



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Monday, May 21, 2018
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit Modification Approval for TIMMY MINCH OHI 6H
47-069-00268-00-00

Lateral extension

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.

James A. Martin
Chief

Operator's Well Number: TIMMY MINCH OHI 6H
Farm Name: TIMMY B. MINCH & AMY L. MINCH
U.S. WELL NUMBER: 47-069-00268-00-00
Horizontal 6A New Drill
Date Modification Issued: May 21, 2018

Promoting a healthy environment.

WW-6B
(04/15)

API NO. 47-069 -
OPERATOR WELL NO. Timmy Minch OHI 6H
Well Pad Name: Timmy Minch PAD

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

- 1) Well Operator: SWN Production Co., LLC

<u>494512924</u>	<u>069-Ohio</u>	<u>6- Triad</u>	<u>674-Wheeling</u>
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Operator ID County District Quadrangle
- 2) Operator's Well Number: Timmy Minch OHI 6H Well Pad Name: Timmy Minch PAD
- 3) Farm Name/Surface Owner: Timmy B. Minch & Amy L. Minch Public Road Access: Brown Run Road
- 4) Elevation, current ground: 1208' Elevation, proposed post-construction: 1208'
- 5) Well Type (a) Gas Oil Underground Storage
Other _____
(b) If Gas Shallow Deep
Horizontal
- 6) Existing Pad: Yes or No No *C-75204.23.12*
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Down-Dip Well to the South, Target Top TVD- 6237', Target Base TVD- 6279', Anticipated Thickness- 42', Associated Pressure- 4081
- 8) Proposed Total Vertical Depth: 6255'
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 18976'
- 11) Proposed Horizontal Leg Length: 12,230.75'
- 12) Approximate Fresh Water Strata Depths: 306'
- 13) Method to Determine Fresh Water Depths: Nearby Water Wells; WR-35
- 14) Approximate Saltwater Depths: 619' Salinity Profile Analysis
- 15) Approximate Coal Seam Depths: 473'
- 16) Approximate Depth to Possible Void (coal mine, karst, other): Abandoned Mine 473'
- 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: _____

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Office of Oil and Gas
APR 25 2018
WV Department of
Environmental Protection

WW-6B
(04/15)

API NO. 47-069
OPERATOR WELL NO. Timmy Minch OH16H
Well Pad Name: Timmy Minch PAD

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	H-40	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	553'	553'	526 sx/CTS
Coal							
Intermediate	9 5/8"	New	J-55	36#	1875'	1875'	718 sx/CTS
Production	5 1/2"	New	HCP-110	20#	18,976'	18,976'	687 7/8" 18,976' 18,976' 18,976'
Tubing							
Liners							

C-BHO 4.23.18

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	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Intermediate	7"	8 3/4"	0.317	4360	3250	Class A	1.20/50% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/50% Excess
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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Environmental Protection

WW-68
(10/14)

API NO. 47- 069 -
OPERATOR WELL NO. Timmy Minch OH: 6H
Well Pad Name: Timmy Minch PAD

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. Run casing not less than 20' below void nor more than 50' 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. The well is produced through surface facilities consisting of high pressure production unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 80 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 13.0

