING SPRING — NATURAL WATERWAY — SURVEYED BOUNDARY == LEASE BOUNDARY — PROPOSED PATH — PUBLIC ROAD 	<p>REVISIONS:</p> <table border="1"> <tr> <td>DATE: 03-10-2023</td> </tr> <tr> <td>API NO: 47-069-XXXXX</td> </tr> <tr> <td>DRAWN BY: R. GRIMES</td> </tr> <tr> <td>SCALE: 1" = 3000'</td> </tr> <tr> <td>DRAWING NO: 2018-781</td> </tr> <tr> <td>WELL LOCATION PLAT</td> </tr> </table>	DATE: 03-10-2023	API NO: 47-069-XXXXX	DRAWN BY: R. GRIMES	SCALE: 1" = 3000'	DRAWING NO: 2018-781	WELL LOCATION PLAT
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WELL LOCATION PLAT							

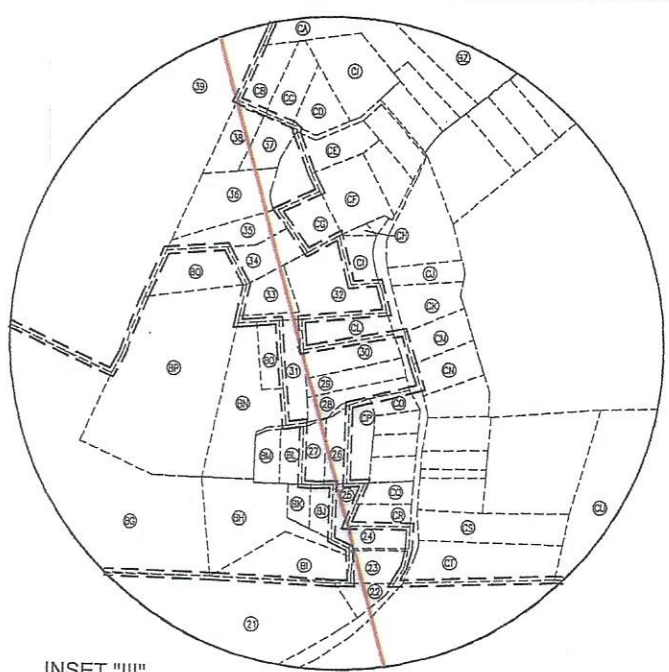
LONGITUDE: 80°40'00" BOTTOM HOLE (2000' SCALE)
LONGITUDE: 80°37'30" SURFACE HOLE (2000' SCALE)



INSET "I"
N.T.S.



INSET "II"
N.T.S.



INSET "III"
N.T.S.

WELL BORE TABLE FOR SURFACE/ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	THOMAN FRANZ (S) / (R)	4-R8-62
TRACT	SURFACE OWNER	TAX PARCEL
2	TUNNEL RIDGE LLC	4-R8P-16
3	WEAVER SHIRLEY M	4-R8P-2
4	CRAFT JOSEPH W III FOUNDATION	4-R8-51
5	CRAFT JOSEPH W III FOUNDATION	4-R8-5
6	CRAFT JOSEPH W III FOUNDATION	4-R8-4.13
7	TUNNEL RIDGE LLC	4-R8-4.18
8	TUNNEL RIDGE LLC	4-R5-40.7
9	CRAFT JOSEPH W III FOUNDATION	4-R8-3.1
10	TUNNEL RIDGE LLC	4-R8-3.2
11	CRAFT JOSEPH W III FOUNDATION	4-R5-40
12	HOWELL CLARENCE F AND DIANA M	4-R5-40.3
13	KUCERA CARL J	4-R5-30.3
14	BOWMAN BETTY JO	4-R5-29
15	MEANS CHRISTOPHER & JENNIFER	4-R5-30.8
16	MEANS CHRISTOPHER & JENNIFER	4-R5-30.6
17	MEANS CHRISTOPHER & JENNIFER	4-R5-30
18	TEMPLE STEPHANIE IRENE	4-R5-27
19	KRASEVEC RALPH J & B A	4-R5-21.3
20	ESTEP JOHN L	4-R5-22.4
21	PLUMBY SARA, JULIE KLEIN & JUDITH PATTI	4-R5-22
22	RASNAK JEFF	4-R5-22.5
23	STAUVER HAROLD L II	4-R5-2.4
24	HINEBAUGH PROPERTIES LLC	4-R5-2.5
25	DECREASE KIMBERLY A	4-R5E-3
26	BEAVER MARK R & M T	4-R5E-10
27	BEAVER MARK R & M T	4-R5E-9
28	COLEMAN CHARLES E	4-R5-2.24
29	CAPP LAWRENCE E & K L	4-R5-2.23
30	CAPP LAWRENCE E & K L	4-R5-2.22
31	SWARTLING WILLIAM JOSEPH SWARTLING REBECCA SUZANNE -TOD	4-R5-2.25
32	FLUHARTY DOUGLAS W	4-R5-2.21
33	VOGRIN STEPHEN L & ERIN L	4-R5-2.57
34	WILKINSON KATHRYN E - TOD	4-R5-2.17
35	CUPP KELLEY J	4-R5-2.51
36	GAUS BRYAN R & DANIELLE L	4-R5-2.47
37	LARESE BRANDON	4-R5-2.56
38	LARESE MARK C & JEAN ANN	4-R5-2.39
39	CRAFT JOSEPH W III FOUNDATION	4-R4-4
40	CRAFT JOSEPH W III FOUNDATION	04-00R4-9999-99 99B
41	WEST PENN POWER COMPANY	4-R4-9999-9999A
42	TUNNEL RIDGE LLC	4-R2-21
43	STATE OF WEST VIRGINIA	OHIO RIVER

