



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, August 28, 2024
WELL WORK PERMIT
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359

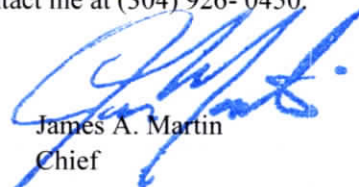
SPRING, TX 773914954

Re: Permit approval for Ruth Keller MSH 5H
47-051-02515-00-00

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: Ruth Keller MSH 5H
Farm Name: Brian J Keller, David J & Alice
U.S. WELL NUMBER: 47-051-02515-00-00
Horizontal 6A New Drill
Date Issued: 8/28/2024

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. 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. Also, 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. 4705102515

OPERATOR WELL NO. Ruth Keller MSH 5H

Well Pad Name: Ruth Keller MSH

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

1) Well Operator: SWN Production Co., LLC Operator ID: 494512924 County: 051-Marshall District: 7-Union Quadrangle: 486-Moundsville

2) Operator's Well Number: Ruth Keller MSH 5H Well Pad Name: Ruth Keller MSH

3) Farm Name/Surface Owner: Brian J. Keller & David J. & Alice M. Cook Public Road Access: Glen Dale Heights Road

4) Elevation, current ground: 1327' Elevation, proposed post-construction: 1327'

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

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6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Up-Dip well to the North, Target Top TVD- 6342', Target Base TVD- 6398', Anticipated Thickness- 56', Associated Pressure- 4159

8) Proposed Total Vertical Depth: 6387'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 28422'

11) Proposed Horizontal Leg Length: 8350.86'

12) Approximate Fresh Water Strata Depths: 462'

13) Method to Determine Fresh Water Depths: Salinity Profile on Serafin Ortiz Pad

14) Approximate Saltwater Depths: 1216' Salinity Profile

15) Approximate Coal Seam Depths: 830'

16) Approximate Depth to Possible Void (coal mine, karst, other): Possible Void 830'

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: _____

*Steve D...
STRADDER
4/17/2024*

WW-6B
(04/15)

API NO. 47-051 -
OPERATOR WELL NO. Ruth Keller MSH 5H
Well Pad Name: Ruth Keller MSH

18) **CASING AND TUBING PROGRAM**

<u>TYPE</u>	<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#	136'	136'	CTS
Fresh Water	13 3/8"	New	J-55	54.4#	860'	860'	991 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	2158'	2158'	824 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	28422'	28422'	Tail 5339sx/ 100' inside Intermediate
Tubing							
Liners							

<u>TYPE</u>	<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"	0.330	1730	633	Class A	1.20/30% Excess
Coal	See	Surface	Casing				
Intermediate	9 5/8"	12 1/4"	0.352	3520	1768	Class A	1.19/40% Excess
Production	5 1/2"	8 3/4"-8 1/2"	0.361	14360	10500	Class A	1.19/10-15% Excess
Tubing							
Liners							

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PACKERS

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Kind:				
Sizes:				
Depths Set:				

Steve Gowen
STRACKER GOWEN
4/17/2024

4705102515

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): 6.78

22) Area to be disturbed for well pad only, less access road (acres): 4.30

23) Describe centralizer placement for each casing string:

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

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

See Attachment ***

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25) Proposed borehole conditioning procedures:

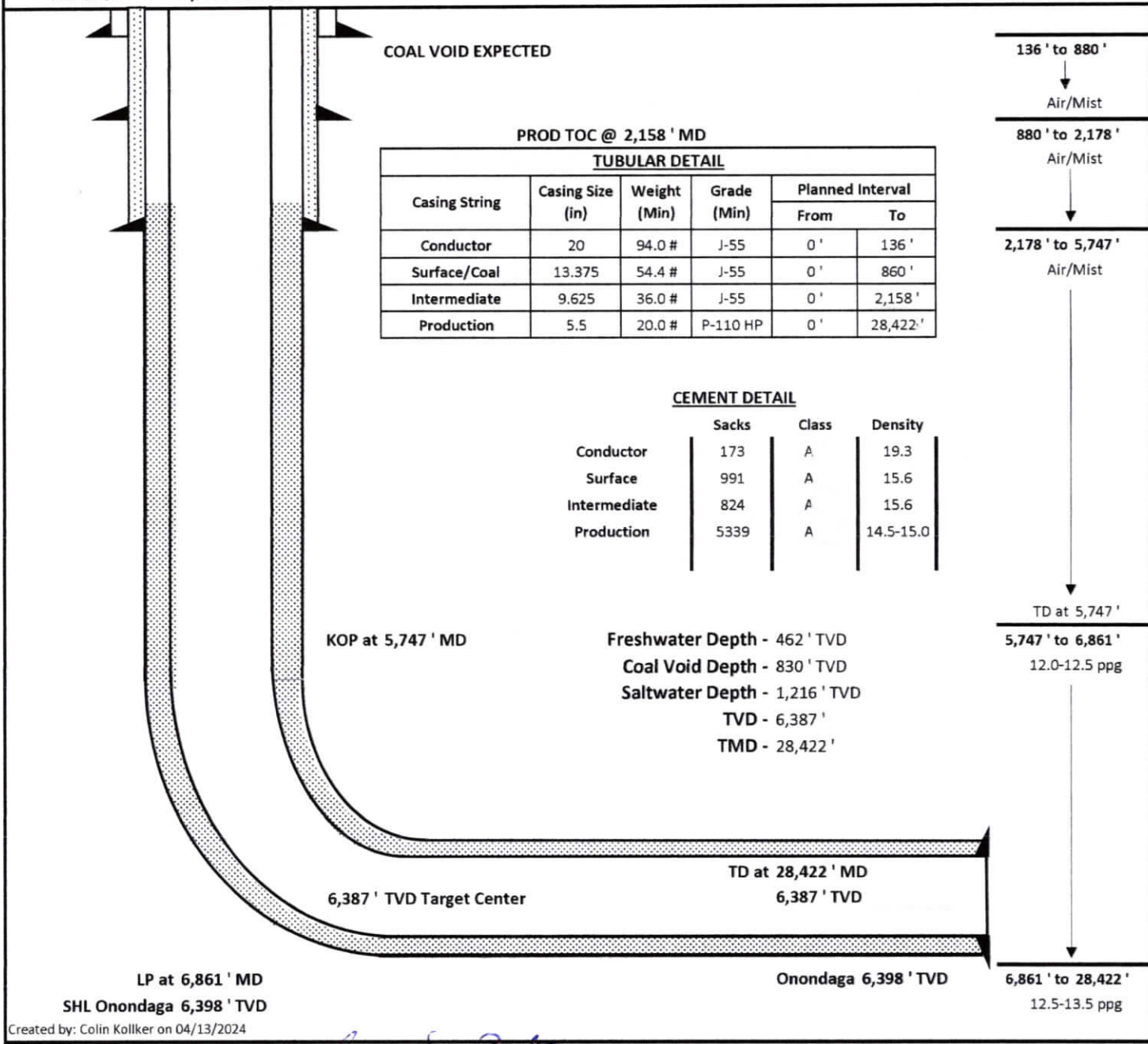
All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and continuing until operator is satisfied with borehole conditions.

*Note: Attach additional sheets as needed.

4705102515

Southwestern Energy Company	Proposed Drilling Program
------------------------------------	----------------------------------

<p>Well: RUTH KELLER MSH 5H Field: NORTH VICTORY FIELD WET County: MARSHALL SHL (NAD83): 39.985579 Latitude -80.695862 Longitude BHL (NAD83): 40.041035 Latitude -80.723364 Longitude KB Elev: 1,353 ft MSL KB: 26 ft AGL</p>	<p>Re-entry Rig: SDC 41 Prospect: Marcellus Shale State: WV GL Elev: 1,327 ft MSL</p>
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COAL VOID EXPECTED

PROD TOC @ 2,158' MD

TUBULAR DETAIL					
Casing String	Casing Size (in)	Weight (Min)	Grade (Min)	Planned Interval	
				From	To
Conductor	20	94.0 #	J-55	0'	136'
Surface/Coal	13.375	54.4 #	J-55	0'	860'
Intermediate	9.625	36.0 #	J-55	0'	2,158'
Production	5.5	20.0 #	P-110 HP	0'	28,422'

CEMENT DETAIL

	Sacks	Class	Density
Conductor	173	A	19.3
Surface	991	A	15.6
Intermediate	824	A	15.6
Production	5339	A	14.5-15.0

KOP at 5,747' MD

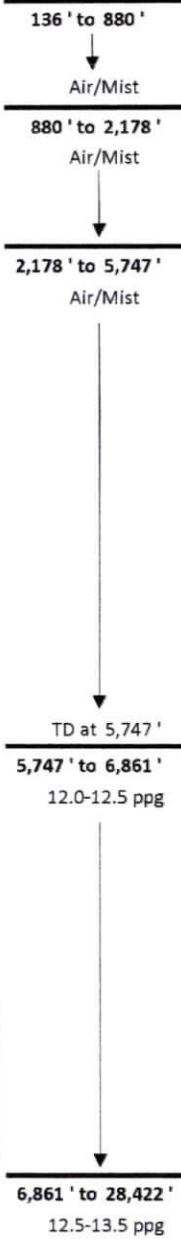
Freshwater Depth - 462' TVD
 Coal Void Depth - 830' TVD
 Saltwater Depth - 1,216' TVD
 TVD - 6,387'
 TMD - 28,422'

6,387' TVD Target Center

TD at 28,422' MD
 6,387' TVD

LP at 6,861' MD
 SHL Onondaga 6,398' TVD

Onondaga 6,398' TVD



Created by: Colin Kollker on 04/13/2024

St. Johns
STRADYKOWSKI
4/17/2024

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08/30/2024

4705102515



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

April 16, 2024

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

RE: Proposed New Well: Ruth Keller MSH 5H

Dear Mr. Brewer:

SWN has reviewed the area of the above mentioned well and discovered no shallow wells within 500' of the lateral. This well is situated on the Keller's property, in Union District, Marshall County, West Virginia.

If you have any questions or desire additional information, please me at 304-884-1613.

Thank you.

Sincerely,

Brittany Woody
Staff Regulatory Specialist
Southwestern Energy Production Company, LLC

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The Right People doing the Right Things,
wisely investing the cash flow from our
underlying assets with the SWN Blue+SM

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WW-9
(4/16)

4705102515

API Number 47 - 051 -

Operator's Well No. Ruth Keller MSH 5H

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) Short Creek Ohio River Quadrangle Moundsville

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)

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

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

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

Additives to be used in drilling medium? Attachment 3B

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

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

-Landfill or offsite name/permit number? Meadowfill SWF- 1032, Short Creek SWF-1034, Carbon Limestone MSWL018781, Wetzel County 1021

Apex Sanitary Landfill U6-08438, Brooke Co SWF-1013, FMS 353100

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

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

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

Company Official Signature Brittany Woody

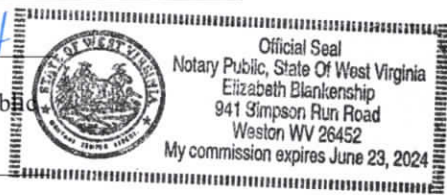
Company Official (Typed Name) Brittany Woody

Company Official Title Staff Regulatory Specialist

Subscribed and sworn before me this 27 day of March, 2024

Elizabeth Blankenship Notary Public

My commission expires 6/23/2024



08/30/2024

SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 6.78 Prevegetation pH _____

Lime as determined by pH test min.2 Tons/acre or to correct to pH 4.30

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: STRADER GOWEN John Gowen

Comments: _____

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Title: Oil & Gas Inspector

Date: 4/17/2024

Field Reviewed? Yes No

Attachment 3A

CLOSED LOOP SYSTEM

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

The closed loop system consists of a Shale Gas Separator, 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 highly weighted 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 haul off to an approved landfill site. (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 where gas and liquids/solids are separated. Gas is sent to the flare scrubber tank and is flared at the flare stack. Solids and fluids pass across a shaker system to separate solids from liquids. Solids pass into the cuttings tanks where they are captured for drying and hauloff to an approved landfill site. Liquids fall into a shaker tank and are collected by a centrifugal pump to be processed by the high speed centrifuge to further separate liquids and solids. Solids are then dumped into the cuttings tank for drying and hauloff. Liquids are further processed to remove additional low gravity solids before being reused or transferred to onsite storage.

