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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Tuesday, April 19, 2022  
WELL WORK PERMIT  
Horizontal 6A / New Drill

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

Re: Permit approval for MIKE RYNIAWEC BRK 6H  
47-009-00329-00-00

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

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

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

A blue ink signature of James A. Martin, Chief, is written over a white background.

James A. Martin  
Chief

Operator's Well Number: MIKE RYNIAWEC BRK 6H  
Farm Name: MIKE RYNIAWEC  
U.S. WELL NUMBER: 47-009-00329-00-00  
Horizontal 6A New Drill  
Date Issued: 4/19/2022

Promoting a healthy environment.

04/22/2022

## PERMIT CONDITIONS

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

### CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: \_\_\_\_\_

## PERMIT CONDITIONS

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

04/22/2022

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

1) Well Operator: SWN Production Co., LLC 494512924 009- Brooke 3-Buffalo 247-Bethany  
Operator ID County District Quadrangle

2) Operator's Well Number: Mike Rynaiwec BRK 6H Well Pad Name: Mike Ryniawec BRK Pad

3) Farm Name/Surface Owner: Mike Ryniawec Public Road Access: Lazear Run Road

4) Elevation, current ground: 1148' Elevation, proposed post-construction: 1148'

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

Other

(b) If Gas Shallow x Deep

Horizontal x

6) Existing Pad: Yes or No Yes MDK 1/7/22

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Target Formation- Marcellus, Down-Dip well to the South, Target Top TVD- 6070', Target Base TVD- 6125', Anticipated Thickness- 55', Associated Pressure- 3981

8) Proposed Total Vertical Depth: 6111'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 23,751'

11) Proposed Horizontal Leg Length: 17258.23'

12) Approximate Fresh Water Strata Depths: 347'

13) Method to Determine Fresh Water Depths: Salinity Profile

14) Approximate Saltwater Depths: 646' Salinity Profile

15) Approximate Coal Seam Depths: 325'

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

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

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

Depth:

Seam:

Owner:

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WW-6B  
(04/15)

API NO. 47-<sup>009</sup>**4700900329**  
 OPERATOR WELL NO. Mike Ryniewicz BRK GH  
 Well Pad Name: Mike Ryniewicz BRK Pad

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	J-55	54.4#	426'	426'	492 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	1691'	1691'	672 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	23751'	23751'	Tail 4436sx/ 100' Inside Intermediate
Tubing							
Liners							

*MDK 1/7/22*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.20/30% Excess
Fresh Water	13 3/8"	17.5"	0.380	2730	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	1.19/5% Excess
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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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- 9000 lbs @ 100 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 14.99

22) Area to be disturbed for well pad only, less access road (acres): 9.69

23) Describe centralizer placement for each casing string:

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

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

See Attachment \*\*\*

25) Proposed borehole conditioning procedures:

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

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\*Note: Attach additional sheets as needed.

## CEMENT ADDITIVES

INTERVAL	SCHLUMBERGER PRODUCT NAME	BJ PRODUCT NAME	NEXTIER PRODUCT NAME	PRODUCT USE	CHEMICAL NAME	CAS-Number
SURFACE (FRESHWATER) <i>up to 3%</i>	<del>XXXXXXXXXX</del>	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
COAL PROTECTION <i>up to 3%</i>	<del>XXXXXXXXXX</del>	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
INTERMEDIATE	D020	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D047	FP 28L	<del>XXXXXXXXXX</del>	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	<del>XXXXXXXXXX</del>	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	CemNet	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	LOST CIRC MATERIAL	COATED FIBERGLASS FIBERS	PROPRIETARY
	SUGAR	SUGAR	CJ795	CMT RETARDER	SUCROSE	57-50-1
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
PRODUCTION	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	CJ111	ACCELERATOR	SODIUM CHLORIDE	7440-23-5
	<del>XXXXXXXXXX</del>	SS-11W	CJ880	SURFACTANT	NONIONIC SURFACTANT	6540-99-4
	D047	FP 28L	<del>XXXXXXXXXX</del>	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	CJX157011	SOLID ANTIFOAM AGENT	FULLERS EARTH(ATTAPULGITE)	8031-18-3
	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	CJ540	HP FLUID LOSS ADDITIVE	ALIPHATIC AMIDE POLYMER	PROPRIETARY
	D255	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	MED TEMP FLUID LOSS ADDITIVE	POLYACRILIC POLYMER	PROPRIETARY
	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	CJ213	RETARDER	CHRYSTALLINE SILICA	14808-60-7
	<del>XXXXXXXXXX</del>	FL-66	CJ501	LOW TEMP FLUID LOSS ADD	POWDERED POLYSACCHARIDE	PROPRIETARY
	<del>XXXXXXXXXX</del>	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D208	ASA-301	<del>XXXXXXXXXX</del>	VISCOSIFIER/ANTI- SETTLING AGENT	REFINED POLYMER/ CHRYSTALLINE SILICA	PROPRIETARY
	D198	R-3		CEMENT RETARDER	LIGNIN	8068-51-6
SUGAR	SUGAR	CJ795	CEMENT RETARDER	SUCROSE	57-50-1	

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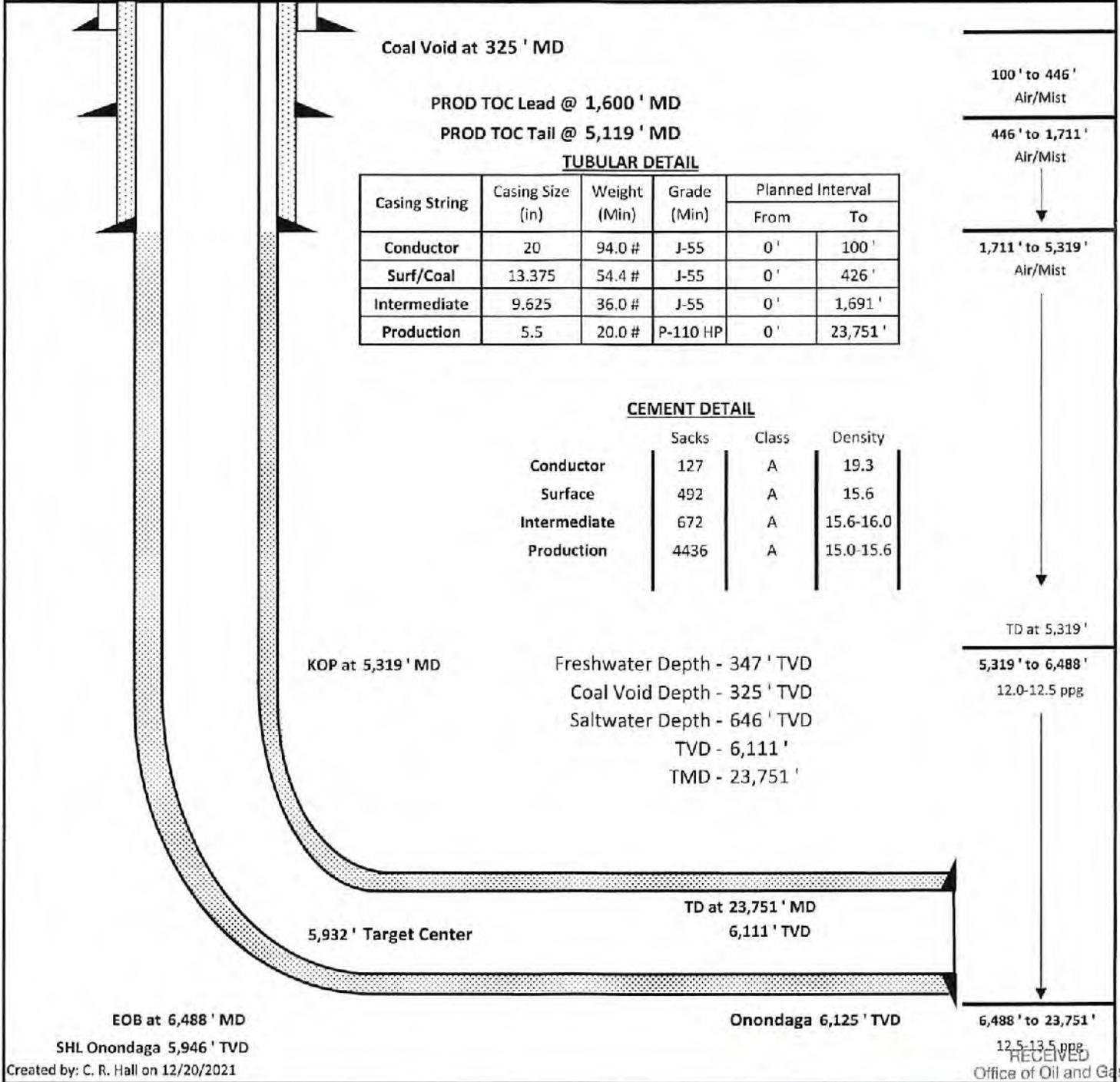
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04/22/2022

4700900329

<b>Southwestern Energy Company</b>	<b>Proposed Drilling Program</b>
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Well: MIKE RYNIWEC BRK 6 Field: PANHANDLE FIELD WET County: BROOKE SHL: 40.1906 Latitude -80.6093 Longitude BHL: 40.1471 Latitude -80.5889 Longitude KB Elev: 1,173 ft MSL	Re-entry Rig: TBD Prospect: Marcellus Shale State: WV GL Elev: 1,148 ft MSL
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Created by: C. R. Hall on 12/20/2021

