



west virginia department of environmental protection

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

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

Wednesday, April 19, 2023
WELL WORK PERMIT
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359

SPRING, TX 773914954


Re: Permit approval for William Ritchea WTZ 410H
47-103-03576-00-00

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.

James A. Martin
Chief

Operator's Well Number: William Ritchea WTZ 410H
Farm Name: William D Ritchea & Shirley E 
U.S. WELL NUMBER: 47-103-03576-00-00
Horizontal 6A New Drill
Date Issued: 4/19/2023

Promoting a healthy environment.

04/21/2023

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.
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.

WW-6B
(04/15)

API NO. 47-009 4710303576

OPERATOR WELL NO. William Ritchea WTZ 410H

Well Pad Name: William Ritchea WTZ

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 103-Wetzel 7-Proctor 681-Wileyville
Operator ID County District Quadrangle

2) Operator's Well Number: William Ritchea WTZ 410H Well Pad Name: William Ritchea WTZ

3) Farm Name/Surface Owner: William D. Ritchea & Shirley E. Ritchea Public Road Access: Harlan Ridge Road

4) Elevation, current ground: 1563' Elevation, proposed post-construction: 1563'

5) Well Type (a) Gas Oil Underground Storage

Other _____

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Down-Dip well to the South, Target Top TVD- 7684', Target Base TVD- 7732', Anticipated Thickness- 48', Associated Pressure- 5026

8) Proposed Total Vertical Depth: 7714'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 18,983'

11) Proposed Horizontal Leg Length: 10,741.39'

12) Approximate Fresh Water Strata Depths: 541'

13) Method to Determine Fresh Water Depths: BOFW determined from salinity calculations from William Ritchea WTZ 3H logs API 47-103-03129

14) Approximate Saltwater Depths: 1556' Salinity profile analysis

15) Approximate Coal Seam Depths: 1492'

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

MAR 14 2023

WV Department of
Environmental Protection

04/21/2023
3/4/23

18) **CASING AND TUBING PROGRAM**

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	20"	New	J-55	94#	126'	126'	CTS
Fresh Water	13 3/8"	New	J-55	54.4#	591'	591'	680 sx/CTS
Coal	See	Interm	Casing				
Intermediate	9 5/8"	New	J-55	36#	2950'	2950'	1096 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	18983'	18983'	Tal 3327/sx/ 100' Inside Intermediate
Tubing							
Liners							

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

PACKERS

Kind:				
Sizes:				
Depths Set:				

M. Long
3/9/23
04/21/2023
Page 2 of 3

WW-6B
(10/14)

4710303576
API NO. 47-009
OPERATOR WELL NO. William Ritchea WTZ 410H
Well Pad Name: William Ritchea WTZ

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

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

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

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

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 12.2

22) Area to be disturbed for well pad only, less access road (acres): 9.0

23) Describe centralizer placement for each casing string:

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

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

See Attachment ***

25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.

Page 3 of 3
04/21/2023
3/9/23

CEMENT ADDITIVES						
INTERVAL	SCHLUMBERGER PRODUCT NAME	BJ PRODUCT NAME	NEXTIER PRODUCT NAME	PRODUCT USE	CHEMICAL NAME	CAS-Number
SURFACE (FRESHWATER)	XXXXXXXXXX	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	S001	A-7P	0110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
COAL PROTECTION	XXXXXXXXXX	INTEGRA SEAL	0600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	S001	A-7P	CJH0	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
INTERMEDIATE	D020	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	0047	FP 28L	XXXXXXXXXX	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	XXXXXXXXXX	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	CemNet	XXXXXXXXXX	XXXXXXXXXX	LOST CIRC MATERIAL	COATED FIBERGLASS FIBERS	PROPRIETARY
	SUGAR	SUGAR	CJ795	CMT RETARDER	SUCROSE	57-50-1
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
PRODUCTION	XXXXXXXXXX	XXXXXXXXXX	CJM	ACCELERATOR	SODIUM CHLORIDE	7440-23-5
	XXXXXXXXXX	55-NW	0880	SURFACTANT	NONIONIC SURFACTANT	6540-89-4
	D047	FP 28L	XXXXXXXXXX	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	XXXXXXXXXX	XXXXXXXXXX	OX157011	SOLID ANTIFOAM AGENT	FULLERS EARTH(ATTAPULGITE)	8031-18-3
	XXXXXXXXXX	XXXXXXXXXX	CJ540	HP FLUID LOSS ADDITIVE	ALIPHATICAMIDE POLYMER	PROPRIETARY
	0255	XXXXXXXXXX	XXXXXXXXXX	MED TEMP FLUID LOSS ADDITIVE	POLYACRILIC POLYMER	PROPRIETARY
	XXXXXXXXXX	XXXXXXXXXX	CJ213	RETARDER	CHRYSTALLINE SILICA	14808-60-7
	XXXXXXXXXX	FL-86	0501	LOW TEMP FLUID LOSS ADD	POWDERED POLYSACCHARIDE	PROPRIETARY
	XXXXXXXXXX	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D208	ASA-301	XXXXXXXXXX	VISCOSI FIER/ANTI-SETTLING AGENT	REFINED POLYMER/CHRYSTALLINE SILICA	PROPRIETARY
	D198	R-3	XXXXXXXXXX	CEMENT RETARDER	LIGNIN	8068-51-6
	SUGAR	SUGAR	CJ795	CEMENT RETARDER	SUCROSE	57-50-1
	D065	XXXXXXXXXX	XXXXXXXXXX	DISPERSANT	SODIUM POLYNAPHTHALENE SULFONATE	8088-51-6
	D800	XXXXXXXXXX	XXXXXXXXXX	CEMENT RETARDER (Mid-Temperature)	SODIUM LIGNOSULFONATE	8061-51-6

RECEIVED
Office Of Oil and Gas

MAR 14 2023

WV Department of
Environmental Protection

04/21/2023

4710303576

Southwestern Energy Company

Proposed Drilling Program

Well: WILLIAM RITCHEA WTZ 410
 Field: VICTORY FIELD WET
 County: WETZEL
 SHL: 39.6695 Latitude -80.6594 Longitude
 BHL: 39.6506 Latitude -80.6250 Longitude
 KB Elev: 1,589 ft MSL KB: 26 ft AGL

Re-entry Rig: SDC 41
 Prospect: Marcellus Shale
 State: WV
 GL Elev: 1,563 ft MSL



NO COAL VOID EXPECTED

PROD TOC Lead @ 2,950' MD
 PROD TOC Tail @ 7,139' MD

TUBULAR DETAIL

Casing String	Casing Size (in)	Weight (Min)	Grade (Min)	Planned Interval	
				From	To
Conductor	20	94.0 #	J-55	0'	126'
Surface	13.375	54.4 #	J-55	0'	591'
Intmdt/Coal	9.625	36.0 #	J-55	0'	2,950'
Production	5.5	20.0 #	P-110 HP	0'	18,983'

CEMENT DETAIL

	Sacks	Class	Density
Conductor	160	A	19.3
Surface	680	A	15.6
Intermediate	#N/A	A	15.6
Production	#N/A	A	14.5-15.6

126' to 611'
Air/Mist

611' to 2,970'
Air/Mist/Brine

2,970' to 7,139'
Air/Mist

Air/Mist
TD at 7,139'

7,139' to 8,237'
12.0-12.5 ppg

8,237' to 18,983'
12.5-13.5 ppg

KOP at 7,139' MD

Freshwater Depth - 541' TVD
 Coal Depth - 1,492' TVD
 Saltwater Depth - 1,556' TVD
 TVD - 7,714'
 TMD - 18,983'

7,586' Target Center

TD at 18,983' MD
7,714' TVD

EOB at 8,237' MD

SHL Onondaga 7,616' TVD

Onondaga 7,744' TVD

Created by: Sebastian Ziaja on 02/15/2023

RECEIVED
Office Of Oil and Gas

MAR 14 2023

WV Department of
Environmental Protection

04/21/2023
3/9/23

4710303576

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



GRID NORTH
UTM NORTH DATUM, ZONE 17, US FT

2000 0 2000
GRAPHIC SCALE IN FEET

NOTES ON SURVEY

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

LEGEND:

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

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: WILLIAM RITCHEA WTZ	WELL # 410H	SERIAL #
ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200 MORGANTOWN, WV 26508	COUNTY - CODE WETZEL - 103	DISTRICT: PROCTOR	
SURFACE OWNER: WILLIAM D. RITCHEA & SHIRLEY E. RITCHEA	USGS 7 1/2 QUADRANGLE MAP NAME WILEYVILLE, WV		

RECEIVED
Office Of Oil and Gas
MAR 14 2023
WV Department of
Environmental Protection

04/21/2023
PAD ID 300

47-103-01234

William Ritchie W/TZ 410H AOR

API	Operator	Status	Latitude	Longitude	Vertical TD	Producing Formation	Producing Zones Not Perforated
47-103-01234	Perkins Oil and Gas, Inc., 1306 Edgewood Dr. St. Marys, W.V. 26170	Unknown	***	***	4285'	Gordon Stray	
47-103-01291	Perkins Oil and Gas, Inc., 1306 Edgewood Dr. St. Marys, W.V. 26170	Unknown	***	***	3428'	Gordon Stray	
47-103-37928	Unknown	Unknown	***	***	3147'	Gordon	
47-103-3768	Unknown	Abandoned	***	***	Unknown	Unknown	
47-103-33331	Unknown	Abandoned	***	***	Unknown	Unknown	
47-103-27053	Unknown	Unknown	***	***	Unknown	Unknown	
47-103-31162	Unknown	Unknown	***	***	Unknown	Unknown	
47-103-97036	Unknown	Abandoned	***	***	Unknown	Unknown	
47-103-97036	Unknown	Unknown	***	***	3011'	Gordon	
47-103-01526	EQT Production Company, 400 Woodcliff Drive Canonsburg, PA 15317	Active	39.65414	-80.620402	5,805'	Marcilius	
47-103-01527	EQT Production Company, 400 Woodcliff Drive Canonsburg, PA 15317	Active	39.65417	-80.620366	5,552'	Marcilius	
47-103-01528	EQT Production Company, 400 Woodcliff Drive Canonsburg, PA 15317	Active	39.65420	-80.620334	7,618'	Marcilius	