22) Area to be disturbed for well pad only, less access road (acres): 4.8

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 ***

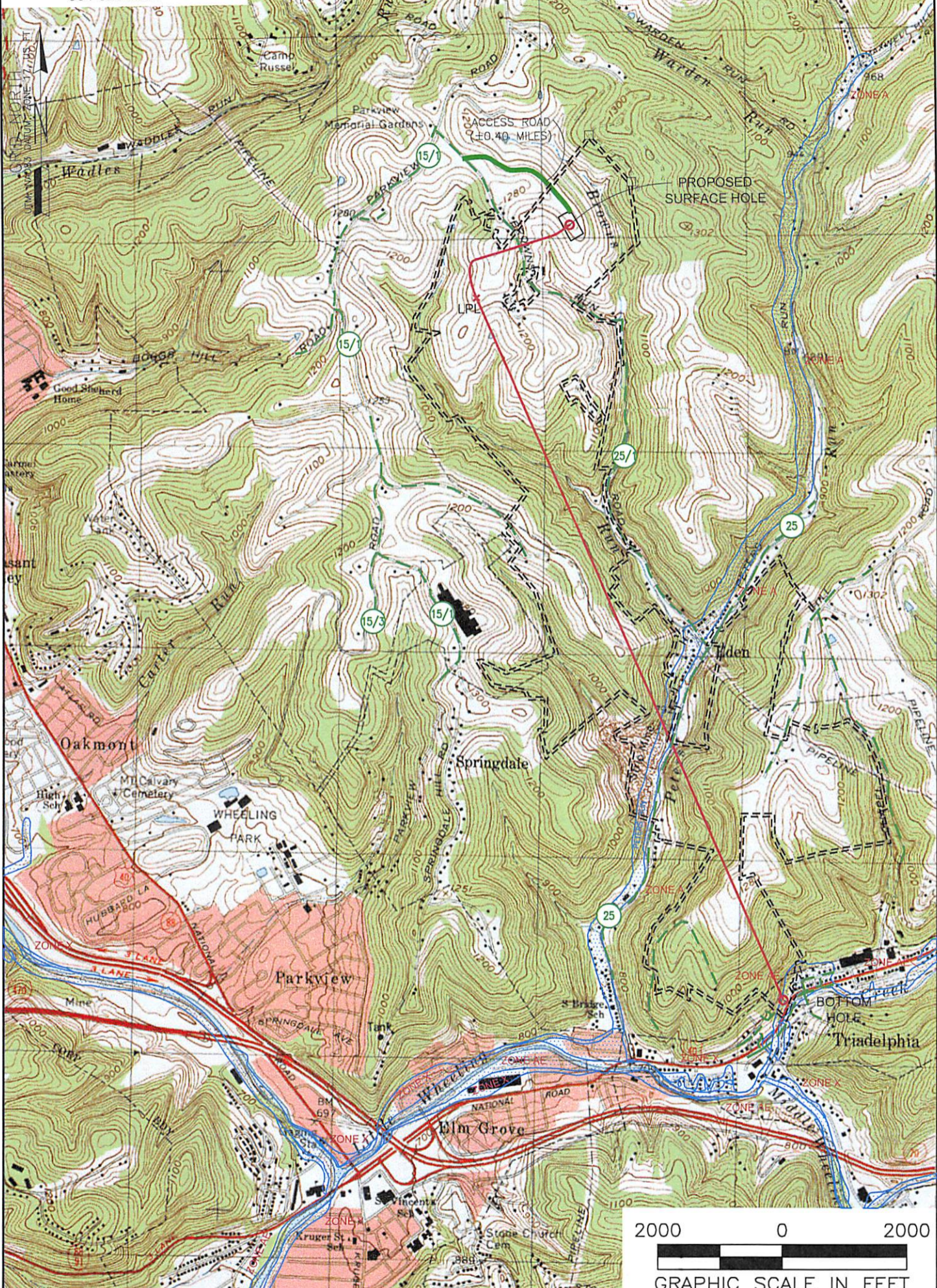
25) Proposed borehole conditioning procedures:

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.

*Note: Attach additional sheets as needed.

4708900268

JACKSON SURVEYING
INC.
P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851



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.
4. 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
 - ASDRILLED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: TIMMY MINCH OHI	WELL # 6H	SERIAL #
ADDRESS: P.O. BOX 1300 JANE LEW, WV 26378	COUNTY - CODE OHIO - 069	DISTRICT; TRIADELPHIA	
SURFACE OWNER: TIMMY B. MINCH & AMY L. MINCH	USGS 7 1/2 QUADRANGLE MAP NAME WHEELING, WV		

Latitude: 40°07'30" SURFACE HOLE 5945'

Latitude: 40°05'00" BOTTOM HOLE 2,580'

JACKSON SURVEYING INC. P.O. Box 1460 677 W. Main St. Clarksburg, WV 26302 304-623-5851

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,437,279.368 EASTING: 530,157.565

LANDING POINT (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,436,925.400 EASTING: 529,698.953

BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,433,512.755 EASTING: 531,199.416