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	TUNNEL RIDGE LLC	4-R8-62.5
B	TUNNEL RIDGE LLC	4-R8-62.4
C	TUNNEL RIDGE LLC	4-R8P-14
D	TUNNEL RIDGE LLC	4-R8P-15
E	TUNNEL RIDGE LLC	4-R8P-1
F	MARY ANN HESS REALTY LLC C/O HANNIG & ASSOCIATES PLLC	4-R8-53
G	MARY ANN HESS REALTY LLC C/O HANNIG & ASSOCIATES PLLC	4-R8N-10
H	LITTEN PATRICIA J	4-R8N-8
I	MURRAY JOSEPH B & SYLVIA J	4-R8N-7
J	ORKOSKEY JANET K	4-R8N-11
K	SCHELL HOLLY L	4-R8N-12
L	SCHELL HOLLY L	4-R8N-13
M	SMITH W EVERETT & JOLINDA STEINER	4-R8N-14
N	TUNNEL RIDGE LLC	4-R8-67
O	TUNNEL RIDGE LLC	4-R8-79
P	CRAFT JOSEPH W III FOUNDATION	4-R8-63.2
Q	TRACY JOHN A & MARY ANN E	2-CV4-21
R	BAKER VINCENT L	2-CV1-6
S	BAKER VINCENT L	2-CV1-9
T	KINNEER VERNON A JR & CARLA C	2-CV1-8
U	KINNEER VERNON A JR & CARLA C	
V	BROWN CHAD & YEKATERNIA	4-R8-4.19

07/14/2023

REVISIONS:	

COMPANY:			
OPERATOR'S WELL #:	FRANZ THOMAN OHI 201H		DATE: 03-10-2023
DISTRICT:	COUNTY:	STATE:	API NO: 47-069-XXXXX
RICHLAND	OHIO	WV	DRAWN BY: R. GRIMES
			SCALE: N/A
			DRAWING NO: 2018-781
			WELL LOCATION PLAT

