



west virginia department of environmental protection

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

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

Wednesday, December 2, 2020

WELL WORK PERMIT
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359
SPRING, TX 773914954

Re: Permit approval for STATE OF WV DNR C BRK 3H
47-009-00314-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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- 0450.

A handwritten signature in blue ink, appearing to read "James A. Martin".

James A. Martin
Chief

Operator's Well Number: STATE OF WV DNR C BRK 3H
Farm Name: STATE OF WV, BUREAU OF C
U.S. WELL NUMBER: 47-009-00314-00-00
Horizontal 6A New Drill
Date Issued: 12/2/2020

PERMIT CONDITIONS

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. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. 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.
10. 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.

API Number: _____
4700900314

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



4700900314

west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: SWN Production Company, LLC
Post Office Box 12359
Spring TX 77391-4954

DATE: August 2, 2018
ORDER NO.: 2018-W-5

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to SWN Production Company, LLC (hereinafter "SWN" or "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. SWN is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as Post Office Box 12359, Spring TX 77391-4954
3. On May 24, 2018 SWN submitted a well work permit application identified as API# 47-009-00257. The proposed well is to be located on the WV DNR C Pad in Cross Creek District of Brooke County, West Virginia.
4. On May 24, 2018 SWN requested a waiver for Wetland W-MRK-023 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-009-00257.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to...(3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for Wetland W-MRK-023 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-009-00257. The Office of Oil and Gas hereby **ORDERS** that SWN shall meet the following site construction and operational requirements for the WV DNR C Well Pad:

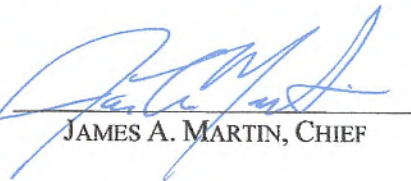
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland W-MRK-023 shall be protected by triple stacked filter socks consisting of two thirty-two inch filter socks and an eighteen inch filter sock. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the wetlands
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 2nd day of August, 2018.

4700900314

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF

Attachment 1

AECOM
FOSTER PLAZA 8
881 ANDERSEN DRIVE
SUITE 400
PITTSBURGH, PA 15220

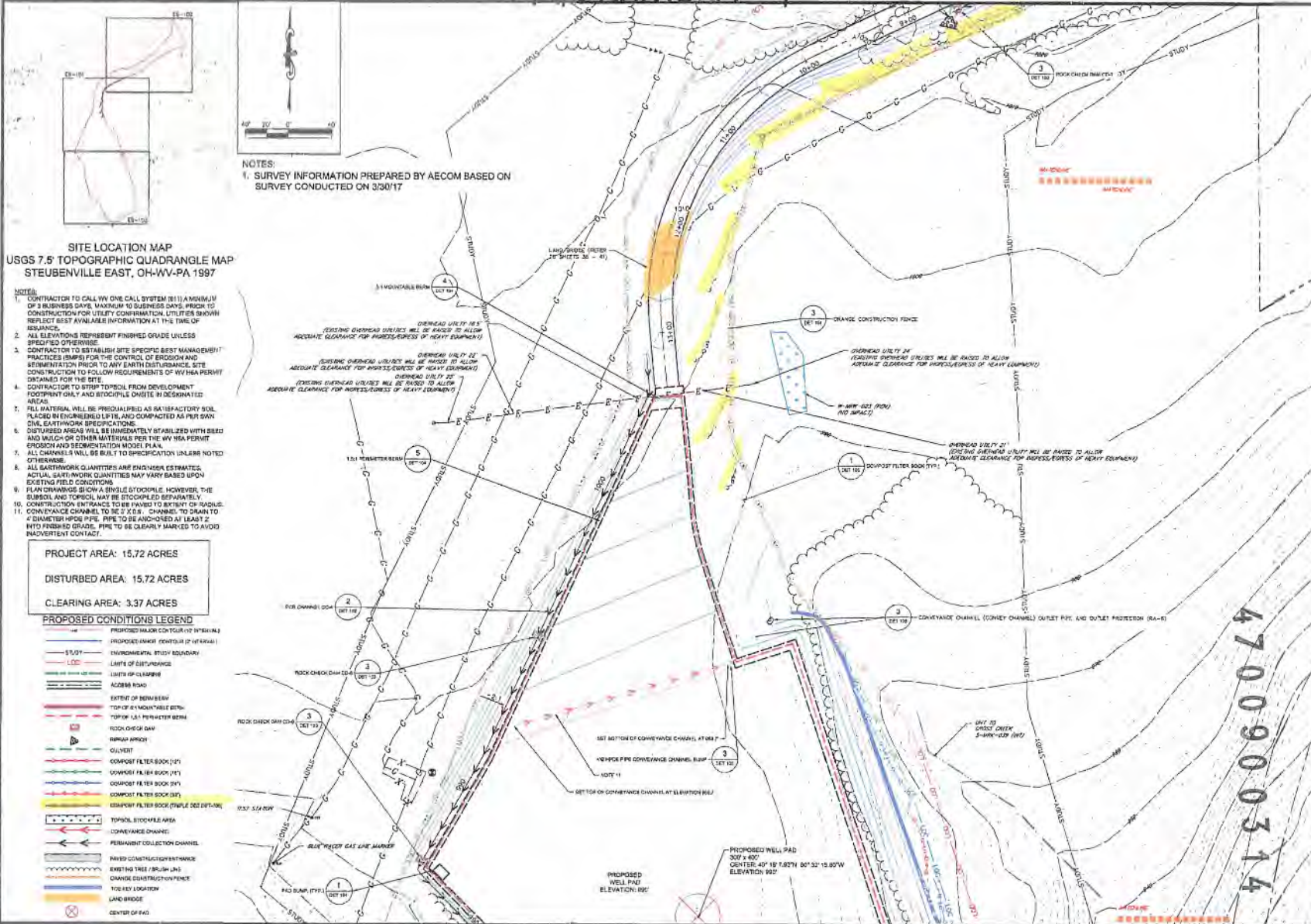


NO.	DATE	REVISION
1	01/15/2018	ISSUED FOR PERMITTING
2	01/15/2018	REVISION TO UTILITY COORDINATION
3	01/15/2018	REVISION TO CONSTRUCTION FENCE
4	01/15/2018	REVISION TO CONVEYANCE CHANNEL
5	01/15/2018	REVISION TO CONVEYANCE CHANNEL
6	01/15/2018	REVISION TO CONVEYANCE CHANNEL
7	01/15/2018	REVISION TO CONVEYANCE CHANNEL
8	01/15/2018	REVISION TO CONVEYANCE CHANNEL
9	01/15/2018	REVISION TO CONVEYANCE CHANNEL
10	01/15/2018	REVISION TO CONVEYANCE CHANNEL

STATE OF WV DNR C WELL SITE PROJECT
 PREPARED FOR:
 SWN PRODUCTION COMPANY, LLC.
 1400 ENERGY DRIVE
 SPRING, TX 77289

EROSION AND SEDIMENTATION CONTROL PLANS
 Project Number: 030000
 Drawing Scale: AS SHOWN
 Date Issued: 01/15/2018
 Drawn By: JAC
 Checked By: JAC
 Permit Number: 030000

ES 101
 DATE: 10/01/11



SITE LOCATION MAP
 USGS 7.5' TOPOGRAPHIC QUADRANGLE MAP
 STEUBENVILLE EAST, OH-WV-PA 1997

- NOTES:**
- CONTRACTOR TO CALL WV ONE CALL SYSTEM (811) A MINIMUM OF 3 BUSINESS DAYS, MAXIMUM 10 BUSINESS DAYS, PRIOR TO CONSTRUCTION FOR UTILITY CONFIRMATION. UTILITIES SHOWN REFLECT BEST AVAILABLE INFORMATION AT THE TIME OF ISSUANCE.
 - ALL ELEVATIONS REPRESENT FINISHED GRADE UNLESS SPECIFIED OTHERWISE.
 - CONTRACTOR TO ESTABLISH SITE SPECIFIC BEST MANAGEMENT PRACTICES (BMPs) FOR THE CONTROL OF EROSION AND SEDIMENTATION PRIOR TO ANY EARTH DISTURBANCE. SITE CONSTRUCTION TO FOLLOW REQUIREMENTS OF WV H&N PERMIT OBTAINED FOR THE SITE.
 - CONTRACTOR TO STRIP TOPSOIL FROM DEVELOPMENT FOOTPRINT ONLY AND STOCKPILE ON SITE IN DESIGNATED AREAS.
 - FILL MATERIAL WILL BE PREQUALIFIED AS SATISFACTORY SOIL PLACED IN ENGINEERED LITE AND COMPACTED AS PER CIVIL AND EARTHWORK SPECIFICATIONS.
 - DISTURBED AREAS WILL BE IMMEDIATELY STABILIZED WITH SEED AND MULCH OR OTHER MATERIALS PER THE WV H&N PERMIT EROSION AND SEDIMENTATION MODEL PLAN.
 - ALL CHANNELS SHALL BE BUILT TO SPECIFICATION UNLESS NOTED OTHERWISE.
 - ALL EARTHWORK QUANTITIES ARE QUANTITY ESTIMATES. ACTUAL QUANTITIES MAY VARY BASED UPON EXISTING FIELD CONDITIONS.
 - PLAN DRAWINGS SHOW A SINGLE STOCKPILE. HOWEVER, THE SUBSOIL AND TOPSOIL MAY BE STOCKPILED SEPARATELY.
 - CONSTRUCTION ENTRANCES TO BE PAVED TO EXTENT OF RADIUS. CONVEYANCE CHANNELS TO BE 2' x 3' CHANNELS TO DRAIN TO 4" DIAMETER HDPE PIPE. PIPE TO BE ANCHORED AT LEAST 2' INTO FINISHED GRADE. PIPE TO BE CLEARLY MARKED TO AVOID UNADVERTENT CONTACT.

PROJECT AREA: 15.72 ACRES
 DISTURBED AREA: 15.72 ACRES
 CLEARING AREA: 3.37 ACRES

- PROPOSED CONDITIONS LEGEND**
- PROPOSED MAJOR CONTIGUOUS INTERIORS
 - PROPOSED MAJOR CENTERLINE (2' MINIMUM)
 - STUDY ENVIRONMENTAL STUDY BOUNDARY
 - LIMITS OF DISTURBANCE
 - LIMITS OF CLEARING
 - ACCESS ROAD
 - EXTENT OF BERM/BENCH
 - TOP OF 6" MOUNTABLE BENCH
 - TOP OF 1.5' PERIMETER BENCH
 - ROCK CHECK DAM
 - ROCK CHECK DAM
 - ROCK CHECK DAM
 - OUTLET
 - CONCRETE FILTER SOCK (12")
 - CONCRETE FILTER SOCK (18")
 - CONCRETE FILTER SOCK (24")
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 - CONCRETE FILTER SOCK (120")
 - CONCRETE FILTER SOCK (144")
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 - CONCRETE FILTER SOCK (216")
 - CONCRETE FILTER SOCK (240")
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4700900314

WW-6B
(04/15)

API NO. 47-009

OPERATOR WELL NO. State of WV DNR C BRK 3H

Well Pad Name: State of WV DNR C BRK

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 009-Brooke 4-Cross 620-Steubenville
Operator ID County District Quadrangle

2) Operator's Well Number: State of WV DNR C BRK 3H Well Pad Name: State of WV DNR C BRK

3) Farm Name/Surface Owner: State of WV DNR Public Road Access: Putney Ridge Road

4) Elevation, current ground: 993' Elevation, proposed post-construction: 990'

5) Well Type (a) Gas Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow Deep _____

Horizontal _____

6) Existing Pad: Yes or No No

C. Bral 5-1-20

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Down-Dip well to the South, Target Top TVD- 5585', Target Base TVD- 5647', Anticipated Thickness- 62', Associated Pressure- 3670

8) Proposed Total Vertical Depth: 5629'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22845'

11) Proposed Horizontal Leg Length: 16053.82'

12) Approximate Fresh Water Strata Depths: 371'

13) Method to Determine Fresh Water Depths: nearby water well

14) Approximate Saltwater Depths: 575' salinity profile analysis

15) Approximate Coal Seam Depths: 6'

16) Approximate Depth to Possible Void (coal mine, karst, other): None that we are aware of

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

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

Depth: _____

Seam: _____

Owner: _____

RECEIVED
Office of Oil and Gas

MAY 20 2020

WV Department of
Environmental Protection

4700900314

WW-6B
(04/15)

API NO. 47- 009

OPERATOR WELL NO. State of WV DNR C BRK 3H

Well Pad Name: State of WV DNR C BRK

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	421'	421'	415 sx/CTS
Coal	See	Conductor	Casing				
Intermediate	9 5/8"	New	J-55	36#	1380'	1380'	456 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	22845'	22845'	4195sx/100' inside intermediate
Tubing							
Liners							

E. J. Br 5-1-20

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	See	Conductor	Casing				
Intermediate	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/50% Excess
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

WW-6B
(10/14)

API NO. 47- 009

OPERATOR WELL NO. State of WV DNR C BRK 3H

Well Pad Name: State of WV DNR C BRK

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

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

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

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. The well is produced through surface facilities consisting of high pressure production unites, horizontal separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 100 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.72

22) Area to be disturbed for well pad only, less access road (acres): 12.13

23) Describe centralizer placement for each casing string:

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

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

See Attachment ***

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25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.

Southwestern Energy Company

Proposed Drilling Program

Well: STATE OF WV DNR C BRK 3
 Field: PANHANDLE FIELD WET
 County: BROOKE
 SHL: 40.3023 Latitude -80.5377 Longitude
 BHL: 40.3454 Latitude -80.5571 Longitude
 KB Elev: 1,016 ft MSL KB: 26 ft AGL GL Elev: 990 ft MSL

Re-entry Rig: TBD
 Prospect: Marcellus Shale
 State: WV



E. Hall
5.1.20

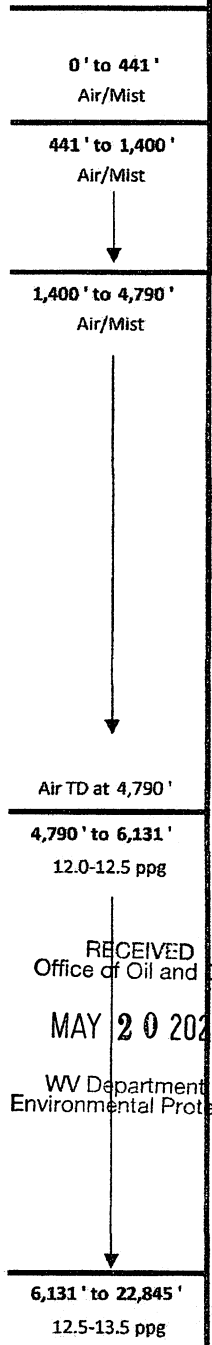
PROD TOC Lead @ 1,500' MD
 PROD TOC Tail @ 5,050' MD

TUBULAR DETAIL

Casing String	Casing Size (in)	Weight (Min)	Grade (Min)	Planned Interval	
				From	To
Cond/Coal	20	94.0 #	J-55	0'	100'
Surface	13.375	48.0 #	H-40	0'	421'
Intermediate	9.625	36.0 #	J-55	0'	1,380'
Production	5.5	20.0 #	P-110 HP	0'	22,845'

CEMENT DETAIL

	Sacks	Class	Density
Conductor:	151	A	19.3
Surface:	415	A	15.6
Intermediate:	456	A	15.6
Production:	4195	A	15.6



KOP at 4,790' MD

Freshwater Depth - 371' TVD
 Coal Depth - 6' TVD
 Saltwater Depth - 575' TVD
 TVD - 5,629'
 TMD - 22,845'

5,629' TVD Target Center

TD at 22,845' MD
 5,428' TVD

EOB at 6,131' MD

EOB at 5,629' TVD

SHL Onondaga 5,647' TVD

Onondaga 5,446' TVD

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) North Fork Cross Creek- Cross Creek Quadrangle Steubenville East

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: _____

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 Various Approved facilities)
- Reuse (at API Number At next anticipated well)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Recovery and Solidification)

Will closed loop system be used? If so, describe: Yes- See Attachment 3A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air, freshwater, oil based, etc. Air drill to KOP, fluid drill with SOB from KOP to TD

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

Additives to be used in drilling medium? Attachment 3B

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? Meadowfill SWF- 1032, Short Creek SWF-1034, Carbon Limestone MSWL018781, Wetzel County 1021

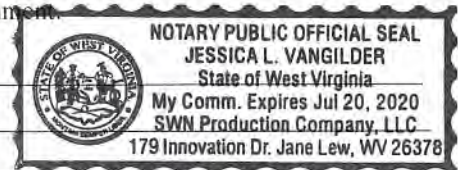
Apex Sanitary Landfill U6-U8438, Brooke Co SWF-1013,

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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 *Brittany Woody*
Company Official (Typed Name) Brittany Woody
Company Official Title Senior Regulatory Analyst



Subscribed and sworn before me this 19th day of February, 20 20

Jessica L. Vangilder Notary Public

My commission expires 7-20-20

SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 15.72 Prevegetation pH _____

Lime as determined by pH test min.2 Tons/acre or to correct to pH 12.13

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay/Straw Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Attachment 3C

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature] 2-4-20

Comments: _____

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Title: Oil & Gas Inspector Date: 2-4-20

Field Reviewed? Yes No

Attachment 3A

CLOSED LOOP SYSTEM

The closed loop system is designed to eliminate the use of reserve pits by providing a higher level of solids control processing and using steel pits for capture of drill cuttings. The cuttings are then processed to achieve landfill requirements before hauling to approved landfills. The liquids are processed to recycle into the active mud system or to transfer to onsite temporary storage as needed.

The closed loop system consists of several sets of a shale gas separator (often called a 'methana'), several banks of solids shakers, high speed centrifuges (1 or 2) used to process the fluid portion of the mud system to remove low gravity solids, low speed centrifuge used for barite recovery in high weight liquid drilling systems, a dewatering system (for air intervals and if freshwater mud systems are in use) used to further clean liquids by flocculation and additional mechanical separation, associated open top tanks for processing liquids and capturing solids for disposal, and transfer pumps to move fluids through the processes. There is an area adjacent to the cuttings tanks (Red Zone) where a track hole is utilized to recover the processed cuttings for loading into containers for hauloff. (See attached schematic of a generic closed loop system layout)

Below are discussions of the processes used when drilling the air interval or liquids interval.

AIR DRILLING INTERVALS

During air drilling operations, flow from the rig will pass down the flowline to the Shale Gas Separator (sometimes called a methane) where gas and liquids/solids are separated. Gas is sent to the flare scrubber tank and is flared at the flare stack. Solids and fluids pass across a shaker system to separate solids from liquids. Solids pass into the cuttings tanks where they are captured for drying and hauloff to an approved landfill site. Liquids fall into a shaker tank and are collected by a centrifugal pump to be processed by the high speed centrifuge to further separate liquids and solids. Solids are then dumped into the cuttings tank for drying and hauloff. Liquids are further processed to remove additional low gravity solids before being reused or transferred to onsite storage.