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

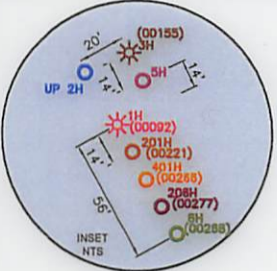
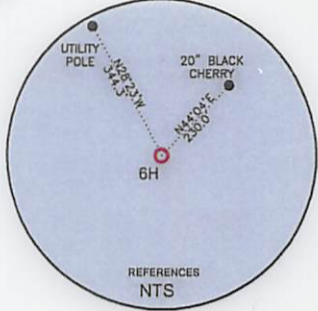
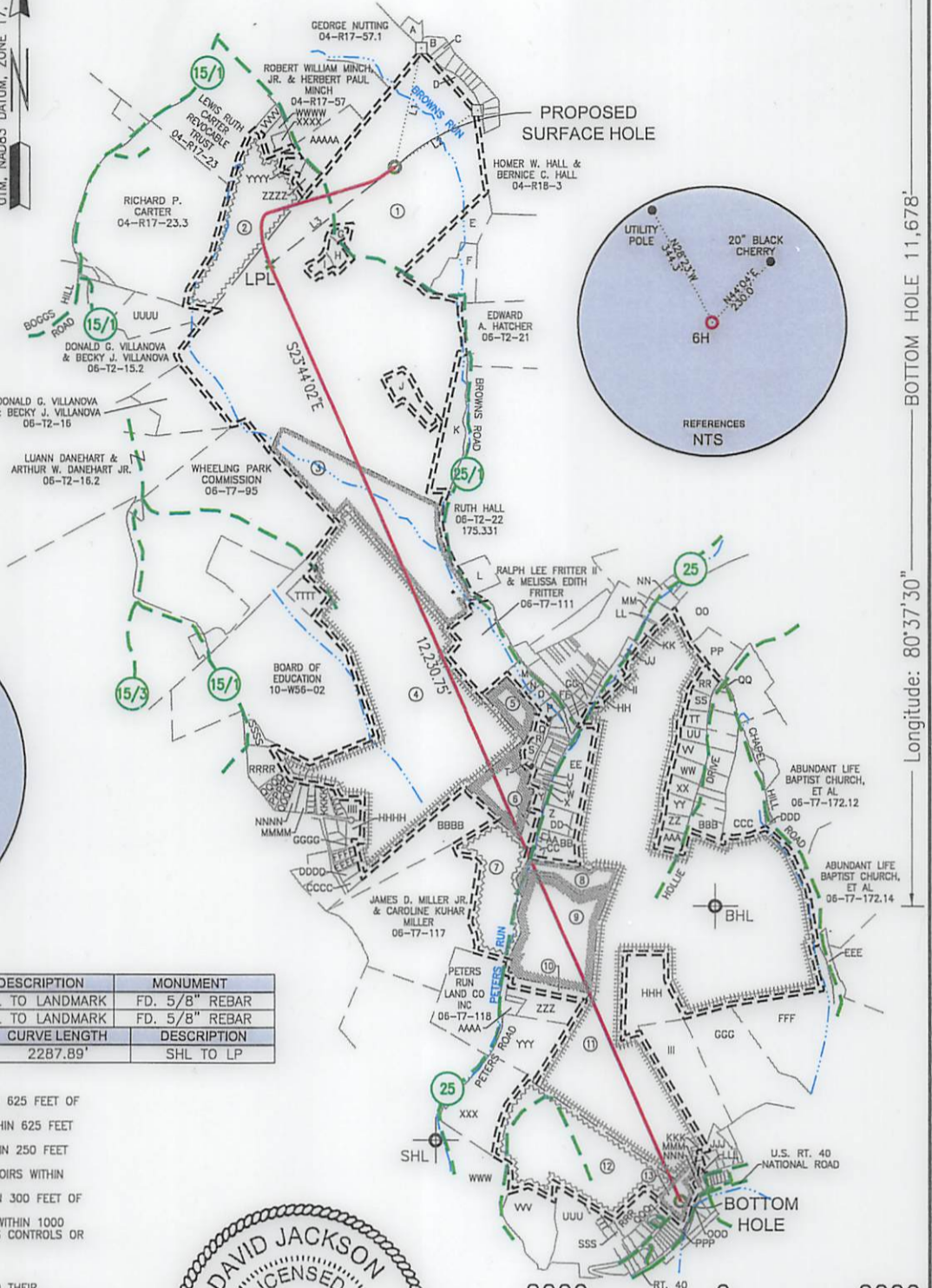


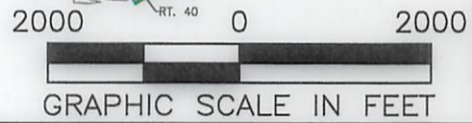
Table with 5 columns: LINE, BEARING, DISTANCE, DESCRIPTION, MONUMENT. Contains data for lines L1, L2, and L3.