ADJOINING OWNERS TABLE			ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL	TRACT	SURFACE OWNER	TAX PARCEL
W	BROWN CHAD & YEKATERINA	4-R8-4.17	CQ	ALTMAN RICHARD T & SARA A	4-R5E-2
X	FEDORKE M PATRICIA	4-R8-4.2	CR	HOLDERMAN ALBERT J III & N J	4-R5E-1
Y	FACEMIRE JAMES G	4-R8-4.3	CS	ROHRIG NATHAN R & MELISSA L	4-R5-63
Z	MACKEY JOHN E & DIANNA L	4-R8-4.4	CT	KLEE H JESSE J & ANDREA S	4-R5-63.1
AA	SMILA FRANK W JR & KELLY L	4-R8-4.12	CU	CRAFT JOSEPH W III FOUNDATION	4-R5-2.2
AB	BAKER STEVEN P (LE); STEVEN P BAKER ET AL	4-R8-4	CV	CRAFT JOSEPH W III FOUNDATION	4-R5-22.2
AC	GRASKI DONNA M; GRASKI MICHAEL & GRASKI TIFFANY L	4-R8-4.6	CW	CRAFT JOSEPH W III FOUNDATION	4-R5-22.1
AD	HELDEFFER GEORGE W	4-R8-4.7	CX	KRASEVEC RALPH J AND BEVERLY	4-R5-21.10
AE	KUCERA LISA A	4-R8-4.8	CY	KRASEVEC RALPH J & BEVERLY A	4-R5-21.5
AF	ROTH FARM LLC	4-R7-24	CZ	RICHIE RONALD L & SANDRA L	4-R5-42.2
AG	MCKEE JAMES F JR & EILEEN B	4-R8-77	DA	RICHIE RONALD L & S L	4-R5-40.2
AH	MCKEE JAMES & EILEEN	4-R8-4.15	DB	TUNNEL RIDGE LLC	4-R5-40.5
AI	MCKEE JAMES & EILEEN	4-R8-4.16	DC	RICHIE RONALD L & SANDRA L	4-R5-40.6
AJ	MCKEE JAMES F JR & EILEEN B	4-R8-4.14	DD	TUNNEL RIDGE LLC	4-R5-40.4
AK	SCHUETZ EBBIE JOSEPH & JOY	4-R8-3	DE	RAPER JAMES	4-R5-41
AL	HABERFIELD WAYNE K & D A	4-R8-1	DF	KRASEVEC RALPH JAY	4-R5-21.11
AM	SHELL RICHARD A & N	4-R8-1.1	DG	KRASEVEC RALPH J & BEVERLY A	4-R5-21.1
AN	WEIGAND PAUL & REBECCA FAMILY TRUST	4-R5-40.1	DH	CRAFT JOSEPH W III FOUNDATION	4-R5-42.1
AO	KLEMM RICHARD A & J E	4-R5-36.1	DI	CRAFT JOSEPH W III FOUNDATION	4-R5-43
AP	ANTLEY MARK R & ELLIE	4-R5-36.2	DJ	CRAFT JOSEPH III FOUNDATION	4-R8-71
AQ	MOUSER GREGORY	4-R5-37	DK	CRAFT JOSEPH W III FOUNDATION	4-R8-6
AR	BRANCH ANTHONY J JR BRANCH TEXANNA	4-R5-38	DL	WENDEL WILLIAM F	4-R8-33.1
AS	BAKER TIMOTHY R	4-R5-39	DM	ICKLER DARRELL E & CYNTHIA A	4-R8-30.2
AT	MEANS CHRISTOPHER & JENNIFER	4-R5-30.7	DN	COLEMAN MARGUERITE A	4-R8-30.1
AU	MEANS CHRISTOPHER & JENNIFER	4-R5-30	DO	HARGEROAD PATRICIA A	4-R8-31
AV	THOMAS MARK S & CINDY K	4-R5-30.5	DP	JOHNSON CARRIE M & R M	4-R8-32
AW	THOMAS MARK S & C K	4-R5-30.4	DQ	MAYLES HARRY J	4-R8F-2
AX	WEAR SETH A & BLAKELY REBECCA S	4-R5-30.2	DR	MAYLES HARRY J	4-R8F-1
AY	GRAY CINDY JO	4-R5-30.1	DS	HENDERSON DAVID A	4-R8K-1
AZ	RICHARDSON BRIAN D AND FLANEGAN CASEY K	4-R5-26.1	DT	RAYMAND FRANCES M	4-R8K-2
BA	HASELEU ELAINE M	4-R5-26	DU	VENSKOSKE WILLIAM A JR	4-R8K-3
BB	HASELEU ELAINE M	4-R5-25	DV	CRISP STEVEN A & REGINA A	4-R8K-4.1
BC	HEART 2 HEART VOLUNTEERS INC	4-R4-5	DW	CRISP STEVEN A & REGINA A	4-R8K-5
BD	DONOHEW WILLIAM S & LAURA	04-00R4-9999-9999E	DX	PAUL CARL E JR & SHARON D	4-R8K-6
BE	KLIEN JULIA B; PATTI JUDITH A; PLUMBY SARA L	04-00R4-9999-9999D	DY	AGUIRRE ALFREDO	4-R8K-18