RECEIVED
Office Of Oil and Gas
MAR 14 2023
WV Department of
Environmental Protection

04/21/2023

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) Fish Creek Quadrangle Wileyville

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 the next anticipated well)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain recovery and solidification on site)

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. All 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 MSWLD18781, Wefzel County 1021

Apex Sanitary Landfill 06-08438, 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 _____

Company Official (Typed Name) Brittany Woody

Company Official Title Senior Regulatory Analyst

RECEIVED
Office Of Oil and Gas

MAR 14 2023

WV Department of
Environmental Protection

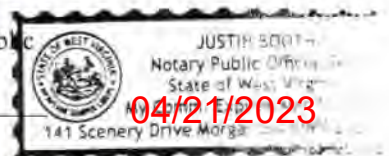
Subscribed and sworn before me this 28th day of FEBRUARY, 20 23

[Signature]

Notary Public

My commission expires 3/10/2027

[Signature]
3/9/23



SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 12.2 Prevegetation pH 4.7 10 30 35 76

Lime as determined by pH test min.2 Tons/acre or to correct to pH 5.9

Fertilizer type 10-20-20

Fertilizer amount 600/500 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]

Comments: Properly reclaim, seed, & mulch all disturbed areas.

Title: Oil & Gas Inspector

Date: 3/9/23

Field Reviewed? () Yes (/) No

RECEIVED
Office Of Oil and Gas
MAR 14 2023
WV Department of
Environmental Protection

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, SOB M)

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.

RECEIVED
Office Of Oil and Gas
MAR 14 2023
WV Department of
Environmental Protection

04/21/2023

Attachment 3B
Drilling Mediums

Surface/Coal(if present)/Freshwater Intervals:

Air

Freshwater (if needed based on conditions)

Intermediate/Coal (if present):

Air

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

RECEIVED
Office Of Oil and Gas

MAR 14 2023

WV Department of
Environmental Protection



WVD Seeding Specification



To Order Seed contact Lyndsi Eddy Filippo office 570-996-4271 cell 501-269-6451 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

Apply @ 100lbs per acre
April 16th- Oct. 14th

Apply @ 200lbs per acre
Oct. 15th- April 15th PLUS
50lbs per acre of Winter Wheat

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%

Apply @ 100lbs per acre
April 16th- Oct. 14th

Apply @ 200lbs per acre
Oct. 15th- April 15th

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%

Apply @ 25lbs per acre
April 16th- Oct. 14th

Apply @ 50lbs per acre
Oct. 15th- April 15th

NO FERTILIZER OR LIME INSIDE WETLAND LIMITS

RECEIVED
Office Of Oil and Gas
MAR 14 2023
WV Department of
Environmental Protection

642-2023

4710303576

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: William Ritchea WTZ 410H
Wileyville QUAD
PROCTOR DISTRICT
WETZEL COUNTY, WEST VIRGINIA

Submitted by:

Name: Brittany Woody

Date: 6/14/2022

Brittany Woody

Title: Senior Regulatory Analyst

SWN Production Co., LLC

Approved by:

Name: *[Signature]*

Date: 3/9/23

Title: WV Oil & Gas Inspector

Approved by:

Name: _____

Date: _____

Title: _____

RECEIVED
Office Of Oil and Gas

MAR 14 2023

WV Department of
Environmental Protection

SWN PRODUCTION COMPANY, LLC – CONFIDENTIAL

04/21/2023

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.
4. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

LEGEND:

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

04/21/2023

WELL OPERATOR:
 SWN PRODUCTION COMPANY, LLC

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

SURFACE OWNER:
 WILLIAM D. RITCHEA & SHIRLEY E. RITCHEA

WELL (FARM) NAME:
 WILLIAM RITCHEA WTZ

COUNTY - CODE
 WETZEL - 103

USGS 7 1/2 QUADRANGLE MAP NAME
 WILEYVILLE, WV

WELL # SERIAL #
 410H

DISTRICT;
 PROCTOR

Latitude: 39°42'30"

SURFACE HOLE 9,678'

Latitude: 39°40'00"

BOTTOM HOLE 11,722'

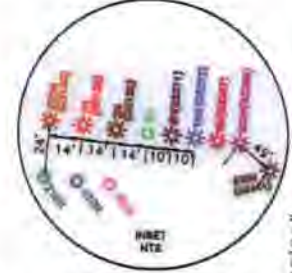
JACKSON SURVEYING INC.

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

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 72°29'06" W	1312.14'	SHL TO LANDMARK	FD. 5/8" REBAR
L2	S 31°11'55" W	871.45'	SHL TO LANDMARK	FD. 5/8" REBAR
LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L3	N 77°10'09" E	1,848.11'	2,075.85'	SHL TO LPL



SURFACE HOLE LOCATION (SHL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,391,135.526	
EASTING: 529,213.512	
LANDING POINT (LPL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,391,260.621	
EASTING: 529,762.750	
BOTTOM HOLE LOCATION (BHL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,388,047.043	
EASTING: 532,175.019	



GRID NORTH
UTM NAD83 DATUM, ZONE 17, US FT



WELL RESTRICTIONS

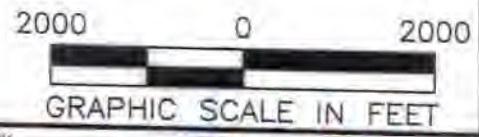
- NO OCCUPIED DWELLINGS > 2500 SQ FT WITHIN 625 FEET OF CENTER OF PAD.
- NO AGRICULTURE BUILDINGS > 2500 SQ FT WITHIN 625 FEET OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS 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.

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

P.S. 708 *David L Jackson*



COMPANY: **SWN** Production Company, LLC

WILLIAM RITCHEA WTZ
 OPERATOR'S WELL #: 410H
 API WELL #: 47 STATE 103 COUNTY D3576 PERMIT

(+) 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)

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

WATERSHED: FISH CREEK (HUC-10) ELEVATION: 1562.8' STAKED

DISTRICT: PROCTOR COUNTY: WETZEL QUADRANGLE: WILEYVILLE, WV

SURFACE OWNER: WILLIAM D. RITCHEA & SHIRLEY E. RITCHEA ACREAGE: ±62.00

OIL & GAS ROYALTY OWNER: WILLIAM D. RITCHEA & SHIRLEY E. RITCHEA ACREAGE: ±62.00

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

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) **04/21/2023**

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,714' TVD 18,983' 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



LEGEND:	REVISIONS:	DATE:
● PROPOSED SURFACE HOLE / BOTTOM HOLE	— SURVEYED BOUNDARY	04-12-2023
★ EXISTING / PRODUCING WELLHEAD	— DRILLING UNIT	
LPL ★ LANDING POINT LOCATION	== LEASE BOUNDARY	
● EXISTING WATER WELL	— PROPOSED PATH	
● EXISTING SPRING		
		DRAWN BY: J. COCKERHAM
		SCALE: 1" = 200'
		DRAWING NO:
		WELL LOCATION PLAT

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	RITCHEA WILLIAM D & SHIRLEY E (S/R)	12-15-21
2	CHRISTY MICHAEL M JR ETAL & HALL SUSAN (S)	12-15-22
3	HEETER HAROLD JR ETAL (S)	12-15-23
4	BROWN SANDY K (S)	12-15-28
5	YOHO KIMBERLY & KEITH ALLEN (S)	12-15-29
6	MELOTT TERREL L (S)	01-10-10
7	GREATHOUSE SHIRLEY (S)	01-10-11
8	BARD VANESSA (S)	01-10-11.1
9	GREATHOUSE SHIRLEY (S)	SHOWN AS P/O 01-10-25 SHOULD BE P/O 01-10-11
10	MCMILLEN SHARON J (S)	P/O 01-10-25
11	MCMILLEN SHARON J (S)	01-10-34
12	MCMILLEN SHARON J (S)	01-10-35
13	MCMILLEN SHARON J (S)	01-10-51

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	PITOSCIA WILLIAM R	12-14-27
B	PITOSCIA WILLIAM R	12-14-16
C	URBANEK SCOTT J & CHRYSTAL A	12-15-13
D	LEMASTERS H C HRS & MANKER CHARLES V REVOC LIVING TR	12-15-18
E	LEMASTERS DOLLY G EST	12-15-19
F	FERRELL HANNAH RAINE & FERRELL JOSEPH ROSS	12-15-24
G	WYKERT WAYNE & ASHLEY	01-10-14
H	WOOD GLENN & TAMELA P	01-10-09
I	MUSGRAVE CHARLES & PATRICIA	01-10-04
J	MUSGRAVE CHARLES & PATRICIA	01-10-12
K	CRANE DONALD N	01-10-24
L	MCMILLEN SHARON J	LISTED INCORRECTLY AS P/O 01-10-25
M	HENDERSON AMIE LEE	01-10-36
N	HENDERSON AMIE LEE	01-10-37
O	MILLER JOHN G ETAL	01-10-52
P	MCMILLEN SHARON J	01-10-49
Q	COASTAL FOREST RESOURCES CO	01-14-03
R	FLEMING DEAN & ETAL	01-10-48
S	MCCRAY LUNDA ETAL	01-10-33
T	WYKERT ERIC D	01-10-23
U	MELOTT TERREL LEMOYN	01-10-22
V	LEMASTERS HAROLD E & BETTY L	12-15-32
W	BROWN SANDY K	12-15-27
X	CHRISTY MICHAEL M JR ETAL & HALL SUSAN	12-15-26
Y	CHRISTY MICHAEL M JR ETAL & HALL SUSAN	12-15-25

04/21/2023

REVISIONS:	COMPANY:	 	
	OPERATOR'S	WILLIAM RITCHEA WTZ	DATE: 04-12-2023
	WELL #:	47-103-03576 410H	DRAWN BY: J. COCKERHAM
	DISTRICT:	PROCTOR	SCALE: N/A
	COUNTY:	WETZEL	DRAWING NO:
	STATE:	WV	WELL LOCATION PLAT 2

4710303576

**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 75% of the royalty owners have consented to the lawful use or development of the oil or natural gas mineral property on the tract. The interests of the remaining co-tenants will be secured pursuant to the Co-tenancy Modernization and Majority Protection Act.