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

- NOTES ON SURVEY: 1. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS. 2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON. 3. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 708 David L Jackson



COMPANY: SWN Production Company, LLC

OPERATOR'S WELL #: TIMMY MINCH OHI 6H API WELL #: 47 STATE 069 COUNTY 00268 PERMIT

WELL TYPE: OIL [] WASTE DISPOSAL [] PRODUCTION [x] DEEP [] GAS [x] LIQUID INJECTION [] STORAGE [] SHALLOW [x] WATERSHED: BROWNS RUN OF PETERS RUN OF WHEELING CREEK (HUC-10) ELEVATION: 1208.1' DISTRICT: TRIADELPHIA COUNTY: OHIO QUADRANGLE: WHEELING, WV SURFACE OWNER: TIMMY B. MINCH & AMY L. MINCH ACREAGE: ±254.38 OIL & GAS ROYALTY OWNER: TIMMY B. MINCH & AMY L. MINCH ACREAGE: ±254.38 DRILL [x] DRILL DEEPER [] REDRILL [] FRACTURE OR STIMULATE [x] PLUG OFF OLD FORMATION [] PERFORATE NEW FORMATION [] CONVERT [] PLUG & ABANDON [] CLEAN OUT & REPLUG [] OTHER CHANGE [] (SPECIFY) TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,255 TVD 18,976 TMD



WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: P.O. BOX 1300 CITY: JANE LEW STATE: WV ZIP CODE: 26378 DESIGNATED AGENT: DEE SOUTHALL ADDRESS: P.O. BOX 1300 CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND: PROPOSED SURFACE HOLE / BOTTOM HOLE, EXISTING / PRODUCING WELLHEAD, LPL x LANDING POINT LOCATION, EXISTING WATER WELL, EXISTING SPRING, SURVEYED BOUNDARY, DRILLING UNIT, LEASE BOUNDARY, PROPOSED PATH, REVISIONS, DATE: 04-19-2018, DRAWN BY: N. MANO, SCALE: 1" = 2000', DRAWING NO., WELL LOCATION PLAT

JACKSON SURVEYING
 INC.
 P.O. Box 1460
 677 W. Main St.
 Clarksburg, WV 26302
 304-623-5851

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	TIMMY B. MINCH & AMY L. MINCH (S/R)	06-T2-18
TRACT	SURFACE OWNER	TAX PARCEL
2	CHARLES MONFRADI & DOLORES MONFRADI (S)	04-R17-58
3	WILLIAM A. ORUM & CYNTHIA ORUM (S)	06-T7-178
4	FRANCIS L. BRADEN (S)	06-T7-97
5	JAMES D. MILLER JR. & CAROLINE KUHAR MILLER (S)	06-T7-112
6	YE OLDE COUNTRY CHURCH OF FAITH TRUSTEES (S)	06-T7-112.2
7	J.D. MILLER JR. & CAROLINE K. MILLER (S)	06-T7-117
8	JOHN T. CRISWELL & CATHERINE ANN CRISWELL (S)	06-T7-150.1
9	WILLIAM R. RICKER & KATHY L. RICKER (S)	06-T7-150
10	TERESA GELLNER HULS (S)	06-T7-152
11	JOHN J. CORBETT (S)	06-T7-163
12	JOHN J. CORBETT (S)	06-T12-5
13	MIDDLE CREEK GARAGE INC. (S)	07-TW1-9