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*MDK 1/7/22*

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WW-9  
(4/16)

API Number 47 - 006 **4700900329**  
Operator's Well No. Mike Rynlewec BRK 6H

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) Upper Ohio South Quadrangle Bethany

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

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: \_\_\_\_\_

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number Various Approved Facilities )
- Reuse (at API Number At the next anticipated well )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain recovery and solidification on site )

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

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. 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 06-08438, Brooke Co SWF-1013,  
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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

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

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

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Subscribed and sworn before me this 14th day of DECEMBER, 2021

[Signature]  
My commission expires 3/1/2022

Notary Public



## Attachment 3A

**CLOSED LOOP SYSTEM**

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

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

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

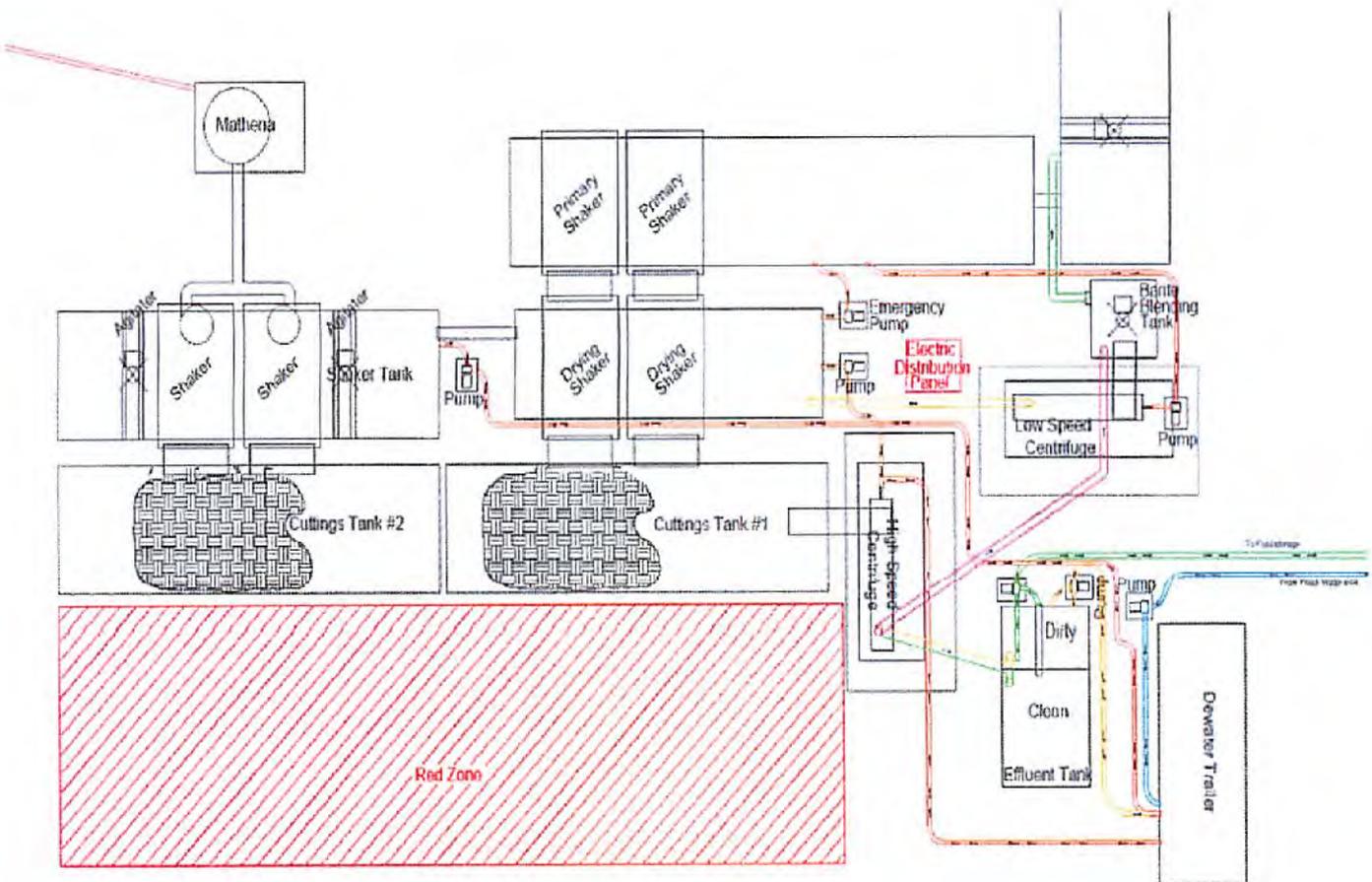
**AIR DRILLING INTERVALS**

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

**LIQUIDS DRILLING (FRESHWATER, BRINE, SOBM)**

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

# Solids Control Layout



EXAMPLE SCHEMATIC FOR CLOSED LOOP SOLIDS CONTROL SYSTEM

47 00 900 3 29

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**Attachment 3B**  
**Drilling Mediums**

**Surface/Coal(if present)/Freshwater Intervals:**

Air

Freshwater (if needed based on conditions)

**Intermediate/Coal (if present):**

Air

**Production Hole:**

Air

Synthetic Oil (Base Fluid for mud system)

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers

SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 14.99 Prevegetation pH \_\_\_\_\_

Lime as determined by pH test min.2 Tons/acre or to correct to pH 9.69

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 3B

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:

*Haynes Kintu*

Comments:

Title: Oil & Gas Inspector

Date: 1/7/22

Field Reviewed?     Yes

No

4700900329



## WVD Seeding Specification

R<sup>2</sup>  
A → V<sup>+</sup>

To Order Seed contact Lyndsi Eddy Filippo 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	

### 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	

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# MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN



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

**API NO. 47-XXX-XXXXX**  
**WELL NAME: Mike Ryniawec BRK 6H**  
**Bethany QUAD**  
**Buffalo DISTRICT**  
**Brooke/Ohio COUNTY, WEST VIRGINIA**

Submitted by:

Name: Brittany Woody

Date: 12/14/2021

*Brittany Woody*

Title: Senior Regulatory Analyst

SWN Production Co., LLC

Approved by:

Name: *Hayden J. Kud*

Date: 1/7/22

Title: INSPECTOR

Approved by:

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

SWN PRODUCTION COMPANY, LLC – CONFIDENTIAL

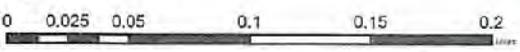
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04/22/2022



N  
  
 1 in = 417 ft



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

- Spring
- Water Well
- Pond
- 1500' Buffer

Water Purveyor Map  
 Well Pad: Mike Ryniawec  
 County: BRK

**SWN** *R<sup>2</sup>V+*  
 Southwestern Energy  
 04/22/2022

Coordinates: 40 190719 -80 609133

Date: 5/10/2018 | Author: willich

4700900329H<sub>2</sub>O

OWNER	ADDRESS	CITY	STATE	ZIP	WATERSOURCES
RYNIAWEC MIKE	6 LAZEAR RUN	WHEELING	WV	26003	1

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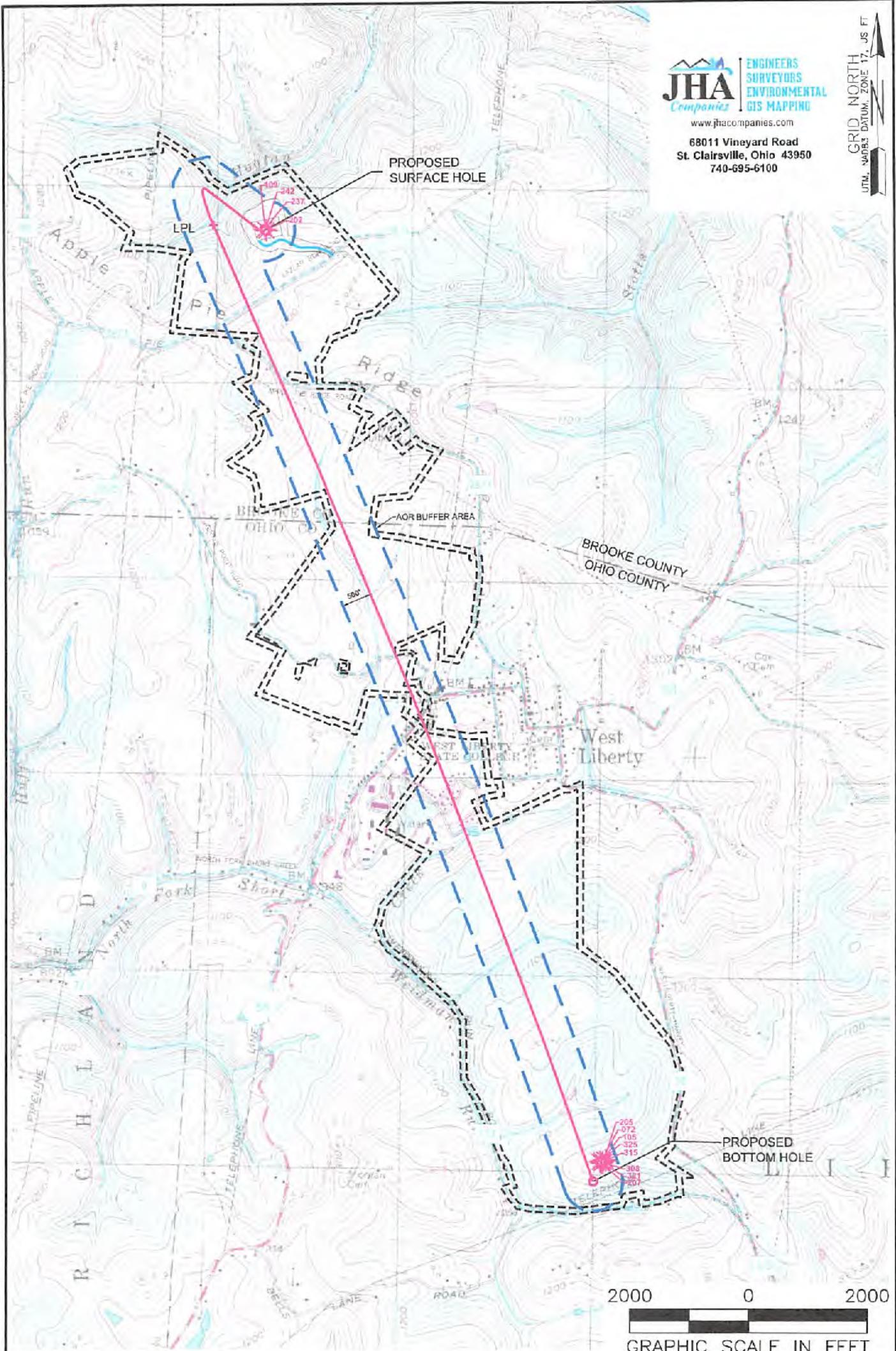
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**JHA Companies**  
 ENGINEERS SURVEYORS ENVIRONMENTAL GIS MAPPING  
 www.jhacompanies.com  
 68011 Vineyard Road  
 St. Clairsville, Ohio 43950  
 740-695-6100