LIQUIDS DRILLING (FRESHWATER, BRINE, SOBM)

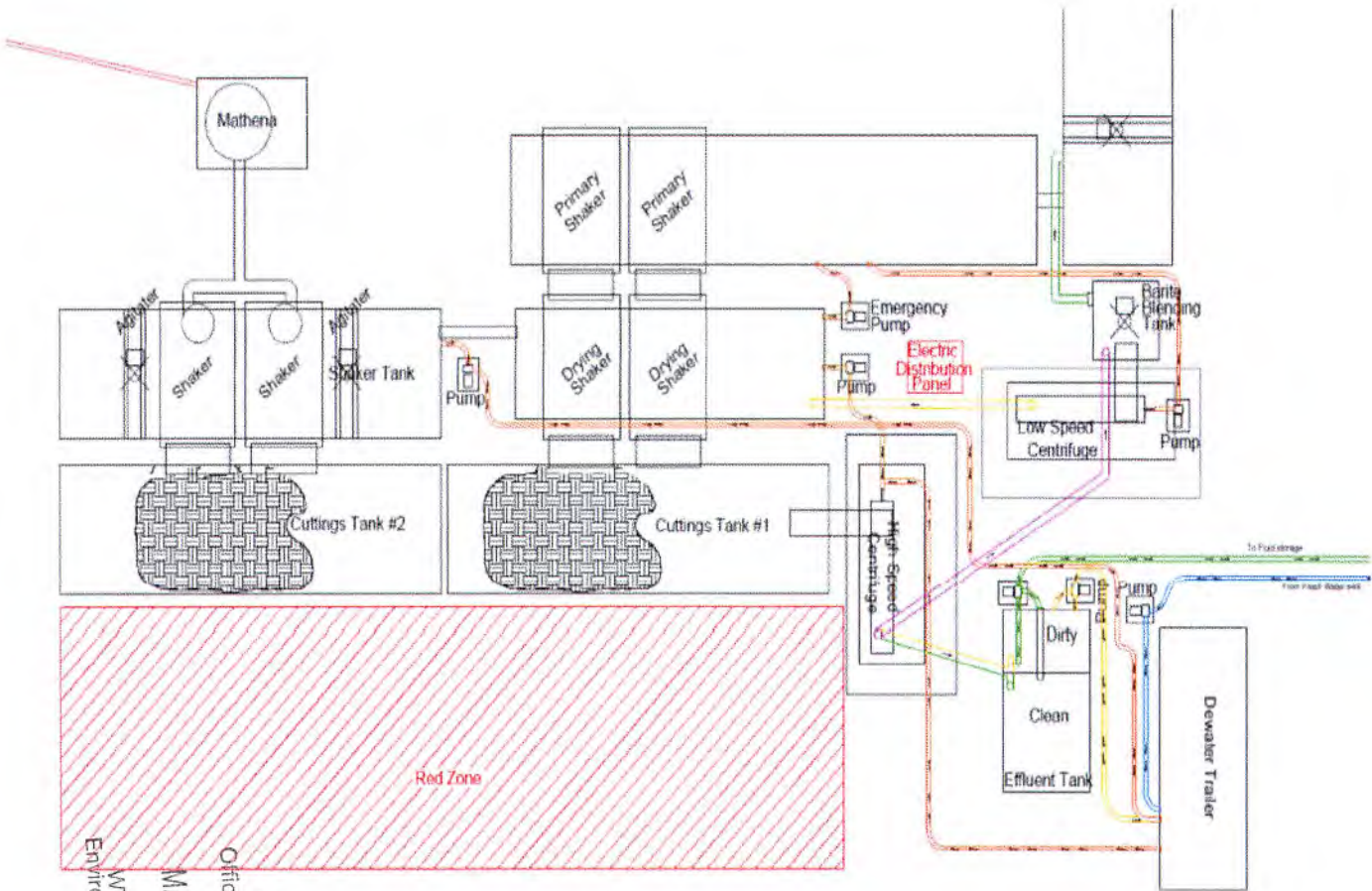
When drilling is converted to liquids drilling, the shale gas separator and associated shaker tank are bypassed, and the liquids system is processed over the primary and drying shaker systems. Cuttings drop into the cuttings tank for additional processing. Any recoverable associated liquids attached to the cutting are recovered out the tank and processed through the low gravity (high speed) and barite recovery centrifuges (low speed) to further remove low gravity solids and to recover barite for reuse in the mud systems.

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Solids Control Layout



EXAMPLE SCHEMATIC FOR CLOSED LOOP SOLIDS CONTROL SYSTEM



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4700900314

Attachment 3B
Drilling Mediums

Surface/Coal(if present)/Freshwater Intervals:

Air

Freshwater (if needed based on conditions)

Intermediate/Coal (if present):

Air

Brine (In Gas Storage areas)

Organophilic Bentonite

Production Hole:

Air

Synthetic Oil (Base Fluid for mud system)

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers

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WVD Seeding Specification

R² → V⁺
A

To Order Seed contact Lyndsi Eddy Flippo office 570-996-4271 cell 501-269-5451 lyndsi_eddy@swn.com (please allow 7 to 10 days for delivery)

NON-ORGANIC PROPERTIES	
Seed Mixture: ROW Mix	SWN Supplied
Orchardgrass	40%
Timothy	15%
Annual Ryegrass	15%
Brown Top Millet	5%
Red Top	5%
Medium Red Clover	5%
White Clover	5%
Birdsfoot Trefoil	5%
Rough Bluegrass	5%
All legumes are innoculated at 5x normal rate	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; color: red;"> Apply @ 100lbs per acre April 16th- Oct. 14th </div> <div style="width: 45%; color: red;"> Apply @ 200lbs per acre Oct. 15th- April 15th PLUS 50lbs per acre of Winter Wheat </div> </div>	

ORGANIC PROPERTIES	
Seed Mixture: SWN Production Organic Mix	SWN Supplied
Organic Timothy	50%
Organic Red or White Clover	50%
OR	
Organic Perennial Ryegrass	50%
Organic Red or White Clover	50%
<div style="display: flex; justify-content: space-between; color: red;"> <div style="width: 45%;"> Apply @ 100lbs per acre April 16th- Oct. 14th </div> <div style="width: 45%;"> Apply @ 200lbs per acre Oct. 15th- April 15th </div> </div>	
Organic Fertilizer @ 200lbs per Acre	Pelletized Lime @ 2 Tons per Acre

SOIL AMENDMENTS	
10-20-20 Fertilizer	*Apply @ 500lbs per Acre
Pelletized Lime	Apply @ 2 Tons per Acre
*unless otherwise dictated by soil test results	

Seeding Calculation Information:
1452' of 30' ROW/LOD is One Acre
871' of 50' ROW/LOD is One Acre
622' of 70' ROW/LOD is One Acre

Synopsis:

Every 622 linear feet in a 70' ROW/LOD, you should be using (2) 50lb bags of seed, (4) 50lb bags of fertilizer and (80) 50lb bags of Lime (2x seed in winter months + 50lb Winter Wheat/ac).

Special Considerations:

Landowner Special Considerations including CREP program participants require additional guidance that is not given here. Discuss these requirements with SWN supervision at the beginning of the project to allow time for special seed delivery.

WETLANDS (delineated as jurisdictional wetlands)	
Seed Mixture: Wetland Mix	SWN Supplied
VA Wild Ryegrass	20%
Annual Ryegrass	20%
Fowl Bluegrass	20%
Cosmos 'Sensation'	10%
Redtop	5%
Golden Tickseed	5%
Maryland Senna	5%
Showy Tickseed	5%
Fox Sedge	2.5%
Soft Rush	2.5%
Woolgrass	2.5%
Swamp Verbena	2.5%
<div style="display: flex; justify-content: space-between; color: red;"> <div style="width: 45%;"> Apply @ 25lbs per acre April 16th- Oct. 14th </div> <div style="width: 45%;"> Apply @ 50lbs per acre Oct. 15th- April 15th </div> </div>	
NO FERTILIZER OR LIME INSIDE WETLAND LIMITS	

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4700900314

MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN



SWN Production Company, LLC
1300 Fort Pierpont Drive, Suite 201
Morgantown, West Virginia 26508

API NO. 47-XXX-XXXXX
WELL NAME: Stat of WV DNR C BRK 3H
Steubenville East QUAD
Cross Creek DISTRICT
Brooke COUNTY, WEST VIRGINIA

Submitted by:

Name: Brittany Woody

Date: 1/30/2020

Brittany Woody

Title: Senior Regulatory Analyst

SWN Production Co., LLC

Approved by:

Name: *C. Hill*

Date: 2.4.20

Title: *Oil and Gas Inspector*

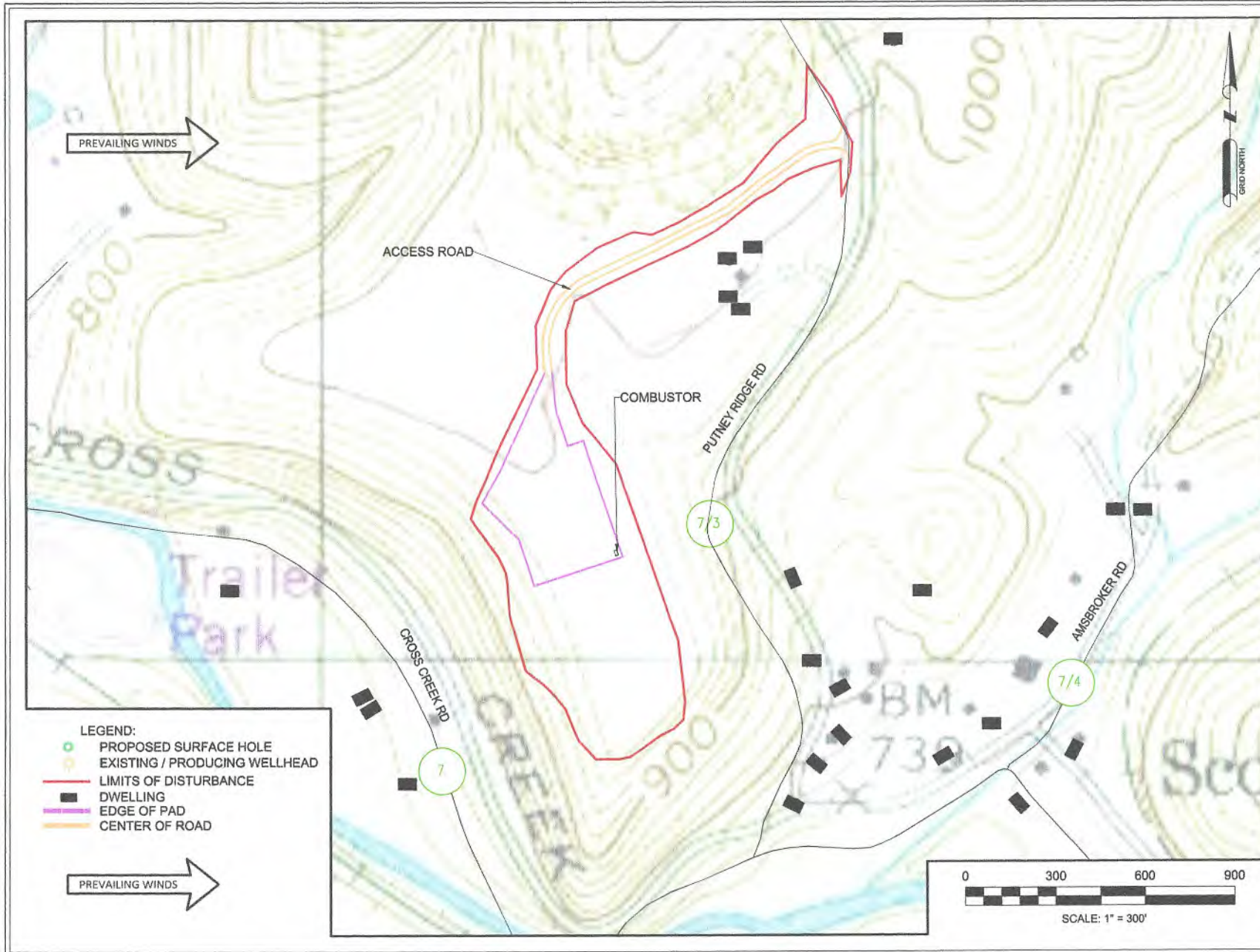
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Approved by:

Name: _____

Date: _____

Title: _____



LOCATION MAP NOT TO SCALE

NO.	DATE	DESCRIPTION

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MISS UTILITY OF WEST VIRGINIA

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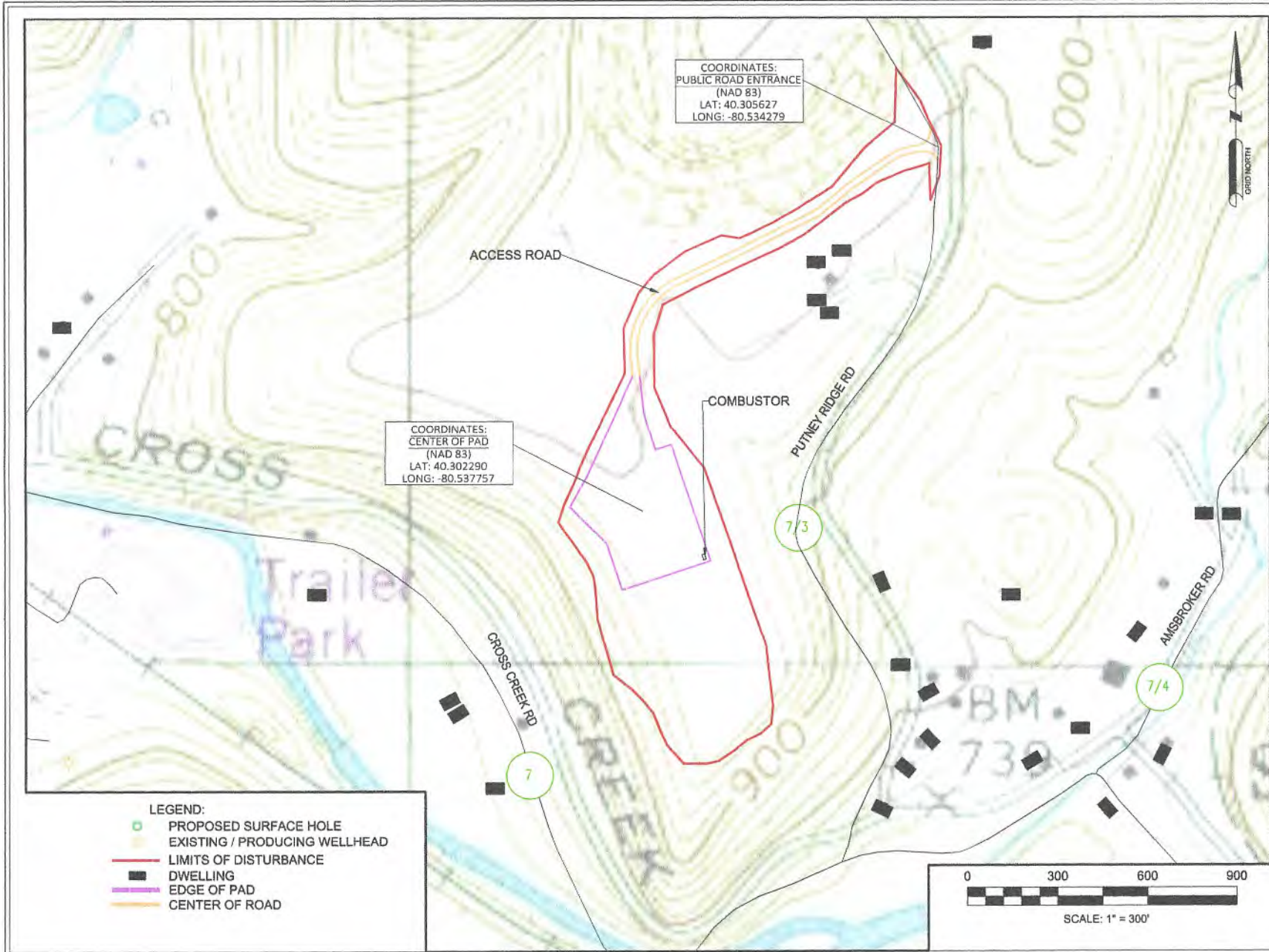
www.jhacompanies.com
68011 VINEYARD ROAD
ST. CLAIRSVILLE, OH 43950
(740) 695-6100
PA * OH * NY * WV

PROJECT ID:	2018-685	DRAWN:	LMC
DATE:	08-04-2020	DESIGN:	LMC
SCALE:	AS NOTED	CHECKED:	CLW

FLARE MAP FOR WV DNR C BRK PAD
LOCATED IN CROSS CREEK DISTRICT, BROOKE COUNTY, WEST VIRGINIA

TITLE:	FLARE MAP
PLAN TYPE:	FINAL
SHEET NO.:	1

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PROJECT ID:	2018-465	DRAWN:	LMC
DATE:	09-04-2020	DESIGN:	LMC
SCALE:	AS NOTED	CHECKED:	CLW

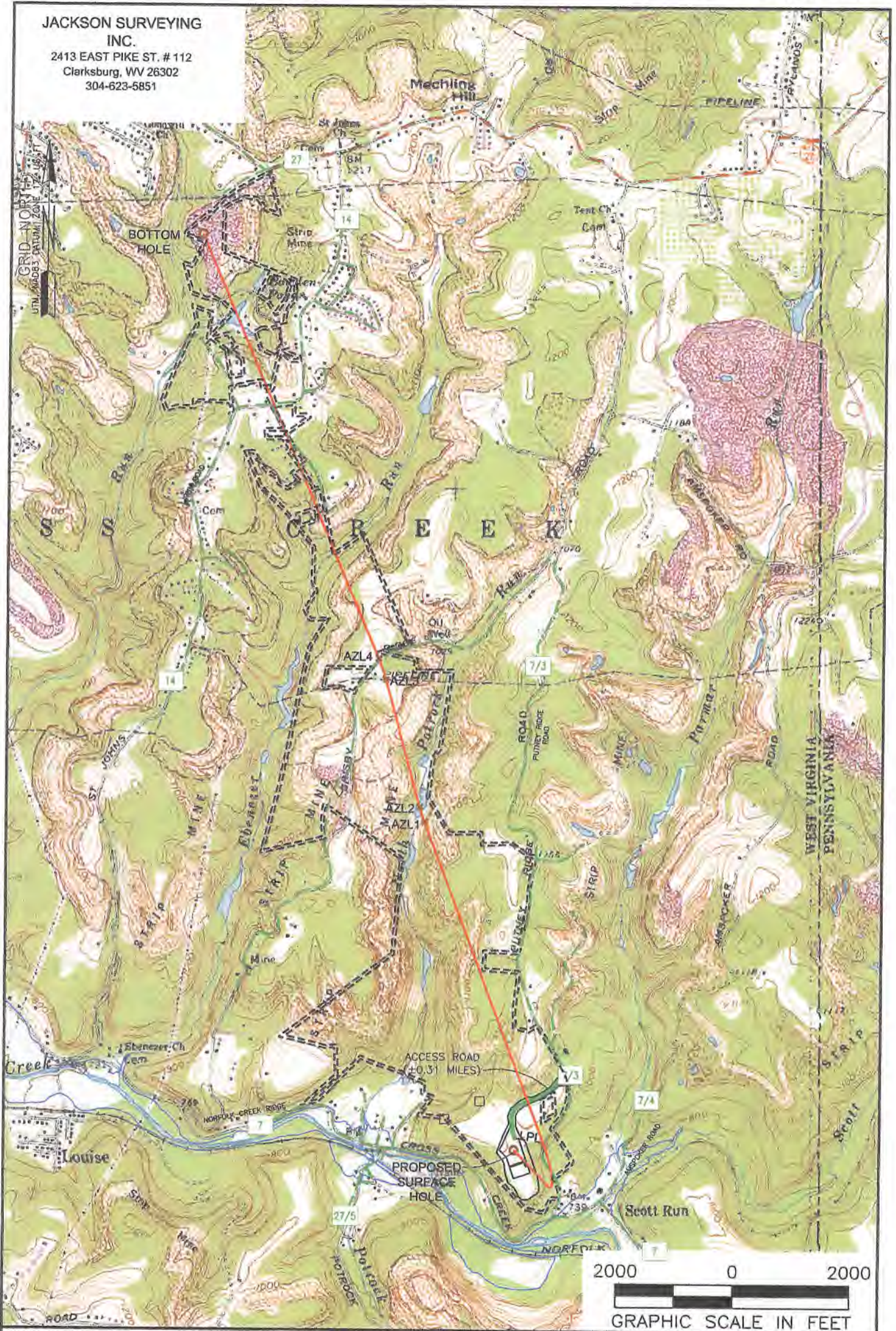
FLARE MAP
FOR
WV DNR C BRK PAD
LOCATED IN CROSS CREEK DISTRICT,
BROOKE COUNTY, WEST VIRGINIA