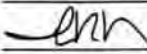
*Horizontal well unit utilization - Subject to unitization filing with the West Virginia Oil and Gas Conservation Commission

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

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

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

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

Well Operator: SWN Production Company, LLC
 By: 
 Its: Staff Landman

04/21/2023

4710303570

RECEIVED
Office of Oil and Gas

APR 18 2023

EXHIBIT "A"
Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, LLC, as Operator,
William Ritchea WTZ 410H
WV Department of
Environmental Protection
Wetzel County, West Virginia

#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG	Interest Not Leased by SWN Production Company, LLC
1	12-15-21	William D. Ritchea and Shirley E. Ritchea, husband and wife Bayer Corporation, successor in interest to Mobay Chemical Corporation Bayer Material-Science LLC Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc.	Mobay Chemical Corporation Bayer MaterialScience LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	60A/59 396/1 140A/883 120A/109 157A/540 158A/801	0.0000%
2	12-15-22	Esther Peters, Paul J. Shiben, Katherine Mensore and Edward Shiben, as Executors under the Wills of Joseph Shiben and Minnie Shiben, and Shiben Estates, Inc. Mobay Chemical Corporation Haddad and Brooks, Inc. Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Haddad and Brooks, Inc.	Mobay Chemical Corporation Haddad and Brooks, Inc. Sun Exploration and Production Company Natmin Development Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Haddad and Brooks, Inc. SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC	15.00%	62A/309 65A/67 65A/195 67A/516 69A/328 69A/600 70A/265 71A/593 102A/302 113A/927 157A/540 250A/215	0.0000%
		Arthur Liston, Donald J. Kisner, Lonzo Dolin, Herbert Heeter, Amos McPeak, Jr., George Dent, Jack Nice, Lee McCoy and Ernest Dent Mobay Chemical Corporation Haddad and Brooks, Inc. Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc.	Mobay Chemical Corporation Haddad and Brooks, Inc. Sun Exploration and Production Company Natmin Development Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	62A/294 65A/67 65A/195 67A/516 69A/328 69A/600 70A/265 71A/593 102A/302 120A/109 157A/540 158A/801	
		Albert G. Smith and Lillian Smith, husband and wife Mobay Chemical Corporation Haddad and Brooks, Inc. Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc.	Mobay Chemical Corporation Haddad and Brooks, Inc. Sun Exploration and Production Company Natmin Development Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	64A/641 65A/67 65A/195 67A/516 69A/328 69A/600 70A/265 71A/593 102A/302 120A/109 157A/540 158A/801	
		Fred C. Smith and Imogene Smith, husband and wife Mobay Chemical Corporation Haddad and Brooks, Inc. Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc.	Mobay Chemical Corporation Haddad and Brooks, Inc. Sun Exploration and Production Company Natmin Development Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	64A/643 65A/67 65A/195 67A/516 69A/328 69A/600 70A/265 71A/593 102A/302 120A/109 157A/540 158A/801	
		Chalmer T. Smith and Myrtle Smith, husband and wife Mobay Chemical Corporation	Mobay Chemical Corporation Haddad and Brooks, Inc.	12.50%	64A/639 65A/67	

04/21/2023

APR 18 2023

4710303576

EXHIBIT "A"
Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, LLC as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

WV Department of
Environmental Protection

		Haddad and Brooks, Inc. Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Sun Exploration and Production Company Natmin Development Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		65A/195 67A/516 69A/328 69A/600 70A/265 71A/593 102A/302 120A/109 157A/540 158A/801	
		Hugh Snider and Garnet Snider, husband and wife Mobay Chemical Corporation Haddad and Brooks, Inc. Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Mobay Chemical Corporation Haddad and Brooks, Inc. Sun Exploration and Production Company Natmin Development Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	64A/645 65A/67 65A/195 67A/516 69A/328 69A/600 70A/265 71A/593 102A/302 120A/109 157A/540 158A/801	
		Harold Eugene Lemasters and Betty Lee Lemasters, husband and wife Mobay Chemical Corporation Haddad and Brooks, Inc. Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Mobay Chemical Corporation Haddad and Brooks, Inc. Sun Exploration and Production Company Natmin Development Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	65A/54 65A/67 65A/195 67A/516 69A/328 69A/600 70A/265 71A/593 102A/302 120A/109 157A/540 158A/801	
		Fred A. Heeter and Janet K. Heeter, husband and wife, Frank E. Heeter and Kathleen J. Heeter, husband and wife, and Thomas R. Heeter and Robin D. Heeter, husband and wife Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Haddad and Brooks Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	65A/293 66A/61 69A/328 69A/600 70A/265 71A/593 102A/302 120A/109 157A/540 158A/801	
		William G. Sheppard and Virginia S. Sheppard, husband and wife Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Haddad and Brooks Inc. Sun Exploration and Production Company Sun Operating Limited Partnership Haddad and Brooks, Inc. Haddad and Brooks, Inc. Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	65A/305 66A/61 69A/328 69A/600 70A/265 71A/593 102A/302 120A/109 157A/540 158A/801	
3	12-15-23 pt. B	Albert Ray Taylor and Carrie M. Taylor, husband and wife Mobay Chemical Corporation Haddad and Brooks, Inc. Haddad and Brooks, Inc.	Mobay Chemical Corporation Haddad and Brooks, Inc. Sun Exploration and Production Company Natmin Development Corporation	12.50%	60A/153 65A/67 65A/195 67A/516	0.0000%

04/21/2023

4710303576

RECEIVED
Office of Oil and Gas

APR 18 2023

WV Department of
Environmental Protection

EXHIBIT "A"
Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C, as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

		Inverness Petroleum Inc. Sun Exploration and Production Company Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC	Petroleum Reserve Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc.		71A/268 69A/502 70A/265	
		Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		71A/350 103A/350 120A/109	
		A. C. Ballard and Virginia Ballard, husband and wife, Paul R. Lemasters, single Mobay Chemical Corporation Haddad and Brooks, Inc. Haddad and Brooks, Inc. Sun Exploration and Production Company Sun Operating Limited Partnership, by Sun Exploration and Production Company, as its managing general partner Natmin Development Corporation Haddad and Brooks, Inc. Chesapeake Appalachia, LLC	Mobay Chemical Corp. Haddad and Brooks, Inc. Sun Exploration and Production Company Natmin Development Corporation Sun Operating Limited Partnership Haddad and Brooks, Inc.	12.50%	60A/137 65A/67 65A/195 67A/516 69A/502 70A/265	
		Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Haddad and Brooks, Inc. Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		71A/350 103A/350 120A/109	
4	12-15-28 pt. B	Harold H. Blake and/or Donna M. Blake, husband and wife Haddad and Brooks, Inc., a/k/a Haddad & Brooks, Inc.	Haddad and Brooks, Inc. Chesapeake Appalachia, L.L.C.	12.50%	82A/107 104A/230	0.0000%
		Chesapeake Appalachia, LLC	Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.)		120A/109	
		Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		157A/540 158A/801	
		Rosalyn A. Metzger	SWN Production Company, LLC	18.00%	237A/26	
		MBD Holdings, LP	SWN Production Company, LLC	18.00%	237A/31	
		Rosalyn A. Metzger and Deborah Rein, Co-Trustees of the Siegler Family Trust	SWN Production Company, LLC	18.00%	237A/36	
		Deborah Rein	SWN Production Company, LLC	18.00%	237A/41	
5	12-15-29 pt. B	Harold H. Blake and/or Donna M. Blake, husband and wife Haddad and Brooks, Inc., a/k/a Haddad & Brooks, Inc.	Haddad and Brooks, Inc. Chesapeake Appalachia, L.L.C.	12.50%	82A/107 104A/230	0.0000%
		Chesapeake Appalachia, LLC	Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.)		120A/109	
		Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		157A/540 158A/801	
		Mary Bailouz Davis, a/k/a Mary B. Davis, a/k/a Mary M. Bailouz Davis, widow Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C.	17.00%	125A/628	
		Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		139A/402 157A/540 158A/801	
		The Siegler Family Trust, by Rosalyn A. Metzger and Deborah Rein, acting as Trustees	Chesapeake Appalachia, L.L.C.	17.00%	125A/633	
		Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.)		139A/402	
		Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		157A/540 158A/801	
		Rosalyn A. Metzger Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C.	17.00%	125A/638	
		Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		139A/402 157A/540 158A/801	
		Deborah Rein Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C.	17.00%	125A/643	
		Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		139A/402 157A/540 158A/801	
6	1-10-10 pt. A	Haddad and Brooks, Inc. Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C.	17.00%	127A/602 139A/402	0.0000%
		Statoil USA Onshore Properties Inc.	Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Exchange Titleholder LLC (now SWN Production Company LLC)		158A/801	
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		157A/540	

04/21/2023

APR 18 2023

EXHIBIT "A"
Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C. as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