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



**NOTES ON SURVEY**

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

**LEGEND:**

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- ⊙ EXISTING / PRODUCING WELLHEAD
- LPL ✕ LANDING POINT LOCATION
- ⬭ FLOOD PLAN
- NATURAL WATERWAY
- ACCESS ROAD
- PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- == LEASE BOUNDARY
- PROPOSED PATH

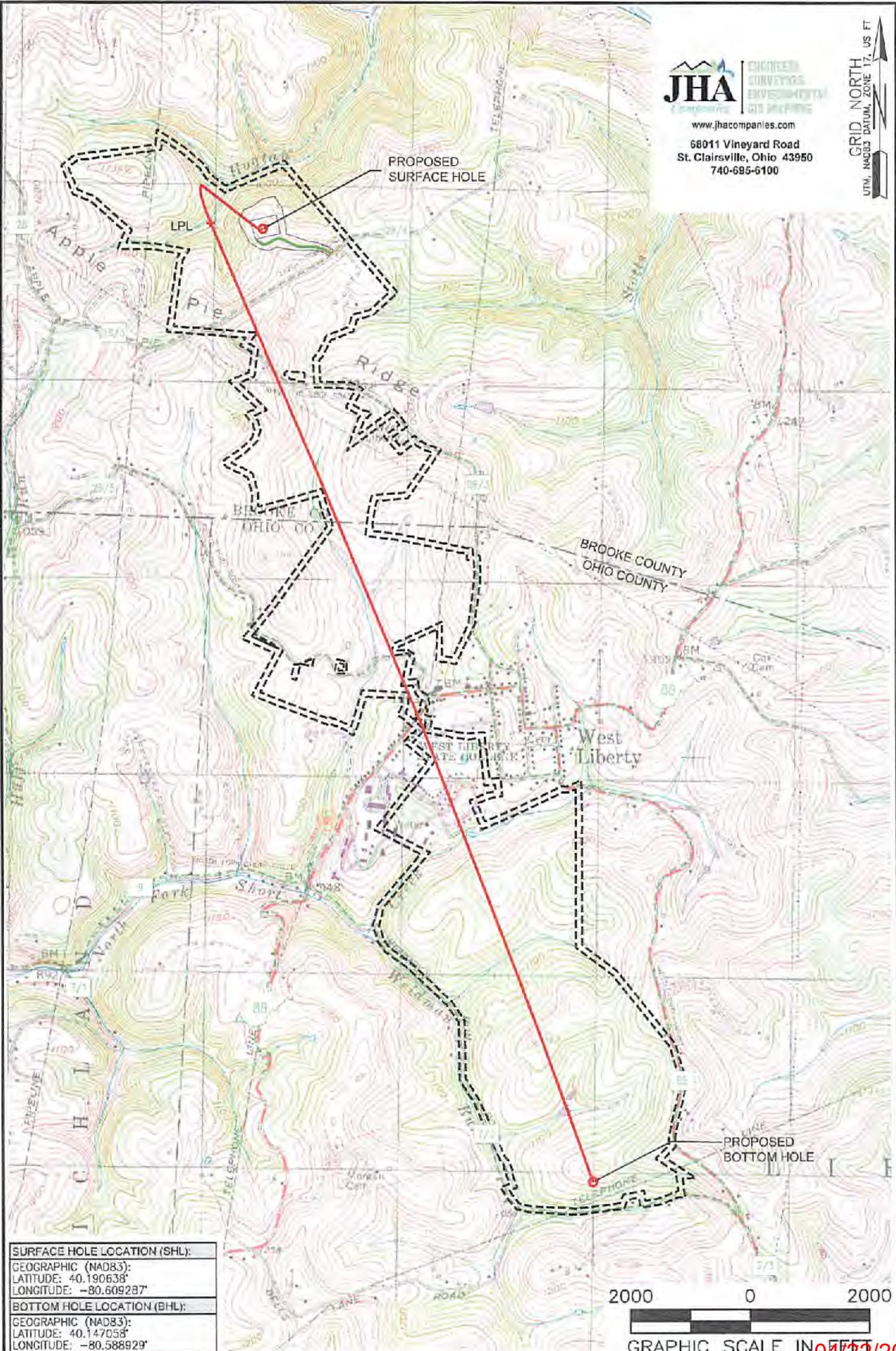
04/22/2022

<b>WELL OPERATOR:</b> SWN PRODUCTION COMPANY, LLC		<b>WELL (FARM) NAME:</b> MIKE RYNIAWEC BRK		<b>WELL #</b> 6H	<b>SERIAL #</b> XXXX
<b>ADDRESS:</b> 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508		<b>COUNTY:</b> BROOKE/OHIO	<b>CODE:</b> 9	<b>DISTRICT:</b> BUFFALO	<b>API #</b> 47-009-XXXX
<b>SURFACE OWNER:</b> MIKE RYNIAWEC		<b>USGS 7 1/2 QUADRANGLE MAP NAME:</b> WILEYVILLE, WV			

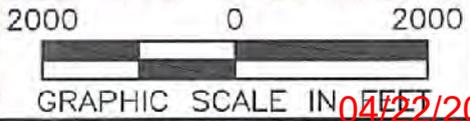


**JHA** | ENGINEER SURVEYORS ENVIRONMENTAL GIS MAPPING  
 www.jhacompanies.com  
 68011 Vineyard Road  
 St. Clairsville, Ohio 43950  
 740-695-6100

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



<b>SURFACE HOLE LOCATION (SHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.190638°
LONGITUDE: -80.609287°
<b>BOTTOM HOLE LOCATION (BHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.147058°
LONGITUDE: -80.588929°



- 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.
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<b>LEGEND:</b>	NATURAL WATERWAY
● PROPOSED SURFACE HOLE / BOTTOM HOLE	ACCESS ROAD
☼ EXISTING / PRODUCING WELLHEAD	PUBLIC ROAD
LPLx LANDING POINT LOCATION	ACCESS ROAD TO PREV. SITE
🌊 FLOOD PLAIN	LEASE BOUNDARY
	PROPOSED PATH

<b>WELL OPERATOR:</b> SWN PRODUCTION COMPANY, LLC	<b>WELL (FARM) NAME:</b> MIKE RYNIWEC BRK	<b>WELL #</b> 6H	<b>SERIAL #</b> XXXX
<b>ADDRESS:</b> 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	<b>COUNTY:</b> BROOKE/OHIO	<b>CODE:</b> 9	<b>DISTRICT:</b> BUFFALO
<b>SURFACE OWNER:</b> MIKE RYNIWEC	<b>USGS 7 1/2 QUADRANGLE MAP NAME:</b> WILEVILLE, WV		<b>API #</b> 47-009-XXXX
			<b>47-009-XXXX</b> H6A