BF	WEST PENN POWER COMPANY	UNKNOWN	DZ	WEILER RICHARD J	4-R8K-54
BG	DUNAWAY DONALD R & DONALD W	4-R4-2.5	EA	WEILER RICHARD J	4-R8K-55
BH	DUNAWAY DONALD W	4-R5E-6	EB	HEATH TIMOTHY G	4-R8K-59
BI	KREISER DWIGHT & KATHY	4-R5E-6.1	EC	HEATH TIMOTHY G	4-R8K-60
BJ	DECREASE KIMBERLY A	4-R5E-4	ED	DENARD SHAWN C	4-R8K-62
BK	DECREASE KIMBERLY A	4-R5E-5	EE	MULDREW DAVID R & KAREN	4-R8K-86
BL	JEWELL RONALD E & KATHRYN J	4-R5E-8	EF	HERCULES ROBERT D & PATSY G	4-R8K-113
BM	JEWELL RONALD E & KATHRYN J	4-R5E-7	EG	HERCULES ROBERT D & P G	4-R8K-103
BN	RIEDEL MICHAEL J & BRENDA J	4-R5-2.19	EH	BOZENSKE B H AND OKELLEY K J	4-R8K-104
BO	FEDERAL HOME LOAN MORT CORP	4-R5-2.38	EI	REED ELMER & JOY	4-R8K-105
BP	RIEDEL MICHAEL J & BRENDA J	4-R5-2.18	EJ	REED ELMER K & J D	4-R8K-106
BQ	RIEDEL MICHAEL J & BRENDA J	4-R5-2.64	EK	FRAGALE ELAINE & SPEAKER KURT	4-R8K-107
BR	CRAFT JOSEPH W III FOUNDATION	4-R1-2	EL	OCHAP EUGENE F & DENISE R	4-R8K-108
BS	CRAFT JOSEPH W III FOUNDATION	4-R1-1.1	EM	OCHAP EUGENE F & D R	4-R8K-109
BT	CRAFT JOSEPH W III FOUNDATION	4-R4-3	EN	MC GEE JOHN M	4-R8P-17
BU	SIEGWART JEFFREY W & CYNTHIA A	4-R4-9999-9999	EO	GAYDA DONALD P	4-R8P-18
BV	SIEGWART JEFFREY W & CYNTHIA A	4-R2-2	EP	BOND CHARLES R	4-R8K-110
BW	SIEGWART JEFFREY W & CYNTHIA A	4-R2-2.2	EQ	SCHWERTFEGER TYLER S	4-R8K-111
BX	SIEGWART JEFFREY W & C A	4-R2-2.1	ER	SCHWERTFEGER TYLER S	4-R8K-112
BY	TUNNEL RIDGE LLC	4-R5-69	ES	WILSON RAY B & ANN M	4-R8-62.7
BZ	WILSON RYAN T & MIDCAP SAMANTHA R	4-R5-2.3	ET	MILLARD BRITTANY LYNN	4-R8-62.6
CA	RUSSELL CINDY L & JAMES F	4-R5-2.13	EU	MULDREW DAVID R & KAREN	4-R8K-101
CB	LANOS JOHN & GOLDIE	4-R5-2.33	EV	TAYLOR DELORA L - TOD	4-R8K-100
CC	LANOS JOHN & GOLDIE	4-R5-2.32	EW	SOBOTA SUSAN J	4-R8-62.3
CD	WEIGAND PAUL M & REBECCA FAMILY TRUST	4-R5-2.31	EX	WRIGHT JOHN T & MELINDA L	4-R8P-11
CE	MUTH RONALD J & LYNNE A	4-R5-2.66	EY	SUTTON JACQUELINE M	4-R8Q-10
CF	WILKINSON KATHRYN E - TOD	4-R5-2.6	EZ	DAGUE AMY D	4-R8Q-11
CG	WILKINSON DAVID	4-R5-2.54	FA	KURNER DALE E & B J	4-R8Q-12
CH	WILKINSON KATHRYN E - TOD	4-R5-3.2	FB	WHEELER JOLLY W JR & K M	4-R8Q-14
CI	FLUHARTY DOUGLAS W	4-R5-3.3	FC	TAROVISKY FRANK J & S R - TOD	4-R8Q-28
CJ	COX GARRETT SHELLY L	4-R5-3.4	FD	TOMASIK PAULA J & EDWARD C	4-R8Q-3
CK	STIGLICH JOSEPH M & JOHANNA	4-R5-2.11	FE	TERAMANA RUSSELL & ROSEANN	4-R8Q-2
CL	PARKER DOUGLAS EUGENE	4-R5-2.20	FF	HUFFMAN KENDRA L & RALPH J	4-R8Q-60
CM	CANTRELL DAVID L & REBECCA L	4-R5-4	FG	SANDCREST FOUNDATION INC	4-R11-15
CN	COLEMAN JASON	4-R5-2.8	FH	KRASEVEC RALPH J	4-R5-42
CO	COLEMAN CHARLES E	4-R5E-15	FI	TEMPLE STEPHANIE IRENE	4-R5-28
CP	BEAVER MARK R & M T	4-R5E-11	FJ	MAJEWSKI KASIMIR MAJEWSKI EDWARD A	4-R8-62.2
			FK	MAJEWSKI KASIMIR MAJEWSKI EDWARD A	4-R8-62.8