ADJOINING OWNERS TABLE			ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL	TRACT	SURFACE OWNER	TAX PARCEL
A	JON BARRY & JAYMIE BARRY	04-R17D-3	CCC	CHARLES A. BLISS ST. & MARY E. BLISS	06-T7-164
B	V.J. SOVINSKI & H.G. SOVINSKI	04-R17D-28	DDD	CHARLES A. BLISS ST. & MARY E. BLISS	06-T7-164.1
C	J.G. DEEDS & M.K. GARRISON	04-R17D-30	EEE	WILLIAM JAY BRINKMEIER	06-T7-165.1
D	L & B DEVELOPMENT, LLC	04-R17D-1	FFF	EDWARD M. EDGE & CHRISTINE B. EDGE	06-T7-165
E	RONALD J. POCKL	06-T2-20.1	GGG	OHIO VALLEY INDUSTRY & BUSINESS DEVELOPMENT CORPORATION	06-T7-166.1
F	MORGAN A. WOJCHOWSKI	06-T2-20	HHH	GREGORY J. GEORGE & JENNIFER S. GEORGE	06-T7-163.19
G	SHAWN A. HODGSON & LESLIE G. HODGSON	04-R17-62	III	MIDDLE CREEK GARAGE, INC.	06-T7-166
H	DANNY MINCH & GINA MINCH	04-R17-61	JJJ	RANDY APOSTOLEC	07-TW1-1.1
I	TIMMY B. MINCH & AMY L. MINCH	04-R17-63	KKK	WOODROW J. KNOLLINGER JR.	07-TW1-3.2
J	JUNIPER LODGE, INC.	06-T2-19	LLL	COUSINS REALTY INC.	07-TW1-7.1
K	WILLIAM A. ORUM & CYNTHIA E. ORUM	06-T2-19.1	MMM	COUSINS REALTY INC.	07-TW1-7
L	M.D. ORUM, W.B. ORUM, ELDER B. PENNINGTON & K.D. ORUM	06-T7-135.1	NNN	DWK RENTALS LLC	07-TW1-8
M	JEFFERY L. AUBER	06-T7-112.1	OOO	WV DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	NATIONAL ROAD
N	JO ANN AUBER LLC	06-T7-112.4	PPP	MIDDLE CREEK GARAGE, INC.	07-TW1-11
O	SHARON ANN AUBER	06-T7-112.3	QQQ	MIDDLE CREEK GARAGE, INC.	07-TW1-15
P	WHEELING NATURAL GAS CO.	06-T7-112.5	RRR	MIDDLE CREEK GARAGE, INC.	06-T12-6
Q	JAMES D. MILLER JR. & CAROLINE KUHAR MILLER	06-T7G-34	SSS	KEVIN S. KOSEM & BRENDA A. KOSEM	07-TW2-11
R	LINDA M. DAVIS	06-T7G-13	TTT	MIDDLE CREEK GARAGE, INC.	07-TW1-19
S	WILLIAM W. WADE & LINDA J WADE	06-T7G-15	UUU	MIDDLE CREEK GARAGE, INC.	07-TW1-20
T	JAMES D. MILLER JR. & CAROLINE KUHAR MILLER	06-T7G-33	VVV	BDDE PROPERTIES, LLC	06-T12-4
U	ALBERT M. GARDNER	06-T7-113	WWW	LEWIS E. MCGRATH SR. & DOLORES I. MCGRATH	06-T7-126.3
V	DOROTHY B. BROEMSEN	06-T7-113.1	XXX	JAY A. POWELL & LISA P. POWELL	06-T7-157
W	DEBORAH L. RATHJEN	06-T7-114.1	YYY	DANIEL F. OCH	06-T7-156
X	DEBORAH L. RATHJEN	06-T7-114	ZZZ	RICHARD J. FITZPATRICK, SHERRI L. FITZPATRICK & THOMAS W. FITZPATRICK	06-T7-153
Y	R.H. ALBERT & E.R. ALBERT	06-T7-115	AAAA	DANIEL F. OCH	06-T7-155
Z	GARY WALTER & SUSAN WALTER	06-T7-148.4	BBBB	JAMES D. MILLER JR. & CAROLINE KUHAR MILLER	06-T7-117.2
AA	JOHN T. CRISWELL & C.A. CRISWELL	06-T7-148.3	CCCC	CHAD W. BROADWATER & REBECCA L. BROADWATER	06-T7-67.16