04/22/2022



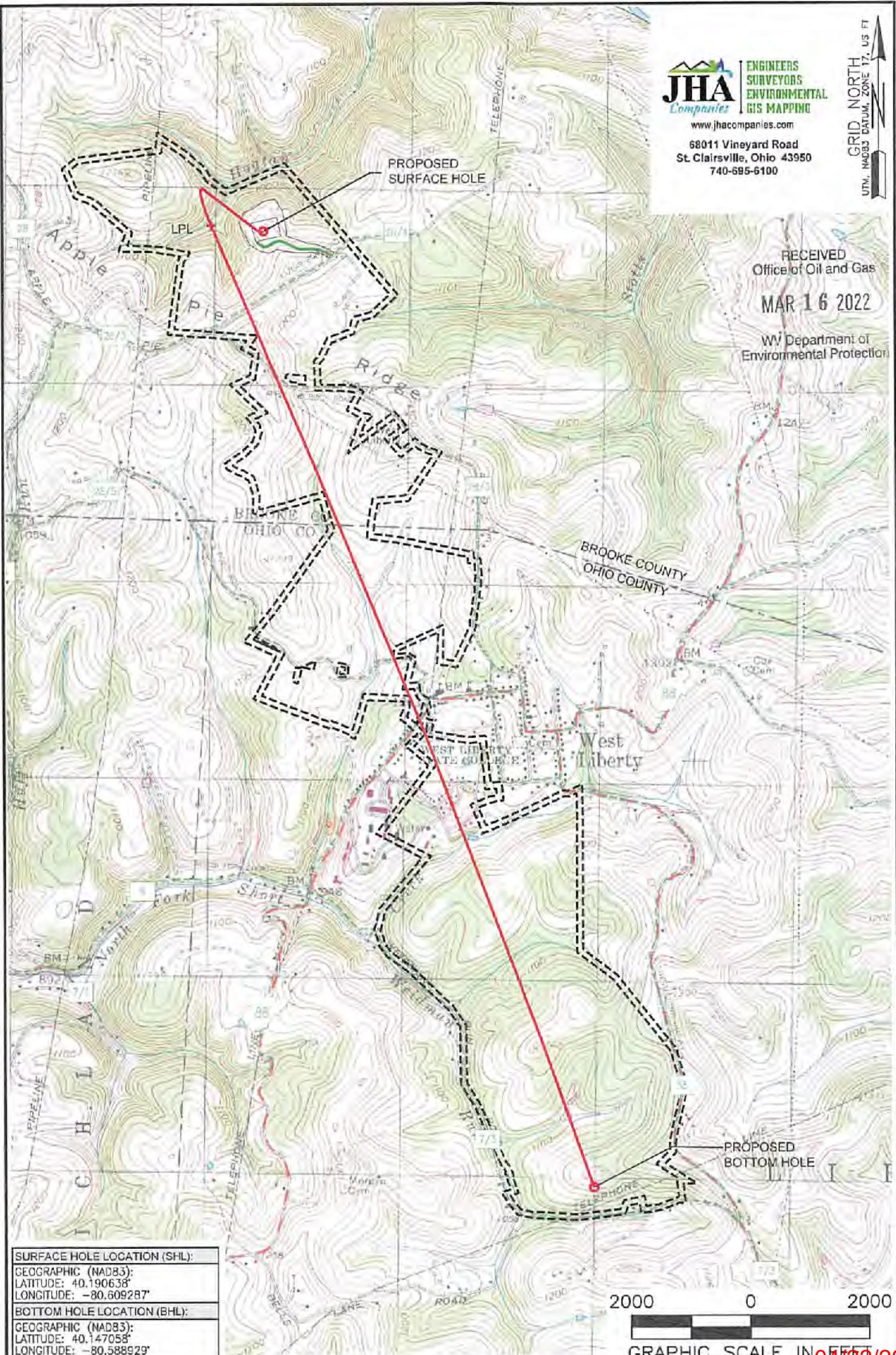
www.jhacompanies.com

68011 Vineyard Road  
St. Clairsville, Ohio 43950  
740-695-6100

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

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MAR 16 2022

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Environmental Protection



<b>SURFACE HOLE LOCATION (SHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.190638'
LONGITUDE: -80.609287'
<b>BOTTOM HOLE LOCATION (BHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.147058'
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**NOTES ON SURVEY**  
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<b>LEGEND:</b>	NATURAL WATERWAY
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	ACCESS ROAD
☼ EXISTING / PRODUCING WELLHEAD	PUBLIC ROAD
LPLx LANDING POINT LOCATION	ACCESS ROAD TO PREV. SITE
🌊 FLOOD PLAN	LEASE BOUNDARY
	PROPOSED PATH

**WELL OPERATOR:**  
SWN PRODUCTION COMPANY, LLC  
**ADDRESS:**  
1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508  
**SURFACE OWNER:**  
MIKE RYNIAWEC

**WELL (FARM) NAME:**  
MIKE RYNIAWEC BRK  
**WELL #** 6H  
**SERIAL #** XXXX  
**COUNTY:** BROOKE/OHIO  
**CODE:** 9  
**DISTRICT:** BUFFALO  
**API #** 47-009-XXXX  
**USGS 7 1/2 QUADRANGLE MAP NAME:**  
WILEYVILLE, WV

04/22/2022



WELL BORE TABLE FOR SURFACE/ROYALTY OWNERS		
TRACT	SURFACE OWNER(S) / ROYALTY OWNER (N)	TAX PARCEL
1	RYNIAWEC MIKE (S/R)	3-842-33
TRACT	SURFACE OWNER	TAX PARCEL
2	APPALACHIA MIDSTREAM SERVICES LLC	3-842-29
3	PAUGH LAWRENCE G & CATHIE SUE	3-847-21
4	MILLER JOHN D; NEWMAN JENNIFER LYN (SURV)	3-847-22
5	GREATHOUSE ROBERT E & LAURA G	3-847-25.1
6	DWYER CAROL	3-847-25
7	SPEECH THURMAN D JR & KATHY J	3-847-24
8	DWYER CAROL	3-847-25
9	DWYER CAROL	3-847-26
10	BONAR MATTHEW P	3-11-4
11	ENNIS DEREK J & NICOLE L	3-11-4.2
12	STATE OF WEST VIRGINIA, DEPARTMENT OF HIGHWAYS	GIRTY POINT ROAD
13	BONAR MATTHEW P	3-11-21.3
14	BONAR MATTHEW P	3-11-21.1
15	RICE MICHAEL A & DIANA L	9-WL3-3
16	BOARD OF GOVERNORS OF WEST LIBERTY UNIVERSITY	9-WL3-53
17	BOARD OF GOVERNORS OF WEST LIBERTY UNIVERSITY	9-WL3-51
18	BOARD OF GOVERNORS OF WEST LIBERTY UNIVERSITY	9-WL3-52
19	BOARD OF GOVERNORS OF WEST LIBERTY UNIVERSITY	9-WL3-58
20	STATE OF WEST VIRGINIA, DEPARTMENT OF HIGHWAYS	STATE ROUTE 88
21	CONWAY CRAIG	9-WL3-69.1
22	STATE BOARD OF EDUCATION	9-WL3-68
23	PRALL CEMETERY	9-WL3-127
24	WEST LIBERTY STATE COLLEGE BOARD OF GOVERNORS	3-11-35.8
25	WEST LIBERTY STATE COLLEGE BOARD OF GOVERNORS	3-11-35.9
26	WEST LIBERTY STATE COLLEGE BOARD OF GOVERNORS	3-11-35.1
27	WEST LIBERTY STATE COLLEGE BOARD OF GOVERNORS	3-11-35
28	MCGLUMPHY STEVEN & LORI - TOD	3-14-110.3
29	MCGLUMPHY STEVEN & LORI - TOD	3-14-110
ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	WINDSOR POWER HOUSE COAL CO	3-842-65
B	SMITH RALPH O & GINA L	3-842-64
C	TURNER DOUGLAS L & BEUNDA	3-842-35
D	SCHWERTFEGER NOEL R	3-842-40
E	DWYER CAROL G	3-847-30
F	DWYER PHILIP R CORISSA	3-847-25.4
G	WILHELM SCOTT T	3-847-28.1
H	ABERCROMBIE WAYNE A JR	3-847-28
I	DWYER CAROL G	3-847-29
J	HOOD RONALD J & BETH A	3-847-27
K	HOOD BETH ANN	3-847-25.2
L	HARWATT TERRY D	3-847-32.1
M	DWYER CAROL	3-847-25.3
N	HARWATT EDITH R & TERRY D; NEIL, SUZANNE	3-847-32
O	HARWATT TERRY D	3-847-32.2
P	ROEDER SUSAN IRENE; FRANCIS GLEN ETAL	3-847-34
Q	MILVET ROBERT W & EDITH A	3-847-42
R	ENNIS DEREK J & NICOLE L	3-847-43
S	ENNIS DEREK J & NICOLE L	3-11-43
T	AMERICAN TOWERS LLC	9-WL1-14
U	VARGO DANIEL J & COURTNEY D	9-WL1-3
V	VARGO DANIEL J & COURTNEY D	9-WL1-4
W	VARGO DANIEL J & COURTNEY D	9-WL1-9.3
X	BUKOVAC DEBORAH J & THOMAS W	9-WL1-9.1
Y	BUKOVAC DEBORAH J & THOMAS W	9-WL1-9
Z	PETTIT BERNARD R	9-WL1-10
AA	PETTIT BERNARD R	9-WL1-11
AB	WISE ROBERT S & JANET L	9-WL3-127.1
AC	DAILEY JERALDINE W	9-WL3-130
AD	CLARK R L JR & C L HLEBICZKI	9-WL3-131
AE	LIBERTY HIGH SCHOOL	9-WL3-7
AF	ENNIS PROPERTIES LLC	3-11-4.4
AG	BLASKOVICH FRANK JR & BLASKOVICH JENNIFER D	9-WL3-1
AH	BLASKOVICH FRANK JR & J D	9-WL3-2
AI	ENNIS PROPERTIES LLC	3-11-4.5
AJ	MASONIC LODGE 26 A F A M	9-WL3-6
AK	CHRISTIAN CHURCH AT W LIBERTY TRUSTEES	9-WL3-50
AL	RYAN JEFFREY W & JULIE L	9-WL3-70
AM	RYAN JEFFREY W HILL JULIE L	9-WL3-69
AN	PAJAK SHARON L & CLARK W	9-WL3-73
AO	BONAR MATTHEW P & TAMARA A	9-WL3-74
AP	BALL HOLDINGS LLC	9-WL3-74.1
AQ	POSTLEWAIT RENE L C/O WESBANCO TRUST DEPT	9-WL3-114
AR	HUNTER BRITTANY N	9-WL3-113
AS	HUNTER BRITTANY N	9-WL3-112
AT	APPLEBY LORA L	9-WL3-111
AU	COMER JAMES L & D L	9-WL3-110
AV	PAVLIC CHARMINE M	9-WL3-109.1

