west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

July 30, 2015

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-900159, issued to SWN PRODUCTION COMPANY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: MILDRED MANI BRK 205H
Farm Name: MILDRED MANI & ERIK PHILIP I
API Well Number: 47-900159
Permit Type: Horizontal 6A Well
Date Issued: 07/30/2015

Promoting a healthy environment.

API Number: _____

PERMIT CONDITIONS 4700900159

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.

2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.

3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.

4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.

5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.

6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.

7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.

8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

47009000159

WW-6B
(10/14)

API NO. 47- 69 -
OPERATOR WELL NO. Mildred Mani BRK 205H
Well Pad Name: Mildred Mani BRK 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	494512924	Brooke	1-Buffalo	620-Stuebenville
		Operator ID	County	District	Quadrangle

2) Operator's Well Number: Mildred Mani BRK 205H Well Pad Name: Mildred Mani BRK Pad

3) Farm Name/Surface Owner: Mildred Mani & Eric Bauer Public Road Access: Bradys Ridge Road

4) Elevation, current ground: 1072' Elevation, proposed post-construction: 1072'

5) Well Type (a) Gas x Oil _____ Underground Storage _____
Other _____
(b)If Gas Shallow x Deep _____
Horizontal x

6) Existing Pad: Yes or No yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Target Formation- Marcellus, Target Top TVD- 5637', Target Base TVD- 5716' Anticipated Thickness- 79', Associated Pressure- 3770

8) Proposed Total Vertical Depth: 5689'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 10,915'

11) Proposed Horizontal Leg Length: 4,564'

12) Approximate Fresh Water Strata Depths: 300'

13) Method to Determine Fresh Water Depths: from nearby water wells

14) Approximate Saltwater Depths: 1100'

15) Approximate Coal Seam Depths: 87', 110-131'

16) Approximate Depth to Possible Void (coal mine, karst, other): 130' Possible coal void

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

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

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WW-6B
(10/14)

API NO. 47- 69 -
OPERATOR WELL NO. Mildred Manl BRK 205H
Well Pad Name: Mildred Manl BRK 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#	161'	161'	CTS
Fresh Water	13 3/8"	New	J-55	54.5#	400'	400'	446 sx/CTS
Coal	9 5/8"	New	J-55	40#	1480'	1480'	572 sx/CTS
Intermediate	7"	New	J-55	20#	If Needed	If Needed	If Needed/As Needed
Production	5 1/2"	New	HCP-110	20#	10,915'	10,915'	Lead 1043 ex. tail 1163 set 100' inside int.
Tubing	2 3/8'	New	P-110	4.7#	Approx. 6365'	Approx. 6365'	
Liners							

KJK for Eric Bland 7/29/15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Max. Associated Surface 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	1.20/15% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/15% Excess
Tubing	2 3/8"	4.778"	0.190				
Liners							

PACKERS

Kind:	10K Arrowset AS1-X			
Sizes:	5 1/2"			
Depths Set:				

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Southwestern Energy Company	Proposed Drilling Program

Well : MILDRED MANI 205 Re-entry Rig : TBD

Field : PANHANDLE FIELD Prospect : PANHANDLE

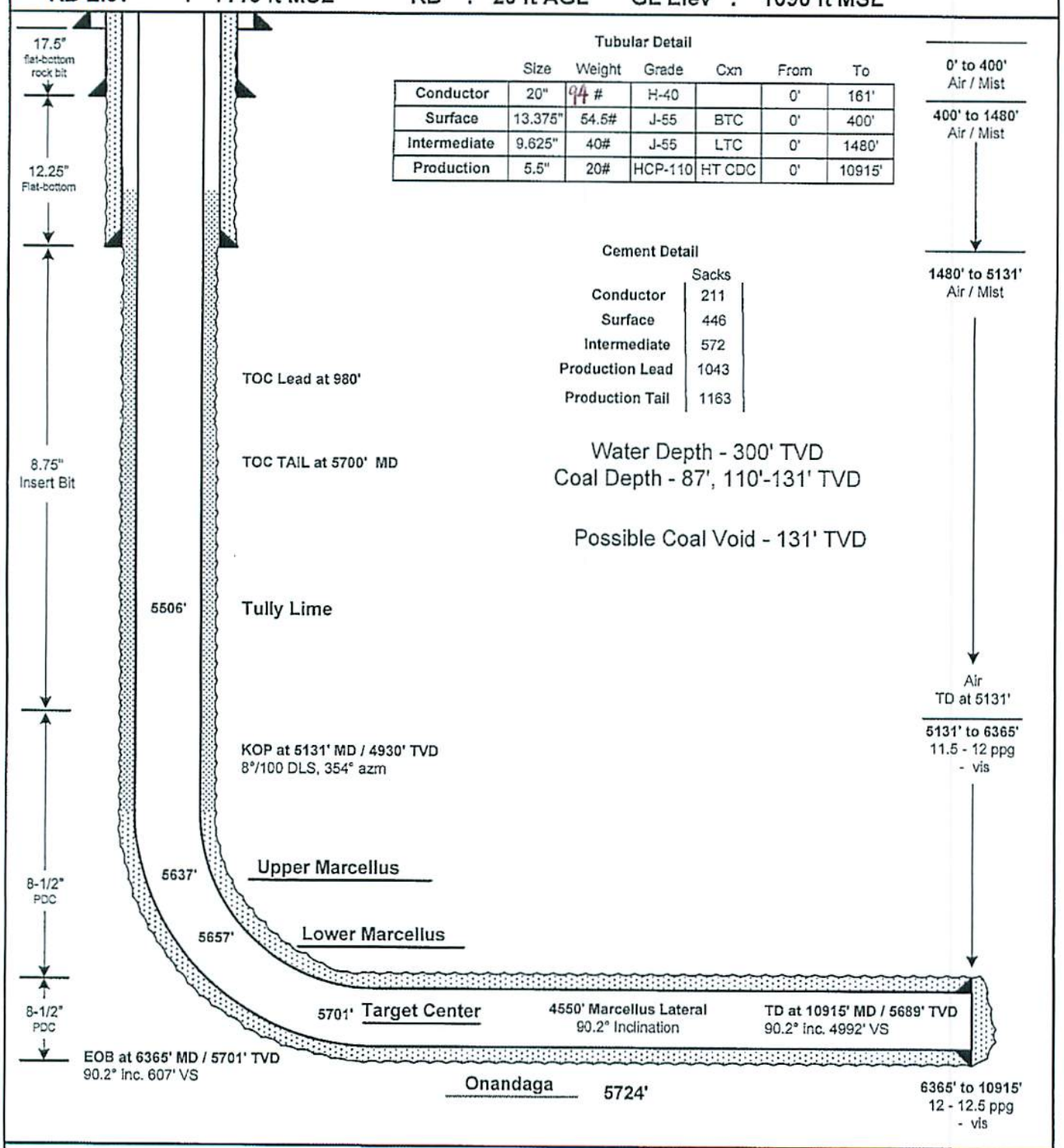
County : BROOKE State : WV

SHL : 40.25392 Latitude -80.589562 Longitude

BHL : 40.267548 Latitude -80.591486 Longitude

KB Elev : 1116 ft MSL KB : 26 ft AGL GL Elev : 1090 ft MSL

swn™ Southwestern Energy



Data source: K:\EandP\WVD\Team Data\Drilling\Wells\Mildred Mani 205H\Drilling Program\Master SWN Well Input Sheet v E-0-1.xlsm

NOTE: This drawing was created for the Reentry Rig. The depths and lengths shown in the plat are referenced to Reentry Rig RKB.

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WW-6B
(10/14)

API NO. 47- 69 -
OPERATOR WELL NO. Mildred Mani BRK 205H
Well Pad Name: Mildred Mani BRK 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 50-70' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50-70' 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): 10

22) Area to be disturbed for well pad only, less access road (acres): 5.6

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.

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*Note: Attach additional sheets as needed.

47009000159

SLB Cement Additives ***Ref: 2013-78

	Product Name	Product Use	Chemical Name	CAS Number
Surface	D046	antifoam	Fuller's earth (attapulgite)	8031-18-3
			Polypropylene glycol	25322-69-4
	D130	polyester flake - lcm	polyethylene terephthalate	25038-59-9
	S001	calcium chloride	calcium chloride	10043-52-4
	SPACER			
	D130	polyester flake - lcm	polyethylene terephthalate	25038-59-9
Intermediate	D046	antifoam	Fuller's earth (attapulgite)	8031-18-3
			Polypropylene glycol	25322-69-4
	D130	polyester flake - lcm	polyethylene terephthalate	25038-59-9
	D044	granulated salt	sodium chloride	7647-14-5
	D153	Anti-Settling Agent	chrystalline silica	14808-60-7
	SPACER			
	D020	bentonite extender	bentonite	1302-78-9
	D130	polyester flake - lcm	polyethylene terephthalate	25038-59-9
Kick Off Plug	D080	cement liquid dispersant	product classified as non-hazardous.	
	D801	mid-temp retarder	product classified as non-hazardous	
	D047	antifoam agent	polypropylene glycol	25322-69-4
	SPACER			
	B389	MUDPUSH* Express	Carbohydrate	proprietary
	D206	Antifoaming Agent	Silica Organic Polymer	proprietary
	D031	barite	barium sulfate	7727-43-7
	B220	surfactant	fatty acid amine	proprietary
			ethoxylated alcohol	proprietary
			glycerol	56-81-5
			2,2'-Iminodiethanol	111-42-2
	D167	UNIFLAC* S	aliphatic amide polymer	proprietary

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Production - Lead	D154	low-temperature extender	non-crystalline silica	7631-86-9
	D400	EasyBLOK	boric acid	10043-35-3
	D046	antifoam	Fuller's earth (attapulgite)	8031-18-3
			Polypropylene glycol	25322-69-4
	D201	basic cements enabler	chrystalline silica	14808-60-7
			metal oxide	proprietary
	D202	low-temperature solid dispersant	sulphonated synthetic polymer	proprietary
			formaldehyde (impurity)	50-00-0
	D046	antifoam	Fuller's earth (attapulgite)	8031-18-3
			Polypropylene glycol	25322-69-4
	D167	UNIFLAC* S	aliphatic amide polymer	proprietary
	D065	TIC* Dispersant	Sodium Polynaphthalene Sulfonate	9008-63-3
			Sodium Sulfate	7757-82-6
	D201	basic cements enabler	chrystalline silica	14808-60-7
			metal oxide	proprietary
	D153	Anti-Settling Agent	chrystalline silica	14808-60-7
	SPACER			
	B389	MUDPUSH* Express	Carbohydrate	proprietary
	D206	Antifoaming Agent	Silica Organic Polymer	proprietary
	D031	barite	barium sulfate	7727-43-7
	B220	surfactant	fatty acid amine	proprietary
			ethoxylated alcohol	proprietary
			glycerol	56-81-5
			2,2'-Iminodiethanol	111-42-2

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% Concentration Used
0.2% BWOC
0.125 lb/sk
2% BWOC
1 lb/bbl
20 lb/bbl
0.2% BWOC
0.125 lb/sk
10% BWOW
0.15% BWOC
20 lb/bbl
1 lb/bbl
0.05 gal/sk
0.01 gal/sk
0.02 gal/sk
1 lb/bbl
0.1 gal/bbl
310 lb/bbl
1 gal/bbl
0.35% BWOC

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6% BWOC	
0.8% BWOC	
0.2% BWOC	
0.2% BWOC	
0.3% BWOC	
0.2% BWOC	
0.35% BWOC	
0.25% BWOC	
0.2% BWOC	
0.2% BWOC	
proprietary	
proprietary	
7727-43-7	
proprietary	
proprietary	
56-81-5	
111-42-2	

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WW-9
(9/13)

API Number 47 - 69 -
Operator's Well No. Mildred Mani BRK 205H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Co., LLC OP Code 494512924

Watershed (HUC 10) Buffalo Creek Quadrangle 620-Stuebenville East

Elevation 1072' County 009-Brooke District 1-Buffalo

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ☑ No ☐

Will a pit be used? Yes ☐ No ☑

If so, please describe anticipated pit waste: closed loop system in place at this time- cuttings will be taken to a permitted landfill.