TITLE: **ACCESS ROAD MAP**

PLAN TYPE:	FINAL	SHEET NO.:	2
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THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF JHA COMPANIES

**JACKSON SURVEYING
INC.**
2413 EAST PIKE ST. # 112
Clarksburg, WV 26302
304-623-5851



NOTES ON SURVEY

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

LEGEND:

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

WELL OPERATOR:
SWN PRODUCTION COMPANY, LLC

ADDRESS:
1300 FORT PIERPONT ROAD, SUITE 200 MORGANTOWN, WV 26508

SURFACE OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION

WELL (FARM) NAME:
STATE OF WV DNR C BRK

COUNTY - CODE
BROOKE - 009

USGS 7 1/2 QUADRANGLE MAP NAME
STUBENVILLE EAST, WV

WELL # 3H **SERIAL #**

DISTRICT;
CROSS CREEK

Latitude: 40°20'00"

SURFACE HOLE 10,517'

Latitude: 40°22'30" BOTTOM HOLE

4,290'

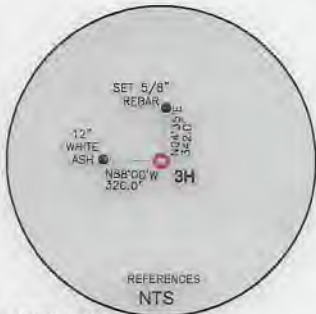
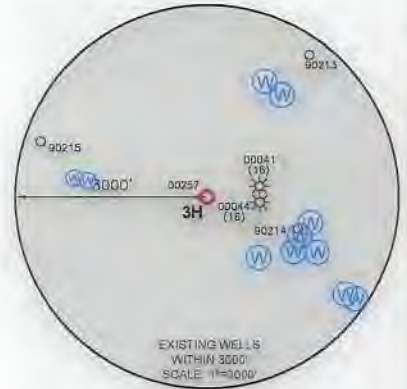
JACKSON SURVEYING INC.

2413 EAST PIKE ST. # 112
Clarksburg, WV 26302
304-623-5851

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 66°39'21" W	1308.24'	SHL TO LANDMARK	2" IRON PIPE FOUND
L2	N 35°50'30" W	1026.36'	SHL TO LANDMARK	STONE FOUND
LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L3	N 81°14'46" E	523.09'	1637.32'	SHL TO LP
L4	N 18°04'16" W	270.38'	270.47'	SHL TO LP
L5	N 19°11'28" W	382.15'	382.42'	SHL TO LP

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,461,411.725 EASTING: 539,285.419
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,461,435.975 EASTING: 539,443.035
AZIMUTH POINT LOCATION-1 (AZL1): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,463,120.891 EASTING: 538,803.761
AZIMUTH POINT LOCATION-2 (AZL2): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,463,199.237 EASTING: 538,778.198
AZIMUTH POINT LOCATION-3 (AZL3): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,463,861.980 EASTING: 538,596.085
AZIMUTH POINT LOCATION-4 (AZL4): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,463,971.986 EASTING: 538,557.796
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,466,184.402 EASTING: 537,617.886

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



WELL RESTRICTIONS

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

NOTES ON SURVEY

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

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

P.S. 708 *David L Jackson*



(+) 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)	COMPANY: SWN Production Company, LLC STATE OF WV DNR C BRK OPERATOR'S WELL #: 3H API WELL #: 47 009 00314 STATE COUNTY PERMIT
---	--	---

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

WATERSHED: NORTH FORK CROSS CREEK - CROSS CREEK (HUC-10) ELEVATION: 990.0'

DISTRICT: CROSS CREEK COUNTY: BROOKE QUADRANGLE: STEUBENVILLE EAST, WV

SURFACE OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION ACREAGE: ±83.858

OIL & GAS ROYALTY OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION ACREAGE: ±83.858

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

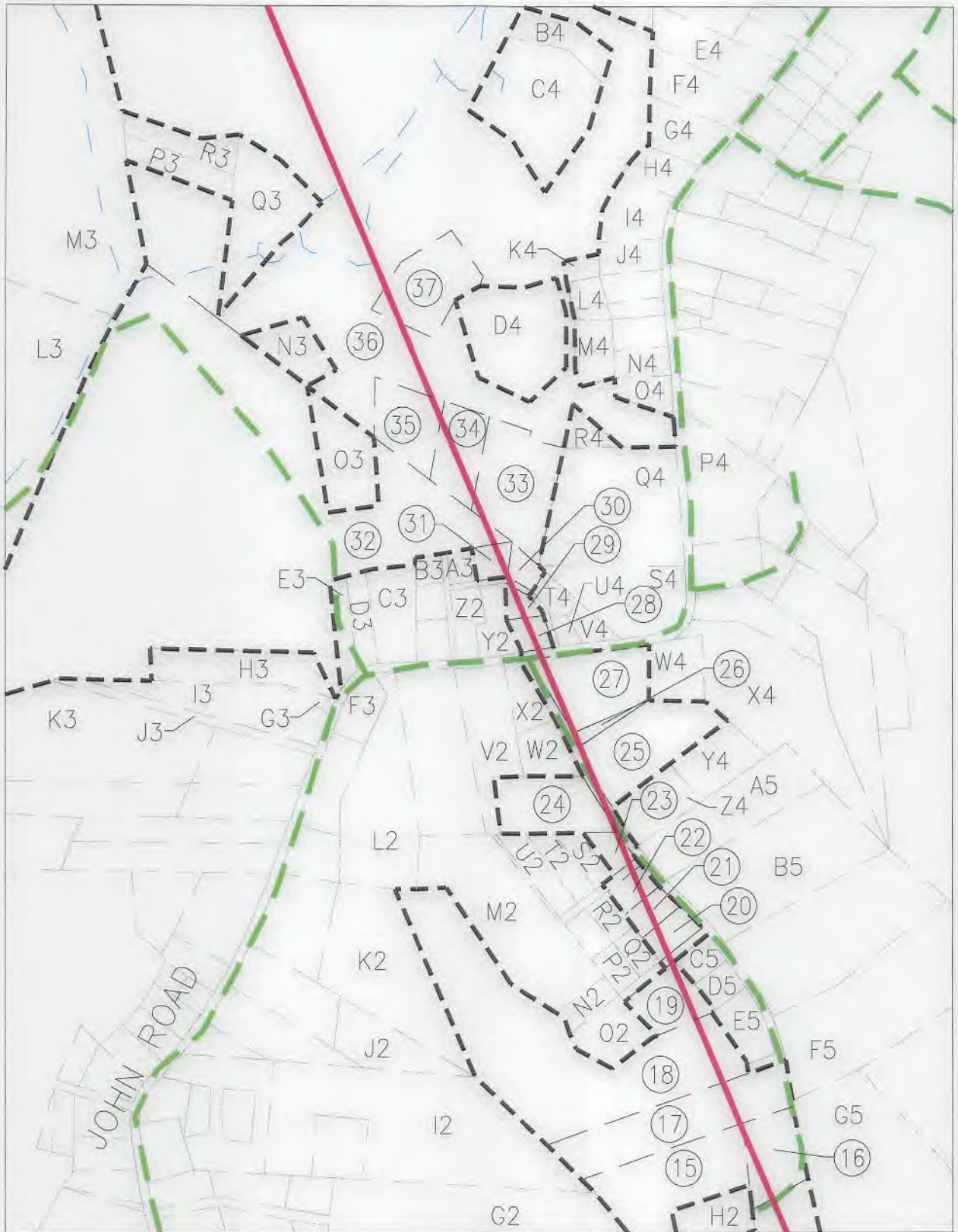
CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,629 TVD 22,845 TMD



WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508	DESIGNATED AGENT: BRITTANY WOODY ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508
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LEGEND: PROPOSED SURFACE HOLE / BOTTOM HOLE EXISTING / PRODUCING WELLHEAD LPL* LANDING POINT LOCATION EXISTING WATER WELL EXISTING SPRING SURVEYED BOUNDARY DRILLING UNIT LEASE BOUNDARY PROPOSED PATH AZL* AZIMUTH POINT LOCATION	REVISIONS: REVISED REFERENCES 06-05-2020 DATE: 05-05-2020 DRAWN BY: N. MANO SCALE: 1" = 3000' DRAWING NO: WELL LOCATION PLAT
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JACKSON SURVEYING
 INC.
 2413 EAST PIKE ST. # 112
 Clarksburg, WV 26302
 304-623-5851



DETAIL "A"

REVISIONS:	COMPANY:		 
△ REVISED REFERENCES 06-05-2020			
	OPERATOR'S STATE OF WV DNR C BRK		DATE: 05-05-2020
	WELL #: 3H 47-009-00314		DRAWN BY: N. MANO
	DISTRICT: CROSS CREEK	COUNTY: BROOKE	SCALE: N/A
		STATE: WV	DRAWING NO:
			WELL LOCATION PLAT 2

**JACKSON SURVEYING
INC.**

2413 EAST PIKE ST. # 112
Clarksburg, WV 26302
304-623-5851

Well Bore Tracts

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION (S/R)	4-CC20-06
TRACT	SURFACE OWNER	TAX PARCEL
2	EDWARD L. CARTER & DEBORAH C. CARTER (S)	4-CC20-17
3	EDWARD L. CARTER & DEBORAH C. CARTER (S)	4-CC20-18
4	GRETCHEN MOORE LANGEVIN, TRUSTEE & WESTBANCO BANK, INC. (S)	4-CC20-05
5	SUSAN BREEN & KELLY HANNAOUI, TRUSTEES OF THE WILLIAM C. SAUNDERS 2019 IRREVOCABLE TRUST DATED NOVEMBER 21, 2019 (S)	4-CC20-02
6	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION (S)	4-CC19-168
7	JASON P. NUZUM (S)	4-CC19-113
8	JASON P. NUZUM (S)	4-CC15-70
9	PETER D. BLASKOVICH & RUTH M. BLASKOVICH (S)	4-CC15-71
10	PETER D. BLASKOVICH & HELEN S. BLASKOVICH (S)	4-CC15-72
11	RYAN POWELL, & KELLY POWELL (S)	4-CC15-73
12	EVA B. CATLETT (S)	4-CC15-68
13	FRANK REED LARKEY (S)	4-CC15-68.2
14	LARRY REED (S)	4-CC15-67
15	LARRY REED (S)	4-C15H-09
16	BETTY S. LANCASTER & LINDA K. LANCASTER (S)	4-C15H-11
17	LARRY E. REED (S)	4-C15H-20
18	LEE ELTRINGHAM (S)	4-C15G-63
19	JOHN MESTER (S)	4-C15H-05
20	LARRY ALLEN HOOD (S)	4-C15H-03
21	JOHN MESTER (S)	4-C15H-02
22	LARRY D. PRATT & JOYCE E. PRATT (S)	4-C15H-01
23	HAROLD W. BEATTY & PATRICIA BEATTY (S)	4-C15H-24
24	TRACY L. FORESTER (S)	4-C15G-53
25	GERALD L. ARACICH (S)	4-C15D-43
26	GERALD L. ARACICH (S)	4-C15D-42
27	JAMES A. RAHR & GERALDINE A. RAHR (S)	4-C15C-36
28	MICHAEL E. HIGHFIELD & KAREN L. HIGHFIELD, TRUSTEES, JOINTLY & SEVERALLY, OF THE 2013 MICHAEL E. HIGHFIELD & KAREN L. HIGHFIELD FAMILY IRREVOCABLE TRUST AGREEMENT DATED FEB. 4TH, 2013 (S)	4-C15C-18
29	MICHAEL E. HIGHFIELD & KAREN L. HIGHFIELD, TRUSTEES, JOINTLY & SEVERALLY, OF THE 2013 MICHAEL E. HIGHFIELD & KAREN L. HIGHFIELD FAMILY IRREVOCABLE TRUST AGREEMENT DATED FEB. 4TH, 2013 (S)	4-C15C-17
30	ALBERT C. BARTON (S)	4-C15C-16.1
31	LARRY TOMSHACK (S)	4-C15C-10
32	CHARLES DAVID JOHNSON & SANDRA K. JOHNSON (S)	4-C15C-22
33	THOMAS G. MOORE & KATHY J MOORE (S)	4-C15C-04
34	GARY A. DENNIS & LORI ANN DENNIS (S)	4-C15C-05
35	GARY E. DENNIS & LORI ANN DENNIS (S)	4-C15C-06
36	RAMON L. BOWEN, TRUSTEE OF THE RAMON L. BOWEN IRREVOCABLE TRUST DATED FEBRUARY 3,2020 (S)	4-CC11-91
37	RAMON MARSHALL BOWEN (S)	4-C15C-02
38	DWIGHT & MARY DICKEY (S)	4-C11L-14

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
A	LINDY L. BLACK	4-CC20-07
B	COLLIER'S SPORTSMAN CLUB	4-CC20-21
C	WILLIAM MORGAN ROUSE & DORIS J. ROUSE	4-CC20-20
D	LINDY L. GALIANO & SANTY GALIANO	4-CC20-19.1
E	ERIC T. GALIANO	4-CC20-16
F	ERIC T. GALIANO	4-CC20-14
G	ERIC T. GALIANO	4-CC20-19
H	KEVIN MCCONNELL	4-CC20-11
I	BARBARA J. MCCONNELL	4-CC20-10
J	SUSAN KAY PRONCHIK	4-CC20-08

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
K	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION	4-CC19-169
L	DOUGLAS P. EMMERTH & PAMELA L. EMMERTH	4-CC19-165
M	DOUGLAS P. EMMERTH & PAMELA L. EMMERTH	4-CC19-166
N	DOUGLAS P. EMMERTH & PAMELA L. EMMERTH	4-CC19-167.1
O	DOUGLAS P. EMMERTH & PAMELA L. EMMERTH	4-CC19-167
P	ERIC M. WILSON	4-CC19-155.2
Q	SANDRA DEMARK ZINK	4-CC19-145
R	MELANIE DIANE CHEEK	4-CC19-141
S	MELANIE DIANE CHEEK	4-CC19-142

REVISIONS:

▲ REVISED REFERENCES 06-05-2020

COMPANY:

SWN
Production Company, LLC

SWN ^{R+} ^A ^{V+} [®]
Production Company™

OPERATOR'S STATE OF WV DNR C BRK

WELL #: 3H

DISTRICT:
CROSS CREEK

COUNTY:
BROOKE

API #:
047-009-00314

STATE:
WV

DATE: 05-05-2020

DRAWN BY: N. MANO

SCALE: N/A

DRAWING NO:
WELL LOCATION PLAT 3

**JACKSON SURVEYING
INC.**



2413 EAST PIKE ST. # 112
Clarksburg, WV 26302
304-623-5851

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
T	PITTSBURGH & WV RAILWAY	4-CC19-134
U	LONNIE V. BLAKE, CARRIE R. BLAKE, SUSAN MAIN & SANDRA I. WYSATSKI	4-CC19-139
V	RONALD L. LAW	4-CC19-122
W	SETH R. PARR & CHRISTIAN D. PARR (LE - RAYMOND J. PARR & SARA E PARR)	4-CC19-119.3
X	OKEY TREDWAY JR. & CONSTANCE FAITH BEATTY BUCY	4-CC19-117
Y	JASON P. NUZUM	4-CC19-114
Z	CLARENCE I. JONES & DORIS JONES	4-CC19-112
A2	CLARENCE I. JONES & DORIS JONES	4-CC19-111
B2	GERALD E. GOURLEY	4-CC19-103
C2	GARY LEE LOAR & SANDRA L. LOAR	4-CC15-52
D2	RONALD A REED	p/o 4-C15L-45
E2	LARRY E. REED	4-C15L-45
F2	LARRY E. REED	4-C15G-33
G2	GEORGE C. STAATS & FRANCIS M. STAATS	4-C15G-40
H2	KERRY AARON LOOMAN	4-C15H-10
I2	BOBBY MILLER	4-C15G-47
J2	DAVID BRUCE LANCASTER & VIOLET L. LANCASTER	4-C15G-50.1
K2	GARY STRAKA & BETTY STRAKA	4-C15G-52
L2	JACQUELYN J. WILLIAMSON & JAMES E. MILLER	4-C11L-78
M2	DONALD J. BARTOLETTI	4-C15G-58
N2	RICHARD L. LANTZ	4-C15G-62
O2	RICHARD L. LANTZ	4-C15H-23
P2	DELBERT A. CAMPBELL & PAMELA A. CAMPBELL	4-C15H-22
Q2	DELBERT A. CAMPBELL & PAMELA A. CAMPBELL	4-C15H-04
R2	THOMAS J. SCHANTZ & DESIREE L. SCHANTZ	4-C15H-21
S2	ROBERT FORESTER & LORETTA FORESTER	4-C15G-55
T2	ROBERT S. FORESTER & LORETTA J. FORESTER	4-C15G-56
U2	CHAD W. SPARKS	4-C15G-57
V2	LONNIE C. WADE & CHRISTINE E. WADE	4-C15C-33
W2	ROBERT D. SKIBA	4-C15C-35
X2	REXALL G. LANCASTER JR.	4-C15C-34
Y2	KATHERINE B. BAXTER ESTATE, (LIFE EST.-GERALD W. BAXTER)	4-C15C-16
Z2	JAMES A. SABO & JUDY KOVARIK	4-C15C-15
A3	SHERIL WILLIAM LEMASTERS & BRENDA SUE LEMASTERS	4-C15C-11
B3	SHERIL WILLIAM LEMASTERS & BRENDA S. LEMASTERS	4-C15C-12
C3	VERNA FLUHARTY & SANDRA SUMMERS	4-C15C-19
D3	VERNA FLUHARTY & SANDRA SUMMERS	4-C15C-20
E3	VERNA FLUHARTY & SANDRA SUMMERS	4-C15C-21
F3	BONNIE LUCILLE ELTRINGHAM	4-C15C-30.1
G3	GERALD C. BRADY & CARLA L. BRADY	4-C15C-25
H3	GERALD C. BRADY & CARLA L. BRADY	4-C15C-24
I3	JOHN E. DOAK & LINDSAY A DOAK	4-C15C-26
J3	JOHN E. DOAK & LINDSAY A DOAK	4-C15C-27
K3	JOHN BENNETT & CONNIE BENNETT	4-C15C-28
L3	CHARLES D. JOHNSON & SANDRA K. JOHNSON	4-C15C-23
M3	FRED WELSHANS JR. & CHRIS E. WELSHANS	4-CC11-95
N3	RAYMOND MARSHALL BOWEN	4-C15C-01
O3	CHAD A. RICCELLI	4-C15C-22.1
P3	DONALD E. SIPPEL & DOREEN E. SIPPEL	4-CC11-94