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
AW	SCHRAMM JEANNE V	9-WL3-117.1
AX	SCHRAMM JEANNE V	9-WL3-117
AY	SCHRAMM JEANNE V	9-WL7-1
AZ	PELLEN HESTER S & PHILLIP	9-WL7-24
BA	GOOCH CLARA S GOOCH ROCKY L	9-WL7-25
BB	PELLEN HESTER S & P	9-WL7-26
BC	MILLER THOMAS F & K L	9-WL7-28
BD	BOARD OF EDUCATION	9-WL7-30.2
BE	BOARD OF EDUCATION	9-WL7-30.1
BF	WHEELING POWER CO WHEELING ELECTRIC CO	9-WL7-30.3
BG	READ DAVID T - TOD	9-WL7-30
BH	FOWLER RUTH M - TOD	9-WL7-31
BI	GRAHAM SCOTTIE W & CONNIE M	9-WL7-16.1
BJ	WILSON MARK W & DAWN L	3-11-39.11
BK	BECK DAVID LEE	3-11-39.7
BL	BECK DAVID L	3-11-39.12
BM	BEAVER JAMES H & ROBIN L	3-11-39.14
BN	DUVALL MARK A	3-11-39.1
BO	DUVALL ISRAEL R & MEGAN L BIRKINSHA	3-11-39.13
BP	DUVALL ROBERT E & E C	3-14-111.2
BQ	THOMAS KALIB	3-14-111.3
BR	DUVALL ROBT E & E C	3-14-111.1
BS	KAUFMAN MARK P & ANNELESE	3-15-2
BT	PORTER TODD E	3-14-125
BU	PORTER TODD E	3-15-2.1
BV	KAUFMAN MARK P & ANNELESE	3-15-2.2
BW	PATTERSON WILLIAM S JR	3-14-115
BX	NORMAN MARK E	3-14-110.2
BY	APPALACHIA MIDSTREAM SERVICES LLC	3-14-114
BZ	APPALACHIA MIDSTREAM SVCS LLC	3-14-110.1
CA	APPALACHIAN MIDSTREAM SERVICES LLC	3-14-117
CB	WINDSOR POWER HOUSE COAL CO C/O CNX LAND - PROPERTY TAX	3-14-105.7
CC	RIDLER B G; TALLMON J M	3-14-106
CD	RIDLER B G; TALLMON J M	3-14-113
CE	GILBERT DONALD E JR	3-14-112
CF	LAUDERMILT DIXIE M & L - 1998	3-14-105.1
CG	HOLLAND PARK LIMITED LIABILITY C/O PAUL LEE C III	3-14-105
CH	HONECKER ELIZABETH; C/O HONECKER JANET (LE)	3-14-104
CI	WARNER DENNY A (BUYER) BARKER CAROLYN S (SELLER)	3-14-104.5
CJ	HUNTER JASON D	3-14-104.1
CK	HUNTER JASON D	3-14-104.2
CL	HONECKER JANET L; HONECKER ELIZABETH	3-14-103
CM	MONROE TIMOTHY L ET AL	9-WL10-11
CN	PERRY MARY P	9-WL10-14
CO	FOWLCON LIMITED LIABILITY CO	9-WL10-13
CP	WEST LIBERTY STATE COLLEGE BOARD OF GOVERNORS	3-11-35.4
CQ	WEST LIBERTY STATE COLLEGE BOARD OF GOVERNORS	3-11-35.5
CR	WEST LIBERTY STATE COLLEGE BOARD OF GOVERNORS	3-11-35.6
CS	WEST LIBERTY STATE COLLEGE BOARD OF GOVERNORS	3-11-35.7
CT	STATE BOARD OF EDUCATION WEST LIBERTY STATE COLLEGE	9-WL3-65
CU	TURNER LEON W & D S	9-WL3-66
CV	DEENIS GREGORY R LASCH META M	9-WL3-67
CW	BOARD OF GOVERNORS OF WEST LIBERTY UNIVERSITY	9-WL3-60
CX	BOARD OF GOVERNORS OF WEST LIBERTY UNIVERSITY	9-WL3-54
CY	WEST LIBERTY FEDERATED CHURCH TRUSTEES	9-WL3-62.1
CZ	CATHOLIC DIOCESE OF WHEELING - CHARLESTON	9-WL3-1
DA	WEST RENTALS INC	3-11-22.1
DB	WEST LIBERTY UNIVERSITY	3-11-22.1
DC	WEST RENTALS INC	3-11-22
DD	BONAR CHARLOTTE R	3-11-21
DE	ROTHERMUND THOMAS F & MM	3-11-4.1
DF	BONAR CHARLOTTE R	3-11-21.2
DG	SAMPSON DALE M	3-11-24
DH	PATTERSON GABRIEL L	3-11-3
DI	DAVIS ALLEN D - LE; J R GALLETINE & T A DAVIS	3-11-2.1
DJ	BYHANNA TIMOTHY A	3-11-2.3
DK	BONAR CHARLES W & CHARLOTTE R	3-11-2.6
DL	SAYRE LAWRENCE & MARTHA (SURV)	3-847-14
DM	BUREK JOSEPH S & JANE M	3-847-19
DN	SUTER STETSON E & WENDY S	3-847-23
DO	PAUGH LAWRENCE GRANT	3-847-20
DP	FLUHARTY ELIZABETH ELLEN	3-847-18
DQ	MAYHEW KATHY LYNN & MICHAEL ETAL (SURV)	3-842-27
DR	APPALACHIA MIDSTREAM SERVICES LLC	3-842-31
DS	HEINZEROTH HENRY	3-842-32
DT	BONAR JAMES L ETAL	3-842-54

04/22/2022

REVISIONS:	COMPANY: 			
	OPERATOR'S: MIKE RYNIWEC BRK		DATE: 12-16-2021	
	WELL #: 47-009-00329-116A SH		API NO: 47-009-XXXX	
	DISTRICT: BUFFALO	COUNTY: BROOKE/OHIO	STATE: WV	DRAWN BY: R.GRIMES
				SCALE: N/A
				DRAWING NO: 2020-220
				WELL LOCATION PLAT

WW-6A1  
(5/13)

Operator's Well No. MIKE RYNIAWEC BRK 6H

**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
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See EXHIBIT A

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

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

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

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WV Department of  
Environmental Protection

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 Co., LLC  
 By: Gavin Nadeau, RPL  
 Its: Landman