07/14/2023

REVISIONS:	COMPANY: SWN Production Company, LLC		DATE: 03-10-2023	
	OPERATOR'S: FRANZ THOMAN OHI		API NO: 47-069-XXXXX	
	WELL #: 201H		DRAWN BY: R. GRIMES	
	DISTRICT: RICHLAND	COUNTY: OHIO	STATE: WV	SCALE: N/A
				DRAWING NO: 2018-781
				WELL LOCATION PLAT

COMPLETION ID 2501170563
PAD ID 3001170565

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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See Exhibit A

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: SWN Production Co., LLC
 By: Gavin Nadeau, RPL
 Its: Senior Landman

EXHIBIT "A"						
Franz Thoman OHI 201H						
Ohio County, West Virginia						
Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC, Operator						
#	TMP	LESSOR	LESSEE	ROYALTY	BKTPG	% INTEREST NOT LEASED BY SWN PRODUCTION COMPANY, LLC
1)	04-00R8-0062-0000	Franz Thoman, single	Chesapeake Appalachia, L.L.C.	18.00%	827/5	0.00%
2)	04-00R8-0016-0000	Tunnel Ridge, LLC	SWN Production Company, LLC	18.00%	885/644	0.00%
3)	04-00R8-0002-0000	Shirley M. Weaver and George S. Weaver, wife and husband	SWN Production Company, LLC	18.00%	946/107	0.00%
4)	04-00R8-0051-0000	Alliance Resource GP, LLC	Chesapeake Appalachia, L.L.C.	18.00%	823/165	0.00%
5)	04-00R8-0005-0000	Alliance Resource GP, LLC	SWN Production Company, LLC	17.00%	885/632	0.00%
6)	04-00R8-0004-0013	Elizabeth A. Baker, a/k/a Betty A. Baker	SWN Production Company, LLC	17.00%	916/98	0.00%
7)	04-00R8-0004-0018	Paul Baker	Chesapeake Appalachia, L.L.C.	14.00%	859/521	0.00%
8)	04-00R5-0040-0007	Alliance Resource GP, LLC	SWN Production Company, LLC	16.00%	884/505	0.00%
9)	04-00R8-0003-0001	Alliance Resource GP, LLC	SWN Production Company, LLC	17.00%	928/552	0.00%
10)	04-00R8-0003-0002	Tunnel Ridge, LLC	SWN Production Company, LLC	17.00%	916/98	0.00%
11)	04-00R5-0040-0000	Alliance Resource GP, LLC	SWN Production Company, LLC	17.00%	916/91	0.00%
12)	04-00R5-0040-0003	Clarence F. Howell and Diana Mae Howell, husband and wife	SWN Production Company, LLC	17.00%	916/98	0.00%
			TH Exploration, LLC	18.00%	893/493	
			American Petroleum Partners Operating, LLC		958/126	0.00%
			SWN Production Company, LLC		980/572	
13)	04-00R5-0030-0003	Carl J. Kueera and Sharon L. Kueera, husband and wife	TH Exploration, LLC	18.00%	893/735	
			American Petroleum Partners Operating, LLC		958/126	0.00%
			SWN Production Company, LLC		980/572	
14)	04-00R5-0029-0000	Betty Jo Bowman and Harold Bowman, wife and husband	TH Exploration, LLC	18.00%	893/492	
			American Petroleum Partners Operating, LLC		958/126	0.00%
			SWN Production Company, LLC		980/572	
15)	04-00R5-0030-0008	John J. Stefanow Jr., a single man	TH Exploration, LLC	18.00%	896/79	
			American Petroleum Partners Operating, LLC		958/126	0.00%
			SWN Production Company, LLC		980/572	
16)	04-00R5-0030-0006	John J. Stefanow Jr., a single man	TH Exploration, LLC	18.00%	896/79	
			American Petroleum Partners Operating, LLC		958/126	0.00%
			SWN Production Company, LLC		980/572	
17)	04-00R5-0030-0000	John J. Stefanow Jr., a single man	TH Exploration, LLC	18.00%	896/79	
			American Petroleum Partners Operating, LLC		958/126	0.00%
			SWN Production Company, LLC		980/572	
18)	04-00R5-0027-0000	Stephanie Irene Temple, a married woman dealing in her sole and separate property	TH Exploration, LLC	18.00%	896/79	0.00%
19)	04-00R5-0021-0003	Bonny Minerals, LLC	SWN Production Company, LLC	18.00%	1002/396	0.00%
		Ralph J. Kravets and Beverly A. Kravets, husband and wife	SWN Production Company, LLC	18.00%	939/1	