LIQUIDS DRILLING (FRESHWATER, BRINE, SOBM)

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

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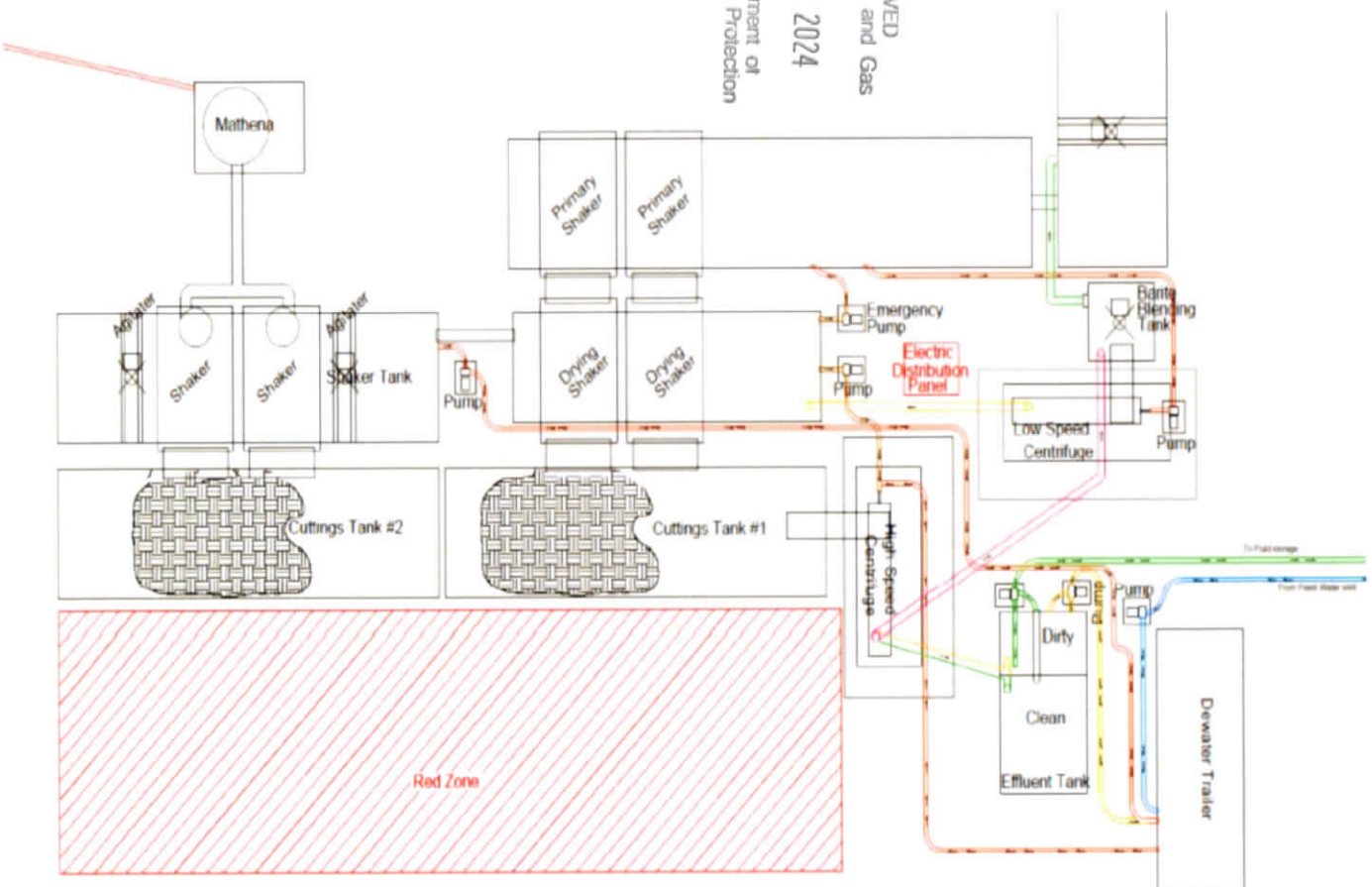
Solids Control Layout



EXAMPLE SCHEMATIC FOR CLOSED LOOP SOLIDS CONTROL SYSTEM

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Drilling Mediums

Surface/Coal (if present)/Freshwater Intervals

Air

Freshwater (if needed based on conditions)

Intermediate/Coal (if present)

Air

Freshwater (if needed based on conditions)

Brine (if needed, base fluid for mud systems)

Production Hole:

Air

Synthetic Oil (Base Fluid for mud system)

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers

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705102515



WVD Seeding Specification



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

NON-ORGANIC PROPERTIES

Seed Mixture: ROW Mix	SWN Supplied
Orchardgrass	40%
Timothy	15%
Annual Ryegrass	15%
Brown Top Millet	5%
Red Top	5%
Medium Red Clover	5%
White Clover	5%
Birdsfoot Trefoil	5%
Rough Bluegrass	5%

All legumes are inoculated 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

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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.

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

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

MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN 4705102515



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

API NO. 47-XXX-XXXXX
WELL NAME: Ruth Keller MSH 5H
Moundsville QUAD
Union DISTRICT
MARSHALL COUNTY, WEST VIRGINIA

Submitted by:

Name: Brittany Woody

Brittany Woody

Date: 3/18/2024

Title: Staff Regulatory Specialist

SWN Production Co., LLC

Approved by:

Name: STRAPER LOWLER

Title: Oil & Gas Inspector

Date: 4/11/2024

Approved by:

Name: _____

Date: _____

Title: _____

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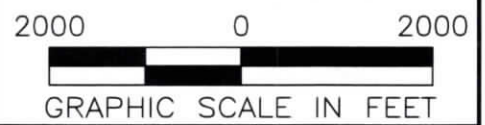
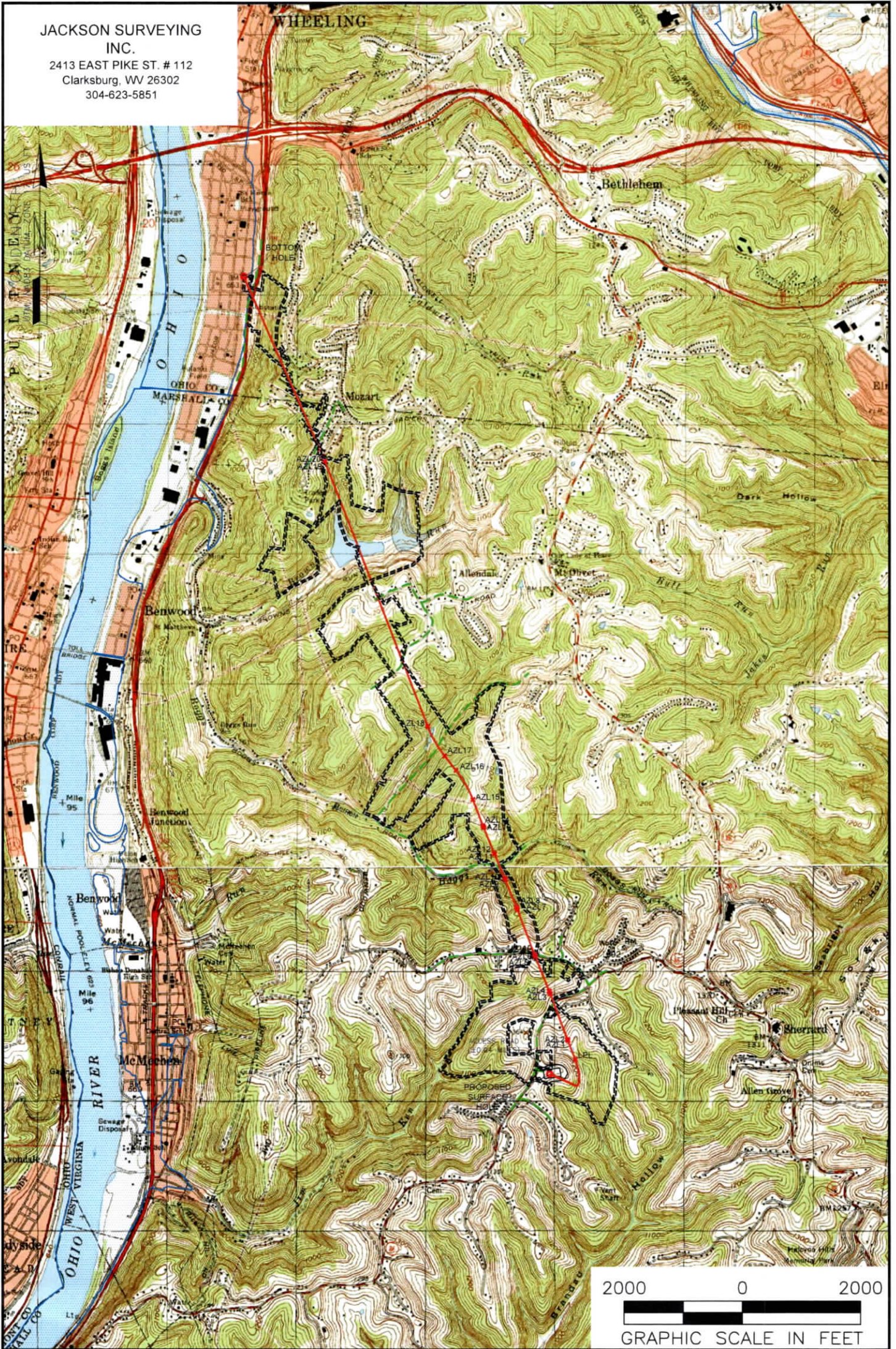
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SWN PRODUCTION COMPANY, LLC – CONFIDENTIAL

08/30/2024

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

08/30/2024

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: RUTH KELLER MSH	WELL # 5H	SERIAL # XXXX
ADDRESS: P.O. BOX 1300 JANE LEW, WV 26378	COUNTY - CODE MARSHALL - 103	DISTRICT; UNION	
SURFACE OWNER: BRIAN J. KELLER & DAVID J. & ALICE M. COOK (TOD)	USGS 7 1/2 QUADRANGLE MAP NAME Benwoodville		

Latitude: 40°00'00"

SURFACE HOLE 8,179'

Latitude: 40°02'30" BOTTOM HOLE

4,209'

BOTTOM HOLE 230'

Longitude: 80°42'30"

Longitude: 80°40'00"

SURFACE HOLE 5,253'

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

Table with 2 columns: Location Type and UTM Coordinates (NORTHING, EASTING) for SHL, LPL, and BHL.

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

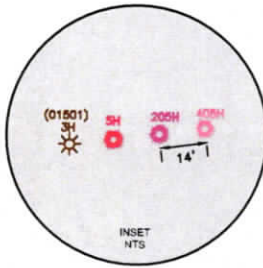
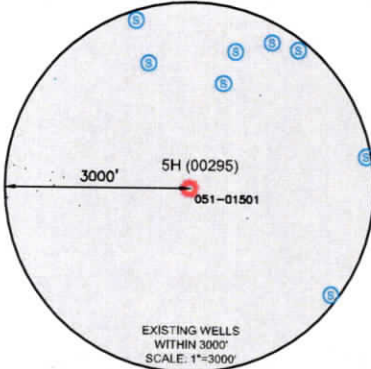
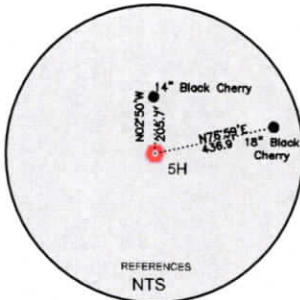


Table with 5 columns: LINE, BEARING, DISTANCE, DESCRIPTION, MONUMENT. Lists well path details from SHL to landmark and through various AZL points.