Department of Environmental Protection

		East Resources, Inc. Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C. and Statoil USA Onshore Properties, Inc. SWN Production Company, LLC	12.50%	146A/11 157A/540	
7	1-10-11	Haddad and Brooks, Inc. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC	17.00%	127A/602 139A/402 158A/801 157A/540	0.0000%
		East Resources, Inc. Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C. and Statoil USA Onshore Properties, Inc. SWN Production Company, LLC	12.50%	146A/11 157A/540	
8	1-10-11.1	Haddad and Brooks, Inc. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC	17.00%	127A/602 139A/402 158A/801 157A/540	0.0000%
		East Resources, Inc. Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C. and Statoil USA Onshore Properties, Inc. SWN Production Company, LLC	12.50%	146A/11 157A/540	
9	p/a 1-10-11	Haddad and Brooks, Inc. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties, Inc.) SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC	17.00%	127A/602 139A/402 158A/801 157A/540	0.0000%
		East Resources, Inc. Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C. and Statoil USA Onshore Properties, Inc. SWN Production Company, LLC	12.50%	146A/11 157A/540	
10	1-10-25 pt. A	Country Roads Minerals, LLC LaCore Agriculture, LLC	SWN Production Company, LLC SWN Production Company, LLC	20.00% 20.00%	298A/373 298A/468	0.0000%
11	1-10-34	Royalty Owner(s)	N/A	N/A	N/A	9.1667%
		Terry A. Moore Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	15.0000%	172A/562 179A/300 272A/588	
		Teresa Utt Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	15.0000%	171A/189 179A/300 272A/588	
		Chesapeake Appalachia, L.L.C. SWN Production Company, LLC and Statoil USA Onshore Properties Inc. Drilling Appalachian Corporation Antero Resources Corporation	SWN Production Company, LLC Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	12.5000%	166A/931 174A/480 179A/300 272A/588	
		Sarah Darlene Gross a/k/a Sarah Darlene Midcap	SWN Production Company, LLC	18.0000%	309A/756	
		Roger Leroy Midcap Sr	SWN Production Company, LLC	18.0000%	309A/761	
		Ricky D. Winland, a single man	SWN Production Company, LLC	15.0000%	303A/431	
		Ralph G. Preston, a single man	SWN Production Company, LLC	15.0000%	289A/293	
		Rachel Rickman Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	15.0000%	172A/299 179A/300 272A/588	
		Piney Holdings, Inc.	SWN Production Company, LLC	20.0000%	295A/204	
		Pamela J. Riggenbach and Leslie Riggenbach Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	15.0000%	159A/377 179A/300 272A/588	
		BRC Appalachian Minerals I LLC and BRC Minerals LP BRC Working Interest Company LLC Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties, Inc. SWN Production Company, LLC and Statoil USA Onshore Properties Inc. Drilling Appalachian Corporation Antero Resources Corporation	BRC Working Interest Company LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc. (now Equinor USA Onshore Properties Inc.) SWN Production Company, LLC SWN Exchange Titleholder, LLC (now SWN Production Company, LLC) Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	12.8750%	102A/505; 103A/320 103A/470 120A/109 157A/540 158A/801 174A/480 179A/300 272A/588	
		Mark L. Preston, single	SWN Production Company, LLC	15.0000%	278A/693	
		Margaret E. Derby Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	15.0000%	171A/200 179A/300 272A/588	
		Linda Sue Brady a/k/a Linda Sue Midcap, a married woman dealing in her sole and separate property	SWN Production Company, LLC	18.0000%	309A/781	
		Johnnie Lee Midcap	SWN Production Company, LLC	18.0000%	309A/776	

04/21/2023

4710303576

RECEIVED
Office of Oil and Gas
APR 18 2023

EXHIBIT "A"
Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C, as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

		John W. Moore, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.0000%	308A/556	
		John David Winland, a single man	SWN Production Company, LLC	15.0000%	302A/260	
		James R. Moore Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	15.0000%	172A/295 179A/300 272A/588	
		James Edward Midcap, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.0000%	309A/766	
		Harley A. Moore Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	15.0000%	172A/552 179A/300 272A/588	
		Drilling Appalachian Corporation Antero Resources Corporation	Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.		179A/300 272A/588	
		Darla R. Merckle Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC, and Equinor USA Onshore Properties, Inc.	15.0000%	160A/561 179A/300 272A/588	
		Billy Joe Midcap	SWN Production Company, LLC	18.0000%	309A/771	
		Belva J. Morris, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.0000%	289A/298	
12	1-10-35	Royalty Owner (subject to unitization filing dated March 3, 2023)	N/A	N/A	N/A	42.6696%
		Yvonne M. Smith Drilling Appalachian Corporation	Drilling Appalachian Corporation Antero Resources Corporation	18.00%	174A/372 179A/300	
		Antero Resources Corporation	SWN Production Company, LLC		272A/588	
		Yohna McPeek Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	173A/655 179A/300 272A/588	
		Frederick M. Dean Rohrig, as Special Commissioner for and on behalf of John C. Wilson, D. Joan Martino, Lewis Yeater, William L. McPeek, Emma L. Newhouse, Lawrence McPeek, Rebecca L. Lash, Mary A. Vance, Willa L. Yeater, Genevieve K. Davis, Larry W. Yeater, The William J. Vest Trust Agreement dated July 16, 2001, Larry W. Yeater, Trustee, Jennifer Yeater, Black Gold Group Ltd., Jenny Miller, Gloria Miller, Russell Yeater, Edward Yeater, Betty Johnson, Aiyana Lyster, Ommani Lyster, Acacia Lyster, Arch Albert Conner, Harold Yeater, Walter Wellman, Edna Ruckman, Lulu Reck, Madelyn E. Mosser (formerly Pennington), John W. Heath, William K. Heath, T and D Corporation, or successor, Francis Quigley, Gregory Steinhart, William G. Yeater, their missing, unknown, and abandoning heirs, successors and assigns, pursuant to action in the Circuit Court of Wetzel County, styled <i>Drilling Appalachian Corporation vs. Shiben Estates, Inc. et al</i> , Civil Action No. 17-C-33	Drilling Appalachian Corporation	15.00%	208A/92	
		Drilling Appalachian Corporation Antero Resources Corporation	Antero Resources Corporation SWN Production Company, LLC		215A/930 272A/588	
		Emily K. Yeater Bulang Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	17.00%	174A/746 179A/300 272A/588	
		William C. Atwell Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/381 179A/300 272A/588	
		William Bernard Yeater a/k/a Bernard Yeater, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.00%	308A/433	
		Arthur Workman and Vera Shirlene Workman, husband and wife Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	16.50%	165A/183 179A/300 272A/588	
		John K. Otto Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	175A/173 179A/300 272A/588	
		Timothy Wayne Anderson Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/204 179A/300 272A/588	
		Timothy Hinkle & Shannon Hinkle, husband and wife Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/750 179A/300 272A/588	
		Three Rivers Royalty II, LLC, Tiffany Culp - VP Land & Legal	SWN Production Company, LLC	18.00%	294A/99	
		Three Rivers Royalty II, LLC, Tiffany Culp - VP Land & Legal	SWN Production Company, LLC	18.00%	300A/312	

04/21/2023

4710303576

RECEIVED
Office of Oil and Gas

APR 18 2023

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C., as Operator
William Ritchea WZ 410H
Wetzel County, West Virginia

WV Department of
Environmental Protection

Rodney Chester Lowe and Virginia Ann Lowe, husband and wife	Drilling Appalachian Corporation	15.00%	174A/758
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Robert Mock and Judith Mock, husband and wife	Drilling Appalachian Corporation	15.00%	174A/764
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
June Ann Reid	Drilling Appalachian Corporation	15.00%	174A/770
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Rosemary Lunemann	Drilling Appalachian Corporation	15.00%	173A/557
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Terry W. Yeater	Drilling Appalachian Corporation	15.00%	182A/529
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Terry W. Kittle and Deborah Kittle, husband and wife	Drilling Appalachian Corporation	15.00%	174A/768
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Terrie L. Lausin, a single woman	SWN Production Company, LLC	15.00%	307A/362
Richard Lee Parrish and Teri Lee Parrish, husband and wife	Drilling Appalachian Corporation	15.00%	165A/778
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Susan McClan & Joseph C. McClan	Drilling Appalachian Corporation	18.00%	177A/527
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Living Trust of Harold L. Yeater, dated January 29, 1999, Stephen L. Yeater, Co-Trustee	Drilling Appalachian Corporation	15.00%	174A/867
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Shiben Estates, Inc., a West Virginia Corporation	SWN Production Company, LLC	20.00%	266A/253
Shelly Yeater	Drilling Appalachian Corporation	18.00%	177A/521
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
John Edward Yeater and Sharon Lynn Yeater, husband and wife	Drilling Appalachian Corporation	17.00%	177A/523
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Sharon L. Yeater	Drilling Appalachian Corporation	15.00%	181A/38
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Conrad Sherwood Yeater	Drilling Appalachian Corporation	15.00%	174A/219
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Scott C. Harris and Carolyn R. Harris, husband and wife	SWN Production Company, LLC	17.00%	304A/351
Sandy Cumpston	Drilling Appalachian Corporation	15.00%	174A/202
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Sandra C. Koontz	Drilling Appalachian Corporation	15.00%	174A/354
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Ruth Ann Yeater	Drilling Appalachian Corporation	18.00%	174A/857
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Robert C. Aspley	Drilling Appalachian Corporation	15.00%	173A/555
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Ricky A. Yeater	Drilling Appalachian Corporation	15.00%	181A/188
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Shirley Gbur	Drilling Appalachian Corporation	15.00%	174A/402
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Recon Resources, LLC, a Texas Limited Liability Company d/b/a Recon royalties	Antero Resources Corporation	15.00%	190A/3
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Rebecca J. Norris	Drilling Appalachian Corporation	15.00%	174A/216
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Rebecca Ann Haley	Drilling Appalachian Corporation	15.00%	174A/352
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Rachel Anne Yeater, single	Drilling Appalachian Corporation	15.00%	165A/185
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Nancy Truex	Drilling Appalachian Corporation	17.00%	181A/60
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Chester Holloway and Nancy Holloway, husband and wife	Drilling Appalachian Corporation	15.00%	174A/348