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
Q3	JACK KAROL BOWEN	4-CC11-97
R3	DONALD E. SIPPEL & DOREEN E. SIPPEL	4-CC11-93
S3	DONALD G. CONAWAY	4-CC11-92
T3	OREN W. LITTLE	4-C11L-87
U3	MICHAEL D. LANCE	4-C11L-15
V3	BRIAN SIMMONS & CAITLIN E. SIMMONS	4-C11L-16
W3	BRIAN SIMMONS & CAITLIN E. SIMMONS	4-C11L-18
X3	MARK SECRIST JR. MARY SECRIST	4-C11M-01
Y3	ST. JOHN'S CEMETERY ASSOCIATION	4-C11L-13
Z3	ST. JOHN'S CEMETERY CO.	4-C11S-01
A4	RAMON L. BOWEN & YVONNE BOWEN	4-CC11-88
B4	RAMON L. BOWEN & YVONNE BOWEN	4-CC11-89
C4	RAMON L. BOWEN & YVONNE BOWEN	4-CC11-90
D4	JAMES E. HEIDENREICH & DEBRA R. ARTHUR	4-C15C-03
E4	STEVEN D. MORAN & BETHANY A. MORAN	4-C11S-20
F4	WILLIAM H. MORAN JR. & JOSIE L. MORAN	4-C11S-20.1
G4	KODY GREEN	4-C11S-21
H4	VALERIE A. WELLS, ET AL (LE- LAURA RIGGS)	4-C11S-22
I4	TROY A. LUCAS	4-C11S-23
J4	CLIFFORD LEE MILLER	4-C15D-10
K4	MICHAEL J. CLARK SR. & TYRA S. CLARK	4-C15D-50
L4	MICHAEL J. CLARK SR. & TYRA S. CLARK	4-C15D-09
M4	TYRA CLARK	4-C15D-05
N4	DESIRRAE W. WELLS, ET AL (LE-HOBERT & LAURA RIGGS)	4-C15D-06
O4	DESIRRAE W. WELLS, ET AL (LE-LAURA RIGGS)	4-C15D-04
P4	JOSHUA A. ROBERTS	4-C15D-34
Q4	DONNA DELONG	4-C15D-02
R4	JIM HEIDENREICH	4-C15D-03
S4	DONNA DELONG	4-C15D-01
T4	ALBERT C. BARTON	4-C15C-09
U4	ALBERT C. BARTON	4-C15C-08
V4	TIMOTHY A. STEPHEN & KACIE L. STEPHEN	4-C15D-47
W4	JAMES A. RAHR & GERALDINE A. RAHR	4-C15D-41
X4	VAL JEAN DELONG, TRUSTEE OF THE DELONG FAMILY KEYSTONE TRUST DATED DECEMBER 30, 2016	4-C15D-40
Y4	HAROLD WAYNE BEATTY JR. & NATALIE ROSE BEATTY	4-C15D-49
Z4	BRIAN KEITH BROWN & VERONICA JO BEATTY BROWN	4-C15H-18.1
A5	ROBERT L. DODSON III	4-C15H-17
B5	DALE W. GAYNOR JR.	4-C15H-16
C5	REVA AMANDA ALLMAN YOST	4-C15H-06
D5	CHARLIE I. DULANEY & ANGELA J. DULANEY	4-C15H-7
E5	CHARLIE I. DULANEY & ANGELA J. DULANEY	4-C15H-8
F5	FRANK PAESANO & CYNTHIA PASEANO	4-C15H-14
G5	ROSE VAN HEMERT	4-C15H-12
H5	LARRY E. REED	4-CC15-68.1
I5	RONALD A. REED	4-CC15-68.3
J5	LENORA J. RINEHART	4-CC15-74
K5	RUTH M. BLASKOVICH	4-CC15-69
L5	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION	4-CC16-06
M5	DAVID DAMI	4-CC20-2.1
N5	DAVID C. DAMI	4-CC20-1.1
O5	FREDA M. DUNN - LIFE, SAUNDRA L. DUNN & ROBERT W. DUNN	4-CC20-1
P5	COLLIERS SPORTSMAN CLUB	4-CC20-24
Q5	STACI BREEN & PATRICIA BREEN	4-CC20-03
R5	SUSAN BREEN & KELLY HANNAOUI, TRUSTEES OF THE WILLIAM C. SAUNDERS 2019 IRREVOCABLE TRUST DATED NOVEMBER 21, 2019	4-CC20-23
S5	JOHN ERNEST MILLER & JESSE ANDREW MILLER	4-CC20-04
T5	SUSAN D. BREEN & DENNIS M. BREEN	4-CC20-22

REVISIONS: ▲ REVISED REFERENCES 06-05-2020	COMPANY: 	
	OPERATOR'S STATE OF WV DNR C BRK	API #: 047-009-00314
	WELL #: 3H	DATE: 05-05-2020
	DISTRICT: CROSS CREEK	COUNTY: BROOKE
		STATE: WV
		DRAWN BY: N. MANO
		SCALE: N/A
		DRAWING NO:
		WELL LOCATION PLAT 4

**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"				

*Co-tenancy utilization - At least 7 mineral owners in tract and at least 75% of those owners are leased

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

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

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

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

Well Operator: SWN Production Company, LLC

By: Bailey R. [Signature]

Its: Landman - SW Appalachia

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Office of Oil and Gas
Page 1 of MAY 20 2020
WV Department of
Environmental Protection

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC, Operator
 State of WV DNR C BRK 3H
 Brooke County, West Virginia

#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG	Interest Not Leased by SWN Production Company, LLC
1)	04-CC20-0006-0000	Starvaggi Industries, Incorporated	Fortuna Energy, Inc. Range Resources - Appalachia, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	12.50%	9/532 10/226 10/541 30/480	0.00%
2)	04-CC20-0017-0000	Edward L. Carter and Deborah C. Carter, his wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	11/29 30/480	0.00%
3)	04-CC20-0018-0000	Edward L. Carter and Deborah C. Carter, his wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	11/33 30/480	0.00%
4)	04-CC20-0005-0000	WesBanco Trust and Investment Services, and Gretchen Moore Langevin, As Trustees of the William J. Moore Trust dated 11/1/2005	SWN Production Company, L.L.C.	18.00%	40/381	0.00%
5)	04-CC20-0002-0000	William C. Saunders, single	Great Lakes Energy Partners, L.L.C. Range Resources-Appalachia, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	10/133 20/733 10/552 30/480	0.00%
6)	04-CC19-0168-0000	The Janie L. Denoon Trust, William S. Denoon Sr., Trustee	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	17/786 30/480	0.00%
7)	04-CC19-0113-0000	Golden Eagle Resources II, LLC	SWN Production Company, L.L.C.	18.00%	40/599	0.00%
8)	04-CC15-0070-0000	Golden Eagle Resources II, LLC	SWN Production Company, L.L.C.	18.00%	40/599	0.00%
9)	04-CC15-0071-0000	Peter D. Blaskovich and Helen S. Blaskovich, husband and wife Ruth M. Blaskovich, a widow	SWN Production Company, L.L.C. SWN Production Company, L.L.C.	18.00%	37/354 37/357	0.00%
10)	04-CC15-0072-0000	Peter D. Blaskovich and Helen S. Blaskovich, husband and wife	SWN Production Company, L.L.C.	18.00%	37/354	0.00%
11)	04-CC15-0073-0000	Ryan Powell and Kelly Powell, husband and wife	SWN Production Company, L.L.C.	18.00%	36/450	0.00%
12)	04-CC15-0068-0000	Eva B. Catlett, a widow	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	21/1 30/480	0.00%
13)	04-CC15-0068-0002	Frank Reed Larkey and Prapai Somsak Larkey, husband and wife	SWN Production Company, L.L.C.	18.00%	36/225	0.00%
14)	04-CC15-0067-0000	Larry E. Reed Betty White and Stuart White, wife and husband Bonnie Lou Gruber, a widow Charles Douglas Lane, a widower Larry Green and Cindy Green, husband and wife Crystal M. Hooker and James M. Hooker, wife and husband Debbie Lysecki and Gerald Lysecki, wife and husband	Great Lakes Energy Partners, LLC Range Resources-Appalachia, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC SWN Production Company, L.L.C. SWN Production Company, L.L.C. SWN Production Company, L.L.C. SWN Production Company, L.L.C. SWN Production Company, L.L.C. SWN Production Company, L.L.C. SWN Production Company, L.L.C. SWN Production Company, L.L.C.	12.50% 16.00% 16.00% 16.00% 16.00% 16.00% 16.00%	9/693 20/733 10/552 30/480 44/317 43/517 40/697 40/705 50/787 47/557	1.33%

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 Office of Oil and Gas
 MAY 20 2020
 WV Department of
 Environmental Protection

4700900314

Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411

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	Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549		
	Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512		
	Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as Trustees of the Tessean Family Revocable Living Trust, dated December 29th, 1993	SWN Production Company, L.L.C.	16.00%	52/639		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/696 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	391/405 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	382/105 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/567 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/629 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/47 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/226 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/138 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/51 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/564 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/143 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/218 (Mineral Deed)		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/222 (Mineral Deed)		
	Royalty Owners	N/A	N/A	N/A		
15)	04-C15H-0009-0000	Larry E. Reed	Great Lakes Energy Partners, LLC Range Resources-Appalachia, LLC Chesapeake Appalachia, LLC	12.50%	9/693 20/733 10/552	0.86%
		Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	30/480 44/317	
		Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517	
		Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697	
		Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705	

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Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787
Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557
Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536

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Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564		
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411		
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549		
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512		
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as Trustees of the Tessean Family Revocable Living Trust, dated December 29th, 1993	SWN Production Company, L.L.C.	16.00%	52/639		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/696 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	391/405 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	382/105 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/567 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/629 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/47 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/226 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/138 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/51 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/564 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/143 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/218 (Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/222 (Mineral Deed)		
Royalty Owners	N/A	N/A	N/A		
16) 04-C15H0011-0000	Emery McAbee and Linda K. McAbee, f/k/a Linda K. Lancaster, husband and wife	SWN Production Company, LLC	18.00%	50/693	0.92%*
	Betty Sue Mitchell, f/k/a Betty Sue Lancaster, a widow	SWN Production Company, LLC	18.00%	50/544	
	Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317	
	Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517	
	Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697	

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Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705
Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787
Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557
Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564

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Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411		
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549		
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512		
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/696		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	391/405		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	382/105		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/567		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/629		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/47		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/226		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/138		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/51		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/564		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/143		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/218		
			(Mineral Deed)		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/222		
			(Mineral Deed)		
Royalty Owners	N/A	N/A	N/A		
17) 04-C15H-0020-0000	Larry E. Reed, a single man	SWN Production Company, LLC	18.00%	51/666	1.15%
	Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317	
	Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517	
	Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697	
	Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705	
	Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787	
	Debbie Lysecki and Gerald Lysecki, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557	
	Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624	

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Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
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Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512

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Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as SWN Production Company, L.L.C.	16.00%	52/639	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	395/400	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 389/696	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 391/405	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 382/105	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 389/567	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 388/629	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 383/47	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 381/226	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 383/138	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 383/51	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 388/564	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 383/143	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 381/218	
SWN Production Company, LLC (Company Owned Minerals)	12.50%	(Mineral Deed) 381/222	
Royalty Owners	N/A	N/A	N/A

18) 04-C15G-0063-0000

Lee Eltringham and Seung-ha Lee, husband and wife	SWN Production Company, L.L.C.	18.00%	40/548	1.15%
Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317	
Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517	
Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697	
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Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557	
Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624	
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540	
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686	
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117	

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James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561

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Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569	
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735	
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751	
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/696	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 391/405	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 382/105	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/567	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 388/629	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/47	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/226	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/138	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/51	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 388/564	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/143	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/218	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/222	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 400/464 (Mineral	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	Deed) 399/307	
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 399/304 (Mineral	
Royalty Owners	N/A	N/A	Deed) N/A	
19) 04-C15H-0005-0000	John Mester, a single man	SWN Production Company, L.L.C.	16.00%	38/459
	Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317
	Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517

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Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697
Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705
Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787
Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557
Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536

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Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/696
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	391/405
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	382/105
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/567
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/629
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/47
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/226
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/138
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/51
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/564
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/143
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/218
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/222
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	400/464 (Mineral
			Deed)

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	SWN Production Company, LLC (Company Owned Minerals)		12.50%	399/307 (Mineral Deed)			
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	399/304 (Mineral Deed)			
	Royalty Owners	N/A	N/A	N/A			
20)	04-C15H-0003-0000	Larry Allen Hood, a single man	SWN Production Company, L.L.C.	18.00%	44/376	1.15%	*
		Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317		
		Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517		
		Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697		
		Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705		
		Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787		
		Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557		
		Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624		
		Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540		
		Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686		
		Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117		
		James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509		
		Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167		
		John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666		
		Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528		
		Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541		
		Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756		
		Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59		
		Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504		
		Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475		
		Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17		
		Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713		
		Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113		
		Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9		
		Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525		
		Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364		
		Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307		
		Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74		
		Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9		
		Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654		
		Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520		
		Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109		

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Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
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David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
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SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/567
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SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/629
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/47
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/226
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SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/138
			(Mineral Deed)

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	SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/51 (Mineral Deed)	
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/564 (Mineral Deed)	
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/143 (Mineral Deed)	
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/218 (Mineral Deed)	
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/222 (Mineral Deed)	
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	400/464 (Mineral Deed)	
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	399/307 (Mineral Deed)	
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	399/304 (Mineral Deed)	
	Royalty Owners	N/A	N/A	N/A	
21)	04-C15H-0002-0000	John Mester, a single man	SWN Production Company, L.L.C.	16.00%	38/452 0.00%
22)	04-C15H-0001-0000	Joyce E. Pratt and Larry D. Pratt, wife and husband	SWN Production Company, L.L.C.	16.00%	43/44 1.15%*
		Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317
		Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517
		Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697
		Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705
		Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787
		Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557
		Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624
		Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540
		Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686
		Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117
		James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
		Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
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		Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
		Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17

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Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
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Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/696 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	391/405 (Mineral Deed)

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SWN Production Company, LLC (Company Owned Minerals)	12.50%	382/105 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	389/567 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/629 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/47 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/226 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/138 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/51 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/564 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/143 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/218 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/222 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	400/464 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/307 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/304 (Mineral Deed)
Royalty Owners	N/A	N/A

23) 04-C15H-0024-0000	Harold W. Beatty and Patricia Beatty, husband and wife	SWN Production Company, L.L.C.	16.00%	38/776	1.15%	*
	Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317		
	Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517		
	Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697		
	Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705		
	Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787		
	Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557		
	Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624		
	Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540		
	Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686		
	Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117		
	James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509		

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Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569

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Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735		
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751		
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/696		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 391/405		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 382/105		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/567		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 388/629		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/47		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/226		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/138		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/51		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 388/564		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/143		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/218		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/222		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 400/464 (Mineral		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	Deed) 399/307		
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 399/304 (Mineral		
Royalty Owners	N/A	N/A	Deed) N/A		
24) 04-C-16-G-0053-0000	Tracy L. Gatten, fka, Tracy L. Forester, a single woman	SWN Production Company, L.L.C.	16.00%	39/701	0.86%
	Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317	
	Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517	
	Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697	

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Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705
Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787
Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557
Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536

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Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/696
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	391/405
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	382/105
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/567
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/629
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/47
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/226
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/138
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/51
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/564
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/143
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/218
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/222
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	400/464 (Mineral Deed)

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	SWN Production Company, LLC (Company Owned Minerals)		12.50%	399/307 (Mineral Deed)	
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	399/304 (Mineral Deed)	
	Royalty Owners	N/A	N/A	N/A	
25) 04-C15D-0043-0000	Gerald L. Aracich, a divorced man	SWN Production Company, L.L.C.	16.00%	39/1	0.92% ✖
	Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317	
	Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517	
	Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697	
	Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705	
	Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787	
	Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557	
	Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624	
	Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540	
	Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686	
	Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117	
	James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509	
	Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167	
	John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666	
	Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528	
	Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541	
	Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756	
	Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59	
	Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504	
	Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475	
	Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17	
	Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713	
	Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113	
	Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9	
	Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525	
	Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364	
	Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307	
	Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74	
	Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9	
	Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654	
	Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520	
	Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109	

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Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
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SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/696
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 391/405
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 382/105
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/567
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 388/629
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/47
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/226
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/138
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/51
			(Mineral Deed)

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SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/564 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/143 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/218 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/222 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	400/464 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/307 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/304 (Mineral Deed)
Royalty Owners	N/A	N/A

26) 04-C15D-0042-0000	Gerald L. Aracich, a divorced man	SWN Production Company, L.L.C.	16.00%	39/1	0.92% ✕
	Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317	
	Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517	
	Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697	
	Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705	
	Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787	
	Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557	
	Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624	
	Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540	
	Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686	
	Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117	
	James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509	
	Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167	
	John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666	
	Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528	
	Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541	
	Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756	
	Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59	
	Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504	
	Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475	
	Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17	
	Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713	
	Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113	
	Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9	

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Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/696
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 391/405
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 382/105
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/567
			(Mineral Deed)

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SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/629 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/47 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/226 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/138 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/51 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/564 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/143 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/218 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/222 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	400/464 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/307 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/304 (Mineral Deed)
Royalty Owners	N/A	N/A

27) 04-C15C-0036-0000

James A. Rahr and Geraldine A. Rahr, husband and wife	SWN Production Company, L.L.C.	16.00%	37/262	0.92%	✖
Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317		
Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517		
Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697		
Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705		
Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787		
Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557		
Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624		
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540		
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686		
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117		
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509		
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167		
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666		
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528		
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541		

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Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743

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SWN Production Company, LLC (Company Owned Minerals)	12.50%	395/400 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	389/696 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	391/405 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	382/105 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	389/567 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/629 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/47 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/226 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/138 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/51 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/564 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/143 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/218 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/222 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	400/464 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/307 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/304 (Mineral Deed)
Royalty Owners	N/A	N/A

28) 04-C15C-0018-0000

Gerald William Baxter, a single man	SWN Production Company, L.L.C.	18.00%	47/417	0.92%	*
Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317		
Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517		
Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697		
Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705		
Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787		
Debbie Lysecki and Gerald Lysecki, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557		

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Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549

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Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/696
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	391/405
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	382/105
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	389/567
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/629
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/47
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/226
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/138
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/51
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	388/564
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	383/143
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/218
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	381/222
			(Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	400/464 (Mineral
			Deed)
SWN Production Company, LLC (Company Owned Minerals)		12.50%	399/307
			(Mineral Deed)

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		SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/304 (Mineral Deed)			
Royalty Owners		N/A	N/A	N/A			
29)	04-C15C-0017-0000	Gerald William Baxter, a single man	SWN Production Company, L.L.C.	18.00%	47/417	0.92%	*
		Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317		
		Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517		
		Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697		
		Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705		
		Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787		
		Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557		
		Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624		
		Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540		
		Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686		
		Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117		
		James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509		
		Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167		
		John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666		
		Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528		
		Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541		
		Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756		
		Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59		
		Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504		
		Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475		
		Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17		
		Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713		
		Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113		
		Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9		
		Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525		
		Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364		
		Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307		
		Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74		
		Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9		
		Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654		
		Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520		
		Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109		

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Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/696
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 391/405
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 382/105
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/567
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 388/629
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/47
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/226
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/138
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed)

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SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/51 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/564 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/143 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/218 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/222 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	400/464 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/307 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/304 (Mineral Deed)