WELL RESTRICTIONS

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

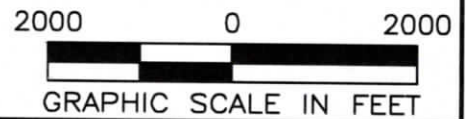
NOTES ON SURVEY

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

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

P.S. 708

David L Jackson



COMPANY: SWN Production Company, LLC



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)

RUTH KELLER MSH
OPERATOR'S WELL #: 5H
API WELL #: 47 STATE 051 COUNTY 02515 PERMIT

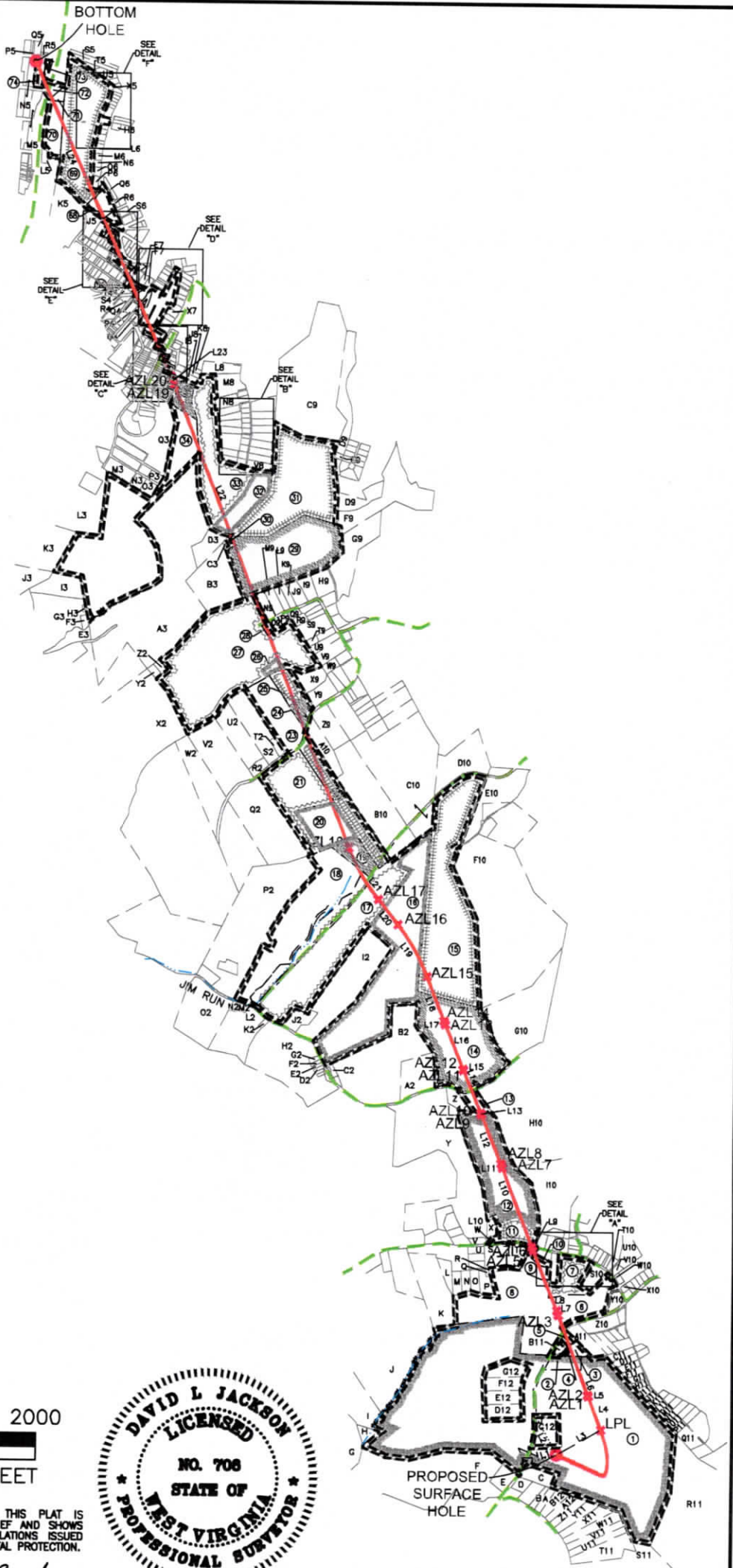
WELL TYPE: OIL [] WASTE DISPOSAL [] PRODUCTION [] DEEP [] GAS [x] LIQUID INJECTION [] STORAGE [] SHALLOW [x]
WATERSHED: SHORT CREEK OHIO RIVER (HUC-10) ELEVATION: 1,327.1'
DISTRICT: UNION COUNTY: MARSHALL QUADRANGLE: MOUNDSVILLE, WV
SURFACE OWNER: BRIAN J. KELLER & DAVID J. & ALICE M. COOK (TOD) ACREAGE: ±173.061
OIL & GAS ROYALTY OWNER: BRIAN J. KELLER & DAVID J. & ALICE M. COOK (TOD) ACREAGE: ±173.061
DRILL [x] DRILL DEEPER [] REDRILL [] FRACTURE OR STIMULATE [x] PLUG OFF OLD FORMATION [] PERFORATE NEW FORMATION []
CONVERT [] PLUG & ABANDON [] CLEAN OUT & REPLUG [] OTHER CHANGE [] (SPECIFY)
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,387 TO 8,426 TTD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITTANY WOODY
ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200 ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND: PROPOSED SURFACE HOLE / BOTTOM HOLE, EXISTING / PRODUCING WELLHEAD, LPL, EXISTING WATER WELL, EXISTING SPRING, SURVEYED BOUNDARY, DRILLING UNIT, LEASE BOUNDARY, PROPOSED PATH, REVISIONS, DATE: 04-16-2024

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

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



2000 0 2000
GRAPHIC SCALE IN FEET

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

P.S. 708

David L Jackson

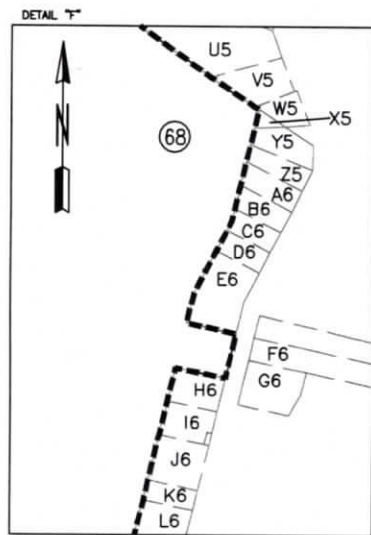
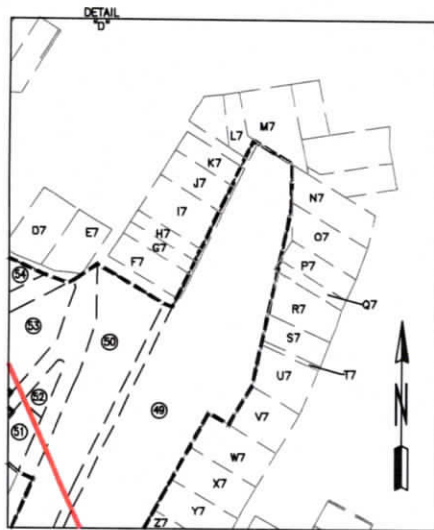
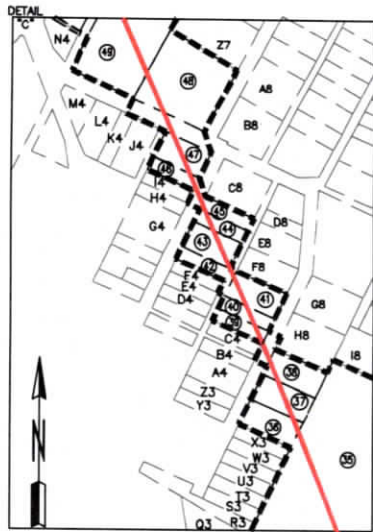
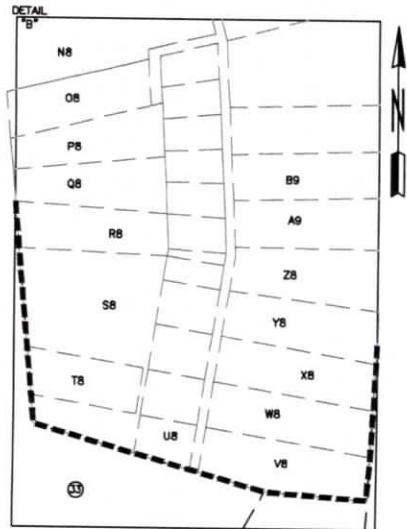


47-051-02515

08/30/2024

REVISIONS: ▲ ADDED 10W-89-62 AS WELL BORE TRACT 66 06-13-2024 ▲ ADDED WELL BORE AND TRACT 51 TO DETAIL D 08-21-2024	COMPANY: 	DATE: 04-16-2024
OPERATOR'S RUTH KELLER MSH WELL #: 5H	STATE: WV	DRAWN BY: J. COCKERHAM SCALE: N/A DRAWING NO: WELL LOCATION PLAT 2
DISTRICT: UNION	COUNTY: MARSHALL	

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



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

P.S. 708 *David L Jackson*

47-051-02515
 08/30/2024


REVISIONS: ▲ ADDED 10W-89-62 AS WELL BORE TRACT 66 06-13-2024 ▲ ADDED WELL BORE AND TRACT 51 TO DETAIL D 08-21-2024	COMPANY: SWN Production Company, LLC	SWN Production Company™
OPERATOR'S WELL #: DISTRICT: UNION	RUTH KELLER MSH 5H COUNTY: MARSHALL	DATE: 04-16-2024 DRAWN BY: J. COCKERHAM SCALE: N/A DRAWING NO: WELL LOCATION PLAT 3

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	KELLER BRIAN J & COOK DAVID J & ALICE M - TOD (S/R)	13-6-50
2	SURFACE OWNER (S)	TAX PARCEL
3	KELLER BRIAN J & JANET (S)	13-6-50.5
4	HECKMAN FLORA BELLE - TOD (S)	13-7C-18
5	FISHER CHRISTINA MARIE (S)	13-7C-20
6	GAMBLE REBECCA C EST (S)	13-7C-19
7	CAUDWELL CHRISTIAN A (S)	13-7-1.1
8	HULL GEORGE J & SANDRA JO (S)	13-6-31
9	HULL GAYLERD F & SHARON (S)	13-6-23.11
10	HULL GAYLERD F & SHARON L (S)	13-6-23.8
11	HULL GAYLERD F & SHARON L (S)	13-6-23.6
12	HULL GAYLERD F & SHARON L (S)	13-6-23.13
13	HULL GAYLERD F & SHARON L (S)	13-6-23.20
14	CALMBACHER RUSSELL JAMES (S)	13-6-27
15	KUBANCIK RITA C EST (S)	13-5-23
16	OHIO COUNTY COAL RESOURCES INC (S)	13-5-14
17	KUBANCIK STANLEY MET UX (S)	13-5-28
18	OHIO COUNTY COAL RESOURCES INC (S)	13-5-30
19	OHIO COUNTY COAL RESOURCES INC (S)	13-5-31
20	OHIO COUNTY COAL RESOURCES INC (S)	13-5-10.1
21	OHIO COUNTY COAL RESOURCES INC (S)	13-5-10.2
22	OHIO COUNTY COAL RESOURCES INC (S)	13-5-10.3
23	OHIO COUNTY COAL RESOURCES INC (S)	13-5-11
24	OHIO COUNTY COAL RESOURCES INC (S)	13-1-52
25	OHIO COUNTY COAL RESOURCES INC (S)	13-1-53.1
26	OHIO COUNTY COAL RESOURCES INC (S)	13-1-53
27	OHIO COUNTY COAL RESOURCES INC (S)	13-1-49.1
28	OHIO COUNTY COAL RESOURCES INC (S)	13-1-49
29	OHIO COUNTY COAL RESOURCES INC (S)	13-1-49.4
30	OHIO COUNTY COAL RESOURCES INC (S)	13-1-37
31	OHIO COUNTY COAL RESOURCES INC (S)	13-1-37.2
32	OHIO COUNTY COAL RESOURCES INC (S)	13-1-7
33	OHIO COUNTY COAL RESOURCES INC (S)	13-1-6
34	OHIO COUNTY COAL RESOURCES INC (S)	13-1-3
35	OHIO COUNTY COAL RESOURCES INC (S)	13-1-1.1
36	OHIO COUNTY COAL RESOURCES INC (S)	13-1A-149
37	MARTE LETY & RAUL HERNANDEZ (S)	13-1A-142
38	WELTON MARY - TOD (S)	13-1A-141
39	ROSE JODIE (S)	13-1A-140.1
40	WELTON MARY JOAN - TOD (S)	13-1A-130
41	WELTON MARY JOAN - TOD (S)	13-1A-131
42	WELTON MARY JOAN - TOD (S)	13-1A-132
43	HENRY LORI MYLES - TIMMONS BRANDON & HOLLY (S)	13-1A-109
44	JACOVELTY CHARLOTTE ET AL - TOD (S)	13-1A-108
45	JACOVELTY CHARLOTTE ET AL - TOD (S)	13-1A-107
46	JACOVELTY CHARLOTTE ET AL - TOD (S)	13-1A-106
47	BALCITA JANINA (S)	13-1A-103
48	HISSAM PHYLLIS J (S)	13-1A-104
49	MOLNAR STACY R (S)	13-1A-195
50	KETTLER HARRY JR (S)	13-1A-197
51	DONALD E DAVIS (S)	13-1A-70
52	H3 LLC (S)	13-1A-60
53	H3 LLC (S)	13-1A-59
54	SHADYTREE DEVELOPMENT LLC (S)	13-1A-58
55	LICHWA VIVIAN G (S)	13-1A-39
56	MUNSON MICHAEL C & JO ANN DANHART - 2007 (S)	13-1A-38
57	MCCRAY CHAS B (S)	10-W93-09
58	SHADYTREE DEVELOPMENT LLC (S)	10-W93-10
59	SHADYTREE DEVELOPMENT LLC (S)	10-W89-19
60	WEAVER G BRUCE WEAVER LINDA A (S)	10-W89-21
61	TAMBURIN CHARLES W III & SHANNON C (S)	10-W89-37
62	ABRIGG JOHN Z (S)	10-W89-56
63	ABRIGG JOHN Z (S)	10-W89-53.1
64	PICKERING PERRY L (S)	10-W89-53.2
65	PICKERING PERRY L (S)	10-W89-58
66	WILEY MICHELLE (S)	10-W89-59
67	FULTON EDNA (S)	10-W89-62
68	EDGE EARL & D J (S)	10-W89-101
69	HICKS ANDREW J (S)	10-W89-61
70	BUTLER HARLEY L & S J (S)	10-W85-22
71	WHEELING POWER CO WHEELING ELECTRIC CO (S)	10-W84-345
72	WVDOH (S)	10-W84-344
73	WVDOH (S)	RT 250
74	TLC PROPERTIES LLC (S)	10-W84-347
75	BALTIMORE & OHIO RAILROAD CO ATTEN: R SIMONS-PROP TAX (S)	10-W84-282