BB	JOHN T. CRISWELL & C.A. CRISWELL	06-T7-148.1	DDDD	TODD M. SCHIRTZINGER & JENNY S. SCHIRTZINGER	06-T7-67.17
CC	JOHN T. CRISWELL & C.A. CRISWELL	06-T7-149	EEEE	WILLIAM O. LEWIS IV & CANDICE M. LEWIS	06-T7-67.19
DD	GARY R. WALTER & SUSAN L. WALTER	06-T7-148	FFFF	THOMAS L. FOLMAR & DONNA LYNNE FOLMAR	06-T7-67.18
EE	STEVEN A. MOORE & LISA K. MOORE	06-T7-148.2	GGGG	FRANCES L. BRADEN	06-T7-67
FF	REGIS G. WENZEL & J.R. WENZEL	06-T7G-4	HHHH	JASON B. BIRCH & JESSICA L. BIRCH	06-T7-97.2
GG	JAMES L. HEATH	06-T7G-3	IIII	JONATHAN BRUCE WHARTON	06-T7-97.3
HH	DONALD N. HARRIS & J.A. HARRIS	06-T7-147.1	JJJJ	KENNETH SPENCER & STEPHANIE SPENCER	06-T7-67.6
II	DONALD JEFFREY HARRIS	06-T7-147	KKKK	GERALD BISCHOF & ROSETTA J. BISHOF	06-T7-67.7
JJ	DAVID A. SCHMID & E.T. SCHMID	06-T7-146	LLLL	DEEDRA DAVIS	06-T7-67.5
KK	KATHERINE M. PAPADIMITRIOU	06-T7-145	MMMM	RONALD A. ZANDRON & PATRICIA L. ZANDRON	06-T7-67.8
LL	KATHERINE M. FIGARETTI & ANTHONY F. FIGARETTI	06-T7-143.1	NNNN	DALE A. FORESTER & CAROL ANN FORESTER	06-T7-67.9
MM	KATHERINE M. FIGARETTI & ANTHONY F. FIGARETTI	06-T7-143	OOOO	MARIO B. JULIAN & LOIS R. JULIAN	06-T7-67.13
NN	GARY E. LAUDERMILT, SR. & MARY ANN LAUDERMILT	06-T7-142	PPPP	BENJAMIN ELLWOOD & DANIELLE ELLWOOD	06-T7-67.23
OO	PATRICK RYAN SPEAKER & CASEY MARIE HERCULES	06-T7-158	QQQQ	CAYLA J. BLACK & MATTHEW D. BLACK	06-T7-67.10
PP	LYLE HEARN & KIMBERLIE HEARN	06-T7-173	RRRR	FRANCES L. BRADEN 2016 IRREVOCABLE TRUST DATED AUGUST 10, 2016	06-T7-67
QQ	CECELIA BOYD	06-T7-172	SSSS	EARL BRADEN & F.L. BRADEN	10-W56-3
RR	AUGUST J. HANSON & LISA M. HANSON	06-T7-163.20	TTTT	DONALD A. BRADEN & RHONDA L. BRADEN	06-T7-97.1
SS	ROBERT W. GALBREATH & DEBRA J. GALBREATH	06-T7-163.11	UUUU	GLORIA KALB	06-T2-15.3
TT	THOMAS R. MORGAN & ANN Y. MORGAN	06-T7-163.5	VVVV	RICHARD D. BORDER JR.	04-R17-58.5
UU	ROGER L. KENT JR & MELINDA J. KENT	06-T7-163.15	WWWW	REX D. LASURE & N.A. ENDRIZZI	04-R17-58.4
VV	ROGER L. KENT JR & MELINDA J. KENT	06-T7-163.18	XXXX	REX D. LASURE & N.A. ENDRIZZI	04-R17-58.3
WW	TODD FULLERTON	06-T7-163.16	YYYY	JAMES HOHMAN & M. HOHMAN	04-R17-58.2
XX	ROBERT M. TUCKER & REBECCA E. TUCKER	06-T7-163.12	ZZZZ	TIMMY B. MINCH & AMY L. MINCH	04-R17-58.1
YY	GREGORY A. GAUDINO & ANNETTE M. GAUDINO	06-T7-163.13	AAAAA	ROBERT WILLIAM MINCH JR & BARBARA JEAN MINCH	04-R17-57.2
ZZ	BUSAINA KHALIL	06-T7-163.7			
AAA	BUSAINA KHALIL	06-T7-163.6			
BBB	JAMES SIMMS	06-T7-163.17			