Will a synthetic liner be used in the pit? Yes ☐ No ☑ If so, what ml.?

Proposed Disposal Method For Treated Pit Wastes:

- ☐ Land Application
- ■ Underground Injection (UIC Permit Number 2D0072539/ 2D0413175/ 2D0610306/ 2D0610317)
- ■ Reuse (at API Number at next anticipated well, API# will be included with the WR-34/DDMR &/or permit addendum.)
- ☐ Off Site Disposal (Supply form WW-9 for disposal location)
- ■ Other (Explain flow back fluids will be put in steel tanks and reused or taken to a permitted disposal facility.

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air drill to KOP, Fluid Drill with SOBM form KOP to TD

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base

Additives to be used in drilling medium? see attached sheets

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust)

-Landfill or offsite name/permit number? meadow SWF- 1032, SS Grading SWF- 4902, Northwestern SWF- 1025, Short Creek 1034/WV0109517/CID28726, Carbon Limestone 28726/CID28726
Arden Landfill 100172, American 02-12954, Country Wide 38390/CID38390, Pine Grove 13688

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature

Company Official (Typed Name) Dee Southall

Company Official Title Regulatory Supervisor

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Subscribed and sworn before me this 27th day of March, 20 15

Brittany R Woody Notary Public

My commission expires 11/27/22

OFFICIAL SEAL
Notary Public, State of West Virginia
BRITTANY R WOODY
3302 Old Elkins Road
Buckhannon, WV 26201
My commission expires November 27, 2022

4700900159

Form WW-9

Operator's Well No. Mildred Mani BRK 205H

SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 10 Prevegetation pH _____

Lime _____ (as determined by pH test min. 2) Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 600 lbs/acre

Mulch Hay/Straw 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
White Grove	15	White Grove	15
Red Top	15	Red Top	15
Orchard Grass	20	Orchard Grass	20

Attach:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [signature]

Comments: _____

Title: Oil and Gas Inspector Date: 4/9/15

Field Reviewed? (✓) Yes ( ) No

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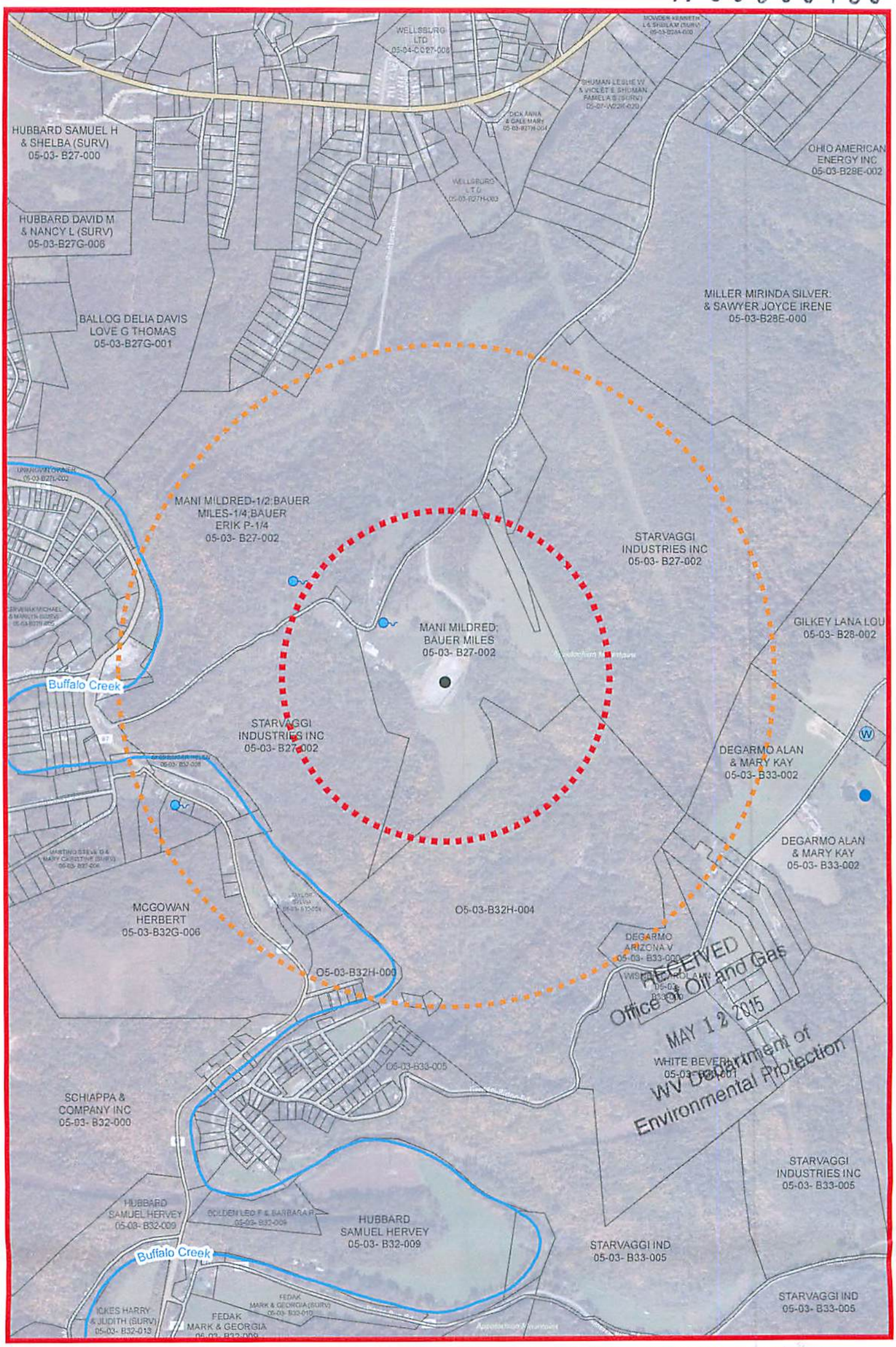

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The intent of this map is for general reference only. Information on this map was created using the best available data at the time but is not guaranteed accurate.

Water Purveyor Map

Well Pad:	County:
Mildred Mani Brk	Brook, WV

Map by: youngst	Date: 4/30/2015
Nad 83 UTM Z one 17	SWN

Spring · Point · Water Well · Radius - 1500 ft · Radius - 3000 ft

1 inch = 1,000 feet

0 375 750 1,500 2,250 3,000 Feet

N W E S

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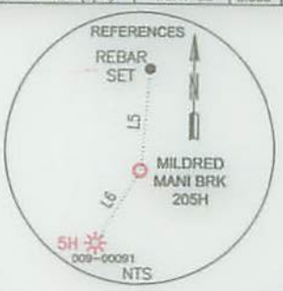
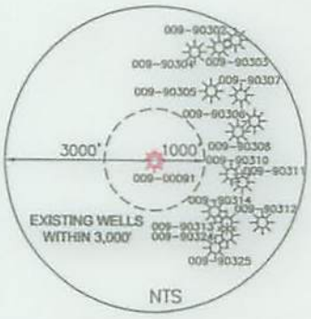
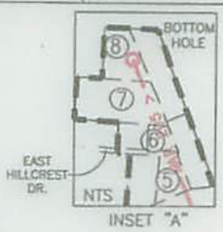
HOFFMAN ASSOCIATES INC
320 O'Bryan Lane • Van Buren, AR 72956
Office: 479.474.7916 • Fax: 479.474.2450
Surveying • handa-inc.com

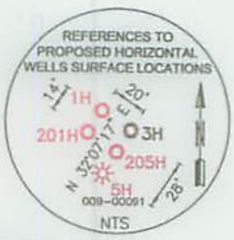
LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	S 89°30'22" E	1433.14'	SHL TO LANDMARK	FOUND IRON PIPE
L2	S 47°45'53" E	975.39'	SHL TO LANDMARK	FOUND IRON PIPE
L3	N 56°58'20" E	1355.60'	SHL TO TPL	
L4	N 21°53'27" W	4549.40'	TPL TO BHL	
L5	N 05°04'41" E	177.42'	SHL TO REF. PNT.	1/2"ø REBAR SET
L6	S 31°09'47" W	13.65'	SHL TO REF. PNT.	MILDRED MANI BRK 5H WELL HEAD 009-00091

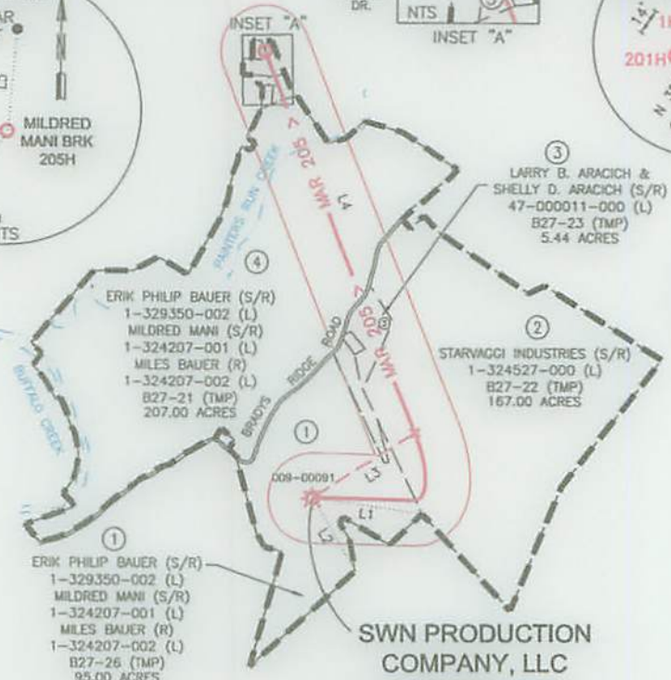
TRACT	SURFACE OWNER (S) ROYALTY OWNER (R)	TAX PARCEL	ACRES	LEASE NUMBER
8	JAMES HARWELL DODD JR ET AL (S)	B27H-31	0.660	
	ROBIN J. GEORGE & JIM DALE GEORGE (R)	B27H-31	0.660	1-120106-001
	JAMES HARWELL, JR. & LYNN I. DODD (R)	B27H-31	0.660	1-120106-002
	JEANNE M. MCGILL& RICHARD T. MCGILL (R)	B27H-31	0.660	1-120106-003
7	BARRY L. KIRTLEY (S/R)	B27H-29	1.334	47-000558-000
6	PATRICIA A. ANTAL (S/R)	B27H-25	0.300	1-343033-000
5	WILLIAM C. HARVEY & MARY B. HARVEY (S/R)	B27H-23	0.360	47-000524-000











WW-6A1 LEGEND
(S) SURFACE OWNER
(R) ROYALTY OWNER
(TMP) TAX MAP PARCEL NUMBER
(L) LEASE NUMBER

SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83): LATITUDE: 40.253920° LONGITUDE: -80.589562°
UTM (NAD83, ZONE 17, FEET): NORTHING: 14,619,463.124 EASTING: 1,754,933.460
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,456,021.272 EASTING: 534,904.788
"TURNING POINT" LOCATION (TPL):
GEOGRAPHIC (NAD83): LATITUDE: 40.255935° LONGITUDE: -80.585476°
UTM (NAD83, ZONE 17, FEET): NORTHING: 14,620,201.985 EASTING: 1,756,070.006
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,456,246.478 EASTING: 535,251.208
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83): LATITUDE: 40.267548° LONGITUDE: -80.591486°
UTM (NAD83, ZONE 17, FEET): NORTHING: 14,624,423.357 EASTING: 1,754,373.814
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,457,533.154 EASTING: 534,734.208

SWN PRODUCTION COMPANY, LLC
"MILDRED MANI BRK 205H"
SURFACE HOLE
ELEV. 1073.0'

Latitude: 40°17'30"
Longitude: 80°35'00"
1673'
13754'

NOTES ON SURVEY
1. COORDINATES 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 FIELD LOCATIONS.
3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
5. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
6. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 1000 FEET OF THE LIMITS OF DISTURBANCE.
7. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

SURVEYED BY TRIPLE H ENTERPRISES, WEST UNION, WV.