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	MCCLURE DEVAN & LINDSEY CAIN	13-10A-5
B	FECAT WALTER J JR ET UX	13-10A-4
C	BRAUTIGAN RANDY & KAYLA	13-6-50.7
D	HENDRICKSON WILMA C	13-10A-2
E	DEFIBAUGH RONALD L	13-11-27.8
F	DEFIBAUGH RONALD L & SANDRA	13-11-27.1
G	LIPINSKI ERIC R & LORIE A	13-6-51
H	HAUGHT GEORGE ET UX	13-6-50.1
I	HAUGHT GEORGE ET UX	13-6-51.1
J	LONGWELL FRANK J & LORI A	13-6-49
K	O'NEAL CYNTHIA	13-6-45
L	BERLETCH RICHARD ET UX	13-6-45.1
M	HUGHES ROBERT ALLEN	13-6C-9
N	HUGHES ROBERT ALLEN	13-6C-8
O	IRVINE ROSEANNA & HECKLER CHAD	13-6C-7
P	IRVINE ROSEANNA & HECKLER CHAD	13-6C-4
Q	IRVINE ROSEANNA & HECKLER CHAD	13-6C-5
R	IRVINE ROSEANNA & HECKLER CHAD	13-6C-6
S	HULL GAYLERD EDWARD	13-6-23.4
T	NELSON JEANNIE LYNN & MATTHEW	13-6-23.7
U	HULL GEORGE JEFFREY & SANDRA J	13-6C-1
V	HULL JAMES D & JAMES D JR	13-6-23
W	HULL GEORGE J	13-6-23.15
X	HULL GEORGE JEFFREY	13-6-23.10
Y	HULL JAMES D & GEORGIA M	13-6-23.18
Z	HULL GAYLERD E	13-6-26
A2	HULL WYATT	13-5-24
B2	KUBANCIK STANLEY MET UX	13-5-25
C2	OHIO COUNTY COAL RESOURCES INC	13-5-27
D2	OHIO COUNTY COAL RESOURCES INC	13-5B-12
E2	OHIO COUNTY COAL RESOURCES INC	13-5B-11
F2	OHIO COUNTY COAL RESOURCES INC	13-5B-10
G2	OHIO COUNTY COAL RESOURCES INC	13-5B-9
H2	OHIO COUNTY COAL RESOURCES INC	13-5-35
I2	OHIO COUNTY COAL RESOURCES INC	13-5-29
J2	OHIO COUNTY COAL RESOURCES INC	13-5-29.1
K2	OHIO COUNTY COAL RESOURCES INC	13-5-34.1
L2	OHIO COUNTY COAL RESOURCES INC	13-5-34
M2	OHIO COUNTY COAL RESOURCES INC	13-5-34.3
N2	OHIO COUNTY COAL RESOURCES INC	13-5-34.2
O2	OHIO COUNTY COAL RESOURCES INC	13-5-33.1
P2	OHIO COUNTY COAL RESOURCES INC	13-5-32.1
Q2	OHIO COUNTY COAL RESOURCES INC	13-5-10
R2	OHIO COUNTY COAL RESOURCES INC	13-1-51.3
S2	OHIO COUNTY COAL RESOURCES INC	13-1-51
T2	OHIO COUNTY COAL RESOURCES INC	13-1-51.2
U2	OHIO COUNTY COAL RESOURCES INC	13-1-51.1
V2	OHIO COUNTY COAL RESOURCES INC	13-1-50
W2	OHIO COUNTY COAL RESOURCES INC	13-5-9.2
X2	OHIO COUNTY COAL RESOURCES INC	13-5-2
Y2	OHIO COUNTY COAL RESOURCES INC	13-1-47
Z2	OHIO COUNTY COAL RESOURCES INC	13-1-48
A3	OHIO COUNTY COAL RESOURCES INC	13-1-2
B3	OHIO COUNTY COAL RESOURCES INC	13-1-39
C3	OHIO COUNTY COAL RESOURCES INC	13-1-37.1
D3	OHIO COUNTY COAL RESOURCES INC	13-1-38
E3	OHIO COUNTY COAL RESOURCES INC	13-1-87
F3	TOMASSO RAYMOND R & PEGGY A REVOCABLE TRUST AGREEMENT	13-1-40
G3	OHIO COUNTY COAL RESOURCES INC	13-1-42
H3	TOMASSO RAYMOND R & PEGGY A REVOCABLE TRUST AGREEMENT	13-1-41
I3	OHIO COUNTY COAL RESOURCES INC	13-1-42.1
J3	OHIO COUNTY COAL RESOURCES INC	1-5-1
K3	MORRIS CLARA BEUCKE EST	1-3-20
L3	MARKOWICZ JOHN F JR ET AL	13-1-1.3
M3	MARKOWICZ JOHN F JR ET AL	13-1-1.2
N3	MOZART MIDGET LEAGUE INC	13-1C-5
O3	MOZART MIDGET LEAGUE INC	13-1C-6
P3	BONENBERGER J KEITH ET UX	13-1C-4
Q3	OHIO COUNTY COAL RESOURCES INC	13-1-3
R3	DOUGHERTY LAINE S & VUNDERINK JEFFREY L	13-1A-121.1
S3	POPCORN PROPERTIES	13-1A-148
T3	POPCORN PROPERTIES	13-1A-147
U3	TUTTLE JAMES R & REBECCA R	13-1A-146
V3	MARTE LETY & RAUL HERNANDEZ	13-1A-145
W3	MARTE LETY & RAUL HERNANDEZ	13-1A-144
X3	MARTE LETY & RAUL HERNANDEZ	13-1A-143
Y3	MARTE LETY & RAUL HERNANDEZ	13-1A-126
Z3	HUGUS DARLENE J	13-1A-127

*Highlighted Parcels may be impacted during drilling.

REVISIONS: Δ ADDED 10W-89-62 AS WELL BORE TRACT 66 06-13-2024 Δ ADDED WELL BORE AND TRACT 51 TO DETAIL D 08-21-2024	COMPANY: 	DATE: 04-16-2024
OPERATOR'S WELL #: DISTRICT: UNION	RUTH KELLER MSH 5H COUNTY: MARSHALL	DRAWN BY: J. COCKERHAM SCALE: N/A DRAWING NO: WELL LOCATION PLAT 4
STATE: WV		

**JACKSON SURVEYING
INC.**

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

*Highlighted Parcels may be impacted during drilling.

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A4	WELTON MARY - TOD	13-1A-128
B4	WELTON MARY - TOD	13-1A-129
C4	R F R LLC	13-1A-130.1
D4	LUFF JEREMY D & HANDMAN RENEE L	13-1A-112
E4	HENRY LORI MYLES - TIMMONS BRANDON & HOLLY	13-1A-111
F4	HENRY LORI MYLES - TIMMONS BRANDON & HOLLY	13-1A-110
G4	HUGUS DARLENE J	13-1A-100
H4	BALCITA JANINA	13-1A-101
I4	BALCITA JANINA	13-1A-102
J4	HISSIM STARLENE & GEORGE ROOKER	13-1A-81
K4	DAVIS DONALD E JR	13-1A-80
L4	DAVIS DONALD E JR	13-1A-79
M4	GALL EDNA S & FRANK LAUTAR	13-1A-78
N4	LITTLE WILLIAM R	13-1A-69
O4	ROUSH DEAN	13-1A-61
P4	TAYLOR ROBERT J & SHAWNA J - VANDYNE KYLEE D	13-1A-56
Q4	TAYLOR ROBERT J & SHAWNA J - VANDYNE KYLEE D	13-1A-57
R4	WILSON LUCAS C	13-1A-40
S4	CRONIN ORAL ALLEN ET UX	13-1A-37
T4	CRONIN ORAL ALLEN ET UX	13-1A-36
U4	RICHMOND CAROL	10-W93-08
V4	ARMSTRONG ROBERT C ARMSTRONG PAMELA S	10-W93-07
X4	KOTCH JOANN M	10-W93-06
Y4	RICHMOND CAROL	10-W89-18
Z4	MCGILTON SAMUEL C	10-W89-17
A5	BOORD ROBERT S/S 1992	10-W89-22
B5	POSTLEWAIT MATTHEW	10-W89-23
C5	TAMBURIN CHARLES WILLIAM III SHANNON C &	10-W89-35
D5	CONNER THOMAS L & MARYBETH	10-W89-34
E5	WILLIAMS N G & MOLLY K	10-W89-33
F5	GRAY JOHN JOSEPH	10-W89-32
G5	KALLINOWSKI PHILLIP M	10-W89-31
H5	BEAVER JEREMIAH E & COURTNEY N	10-W89-30
I5	WAGEMAKER JOHN C	10-W89-60
J5	UNKNOWN OWNER	10-W89-29
K5	MOZART PARK ASSOCIATION	10-W88-360
L5	WHEELING POWER COMPANY	10-W84-350
M5	BALTIMORE & OHIO RAILROAD CO ATTEN: R SIMONDS-PROP TAX	10-W84-282
N5	BALTIMORE & OHIO RAILROAD CO ATTEN: R SIMONDS-PROP TAX	10-W84-278
P5	PLAY N STAY LLC	10-W84-352
Q5	PLAY N STAY LLC	10-W84-283
R5	ERBACHER CHRISTOPHER L	10-W84-312
S5	WHITE BRIAN M & DANA E	10-W85-11
T5	PARKER LINA; EVANS ETHEL	10-W85-17
U5	ANDREINI CAITLYN & HUGO J III	10-W85-12.1
V5	FOSTER JERRETT W	10-W85-12
W5	KUTHY SCOTT M & TAMMIE E	10-W85-13
X5	KUTHY SCOTT M & TAMMIE E	10-W85-14.1
Y5	BARTSCH FRANK G - TOD	10-W85-14
Z5	MENDENHALL CHERYL ET AL	10-W85-15
A6	WILLIAMS REBECCA A DISPAWQUALE RONLD C	10-W85-16
B6	MCKENZIE RAYMOND ALLEN & DYLAN M MCKENZIE	10-W85-18
C6	DONAHER VIRGINIA (LIFE ESTATE) DONAHER JOHN J	10-W85-19
D6	JACKSON VICTOR L JR & ELLEN M	10-W85-21
E6	PARCELL FLORA I & MYERS W C JR C/O DAY IRENE	10-W85-31
F6	BEAVER DEBRA JEAN	10-W85-30
G6	BEAVER RALPH & DEBORAH	10-W85-23
H6	ALTMAN PAUL & JOY	10-W85-24
I6	ALTMAN PAUL & JOY	10-W85-25
J6	ALTMAN PAUL THOMAS & ALTMAN JOY LOU	10-W89-107
K6	PRETTYMAN ALVIN A - LE PRETTYMAN A; R; HISSAM D	10-W89-106
L6	ALTMAN PAUL THOMAS & JOY LOU	10-W89-105
M6	WILSON NANCY MET AL	10-W89-104
N6	COFFMAN TERRY L & OLGA V	10-W89-103
O6	WELTON MARY J	10-W89-102
P6	BARNES MISTI JO C/O WESBANCO BANK INC	10-W89-99
Q6	EDGE EARL & D J	10-W89-101
R6	ULLOM THOMAS R L & E J	10-W89-98
S6	SCHIFFER THOMAS U & FRANCES L	10-W89-95
T6	HUFFNER EARL	10-W89-94
U6	VIEWEG MARK S	10-W89-63
V6	FULTON JAMES W JR	10-W89-54
W6	JP FLORIO FAMILY TRUST	10-W89-53
X6	JP FLORIO FAMILY TRUST	10-W89-52
Y6	TAYLOR JARED L	10-W89-51
Z6	TIMBERLAKE JAMES D AND TAMMY L	10-W89-50
A7	GEBHARD JOHN	10-W89-49
B7	HOYT MARY E	10-W89-41
C7	MCCARDLE FRANK D & H L	10-W93-11
D7	EDGE BRIAN	10-W93-12
E7	EDGE BRIAN	10-W93-13