04/21/2023

APR 18 2023

4710303576

WV Department of
Environmental Protection

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C, as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Nancy J. Foti	Drilling Appalachian Corporation	15.00%	174A/871
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Monica A. Renn	Drilling Appalachian Corporation	18.00%	174A/375
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Melissa Schroth	Drilling Appalachian Corporation	15.00%	173A/653
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Melissa Mae Bungard, a single woman	SWN Production Company, LLC	18.00%	311A/443
Beatrice Joan Yeater Knight	Drilling Appalachian Corporation	17.00%	174A/396
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Mary B. Jones	Drilling Appalachian Corporation	15.00%	174A/861
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Martha Carol Grimes	Drilling Appalachian Corporation	15.00%	178A/380
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Marguerite Harbison	Drilling Appalachian Corporation	15.00%	173A/661
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Linda K. Morris Wilson	Drilling Appalachian Corporation	15.00%	174A/756
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Mark Hunt	Drilling Appalachian Corporation	15.00%	174A/370
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
James Mark Edwards and Marilyn S. Edwards, husband and wife	Drilling Appalachian Corporation	15.00%	174A/206
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Casey Couch and Marian Blair Couch, husband and wife	Drilling Appalachian Corporation	15.00%	174A/744
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Mackie R. Roberts, a widower	SWN Production Company, LLC	15.00%	283A/152
Lisa Marquart	Drilling Appalachian Corporation	18.00%	175A/176
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Lewis W. Otto	Drilling Appalachian Corporation	15.00%	176A/593
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Leonard O. Haberbosch	Drilling Appalachian Corporation	15.00%	166A/569
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Laurie A. Shepard	Drilling Appalachian Corporation	15.00%	173A/620
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Kimeric and Company, LLC	Drilling Appalachian Corporation	16.00%	206A/584
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Kim L. Hawkins	Drilling Appalachian Corporation	15.00%	174A/400
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Kelly Kern	Drilling Appalachian Corporation	15.00%	174A/404
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Kathy Albright	Drilling Appalachian Corporation	15.00%	174A/356
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Kathryn L. Miller & Thomas F. Miller, wife and husband	SWN Production Company, LLC	15.00%	287A/852
Kathleen I. Francis	Drilling Appalachian Corporation	15.00%	202A/642
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Ralph E. Jones and Karen Y. Jones, husband and wife	Drilling Appalachian Corporation	15.00%	165A/181
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Judy C. Parrish, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	289A/351
Joseph Wilson	Drilling Appalachian Corporation	15.00%	189A/311
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Joseph Leroy Kittle	Drilling Appalachian Corporation	15.00%	166A/495
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
John Michael Bungard, a single man	SWN Production Company, LLC	18.00%	311A/449
John C. Frame	Drilling Appalachian Corporation	15.00%	174A/350
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
JoAnn Davis	Drilling Appalachian Corporation	15.00%	201A/288
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930

APR 21 2023

APR 18 2023

4710303576

WV Department of
Environmental Protection

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C, as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

Antero Resources Corporation	SWN Production Company, LLC		272A/588
Jill Wilging	Drilling Appalachian Corporation	15.00%	199A/903
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Jeffrey Wilson	Drilling Appalachian Corporation	15.00%	189A/309
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Jeffrey A. Lausin	SWN Production Company, LLC	18.00%	312A/404
Jeanetta M. Heath	Drilling Appalachian Corporation	15.00%	202A/648
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Jean M. Shepard	Drilling Appalachian Corporation	15.00%	173A/622
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Janet Hilpert	Drilling Appalachian Corporation	15.00%	181A/62
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
James W. Shepard	Drilling Appalachian Corporation	15.00%	173A/647
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
James S. Wilson and Ann D. Wilson, husband and wife	Drilling Appalachian Corporation	15.00%	195A/900
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
James Lawrence Reid and Sherry Lynn Reid, husband and wife	Drilling Appalachian Corporation	15.00%	189A/313
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
James Jeffrey Yeater	Drilling Appalachian Corporation	17.00%	174A/212
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
James Earnshaw	Drilling Appalachian Corporation	15.00%	202A/182
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Hubert Morris	Drilling Appalachian Corporation	15.00%	166A/501
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Hester Loretta Dugan	Drilling Appalachian Corporation	15.00%	174A/408
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Janice F. Brookover, a widow	Drilling Appalachian Corporation	15.00%	202A/644
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Harold P. Richmond	Drilling Appalachian Corporation	17.00%	181A/56
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Gerald E. Yeater, aka Elvin Yeater	Drilling Appalachian Corporation	15.00%	174A/406
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Gerald B. Jones	Drilling Appalachian Corporation	15.00%	174A/748
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
George T. Gale, Jr., a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	283A/189
Frederick M. Yeater & Sheri Yeater, husband and wife	Drilling Appalachian Corporation	15.00%	172A/584
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Donald Rex Quigley and Ellen M. Quigley, husband and wife	Drilling Appalachian Corporation	15.00%	177A/511
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Harry B. Snyder and Elizabeth J. Snyder, husband and wife	Drilling Appalachian Corporation	15.00%	165A/193
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Drilling Appalachian Corporation	Drilling Appalachian Corporation	18.75%	215A/447
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Donna S. Richmond	Drilling Appalachian Corporation	17.00%	181A/58
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Donald B. Wesley & Susan J. Wesley, as Joint Tenants with Right of Survivorship	Drilling Appalachian Corporation	15.00%	166A/474
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Diana S. Grafton & Timothy Grafton, husband and wife	Drilling Appalachian Corporation	15.00%	169A/302
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Dawn Wrezinski	Drilling Appalachian Corporation	15.00%	173A/635
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
David Paul Resources, LLC	Antero Resources Corporation	15.00%	189A/925
Antero Resources Corporation	SWN Production Company, LLC		272A/588
David L. Gale & Jan Gale, husband and wife	Drilling Appalachian Corporation	15.00%	176A/591
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588

04/21/2023

4710303576

RECEIVED
Office of Oil and Gas
APR 18 2023

WV Department of
Environmental Protection

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C., as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

David Eugene Bungard, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.00%	311A/455			
David E. Lowe and Sharon K. Lowe, husband and wife	Drilling Appalachian Corporation	15.00%	174A/760			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Darrel Yeater	Drilling Appalachian Corporation	15.00%	182A/54			
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
James Canfield Kline and Cynthia Lynn Kline, husband and wife	Drilling Appalachian Corporation	15.00%	174A/754			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Colleen Heath McClain Moore a/k/a Colleen H. McClain, widow	Drilling Appalachian Corporation	15.00%	165A/765			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Michael B. Shepard	Drilling Appalachian Corporation	15.00%	173A/633			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Christina L. Cain, a single woman	SWN Production Company, LLC	15.00%	308A/59			
Cheryl VanPelt	Drilling Appalachian Corporation	15.00%	176A/882			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Carolyn Jane Weller, a single woman	SWN Production Company, LLC	15.00%	290A/110			
James H. Cunningham and Carlene Kay Yeater Cunningham, husband and wife	Drilling Appalachian Corporation	17.00%	177A/531			
Drilling Appalachian Corporation	Antero Resources Corporation		180A/73			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Brett J. Lausin, a single man	SWN Production Company, LLC	18.00%	310A/759			
Barbara Persinger	Drilling Appalachian Corporation	15.00%	174A/208			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Barbara L. Barnhart & Walter Barnhart, husband and wife	Drilling Appalachian Corporation	15.00%	202A/646			
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Arelena B. Horner & Quay A. Horner, husband and wife	Drilling Appalachian Corporation	15.00%	202A/640			
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Carolyn Ann Gale	SWN Production Company, LLC	18.00%	Pending			
Linda Sue Frail	SWN Production Company, LLC	18.00%	317A/282			
Thomas Vernon Anderson	SWN Production Company, LLC	18.00%	317A/276			
13	1-10-51	Royalty Owner (subject to unitization filing dated March 3, 2023)	N/A	N/A	N/A	42.6696%
Yvonne M. Smith	Drilling Appalachian Corporation	18.00%	174A/372			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Yohna McPeek	Drilling Appalachian Corporation	15.00%	173A/655			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Frederick M. Dean Rohrig, as Special Commissioner for and on behalf of John C. Wilson, D. Joan Martino, Lewis Yeater, William L. McPeek, Emma L. Newhouse, Lawrence McPeek, Rebecca L. Lash, Mary A. Vance, Willa L. Yeater, Genevieve K. Davis, Larry W. Yeater, The William J. Vest Trust Agreement dated July 16, 2001, Larry W. Yeater, Trustee, Jennifer Yeater, Black Gold Group Ltd., Jenny Miller, Gloria Miller, Russell Yeater, Edward Yeater, Betty Johnson, Aiyana Lyster, Ommani Lyster, Acacia Lyster, Arch Albert Conner, Harold Yeater, Walter Wellman, Edna Ruckman, Lulu Reck, Madelyn E. Mosser (formerly Pennington), John W. Heath, William K. Heath, T and D Corporation, or successor, Francis Quigley, Gregory Steinhart, William G. Yeater, their missing, unknown, and abandoning heirs, successors and assigns, pursuant to action in the Circuit Court of Wetzel County, styled <i>Drilling Appalachian Corporation vs. Shiben Estates, Inc. et al</i> , Civil Action No. 17-C-33	Drilling Appalachian Corporation	15.00%	208A/92			
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
Emily K. Yeater Rulong	Drilling Appalachian Corporation	17.00%	174A/372			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			
William C. Atwell	Drilling Appalachian Corporation	15.00%	174A/381			
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300			
Antero Resources Corporation	SWN Production Company, LLC		272A/588			