Royalty Owners	N/A	N/A	N/A
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30) 04-C15C-0016-0001

Gerald William Baxter, a single man	SWN Production Company, L.L.C.	18.00%	47/417	0.92%	*
Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317		
Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517		
Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697		
Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705		
Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787		
Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557		
Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624		
Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540		
Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686		
Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117		
James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509		
Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167		
John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666		
Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528		
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541		
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756		
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59		
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504		
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475		
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17		
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713		

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Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735
Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751
Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743
SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/696
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 391/405
SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 382/105
			(Mineral Deed)

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SWN Production Company, LLC (Company Owned Minerals)	12.50%	389/567 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/629 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/47 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/226 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/138 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/51 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	388/564 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	383/143 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/218 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	381/222 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	400/464 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/307 (Mineral Deed)
SWN Production Company, LLC (Company Owned Minerals)	12.50%	399/304 (Mineral Deed)
Royalty Owners	N/A	N/A

31) 04-C15C-0010-0000	Gerald William Baxter, a single man	SWN Production Company, L.L.C.	18.00%	47/417	0.92% *
	Betty White and Stuart White, wife and husband	SWN Production Company, L.L.C.	16.00%	44/317	
	Bonnie Lou Gruber, a widow	SWN Production Company, L.L.C.	16.00%	43/517	
	Charles Douglas Lane, a widower	SWN Production Company, L.L.C.	16.00%	40/697	
	Larry Green and Cindy Green, husband and wife	SWN Production Company, L.L.C.	16.00%	40/705	
	Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, L.L.C.	16.00%	50/787	
	Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, L.L.C.	16.00%	47/557	
	Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, L.L.C.	18.00%	46/624	
	Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, L.L.C.	16.00%	40/540	
	Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, L.L.C.	16.00%	47/686	
	Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	45/117	
	James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	43/509	
	Joann Hagerty, a widow	SWN Production Company, L.L.C.	16.00%	51/167	
	John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, L.L.C.	16.00%	46/666	

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Karen Rich and Richard Rich, wife and husband	SWN Production Company, L.L.C.	16.00%	42/528
Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, L.L.C.	16.00%	47/541
Kenda Learn and Todd Learn, husband and wife	SWN Production Company, L.L.C.	16.00%	47/756
Kimberly Cox, a single woman	SWN Production Company, L.L.C.	16.00%	51/59
Loretta J. Barker, a widow	SWN Production Company, L.L.C.	16.00%	42/504
Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, L.L.C.	16.00%	40/475
Marquita Clyburn, a single woman	SWN Production Company, L.L.C.	16.00%	45/17
Mary Catherine Thoms-Ott, a widow	SWN Production Company, L.L.C.	16.00%	40/713
Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, L.L.C.	16.00%	41/113
Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, L.L.C.	16.00%	51/9
Patricia A. Garcar, a single woman	SWN Production Company, L.L.C.	16.00%	46/525
Patricia L. Fish, a widow	SWN Production Company, L.L.C.	16.00%	42/364
Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, L.L.C.	16.00%	52/307
Rebecca Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	50/74
Renee Kellar, a single woman	SWN Production Company, L.L.C.	16.00%	45/9
Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, L.L.C.	16.00%	39/654
Rita K. Wineman, a widow	SWN Production Company, L.L.C.	16.00%	42/520
Connie Lou Gilmore, a widow	SWN Production Company, L.L.C.	16.00%	45/109
Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	18.00%	56/110
Robert R. Darrow	SWN Production Company, L.L.C.	16.00%	42/372
Robyn Hagerty, a single woman	SWN Production Company, L.L.C.	16.00%	51/658
Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, L.L.C.	16.00%	46/1
Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	16.00%	50/536
Sara A. Fulton, a single woman	SWN Production Company, L.L.C.	16.00%	40/564
Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, L.L.C.	16.00%	50/411
Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, L.L.C.	16.00%	47/549
Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, L.L.C.	16.00%	42/512
Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as	SWN Production Company, L.L.C.	16.00%	52/639
Lisa R. Emery, a single woman	SWN Production Company, LLC	18.00%	56/577
David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	18.00%	56/472
Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	18.00%	56/561
Kathleen L. Robertson, a widow	SWN Production Company, LLC	18.00%	56/569
Michelle Campbell, a single woman	SWN Production Company, LLC	18.00%	56/735

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	Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	18.00%	56/751		
	Anita Williams, divorced and not remarried	SWN Production Company, LLC	18.00%	56/743		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	395/400		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/696		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 391/405		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 382/105		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 389/567		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 388/629		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/47		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/226		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/138		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/51		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 388/564		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 383/143		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/218		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 381/222		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 400/464 (Mineral		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	Deed) 399/307		
	SWN Production Company, LLC (Company Owned Minerals)		12.50%	(Mineral Deed) 399/304 (Mineral		
	Royalty Owners	N/A	N/A	Deed)		
32)	04-C15C-0022-0000	Charles David Johnson and Sandra K. Johnson, husband and wife	Chesapeake Appalachia, L.L.C.	14.00%	19/643	0.00%
			SWN Production Company, LLC		30/480	
33)	04-C15C-0004-0000	John M. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	18.00%	19/626	0.00%
		Karen E. Kafton a/k/a Karen K. Kafton, a single woman	SWN Production Company, LLC		30/480	
			Chesapeake Appalachia, L.L.C.	15.00%	19/634	
			SWN Production Company, LLC		30/480	

	Mark A. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	15.00%	19/622	
	Linda J. Meadows, a married woman dealing in her sole and separate property	SWN Production Company, LLC		30/480	
	John D. Kafton, Jr., married	Chesapeake Appalachia, L.L.C.	12.50%	19/630	
		SWN Production Company, LLC		30/480	
	Diana R. Soltis, married	SWN Production Company, LLC and Equinor	18.00%	55/149	
		USA Onshore Properties Inc.			
	Richard J. Kafton, married	SWN Production Company, LLC and Equinor	18.00%	55/155	
		USA Onshore Properties Inc.			
	Linda L. Gereg, married	SWN Production Company, LLC and Equinor	18.00%	55/173	
		USA Onshore Properties Inc.			
	Marsha J. Bland, single	SWN Production Company, LLC and Equinor	18.00%	55/179	
		USA Onshore Properties Inc.			
	Joyce L Surbaugh, single	SWN Production Company, LLC and Equinor	18.00%	55/167	
		USA Onshore Properties Inc.			
34) 04-C15C-0005-0000	John M. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	18.00%	19/626	0.00%
	Karen E. Kafton a/k/a Karen K. Kafton, a single woman	SWN Production Company, LLC		30/480	
		Chesapeake Appalachia, L.L.C.	15.00%	19/634	
		SWN Production Company, LLC		30/480	
	Mark A. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	15.00%	19/622	
	Linda J. Meadows, a married woman dealing in her sole and separate property	SWN Production Company, LLC		30/480	
	John D. Kafton, Jr., married	Chesapeake Appalachia, L.L.C.	12.50%	19/630	
		SWN Production Company, LLC		30/480	
	Diana R. Soltis, married	SWN Production Company, LLC and Equinor	18.00%	55/149	
		USA Onshore Properties Inc.			
	Richard J. Kafton, married	SWN Production Company, LLC and Equinor	18.00%	55/173	
		USA Onshore Properties Inc.			
	Linda L. Gereg, married	SWN Production Company, LLC and Equinor	18.00%	55/179	
		USA Onshore Properties Inc.			
	Marsha J. Bland, single	SWN Production Company, LLC and Equinor	18.00%	55/167	
		USA Onshore Properties Inc.			
	Joyce L Surbaugh, single	SWN Production Company, LLC and Equinor	18.00%	55/161	
		USA Onshore Properties Inc.			
35) 04-C15C-0006-0000	John M. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	18.00%	19/626	0.00%
	Karen E. Kafton a/k/a Karen K. Kafton, a single woman	SWN Production Company, LLC		30/480	
		Chesapeake Appalachia, L.L.C.	15.00%	19/634	
		SWN Production Company, LLC		30/480	
	Mark A. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	15.00%	19/622	
	Linda J. Meadows, a married woman dealing in her sole and separate property	SWN Production Company, LLC		30/480	
		Chesapeake Appalachia, L.L.C.	12.50%	19/630	
		SWN Production Company, LLC		30/480	

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	John D. Kafton, Jr., married	SWN Production Company, LLC and Equinor	18.00%	55/149	
	Diana R. Soltis, married	SWN Production Company, LLC and Equinor	18.00%	55/155	
	Richard J. Kafton, married	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/173	
	Linda L. Gereg, married	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/179	
	Marsha J. Bland, single	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/167	
	Joyce L Surbaugh, single	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/161	
36) 04-CC11-0091-0000	John M. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	18.00%	19/626	0.00%
	Karen E. Kafton a/k/a Karen K. Kafton, a single woman	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	15.00%	30/480 19/634	
	Mark A. Kafton, a married man dealing in his sole and separate property	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	15.00%	30/480 19/622	
	Linda J. Meadows, a married woman dealing in her sole and separate property	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	12.50%	30/480 19/630	
	John D. Kafton, Jr., married	SWN Production Company, LLC SWN Production Company, LLC and Equinor	18.00%	30/480 55/149	
	Diana R. Soltis, married	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/155	
	Richard J. Kafton, married	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/173	
	Linda L. Gereg, married	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/179	
	Marsha J. Bland, single	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/167	
	Joyce L Surbaugh, single	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/161	
37) 04-C15C-0002-0000	John M. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	18.00%	19/626	0.00%
	Karen E. Kafton a/k/a Karen K. Kafton, a single woman	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	15.00%	30/480 19/634	
	Mark A. Kafton, a married man dealing in his sole and separate property	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	15.00%	30/480 19/622	
	Linda J. Meadows, a married woman dealing in her sole and separate property	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	12.50%	30/480 19/630	
	John D. Kafton, Jr., married	SWN Production Company, LLC SWN Production Company, LLC and Equinor	18.00%	30/480 55/149	
	Diana R. Soltis, married	USA Onshore Properties Inc. SWN Production Company, LLC and Equinor	18.00%	55/155	

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	Richard J. Kafton, married	SWN Production Company, LLC and Equinor USA Onshore Properties Inc.	18.00%	55/173		
	Linda L. Gereg, married	SWN Production Company, LLC and Equinor USA Onshore Properties Inc.	18.00%	55/179		
	Marsha J. Bland, single	SWN Production Company, LLC and Equinor USA Onshore Properties Inc.	18.00%	55/167		
	Joyce L Surbaugh, single	SWN Production Company, LLC and Equinor USA Onshore Properties Inc.	18.00%	55/161		
38)	04-C11L-0014-0000	Marietta College	SWN Production Company, LLC	18.00%	51/368	0.00%

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May 6, 2020

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

RE: SWN's proposed New Well: State of WV DNR C BRK 3H in Brooke County, West Virginia,
Drilling under Putney Ridge Road, St. Johns Road and Tent Church 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 Putney Ridge Road, St. Johns Road and Tent Church 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,



Bailey Brougher
Landman – SW Appalachia
SWN Production Company, LLC



**RECORDING SUPPLEMENT TO
OPERATING AGREEMENT AND FINANCING STATEMENT**

THIS AGREEMENT, entered into by and between SWN Production, Company, LLC, hereinafter referred to as "Operator," and the signatory party or parties other than Operator, hereinafter referred to individually as "Non-Operator," and collectively as "Non-Operators."

WHEREAS, the parties to this agreement are owners of all or such identified portion of Oil and Gas Leases and/or Oil and Gas Interests in the lands shown in Exhibit "A-1" (said land, Leases and Interests being hereinafter called the "Contract Area"), and in any instance in which the Leases or Interests of a party are not of record, the record owner and the party hereto that owns the interest or rights therein are shown in Exhibit "A-1";

WHEREAS, the parties hereto have executed an Operating Agreement dated **September 1st, 2020** (herein the "Operating Agreement"), covering the Contract Area for the purpose of exploring and developing such lands, Leases and Interests for Oil and Gas; and

WHEREAS, the parties hereto have executed this agreement for the purpose of imparting notice to all persons of the rights and obligations of the parties under the Operating Agreement and for the further purpose of perfecting those rights capable of perfection.

NOW, THEREFORE, in consideration of the mutual rights and obligations of the parties hereto, it is agreed as follows:

1. This agreement supplements the Operating Agreement, ~~which Agreement in its entirety is incorporated herein by reference~~, and all terms used herein shall have the meaning ascribed to them in the Operating Agreement.
2. The parties do hereby agree that:
 - A. The Oil and Gas Leases and/or Oil and Gas Interests of the parties comprising the Contract Area shall be subject to and burdened with the terms and provisions of this agreement and the Operating Agreement, and the parties do hereby commit such Leases and Interests to the performance thereof.
 - B. The exploration and development of the Contract Area for Oil and Gas shall be governed by the terms and provisions of the Operating Agreement, as supplemented by this agreement.
 - C. All costs and liabilities incurred in operations under this agreement and the Operating Agreement shall be borne and paid, and all equipment and materials acquired in operations on the Contract Area shall be owned, by the parties hereto, as provided in the Operating Agreement.
 - D. Regardless of the record title ownership to the Oil and Gas Leases and/or Oil and Gas Interests identified on Exhibit "A-1," all production of Oil and Gas from the Contract Area shall be owned by the parties as provided in the Operating Agreement; provided nothing contained in this agreement shall be deemed an assignment or cross-assignment of interests covered hereby.
 - E. Each party shall pay or deliver, or cause to be paid or delivered, all burdens on its share of the production from the Contract Area as provided in the Operating Agreement.
 - F. An overriding royalty, production payment, net profits interest or other burden payable out of production hereafter created, assignments of production given as security for the payment of money and those overriding royalties, production payments and other burdens payable out of production heretofore created and defined as Subsequently Created Interests in the Operating Agreement shall be (i) borne solely by the party whose interest is burdened therewith, (ii) subject to suspension if a party is required to assign or relinquish to another

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party an interest which is subject to such burden, and (iii) subject to the lien and security interest hereinafter provided if the party subject to such burden fails to pay its share of expenses chargeable hereunder and under the Operating Agreement, all upon the terms and provisions and in the times and manner provided by the Operating Agreement.

- G. The Oil and Gas Leases and/or Oil and Gas Interests which are subject hereto may not be assigned or transferred except in accordance with those terms, provisions and restrictions in the Operating Agreement regulating such transfers.

This agreement and the Operating Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, devisees, legal representatives, and assigns, and the terms hereof shall be deemed to run with the leases or interests included within the lease Contract Area.

- H. The parties shall have the right to acquire an interest in renewal, extension and replacement leases, leases proposed to be surrendered, wells proposed to be abandoned, and interests to be relinquished as a result of non-participation in subsequent operations, all in accordance with the terms and provisions of the Operating Agreement.
- I. The rights and obligations of the parties and the adjustment of interests among them in the event of a failure or loss of title, each party's right to propose operations, obligations with respect to participation in operations on the Contract Area and the consequences of a failure to participate in operations, the rights and obligations of the parties regarding the marketing of production, and the rights and remedies of the parties for failure to comply with financial obligations shall be as provided in the Operating Agreement.
- J. Each party's interest under this agreement and under the Operating Agreement shall be subject to relinquishment for its failure to participate in subsequent operations and each party's share of production and costs shall be reallocated on the basis of such relinquishment, all upon the terms and provisions provided in the Operating Agreement.
- K. All other matters with respect to exploration and development of the Contract Area and the ownership and transfer of the Oil and Gas Leases and/or Oil and Gas Interest therein shall be governed by the terms and provisions of the Operating Agreement.
3. The parties hereby grant reciprocal liens and security interests as follows:

- A. Each party grants to the other parties hereto a lien upon any interest it now owns or hereafter acquires in Oil and Gas Leases and Oil and Gas Interests in the Contract Area, and a security interest and/or purchase money security interest in any interest it now owns or hereafter acquires in the personal property and fixtures on or used or obtained for use in connection therewith, to secure performance of all of its obligations under this agreement and the Operating Agreement including but not limited to payment of expense, interest and fees, the proper disbursement of all monies paid under this agreement and the Operating Agreement, the assignment or relinquishment of interest in Oil and Gas Leases as required under this agreement and the Operating Agreement, and the proper performance of operations under this agreement and the Operating Agreement. Such lien and security interest granted by each party hereto shall include such party's leasehold interests, working interests, operating rights, and royalty and overriding royalty interests in the Contract Area now owned or hereafter acquired and in lands pooled or unitized therewith or otherwise becoming subject to this agreement and the Operating Agreement, the Oil and Gas when extracted therefrom and equipment situated thereon or used or obtained for use in connection therewith (including, without limitation, all wells, tools, and tubular goods), and accounts (including, without limitation, accounts arising from the sale of production at the wellhead), contract rights, inventory and general intangibles relating thereto or arising therefrom, and all proceeds and products of the foregoing.
- B. Each party represents and warrants to the other parties hereto that the lien and security interest granted by such party to the other parties shall be a first and prior lien, and each

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party hereby agrees to maintain the priority of said lien and security interest against all persons acquiring an interest in Oil and Gas Leases and Interests covered by this agreement and the Operating Agreement by, through or under such party. All parties acquiring an interest in Oil and Gas Leases and Oil and Gas Interests covered by this agreement and the Operating Agreement, whether by assignment, merger, mortgage, operation of law, or otherwise, shall be deemed to have taken subject to the lien and security interest granted by the Operating Agreement and this instrument as to all obligations attributable to such interest under this agreement and the Operating Agreement whether or not such obligations arise before or after such interest is acquired.

- C. To the extent that the parties have a security interest under the Uniform Commercial Code of the state in which the Contract Area is situated, they shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by a party for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any party in the payment of its share of expenses, interest or fees, or upon the improper use of funds by the Operator, the other parties shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such defaulting party's share of Oil and Gas until the amount owed by such party, plus interest, has been received, and shall have the right to offset the amount owed against the proceeds from the sale of such defaulting party's share of Oil and Gas. All purchasers of production may rely on a notification of default from the non-defaulting party or parties stating the amount due as a result of the default, and all parties waive any recourse available against purchasers for releasing production proceeds as provided in this paragraph.
- D. If any party fails to pay its share of expenses within one hundred-twenty (120) days after rendition of a statement therefor by Operator the non-defaulting parties, including Operator, shall, upon request by Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the interest of all such parties. The amount paid by each party so paying its share of the unpaid amount shall be secured by the liens and security rights described in this paragraph 3 and in the Operating Agreement, and each paying party may independently pursue any remedy available under the Operating Agreement or otherwise.
- E. If any party does not perform all of its obligations under this agreement or the Operating Agreement, and the failure to perform subjects such party to foreclosure or execution proceedings pursuant to the provisions of this agreement or the Operating Agreement, to the extent allowed by governing law, the defaulting party waives any available right of redemption from and after the date of judgment, any required valuation or appraisal of the mortgaged or secured property prior to sale, any available right to stay execution or to require a marshalling of assets and any required bond in the event a receiver is appointed. In addition, to the extent permitted by applicable law, each party hereby grants to the other parties a power of sale as to any property that is subject to the lien and security rights granted hereunder or under the Operating Agreement, such power to be exercised in the manner provided by applicable law or otherwise in a commercially reasonable manner and upon reasonable notice.
- F. The lien and security interest granted in this paragraph 3 supplements identical rights granted under the Operating Agreement.
- G. To the extent permitted by applicable law, Non-Operators agree that Operator may invoke or utilize the mechanics' or materialmen's lien law of the state in which the Contract Area is situated in order to secure the payment to Operator of any sum due under this agreement and the Operating Agreement for services performed or materials supplied by Operator.
- H. The above described security will be financed at the wellhead of the well or wells located on the Contract Area and this Recording Supplement may be filed in the land records in the County or Parish in which the Contract Area is located, and as a financing statement in all recording offices required under the Uniform Commercial Code or other applicable state

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statutes to perfect the above-described security interest, and any party hereto may file a continuation statement as necessary under the Uniform Commercial Code, or other state laws.