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
F7	MCCRAY CHARLES B	10-W93-14
G7	IHLENFELD WM J	10-W93-15
H7	MCCRAY CHARLES B	10-W93-16
I7	IHLENFELD WM J	10-W93-17
J7	MCCRAY CHARLES B	10-W93-18
K7	CAMPBELL WILLIAM III	10-W89-196
L7	CAMPBELL WILLIAM III	10-W89-198
M7	PERKO CHRISTOPHER M JR & CHRISTOPHER M PERKO SR	10-W89-199
N7	TRAVIS DOROTHY - LE BEAVER KAREN A	10-W93-19
O7	GONGOLA DEBBIE J	10-W93-20
P7	JASKO JENNIFER L	10-W93-20.1
Q7	JASKO JENNIFER L	10-W93-20.2
R7	TEMPLIN TIMOTHY B & CLAUDIA A - TOD	13-1A-202
S7	MALLERY DOUGLAS E & KELLY L	13-1A-201
T7	MALLERY DOUGLAS E & KELLY L	13-1A-200
U7	MALLERY DOUGLAS E & KELLY L	13-1A-199
V7	MITCHELL ANTONIETTA S - TOD	13-1A-198
W7	SENKBEIL TANYA	13-1A-197.3
X7	MULDREW PATRICK L & HAYLEY L	13-1A-197.2
Y7	DUYMICH JULIA H	13-1A-197.1
Z7	LYNN CHERYL S	13-1A-196
A8	DANEHART JO ANN	13-1A-193
B8	BROWN JUSTIN D & JULIE L	13-1A-194
C8	GOOCH LYNN M	13-1A-105
D8	COOLEY ZOE	13-1A-135
E8	COOLEY ZOE	13-1A-134
F8	COOLEY ZOE	13-1A-133
G8	ROSE JODIE	13-1A-139
H8	ROSE JODIE	13-1A-140
I8	LYDICK RALPH ET AL	13-1A-149.1
J8	LITTLE WILLIAM R	13-1A-150
K8	LITTLE WILLIAM R	13-1A-151
L8	REDFORD CAROLYN M	13-1B-26
M8	SAMPSON SHAWN T & MELYNDA D	13-1K-1
N8	WIECHMAN GARY E & LAURALEE A	13-1K-9
O8	DOVE DAVID A	13-1K-10
P8	CAMPBELL ADAM R ET UX	13-1K-33
Q8	SAMPSON SHAWN T & MELYNDA D	13-1K-1
R8	GEARY DANIEL & ANDERSON CHRISTINA DAWN	13-1K-30
S8	SCHUBERT BARBARA A	13-1K-22
T8	MELKO DAVID R ET UX	13-1K-24
U8	FISHER KENNETH E ET AL	13-1K-21
V8	COX LYDA FAMILY TRUST	13-1K-20
W8	NISPERLY RODNEY & KIMBERLY A	13-1K-19
X8	BOOHER DENISE L	13-1K-18
Y8	BOOHER DENISE L	13-1K-17
Z8	HALL ROBERT H & LAURA L	13-1K-16
A9	HALL ROBERT H & LAURA L	13-1K-15
B9	TATAR ERMA M - LIFE	13-1K-14
C9	OHIO COUNTY COAL RESOURCES INC	13-1-8.1
D9	OHIO COUNTY COAL RESOURCES INC	13-1-14
E9	REDD DAVID J ET UX	13-1H-24.1
F9	OHIO COUNTY COAL RESOURCES INC	13-1-14.1
G9	OHIO COUNTY COAL RESOURCES INC	13-1-36.1
H9	SHUTLER ROBERT J & ANTOINETTE	13-1-36
I9	SHUTLER ROBERT J III & ANTOINETTE	13-1-36.2
J9	CHURCH MERCADIE & JACQUELINE	13-1-36.4
K9	OHIO COUNTY COAL RESOURCES INC	13-1-67
L9	OHIO COUNTY COAL RESOURCES INC	13-1-67.1
M9	OHIO COUNTY COAL RESOURCES INC	13-1-66
N9	OHIO COUNTY COAL RESOURCES INC	13-1-66.1
O9	OHIO COUNTY COAL RESOURCES INC	13-1-49.2
P9	OHIO COUNTY COAL RESOURCES INC	13-1-49.3
Q9	OHIO COUNTY COAL RESOURCES INC	13-1-65.1
R9	OHIO COUNTY COAL RESOURCES INC	13-1-65.3
S9	OHIO COUNTY COAL RESOURCES INC	13-1-62
T9	OHIO COUNTY COAL RESOURCES INC	13-1-61.1
U9	OHIO COUNTY COAL RESOURCES INC	13-1-60
V9	OHIO COUNTY COAL RESOURCES INC	13-1-59
W9	OHIO COUNTY COAL RESOURCES INC	13-1-71.2

47-051-02515
08/30/2024


REVISIONS:	COMPANY:
▲ ADDED 10W-89-62 AS WELL BORE	SWN Production Company, LLC
TRACT 66 06-13-2024	
▲ ADDED WELL BORE AND TRACT 51 TO	SWN Production Company™
DETAIL D 08-21-2024	
OPERATOR'S	RUTH KELLER MSH
WELL #:	5H
DISTRICT:	COUNTY:
UNION	MARSHALL
	STATE:
	WV
	DATE:
	04-16-2024
	DRAWN BY:
	J. COCKERHAM
	SCALE:
	N/A
	DRAWING NO:
	WELL LOCATION PLAT 5

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

*Highlighted Parcels may be impacted during drilling.

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
X9	OHIO COUNTY COAL RESOURCES INC	13-1-54.1
Y9	OHIO COUNTY COAL RESOURCES INC	13-1-54
Z9	OHIO COUNTY COAL RESOURCES INC	13-5-12.1
A10	OHIO COUNTY COAL RESOURCES INC	13-5-12
B10	OHIO COUNTY COAL RESOURCES INC	13-5-12.2
C10	OHIO COUNTY COAL RESOURCES INC	13-5-13.1
D10	OHIO COUNTY COAL RESOURCES INC	13-5-14.1
E10	SHUTLER ROBERT J III & ANTOINETTE	13-5-15.1
F10	SHUTLER ROBERT J III & ANTOINETTE	13-5-21
G10	KUBANCIK SUZANNE M	13-5-22
H10	HALL LLOYD T & LORNA K	13-6-28
I10	HALL LLOYD T & LORNA K	13-6-28.6
J10	CLEGG BETH ANN	13-6-32
K10	GAYLERD HULL GAYLERD SHARON L	13-6-23.2
L10	DABRAWSKY HOWARD E ET UX	13-6-31.1
M10	CLEGG BETH ANN	13-6-28.2
N10	CLEGG BETH ANN	13-6-28.1
O10	FOX DOUGLAS H ET UX	13-6-30
P10	TAVERNIA RICHARD L & SAMANTHA	13-6-29.4
Q10	FULTZ FAMILY TRUST	13-6-29.7
R10	JOHNSON ROBERT K & PATRICIA L	13-6-29.10
S10	HULL GEORGE JEFFREY	13-6-31.2
T10	TOLER MARGARET - LIFE	13-6-29.5
U10	TOLER MARGARET - LIFE	13-7-1.2
V10	HULL GEORGE J & SANDRA J	13-7-1.5
W10	VARNER JOHN R & ANDREA R	13-7B-1
X10	HILL SANDRA K	13-7B-32
Y10	SCHERICH LIGH ANN	13-7-1.4
Z10	GAMBLE REBECCA C EST	13-7C-22
A11	VANNST ALEX M & HOWARD ALLIE R	13-7C-17
B11	FISHER CHRISTINA MARIE	13-7C-21
C11	COX MARY FRANCES EST	13-7C-10
D11	HARBISON WALTER L ET UX	13-7C-9
E11	HARBISON WALTER L ET UX	13-7C-8
F11	RENZELLA PATRICIA R	13-7C-7
G11	DEL RE MARVIN E ET UX	13-7C-6
H11	NEMCOSKY ROBERT L ET UX	13-7C-5
I11	PEACE NATHANIEL O & ELAINE M	13-7C-4
J11	PEACE NATHANIEL O & ELAINE M	13-7C-3
K11	NOVICK RYAN J & ALEXANDRA P	13-7C-2
L11	ELSON LINDA S & SAMUEL F	13-7C-1
M11	SEACHRIST MARGARET TURNER - TOD	13-7-44
N11	SEACHRIST MARGARET TURNER - TOD	13-7-45
O11	YOUNG MICHAEL D ET UX	13-7-51
P11	YOUNG MICHAEL D ET UX	13-7-50
Q11	ALLEN RICHARD C ET UX	13-7-52
R11	VARGO CINDY L ET AL	13-10-3
S11	MARSHALL LAND LLC	13-10-2
T11	MOOSMAN MATTHEW G	13-10A-14
U11	WARD DEREK J	13-10A-13
V11	HUNTER WILLIAM D & MARLENE - TOD	13-10A-12
W11	HILL PATRICIA J	13-10A-11
X11	HILL PATRICIA J	13-10A-10
Y11	HILL PATRICIA J	13-10A-9
Z11	KANE VERONICA A	13-10A-8
A12	HULL GAYLERD E	13-10A-7
B12	BRANNAN BRICIE GREER	13-10A-6
C12	KELLER WILLIAM J - TOD	13-6-50.2
D12	COOK SUZANNE	13-6-50.4
E12	COOK STEVEN M & SHANNON R	13-6-50.3
F12	COOK DAVID J & ALICE - TOD	13-6-50.8
G12	BURKE ANDREA M & JAMES D	13-6-50.6

47-051-0251K
 08/30/2024

REVISIONS: Δ ADDED 10W-89-62 AS WELL BORE TRACT 66 06-13-2024 Δ ADDED WELL BORE AND TRACT 51 TO DETAIL D 08-21-2024	COMPANY: 	DATE: 04-16-2024
	OPERATOR'S: RUTH KELLER MSH WELL #: 5H	DRAWN BY: J. COCKERHAM SCALE: N/A
	DISTRICT: UNION COUNTY: MARSHALL STATE: WV	DRAWING NO: WELL LOCATION PLAT 6

WW-6A1
(5/13)

Operator's Well No. RUTH KELLER MSH 5H

**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"				

RECEIVED
Office of Oil and Gas
JUL 18 2024
WV Department of
Environmental Protection

*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.

*Potentially Impacted Parcels - Parcels that may be impacted during drilling.

**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

EXHIBIT "A"
Ruth Keller MSH 5H
Marshall County, West Virginia
 Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC, Operator