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. 667 Darrell Boice

DARRELL R. BOICE LICENSED No. 667 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

2000 0 2000
GRAPHIC SCALE IN FEET

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COMPANY: SWN Production Company, LLC

(+) 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 SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)

OPERATOR'S WELL #: MILDRED MANI BRK 205H
API WELL #: 47 (STATE) 09 (COUNTY) 00159 (PERMIT)

WELL TYPE: OIL ☐ WASTE DISPOSAL ☐ PRODUCTION ☐ DEEP ☐ GAS ☒ LIQUID INJECTION ☐ STORAGE ☐ SHALLOW ☒
WATERSHED: UPPER OHIO SOUTH ELEVATION: 1073.0'
DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: STUEBENVILLE EAST WV.
SURFACE OWNER: MILDRED MANI & ERIK PHILIP BAUER ACREAGE: 95.00±
OIL & GAS ROYALTY OWNER: MILDRED MANI & ERIK PHILIP BAUER ACREAGE: 95.00±
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: 5,701' TVD 10,915' TMD

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

LEGEND:
- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- ABANDONED WELL
- PLUGGED & ABANDONED WELL
- CUT CONDUCTOR
- LEASE BOUNDARY
- 500' DHP BUFFER
- MAR 1 > - MARCELLUS DHP
- ABANDONED PATH

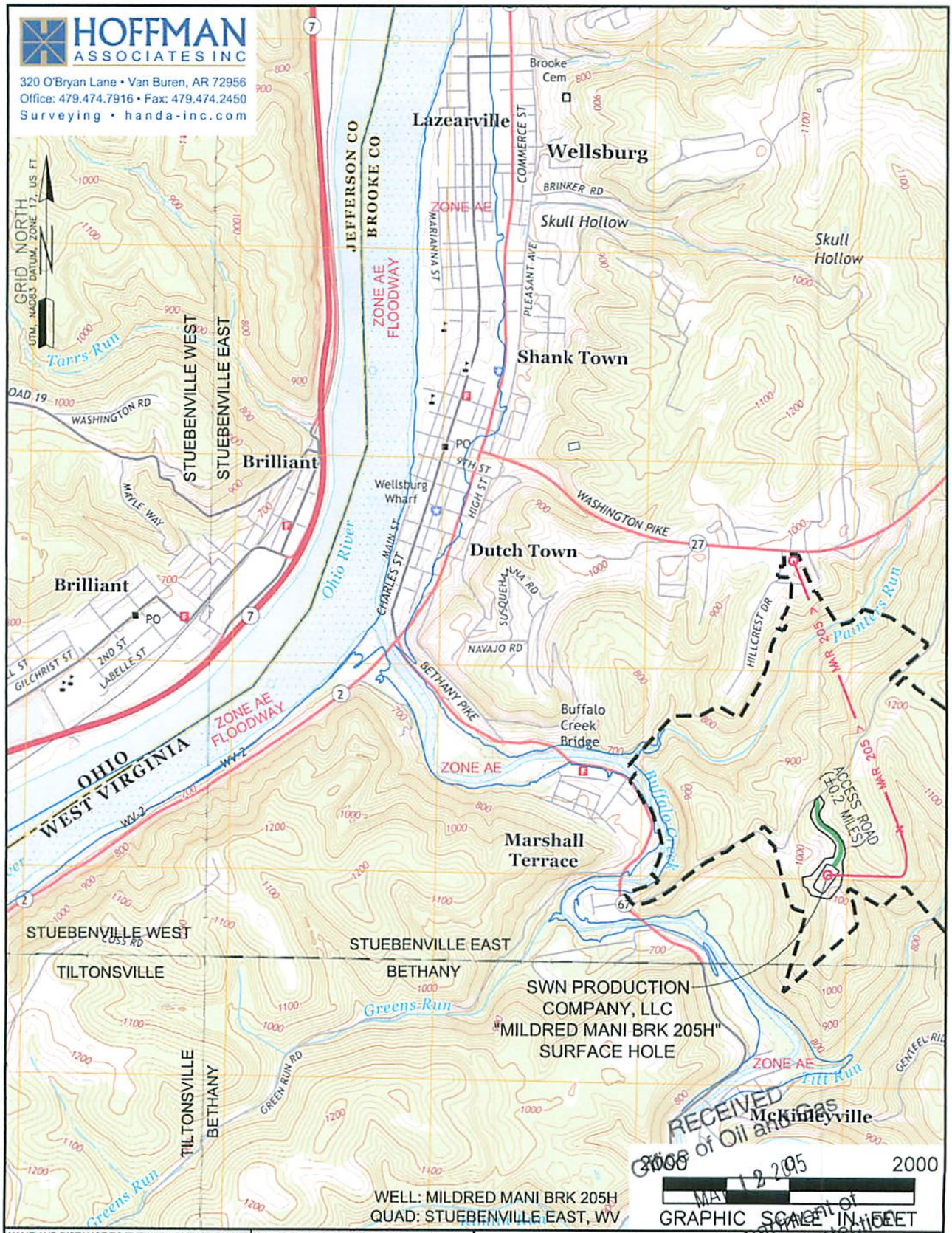
REVISIONS:	DATE: 04-28-2015
	DRAWN BY: S. HUTSON
	SCALE: 1" = 2000'
	DRAWING NO: 58579
	WELL LOCATION PLAT

S:\WEST VIRGINIA\GAS WELLS\BRK - BROOKE COUNTY, WV\MILDRED MANI BRK\MILDRED MANI BRK 205H\MILDRED MANI BRK 205H.DWG
SATURDAY MAY 09 2015 02:44PM

PROPERTY NUMBER 2501162626
PAD ID 3001156744

4700900159

HOFFMAN ASSOCIATES INC
320 O'Bryan Lane • Van Buren, AR 72956
Office: 479.474.7916 • Fax: 479.474.2450
Surveying • handa-inc.com



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NAME AND DISTANCE TO THE NEAREST STREAM:	STREAM CROSSING COORDINATES (NAD 83):
TITT RUN IS LOCATED ±0.31 MILES SOUTHEAST OF THE DRILL PAD.	NO NEW CROSSINGS.

WELL RESTRICTIONS:

WELL PAD, LOD, & E & S CONTROL FEATURES TO PERENNIAL STREAM, LAKE, POND, RESERVOIR OR WETLAND: >100 FEET
WELL PAD, LOD, & E & S CONTROL FEATURES TO NATURALLY PRODUCING TROUT STREAM: >300 FEET
WELL PAD, LOD, & E & S CONTROL FEATURES TO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY: >1000 FEET
WELL SHL TO EXISTING WATER WELL OR DEVELOPED SPRING: >250 FEET
CENTER OF PAD TO OCCUPIED DWELLING STRUCTURE: >625 FEET
CENTER OF PAD TO AGRICULTURAL BUILDINGS LAGER THAN 2500 SQ FT: >625 FEET

FEMA FLOOD INFORMATION:

BY GRAPHIC PLOTTING ONLY FEMA FIRM UNINCORPORATED AREA OF BROOKE COUNTY, WEST VIRGINIA; MAP NUMBERS 54009C0090 D, 54009C0130 D, & 54009C0088 D; EFFECTIVE DATE APRIL, 19, 2010.

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

OPERATOR'S WELL #: MILDRED MANI BRK 205H

LOCATION: BUFFALO DISTRICT, BROOKE COUNTY, WEST VIRGINIA

SURFACE HOLE LOCATION:

GEOGRAPHIC (NAD83):
LATITUDE: 40.253920°
LONGITUDE: -80.589562°

BOTTOM HOLE LOCATION:

GEOGRAPHIC (NAD83):
LATITUDE: 40.267548°
LONGITUDE: -80.591486°

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- ABANDONED WELL
- PLUGGED & ABANDONED WELL
- CUT CONDUCTOR
- EXISTING WATER WELL
- ACCESS ROAD
- ACCESS ROAD TO PREV. SITE
- HIGHWAY/INTERSTATE
- COUNTY ROAD

REVISIONS:	DATE: 04-28-2015
	DRAWN BY: S. HUTSON
	SCALE: 1" = 2000'
	DRAWING NO: 58579
	TOPOGRAPHIC MAP

S:\WEST VIRGINIA\GAS WELLS\BRK - BROOKE COUNTY, WV\MILDRED MANI BRK\MILDRED MANI BRK 205H\MILDRED MANI BRK 205H.DWG
SATURDAY MAY 09 2015 02:51PM

PROPERTY NUMBER 2501162626
PAD ID 3001156744

WW-6A1
(5/13)

Operator's Well No. Mildred Mani North 205H

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 "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

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 L.L.C.
By:
Its: Derek Thomas, Senior Landman

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4700900159

Exhibit "A"

Attached hereto and made part of the State of West Virginia Oil and Gas Permit Form WW-6A1 by, SWN Production Company L.L.C. Operator

Mildred Mani North 205H

Brooke County, West Virginia

Tract #	Tax Parcel	Lease Number	Lessor	Lessee	Royalty	BK/PG
1)	B27-26	1-329350-002	Erik Philip Bauer	Chesapeake Appalachia L.L.C	18.00%	13/713
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
		1-324207-001	Mildred Mani	Great Lakes Energy Partners L.L.C	14.00%	9/526
			Great Lakes Energy Partners L.L.C	Range Resources L.L.C.		20/733
			Range Resources L.L.C.	Chesapeake Appalachia L.L.C		10/552
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
		1-324207-002	Miles Bauer	Great Lakes Energy Partners L.L.C	14.00%	9/596
			Great Lakes Energy Partners L.L.C	Range Resources L.L.C.		20/733
			Range Resources L.L.C.	Chesapeake Appalachia L.L.C		10/552
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
2)	B27-22	1-324527-000	Starvaggi Industries	Fortuna		9/532
			Fortuna	Range Resources L.L.C.		10/226
			Range Resources L.L.C.	Chesapeake Appalachia L.L.C		10/541
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
3)	B27-23	47-000011-000	Larry Aracich and Shelly Aracich	Chesapeake Appalachia L.L.C	15.00%	12/547
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
4)	B27-21	1-329350-002	Erik Philip Bauer	Chesapeake Appalachia L.L.C	18.00%	13/713
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
		1-324207-001	Mildred Mani	Great Lakes Energy Partners L.L.C	14.00%	9/526
			Great Lakes Energy Partners L.L.C	Range Resources L.L.C.		20/733
			Range Resources L.L.C.	Chesapeake Appalachia L.L.C		10/552
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
		1-324207-002	Miles Bauer	Great Lakes Energy Partners L.L.C	14.00%	9/596
			Great Lakes Energy Partners L.L.C	Range Resources L.L.C.		20/733
			Range Resources L.L.C.	Chesapeake Appalachia L.L.C		10/552
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480

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Exhibit "A"

Attached hereto and made part of the State of West Virginia Oil and Gas Permit Form WW-6A1 by, SWN Production Company L.L.C. Operator