EXHIBIT "A"  
Mike Ryniawec BRK 6H

Ohio County and Brooke 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	BR/PG
1	03-0B42-0033-0000	Mike Ryniawec, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	14/757 30/480
2	03-0B42-0029-0000	Luther Grizzel, married	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	14/9 30/480
3	03-0B47-0021-0000	Lawrence Grant Paugh	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	19/765 30/480
4	03-0B47-0022-0000	Ronald Hood and Beth Ann Hood, husband and wife Mark William Wilson and Dawn Wilson, husband and wife Carol Shain, f/k/a Carol Sue Flaherty John R. Wilson and Irene J. Wilson, husband and wife	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	18.00%	16/769 30/480 17/362 30/480 17/367 30/480 18/108 30/480
5	03-0B47-0025-0001	Laura G. Greathouse and Robert E. Greathouse, her husband	SWN Production Company, LLC	14.00%	34/134
6	03-0B47-0025-0000	Ronald Hood and Beth Ann Hood, husband and wife Mark W. Wilson and Dawn L. Wilson, husband and wife Harry Allen Shain and Carol Shain f/k/a Carol S. Flaherty, husband and wife John R. Wilson and Irene J. Wilson, husband and wife	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	18.00%	14/13 30/480 14/66 30/480 14/56 30/480 15/302 30/480
7	03-0B47-0024-0000	Ronald Hood and Beth Ann Hood, husband and wife Mark William Wilson and Dawn Wilson, husband and wife Carol Shain, f/k/a Carol Sue Flaherty John R. Wilson and Irene J. Wilson, husband and wife	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	18.00%	16/769 30/480 17/362 30/480 17/367 30/480 18/108 30/480
8	03-0B47-0025-0000	Ronald Hood and Beth Ann Hood, husband and wife Mark W. Wilson and Dawn L. Wilson, husband and wife Harry Allen Shain and Carol Shain f/k/a Carol S. Flaherty, husband and wife John R. Wilson and Irene J. Wilson, husband and wife	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	18.00%	14/13 30/480 14/66 30/480 14/56 30/480 15/302 30/480
9	03-0B47-0026-0000	Gilbert Dwyer and Carol Dwyer, husband and wife	Great Lakes Energy Partners Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	12.50%	10/97 10/552 30/480
10	03-00L1-0004-0000	Mary Nesbit, n/k/a Mary Zito, widow Linda Orr n/k/a Linda Morgan, married John William Orr, Jr., married John Robert Bonar, married	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	18.00%	826/182 885/632 826/223 885/632 826/228 885/632 826/233 885/632
11	03-00L1-0004-0002	Derek J. Ennis and Nicole Ennis, husband and wife	Chesapeake Appalachia, L.L.C.	18.00%	869/466 883/766
12	GIRTY'S POINT ROAD	West Virginia Department of Transportation, Division of Highways	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	15.00%	868/287 883/778
13	03-00L1-0021-0003	Mary Nesbit, n/k/a Mary Zito, widow Linda Orr n/k/a Linda Morgan, married John William Orr, Jr., married John Robert Bonar, married	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	18.00%	826/182 885/632 826/223 885/632 826/228 885/632 826/233 885/632
14	03-00L1-0021-0001	Mary Nesbit, n/k/a Mary Zito, widow Linda Orr n/k/a Linda Morgan, married John William Orr, Jr., married John Robert Bonar, married	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	18.00%	826/182 885/632 826/223 885/632 826/228 885/632 826/233 885/632
15	09-0WL3-0003-0000	Michael A. Rice and Diann L. Rice, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	830/556 885/668
16	09-0WL3-0053-0000	Shane R. Glass and Lori A. Glass, husband and wife	Fossil Creek Ohio, LLC Gulfport Energy Corporation American Petroleum Partners Operating, LLC SWN Production Company, LLC	18.00%	872/49 893/392 909/775 946/405
17	09-0WL3-0051-0000	Noel Schwertfeger, individually, and as attorney-in-fact for Joyce L. Schwertfeger, his wife	Fossil Creek Ohio, LLC Gulfport Energy Corporation American Petroleum Partners Operating, LLC SWN Production Company, LLC	18.00%	871/750 893/392 909/775 946/405
18	09-0WL3-0052-0000	Shane R. Glass and Lori A. Glass, husband and wife	Fossil Creek Ohio, LLC Gulfport Energy Corporation American Petroleum Partners Operating, LLC SWN Production Company, LLC	18.00%	872/49 893/392 909/775 946/405
19	09-0WL3-0058-0000	Noel Schwertfeger, individually, and as attorney-in-fact for Joyce L. Schwertfeger, his wife	Fossil Creek Ohio, LLC	18.00%	871/750

EXHIBIT "A" Mike Ryniawec BRK 6H Ohio County and Brooke 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
			Gulfport Energy Corporation American Petroleum Partners Operating, LLC SWN Production Company, LLC		893/392 909/775 946/405
20	STATE ROUTE 88	West Virginia Department of Transportation, Division of Highways	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	15.00%	830/11 883/620
21	09-0WL3-0069-0001	Craig Conway and Heather Conway, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	835/60 885/704
22	09-0WL3-0068-0000	The Board of Governors of West Liberty University, f/k/a West Liberty State College	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	812/556 883/575
23	09-0WL3-0127-0000	Trustees of Prall Cemetery, a/k/a Prall Cemetery of West Liberty, a/k/a Prall Cemetery Association, by Olive Turner, President	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	833/619 885/344
24	03-00L1-0035-0008	The Board of Governors of West Liberty University, f/k/a West Liberty State College	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	812/556 883/575
25	03-00L1-0035-0009	The Board of Governors of West Liberty University, f/k/a West Liberty State College	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	812/556 883/575
26	03-00L1-0035-0001	The Board of Governors of West Liberty University, f/k/a West Liberty State College	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	812/556 883/575
27	03-00L1-0035-0000	The Board of Governors of West Liberty University, f/k/a West Liberty State College	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	812/556 883/575
28	03-00L4-0110-0003	George W. Couch, widower	Fortuna Energy Inc. Range Resources - Appalachia, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	12.50%	775/537 786/422 808/493 883/539
29	03-00L4-0110-0000	George W. Couch, widower	Fortuna Energy Inc. Range Resources - Appalachia, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	12.50%	775/537 786/422 808/493 883/539

END OF EXHIBIT "A"

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March 2, 2022

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

RE: SWN's proposed New Well: Mike Ryniawec BRK 6H in Brooke County, West Virginia, Drilling under Lazear Run Road, Apple Pie Ridge Road, State Route 88, Van Meter Way, Hilltopper Lane, Washington Street, and Sprigg Street.

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 Lazear Run Road, Apple Pie Ridge Road, State Route 88, Van Meter Way, Hilltopper Lane, Washington Street, and Sprigg Street. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Sincerely,

**SWN Production Company, LLC**



Gavin Nadeau, RPL  
Landman

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

Date of Notice Certification: 3/15

API No. 47- 009 -  
Operator's Well No. Mike Ryniawec BRK 6H  
Well Pad Name: Mike Ryniawec BRK Pad

**Notice has been given:**

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

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>533,258.18</u>
County: <u>009- Brooke/069-Ohio</u>	UTM NAD 83 Northing: <u>4,448,989.75</u>
District: <u>Buffalo</u>	Public Road Access: <u>Lazear Run Road</u>
Quadrangle: <u>Bethany</u>	Generally used farm name: <u>Mike Ryniawec</u>
Watershed: <u>Upper Ohio South</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  <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED  <input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED  <input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or  <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)  <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION  <input checked="" type="checkbox"/> 5. PUBLIC NOTICE  <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		<b>OOG OFFICE USE ONLY</b>  <input type="checkbox"/> RECEIVED/ NOT REQUIRED  <input type="checkbox"/> RECEIVED  <input type="checkbox"/> RECEIVED/ NOT REQUIRED  <input type="checkbox"/> RECEIVED  <input type="checkbox"/> RECEIVED  <input type="checkbox"/> RECEIVED
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**Required Attachments:**

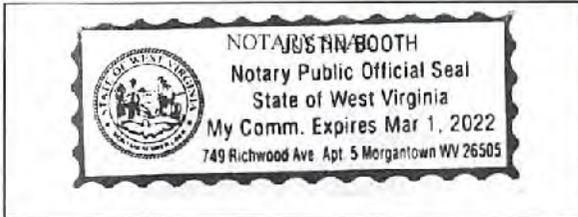
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

**Certification of Notice is hereby given:**

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

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

*Brittany Woody*



Subscribed and sworn before me this 14<sup>th</sup> day of DECEMBER 2021

*Justin Booth* Notary Public

My Commission Expires 3/1/2022

**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](mailto:depprivacyofficer@wv.gov).

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

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

Date of Notice: 3/15 Date Permit Application Filed: 3/15

Notice of:

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

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

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

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

Application Notice  WSSP Notice  E&S Plan Notice  Well Plat Notice is hereby provided to: **Office of Oil and Gas**

SURFACE OWNER(s)  
Name: Mike Rynlawec  
Address: 6 Lazear Wilhelm Road  
Wheeling, WV 26003  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
Name: Windsor Coal Company  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317  
 COAL OPERATOR  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

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SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: See Attachment 13A  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary

**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

04/22/2022

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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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

### **Time Limits and Methods for Filing Comments.**

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

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

### **Comment Requirements**

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

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

### **Permit Denial or Condition**

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

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

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

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

WW-6A  
(8-13)

API NO. 47-000-900329  
OPERATOR WELL NO. Mike Ryniawac BRK 6H  
Well Pad Name: Mike Ryniawac BRK Pad

**Notice is hereby given by:**

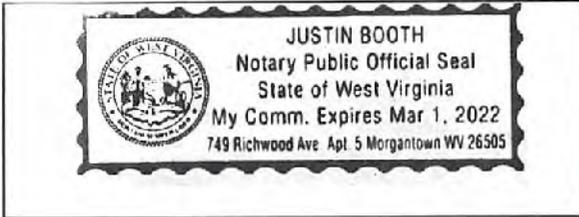
Well Operator: SWN Production Co., LLC  
Telephone: 304-884-7610  
Email: Brittany\_Woody@swn.com

*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 [deprivacyofficer@wv.gov](mailto:deprivacyofficer@wv.gov).



Subscribed and sworn before me this 14<sup>th</sup> day of DECEMBER, 2022.

[Signature] Notary Public

My Commission Expires 3/1/2022

**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:** 12/06/2021      **Date Permit Application Filed:** 3/15

RECEIVED  
Office of Oil and Gas  
MAR 16 2022  
Department of  
Environmental Protection

**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: Mike Ryniawec  
Address: 6 Lazear Wilhelm Rd  
Wheeling, WV 26003

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**Notice is hereby given:**

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

State: West Virginia      UTM NAD 83      Easting: 533,258.18  
County: Brooke/Ohio      Northing: 4,448,989.75  
District: Buffalo      Public Road Access: Lazear Run Road  
Quadrangle: Bethany, WV      Generally used farm name: Mike Ryniawec BRK  
Watershed: Upper Ohio South

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://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 Drive, Suite 201  
Morgantown, WV 26508  
Telephone: 304-884-1714  
Email: Michael\_Yates@swn.com  
Facsimile: \_\_\_\_\_

Authorized Representative: Mike Yates  
Address: 1300 Fort Pierpont Drive, Suite 201  
Morgantown, WV 26508  
Telephone: 304-884-1714  
Email: Michael\_Yates@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](mailto:depprivacyofficer@wv.gov).