#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG	% INTEREST NOT LEASED BY SWN PRODUCTIONS COMPANY, LLC
1)	13-0006-0050-0000	Ruth Ann Keller, married, dealing in her sole and separate interest David J. Cook, married	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	683/433 33/110	0.00%
2)	13-0006-0050-0005	Brian J. Keller and Janet J. Keller, husband and wife, as joint tenants with the right of survivorship	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	684/547 33/110	0.00%
3)	13-007C-0018-0000	Harold Sidney Heckman and Flora Belle Heckman, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	688/503 33/110	0.00%
4)	13-007C-0020-0000	Christina M. Fisher, fk/a Christina M. Terr, fk/a Christina Marie Scott, a married woman dealing in her sole and separate property	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	17.00%	720/321 33/110	0.00%
5)	13-007C-0019-0000	Shelley L. Tuskey, a married woman dealing in her sole and separate property Amy J. Gamble, a single woman Sherry L. Gamble, a single woman Charles Ray Meredith, a married man dealing in his sole and separate property Charles Gamble, a widower Cynthia M. Gamble, fk/a Cynthia M. Angelichio, a widow Douglas I. Gamble, a widower Donna Sue Kirch, fk/a Donna Sue Gamble, a married woman dealing in her sole and separate property Martha Ann Mialorini, fk/a Martha Ann Gamble, a married woman dealing in her sole and separate property	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	17.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00%	722/61 33/110 721/621 33/110 721/625 33/110 721/629 33/110 721/633 33/110 722/560 33/110 722/564 33/110 733/22 33/110 733/27 33/110 733/32 33/110	0.00%
6)	13-0007-0001-0001	Christian A. Caldwell, single, dealing in his sole and separate interest	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	692/484 33/110	0.00%
7)	13-0006-0031-0000	James D. Hull and Georga Mae Hull, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	718/484 33/110	0.00%
8)	13-0006-0023-0011	Gavlerd F. Hull and Sharon L. Hull, his wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	718/470 33/110	0.00%
9)	13-0006-0023-0008	Gavlerd F. Hull and Sharon L. Hull, his wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	718/470 33/110	0.00%
10)	13-0006-0023-0006	Gavlerd F. Hull and Sharon L. Hull, his wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	718/470 33/110	0.00%
11)	13-0006-0023-0013	Gavlerd F. Hull and Sharon L. Hull, his wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	718/470 33/110	0.00%
12)	13-0006-0023-0020	Lula E. Hull, a widow	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	718/470 33/110	0.00%
13)	13-0006-0027-0000	Russell James Calmbacher, divorced and unremarried	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	12.50%	678/30 33/110	0.00%
14)	13-0005-0023-0000	Rita C. Kubancik, widow, Life Tenant, Stainely M. Kubancik, married, Remainderman, Suzanne M. Kubancik, single, Remainderman, and Christina McEwee, fk/a Christina Lynn Kubancik, divorced, Remainderman	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	734/441 33/110	0.00%
15)	13-0005-0014-0000	CNX Gas Company, LLC	SWN Production Company, LLC		33/110	0.00%
16)	13-0005-0028-0000	Stanley M. Kubancik and Tabatha Lynn Kubancik, husband and wife	SWN Production Company, LLC	18.00%	1156/144	0.00%
17)	13-0005-0030-0000	CNX Gas Company, LLC	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	720/365 33/110	0.00%
18)	13-0005-0031-0000	CNX Gas Company, LLC	SWN Production Company, LLC	18.00%	1156/144	0.00%
19)	13-0005-0010-0001	Royalty Owner (subject to unitization filing dated July 3, 2024) Bounty Minerals, LLC	SWN Production Company, LLC	18.00%	1156/144	0.00%
20)	13-0005-0010-0002	Royalty Owner Bounty Minerals, LLC	TH Exploration, LLC SWN Production Company, LLC	20.00%	965/305 48/263	40.00%
		Kurt E. Snyder, a married man dealing in his sole and separate property Laurel Snyder, fk/a Laurel Dotterwech, single Margaret Ann Boys, fk/a Margaret Fish, married, dealing herein with her separate property Brett Snyder Patty Lacock Susan Reese	TH Exploration, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC	20.00% 18.00% 18.00% 18.00% 18.00% 18.00%	965/305 48/263 1187/478 1187/500 1187/489 1154/38 1191/399	25.00%
21)	13-0005-0010-0003	Royalty Owner Bounty Minerals, LLC	TH Exploration, LLC SWN Production Company, LLC	20.00%	965/305 48/263	25.00%
		Kurt E. Snyder, a married man dealing in his sole and separate property Laurel Snyder, fk/a Laurel Dotterwech, single Margaret Ann Boys, fk/a Margaret Fish, married, dealing herein with her separate property Brett Snyder Patty Lacock Susan Reese	SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC	18.00% 18.00% 18.00% 18.00% 18.00% 18.00%	1187/478 1187/500 1187/489 1154/38 1191/399 1191/407	
22)	13-0005-0011-0000	CNX Gas Company, LLC	SWN Production Company, LLC	18.00%	1191/407	
23)	13-0001-0052-0000	Royalty Owner Patrick J. Smith, Jr., a married man dealing in his sole and separate property Catherine Poincel, fk/a Catherine Louise Smith, a married woman Theresa Marcopoulos fk/a Theresa Rose Huff, a married woman dealing in her sole and separate property Mary Ruth Hall Trustees of First Presbyterian Church fk/a First United Presbyterian Church Kelly Adele Hatz, a married woman dealing in her sole and separate property Sidney Y. Merritt fk/a Sidney Yvette Golderman Michael Reeves Mabry Laura Elizabeth Stewart, a single woman	SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC	18.00% 17.00% 16.00% 16.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00%	1156/144 N/A N/A 1172/338 1173/526 1173/535 1172/703 1173/544 1175/207 1174/438 1174/450 1173/517	0.00% 14.58%

4705102515

		Joseph Edward Stewart, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.00%	1173/917	
		Margaret Ann Boys, Ek/a Margaret Fish, married, dealing herein with her separate property	SWN Production Company, LLC	18.00%	1187/889	
		Theresa Lynn Hambrick	SWN Production Company, LLC	18.00%	1191/861	
		Most Reverend Joseph H. Hodges, Bishop of the Roman Catholic Diocese of Wheeling-Charleston	SWN Production Company, LLC	18.00%	1179/120	
		Julie Ann Howard	SWN Production Company, LLC	18.00%	1187/399	
		Patty Lacock	SWN Production Company, LLC	18.00%	1177/14	
		Adrienne Cathleen Jones	SWN Production Company, LLC	16.00%	1191/453	
		Alicia Rose Mainer	SWN Production Company, LLC	16.00%	1191/464	
		Susan Reese	SWN Production Company, LLC	18.00%	1175/220	
		Mary Jousita Scenna (a/k/a Jody Scenna)	SWN Production Company, LLC	18.00%	1175/195	
		Christopher F. Singleton	SWN Production Company, LLC	18.00%	1177/24	
		Brett Snyder	SWN Production Company, LLC	18.00%	1188/148	
		Kurt E. Snyder, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.00%	1187/478	
		Laurel Snyder, Ek/a Laurel Dotterweich, single	SWN Production Company, LLC	18.00%	1187/500	
24)	13-0001-0053-0001	Bounty Minerals, LLC	TH Exploration, LLC	20.00%	965/303	
		Margaret Ann Boys, Ek/a Margaret Fish, married	SWN Production Company, LLC	18.00%	48/263	
		Trustees of First Presbyterian Church, Ek/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session	SWN Production Company, LLC	18.00%	1154/29	
		Patty Lacock, single	SWN Production Company, LLC	18.00%	1158/436	
		Susan Reese, single	SWN Production Company, LLC	18.00%	1134/645	
		Brett Snyder, married	SWN Production Company, LLC	18.00%	1134/437	0.00%
		Kurt E. Snyder, married	SWN Production Company, LLC	18.00%	1154/38	
		Laurel Snyder, Ek/a Laurel Dotterweich, single	SWN Production Company, LLC	18.00%	1154/57	
		A. R. Walker, widower	SWN Production Company, LLC	18.00%	1134/477	
25)	13-0001-0053-0000	Bounty Minerals, LLC	SWN Production Company, LLC	18.00%	1129/378	
		Margaret Ann Boys, Ek/a Margaret Fish, married	TH Exploration, LLC	20.00%	965/303	
		Trustees of First Presbyterian Church, Ek/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session	SWN Production Company, LLC	18.00%	48/463	
		Patty Lacock, single	SWN Production Company, LLC	18.00%	1154/29	
		Susan Reese, single	SWN Production Company, LLC	18.00%	1158/436	
		Brett Snyder, married	SWN Production Company, LLC	18.00%	1134/645	
		Kurt E. Snyder, married	SWN Production Company, LLC	18.00%	1134/437	0.00%
		Laurel Snyder, Ek/a Laurel Dotterweich, single	SWN Production Company, LLC	18.00%	1154/38	
		A. R. Walker, widower	SWN Production Company, LLC	18.00%	1154/57	
26)	13-0001-0049-0001	Rozalby Owner (subject to unitization filing dated July 3, 2024)	SWN Production Company, LLC	18.00%	1154/47	
		Bounty Minerals, LLC	SWN Production Company, LLC	18.00%	1129/378	
		Trustees of First Presbyterian Church	N/A	N/A	N/A	31.00%
27)	13-0001-0049-0000	Rozalby Owner	TH Exploration, LLC	20.00%	965/303	
		A. R. Walker, widower	SWN Production Company, LLC	18.00%	48/263	
		Susan Reese, single	SWN Production Company, LLC	18.00%	1181/716	
		Pat Lacock, single	N/A	N/A	N/A	3.38%
		Margaret Ann Boys, Ek/a Margaret Fish, married	SWN Production Company, LLC	18.00%	1129/378	
		Brett Snyder, married	SWN Production Company, LLC	18.00%	1134/437	
		Laurel Snyder, Ek/a Laurel Dotterweich, single	SWN Production Company, LLC	18.00%	1134/645	
		Kurt E. Snyder, married	SWN Production Company, LLC	18.00%	1154/29	
		Trustees of First Presbyterian Church, Ek/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session	SWN Production Company, LLC	18.00%	1154/38	
		Patrick J. Smith, Jr., married	SWN Production Company, LLC	18.00%	1154/47	
		Mary Hall, Ek/a Mary Smith, married	SWN Production Company, LLC	18.00%	1154/57	
		Theresa Marcopulos Ek/a Theresa Rose Huff, married	SWN Production Company, LLC	18.00%	1158/436	
		Catherine Polesel, Ek/a Catherine Smith, married	SWN Production Company, LLC	18.00%	1131/684	
		Christine Mainer, Ek/a Ann Christine Smith, married	SWN Production Company, LLC	16.00%	1131/676	
		Joseph Edward Stewart, married	SWN Production Company, LLC	16.00%	1131/668	
		Julie Ann Howard, single	SWN Production Company, LLC	17.00%	1134/429	
		Theresa Lynn Hambrick, married	SWN Production Company, LLC	18.00%	1134/421	
		Laura Elizabeth Stewart, single	SWN Production Company, LLC	18.00%	1153/61	
		Kelly Adele Hatz, married	SWN Production Company, LLC	18.00%	1153/69	
		Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop	SWN Production Company, LLC	18.00%	1153/45	
		Christopher F. Singleton	SWN Production Company, LLC	18.00%	1158/81	
		Mary Jousita Scenna (a/k/a Jody Scenna)	SWN Production Company, LLC	18.00%	1165/605	
		Michael Reeves Mabry	SWN Production Company, LLC	18.00%	1177/24	
		Sidney Y. Merritt Ek/a Sidney Yvette Golderman	SWN Production Company, LLC	18.00%	1175/195	
28)	13-0001-0049-0004	Rozalby Owner (subject to unitization filing dated July 3, 2024)	SWN Production Company, LLC	18.00%	1174/450	
		Trustees of the First Presbyterian Church of Wellsburg	SWN Production Company, LLC	18.00%	1174/438	
		Mary Ruth Hall	N/A	N/A	N/A	26.46%
		Kelly Adele Hatz, a married woman dealing in her sole and separate property	SWN Production Company, LLC	18.00%	1181/716	
		Patty Lacock	SWN Production Company, LLC	18.00%	1183/158	
		Michael Reeves Mabry	SWN Production Company, LLC	18.00%	1177/568	
		Adrienne Cathleen Jones	SWN Production Company, LLC	18.00%	1191/999	
		Alicia Rose Mainer	SWN Production Company, LLC	18.00%	1191/507	
		Theresa Marcopulos, a/k/a Theresa Rose Huff	SWN Production Company, LLC	16.00%	1191/453	
		Sidney Y. Merritt Ek/a Sidney Yvette Golderman	SWN Production Company, LLC	16.00%	1191/464	
		Catherine Polesel, Ek/a Catherine Louise Smith	SWN Production Company, LLC	16.00%	1180/67	
		Susan Reese	SWN Production Company, LLC	18.00%	1181/702	
		Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop	SWN Production Company, LLC	17.00%	1178/481	
		Mary Jousita Scenna (a/k/a Jody Scenna)	SWN Production Company, LLC	18.00%	1191/407	
		Christopher F. Singleton	SWN Production Company, LLC	18.00%	1179/120	
		Patrick J. Smith, Jr.	SWN Production Company, LLC	18.00%	1180/592	
		Joseph Edward Stewart	SWN Production Company, LLC	18.00%	1179/154	
		Laura Elizabeth Stewart	SWN Production Company, LLC	18.00%	1180/26	
29)	13-0001-0037-0000	Rozalby Owner	SWN Production Company, LLC	18.00%	1178/489	
		Rebecca Catharine Fondren Cochran	SWN Production Company, LLC	18.00%	1179/216	
		Margaret Louise Fondren Duncan	N/A	N/A	N/A	25.00%
		Meredith Stein Ferrill	SWN Production Company, LLC	18.00%	1159/7	
		Franz William Fondren	SWN Production Company, LLC	18.00%	1158/107	
		John Edmund Fondren	SWN Production Company, LLC	18.00%	1131/182	
		Joan Stein Fulton	SWN Production Company, LLC	18.00%	1160/526	
		Kristi Misrendino, Ek/a Kristi Stein, married, dealing herein with her separate property	SWN Production Company, LLC	18.00%	1155/461	
		Lillian M. Oliver Revocable Trust U/A dated 9/17/1998	SWN Production Company, LLC	18.00%	1152/346	
		Gerald Joseph Pizi, a/k/a Jerry Pizi, widower	SWN Production Company, LLC	18.00%	1131/692	
		Lucia Stein Proch	SWN Production Company, LLC	18.00%	1131/176	
		Christin L. Stein	SWN Production Company, LLC	18.00%	1130/487	
			SWN Production Company, LLC	18.00%	1152/352	
			SWN Production Company, LLC	18.00%	1150/289	