4. This agreement shall be effective as of the date of the Operating Agreement as above recited. Upon termination of this agreement and the Operating Agreement and the satisfaction of all obligations thereunder, Operator is authorized to file of record in all necessary recording offices a notice of termination, and each party hereto agrees to execute such a notice of termination as to Operator's interest, upon the request of Operator, if Operator has complied with all of its financial obligations.
5. This agreement and the Operating Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, devisees, legal representatives, successors and assigns. No sale, encumbrance, transfer or other disposition shall be made by any party of any interest in the Leases or Interests subject hereto except as expressly permitted under the Operating Agreement and, if permitted, shall be made expressly subject to this agreement and the Operating Agreement and without prejudice to the rights of the other parties. If the transfer is permitted, the assignee of an ownership interest in any Oil and Gas Lease shall be deemed a party to this agreement and the Operating Agreement as to the interest assigned from and after the effective date of the transfer of ownership; provided, however, that the other parties shall not be required to recognize any such sale, encumbrance, transfer or other disposition for any purpose hereunder until thirty (30) days after they have received a copy of the instrument of transfer or other satisfactory evidence thereof in writing from the transferor or transferee. No assignment or other disposition of interest by a party shall relieve such party of obligations previously incurred by such party under this agreement or the Operating Agreement with respect to the interest transferred, including without limitation the obligation of a party to pay all costs attributable to an operation conducted under this agreement and the Operating Agreement in which such party has agreed to participate prior to making such assignment, and the lien and security interest granted by Article VII.B. of the Operating Agreement and hereby shall continue to burden the interest transferred to secure payment of any such obligations.
6. In the event of a conflict between the terms and provisions of this agreement and the terms and provisions of the Operating Agreement, then, as between the parties, the terms and provisions of the Operating Agreement shall control.
7. This agreement shall be binding upon each Non-Operator when this agreement or a counterpart thereof has been executed by such Non-Operator and Operator notwithstanding that this agreement is not then or thereafter executed by all of the parties to which it is tendered or which are listed on Exhibit "A-1" as owning an interest in the Contract Area or which own, in fact, an interest in the Contract Area. In the event that any provision herein is illegal or unenforceable, the remaining provisions shall not be affected, and shall be enforced as if the illegal or unenforceable provision did not appear herein.
8. Other provisions.

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Exhibit "A-1"

Attached to and made part of that certain Recording Supplement to Operating Agreement and Financing Statement dated and made effective September 1, 2020,
by and between SWN Production Company, LLC, as Operator, and Equinor USA Onshore Properties Inc. as Non-Operator.

**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Blk/Pg
749504-000	Marietta College	SWN Production Company, LLC	Brooke	Cross Creek	4/16/2019	51/368
Pending	Troy A. Lucas, a single man	SWN Production Company, LLC	Brooke	Cross Creek	11/6/2019	55/105
736469-001	Mark A. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/20/2011	19/622
736469-002	John M. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/20/2011	19/626
736469-003	Linda J. Meadows, a married woman deling in her sole and separate property	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/20/2011	19/630
736469-004	Karen E. Kafton aka Karen K. Kafton, a single woman	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/20/2011	19/634
736469-005	John D. Kafton, married	SWN Production Company, LLC, Equinor USA Onshore Properties Inc.	Brooke	Cross Creek	7/1/2019	55/149
736469-006	Diana R. Soltis, married	SWN Production Company, LLC, Equinor USA Onshore Properties Inc.	Brooke	Cross Creek	7/1/2019	55/155
736469-010	Joyce L. Surbaugh, single	SWN Production Company, LLC, Equinor USA Onshore Properties Inc.	Brooke	Cross Creek	7/1/2019	55/161
736469-009	Marsha J. Bland, single	SWN Production Company, LLC, Equinor USA Onshore Properties Inc.	Brooke	Cross Creek	7/1/2019	55/167
736469-007	Richard J. Kafton, married	SWN Production Company, LLC, Equinor USA Onshore Properties Inc.	Brooke	Cross Creek	7/1/2019	55/173
736469-008	Linda L. Gereg, married	SWN Production Company, LLC, Equinor USA Onshore Properties Inc.	Brooke	Cross Creek	7/1/2019	55/179
124224-001	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		382/105 (Mineral Deed)

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Blk/Pg
747904-060	Anita Williams, divorced and not remarried	SWN Production Company, LLC	Brooke	Cross Creek	3/5/2020	56/743
Pending	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		400/464 (Mineral Deed)
747904-026	Betty White and Stuart White, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	4/6/2018	44/317
124232-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		389/567 (Mineral Deed)
747904-028	Bonnie Lou Gruber, a widow	SWN Production Company, LLC	Brooke	Cross Creek	3/23/2018	43/517
124229-002	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		388/629 (Mineral Deed)
747904-004	Charles Douglas Lane, a widower	SWN Production Company, LLC	Brooke	Cross Creek	2/13/2018	40/697
124213-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		383/47 (Mineral Deed)
124210-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		381/226 (Mineral Deed)
747904-021	Connie Lou Gilmore, a widow	SWN Production Company, LLC	Brooke	Cross Creek	4/9/2018	45/109
747904-043	Crystal M. Hooker and James M. Hooker, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	3/12/2019	50/787
747904-064	David Drake and Vicki Drake, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/20/2020	56/472
747904-033	Debbie Lyseski and Gerald Lyseski, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	4/5/2018	47/557

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
Pending	Debra Kotson	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
Pending	Dennis A. Strauss and Vicky M. Strauss, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/25/2020	56/561
Pending	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		399/307 (Mineral Deed)
747904-025	Dolores J. Bobovnik and Donald S. Bobovnik, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	4/27/2018	46/624
747904-003	Dorothy Duke and Edward Duke, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	2/13/2018	40/540
747904-034	Frank E. Cominotti and Marilyn Cominotti, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	3/14/2018	47/686
747904-027	Gary F. Obloy and Denise I. Obloy, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	3/28/2018	45/117
Pending	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		395/400 (Mineral Deed)
124239-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		391/405 (Mineral Deed)
Pending	Harold L. Campbell	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
Pending	Heirs of William E. Booth Jr.	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
Pending	James D. Drake, married, dealing in his sole and separate property	SWN Production Company, LLC	Brooke	Cross Creek	6/22/2020	59/502
Pending	James M. Garcar	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
747904-029	James Neal Emery and Renee R. Emery, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	3/24/2018	43/509
124224-002	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		383/138 (Mineral Deed)
747904-053	Joann Hagerty, a widow	SWN Production Company, LLC	Brooke	Cross Creek	4/3/2019	51/167
124218-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		383/51 (Mineral Deed)
747904-036	John W. Obloy, Jr. and Janet Obloy, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	6/4/2018	46/666
Pending	Joseph Goblowsky	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
Pending	Julia F. Lonchar	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
747904-002	Karen Rich and Richard Rich, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	3/5/2018	42/528
Pending	Kathleen L. Robinson, a widow	SWN Production Company, LLC	Brooke	Cross Creek	2/25/2020	56/569
747904-032	Keith Jay Fischer and Dawn Marie Fischer, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	4/19/2018	47/541
747904-038	Kenda Learn and Todd Learn, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	4/28/2018	47/756
124299-001	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		388/564 (Mineral Deed)
747904-059	Kimberly Cox, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	3/20/2019	51/59

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by and between SWN Production Company, LLC, as Operator, and Equinor USA Onshore Properties Inc. as Non-Operator.

**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
Pending	Kristina Rogers	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
747904-009	Larry Green and Cindy Green, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/12/2018	40/705
124220-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		383/143 (Mineral Deed)
747904-065	Lisa R. Emery, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	2/21/2020	56/577
124233-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		389/696 (Mineral Deed)
747904-012	Loretta J. Barker, a widow	SWN Production Company, LLC	Brooke	Cross Creek	3/7/2018	42/504
747904-006	Marion David Ott and Janice L. Ott, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/12/2018	40/475
747904-020	Marquita Clyburn, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	4/23/2018	45/17
747904-001	Mary Catherine Thoms-Ott, a widow	SWN Production Company, LLC	Brooke	Cross Creek	2/9/2018	40/713
124211-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		381/218 (Mineral Deed)
Pending	Melissa Rose Darrow	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
Pending	Mellissa Darrow	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
747904-062	Michelle Campbell, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	3/6/2020	56/735

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
Pending	Miller Family Trust	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
747904-044	Orie N. Young and Bernie A. Young, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	3/12/2019	51/9
747904-031	Patricia A. Garcar, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	6/4/2018	46/525
747904-007	Patricia L. Fish, a widow	SWN Production Company, LLC	Brooke	Cross Creek	3/6/2018	42/364
747904-055	Patrick Hagerty and Dalene Hagerty, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	5/16/2019	52/307
747904-039	Rebecca Hagerty, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	1/31/2019	50/74
124212-000	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		381/222 (Mineral Deed)
747904-022	Renee Kellar, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	4/26/2018	45/9
Pending	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		399/304 (Mineral Deed)
747904-011	Richard G. Hlinka and Mary Lou Hagerty Hlinka, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/25/2018	41/113
747904-005	Rita K. Wineman, a widow	SWN Production Company, LLC	Brooke	Cross Creek	3/7/2018	42/520
747904-056	Robert A. Tessean, Richard I. Tessean and Patricia A. Harnar, acting as Trustees of the Tessean Family Revocable Living Trust, dated December 29th, 1993	SWN Production Company, LLC	Brooke	Cross Creek	3/7/2019	52/639
747904-014	Robert D. Barnes and Rhonda L. Barnes, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	1/18/2018	39/654

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
Pending	Robert Lee Marciano, a/k/a Robert Lee Mayer, an incarcerated person located in the Texas Department of Criminal Justice's Gib Lewis Unit, Woodville, Texas 75990, and his court appointed Guardian ad litem, Tyler L. Cline, Esq., of Weirton, West Virginia, 26062-4500	SWN Production Company, LLC	Brooke	Cross Creek	11/27/2019	56/110
747904-008	Robert R. Darrow	SWN Production Company, LLC	Brooke	Cross Creek	2/28/2018	42/372
Pending	Roberta Helena Grounds	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
747904-052	Robyn Hagerty, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	5/3/2019	51/658
747904-024	Ronald Mayer and Debra Mayer, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	5/17/2018	46/1
747904-046	Sandra Salkovich and Ronald J. Salkovick II, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	2/25/2019	50/536
747904-010	Sara A. Fulton, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	1/9/2018	40/564
747904-063	Sharron Larrison and Thomas Larrison, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	3/2/2020	56/751
747904-045	Shelli Wheeler and Anthony R. Wheeler, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	2/20/2019	50/411
Pending	Shirley Ann Drake	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
Pending	Shirley L. Largent	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
747904-037	Stephen C. Emery and Cathy J. Emery, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	5/1/2018	47/549

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
747904-035	Gerald Williams Baxter, a single man	SWN Production Company, LLC	Brooke	Cross Creek	6/8/2018	47/417
747904-013	Terri J. Brock and Steve E. Brock, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	2/26/2018	42/512
Pending	Vicky Lightner	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
Pending	William Ralph Gilmore	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/10/2020	404/55
747904-048	Albert C. Barton, a single man	SWN Production Company, LLC	Brooke	Cross Creek	3/12/2019	51/1
Pending	Sandra L. Batson, a widow	SWN Production Company, LLC	Brooke	Cross Creek	2/12/2020	57/168
Pending	Tammy Germann, a divorced woman	SWN Production Company, LLC	Brooke	Cross Creek	2/12/2020	57/176
Pending	Barbara Barker and Ronzel Barker, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	2/17/2020	56/424
Pending	Ronald Bonnell, widower	SWN Production Company, LLC	Brooke	Cross Creek	2/20/2020	56/448
Pending	Donald Bonnell and Joan Bonnell, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/19/2020	56/456
747534-001	John Kenneth McVay and Mary Catherine McVay, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	10/31/2017	38/157
747904-017	Verna E. Fluharty, a widow	SWN Production Company, LLC	Brooke	Cross Creek	1/19/2018	40/252
747904-018	Sandra E. Summers, a divorced woman	SWN Production Company, LLC	Brooke	Cross Creek	3/19/2018	42/714

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
736453-000	Charles David Johnson and Sandra K. Johnson, husband and wife	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	11/10/2011	19/643
748595-000	Chad A. Riccelli and Renee H. Riccelli, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	5/6/2018	46/23
747562-000	Thomas Ray Goff, a single man	SWN Production Company, LLC	Brooke	Cross Creek	2/5/2018	40/572
747904-016	Michael R. Fabian and Jody L. Fabian, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	12/4/2017	39/17
747904-023	Lonnie C. Wade and Christine E. Wade, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	3/24/2018	44/369
747468-001	Rexall G. Lancaster Jr., a divorced man	SWN Production Company, LLC	Brooke	Cross Creek	12/3/2017	38/563
748364-001	Robert D. Skiba and Bridgette Jo Skiba, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	4/9/2018	43/608
746870-000	James A. Rahr and Geraldine Rahr, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	9/20/2017	37/262
736431-001	Mark A. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/20/2011	19/330
736431-003	John M. Kafton, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/20/2011	19/326
736431-002	Linda J. Meadows, a married woman deling in her sole and separate property	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/20/2011	19/323
736431-004	Karen E. Kafton aka Karen K. Kafton, a single woman	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/20/2011	19/319
735008-000	Clondell Barkley, a Widow	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/3/2013	28/412

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
748252-000	James K. Warrick, a single man, and Burl D. Warrick, a single man	SWN Production Company, LLC	Brooke	Cross Creek	4/27/2018	45/187
735039-000	Dolly's LLC	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	9/25/2013	28/437
735037-000	William C. Black and Heather N. Black, husband and wife	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	10/15/2013	28/427
734881-000	Val Jean delong, Trustee of the 2011 Delong Keystone Family Trust dated April 20, 2011	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	9/19/2013	28/182
747904-015	Gerald L. Aracich, a divorced man	SWN Production Company, LLC	Brooke	Cross Creek	10/31/2017	39/1
747904-047	Harold Wayne Beatty, Jr. and Natalie Rose Beatty, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/19/2019	50/335
748394-005	St. Johns Cemetery Company, also known as St. John's Cemetery Association, a Corporation	SWN Production Company, LLC	Brooke	Cross Creek	2/27/2018	41/541
748394-002	First Presbyterian Church	SWN Production Company, LLC	Brooke	Cross Creek	3/28/2018	43/484
748394-009	Ridgetop Appalachia LLC	SWN Production Company, LLC	Brooke	Cross Creek	5/1/2018	45/169
748394-010	Latrobe Presbyterian Church	SWN Production Company, LLC	Brooke	Cross Creek	2/19/2019	50/560
748394-014	William York-Feirn and Wendy York-Feirn, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	4/2/2019	53/288
748394-015	Edward J. Smith and Sherri Rae Smith, f/k/a Sherri Rae York, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	4/2/2019	51/451
748394-019	Robert C. York, a single man	SWN Production Company, LLC	Brooke	Cross Creek	4/2/2019	51/442

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Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
748394-016	Joseph Gormley and Tracey A. Gormley, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	4/2/2019	51/649
748394-017	John Hussey and Laura York Hussey, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	4/2/2019	51/777
748394-013	Raquel York Jackson, a divorced woman	SWN Production Company, LLC	Brooke	Cross Creek	4/2/2019	53/525
748394-012	Stephenie Marie York, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	4/2/2019	53/634
748394-003	Terri L. Wolinski, divorced	SWN Production Company, LLC	Brooke	Cross Creek	3/26/2018	43/475
Pending	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		391/398 (Mineral Deed)
748394-001	Edward A. Brothers, widower	SWN Production Company, LLC	Brooke	Cross Creek	3/15/2018	45/786
748394-008	Sammie D. Brothers, a single man	SWN Production Company, LLC	Brooke	Cross Creek	3/17/2018	42/742
748394-007	Linda J. Lee, widowed	SWN Production Company, LLC	Brooke	Cross Creek	3/24/2018	43/448
748394-004	Ronald Edward Chambers, a widower	SWN Production Company, LLC	Brooke	Cross Creek	4/23/2018	44/211
748394-018	Stephen N. Vidmar, a widower	SWN Production Company, LLC	Brooke	Cross Creek	6/2/2019	53/9
748394-020	Mark Stevens, a single man	SWN Production Company, LLC	Brooke	Cross Creek	2/22/2019	54/238
748394-006	Carol J. Weiher and Martin C. Weiher, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	4/18/2018	44/412

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
Pending	Darrell Chambers and Joyce E. Chambers, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	6/29/2020	59/465
Pending	Heirs of Elizabeth Frey	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/15/2020	403/784
Pending	Heirs of Marie Sturm	Cotenancy pursuant to West Virginia Code §37B-1-1, et seq.	Brooke	Cross Creek	8/15/2020	403/784
749045-006	St. Johns Cemetery Company, a/k/a St. John's Cemetery Association, a Corporation	SWN Production Company, LLC	Brooke	Cross Creek	4/17/2019	52/262
749045-005	First Presbyterian Church	SWN Production Company, LLC	Brooke	Cross Creek	2/8/2019	50/504
749045-004	Terri L. Wolinski, divorced	SWN Production Company, LLC	Brooke	Cross Creek	2/27/2019	50/617
749045-001	Edward A. Brothers, a widower	SWN Production Company, LLC	Brooke	Cross Creek	1/27/2019	51/107
749045-002	Sammie D. Brothers, a single man	SWN Production Company, LLC	Brooke	Cross Creek	1/17/2019	50/237
749045-008	Linda J. Lee, widowed	SWN Production Company, LLC	Brooke	Cross Creek	1/17/2019	51/135
749045-003	Ronald Edward Chambers, a widower	SWN Production Company, LLC	Brooke	Cross Creek	2/2/2019	50/173
749045-007	Martin C. Weiher and Carol J. Weiher, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/14/2019	51/410
747588-001	Tracey L. Gatten, fka Tracy L. Forester, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	12/26/2017	39/701
747534-003	Robert S. Forester and Loretta J. Forester, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	11/10/2017	38/437

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
747904-051	Chad W. Sparks, a single man	SWN Production Company, LLC	Brooke	Cross Creek	3/30/2019	51/75
747904-040	Donald J. Bartoletti, a single man	SWN Production Company, LLC	Brooke	Cross Creek	1/24/2019	49/778
747904-058	John Hood and Stephanie R. Hood, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	4/6/2018	47/168
747182-001	Thomas J. Schantz and Desiree L. Schantz, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	10/11/2017	37/597
747698-001	Richard L. Lantz, a single man	SWN Production Company, LLC	Brooke	Cross Creek	12/5/2017	39/9
747904-030	Lee Eltringham and Seung-ha Lee, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/10/2018	40/548
748358-001	Joyce E. Pratt and Larry D. Pratt, wife and husband	SWN Production Company, LLC	Brooke	Cross Creek	3/23/2018	43/44
747676-001	John Mester, a single man	SWN Production Company, LLC	Brooke	Cross Creek	11/10/2017	38/452
747904-019	Larry Allen Hood, a single man	SWN Production Company, LLC	Brooke	Cross Creek	4/6/2018	44/376
746827-001	Delbert A. Campbell and Pamela A. Campbell, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	9/27/2017	38/194
747678-001	John Mester, a single man	SWN Production Company, LLC	Brooke	Cross Creek	11/10/2017	38/459
747904-041	Reva Amanda Allman Yost, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	1/19/2019	49/697
747644-001	Charlie Ivan Dulaney and Angela J. Dulaney aka Angelo Jo Dulaney, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	11/14/2017	38/378