04/22/2022

**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:** 12/06/2021      **Date Permit Application Filed:** 3/15

**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: <u>Mike Ryniawec</u>	Name: _____
Address: <u>6 Lazear Wilhelm Rd.</u>	Address: _____
<u>Wheeling, WV 26003</u>	_____

**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>West Virginia</u>	UTM NAD 83	Easting: <u>533,258.18</u>
County: <u>Brooke/Ohio</u>		Northing: <u>4,448,889.75</u>
District: <u>Buffalo</u>	Public Road Access: <u>Lazear Run Road</u>	
Quadrangle: <u>Bethany, WV</u>	Generally used farm name: <u>Mike Ryniawec BRK</u>	
Watershed: <u>Upper Ohio South</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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: <u>SWN Production Company, LLC</u>	Address: <u>1300 Fort Pierpont Drive, Suite 201</u>
Telephone: <u>304-864-1714</u>	<u>Morgantown, WV 26508</u>
Email: <u>Michael_Yates@swn.com</u>	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](mailto:depprivacyofficer@wv.gov).



## WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**

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

D. Alan Reed, P.E.  
 State Highway Engineer

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

October 29, 2021

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

Subject: DOH Permit for the Mike Ryniawec Pad, Brooke County  
 Mike Ryniawec BRK 6H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2011-0475 which has been transferred to Southwestern Production Company, LLC for access to the State Road for a well site located off Brooke County Route 28/4 SLS MP 0.37.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

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

Cc: Brittany Woody  
 Southwestern Production Company, LLC  
 CH, OM, D-6  
 File

## Attachment VI Frac Additives

4700900329

Product Name	Product Use	Chemical Name	CAS Number
AI-303 (U.S. Well Services)	Mixture	Ethylene glycol	107-21-1
		Cinnamaldehyde	104-55-2
		Butyl cellosolve	111-76-2
		Formic acid	64-18-6
		Polyether	Proprietary
		Acetophenone, thiourea, formaldehyde polymer	68527-49-1
AP ONE (U.S. Well Services)	Breaker	Ammonium persulfate	7727-54-0
Bactron K-139 (Champion Technologies)	Biocide	Glutaraldehyde	111-30-8
		Quaternary Ammonium Compounds, Benzyl-C12-16-Alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
Bactron K-219 (Champion Technologies)	Biocide	Methanol	67-56-1
		Quaternary Ammonium Compounds, Benzyl-C12-16-Alkyldimethyl, Chlorides	68424-85-1
CarboNRT	Tracer	Ceramic Proppant	66402-68-4
EC6486A (Nalco Champion)	Scale Inhibitor	Amine Triphosphate	Proprietary
		Ethylene Glycol	107-21-1
EC6734A (Champion Technologies)	Biocide	Hydrogen Peroxide	7722-84-1
		Acetic Acid	64-19-7
		Peroxyacetic Acid	79-21-0
Econo-CI200 (SWN Well Services)	Corrosion Inhibitor	Methanol	67-56-1
		Oxyalkylated fatty acid	68951-67-7
		Fatty acids	61790-12-3
		Modified thiourea polymer	68527-49-1
		Water	7732-18-5
		Hydrochloric acid	7647-01-0
		Potassium acetate	127-08-2
		Formaldehyde	50-00-0
Ecopol-FEAC (SWN Well Services)	Iron Control	Acetic Acid	64-19-7
		Citric Acid	77-92-9
		Water	7732-18-5
FDP-S1176-15 (Halliburton)	Friction Reducer	Polycrylate	Proprietary
		Hydrotreated light petroleum distillate	64742-47-8
FLOJET DR900 LPP (SWN Well Services)	Friction Reducer	Distillates (petroleum) hydrotreated light	64674-47-8
		Ethylene Glycol	107-21-1
		Alcohols, C12-16, Exoxylated propoxylated	68213-24-1
		Fatty Alcohols ethoxylated	Proprietary
		Water	7732-18-5
FLOJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary	Proprietary
FR-76 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
		Inorganic Salt	Proprietary
GYPTRON T-390 (Champion Technologies)	Scale Inhibitor	Methanol	67-56-1
		Nonylphenol Ethoxylate	Proprietary
HAI-150E (Halliburton)	Corrosion Inhibitor	No hazardous substance	N/A
HCL (SWN Well Services)	Hydrochloric Acid	Hydrochloric Acid	7647-01-0
		Water	7732-18-5
LP-65 MC (Halliburton)	Scale Inhibitor	Organic phosphonate	Proprietary
		Ammonium Chloride	12125-02-9
OPTI-FLEX (U.S. Well Services)	Viscosifying Agent	Distillates, petroleum, hydrotreated light	64742-47-8
Plexslick 930	Friction Reducer	Copolymer of 2-propenamamide	Proprietary
		Hydrotreated Distillate	64742-47-8
		Sodium Chloride	7647-14-5
		Alcohols, C12-16, Exoxylated	68551-12-2
		Oleic Acid Diethanolamide	93-83-4
		Ammonium Chloride	12125-02-9
Plexslick 953	Friction Reducer	Petroleum Distillate	64742-47-8
		Sodium Chloride	7647-14-5
		Ammonium Chloride	12125-02-9
		N,N-bis (2-hydroxyethyl) oleamide	93-83-4
Plexslick 957	Friction Reducer	Petroleum Distillate	64742-47-8
		Ammonium Chloride	12125-02-9
		Oleic Acid Diethanolamide	93-83-4
		Alcohols, C12-16, Exoxylated	68551-12-2
		Water	7732-15-5
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Hydrotreated light distillate (petroleum)	64742-47-8
		Propenoic acid, polymer with propenamamide	9003-06-9
Plexaid 655 NM	Scale Inhibitor	Diethylenetriamine penta (methylene phosphonic acid)	15827-30-8
Plexslick 922	no data available	Copolymer of 2-propenamamide	69418-26-4
		Distillates (petroleum), hydrotreated light	64742-47-8
		Ammonium chloride [(NH4)Cl]	12125-02-9
		Oleic Acid Diethanolamide	93-83-4
Tolcide P550A	Biocidal product	Tetrakis (hydroxymethyl) phosphonium sulphate	55566-30-8
		Acrylic acid terpolymer containing carboxylate phosphonate and sulfonate groups	397256-50-7
LD-2950	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
		Ethoxylated alcohol	Proprietary
		Poly (oxy-1,2-ethanediyl) alpha.-tridecyl-omega.-hydroxy-, branched	69011-36-5
Legend LD-7750W	Scale Control	Methanol	67-56-1
		Phosphonic Acid Salt	Proprietary
MC MX 8-4743	Specialty Product	Sodium Nitrate	7631-99-4

As of 1/16/2020

04/22/2022



**WEST VIRGINIA 811**

**CALL BEFORE YOU DIG!** Dial 811 or 800.245.4848  
Miss Utility of West Virginia

AT LEAST 48 HOURS, BUT NOT MORE THAN 10 WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS), PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THESE ACTIVITIES SHALL CONTACT MISS UTILITY OF WEST VIRGINIA AT 811 OR 1-800-245-4848.

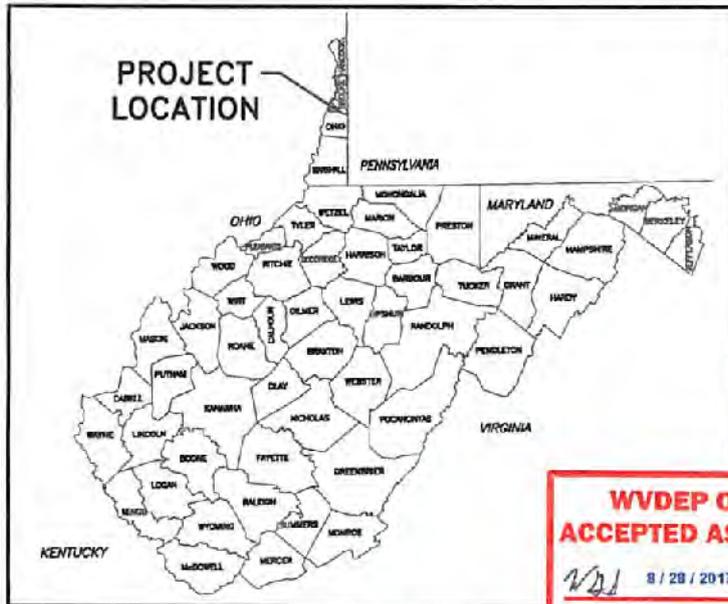
# AS-BUILT SITE PLAN

FOR

# MIKE RYNIAWEC BRK PAD "A" BUFFALO DISTRICT, BROOKE COUNTY, WV



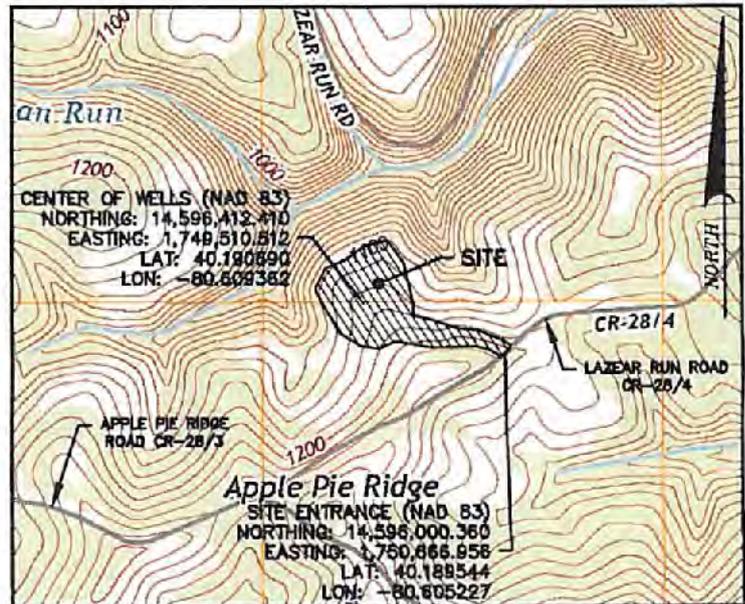
DRAWN BY: DAW  
 DATE: 01/21/2016 REV. 05/23/2017  
 SCALE: AS SHOWN  
 DWG. NO. 087589046