04/21/2023

4710303576

RECEIVED
Office of Oil and Gas

APR 18 2023

EXHIBIT "A"

WV Department of

Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, LLC, as Operator

William Ritchea WTZ 410H
Wetzel County, West Virginia

William Bernard Yeater a/k/a Bernard Yeater, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.00%	308A/433
Arthur Workman and Vera Shirlene Workman, husband and wife	Drilling Appalachian Corporation	16.50%	165A/183
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
John K. Otto	Drilling Appalachian Corporation	15.00%	175A/173
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Timothy Wayne Anderson	Drilling Appalachian Corporation	15.00%	174A/204
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Timothy Hinkle & Shannon Hinkle, husband and wife	Drilling Appalachian Corporation	15.00%	174A/750
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Three Rivers Royalty II, LLC, Tiffany Culp - VP Land & Legal	SWN Production Company, LLC	18.00%	294A/99
Three Rivers Royalty II, LLC, Tiffany Culp - VP Land & Legal	SWN Production Company, LLC	18.00%	300A/312
Rodney Chester Lowe and Virginia Ann Lowe, husband and wife	Drilling Appalachian Corporation	15.00%	174A/758
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Robert Mock and Judith Mock, husband and wife	Drilling Appalachian Corporation	15.00%	174A/764
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
June Ann Reid	Drilling Appalachian Corporation	15.00%	174A/770
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Rosemary Lunemann	Drilling Appalachian Corporation	15.00%	173A/557
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Terry W. Yeater	Drilling Appalachian Corporation	15.00%	182A/529
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Terry W. Kittle and Deborah Kittle, husband and wife	Drilling Appalachian Corporation	15.00%	174A/768
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Terrie L. Lausin, a single woman	SWN Production Company, LLC	15.00%	307A/362
Richard Lee Parrish and Teri Lee Parrish, husband and wife	Drilling Appalachian Corporation	15.00%	165A/778
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Susan Inclan & Joseph C. Inclan	Drilling Appalachian Corporation	18.00%	177A/527
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Living Trust of Harold L. Yeater, dated January 29, 1999, Stephen L. Yeater, Co-Trustee	Drilling Appalachian Corporation	15.00%	174A/867
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Shiben Estates, Inc., a West Virginia Corporation	SWN Production Company, LLC	20.00%	266A/253
Shelly Yeater	Drilling Appalachian Corporation	18.00%	177A/521
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
John Edward Yeater and Sharon Lynn Yeater, husband and wife	Drilling Appalachian Corporation	17.00%	177A/523
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Sharon L. Yeater	Drilling Appalachian Corporation	15.00%	181A/38
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Conrad Sherwood Yeater	Drilling Appalachian Corporation	15.00%	174A/219
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Scott C. Harris and Carolyn R. Harris, husband and wife	SWN Production Company, LLC	17.00%	304A/351
Sandy Cumpston	Drilling Appalachian Corporation	15.00%	174A/202
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Sandra C. Koontz	Drilling Appalachian Corporation	15.00%	174A/354
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Ruth Ann Yeater	Drilling Appalachian Corporation	18.00%	174A/857
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Robert C. Aspley	Drilling Appalachian Corporation	15.00%	173A/555
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Ricky A. Yeater	Drilling Appalachian Corporation	15.00%	181A/188
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588

04/21/2023

4710303576

RECEIVED
Office of Oil and Gas

APR 18 2023

WV Department of
Environmental Protection

EXHIBIT "A"
Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C., as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

Shirley Gbur Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/402 179A/300 272A/588
Recon Resources, LLC, a Texas Limited Liability Company d/b/a Recon royalties Antero Resources Corporation	Antero Resources Corporation SWN Production Company, LLC	15.00%	190A/3 272A/588
Rebecca J. Norris Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/216 179A/300 272A/588
Rebecca Ann Haley Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/352 179A/300 272A/588
Rachel Anne Yeater, single Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	165A/185 179A/300 272A/588
Nancy Truex Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	17.00%	181A/60 186A/150 272A/588
Chester Holloway and Nancy Holloway, husband and wife Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/348 179A/300 272A/588
Nancy J. Foti Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/871 179A/300 272A/588
Monica A. Renn Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	18.00%	174A/375 179A/300 272A/588
Melissa Schroth Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	173A/653 179A/300 272A/588
Melissa Mae Bungard, a single woman Drilling Appalachian Corporation Antero Resources Corporation	SWN Production Company, LLC	18.00%	311A/443
Beatrice Joan Yeater Knight Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	17.00%	174A/396 179A/300 272A/588
Mary B. Jones Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/861 179A/300 272A/588
Martha Carol Grimes Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	178A/380 186A/150 272A/588
Marguerite Harbison Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	173A/661 179A/300 272A/588
Linda K. Morris Wilson Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/756 179A/300 272A/588
Mark Hunt Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/370 179A/300 272A/588
James Mark Edwards and Marilyn S. Edwards, husband and wife Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/206 179A/300 272A/588
Casey Couch and Marian Blair Couch, husband and wife Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/744 179A/300 272A/588
Mackie R. Roberts, a widower Drilling Appalachian Corporation Antero Resources Corporation	SWN Production Company, LLC	15.00%	283A/152
Lisa Marquart Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	18.00%	175A/176 179A/300 272A/588
Lewis W. Otto Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	176A/593 179A/300 272A/588
Leonard O. Haberbosch Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	166A/569 179A/300 272A/588
Laurie A. Shepard Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	173A/620 179A/300 272A/588
Kimeric and Company, LLC Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	16.00%	206A/584 215A/930 272A/588
Kim L. Hawkins Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/400 179A/300 272A/588
Kelly Kern Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/404 179A/300 272A/588
Kathy Albright Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/356 179A/300 272A/588
Kathryn L. Miller & Thomas F. Miller, wife and husband Drilling Appalachian Corporation Antero Resources Corporation	SWN Production Company, LLC	15.00%	287A/852
Kathleen I. Francis Drilling Appalachian Corporation	Drilling Appalachian Corporation	15.00%	202A/642

2/21/2023

APR 18 2023

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C., as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

WV Department of Environmental Protection

Drilling Appalachian Corporation Antero Resources Corporation	Antero Resources Corporation SWN Production Company, LLC		215A/930 272A/588
Ralph E. Jones and Karen Y. Jones, husband and wife	Drilling Appalachian Corporation	15.00%	165A/181
Drilling Appalachian Corporation Antero Resources Corporation	Antero Resources Corporation SWN Production Company, LLC		179A/300 272A/588
Judy C. Parrish, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	289A/351
Joseph Wilson Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	189A/311 215A/930 272A/588
Joseph Leroy Kittle Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	166A/495 179A/300 272A/588
John Michael Bungard, a single man	SWN Production Company, LLC	18.00%	311A/449
John C. Frame Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/350 179A/300 272A/588
JoAnn Davis Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	201A/288 215A/930 272A/588
Jill Wilging Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	199A/903 215A/930 272A/588
Jeffrey Wilson Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	189A/309 179A/300 272A/588
Jeffrey A. Lousin	SWN Production Company, LLC	18.00%	312A/404
Jeanetta M. Heath Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	202A/648 215A/930 272A/588
Jean M. Shepard Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	173A/622 179A/300 272A/588
Janet Hilpert Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	181A/62 186A/150 272A/588
James W. Shepard Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	173A/647 179A/300 272A/588
James S. Wilson and Ann D. Wilson, husband and wife	Drilling Appalachian Corporation	15.00%	195A/900
Drilling Appalachian Corporation Antero Resources Corporation	Antero Resources Corporation SWN Production Company, LLC		215A/930 272A/588
James Lawrence Reid and Sherry Lynn Reid, husband and wife	Drilling Appalachian Corporation	15.00%	189A/313
Drilling Appalachian Corporation Antero Resources Corporation	Antero Resources Corporation SWN Production Company, LLC		215A/930 272A/588
James Jeffrey Yeater Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	17.00%	174A/212 179A/300 272A/588
James Earnshaw Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	202A/182 215A/930 272A/588
Hubert Morris Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	166A/501 179A/300 272A/588
Hester Loretta Dugan Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/408 179A/300 272A/588
Janice F. Brookover, a widow Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	202A/644 215A/930 272A/588
Harold P. Richmond Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	17.00%	181A/56 186A/150 272A/588
Gerald E. Yeater, aka Elvin Yeater Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/406 179A/300 272A/588
Gerald B. Jones Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	174A/748 179A/300 272A/588
George T. Gale, Jr., a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	283A/189
Frederick M. Yeater & Sheri Yeater, husband and wife Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	172A/584 179A/300 272A/588
Donald Rex Quigley and Ellen M. Quigley, husband and wife Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	177A/511 186A/150 272A/588
Harry B. Snyder and Elizabeth J. Snyder, husband and wife Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation SWN Production Company, LLC	15.00%	165A/193 179A/300 272A/588
Drilling Appalachian Corporation Antero Resources Corporation	Drilling Appalachian Corporation Antero Resources Corporation	18.75%	215A/447 179A/300

04/21/2023

RECEIVED
Office of Oil and Gas
APR 18 2023

WV Department of
Environmental Protection

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Form, WW-6A1, by SWN Production Company, L.L.C, as Operator
William Ritchea WTZ 410H
Wetzel County, West Virginia