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		Eric Stein		SWN Production Company, LLC	18.00%	1135/277	
		William D. Stein		SWN Production Company, LLC	18.00%	1168/702	
30)	13-0001-0037-0002	Royalty Owner		N/A	N/A	N/A	25.00%
		Rebecca Catharine Fondren Cochran		SWN Production Company, LLC	18.00%	1159/7	
		Margaret Louise Fondren Duncan		SWN Production Company, LLC	18.00%	1158/107	
		Meredith Stein Ferrell		SWN Production Company, LLC	18.00%	1131/182	
		Franz William Fondren		SWN Production Company, LLC	18.00%	1160/526	
		John Edmund Fondren		SWN Production Company, LLC	18.00%	1155/461	
		Joan Stein Falton		SWN Production Company, LLC	18.00%	1152/346	
		Kristi Moserendino, fka Kristi Stein, married, dealing herein with her separate property		SWN Production Company, LLC	18.00%	1131/692	
		Lillian M. Oliver Revocable Trust U/A dated 9/17/1998		SWN Production Company, LLC	18.00%	1131/176	
		Gerald Joseph Puz, aka Jerry Puz, widower		SWN Production Company, LLC	18.00%	1130/487	
		Lucas Stein Prosch		SWN Production Company, LLC	18.00%	1152/352	
		Christin L. Stein		SWN Production Company, LLC	18.00%	1150/289	
		Eric Stein		SWN Production Company, LLC	18.00%	1135/277	
		William D. Stein		SWN Production Company, LLC	18.00%	1168/702	
31)	13-0001-0007-0000	CNX Gas Company, LLC		SWN Production Company, LLC	18.00%	1156/144	0.00%
32)	13-0001-0006-0000	CNX Gas Company, LLC		SWN Production Company, LLC	18.00%	1156/144	0.00%
33)	13-0001-0003-0000	CNX Gas Company, LLC		SWN Production Company, LLC	18.00%	1156/144	0.00%
34)	13-0001-0001-0001	CNX Gas Company, LLC		SWN Production Company, LLC	18.00%	1156/144	0.00%
35)	13-001A-0149-0000	CNX Gas Company, LLC		SWN Production Company, LLC	18.00%	1156/133	0.00%
36)	13-001A-0142-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
37)	13-001A-0141-0000	Mary J. Welton, a single woman		N/A	N/A	N/A	0.00%
38)	13-001A-0140-0001	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	33.33%
		Jodie Rose		SWN Production Company, LLC	18.00%	1176/727	
		Adam M. Rose		N/A	N/A	N/A	
39)	13-001A-0130-0000	Mary J. Welton, a single woman		SWN Production Company, LLC	18.00%	1190/625	
40)	13-001A-0131-0000	Mary J. Welton, a single woman		SWN Production Company, LLC	18.00%	1176/727	0.00%
41)	13-001A-0132-0000	Mary J. Welton, a single woman		SWN Production Company, LLC	18.00%	1176/727	0.00%
42)	13-001A-0109-0000	Lon Myles Henry & Chris Henry, her husband, and Holly Timmons, single		SWN Production Company, LLC	18.00%	1176/727	0.00%
43)	13-001A-0108-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	1188/634	0.00%
44)	13-001A-0107-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
45)	13-001A-0106-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
46)	13-001A-0103-0000	Shelby J. Haley Fischer		N/A	N/A	N/A	100.00%
47)	13-001A-0104-0000	Phyllis Jean Hissam		SWN Production Company, LLC	17.00%	1184/334	0.00%
48)	13-001A-0195-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	1184/420	0.00%
49)	13-001A-0197-0000	Harry L. Kettler, Jr., a single man		N/A	N/A	N/A	100.00%
		Ronald G. Kettler, a married man dealing in his sole and separate property		SWN Production Company, LLC	17.00%	1172/324	0.00%
50)	13-001A-0070-0000	Donald Eugene Davis, single		SWN Production Company, LLC	17.00%	1182/33	0.00%
51)	13-001A-0060-0000	HD, LLC		SWN Production Company, LLC	18.00%	1139/179	0.00%
52)	13-001A-0059-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	1142/116	0.00%
53)	13-001A-0058-0000	John N. Ferrelli, single		N/A	N/A	N/A	100.00%
54)	13-001A-0039-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	1149/197	0.00%
55)	13-001A-0038-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
56)	10-0W93-0069-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
57)	10-0W93-0010-0000	John N. Ferrelli, single		N/A	N/A	N/A	100.00%
58)	10-0W89-0019-0000	John N. Ferrelli, single		SWN Production Company, LLC	18.00%	1032/653	0.00%
59)	10-0W89-0021-0000	G. Bruce Weaver and Linda A. Weaver, husband and wife, as joint tenants with right of survivorship		SWN Production Company, LLC	18.00%	1032/653	0.00%
60)	10-0W89-0037-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	1057/536	0.00%
61)	10-0W89-0056-0000	John Zachary Abrigg, a married man dealing in his sole and separate property		N/A	N/A	N/A	100.00%
62)	10-0W89-0053-0001	John Zachary Abrigg, a married man dealing in his sole and separate property		SWN Production Company, LLC	18.00%	1061/589	0.00%
63)	10-0W89-0053-0002	Perry L. Pickering, a single man		SWN Production Company, LLC	18.00%	1061/589	0.00%
64)	10-0W89-0058-0000	Perry L. Pickering, a single man		SWN Production Company, LLC	18.00%	1062/571	0.00%
65)	10-0W89-0059-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	1062/571	0.00%
66)	10-0W89-0062-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
67)	10-0W89-0061-0000	Andrew J. Hicks		N/A	N/A	N/A	100.00%
68)	10-0W89-0101-0000	Earl Edge and Donna Jean Edge, husband and wife, as joint tenants with right of survivorship		SWN Production Company, LLC	18.00%	1058/538	0.00%
69)	10-0W85-0022-0000	Debra Jean Beaver, a married woman dealing in her sole and separate property		SWN Production Company, LLC	18.00%	1060/73	0.00%
70)	10-0W84-0345-0000	Wheeling Power Company, a West Virginia Electric Company, a subsidiary of American Electric Power Company, Inc.		SWN Production Company, LLC	18.00%	1052/331	0.00%
71)	10-0W84-0344-0000	West Virginia Department of Transportation, Division of Highways		SWN Production Company, LLC	18.00%	1060/59	0.00%
72)	RT 250	West Virginia Department of Transportation, Division of Highways		SWN Production Company, LLC	20.00%	1065/82	0.00%
73)	10-0W84-0347-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	20.00%	1065/82	0.00%
74)	10-0W84-0282-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
75)	13-0006-0023-0007	Jeanie Lynn Nelson and Matthew John Nelson, wife and husband, as joint tenants with right of survivorship		N/A	N/A	N/A	100.00%
76)	13-0001-0038-0000	CNX Gas Company, LLC, by Timothy Sarmick, President		Chesapeake Appalachia, L.L.C.	18.00%	718/211	0.00%
77)	13-001A-0143-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	33/110	0.00%
78)	13-001A-0129-0000	Mary J. Welton, a single woman		SWN Production Company, LLC	18.00%	1156/144	0.00%
79)	13-001A-0130-0001	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
80)	13-001A-0111-0000	Lon Myles Henry & Chris Henry, her husband, and Holly Timmons, single		SWN Production Company, LLC	18.00%	1176/727	0.00%
81)	13-001A-0110-0000	Lon Myles Henry & Chris Henry, her husband, and Holly Timmons, single		N/A	N/A	N/A	100.00%
82)	13-001A-0101-0000	Shelby J. Haley Fischer, a single woman		SWN Production Company, LLC	18.00%	1188/634	0.00%
83)	13-001A-0102-0000	Shelby J. Haley Fischer, a single woman		SWN Production Company, LLC	18.00%	1188/634	0.00%
84)	13-001A-0081-0000	Starlene Hissam and George H. Rooker, as joint tenants with the right of survivorship		SWN Production Company, LLC	17.00%	1184/334	0.00%
85)	13-001A-0076-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	17.00%	1184/334	0.00%
86)	13-001A-0057-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
87)	10-0W93-0008-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
88)	10-0W93-0007-0000	Charles I. Gordon and Paula J. Gordon, husband and wife, joint tenants with right of survivorship		N/A	N/A	N/A	100.00%
89)	10-0W89-0035-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
90)	10-0W89-0034-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	17.00%	1061/558	0.00%
91)	10-0W89-0060-0000	John C. Wagemaker, an unmarried man		N/A	N/A	N/A	100.00%
92)	10-0W89-0029-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
93)	10-0W84-0278-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	1067/144	0.00%
94)	10-0W89-0102-0000	Mary J. Welton		N/A	N/A	N/A	100.00%
95)	10-0W93-0011-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	18.00%	1056/236	0.00%
96)	13-001A-0105-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		N/A	N/A	N/A	100.00%
97)	13-001A-0133-0000	Zoe Cooley		N/A	N/A	N/A	100.00%
98)	13-001A-0140-0000	Royalty Owner (subject to unitization filing dated July 3, 2024)		SWN Production Company, LLC	16.00%	1184/397	0.00%
		Adam M. Rose		N/A	N/A	N/A	33.33%
		Jodie Rose		SWN Production Company, LLC	18.00%	1190/625	
				SWN Production Company, LLC	18.00%	1190/632	

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N9)	13-0001-0066-0001	Royalty Owner	N/A	N/A	N/A	14.58%
		Margaret Ann Boys	SWN Production Company, LLC	18.00%	1187489	
		Trustees of First Presbyterian Church Et/a First United Presbyterian Church	SWN Production Company, LLC	18.00%	1173544	
		Mary Ruth Hall	SWN Production Company, LLC	16.00%	1172703	
		Theresa Lynn Hambrick	SWN Production Company, LLC	18.00%	1191661	
		Kelby Adele Hatz, a married woman dealing in her sole and separate property	SWN Production Company, LLC	18.00%	1175207	
		Julie Ann Howard	SWN Production Company, LLC	18.00%	1187399	
		Patty Laseck	SWN Production Company, LLC	18.00%	117714	
		Michael Reeves Mabey	SWN Production Company, LLC	18.00%	1174450	
		Adrianne Cathleen Jones	SWN Production Company, LLC	16.00%	1191453	
		Alicia Rose Mainer	SWN Production Company, LLC	16.00%	1191464	
		Theresa Marcopulos Et/a Theresa Rose Huff	SWN Production Company, LLC	16.00%	1173335	
		Sidney Y. Merritt Et/a Sidney Yvette Golderman	SWN Production Company, LLC	18.00%	1174438	
		Catherine Polesel Et/a Catherine Louise Smith	SWN Production Company, LLC	17.00%	1173526	
		Susan Reese	SWN Production Company, LLC	18.00%	1175220	
		Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop	SWN Production Company, LLC	18.00%	1179120	
		Mary Jo Scenna, a/k/a Mary Jody Singleton Scenna	SWN Production Company, LLC	18.00%	1175195	
		Christopher F. Singleton	SWN Production Company, LLC	18.00%	117724	
		Patrick J. Smith, Jr	SWN Production Company, LLC	18.00%	1172338	
		Brett Snyder	SWN Production Company, LLC	18.00%	1188148	
Kurt Snyder	SWN Production Company, LLC	18.00%	1187478			
Laurel Snyder	SWN Production Company, LLC	18.00%	1187500			
Joseph E. Stewart	SWN Production Company, LLC	18.00%	1172529			
Laura Elizabeth Stewart	SWN Production Company, LLC	18.00%	1173517			
A10)	13-0005-0012-0000	Royalty Owner	N/A	N/A	N/A	26.00%
		Bounty Minerals, LLC	TH Exploration, LLC	20.00%	965705	
		Trustees of First Presbyterian Church	SWN Production Company, LLC		48263	
		Margaret Ann Boys	SWN Production Company, LLC	18.00%	1181716	
		Brett Snyder	SWN Production Company, LLC	18.00%	1187489	
		Kurt E. Snyder	SWN Production Company, LLC	18.00%	1188148	
		Laurel Snyder	SWN Production Company, LLC	18.00%	1187478	
K10)	13-0006-0023-0002	Gaylerd F. Hull and Sharon L. Hull, husband and wife, as joint tenants with right of survivorship	Chesapeake Appalachia, LLC	18.00%	718470	0.00%
			SWN Production Company, LLC		33110	
A11)	13-007C-0017-0000	Jackie J. Adams and Myra J. Adams, husband and wife	Chesapeake Appalachia, L.L.C.	17.00%	718187	0.00%
				SWN Production Company, LLC		

*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.

* Potentially Impacted Parcels - Parcels that may be impacted during drilling.

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

END OF EXHIB-A1-G308IT "A"

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

April 1, 2024

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

RE: SWN's proposed New Well: Ruth Keller MSH 5H in Marshall County, West Virginia, Drilling under Grandview Road, Benwood Hill Road, Boggs Run Road, Marshall Co Rd 88/25, Allendale Road, Ellen Ave, Wel-Star Lane, S. Kettler Ave, Carl Street, McKinley Ave, Lower Incline Road, McCready Ave, and Eulicid Ave.