PROJECT LOCATION

**WVDEP OOG  
 ACCEPTED AS-BUILT**  
 8/28/2017

COUNTY MAP  
 N.T.S.



LOCATION MAP  
 SCALE - 1"=1000'

### LIST OF DRAWINGS

- TS1.1 . . . . . COVER SHEET
- EP2.1 . . . . . EVACUATION ROUTE/PREVAILING WINDS
- EP2.2 . . . . . EVACUATION ROUTE/PREVAILING WINDS
- AS3.1 . . . . . AS-BUILT OVERVIEW
- AS3.2 . . . . . AS-BUILT SITE PLAN
- AS3.3 . . . . . AS-BUILT SITE PLAN
- CRA4.1 . . . . . ACCESS ROAD PROFILE
- CRA4.2 . . . . . PAD CROSS SECTIONS
- MRP5.1 . . . . . RECLAMATION OVERVIEW
- MRP5.2 . . . . . RECLAMATION PLAN
- MRP5.3 . . . . . RECLAMATION PLAN
- MRD6.1 . . . . . DETAILS
- MRD6.2 . . . . . DETAILS
- MRD6.3 . . . . . DETAILS

### SITE DATA

TOTAL DISTURBED AREA: 14.99 ACRES  
 ROAD DISTURBED AREA: 5.30 ACRES  
 PAD DISTURBED ACRES: 9.69 ACRES  
 ACCESS ROAD LENGTH: 1,340'  
 ACCESS ROAD AVERAGE WIDTH: 20'  
 WELL PAD ELEVATION: 1147.4

### WELL API NUMBERS

WELL NUMBER	API NUMBER	CELLAR DIAMETER	CELLAR DEPTH	CELLAR MATERIAL
BH	API 009-00109	8 FT	8 FT	CMP



**OPERATOR**  
 SWN PRODUCTION CO., LLC  
 P.O. BOX 1300  
 JANE LEW, WV 26378  
 (832) 798-1810

THIS ENGINEER'S CERTIFICATION COVERS UPDATING THE MIKE RYNIAWEC BRK PAD "A" TO CURRENT WEST VIRGINIA STANDARDS AND COVERS ONLY THE ADDITION OF THE CONTAINMENT BERM, MOUNTABLE BERM AT THE PAD ENTRANCE AND THE RECLAMATION PLAN.

PRINTED NAME: PATRICK G. DENARDO, PE  
 SIGN NAME: *[Signature]*

**RETTEW**  
 RETTEW Associates, Inc.  
 One Robinson Plaza, 6000 Straberville Pike, Suite 200,  
 Pittsburgh, PA 15208  
 Phone (412) 446-1779 • Fax (412) 446-1733  
 www.retrew.com • License # 00000000000000000000000000000000

COVER SHEET FOR  
**MIKE RYNIAWEC BRK PAD "A"**  
 BUFFALO DISTRICT, BROOKE COUNTY, WV

TS1.1

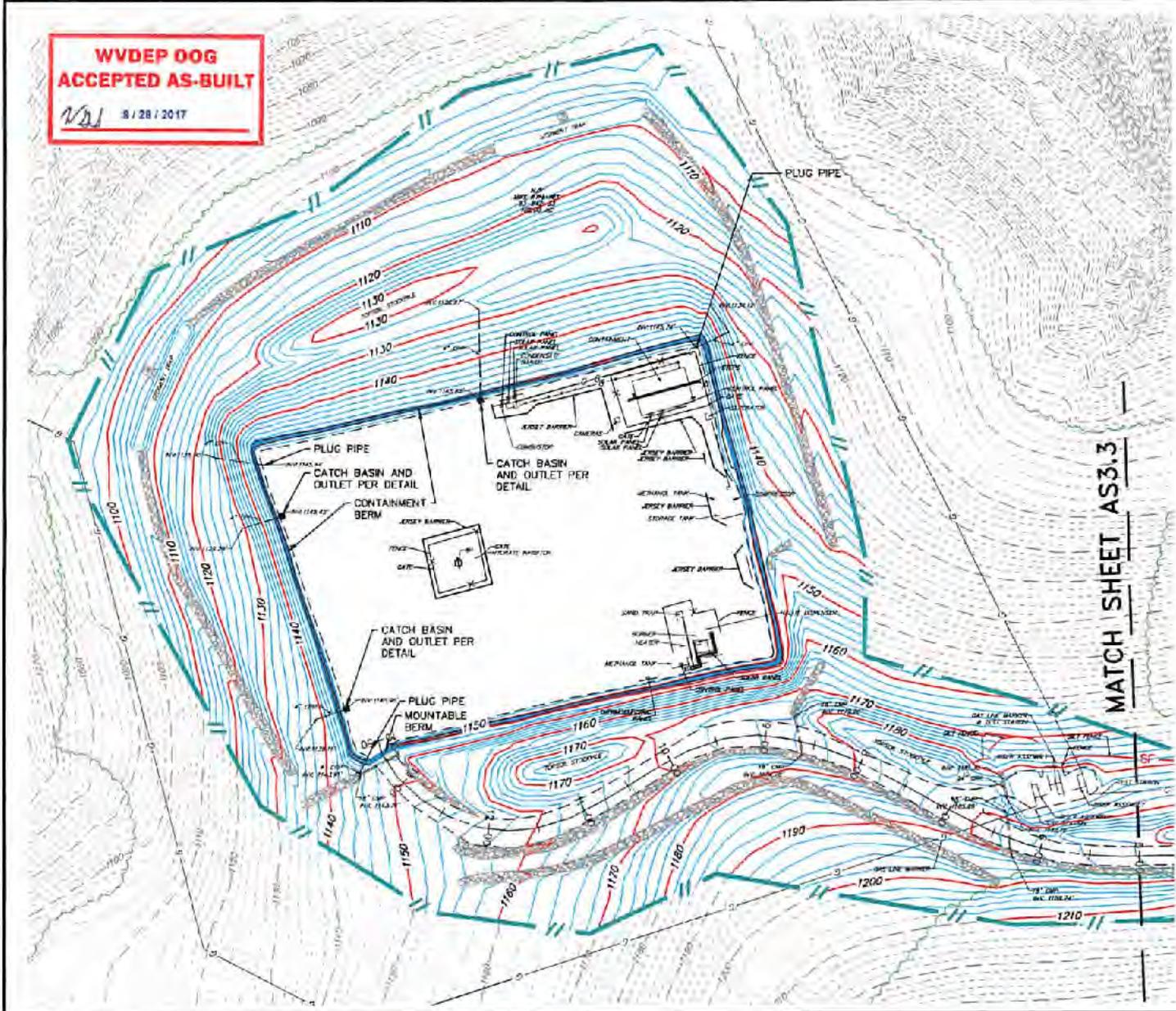
**WVDEP DOG  
ACCEPTED AS-BUILT**  
8/28/2017



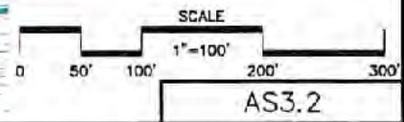
DRAWN BY: DAW  
DATE: 01/21/2016 REV. 05/31/2017  
SCALE: 1"=100'  
DWG. NO. 087569046

**LEGEND**

- LIMITS OF DISTURBANCE
- EXISTING CHAIN-LINK FENCE
- EXISTING CONTOUR LINE
- AS-BUILT MAJOR CONTOUR LINE
- AS-BUILT MINOR CONTOUR LINE
- EXISTING WELL HEAD
- EXISTING TREETLINE
- EXISTING APRAP



MATCH SHEET AS3.3



RETNEW Associates, Inc.  
8600 Stockbridge Place, Suite 200,  
Pittsburgh, PA 15208  
Phone (412) 446-1728 • Fax (412) 446-1733  
www.retnew.com

AS-BUILT SITE PLAN  
FOR  
**MIKE RYNIAWEC BRK PAD "A"**  
BUFFALO DISTRICT BROOKE COUNTY, WV