Antero Resources Corporation	SWN Production Company, LLC		272A/588
Donna S. Richmond	Drilling Appalachian Corporation	17.00%	181A/58
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Donald B. Wesley & Susan J. Wesley, as Joint Tenants with Right of Survivorship	Drilling Appalachian Corporation	15.00%	166A/474
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Diana S. Grafton & Timothy Grafton, husband and wife	Drilling Appalachian Corporation	15.00%	169A/302
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Dawn Wrezinski	Drilling Appalachian Corporation	15.00%	173A/635
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
David Paul Resources, LLC	Antero Resources Corporation	15.00%	189A/925
Antero Resources Corporation	SWN Production Company, LLC		272A/588
David L. Gale & Jan Gale, husband and wife	Drilling Appalachian Corporation	15.00%	176A/591
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
David Eugene Bungard, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.00%	311A/455
David E. Lowe and Sharon K. Lowe, husband and wife	Drilling Appalachian Corporation	15.00%	174A/760
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Darrel Yeater	Drilling Appalachian Corporation	15.00%	182A/54
Drilling Appalachian Corporation	Antero Resources Corporation		186A/150
Antero Resources Corporation	SWN Production Company, LLC		272A/588
James Canfield Kline and Cynthia Lynn Kline, husband and wife	Drilling Appalachian Corporation	15.00%	174A/754
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Colleen Heath McClain Moore a/k/a Colleen H. McClain, widow	Drilling Appalachian Corporation	15.00%	165A/765
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Michael B. Shepard	Drilling Appalachian Corporation	15.00%	173A/633
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Christina L. Cain, a single woman	SWN Production Company, LLC	15.00%	308A/59
Cheryl VanPelt	Drilling Appalachian Corporation	15.00%	176A/882
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Carolyn Jane Weiler, a single woman	SWN Production Company, LLC	15.00%	290A/110
James H. Cunningham and Carlene Kay Yeater Cunningham, husband and wife	Drilling Appalachian Corporation	17.00%	177A/531
Drilling Appalachian Corporation	Antero Resources Corporation		180A/73
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Brett J. Lausin, a single man	SWN Production Company, LLC	18.00%	310A/759
Barbara Persinger	Drilling Appalachian Corporation	15.00%	174A/208
Drilling Appalachian Corporation	Antero Resources Corporation		179A/300
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Barbara L. Barnhart & Walter Barnhart, husband and wife	Drilling Appalachian Corporation	15.00%	202A/646
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Arelena B. Horner & Quay A. Horner, husband and wife	Drilling Appalachian Corporation	15.00%	202A/640
Drilling Appalachian Corporation	Antero Resources Corporation		215A/930
Antero Resources Corporation	SWN Production Company, LLC		272A/588
Carolyn Ann Gale	SWN Production Company, LLC	18.00%	Pending
Linda Sue Frail	SWN Production Company, LLC	18.00%	317A/282
Thomas Vernon Anderson	SWN Production Company, LLC	18.00%	317A/276

04/21/2023



4710303570

SWN Production Company, LLC
1300 Fort Pierpont Dr, Ste 201
Morgantown, WV 26508
Tel: 304 884 1610
Fax: 304 471 2497
www.swn.com

March 3, 2023

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

RE: SWN's proposed New Well: William Ritchea WTZ 410H in Wetzel County, West Virginia, Drilling under Harlan Ridge Road, Carney Fork Road and Fairview Ridge Road.

Dear Mr Brewer:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under Harlan Ridge Road, Carney Fork Road and Fairview Ridge Road. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Sincerely,

Ian R. Nicas
Staff Landman
SWN Production Company, LLC

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

04/21/2023

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

Date of Notice Certification: 3/13

API No. 47- 009 -
Operator's Well No. William Ritchea Wtz 410H
Well Pad Name: William Ritchea Wtz

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>529,213.512</u>
County:	<u>103-Wetzel</u>		Northing:	<u>4,391,135.526</u>
District:	<u>Proctor</u>	Public Road Access:	<u>Harlan Ridge Road</u>	
Quadrangle:	<u>Wileyville</u>	Generally used farm name:	<u>William Ritchea</u>	
Watershed:	<u>Fish 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.

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

*PLEASE CHECK ALL THAT APPLY

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

OOG OFFICE USE ONLY

- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

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.

RECEIVED
OFFICE OF OIL AND GAS
APR 13 2023
WV Department of
Environmental Protection
04/21/2023

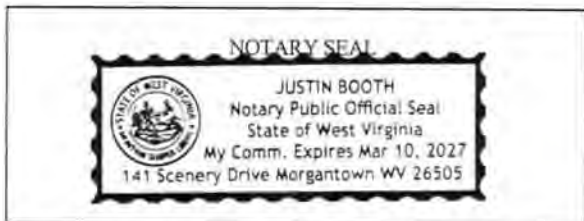
4710505570

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: SWN Production Co., LLC
By: Brittany Woody
Its: Senior Regulatory Analyst
Telephone: 304-884-1610

Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Facsimile: _____
Email: Brittany_Woody@swn.com



Subscribed and sworn before me this 28th day of FEBRUARY 2023.

[Signature] Notary Public

My Commission Expires 3/10/2027

Oil and Gas Privacy Notice:

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

RECEIVED
Office Of Oil and Gas
MAR 14 2023
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: 3/13 Date Permit Application Filed: 3/13

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: William & Shirley Ritchea
Address: 12263 Proctor Creek Road
New Martinsville, WV
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: C/O Leatherwood Attn: Casey Saunders
Address: 275 Technology Drive
Canonsburg, PA 15317

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: None
Address: _____

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

*Please attach additional forms if necessary

RECEIVED
Office Of Oil and Gas
MAR 14 2023
WV Department of
Environmental Protection

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

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
MAR 14 2023
WV Department of
Environmental Protection

04/21/2023

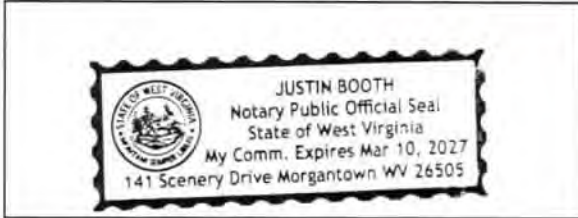
Notice is hereby given by:

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

Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Facsimile: _____

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.



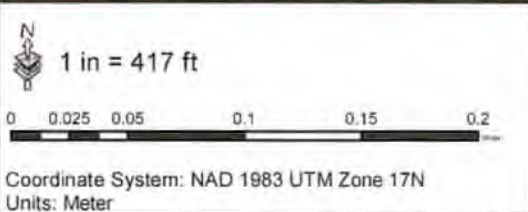
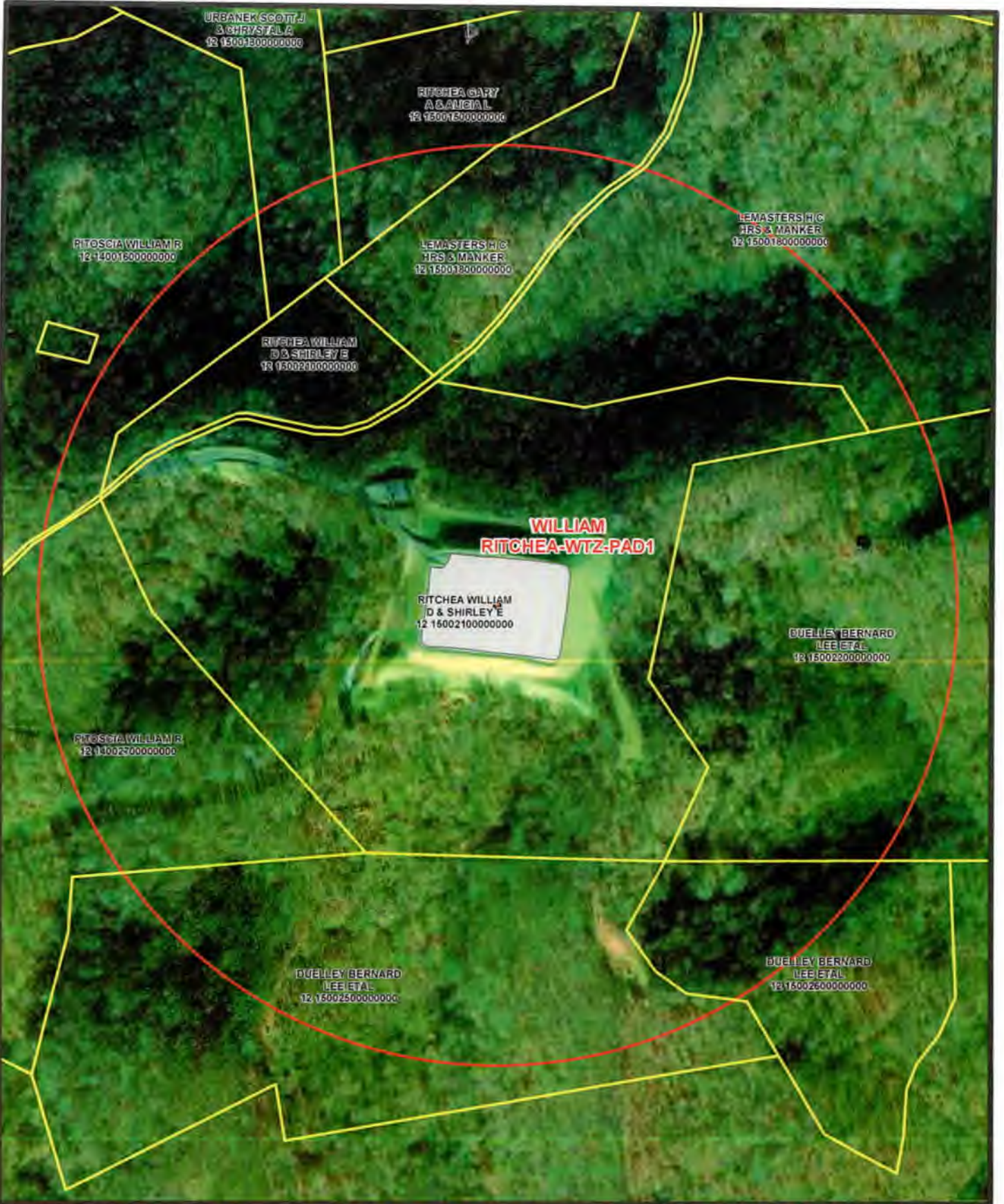
Subscribed and sworn before me this 28th day of FEBRUARY 2023.