REVISIONS:	COMPANY:	 	
	OPERATOR'S	TIMMY MINCH OHI	
	WELL #:	6H	
	DISTRICT:	COUNTY:	STATE:
	TRIADELPHIA	OHIO	WV
			DATE: 04-19-2018
			DRAWN BY: N. MANO
			SCALE: N/A
			DRAWING NO:
			WELL LOCATION PLAT 2

**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:

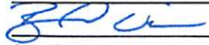
Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Exhibit				

**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

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 Company, LLC.
 By: 
 Its: Landman

RECEIVED
Office of Oil and Gas
APR 25 2018
WV Department of
Environmental Protection

Exhibit "A"
 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
 Timmy Minch OHI 6H
 Ohio County, West Virginia

#	TAX ID	LESSOR	LESSEE	ROYALTY	BK/P/G
1	06-T2-18	Howard L. Minch and Beverly G. Minch, his wife	Great Lakes Energy Partners, L.L.C. Chesapeake Appalachia, L.L.C.	12.5%	776/13 808/418
2	04-R17-58	Charles Monfradi and Dolores Monfradi, husband and wife	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	18%	883/192 813/584
3	06-T7-178	William A. Orum and Cynthia E. Orum, a/k/a Cynthia Orum, his wife	SWN Production Company, LLC NPAR, LLC Chevron U.S.A. Inc.	18%	884/457 810/97 827/269
4	06-T7-97	Frances L. Braden, widow	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Great Lakes Energy Partners, L.L.C.	14%	867/713 885/320 779/684
5	06-T7-112	J.D. Miller & Nancy K. Miller, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC TriEnergy, Inc.	14%	808/514 883/192 788/682
6	06-T7-112.2	Trustees of "Ye Olde Country Church of Faith"	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC SWN Production Company, LLC	18%	791/171 798/653 883/255 868/36 884/409

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Exhibit "A"

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
 Timmy Minch OHI 6H
 Ohio County, West Virginia

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#	TAX ID	LESSOR	LESSEE	ROYALTY	BK/PG
7	06-T7-117	J.D. Miller & Nancy K. Miller, husband and wife	TriEnergy, Inc. TriEnergy Holdings, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14%	788/682 791/171 798/653 883/255
8	06-T7-150.1	John T. Criswell and Catherine Ann Criswell, his wife	NPAR, LLC Chevron U.S.A. Inc. Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18%	820/424 827/299 867/713 885/320
9	06-T7-150	William R. Ricker and Kathy L. Ricker, husband and wife	Fossil Creek Ohio, LLC Gulfport Energy Corporation American Petroleum Partners Operating, LLC SWN Production Company, LLC	15%	872/554 893/392 909/775 938/548
10	06-T7-152	Teresa Gellner Huls, a married woman dealing in her sole and separate property	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18%	829/774 885/332
11	06-T7-163	John J. Corbett, a.k.a. John Joseph Corbett, single	NPAR, LLC Chevron U.S.A. Inc. Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	17%	802/181 827/254 858/359 885/296
12	06-T12-5	John J. Corbett, a.k.a. John Joseph Corbett, single	NPAR, LLC Chevron U.S.A. Inc. Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	17%	802/181 827/254 858/359 885/296

Exhibit "A"
 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
Timmy Minch OHI 6H
Ohio County, West Virginia

#	TAX ID	LESSOR	LESSEE	ROYALTY	BK/P/G
13	07-TW1-9	Constance M. Knollinger, a widow	SWN Production Company, LLC	14%	922/402
13	07-TW1-9	Douglas W. Knollinger, a married man dealing in his sole and separate property	SWN Production Company, LLC	14%	922/426
13	07-TW1-9	Gary R. Knollinger, a married man dealing in his sole and separate property	SWN Production Company, LLC	14%	922/420
13	07-TW1-9	Judith A. McGrail, a single woman	SWN Production Company, LLC	14%	922/414
13	07-TW1-9	Woodrow J. Knollinger, Status Unknown	SWN Production Company, LLC	14%	922/408

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April 19, 2018

Ms. Laura Adkins
WV DEP Office of Oil & Gas
601 57th St., SE
Charleston, WV 25304

RE: SWN's proposed New Well: Timmy Minch OHI 6H in Ohio County, West Virginia, Drilling under Parkview Road and Peters Run Road

Dear Ms. Adkins:

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 Parkview Road and Peters Run Road. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Sincerely,



Bradley Wilson
Landman
SWN Production Company, LLC
PO Box 12359
Spring, TX 77391-2359

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Environmental Protection

April 24, 2018

Ms. Laura Adkins
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Modification: Timmy Minch OHI 6H

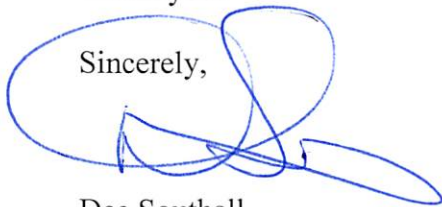
Dear Ms. Adkins

Enclosed please find the updated 6B, plat, casing, and leases for the above captioned well. We are extending the lateral. These wells are situated on the Minch's property, in Ohio County, West Virginia.

If you have any questions or desire additional information, please me at 304-884-1614.

Thank you.

Sincerely,



Dee Southall
Senior Regulatory Analyst
Southwestern Energy Production Company, LLC

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