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
730105-000	Larry E. Reed single	Great Lakes Energy Partners, L.L.C.	Brooke	Cross Creek	5/23/2006	9/693
747904-042	Kerry Aaron Looman, a single man	SWN Production Company, LLC	Brooke	Cross Creek	1/24/2019	50/205
747904-049	Betty Sue Mitchell, fka Betty Sue Lancaster, a widow	SWN Production Company, LLC	Brooke	Cross Creek	2/19/2019	50/544
747904-050	Emery McAbee and Linda K. McAbee, fka Linkda K. Lancaster, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/19/2019	50/693
748904-029	Rose vanHemert aka Rose van Hemert, a single woman	SWN Production Company, LLC	Brooke	Cross Creek	5/4/2018	45/132
736756-001	David W. Null (Life Estate), a single man, Gordon Kiger (Remainderman), a married delaing in his sole and sperate	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	11/21/2011	21/49
746763-001	Frank Paesano and Cynthia Paesano, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	7/21/2017	35/479
746958-001	Mike E. Bailey and Mary E. Bailey, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	7/17/2017	35/535
746771-001	Dale W. Gaynor Jr. and Karen S. Gaynor, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	7/18/2017	35/527
746572-001	Robert L. Dodson, III and Wendy Ann Dodson, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	6/1/2017	34/667
Pending	Brian Keith Brown and Veronica Jo Beatty-Brown, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	2/2/2020	56/341
747904-054	Larry E. Reed, a single man	SWN Production Company, LLC	Brooke	Cross Creek	3/27/2019	51/666
747642-001	Harold W. Beatty and Patricia Beatty, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	12/15/2017	38/776

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
749419-003	Ramon L. Bowen, a widower	SWN Production Company, LLC	Brooke	Cross Creek	5/3/2019	51/699
Pending	LPS Investment Partnerhip	SWN Production Company, LLC	Brooke	Cross Creek	12/20/2019	55/726
747412-000	Fred Welshans Jr., a single man and Chris E. Welshans, a single man	SWN Production Company, LLC	Brooke	Cross Creek	12/17/2017	39/45
Pending	SWN Production Company, LLC (Company Owned Minerals)		Brooke	Cross Creek		396/555 (Mineral Deed)
736736-000	Eva B. Catlett, widow	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	1/24/2012	21/1
746744-000	Frank Reed Larkey and Prapai Somsak Larkey, husnand and wife	SWN Production Company, LLC	Brooke	Cross Creek	8/12/2017	36/225
730110-000	Ronald A. Reed, single	Great Lakes Energy Partners, L.L.C.	Brooke	Cross Creek	8/31/2006	9/718
747014-002	Ruth M. Blaskovich, a widow	SWN Production Company, LLC	Brooke	Cross Creek	9/25/2017	37/357
747665-000	Golden Eagle Resources II, LLC	SWN Production Company, LLC	Brooke	Cross Creek	2/20/2018	40/599
747014-001	Peter D. Blaskovich and Helen S. Blaskovich, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	9/25/2017	37/354
746839-000	Ryan Powell and Kelly Powell, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	8/22/2017	36/450
747021-000	Gerald P. Smith and Deborah S. Smith, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	8/12/2017	36/218
730135-000	Starvaggi Industries, Incorporated	Fortuna Energy Inc.	Brooke	Cross Creek	10/25/2005	9/532

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**State of WV DNR C North Unit
Brooke County, West Virginia**

SWN Lease Number	Lessor	Lessee	County	District	Lease Date	Lease Bk/Pg
747443-000	James Henry Shaffer, Sr. and Bonnie Shaffer, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	11/22/2017	38/415
731593-000	The Estate of Joyce Joann Tredway, Constance F. Bucy, Executrix	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	12/16/2010	12/706
Pending	Patricia Lee Tredway and Irene Michelle Tredway, a married couple	SWN Production Company, LLC	Brooke	Cross Creek	2/24/2020	56/440
736185-000	The Janie L. Denoon Trust, William S. Denoon Sr., Trustee	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	8/19/2011	17/786
730154-000	William C. Saunders, single	Great Lakes Energy Partners, L.L.C.	Brooke	Cross Creek	1/16/2008	10/133
732745-000	Starvaggi Industries, Incorporated, a Corporation organized and existing by virtue of the laws of the State of West Virginia	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	3/1/2012	21/534
748518-000	Wesbanco Trust and Investment Services and Gretchen Moore Langevin, As Trustees of the William J. Moore Trust dated	SWN Production Company, LLC	Brooke	Cross Creek	2/6/2018	40/381
729671-000	Edward L. Carter and Deborah C. Carter, husband and wife	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	8/28/2010	11/29
729672-000	Edward L. Carter and Deborah C. Carter, his wife	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	8/28/2010	11/33
748000-000	Santy Galiano, and Lindy L. Galiano, husband and wife	SWN Production Company, LLC	Brooke	Cross Creek	7/17/2017	35/501
736713-000	William Morgan Rouse and Doris Jean Rouse, husband and wife	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	1/17/2012	20/680
732885-000	Starvaggi Industries, Incorporated	Chesapeake Appalachia, L.L.C.	Brooke	Cross Creek	3/20/2012	22/514

End of Exhibit "A-1"

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Kees, Kelly L

From: Brewer, Charles T
Sent: Tuesday, December 1, 2020 11:48 AM
To: Kees, Kelly L
Subject: FW: [External] FW: State of WV DNR C Unit

Importance: High

Got approval from our legal to move forward with this permit based on the email confirmation below. I would include the emails below as an addendum to the permit.

Taylor Brewer, B.S., M.S.
Assistant Chief - Permitting
WVDEP Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
304-926-0499 ext. 41108

From: Carla Suszkowski <Carla_Suszkowski@SWN.COM>
Sent: Tuesday, November 24, 2020 1:43 PM
To: Brewer, Charles T <Charles.T.Brewer@wv.gov>; Harmon, Henry J <Henry.J.Harmon@wv.gov>
Cc: Chris Weikle <Chris_Weikle@SWN.COM>; Brittany Woody <Brittany_Woody@SWN.COM>
Subject: [External] FW: State of WV DNR C Unit
Importance: High

CAUTION: External email. Do not click links or open attachments unless you verify sender.

Taylor and Jason,

Please see the email below from EQNR regarding the WV DNR C 5H permit – it was my understanding from Chris and Jason’s conversation that an email could suffice. Please let me know if this will satisfy the requirements.

Carla L. Suszkowski, P.E.
Regulatory Manager – SW Appalachia
Direct: 832-796-6372

Cell: 724-561-8129
Email: Carla_Suszkowski@SWN.com

From: Bailey Brougher
Sent: Tuesday, November 24, 2020 12:40 PM
To: Carla Suszkowski <Carla_Suszkowski@SWN.COM>
Subject: FW: State of WV DNR C Unit

Carla,

Please see the confirmation from EQNR below on SWN's right to operate on the lands covering the State of WV DNR C North Unit, which includes the 6 leases they had questioned earlier this year.

Please let me know if this will be enough to get approval from the DEP on the State of WV DNR C BRK 3H and 5H permits.

Thank you,
Bailey Brougher, RPL
Landman – SW Appalachia



Southwestern Energy®
10000 Energy Drive
Spring TX, 77389
Bailey_Brougher@SWN.com
Office: (832) 796-7814
Cell: (832) 585-7551

From: Tyler Roche [<mailto:TYLR@equinor.com>]
Sent: Tuesday, November 24, 2020 12:19 PM
To: Bailey Brougher <Bailey_Brougher@SWN.COM>
Subject: [External] RE: State of WV DNR C Unit

Bailey,

Yes, I can confirm that SWN has the right to permit, drill, extract and produce the oil and gas underlying the lands covering the State of WV DNR C North Unit. As additional backup to confirm EQNR's support, I have provided the following documentation, all of which has been fully approved and executed by EQNR:

- State of WV DNR C North Unit JOA
- State of WV DNR C North Unit Recording Supplement to JOA

- Non-Consent Election Letter Agreement – State of WV DNR C BRK 5H
- Permit Letter Agreement – State of WV DNR C BRK 3H & 5H
- Memorandum to Permit Letter Agreement – State of WV DNR C BRK 3H & 5H

Thank you and I hope you have a wonderful Thanksgiving!

Best regards,

—

Tyler Roche
Senior Consultant Land
TE LAN MAR
Equinor US

+1 512 999 5697
tylr@equinor.com

Visitor address: 6300 Bridge Point Parkway, Bldg. 2, Suite 100, Austin, Texas 78730, USA

equinor.com

From: Bailey Brougher <Bailey_Brougher@SWN.COM>

Sent: Tuesday, November 24, 2020 11:50 AM

To: Tyler Roche <TYLR@equinor.com>

Subject: RE: State of WV DNR C Unit

Tyler,

SWN's Regulatory group has let me know that an email could and would be enough to get this approved by the DEP. Based on our Joint Operating Agreement dated September 1, 2020, can you please confirm that SWN has the right to permit, drill, extract and produce the oil and gas underlying the lands covering the State of WV DNR C North Unit?

A fully executed recording supplement is attached.

Thank you,
Bailey Brougher

Notice: This e-mail may contain privileged and/or confidential information and is intended only for the addressee. If you are not the addressee or the person responsible for delivering it to the addressee, you may not copy or distribute this communication to anyone else. If you received this communication in error, please notify us immediately by telephone or return e-mail and promptly delete the original message from your system.

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

Date of Notice Certification: 5/18/20

API No. 47- 009
Operator's Well No. State of WV DNR C BRK 3H
Well Pad Name: State of WV DNR C BRK

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:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>539,285.419</u>
County:	<u>009-Brooke</u>		Northing:	<u>4,461,411.725</u>
District:	<u>Cross Creek</u>	Public Road Access:	<u>Putney Ridge Road</u>	
Quadrangle:	<u>Steubenville East</u>	Generally used farm name:	<u>State of WV DNR C BRK</u>	
Watershed:	<u>North Fork Cross Creek- Cross Creek</u>			

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.

<p>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:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p>
---	--

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.

Certification of Notice is hereby given:

THEREFORE, I Brittany Woody, 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:	<u>SWN Production Co., LLC</u>	Address:	<u>1300 Fort Pierpont Dr., Suite 201</u>
By:	<u>Brittany Woody</u>		<u>Morgantown, WV 26508</u>
Its:	<u>Senior Regulatory Analyst</u>	Facsimile:	<u>304-884-1690</u>
Telephone:	<u>304-884-1610</u>	Email:	<u>Brittany_Woody@swn.com</u>

Brittany Woody



Subscribed and sworn before me this 3rd day of Feb, 2020.
Jessica L. Vangilder Notary Public
My Commission Expires 7-20-20

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 deprivacyofficer@wv.gov.

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Office of Oil and Gas
MAY 20 2020
WV Department of
Environmental Protection

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: 5/18/20 Date Permit Application Filed: 5/18/20

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: State of WV-DNR
Address: PO Box 99, 1110 Railroad Street
Farmington, WV 26571
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: 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: See Attachment 13A
Address: _____

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

*Please attach additional forms if necessary

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Office of Oil and Gas
MAY 20 2020
WV Department of
Environmental Protection

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: 5/18/20 Date Permit Application Filed: 5/18/20

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: _____

Address: _____

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: Monongahela Power Company

Address: 5001 Nasa Blvd

Fairmont, WV 26554

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

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/and-gas/pages/default.aspx.

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Department of Environmental Protection
Office of Oil and Gas

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 one 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

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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Office of Oil and Gas
MAY 20 2020
WV Department of
Environmental Protection

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.**

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.

RECEIVED
Office of Oil and Gas
MAY 20 2020
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO 44700900314
OPERATOR WELL NO. State of WV DNR C BRK 3H
Well Pad Name: State of WV DNR C BRK

Notice is hereby given by:

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

Brittany Woody

Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Facsimile: 304-884-1690

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.



Subscribed and sworn before me this 3rd day of Feb., 2020.

Jessica L. Vangilder Notary Public

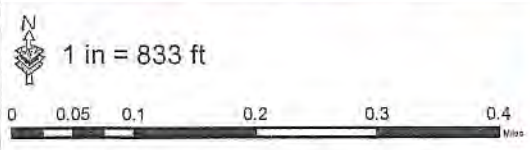
My Commission Expires 7-20-20

4700900314

ATTACHMENT 13

OWNER	ADDRESS	CITY	STATE	ZIP
MARINO MILDRED T & WILLIAM	1020 CROSS CREEK RD	COLLIERS	WV	26035
HENDERSON WAYNE L & BETHANY A (SURV)	1048 CROSS CREEK RD	COLLIERS	WV	26035
MCCONNELL BARBARA J	44 PUNTNEY RIDGE RD	COLLIERS	WV	26035

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Coordinate System: NAD 1983 UTM Zone 17N
Units: Meter

- S Spring
- W Water Well
- Pond
- 1500' Buffer

Water Purveyor Map
Well Pad: STATE OF WV DNR C
County: BRK



Date: 11/28/2017 Author: willisb

Document Path: K:\EandP\WVD\Team Data\Regulatory\Bobby Willis\Maps\Water_Purveyor_Large_Landowner_SToWV_DNR_C_1500Buffer.mxd

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Office of Oil and Gas

MAY 20 2020

WV Department of
Environmental Protection

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry

Date of Notice: 12/10/2019 Date of Planned Entry: 12/17/2019

Delivery method pursuant to West Virginia Code § 22-6A-10a

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

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: State of WV-DNR Attn: Steve Rausch
Address: PO Box 99, 1110 Railroad Street
Farmington, WV 26571

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: Starvaggi Industries, INC.
Address: 401 Pennsylvania Ave
Weirton, WV 26062

MINERAL OWNER(s)

Name: Starvaggi Industries, INC.
Address: Weirton, WV 26062
Weirton, WV 26062

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: West Virginia
County: Brooke
District: Cross Creek
Quadrangle: Steubenville East

Approx. Latitude & Longitude: 4461365.21, 539282.70
Public Road Access: Putney Ridge Road
Watershed: North Fork Cross Creek
Generally used farm name: State of WV DNR C

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN PRODUCTION COMPANY, LLC
Telephone: 304-884-1610
Email: brittany_woody@swn.com

Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Facsimile: 304-884-1690

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Office of Oil and Gas
MAY 20 2020
WV Department of
Environmental Protection

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.

4700900314

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: 02/03/2020 **Date Permit Application Filed:** 5/18/20

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: St of WV Dept of Commerce Div of Natural Resources
Address: 324 4th Ave, Rm 200
Charleston, WV 25303

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: 539,285.419
County: Brooke Northing: 4,461,411.725
District: Cross Creek Public Road Access: Putney Ridge Rd
Quadrangle: Steubenville East, OH Generally used farm name: State of WV DNR C BRK
Watershed: North Fork Cross Creek-Cross Creek

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 Company, LLC
Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Telephone: 304-231-8329
Email: Reid_Croft@swn.com
Facsimile: 304-884-1691

Authorized Representative: Reid Croft
Address: 1300 Fort Pierpont Dr., Suite 201
Jane Lew, WV 26508
Telephone: 304-231-8329
Email: Reid_Croft@swn.com
Facsimile: 304-884-1691

RECEIVED
Office of Oil and Gas
MAY 20 2020
WV Department of
Environmental Protection

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.

4700900314

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: 02/03/2020 **Date Permit Application Filed:** 5/18/20

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

CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED 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: St of WV Dept of Commerce Div of Natural Resources Name: _____
Address: 324 4th Ave, Rm 200 Address: _____
Charleston, WV 25303

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 UTM NAD 83 Easting: 539,285.419
County: Brooke Northing: 4,461,411.725
District: Cross Creek Public Road Access: Puiney Ridge Rd
Quadrangle: Steubenville East Generally used farm name: State of WV DNR A BRK
Watershed: North Fork Cross Creek- Cross Creek

RECEIVED
Office of Oil and Gas
MAY 20 2020
WV Department of
Environmental Protection

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 Company, LLC Address: 1300 Fort Pierpont Drive, Suite 201
Telephone: 304-231-8329 Morgantown, WV 26508
Email: Reid_Croft@swn.com Facsimile: 304-884-1691

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Byrd E. White, III
Secretary of Transportation/
Commissioner of Highways

January 31, 2020

Jimmy Wriston, P. E.
Deputy Secretary/
Deputy Commissioner

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 State of WV DNR C Pad, Brooke County

State of WV DNR C BRK 3H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2017-0591 which has been issued to Southwestern Energy for access to the State Road for a well site located off Brooke County Route 7/3 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE 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 October 1, 2018.

Very Truly Yours,

A handwritten signature in blue ink that reads "Gary K. Clayton".