[Signature] Notary Public

My Commission Expires 3/10/2027

RECEIVED
Office Of Oil and Gas
MAR 14 2023
WV Department of
Environmental Protection

04/21/2023



Spring	Parcel
Water Well	1500' Buffer
Pond	

Coordinates: 39.669547, -80.659219

Water Purveyor Map
Well Pad; William Ritchea
County: WTZ

swn *Rev A*

Southwestern **04/21/2023**

Date: 1/6/2020 Author: willisb

(1/12)

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: 5/18/2022 Date of Planned Entry: 5/25/2022

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

- 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 plat surveys required pursuant to this article...

SURFACE OWNER(S)

Name: William & Shirley Ritchea
Address: 12263 Proctor Creek Road
New Martinsville, WV 26155

COAL OWNER OR LESSEE

Name: C/O Leatherwood Ath Casey Saunders
Address: 275 Technology Drive Suite 101
Cranberry, PA 15242-0595

MINERAL OWNER(S)

Name: William & Shirley Ritchea
Address: 12263 Proctor Creek Road
New Martinsville, WV 26155

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: Wetzel
District: Proctor
Wileyville
Approx. Latitude & Longitude: 39.670670 -80.863580
Public Road Access: Harlan Ridge
Watershed: Little Fishing Creek
William Ritchea

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...

RECEIVED Office Of Oil and Gas

MAR 14 2023

WV Department of Environmental Protection

Well Operator: SWN PRODUCTION COMPANY, LLC
Telephone: 304-884-1810
Email: Britlany_Woody@swn.com

Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26503
Telephone: 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...

04/21/2023



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Gregory L. Bailey, P.E.
Interim
State Highway Engineer

Jimmy Wriston, P. E.
Secretary of Transportation
Commissioner of Highways

February 22, 2023

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 William Ritchea Pad, Wetzel County
William Ritchea WTZ 410H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2011-0618 which has been issued to Southwestern Energy for access to the State Road for a well site located off Wetzel County Route 1/19 SLS MP 1.77.

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. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

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

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

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

Attachment VI Frac Additives

1005578

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
EC5734A (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
Plexislick 930	Friction Reducer	Copolymer of 2-propenamide	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
Plexislick 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
Plexislick 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
Plexislick V996	no data available	Copolymer of 2-Propeenamide	*****
		Distillates (petroleum), hydrotreated light	64742-47-8
		Alcohol Ethoxylate	*****
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Surfactant	*****
		Hydrotreated light distillate (petroleum)	64742-47-8
		Propenoic acid, polymer with propenamide	9003-06-9
Plexaid 655 NM	Scale Inhibitor	Diethylenetriamine penta (methylene phosphonic acid)	15827-30-8
Plexislick 922	no data available	Copolymer of 2-propenamide	69418-26-4
		Distillates (petroleum), hydrotreated light	64742-47-8
		Ammonium chloride ((NH4)Cl)	12125-02-9
		Oleic Acid Diethanolamide	93-83-4
Tolcide 4Frac	Mixture	Phosphonium, tetrakis (hydroxymethyl), Sulfate	55566-30-8
		Quaternary ammonium Compounds, Benzyl-C12-16-Alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
Tolcide P550A	Biocidal product	Tetrakis (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-ethanedilyl) alpha-tridecyl-omega-hydroxy-, branched	69011-36-5
		Methanol	67-56-1
		Phosphonic Acid Salt	Proprietary
MC MX 8-4743	Specialty Product	Sodium Nitrate	7631-99-4
Ferriplex 80	Iron Control	Sodium erythorbate	6381-77-7
Plexaid 655 WG	Scale Inhibitor	Glycerine	67-56-1
		Water	7732-18-5
		Organic Phosphonic Acid Salts	15827-60-8

As of 9/8/2022

04/21/2023

WW-6A7
(6-12)

2023070

OPERATOR: SWN Production Co., LLC

WELL NO: William Ritchea WTZ 410H

PAD NAME: William Ritchea WTZ

REVIEWED BY: _____

SIGNATURE: *Brittany Woody*

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

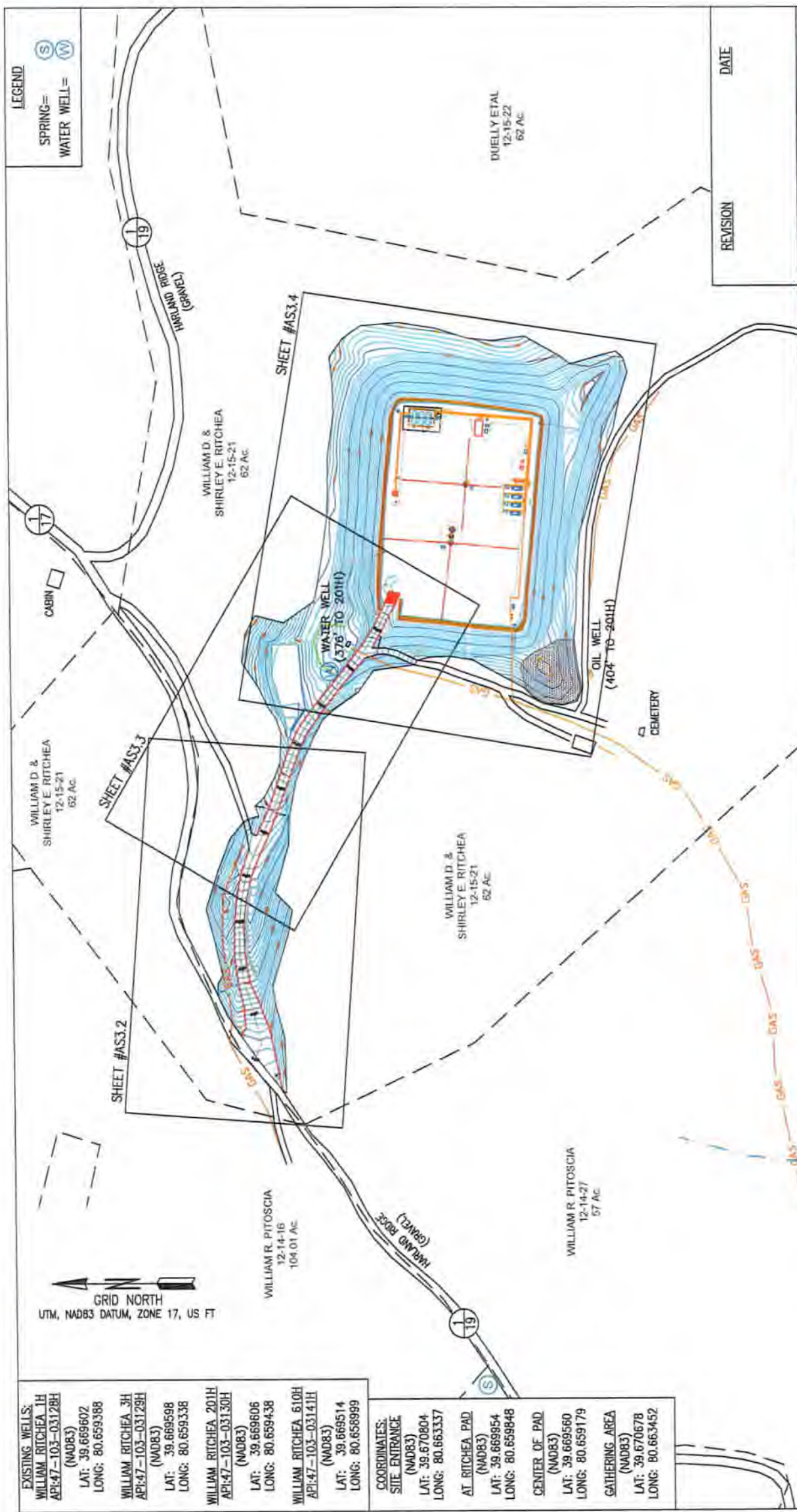
**Pad Built 7/27/13*

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
- 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
MAR 14 2023
WV Department of
Environmental Protection
04/21/2023

3/19/23



REVISION	DATE

Jackson Surveying Inc.
 CONSTRUCTION AND RECLAMATION
 ASBUILT OVERVIEW
 ASS.1
 SOUTHWESTERN PRODUCTION COMPANY LLC.
 WILLIAM RITCHEA WTZ PAD
 PROCTOR DISTRICT, WETZEL COUNTY, WV
 APRIL 27, 2018



677 W. Main St.
 Charleston, Wv 25301
 304-623-5631

04-27-2018
 Date:



Joshua R. Cook RP# 17990



NOTE: PROPERTY LINES AND OWNERSHIP PROVIDED BY SWN.

EXISTING WELLS:	
WILLIAM RITCHEA 1H API:47-103-03128H (NAD83)	LAT: 39.669602 LONG: 80.659388
WILLIAM RITCHEA 3H API:47-103-03129H (NAD83)	LAT: 39.669598 LONG: 80.659338
WILLIAM RITCHEA 201H API:47-103-03130H (NAD83)	LAT: 39.669606 LONG: 80.659438
WILLIAM RITCHEA 610H API:47-103-03141H (NAD83)	LAT: 39.669514 LONG: 80.658999

COORDINATES:	
SITE ENTRANCE (NAD83)	LAT: 39.670804 LONG: 80.663337
AT RITCHEA PAD (NAD83)	LAT: 39.669954 LONG: 80.659848
CENTER OF PAD (NAD83)	LAT: 39.669560 LONG: 80.659179
GATHERING AREA (NAD83)	LAT: 39.670678 LONG: 80.663452

04/21/2023