Mildred Mani North 205H

Brooke County, West Virginia

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Tract #	Tax Parcel	Lease Number	Lessor	Lessee	Royalty	BK/PG
5)	B27H-23	47-000524-000	William C. Harvey and Mary Beth Harvey	Chesapeake Appalachia L.L.C.	18.00%	14/430
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
6)	B27H-25	1-343033-000	Patricia A. Antal	Chesapeake Appalachia L.L.C.	18.00%	19/513
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
7)	B27H-29	47-000558-000	Barry L. Kirtley	Chesapeake Appalachia L.L.C.	18.00%	15/139
			Chesapeake Appalachia L.L.C.	SWN Production Company L.L.C.		30/480
8)	B27H-31	1-120106-002	James Harwell Dodd, Jr. and Lynn I. Dodd	SWN Production Company L.L.C.	18.00%	30/751
		1-120106-001	Robin J. George and Jim Dale George	SWN Production Company L.L.C.	18.00%	Pending
		1-120106-003	Jeanne M. McGill and Richard T. McGill	SWN Production Company L.L.C.	18.00%	30/756

47009000159

Exhibit "A"

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Mildred Mani North 205H

Brooke County, West Virginia

Surface Owner	Deeded Acreage
Erik Phillip Bauer/Mildred Mani	95.000 acres
Starvaggi Industries	167.000 acres
Larry and Shelly Aracich	5.440 acres
Erik Phillip Bauer/Mildred Mani	207.000 acres

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Mildred Mani North 205H

Brooke County, West Virginia

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Surface Owner	Deeded Acreage
William C. and Mary Beth Harvey	.360 acres
Patricia A. Antal	.300 acres
Barry L. Kirtley	1.334 acres
James Harwell Dodd, Jr. et al	.660 acres

COPY

1-120106-001

PAID-UP
OIL & GAS LEASE

1/15 - WV

Lease No. _____

This Lease, made this 6th day of March 2015, by and between Robin J. George and Jim Dale George, wife and husband, of 1298 Rabbit Hill Road, Wellsburg, WV 26070, hereinafter collectively called "Lessor." and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH, that for and in consideration of Ten Dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and of the mutual covenants and agreements hereinafter set forth, the Lessor and Lessee agree as follows:

LEASING CLAUSE. Lessor hereby leases exclusively to Lessee all the oil and gas (including, but not limited to coal seam gas, coalbed methane gas, coalbed gas, methane gas, gob gas, occluded methane/natural gas and all associated natural gas and other hydrocarbons and non-hydrocarbons contained in, associated with, emitting from, or produced/originating within any formation, gob area, mined-out area, coal seam, and all communicating zones), and their liquid gaseous constituents, whether hydrocarbon or non-hydrocarbon, underlying the land herein leased, together with such exclusive rights as may be necessary or convenient for Lessee, at its election, to explore for, develop, produce, measure, and market production from the Leasehold, or from other lands, using methods and techniques which are not restricted to current technology, including, without limitation, the right to conduct geophysical and other exploratory tests; to drill, maintain, operate, cease to operate, plug, abandon, and remove wells; to use or install roads over and across the Leasehold for use in development of the Leasehold or other lands, electric power and telephone facilities, water impoundments, and to construct pipelines with appurtenant facilities, including data acquisition, compression and collection facilities for use in the production and transportation of products from the Leasehold or from other lands across the Leasehold, to use oil, gas, and non-domestic water sources, free of cost, to store gas of any kind underground, regardless of the source thereof, including the injecting of gas therein and removing the same therefrom; to protect stored gas; to operate, maintain, repair, and remove material and equipment; to use and occupy the subsurface of the Leasehold for the drilling of a wellbore(s) for use in development of the Leasehold or other lands.

DESCRIPTION. The Leasehold is located in the District of Buffalo, in the County of Brooke, in the State of West Virginia, and described as follows:

Property Tax Parcel Identification Number:Map B27H, Parcel 31

and is bounded formerly or currently as follows:

On the North by lands of State Route 27;
On the East by lands of Bernard J. Dinardo, Jr;
On the South by lands of Barry Kirtley;
On the West by lands of Douglas W. Beck;

including lands acquired from Eunice Dodd,, widow by virtue of Deed dated June 30, 2004, and recorded in Deed Book 332, at Page 433, and described for the purposes of this agreement as containing a total of 0.660 Leasehold acres, whether actually more or less, and including contiguous lands owned by Lessor. This Lease also covers and includes, in addition to that above described, all land, if any, contiguous or adjacent to or adjoining the land above described and (a) owned or claimed by Lessor, by limitation, prescription, possession, reversion or unrecorded instrument or (b) as to which Lessor has a preference right of acquisition. Lessor agrees to execute any supplemental instrument requested by Lessee for a more complete or accurate description of said land.

LEASE TERM. This Lease shall remain in force for a primary term of Five (5) years from 12:00 A.M. March 6, 2015 (effective date) to 11:59 P.M. March 5, 2020 (last day of primary term) and shall continue beyond the primary term as to the entirety of the Leasehold if any of the following is satisfied: (i) operations are conducted on the Leasehold or lands pooled/unitized therewith in search of oil, gas, or their constituents, or (ii) a well deemed by Lessee to be capable of production is located on the Leasehold or lands pooled/unitized therewith, or (iii) oil or gas, or their constituents, are produced from the Leasehold or lands pooled/unitized therewith, or (iv) if the Leasehold or lands pooled/unitized therewith is used for the underground storage of gas, or for the protection of stored gas, or (v) if prescribed payments are made, or (vi) if Lessee's operations are delayed, postponed or interrupted as a result of any coal, stone or other mining or mining related operation under any existing and effective lease, permit or authorization covering such operations on the leased premises or on other lands affecting the leased premises, such delay will automatically extend the primary or secondary term of this oil and gas lease without additional compensation or performance by Lessee for a period of time equal to any such delay, postponement or interruption.

If there is any dispute concerning the extension of this Lease beyond the primary term by reason of any of the alternative mechanisms specified herein, the payment to the Lessor of the prescribed payments provided below shall be conclusive evidence that the Lease has been extended beyond the primary term.

EXTENSION OF PRIMARY TERM. Lessee has the option to extend the primary term of this Lease as to all or any part of the acreage then covered hereby, for one additional term of Five (5) years from the expiration of the primary term of this Lease; said extension to be under the same terms and conditions as contained in this Lease. Lessee may exercise this option to extend this Lease if on or before the expiration date of the primary term of this Lease, Lessee pays or tenders to the Lessor or to the Lessor's credit an amount equal to the sum of the initial consideration given for the execution hereof, which shall be paid in proportion to the number of net acres actually extended. Exercise of this option is at Lessee's sole discretion and may be invoked by Lessee where no other alternative of the Lease Term clause extends this Lease beyond the primary term. If this option is exercised by Lessee the lease as extended will thereafter be treated as if the original primary term was Ten (10) years.

NO AUTOMATIC TERMINATION OR FORFEITURE.

(A) CONSTRUCTION OF LEASE: The language of this Lease (including, but not limited to, the Lease Term and Extension of Term clauses) shall never be read as language of special limitation. This Lease shall be construed against termination, forfeiture, cancellation or expiration and in favor of giving effect to the continuation of this Lease where there circumstances exist to maintain this Lease in effect under any of the alternative mechanisms set forth above. In connection therewith, (i) a well shall be deemed to be capable of production if it has the capacity to produce a profit over operating costs, without regard to any capital costs to drill or equip the well, or to deliver the oil or gas to market, and (ii) the Lessee shall be deemed to be conducting operations in search of oil or gas, or their constituents, if the Lessee is engaged in geophysical and other exploratory work including, but not limited to, activities to drill an initial well, to drill a new well, or to rework, stimulate, deepen, sidetrack, frac, plug back in the same or a different formation or repair a well or equipment on the Leasehold or any lands pooled/unitized therewith (such activities shall include, but not be limited to, performing any preliminary or preparatory work necessary for drilling, conducting internal technical analysis to initiate and/or further develop a well, obtaining permits and approvals associated therewith and may include reasonable gaps in activities provided there is a continuum of activities showing a good faith effort to develop a well or that the cessation or interruption of activities was beyond the control of Lessee

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including interruptions caused by the acts of third parties over whom Lessee has no control or regulatory delays associated with any approval process required for conducting such activities).

(B) LIMITATION OF FORFEITURE: This Lease shall never be subject to a civil action or proceeding to enforce a claim of termination, cancellation, expiration or forfeiture due to any action or inaction by the Lessee, including, but not limited to making any prescribed payments authorized under the terms of this Lease, unless the Lessee has received written notice of Lessor's demand and thereafter fails or refuses to satisfy or provide justification responding to Lessor's demand within 60 days from the receipt of such notice. If Lessee timely responds to Lessor's demand, but in good faith disagrees with Lessor's position and sets forth the reasons therefore, such a response shall be deemed to satisfy this provision, this Lease shall continue in full force and effect and no further damages (or other claims for relief) will accrue in Lessor's favor during the pendency of the dispute, other than claims for payments that may be due under the terms of this Lease.

PAYMENTS TO LESSOR. In addition to the bonus paid by Lessee for the execution hereof, Lessee covenants to pay Lessor, proportionate to Lessor's percentage of ownership, as follows:

(A) DELAY RENTAL: To pay Lessor as Delay Rental, after the first year, at the rate of five dollars ($5.00) per net acre per year payable in advance. **The parties hereto agree that this is a Paid-Up Lease with no further Delay Rental and/or Delay in Marketing payments due to Lessor during the primary term or , if so exercised, the extended primary term hereof.**

(B) ROYALTY: To pay Lessor as Royalty, less all taxes, assessments, and adjustments on production from the Leasehold, as follows:

1. OIL: To deliver to the credit of Lessor a Royalty equal to one-eighth (1/8) of the net revenue realized by Lessee for all oil and any constituents thereof produced and marketed from the Leasehold, less the cost to transport, handle, separate, meter, treat, process and market the oil.

2. GAS: To pay Lessor on actual volumes of gas and any constituents thereof sold from said land, one-eighth of the net amount realized by Lessee, computed at the wellhead. As used in this lease, the term "net amount realized by Lessee, computed at the wellhead" shall mean the gross proceeds received by Lessee from the sale of oil and gas minus post-production costs incurred by Lessee between the wellhead and the point of sale. As used in this Lease, the term "post-production costs" shall mean all costs and expenses of (a) treating and processing oil and/or gas, and (b) separating liquid hydrocarbons from gas, other than condensate separated at the well, and (c) transporting oil and/or gas, including but not limited to transportation between the wellhead and any production or treating facilities, and transportation to the point of sale, and (d) compressing gas for transportation and delivery purposes, and (e) metering oil and/or gas to determine the amount sold and/or the amount used by Lessee, and (f) sales charges, commissions and fees paid to third parties (whether or not affiliated) in connection with the sale of the gas, and (g) any and all other costs and expenses of any kind or nature incurred in regard to the gas, or the handling thereof, between the wellhead and the point of sale. Lessee may use its own pipelines and equipment to provide such treating, processing, separating, transportation, compression and metering services, or it may engage others to provide such services; and if Lessee uses its own pipelines and/or equipment, post-production costs shall include without limitation reasonable depreciation and amortization expenses relating to such facilities, together with Lessee's cost of capital and a reasonable return on its investment in such facilities. Prior to payment of royalty, Lessor may be required to execute a Division Order certifying Lessor's interest in production. Lessee may pay all taxes and fees levied upon the oil and gas as produced, including, without limitation, severance taxes and privilege and surveillance fees, and deduct a proportionate share of the amount so paid from any monies payable to Lessor hereunder. Lessee may withhold Royalty payment until such time as the total withheld exceeds one hundred dollars ($100.00).