20)	04-00R5-0022-0004	Sara L. Plumby-Ellis fka Sara L. Plumby, a married woman dealing in her own and separate property	SWN Production Company, LLC	16.00%	929/303	0.00%
		Judy Patti, a/k/a Judith A. Patti	SWN Production Company, LLC	16.00%	928/542	
		Julie B. Klein, married	SWN Production Company, LLC	16.00%	928/516	0.00%
21)	04-00R5-0022-0000	Sara L. Plumby-Ellis fka Sara L. Plumby, a married woman dealing in her own and separate property	SWN Production Company, LLC	16.00%	951/323	
		Judy Patti, a/k/a Judith A. Patti	SWN Production Company, LLC	16.00%	928/542	
		Julie B. Klein, married	SWN Production Company, LLC	16.00%	928/516	0.00%
22)	04-00R5-0022-0005	Margaret L. Haught, widow, and Jeff Rasnako, married	SWN Production Company, LLC	16.00%	951/323	
			Chesapeake Appalachia, L.L.C.	18.00%	807/772	0.00%
23)	04-00R5-0002-0004	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	883/391	0.00%
24)	04-00R5-0002-0005	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
25)	04-00R5-0003-0000	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
26)	04-00R5-0010-0000	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
27)	04-00R5-0009-0000	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
28)	04-00R5-0002-0024	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
29)	04-00R5-0002-0023	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
30)	04-00R5-0002-0022	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
31)	04-00R5-0002-0025	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
32)	04-00R5-0002-0021	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
33)	04-00R5-0002-0057	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
34)	04-00R5-0002-0017	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
35)	04-00R5-0002-0051	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
36)	04-00R5-0002-0047	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
37)	04-00R5-0002-0056	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
38)	04-00R5-0003-0039	Carolyn H. Forman, fka Carolyn Jane Stone Hetzel	SWN Production Company, LLC	16.00%	930/443	0.00%
39)	04-00R4-0004-0000	Alliance Resource GP, LLC	SWN Production Company, LLC	16.00%	916/98	0.00%
40)	04-00R4-9999-9999B	The Kathleen S. Craft Foundation	SWN Production Company, LLC	17.00%	916/98	0.00%
		Joseph W. Craft, III Foundation	SWN Production Company, LLC	18.00%	964/483	0.00%
41)	04-00R4-9999-9999A	West Penn Power Company, a Pennsylvania corporation	SWN Production Company, LLC	18.00%	964/492	0.00%
42)	04-00R2-0021-0000	Tunnel Ridge, LLC	SWN Production Company, LLC	18.00%	1018/564	0.00%
43)	OHIO RIVER	State of West Virginia, Department of Commerce, Division of Natural Resources	SWN Production Company, LLC	18.00%	946/107	0.00%
			SWN Production Company, LLC	20.00%	1027/140	0.00%

END OF EXHIBIT "A"

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July 13, 2022

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Mr. Charles Brewer
WV DEP Office of Oil & Gas
601 57th St., SE
Charleston, WV 25304

RE: SWN's proposed New Well: Franz Thoman OHI 201H in Ohio County, West Virginia, Drilling under Cherry Hill Road, Reilly Delaplain Road, Stone Shannon Road, and Warwood Ave.

Dear Mr. Brewer:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under Cherry Hill Road, Reilly Delaplain Road, Stone Shannon Road, and Warwood Ave. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Respectfully,

SWN Production Company, LLC



Gavin Nadeau, RPL
Landman

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The Right People doing the Right Things,
wisely investing the cash flow from our
underlying Assets, will create Value+®

07/14/2023