Dear Mr. Brewer:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under Grandview Road, Benwood Hill Road, Boggs Run Road, Marshall Co Rd 88/25, Allendale Road, Ellen Ave, Wel-Star Lane, S. Kettler Ave, Carl Street, McKinley Ave, Lower Incline Road, McCready Ave, and Eulicid Ave. Please be advised that SWN has attempted to lease all mineral owners under said route as it relates to the above-referenced well and unit. In several instances, SWN successfully obtained leases of the acreage underlying the road. Any remaining unleased roadway acreage has been included in SWN's pending forced-pooling (unitization) application which will be filed with the WV OGCC for the Ruth Keller Northwest Unit. We expect that all roadway acreage will be effectively under SWN's operational control following the issuance of an Order by the OGCC after the planned hearing.

Respectfully:

SWN Production Company, LLC

Gavin Nadeau, RPL
Staff Landman

RECEIVED
Office of Oil and Gas

JUL 18 2024

WV Department of
Environmental Protection



The Right People doing the Right Things,
wisely investing resources to create our
underlying assets, to create value.[®]

08/30/2024

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

Date of Notice Certification: 7/16

API No. 47- 051
Operator's Well No. Ruth Keller MSH 5H
Well Pad Name: Ruth Keller MSH

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>525,966.617</u>
County: <u>051-Marshall</u>	Northing: <u>4,426,200.902</u>
District: <u>Union</u>	Public Road Access: <u>Glen Dale Heights Road</u>
Quadrangle: <u>Moundsville</u>	Generally used farm name: <u>Ruth Keller MSH</u>
Watershed: <u>Short Creek Ohio River</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

RECEIVED
Office of Oil and Gas
JUL 18 2024
WV Department of
Environmental Protection

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.

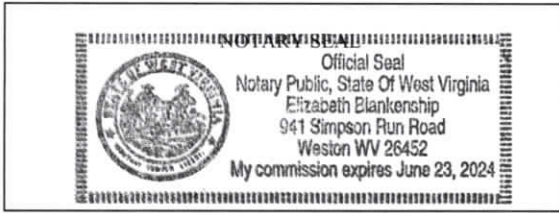
08/30/2024

Certification of Notice is hereby given:

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

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

Brittany Woody



Subscribed and sworn before me this 27 day of March 2024.
Elizabeth Blankenship Notary Public
 My Commission Expires 6/23/2024

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

JUL 18 2024

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: 7/16 Date Permit Application Filed: 7/16

Notice of:

- [X] 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 [X] 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.

[X] Application Notice [X] WSSP Notice [X] E&S Plan Notice [X] Well Plat Notice is hereby provided to:

[X] SURFACE OWNER(s)

Name: David Cook
Address: 1456 Sunset Lane
Glen Dale, WV 26038

Name: Brian Keller
Address: 4255 Glen Dale Heights Road
Glen Dale, WV 26038

[] SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____
Address: _____

Name: _____
Address: _____

[] SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

[X] COAL OWNER OR LESSEE

Name: Marshall Land LLC
Address: PO Box 261
Julian, WV 25529

[] COAL OPERATOR

Name: _____
Address: _____

[X] 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
JUL 18 2024
WV Department of
Environmental Protection

JUL 18 2024

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

08/30/2024

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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JUL 18 2024
WV Department of
Environmental Protection

08/30/2024

WW-6A
(8-13)

4705102515
API NO. 47- 051 -
OPERATOR WELL NO. Ruth Keller MSH 5H
Well Pad Name: Ruth Keller MSH

Notice is hereby given by:

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

Brittany Woody

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

Oil and Gas Privacy Notice:

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



Subscribed and sworn before me this 27 day of March 2024.

Elizabeth Blankenship Notary Public

My Commission Expires 6/23/2024

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JUL 18 2024
WV Department of
Environmental Protection

08/30/2024

4705102515



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

Water Purveyor Map



Water Sources

- Type
- Spring
- Water Well
- Pond
- 1500 ft Buffer

**WELL PAD:
RUTH KELLER MSH PAD 1**

**COUNTY:
MARSHALL**

08/30/2024

Scale: 1:6,033



4705102515

**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: 3/1/2024 **Date of Planned Entry:** 3/7/2024

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)

Name: David Cook

Address: 1456 Sunset Lane
Glen Dale WV 26038

Name: Brian J. Keller

Address: 4255 Glen Dale Heights Road
Glen Dale WV 26038

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: Marshall Land, LLC

Address: PO Box 261
Julian WV 25529

MINERAL OWNER(s)

Name: Brian J. Keller

Address: 4255 Glen Dale Heights Road
Glen Dale, WV 26038

*please attach additional forms if necessary

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Oil and Gas
MAY 18 2024
Department of
Environmental Protection

Notice is hereby given:

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.988010, -80.697140</u>
County: <u>Marshall</u>	Public Road Access: <u>Glen Dale Heights Road</u>
District: <u>Union</u>	Watershed: <u>Upper Ohio South</u>
Quadrangle: <u>Moundsville</u>	Generally used farm name: <u>Ruth Keller MSH</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN PRODUCTION COMPANY, LLC

Telephone: 304-884-1610

Email: Brittany_Woody@swn.com

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

Facsimile: 304-884-1690

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.

08/30/2024

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

4705102515

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: 3/1/2024 **Date of Planned Entry:** 3/7/2024

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)

Name: _____
Address: _____

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: _____
Address: _____

Name: _____
Address: _____

MINERAL OWNER(s)

Name: David J. Cook & Alice M. Cook
Address: 1456 Sunset Lane
Glen Dale, WV 26038

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Office of Oil and Gas
JUL 18 2024
WV Department of
Environmental Protection

*please attach additional forms if necessary

Notice is hereby given:

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.986010, -80.697140</u>
County: <u>Marshall</u>	Public Road Access: <u>Glen Dale Heights Road</u>
District: <u>Union</u>	Watershed: <u>Upper Ohio South</u>
Quadrangle: <u>Moundsville</u>	Generally used farm name: <u>Ruth Keller MSH</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: <u>SWN PRODUCTION COMPANY, LLC</u>	Address: <u>1300 Fort Pierpont Dr., Suite 201</u>
Telephone: <u>304-884-1610</u>	<u>Morgantown, WV 26508</u>
Email: <u>Brittany_Woody@swn.com</u>	Facsimile: <u>304-884-1690</u>

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.

08/30/2024

4705102515

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

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

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 04/19/2024 **Date Permit Application Filed:** 7/16

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

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

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

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

Name: Brain Keller
Address: 4255 Glen Dale Heights Road
Glen Dale, WV 26038

Name: _____
Address: _____

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Office of Oil and Gas

JUL 18 2024

WV Department of
Environmental Protection

Notice is hereby given:

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

State: WV UTM NAD 83 Easting: 525,966.617
County: Marshall Northing: 4,426,200.902
District: Union Public Road Access: Grandview Road
Quadrangle: Moundsville, WV Generally used farm name: Ruth Keller
Watershed: Short Creek Ohio River

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator: SWN Production Company, LLC
Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Telephone: 570-575-6203
Email: bob_laine@swn.com
Facsimile: _____

Authorized Representative: Bob Laine
Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Telephone: 570-575-6203
Email: bob_laine@swn.com
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.

08/30/2024

WW-6A5
(1/12)

Operator Well No. RUTH KELLER MSH 5H
4705102515

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

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

Date of Notice: 04/19/2024 **Date Permit Application Filed:** 7/11/24

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

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Brain Keller
Address: 4255 Glen Dale Heights Road
Glen Dale, WV 26038

Name: _____
Address: _____
RECEIVED
Office of Oil and Gas
JUL 18 2024
WV Department of
Environmental Protection

Notice is hereby given:

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

State: <u>WV</u>	UTM NAD 83	Easting: <u>525,966.617</u>
County: <u>Marshall</u>		Northing: <u>4,426,200.902</u>
District: <u>Union</u>	Public Road Access: <u>Grandview Road</u>	
Quadrangle: <u>Moundsville, WV</u>	Generally used farm name: <u>Ruth Keller</u>	
Watershed: <u>Short Creek Ohio River</u>		

This Notice Shall Include:

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

Well Operator: SWN Production Company, LLC
Telephone: 570-575-6203
Email: bob_laine@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.

08/30/2024



4705102515

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Office of the District Engineer/Manager
District Four

Post Office Box 4220 - Clarksburg, West Virginia 26302 - (304) 842-1500

Alanna J. Keller, P.E.
Deputy Secretary of Transportation
Deputy Commissioner of Highways

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

April 2, 2024

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 Ruth Keller Well Pad, Marshall County
Ruth Keller MSH 5H Well Site**

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2011-0385 which has been issued to SWN Production Company, LLC for access to the State Road for a well site located off West Virginia Route 86, MP 4.61 in Marshall County

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 March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Lacy D. Pratt
Central Office O&G Coordinator

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JUL 18 2024
WV Department of
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Cc: **Brittany Woody**
SWN Production Company, LLC
OM, D-6
File

Attachment VI Frac Additives

Product Name	Product Use	Chemical Name	CAS Number
HCL	Solvent	Hydrochloric Acid	7647-01-0
		Water	7732-18-5
FSTI-CI-02	Corrosion Inhibitor	2-Butoxyethanol	111-76-2
		Ethylene glycol	107-21-1
		N,N-Dimethylformamide	68-12-2
		benzyl chloridequaternized	72480-70-7
		Cinnamaldehyde	104-55-2
		Isopropyl alcohol	67-63-0
		Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)- .omega.-hydroxy-	9016-45-9
		1-Decanol	112-30-1
		1-Octanol	111-87-5
		Triethyl phosphate	78-40-0
Ferriplex 80	Iron Control	Sodium Erythorbate	6381-77-7
Tolicide 4Frac	Biocide	Tetrakis(Hydroxymethyl) Phosphonium Sulfate	55566-30-8
		Quaternary ammonium compounds	68424-85-1
		Ethanol	64-17-5
Plexslick 930	Friction Reducer	Water	7732-18-5
		Hydrotreated Petroleum Distillate	64742-47-8
		copolymer of 2-propenamide	7732-18-5
		Oleic Acid Diethanolamide	69418-26-4
		Alcohol Ethoxylate Surfactants	93-83-4
		Ammonium Chloride	68551-12-2
		Sodium Chloride	12125-02-9
		ORGANIC PHOSPHONIC ACIDS SALTS	7647-14-5
		Water	15827-60-8
		Plexaid 655NM	Scale Inhibitor
Hydrotreated Petroleum Distillate	64742-47-8		
Water	7732-18-5		
copolymer of 2-propenamide	69418-26-4		
Alcohol Ethoxylate Surfactants	68551-12-2		
Plexslick V996	Friction Reducer	Sodium Chloride	7647-14-5
		Hydrotreated Petroleum Distillate	64742-47-8
		Water	7732-18-5
Plexaid 655WG	Scale Inhibitor	ORGANIC PHOSPHONIC ACIDS SALTS	15827-60-8
		Water	7732-18-5
		Glycerin	67-56-1
Clearal 270	Biocide	Glutaraldehyde	111-30-8
		Didecylidimethylammonium Chloride	7173-51-5
		Quaternary Ammonium compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
		Water	7732-18-5
StimSTREAM SC 398 CW	Scale Inhibitor	Ethylene glycol	107-21-1
		CHEMSTREAM-Polymer-10001	CHEMSTREAM-Polymer-10001
		CHEMSTREAM-Polymer-10002	CHEMSTREAM-Polymer-10002
		Water	7732-18-5
StimSTREAM FR 9800	Friction Reducer	Chemstream-Alkane-00001	Chemstream-Alkane-00001
		Chemstream-Polymer-00001	Chemstream-Polymer-00001
		Ethoxylated alcohols (C12-16)	68551-12-2
		Water	7732-18-5
StimSTREAM FR 2800	Friction Reducer	Distillates (petroleum), hydrotreated light	64742-47-8
		Alcohols, C11-14-iso, C13-rich, ethoxylated	78330-21-9
		Water	7732-18-5
StimSTREAM FR 9725	Friction Reducer	Distillates (petroleum), hydrotreated light	64742-47-8
		Ammonium Chloride	12125-02-9
		Water	7732-18-5
StimSTREAM SC 398 C	Scale Inhibitor	CHEMSTREAM-Polymer-10001	CHEMSTREAM-Polymer-10001
		CHEMSTREAM-Polymer-10002	CHEMSTREAM-Polymer-10002
		Water	7732-18-5

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WV Department of
Environmental Protection

As of 7/5/2023

08/30/2024

WW-6A7
(6-12)

15102515

4705102515

OPERATOR: SWN Production Co., LLC

WELL NO: Ruth Keller MSH 5H

PAD NAME: Ruth Keller MSH

REVIEWED BY: _____

SIGNATURE: *Brittany Noddy*

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

**Pad Built 1/19/12*

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

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08/30/2024