(C) DELAY IN MARKETING: In the event that Lessee drills a well on the Leasehold or lands pooled/unitized therewith that is awaiting completion (including, without limitation, hydraulic fracture stimulation), or that Lessee deems to be capable of production, but does not market producible gas, oil, or their constituents, therefrom, and there is no other basis for extending this Lease, Lessee shall pay after the primary term and until such time as marketing is established (or Lessee surrenders the Lease) a Delay in Marketing payment equal in amount and frequency to the annual Delay Rental payment, and this Lease shall remain in full force and effect to the same extent as payment of Royalty.

(D) SHUT-IN: In the event that production of oil, gas, or their constituents, is interrupted and not marketed for a period of twelve (12) months, and there is no producing well on the Leasehold or lands pooled/unitized therewith, Lessee shall, after the primary term, as Royalty for constructive production, pay a Shut-in Royalty equal in amount and frequency to the annual Delay Rental payment until such time as production is re-established (or Lessee surrenders the Lease) and this Lease shall remain in full force and effect. During Shut-in, Lessee shall have the right to rework, stimulate, or deepen any well on the Leasehold or to drill a new well on the Leasehold in an effort to re-establish production, whether from an original producing formation or from a different formation. In the event that the production from the only producing well on the Leasehold is interrupted for a period of less than twelve (12) months, this Lease shall remain in full force and effect without payment of Royalty or Shut-in Royalty.

(E) DAMAGES: Lessee will remove unnecessary equipment and materials and reclaim all disturbed lands at the completion of all activities on the Leasehold, and Lessee agrees to repair any damaged improvements to the land and pay for the loss of growing crops or marketable timber.

(F) MANNER OF PAYMENT: Lessee shall make or tender all payments due hereunder by check, payable to Lessor, at Lessor's last known address, and Lessee may withhold any payment pending notification by Lessor of a change in address. Payment may be tendered by mail or any comparable method (e.g., Federal Express), and payment is deemed complete upon mailing or dispatch. Where the due date for any payment specified herein falls on a holiday, Saturday or Sunday, payment tendered (mailed or dispatched) on the next business day is timely.

(G) CHANGE IN LAND OWNERSHIP: Lessee shall not be bound by any change in the ownership of the Leasehold until furnished by Lessor with such documentation as Lessee may reasonably require. Pending the receipt of documentation, Lessee may elect either to continue to make or withhold payments as if such a change had not occurred.

(H) TITLE: If Lessee receives evidence that Lessor does not have title to all or any part of the rights herein leased, Lessee may immediately withhold payments that would be otherwise due and payable hereunder to Lessor until the adverse claim is fully resolved. Lessor represents and warrants that there is no existing oil and gas lease which is presently in effect covering the Leasehold.

(I) LIENS: Lessee may, at its option, pay and discharge any past due taxes, mortgages, judgments or other liens and encumbrances on or against any land or interest included in the Leasehold; and Lessee shall be entitled to recover from the debtor, with legal interest and costs, by deduction from any future payments to Lessor or by any other lawful means. In the event the leased lands are encumbered by a prior mortgage, then, notwithstanding anything contained herein to the contrary, Lessee shall have the right to suspend the payment of any royalties due hereunder, without liability for interest, until such time as Lessor obtains at its own expense a subordination of the mortgage in a form acceptable to Lessee.

(J) CHARACTERIZATION OF PAYMENTS: Payments set forth herein are covenants, not special limitations, regardless of the manner in which these payments may be invoked. Any failure on the part of the Lessee to timely or otherwise properly tender payment can never result in an automatic termination, expiration, cancellation, or forfeiture of this Lease. Lessor recognizes and acknowledges that oil and gas lease payments, in the form of rental, bonus and royalty, can vary depending on multiple factors and that this Lease is the product of good faith negotiations. Lessor hereby agrees that the payment terms, as set forth herein, and any bonus payments paid to Lessor

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constitute full consideration for the Leasehold. Lessor further agrees that such payment terms and bonus payments are final and that Lessor will not seek to amend or modify the lease payments, or seek additional consideration based upon any differing terms which Lessee has or will negotiate with any other lessor/oil and gas owner.

(K) PAYMENT REDUCTIONS. If Lessor owns a lesser interest in the oil or gas than the entire undivided fee simple estate, then the rentals (except for Delay Rental payments as set forth above), royalties and shut-in royalties hereunder shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee.

UNITIZATION AND POOLING. Lessor grants Lessee the right to pool, unitize, or combine all or parts of the Leasehold with other lands, whether contiguous or not contiguous, leased or unleased, whether owned by Lessee or by others, at a time before or after drilling to create drilling or production units either by contract right or pursuant to governmental authorization. Pooling or unitizing in one or more instances shall not exhaust Lessee's pooling and unitizing rights hereunder, and Lessee is granted the right to change the size, shape, and conditions of operation or payment of any unit created. Lessor agrees to accept and receive out of the production or the revenue realized from the production of such unit, such proportional share of the Royalty from each unit well as the number of Leasehold acres included in the unit bears to the total number of acres in the unit. Otherwise, as to any part of the unit, drilling, operations in preparation for drilling, production, or shut-in production from the unit, or payment of Royalty, Shut-in Royalty, Delay in Marketing payment or Delay Rental attributable to any part of the unit (including non-Leasehold land) shall have the same effect upon the terms of this Lease as if a well were located on, or the subject activity attributable to, the Leasehold. In the event of conflict or inconsistency between the Leasehold acres ascribed to the Lease, and the local property tax assessment calculation of the lands covered by the Lease, or the deeded acreage amount, Lessee may, at its option, rely on the latter as being determinative for the purposes of this paragraph.

FACILITIES. Lessee shall not drill a well on the Leasehold within 200 feet of any structure located on the Leasehold without Lessor's written consent. Lessor shall not erect any building or structure, or plant any trees within 200 feet of a well or within 25 feet of a pipeline without Lessee's written consent. Lessor shall not improve, modify, degrade, or restrict roads and facilities built by Lessee without Lessee's written consent.

CONVERSION TO STORAGE. Lessee is hereby granted the right to convert the Leasehold or lands pooled/unitized therewith to gas storage. At the time of conversion, Lessee shall pay Lessor's proportionate part for the estimated recoverable gas remaining in any well drilled pursuant to this Lease using methods of calculating gas reserves as are generally accepted by the natural gas industry and, in the event that all wells on the Leasehold and/or lands pooled/unitized therewith have permanently ceased production, Lessor shall be paid a Conversion to Storage payment in an amount equal to Delay Rental for as long thereafter as the Leasehold or lands pooled/unitized therewith is/are used for gas storage or for protection of gas storage; such Conversion to Storage payment shall first become due upon the next ensuing Delay Rental anniversary date. The use of any part of the Leasehold or lands pooled or unitized therewith for the underground storage of gas, or for the protection of stored gas will extend this Lease beyond the primary term as to all rights granted by this Lease, including but not limited to production rights, regardless of whether the production and storage rights are owned together or separately.

DISPOSAL AND INJECTION WELLS. Lessor hereby grants to Lessee the right to drill wells and/or re-enter existing wells, including necessary location, roadway and pipeline easements and rights of way, on any part of the Leasehold or lands pooled or unitized therewith for the disposal and/or injection into any subsurface strata, other than a potable water strata, of air, gas, brine, completion and production fluids, waste water and any hydrocarbon related substances from any source, including, but not limited to wells on the Leasehold or lands pooled or unitized therewith or from properties and lands outside the Leasehold or lands pooled or unitized therewith, and to conduct all operations as may be required, for so long as necessary and required by Lessee for purposes as herein provided. If, at the expiration of the primary term, Lessee is disposing and/or injecting into any subsurface strata underlying the Leasehold or lands pooled or unitized therewith or conducting operations for such disposal and/or injection and this lease is not being maintained by any other provision contained herein and no other payments are being made to Lessor as prescribed hereunder, Lessee shall pay to Lessor the sum of one thousand dollars ($1,000.00) per year, proportionately reduced to Lessor's ownership in the Leasehold and surface as it bears to the full and undivided estate, beginning on the next anniversary date of this Lease and said payment and term of this Lease, insofar as to terms and provisions contained herein applicable to disposal and injection wells, shall continue annually thereafter for so long as necessary and required by Lessee for purposes as herein provided and until all disposal and/or injection wells located on the Leasehold or on lands pooled or unitized therewith are plugged and abandoned. Lessor agrees that if required by Lessee, regulatory agency or governmental authority having jurisdiction, Lessor shall enter a separate Disposal and Injection Agreement with Lessee for the purposes as herein provided.

TITLE AND INTERESTS. Lessor hereby warrants generally and agrees to defend title to the Leasehold and covenants that Lessee shall have quiet enjoyment hereunder and shall have benefit of the doctrine of after acquired title. Should any person having title to the Leasehold fail to execute this Lease, the Lease shall nevertheless be binding upon all persons who do execute it as Lessor.

LEASE DEVELOPMENT. There is no implied covenant to drill, prevent drainage, further develop or market production within the primary term or any extension of term of this Lease. There shall be no Leasehold forfeiture, termination, expiration or cancellation for failure to comply with said implied covenants. Provisions herein, including, but not limited to the prescribed payments, constitute full compensation for the privileges herein granted.

COVENANTS. This Lease and its expressed or implied covenants shall not be subject to termination, forfeiture of rights, or damages due to failure to comply with obligations if compliance is effectively prevented by federal, state, or local law, regulation, or decree, or the acts of God and/or third parties over whom Lessee has no control.

RIGHT OF FIRST REFUSAL. If at any time within the primary term of this lease or any continuation or extension thereof, Lessor receives any bona fide offer, acceptable to Lessor, to grant an additional lease which will take effect upon expiration of this Lease ("Top Lease") covering all or part of the Leasehold, Lessee shall have the continuing option by meeting any such offer to acquire a Top Lease on equivalent terms and conditions. Any offer must be in writing and must set forth the proposed Lessee's name, bonus consideration and royalty consideration to be paid for such Top Lease, and include a copy of the lease form to be utilized reflecting all pertinent and relevant terms and conditions of the Top Lease. Lessee shall have fifteen (15) days after receipt from Lessor of a complete copy of any such offer to advise Lessor in writing of its election to enter into an oil and gas lease with Lessor on equivalent terms and conditions. If Lessee fails to notify Lessor within the aforesaid fifteen (15) day period of its election to meet any such bona fide offer, Lessor shall have the right to accept said offer. Any Top Lease granted by Lessor in violation of this provision shall be null and void.

ARBITRATION. In the event of a disagreement between Lessor and Lessee concerning this Lease or the associated Order of Payment, performance thereunder, or damages caused by Lessee's operations, the resolution of all such disputes shall be determined by arbitration in accordance with the rules of the American Arbitration Association. Arbitration shall be the exclusive remedy and cover all disputes, including but not limited to, the formation, execution, validity and performance of the Lease and Order of Payment. All fees and costs associated with the arbitration shall be borne equally by Lessor and Lessee.

ENTIRE CONTRACT. The entire agreement between Lessor and Lessee is embodied herein and in the associated Order of Payment (if any). No oral warranties, representations, or promises have been made or relied upon by either party as an inducement to or modification of this Lease.

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TITLE CURATIVE. Lessor agrees to execute consents, affidavits, ratifications, amendments, permits and other instruments as Lessee may request to carry out the purpose of this lease, including without limitation, applications necessary to obtain driveway entrance permits, and approvals of drilling or production units which Lessee may seek to form pursuant to governmental authorization.

SURRENDER. Lessee, at any time, and from time to time, may surrender and cancel this Lease as to all or any part of the Leasehold by recording a Surrender of Lease and thereupon this Lease, and the rights and obligations of the parties hereunder, shall terminate as to the part so surrendered; provided, however, that upon each surrender as to any part of the Leasehold, Lessee shall have reasonable and convenient easements for then existing wells, pipelines, pole lines, roadways and other facilities on the lands surrendered.