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

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

Product Name	Product Use	Chemical Name	CAS Number
AI-303 (U.S. Well Services)	Mixture	Ethylene glycol	107-21-1
		Cinnamaldehyde	104-55-2
		Butyl cellosolve	111-76-2
		Formic acid	64-18-6
		Polyether	Proprietary
		Acetophenone, thiourea, formaldehyde polymer	68527-49-1
AP ONE (U.S. Well Services)	Breaker	Ammonium persulfate	7727-54-0
Bactron K-139 (Champion Technologies)	Biocide	Glutaraldehyde	111-30-8
		Quaternary Ammonium Compounds, Benzyl-C12-16-Alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
Bactron K-219 (Champion Technologies)	Biocide	Methanol	67-56-1
		Quaternary Ammonium Compounds, Benzyl-C12-16-Alkyldimethyl, Chlorides	68424-85-1
CarboNRT	Tracer	Ceramic Proppant	66402-68-4
EC6486A (Nalco Champion)	Scale Inhibitor	Amine Triphosphate	Proprietary
		Ethylene Glycol	107-21-1
EC6734A (Champion Technologies)	Biocide	Hydrogen Peroxide	7722-84-1
		Acetic Acid	64-19-7
		Peroxyacetic Acid	79-21-0
Econo-CI200 (SWN Well Services)	Corrosion Inhibitor	Methanol	67-56-1
		Oxyalkylated fatty acid	68951-67-7
		Fatty acids	61790-12-3
		Modified thiourea polymer	68527-49-1
		Water	7732-18-5
		Hydrochloric acid	7647-01-0
		Potassium acetate	127-08-2
		Formaldehyde	50-00-0
Ecopol-FEAC (SWN Well Services)	Iron Control	Acetic Acid	64-19-7
		Citric Acid	77-92-9
		Water	7732-18-5
FDP-S1176-15 (Halliburton)	Friction Reducer	Polyacrylate	Proprietary
		Hydrotreated light petroleum distillate	64742-47-8
FLOJET DR900 LPP (SWN Well Services)	Friction Reducer	Distillates (petroleum) hydrotreated light	64674-47-8
		Ethylene Glycol	107-21-1
		Alcohols, C12-16, Exoxylated propoxylated	68213-24-1
		Fatty Alcohols ethoxylated	Proprietary
		Water	7732-18-5
FLOJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary	Proprietary
FR-76 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
		Inorganic Salt	Proprietary
GYPTRON T-390 (Champion Technologies)	Scale Inhibitor	Methanol	67-56-1
		Nonylphenol Ethoxylate	Proprietary
HAI-150E (Halliburton)	Corrosion Inhibitor	No hazardous substance	N/A
HCL (SWN Well Services)	Hydrochloric Acid	Hydrochloric Acid	7647-01-0
		Water	7732-18-5
LP-65 MC (Halliburton)	Scale Inhibitor	Organic phosphonate	Proprietary
		Ammonium Chloride	12125-02-9
OPTI-FLEX (U.S. Well Services)	Viscosifying Agent	Distillates, petroleum, hydrotreated light	64742-47-8
Plexslick 930	Friction Reducer	Copolymer of 2-propenamides	Proprietary
		Hydrotreated Distillate	64742-47-8
		Sodium Chloride	7647-14-5
		Alcohols, C12-16, Exoxylated	68551-12-2
		Oleic Acid Diethanolamide	93-83-4
		Ammonium Chloride	12125-02-9
Plexslick 953	Friction Reducer	Petroleum Distillate	64742-47-8
		Sodium Chloride	7647-14-5
		Ammonium Chloride	12125-02-9
		N,N-bis (2-hydroxyethyl) oleamide	93-83-4
Plexslick 957	Friction Reducer	Petroleum Distillate	64742-47-8
		Ammonium Chloride	12125-02-9
		Oleic Acid Diethanolamide	93-83-4
		Alcohols, C12-16, Exoxylated	68551-12-2
		Water	7732-15-5
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Hydrotreated light distillate (petroleum)	64742-47-8
		Propenoic acid, polymer with propenamides	9003-06-9
Plexaid 655 NM	Scale Inhibitor	Diethylenetriamine penta (methylene phosphonic acid)	15827-30-8
Plexslick 922	no data available	Copolymer of 2-propenamides	69418-26-4
		Distillates (petroleum), hydrotreated light	64742-47-8
		Ammonium chloride ((NH4)Cl)	12125-02-9
		Oleic Acid Diethanolamide	93-83-4
Tolcide PS50A	Biocidal product	Tetakis (hydroxymethyl) phosphonium sulphate	55566-30-8
		Acrylic acid terpolymer containing carboxylate phosphonate and sulfonate groups	397256-50-7
LD-2950	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
		Ethoxylated alcohol	Proprietary
Legend LD-7750W	Scale Control	Poly (oxy-1,2-ethanediy) alpha-tridecyl-omega-hydroxy-, branched	69011-36-5
		Methanol	67-56-1
MC MX 8-4743	Specialty Product	Phosphonic Acid Salt	Proprietary
		Sodium Nitrate	7631-99-4

OPERATOR: SWN Production Co., LLC WELL NO: State of WV DNR C BRK 3H

PAD NAME: State of WV DNR C BRK

REVIEWED BY: _____ SIGNATURE: Brittany Nbody

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR

DEP Waiver and Permit Conditions Order 2018-W-5

At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR

DEP Waiver and Permit Conditions

At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR

DEP Waiver and Permit Conditions

At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

RECEIVED
Office of Oil and Gas

MAY 20 2020

WV Department of
Environmental Protection

STATE OF WV DNR C

SITE DESIGN, EROSION AND SITE RESTORATION PLANS

PUTNEY RIDGE ROAD (CR 7/3)
BROOKE COUNTY, WV

PREPARED FOR:

SWN PRODUCTION COMPANY, LLC.
10000 ENERGY DRIVE
SPRING, TX 77389

RECEIVED
Office of Oil and Gas
MAY 20 2020
WV Department of
Environmental Protection

**APPROVED
WVDEP OOG**
8/2/2018

ENGINEER'S ESTIMATE OF QUANTITIES		
CUT/FILL DATA		
DESCRIPTIONS	ESTIMATED QTY	UNIT
CUT (EXCLUDES TOPSOIL)	31,710	CY
FILL (EXCLUDES TOPSOIL)	14,891	CY
WELL PAD DATA		
DESCRIPTIONS	ESTIMATED QTY	UNIT
PAD SUMP	2	EA
SLUMP DISCHARGE PIPE (4" PLASTIC PIPE)	207	LF
1.5:1 BERM (2' TALL)	1814	LF
5:1 BERM (2' TALL)	50	LF
BASE COURSE (9" AASHTO #1)	6,203	CY
SURFACE COURSE (3" WV DOH 307-03)	2,068	CY
GEOTEXTILE	8,274	SY
ACCESS ROAD DATA		
DESCRIPTIONS	ESTIMATED QTY	UNIT
WVDOH TYPE 1 GUARDRAIL, CLASS III	243	LF
18" DIAMETER HDPE CULVERT	101	LF
TURNOUTS	1	EA
GEOTEXTILE	1,079	SY
BASE COURSE (1.5" AASHTO #1)	1,079	CY
SURFACE COURSE (4" WV DOH 307-03)	359	CY
EROSION AND SEDIMENT CONTROL ITEMS		
DESCRIPTIONS	ESTIMATED QTY	UNIT
COMPOST FILTER SOCK 12"	1338	LF
COMPOST FILTER SOCK 18"	948	LF
COMPOST FILTER SOCK 24"	1106	LF
COMPOST FILTER SOCK 32"	425	LF
ORANGE CONSTRUCTION FENCE	107	LF
OUTLET PROTECTION / ROCK APRON R-3	9.06	CY
ROCK CHECK DAM	10	EA
TRM CHANNEL	699	LF
ECS CHANNEL	1294	LF
ADDITIONAL ITEMS		
DESCRIPTIONS	ESTIMATED QTY	UNIT
PAVED CONSTRUCTION ENTRANCE	1	EA
MOBILIZATION/DEMobilIZATION	1	EA
ENTRANCE GATE	1	EA
TRENCH SAFETY PLAN/PROTECTION	1	EA
CLEARING/GRUBBING		
DESCRIPTIONS	ESTIMATED QTY	UNIT
TOTAL FORESTED CLEARING AND GRUBBING	3.37	AC
TOTAL NON FORESTED CLEARING AND GRUBBING	12.33	AC
RECLAMATION ITEMS		
DESCRIPTIONS	ESTIMATED QTY	UNIT
BERM BREACH	3	EA
EROSION CONTROL FABRIC	234	SF
OUTLET PROTECTION / ROCK APRON R-3	5.56	CY

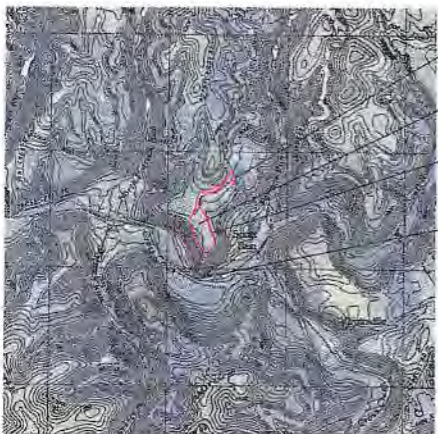
C. Bell
5-7-18

BROOKE COUTY WV. HIGHWAY MAP



PROPOSED LIMITS OF DISTURBANCE

HIGHWAY MAP SCALE



ACCESS ROAD ENTRANCE
WELL PAD CENTER
PROPOSED LIMITS OF DISTURBANCE
CROSS CREEK

SITE LOCATION MAP

USGS 7.5' TOPOGRAPHIC QUADRANGLE MAP
STEBENVILLE EAST, OH-WV-PA 1997

2,000' 1,000' 0' 2,000'

PROJECT LOCATION



TOTAL LIMITS OF DISTURBED AREA			
PROPERTY OWNER	TOTAL PARCEL AREA (AC)	DISTURBED AREA (AC)	CLEARING AREA (AC)
WEST VIRGINIA ST OF BUREAU OF COMM DIV OF NAT RES PB LD CORP TAX ID 04-0020-0008	83.85	15.72	3.37
TOTAL	83.85	15.72	3.37

COORDINATE LABEL	ACCESS ROAD ENTRANCE		WELL PAD CENTER	
	LAT	LONG	LAT	LONG
WV82-NF -DMS	40°18'20.34"N	80°32'03.61"W	40°18'07.03"N	80°32'15.80"W
WV83-NF -DECIMAL DEGREES	40.30565°	80.53434°	40.3022°	80.53772°

SHEET	TITLE
1	COVER SHEET
2 - 3	PREVAILING WINDS AND EVACUATION ROUTES
4 - 5	INDEX SHEETS
6 - 8	EXISTING CONDITIONS PLANS
9 - 11	PROPOSED CONDITION PLANS
12 - 18	CROSS SECTIONS
19	PAD LAYOUT
20 - 22	RECLAMATION PLANS
23 - 41	DETAILS

- APPROVED FOR PERMITS DATE: _____ BY: _____
- APPROVED FOR BIDS DATE: _____ BY: _____
- APPROVED FOR CONSTRUCTION DATE: _____ BY: _____



DESIGN CERTIFICATION
THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS CRS 35-80.

NOT ALL UTILITIES ARE SHOWN
THE LOCATION OF ALL UTILITIES (ABOVE OR BELOW GROUND) SHOWN ON THESE DRAWINGS ARE APPROXIMATE & HAVE BEEN DERIVED FROM USGS TOPO MAPS AND/OR UTILITY OWNERS. AECOM DOES NOT GUARANTEE THAT LOCATION SHOWN ON THE DRAWINGS ARE CORRECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE LOCATIONS OF EXISTING UTILITIES (ABOVE OR BELOW GROUND) & TO NOTIFY THE RESPECTIVE UTILITY OWNERS BEFORE BEGINNING CONSTRUCTION.

CALL BEFORE YOU DIG!
WEST VIRGINIA LAW REQUIRES AT LEAST 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL WEST VIRGINIA ONE CALL SYSTEM INC. ONE 811 IN WEST VIRGINIA OR 1-800-245-4548



DRIVING DIRECTIONS FROM ROCKDALE:
1.) TAKE CROSS CREEK ROAD FOR 3 MILES.
2.) TURN LEFT ONTO PUTNEY RIDGE ROAD
3.) SITE WILL BE ON LEFT AFTER 0.5 MILES.

OPERATOR
SWN PRODUCTION COMPANY, LLC.
179 INNOVATION DRIVE
JANE LEW, WV 26378
(304) 884-1610

PREPARED BY:

AECOM
FOSTER PLAZA 6
681 ANDERSEN DRIVE
SUITE 400
PITTSBURGH, PA 15220
PHONE: (412) 503-4700
FAX: (412) 503-4701



SITE LOCATION MAP
 USGS 7.5' TOPOGRAPHIC QUADRANGLE MAP
 STEUBENVILLE EAST, OH-WV-PA 1997

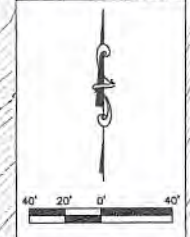
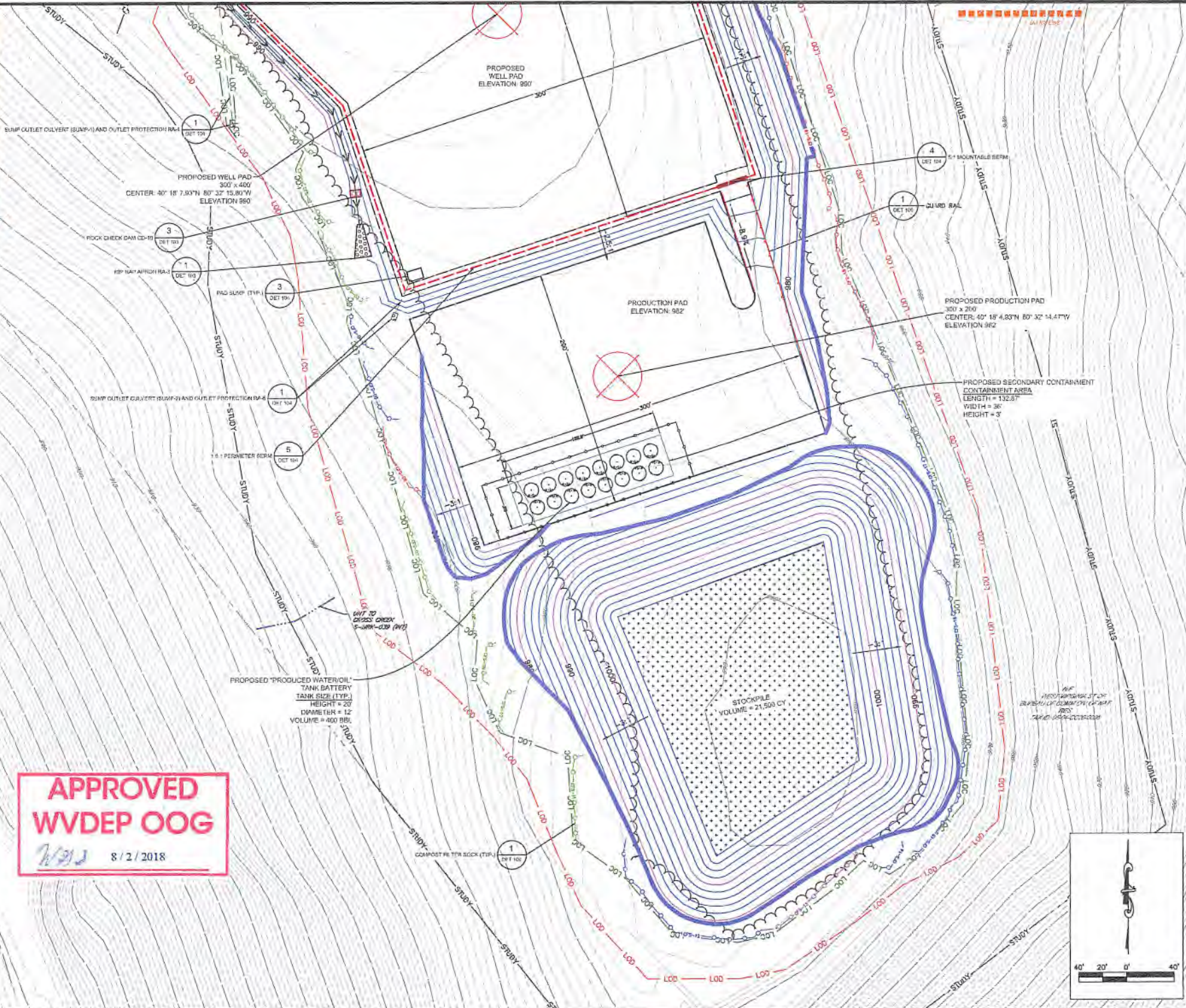
- NOTES:**
- CONTRACTOR TO CALL WV ONE CALL SYSTEM (811) A MINIMUM OF 3 BUSINESS DAYS, MAXIMUM 10 BUSINESS DAYS, PRIOR TO CONSTRUCTION FOR UTILITY CONFIRMATION. UTILITIES SHOWN REFLECT BEST AVAILABLE INFORMATION AT THE TIME OF ISSUANCE.
 - ALL ELEVATIONS REPRESENT FINISHED GRADE UNLESS SPECIFIED OTHERWISE.
 - CONTRACTOR TO ESTABLISH SITE SPECIFIC BEST MANAGEMENT PRACTICES (BMPs) FOR THE CONTROL OF EROSION AND SEDIMENTATION PRIOR TO ANY EARTH DISTURBANCE. SITE CONSTRUCTION TO FOLLOW REQUIREMENTS OF WV H6A PERMIT OBTAINED FOR THE SITE.
 - CONTRACTOR TO STRIP TOPSOIL FROM DEVELOPMENT FOOTPRINT ONLY AND STOCKPILE ONSITE IN DESIGNATED AREAS.
 - FILL MATERIAL WILL BE PREQUALIFIED AS SATISFACTORY SOIL, PLACED IN ENGINEERED LIFTS, AND COMPACTED AS PER SWN CIVIL EARTHWORK SPECIFICATIONS.
 - DISTURBED AREAS WILL BE IMMEDIATELY STABILIZED WITH SEED AND MULCH OR OTHER MATERIALS PER THE WV H6A PERMIT EROSION AND SEDIMENTATION MODEL PLAN.
 - ALL CHANNELS WILL BE BUILT TO SPECIFICATION UNLESS NOTED OTHERWISE.
 - ALL EARTHWORK QUANTITIES ARE ENGINEER ESTIMATES. ACTUAL EARTHWORK QUANTITIES MAY VARY BASED UPON EXISTING FIELD CONDITIONS.
 - PLAN DRAWINGS SHOW A SINGLE STOCKPILE. HOWEVER, THE SUBSOIL AND TOPSOIL MAY BE STOCKPILED SEPARATELY.
 - CONSTRUCTION ENTRANCE TO BE PAVED TO EXTENT OF RADIUS.

PROJECT AREA: 15.72 ACRES
DISTURBED AREA: 15.72 ACRES
CLEARING AREA: 3.37 ACRES

PROPOSED CONDITIONS LEGEND

- PROPOSED MAJOR CONTOUR (10' INTERVAL)
- PROPOSED MINOR CONTOUR (2' INTERVAL)
- STUDY ENVIRONMENTAL STUDY BOUNDARY
- LDD LIMITS OF DISTURBANCE
- LOC LIMITS OF CLEARING
- ACCESS ROAD
- BATTERY OR BERM BERMS
- TOP OF 5' MOUNTABLE BERM
- TOP OF 1.5' PERIMETER BERM
- ROCK CHECK DAM
- REBAR APRON
- GULLYVERT
- COMPOSITE FILTER SOCK (12")
- COMPOSITE FILTER SOCK (18")
- COMPOSITE FILTER SOCK (24")
- COMPOSITE FILTER SOCK (36")
- TOPSOIL STOCKPILE AREA
- CONVEYANCE CHANNEL
- PERMANENT COLLECTION CHANNEL
- PAVED CONSTRUCTION ENTRANCE
- EXISTING TREE / BRUSH LINE
- ORANGE CONSTRUCTION FENCE
- PROPOSED SECONDARY CONTAINMENT
- PROPOSED TANK BATTERY BARRIER FENCE
- TREE KEY LOCATION
- LAND SYMBOL
- GUARD RAIL
- CENTER OF PAD

APPROVED
WVDEP OOG
WV 8 / 2 / 2018



AECOM
 FOSTER PLAZA 6
 681 ANDERSEN DRIVE
 SUITE 400
 PITTSBURGH, PA 15220



NO.	DATE	REVISION RECORD
01	08/02/18	RESPONSE TO AGENCY COMMENTS
02		
03		
04		
05		
06		
07		
08		

STATE OF WV DNR C WELL SITE PROJECT
 PUTNEY RIDGE ROAD (CR 7/3)
 COLLIERVILLE, BROOKS COUNTY, WV
 PREPARED FOR:
SWN PRODUCTION COMPANY, LLC.
 10000 ENERGY DRIVE
 SPRINGS, TX 77399

EROSION AND SEDIMENTATION CONTROL PLANS
 Project Number: 0345251
 Drawing Scale: AS SHOWN
 Date Issued: 05-28-2018
 Drawn By: PFK
 Checked By: MJC
 Project Manager: MJC
ES 102
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P:\03 - Erosion Control\0345251 - WV DNR C Well Site\0345251_C0345251.dwg, Plot C:\Users\pkf\OneDrive\0345251.dwg
 Plot Date: 08/02/2018 10:33 AM, User: pkf