SUCCESSORS. All rights, duties, and liabilities herein benefit and bind Lessor and Lessee and their heirs, successors, and assigns.

FORCE MAJEURE. All terms, provisions and express or implied covenants of this Lease shall be subject to all applicable laws, rules, regulations and orders. If Lessee is unable, in its sole discretion, to effectively accomplish the purposes and objectives of this Lease or to exercise its rights hereunder because of such laws, rules, regulations or orders, or if drilling, reworking, production or other operations hereunder, or Lessee's fulfillment of its obligations hereunder are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, then this Lease shall not terminate, in whole or in part, because of such inability, prevention or delay, and, at Lessee's option, the period of such inability, prevention or delay shall be added to the term hereof. Lessee shall not be liable in damages for breach of any express or implied covenants of this Lease for failure to comply therewith, if compliance is prevented by, or failure is the result of any applicable laws, rules, regulations or orders or operation of force majeure. If this Lease is the subject matter of any lawsuit, arbitration proceeding, or other action, then this Lease shall not expire during the pendency of such lawsuit, arbitration proceeding, or other action, or any appeal thereof, and the period of the lawsuit, arbitration proceeding, or other action, and any appeal thereof, shall be added to the term of this Lease.

SEVERABILITY. This Lease is intended to comply with all applicable laws, rules, regulations, ordinances and governmental orders. If any provision of this Lease is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall survive and continue in full force and effect to the maximum extent allowed by law. If a court of competent jurisdiction holds any provision of this Lease invalid, void, or unenforceable under applicable law, the court shall give the provision the greatest effect possible under the law and modify the provision so as to conform to applicable law if that can be done in a manner which does not frustrate the purpose of this Lease.

COUNTERPARTS. This Lease may be executed in one or more counterparts, each of which will be deemed to be an original copy of this Lease and all of which, when taken together, will be deemed to constitute one and the same agreement.

See Addendum attached hereto and by reference made a part hereof

IN WITNESS WHEREOF, Lessor hereunto sets hand and seal.

LESSOR:

Witness _____

Robin J. George (Seal)
Robin J. George

Witness _____

Jim Dale George (Seal)
Jim Dale George

Witness _____ _____ (Seal)

Witness _____ _____ (Seal)

Document prepared by: SWN Production Company, L.L.C., 1000 Energy Drive, Spring, Texas 77389.

ACKNOWLEDGMENT

STATE OF West Virginia)
) SS:
COUNTY OF Brooke)

On this the 6 day of March 2015, before me, the undersigned officer, personally appeared Robin J. George and Jim Dale George, wife and husband, known to me (or satisfactorily proven) to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged that **he/she/they** executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

OFFICIAL SEAL
COMMISSIONER FOR WEST VIRGINIA
JOSEPH A. DOMINGUEZ
HOUSTON, PA
MY COMMISSION EXPIRES SEPTEMBER 19, 2021

My Commission Expires: Sept. 19, 2021

Signature/Notary Public: Joseph A. Dominguez

Name/Notary Public (print): Joseph A. Dominguez

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Addendum 1-120106-001

Addendum to Oil and Gas Lease dated **March 6, 2015**, from **Robin J. George and Jim Dale George, wife and husband**, Lessor, whose address is **1298 Rabbit Hill Road, Wellsburg, WV 26070** to **SWN Production Company, LLC**, covering **0.660** acres, more or less, situated in **Buffalo** District, **Brooke** County, West Virginia:

In the event of a conflict or inconsistency between the printed terms of this Lease and these added terms of this Lease, the added terms shall control and be deemed to supersede the printed terms of the Lease.

Royalty All references made in Paragraph (B) 1 and 2 of the section entitled "PAYMENT TO LESSOR" as to one-eighth (1/8) royalty shall be amended to **Eighteen & 00/100** Percent **(18%)**.

Signed for Identification:

Robin J. George

Jim Dale George

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SWN
Southwestern Energy®
PO Box 1300
Jane Lew, WV 26378
PHONE: (832) 796-1610

March 26, 2015

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

RE: SWN's proposed Mildred Mani BRK 3H & Mildred Mani BRK 205H in Brooke County, West Virginia, Drilling under Brady's Ridge 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 Brady's Ridge 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,

Derek A. Thomas
Senior Landman
SWN Production Company, LLC
P. O. Box 1300
Jane Lew, WV 26378

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

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 5/11/15

API No. 47- 69 -
Operator's Well No. Mildred Mani BRK 205H
Well Pad Name: Mildred Mani BRK Pad

Notice has been given:
Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	WV	UTM NAD 83 Easting:	534904.8
County:	009-Brooke	Northing:	4456021.3
District:	1-Buffalo	Public Road Access:	Bradys Ridge Road
Quadrangle:	620-Stuebenville East	Generally used farm name:	Mildred Mani
Watershed:	Buffalo Creek		

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

*PLEASE CHECK ALL THAT APPLY

		OOG OFFICE USE ONLY
☐ 1. NOTICE OF SEISMIC ACTIVITY	or ☒ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	☐ RECEIVED/ NOT REQUIRED
☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY	or ☒ NO PLAT SURVEY WAS CONDUCTED	☐ RECEIVED
☒ 3. NOTICE OF INTENT TO DRILL	or ☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or ☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	☐ RECEIVED/ NOT REQUIRED
☒ 4. NOTICE OF PLANNED OPERATION		☐ RECEIVED
☒ 5. PUBLIC NOTICE		☐ RECEIVED
☒ 6. NOTICE OF APPLICATION		☐ RECEIVED

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Required Attachments:
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

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Certification of Notice is hereby given:

THEREFORE, I _____, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator:	SWN Production Co., LLC	Address:	P.O. Box 1300
By:	Dee Southall		Jane Lew, WV 26378
Its:	Regulatory Supervisor	Facsimile:	304-471-2497
Telephone:	304-884-1610	Email:	Dee_Southall@swn.com

NOTARY SEAL
OFFICIAL SEAL
Notary Public, State of West Virginia
BRITTANY R WOODY
3302 Old Elkins Road
Buckhannon, WV 26201
My commission expires November 27, 2022

Subscribed and sworn before me this 27th day of March 2015

Brittany R Woody Notary Public

My Commission Expires 11/27/22

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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(9-13)

API NO. 47- 69 -
OPERATOR WELL NO. Mildred Mani BRK 205H
Well Pad Name: Mildred Mani BRK Pad

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 5/11/15 **Date Permit Application Filed:** 5/11/15

Notice of:

☑ PERMIT FOR ANY WELL WORK ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

☐ PERSONAL SERVICE ☑ REGISTERED MAIL ☐ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ Well Plat Notice is hereby provided to:

☑ SURFACE OWNER(s)
Name: Mildred Mani
Address: 1709 Bradys Ridge Road
Wellsburg, WV 26070
Name: Miles Bauer
Address: 1709 Bradys Ridge Road
Wellsburg, WV 26070

☐ SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: _____
Address: _____
Name: _____
Address: _____

☐ SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

☑ COAL OWNER OR LESSEE
Name: Starvaggi Industries, Inc.
Address: 401 Pennsylvania Ave
Weirton, WV 26062

☐ COAL OPERATOR
Name: _____
Address: _____

☑ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Mildred Mani
Address: 1709 Bradys Ridge Road
Wellsburg, WV 26070

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

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(9-13)

API NO. 47- 69 -
OPERATOR WELL NO. Mildred Mani BRK 205H
Well Pad Name: Mildred Mani BRK Pad

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: _____ **Date Permit Application Filed:** _____

Notice of:

☑ PERMIT FOR ANY WELL WORK ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

☐ PERSONAL SERVICE ☑ REGISTERED MAIL ☐ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ Well Plat Notice is hereby provided to:

☑ SURFACE OWNER(s)
Name: Erik P. Bauer
Address: 136 S. Thomas DR
Port Clinton OH 43452-9447
Name: _____
Address: _____

☐ SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: _____
Address: _____
Name: _____
Address: _____

☐ SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

☐ COAL OWNER OR LESSEE
Name: _____
Address: _____

☐ COAL OPERATOR
Name: _____
Address: _____

☐ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: _____
Address: _____

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

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(8-13)

API NO. 47- 69 -
OPERATOR WELL NO. Mildred Mani BRK 205H
Well Pad Name: Mildred Mani BRK Pad

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:
Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions
Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:
Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:
Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:
Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

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Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

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(8-13)

API NO. 47- 69 -
OPERATOR WELL NO. Mildred Mani BRK 205H
Well Pad Name: Mildred Mani BRK Pad

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

(1) The proposed well work will constitute a hazard to the safety of persons;
(2) The plan for soil erosion and sediment control is not adequate or effective;
(3) Damage would occur to publicly owned lands or resources; or
(4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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(8-13)

API NO. 47- 69 -
OPERATOR WELL NO. Mildred Mani BRK 205H
Well Pad Name: Mildred Mani BRK Pad

Notice is hereby given by:

Well Operator: SWN Production Co., LLC
Telephone: 304-884-1610
Email: Dee_Southall@swn.com

Address: P.O. Box 1300
Jane Lew, WV 26378
Facsimile: 304-471-2497

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

OFFICIAL SEAL
Notary Public, State of West Virginia
BRITTANY R WOODY
3302 Old Elkins Road
Buckhannon, WV 26201
My commission expires November 27, 2022

Subscribed and sworn before me this 27th day of March 2015

Brittany R Woody Notary Public

My Commission Expires 11/27/22

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(1/12)

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Operator Well No. Mildred Mani BRK 205H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.
Date of Notice: 03/23/2015 **Date Permit Application Filed:** 5/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

☐ HAND DELIVERY ☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided,* That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however,* That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Mildred Mani
Address: 1709 Bradys Ridge Road CT
Wellsburg, WV 26070

Name:
Address:

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: WV
County: Brooke
District: Buffalo
Quadrangle: Stuebenville East
Watershed: Buffalo Creek

UTM NAD 83 Easting: 534904.8
Northing: 4456021.3
Public Road Access: Bradys Ridge Road
Generally used farm name: Mildred Mani

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Co., LLC
Address: 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-517-6603
Email: Steve_Perkins@swn.com
Facsimile: 304-471-2497

Authorized Representative: Steve Perkins
Address: 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-517-6603
Email: steve_perkins@swn.com
Facsimile: 304-471-2497

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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(1/12)

Operator Well No. Mildred Manl 205H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.
Date of Notice: 05/01/2015 **Date Permit Application Filed:** 5/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

☐ HAND DELIVERY ☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided,* That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however,* That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Erik P. Bauer
Address: 136 S. Thomas Drive
Port Clinton, OH 43452

Name:
Address:

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	West Virginia	UTM NAD 83 Easting:	534904.8
County:	Brooke	Northing:	4456021.3
District:	Buffalo	Public Road Access:	Bradys Ridge Road
Quadrangle:	Steubenville East	Generally used farm name:	Mildred Manl
Watershed:	Upper Ohio South		

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator:	SWN Energy Production Company, LLC	Authorized Representative:	Steve Perkins
Address:	179 Innovation Drive	Address:	179 Innovation Drive
	Jane Lew, WV 26378		Jane Lew, WV 26378
Telephone:	304-517-6603	Telephone:	304-517-6603
Email:	steve_perkins@swn.com	Email:	steve_perkins@swn.com
Facsimile:	304-461-2497	Facsimile:	304-461-2497

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Operator Well No. Mildred Mani BRK 205H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.
Date of Notice: 03/23/2015 **Date Permit Application Filed:** 5/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

☐ HAND DELIVERY ☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided,* That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however,* That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Miles Bauer
Address: 1709 Bradys Ridge Road CT
Wellsburg, WV 26070

Name:
Address:

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: WV
County: Brooke
District: Buffalo
Quadrangle: Stuebenville East
Watershed: Buffalo Creek

UTM NAD 83 Easting: 534904.8
Northing: 4456021.3
Public Road Access: Bradys Ridge Road
Generally used farm name: Mildred Mani

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Co., LLC
Address: 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-517-6603
Email: Steve_Perkins@swn.com
Facsimile: 304-471-2497

Authorized Representative: Steve Perkins
Address: 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-517-6603
Email: steve_perkins@swn.com
Facsimile: 304-471-2497

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Operator Well No. Mildred Mani BRK 205H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**
Date of Notice: 03/23/2015 **Date Permit Application Filed:** 5/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Mildred Mani
Address: 1709 Bradys Ridge Road CT
Wellsburg, WV 26070

Name:
Address:

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: WV
County: Brooke
District: Buffalo
Quadrangle: Stuebenville East
Watershed: Buffalo Creek

UTM NAD 83 Easting: 534904.8
Northing: 4456021.3
Public Road Access: Bradys Ridge Road
Generally used farm name: Mildred Mani

This Notice Shall Include:
Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1)A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: SWN Production Co., LLC
Telephone: 304-517-6603
Email: Steve_Perkins@swn.com

Address: 179 Innovation Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

Oil and Gas Privacy Notice:
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Operator Well No. Mildred Mani BRK 205H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**
Date of Notice: 03/23/2015 **Date Permit Application Filed:** 5/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

☒ CERTIFIED MAIL
RETURN RECEIPT REQUESTED

☐ HAND
DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Miles Bauer
Address: 1709 Bradys Ridge Road CT
Wellsburg, WV 26070

Name:
Address:

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: WV
County: Brooke
District: Buffalo
Quadrangle: Stuebenville East
Watershed: Buffalo Creek

UTM NAD 83 Easting: 534904.8
Northing: 4456021.3
Public Road Access: Bradys Ridge Road
Generally used farm name: Mildred Mani

This Notice Shall Include:
Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1)A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: SWN Production Co., LLC
Telephone: 304-517-6603
Email: Steve_Perkins@swn.com

Address: 179 Innovation Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

Oil and Gas Privacy Notice:
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

RECEIVED
Office of Oil and Gas
MAY 12 2015
WV Department of
Environmental Protection

47009000159

WW-6A5
(1/12)

Operator Well No. Mildred Mani 205H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.
Date of Notice: 05/01/2015 **Date Permit Application Filed:** 5/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Erik P. Bauer
Address: 136 S. Thomas Drive
Port Clinton, OH 43452

Name: _____
Address: _____

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia
County: Brooke
District: Buffalo
Quadrangle: Steubenville East
Watershed: Upper Ohio South

UTM NAD 83 Easting: 534804.8
Northing: 4456021.3
Public Road Access: Bradys Ridge Road
Generally used farm name: Mildred Mani

This Notice Shall Include:
Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1)A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: SWN Energy Production Company, LLC
Telephone: 304-517-6603
Email: steve_perkins@swn.com

Address: 179 Innovation Drive
Jane Lew, WV 26378
Facsimile: 304-461-2497

Oil and Gas Privacy Notice:
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

RECEIVED
Office of Oil and Gas
MAY 12 2015
WV Department of
Environmental Protection

4700900159

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways
1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

April 14, 2015

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Mildred Mani Pad, Brooke County
Mildred Mani BRK 205H

Dear Mr. Martin,

The West Virginia Division of Highways has transferred Permit #06-2013-0277 for the subject site to Southwestern Energy for access to the State Road for the well site located off of Brooke County Route 27/3 SLS.

The operator has signed an OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office Oil &Gas Coordinator

Cc: Brittany Woody
Southwestern Energy
CH, OM, D-6
File

Supplier Name	Product Name	Product Use	Chemical Name	CAS Number
NALCO ONESOURCE	EC6110A	Biocide	Ethanol	000064-17-5
			Glutaraldehyde (Pentanediol)	000111-30-8
			Quaternary Ammonium Compounds	N/A-063
	EC6629A	Biocide	No Hazardous Components	NONE
WEATHERFORD	WBK-133 OXIDIZER	Breaker	Ammonium Persulfate	007727-54-0
	WBK-134	Breaker	Ammonium Persulfate	007727-54-0
			Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7
	WCS-631LC	Clay Stabilizer	Proprietary Non Hazardous Salt	N/A-229
			Water	007732-18-5
	WFR-55LA	Friction Reducer	No Hazardous Components	NONE
	WGA-15L	Gel	Petroleum Distillate Hydrotreated Light	064742-47-8
	WPB-584-L	Buffer	Potassium Carbonate	000584-08-7
			Potassium Hydroxide	001310-58-3
	WXL-101LE	Corsslinker	No Hazardous Components	NONE
	WXL-101LM	Crosslinker	Petroleum Distillate Hydrotreated Light	064742-47-8
	WXL-105L	Crosslinker	Water	007732-18-5
			Ethylene Glycol	000107-21-1
			Boric Acid	010043-35-3
			Ethanolamine	000141-43-5
SCHLUMBERGER	B244 Green-Cide 25G	Biocide	Glutaraldehyde	111-30-8
	L071 Temporary Clay Stabilizer	Clay Stabilizer	Cholinium Chloride	67-48-1
	Breaker J218	Breaker	Diammonium Peroxidisulphate	7727-54-0
	EB-Clean* J475 Breaker		Diammonium Peroxidisulphate	7727-54-0
	Friction Reducer B315	Friction Reducer	Distillates (petroleum), Hydrotreated light Aliphatic Alcohol Glycol Ether	64742-47-8 Proprietary
	Friction Reducer J609		Ammonium Sulfate	7783-20-2

RECEIVED
Office of Oil and Gas
MAY 12 2015
WV Department of
Environmental Protection

Supplier Name	Product Name	Product Use	Chemical Name	CAS Number
SCHLUMBERGER	Water Gelling Agent J580	Gel	Carbohydrate Polymer	Proprietary
	Scale Inhibitor B317	Scale Inhibitor	Trisodium ortho phosphate Ethane-1, 2-diol	7601-54-9 107-21-1
	Borate Crosslinker J532	Crosslinker	Aliphatic polyol Sodium tetraborate decahydrate	Proprietary 1303-96-4
	Crosslinker J610		Aliphatic polyol Potassium hydroxide	Proprietary 1310-58-3

RECEIVED
Office of Oil and Gas

MAY 12 2015

WV Department of
Environmental Protection

Supplier Name	Product Name	Product Use	Chemical Name	CAS Number
BAKER HUGHES	ALPHA 1427	Biocide	Didecyl Dimethyl Ammonium Chloride	007173-51-1
			Ethanol	000064-17-5
			Glutaraldehyde (Pentanediol)	000111-30-8
			Quaternary Ammonium Compound	068424-85-1
			Water	007732-18-5
	BF-7L	Buffer	Potassium Carbonate	000584-08-7
	ClayCare	Clay Stabilizer	Choline Chloride	000067-48-1
			Water	007732-18-5
	Enzyme G-I	Breaker	No Hazardous Components	NONE
	ENZYME G-NE	Breaker	No Hazardous Components	NONE
	FRW-18	Friction Reducer	Petroleum Distillate Hydrotreated Light	064742-47-8
	GW-3LDF	Gel	Petroleum Distillate Blend	N/A-014
			Polysaccharide Blend	N/A-021
	SCALETROL 720	Scale Inhibitor	Diethylene Glycol	000111-46-6
			Ethylene Glycol	000107-21-1
	XLW-32	Crosslinker	Boric Acid	010043-35-3
			Methanol (Methyl Alcohol)	000067-56-1
FRAC TECH SERVICES	APB01 (AMMONIUM PERSUFATE BREAKER)	Breaker	Ammonium Persulfate	007727-54-0
	B05 (LOW PH BUFFER)	Buffer	Acetic acid	000064-19-7
	BXL03 Borate XL Delayed High Temp	Crosslinker	No Hazardous Components	NONE
	FRW-200	Friction Reducer	No Hazardous Components	NONE
	HVG01 (TURQUOISE-1 BULK)	Gelling Agent	Petroleum Distillate Hydrotreated Light	064742-47-8
	KCLS-4	Clay Stabilizer	No Hazardous Components	NONE
	LTB-1	Breaker	Ammonium Persulfate	N/A

RECEIVED
Office of Oil and Gas
MAY 12 2015
WV Department of
Environmental Protection

MISS Utility of West Virginia
1-800-245-4848
West Virginia State Law
(Section XXV. Chapter 24-C)
Requires that you call two business days before you dig in the state of West Virginia
IT'S THE LAW!!!

811 Know what's below. Call before you dig.

MILDRED MANI BRK AS-BUILT

AS-BUILT/PRODUCTION PLAN
BUFFALO DISTRICT, BROOKE COUNTY, WV
JULY 2015

PLANS PREPARED BY:

TRIPLE H ENTERPRISES
204 NEELY AVENUE,
WEST UNION, WV 26456
304-873-3260

7/16/15

ANTHONY L. BAUMGARD REGISTERED 14049 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

ANTHONY BAUMGARD, P.E. NO. WV 14049

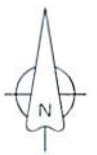
OWNER:

SWN Southwestern Energy

SHEET INDEX

1. TITLE SHEET
2-3. EVACUATION SHEET
4. OVERALL PLAN SHEET
5. SITE PLAN SHEET
6. PROFILE SHEET
7. DETAIL SHEET

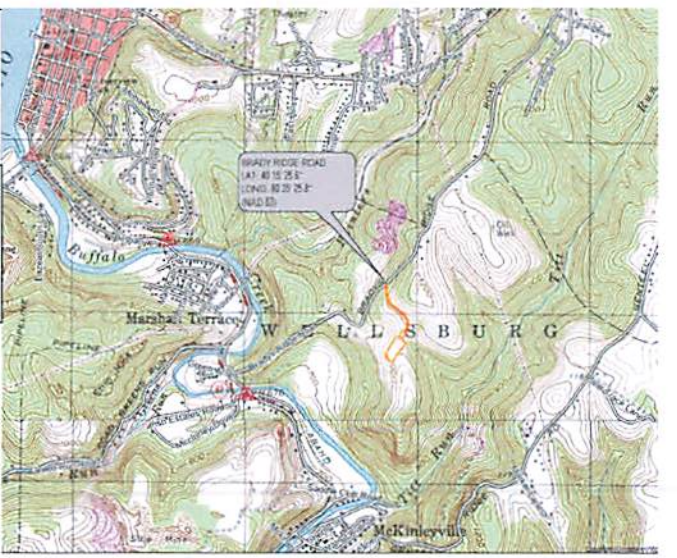
WVDEP OOG ACCEPTED AS-BUILT
7 / 27 / 2015



COORDINATES
SITE ENTRANCE
(NAD 83)
LAT: 40° 15' 25.6"
LONG: 80° 35' 25.8"

COORDINATES
CENTER OF PAD
(NAD 83)
LAT: 40° 15' 13.6"
LONG: 80° 35' 22.9"

AS-BUILT INTERPRETATION:
THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERE TO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES DIVISION OF ENVIRONMENTAL, OFFICE OF OIL AND GAS CSR 35-4



NOTES:

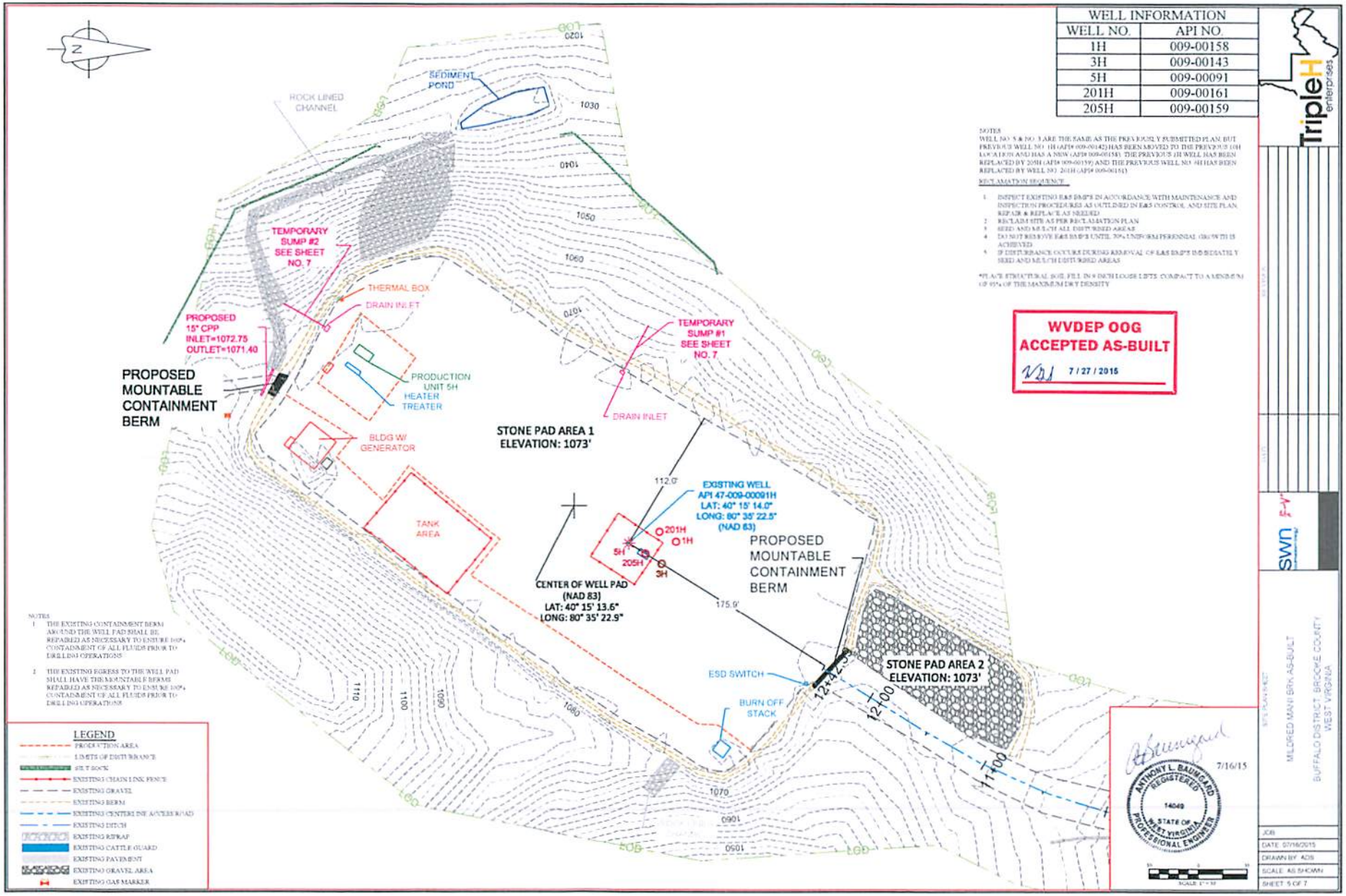
1. THE AS-BUILT INFORMATION SHOWN HEREON REFLECTS FIELD DATA COLLECTED RELATING TO THE FINAL GRADING OF THE DISTURBED AREA AS OF JULY 22, 2015. TRIPLE H ENTERPRISES IS NOT RESPONSIBLE FOR ANY CHANGES MADE TO THE SITE AFTER THE ABOVE MENTIONED DATE
2. THE EXISTING CONTAINMENT BERM AROUND THE WELL PAD SHALL BE REPAIRED AS NECESSARY TO ENSURE 100% CONTAINMENT OF ALL FLUIDS PRIOR TO DRILLING OPERATIONS
3. THE EXISTING EGRESS TO THE WELL PAD SHALL HAVE THE MOUNTABLE BERMS REPAIRED AS NECESSARY TO ENSURE 100% CONTAINMENT OF ALL FLUIDS PRIOR TO DRILLING OPERATIONS

Triple H enterprises

SWN Southwestern Energy

MILDRED MANI BRK AS-BUILT
BUFFALO DISTRICT, BROOKE COUNTY, WEST VIRGINIA

JOB:
DATE: 07/16/2015
DRAWN BY: ADS
SCALE: AS SHOWN
SHEET: 1 OF 7



WELL INFORMATION	
WELL NO.	API NO.
1H	009-00158
3H	009-00143
5H	009-00091
201H	009-00161
205H	009-00159

NOTES
WELL NO. 5 & NO. 3 ARE THE SAME AS THE PREVIOUSLY SUBMITTED PLAN, BUT PREVIOUS WELL NO. 1H (API# 009-00142) HAS BEEN MOVED TO THE PREVIOUS 1H LOCATION AND HAS A NEW (API# 009-00158). THE PREVIOUS 1H WELL HAS BEEN REPLACED BY 205H (API# 009-00159) AND THE PREVIOUS WELL NO. 5H HAS BEEN REPLACED BY WELL NO. 201H (API# 009-00161).

RECLAMATION SEQUENCE

1. INSPECT EXISTING E&S BMP'S IN ACCORDANCE WITH MAINTENANCE AND INSPECTION PROCEDURES AS OUTLINED IN E&S CONTROL AND SITE PLAN. REPAIR & REPLACE AS NEEDED
2. RECLAIM SITE AS PER RECLAMATION PLAN
3. SEED AND MULCH ALL DISTURBED AREAS
4. DO NOT REMOVE E&S BMP'S UNTIL 70% UNIFORM PERENNIAL GROWTH IS ACHIEVED
5. IF DISTURBANCE OCCURS DURING REMOVAL OF E&S BMP'S IMMEDIATELY SEED AND MULCH DISTURBED AREAS

*PLACE STRUCTURAL SOIL FILL IN 9 INCH LOOSE LIFTS COMPACT TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY

WVDEP OOG ACCEPTED AS-BUILT
7 / 27 / 2015

NOTES
1. THE EXISTING CONTAINMENT BERM AROUND THE WELL PAD SHALL BE REPAIRED AS NECESSARY TO ENSURE 100% CONTAINMENT OF ALL FLUIDS PRIOR TO DRILLING OPERATIONS
2. THE EXISTING EGRESS TO THE WELL PAD SHALL HAVE THE MOUNTABLE BERMS REPAIRED AS NECESSARY TO ENSURE 100% CONTAINMENT OF ALL FLUIDS PRIOR TO DRILLING OPERATIONS

7/16/15
ANTHONY L. BAUMGARD REGISTERED 14049 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

TripleH enterprises
SWN
MILDRED MAIN BRK AS-BUILT
BUFFALO DISTRICT, BROOKE COUNTY, WEST VIRGINIA
JOB:
DATE: 07/16/2015
DRAWN BY: ADS
SCALE: AS SHOWN
SHEET: 5 OF 7

MILDRED MA
AS-BUILT & RECL
BUFFALO DISTRICT, B
MARCH

WEST VIRGINIA 811

TWO WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE WV ONE CALL SYSTEM, INC., 1-800-245-4848

OWNER

SWN Southwestern Energy®

SWN PRODUCTION CO., LLC.
P.O. BOX 1300
JANE LEW, WV 26378
(832)-796-1610

SHEE
1. TIT
2-3. EVACU
PREVAIL
4. AS-BUI
5-6. A
7. ACCESS
8. RECLAMATIO
9-10. RECLA
11-12.

TOTAL DISTURBE
PAD DISTURBE
ROAD DISTURBE

ACCESS ROAD
ACCESS ROAD
WELL PAD EL

1H - API#
3H - API#
5H - API#

TITLE SHEET

MILDRED MANI BRK PAD A
BUFFALO DISTRICT, BROOKE COUNTY, WV

NI BRK PAD A
AMATION PLAN
ROOKE COUNTY, WV
I 2015

PLANS PREPARED BY:

BOORD BENCHEK & ASSOCIATES, INC.
ENGINEERING,SURVEYING, CONSTRUCTION AND MINING SERVICE'S
SOUTHPOINTE, PA 15317 PHONE: 724-746-1055

INDEX
E SHEET
TION ROUTE/
NG WINDS
OVERVIEW
S-BUILT
OAD PROFILE
I PLAN OVERVIEW
MATION PLAN
DETAILS

AREA: 10.0 ACRES
AREA: 5.6 ACRES
AREA: 4.4 ACRES

LENGTH: 1,233'
AVG. WIDTH: 24'
VATION: 1072'

009-00142
009-00143
009-00091

ANDREW E. BENCHEK REGISTERED 18444 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

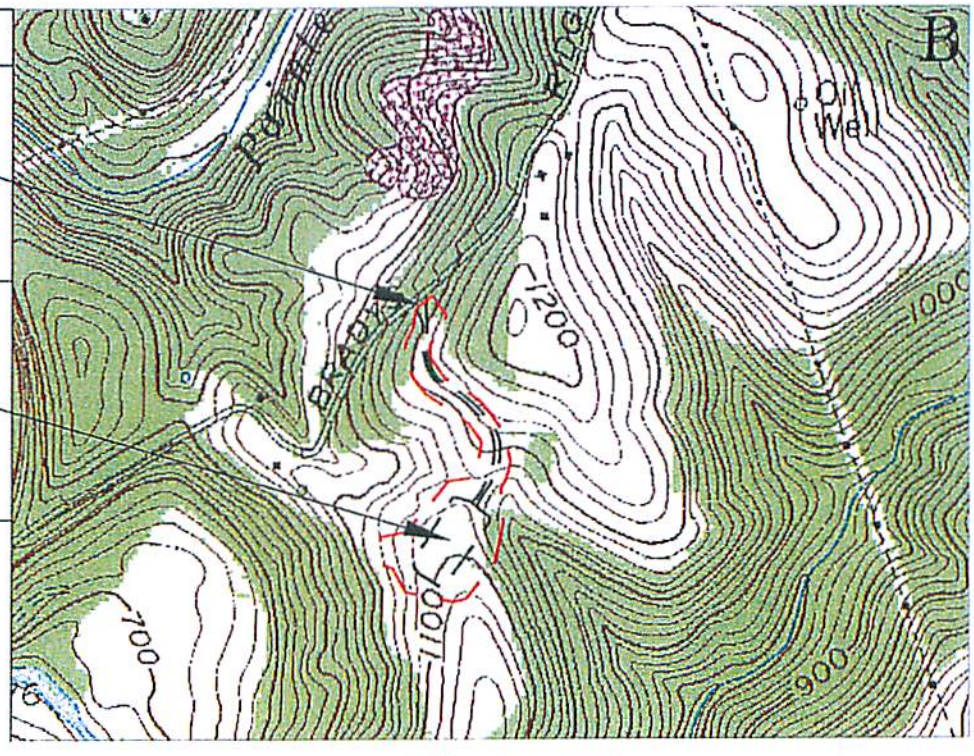
4/9/15

3-4-15

ANDREW BENCHEK P.E.

DATE

COORDINATES
SITE ENTRANCE (NAD 83) LAT: 40° 15' 25.8" LONG: 80° 35' 25.2" (NAD 27) LAT: 40° 15' 25.6" LONG: 80° 35' 25.9"
CENTER OF WELLS (NAD 83) LAT: 40° 15' 14.4" LONG: 80° 35' 22.6" (NAD 27) LAT: 40° 15' 14.1" LONG: 80° 35' 23.3"



1"=1000'

0' 1000' 2000' 3000'

SHEET
1 OF 12