



west virginia department of environmental protection

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, August 24, 2021  
WELL WORK PERMIT  
Horizontal 6A / New Drill

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

Re: Permit approval for OE Burge MSH 401H  
47-051-02390-00-00

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 circular stamp.

James A. Martin  
Chief

Operator's Well Number: OE Burge MSH 401H  
Farm Name: Mason Dixon Farms  
U.S. WELL NUMBER: 47-051-02390-00-00  
Horizontal 6A New Drill  
Date Issued: 8/24/2021

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 051-MARsh 4-Liberty 370-Glen Easton  
Operator ID County District Quadrangle

2) Operator's Well Number: OE Burge MSH 401H Well Pad Name: OE Burge MS pad

3) Farm Name/Surface Owner: Mason Dixon Farms Public Road Access: CR 92/1

4) Elevation, current ground: 1342' Elevation, proposed post-construction: 1342'

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

(b) If Gas Shallow  Deep   
Horizontal

6) Existing Pad: Yes or No Yes

*Bang Stilly*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Target Formation- Marcellus, Up-Dip well to the North, Target Top TVD- 7106', Target Base TVD- 7144', Anticipated Thickness- 38', Associated Pressure- 4643

8) Proposed Total Vertical Depth: 7129'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 23845'

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11) Proposed Horizontal Leg Length: 15,408.20'

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12) Approximate Fresh Water Strata Depths: 228'

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13) Method to Determine Fresh Water Depths: Salinity Profile Analysis using deepest nearby water well

14) Approximate Saltwater Depths: 1188' Salinity Profile

15) Approximate Coal Seam Depths: 1091'

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

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

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

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#	126'	126'	CTS
Fresh Water	13 3/8"	New	H-40	48#	328'	328'	335 sx/CTS
Coal	See	interm	Casing				
Intermediate	9 5/8"	New	J-55	36#	2650'	2650'	1056 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	23,845'	23,845'	761 4347cu/ 100' inside Intermediate
Tubing							
Liners							

*B.S. 8-3-21*

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	interm	Casing				
Intermediate	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/40% Excess
Production	5 1/2"	8 3/4"-8 1/2"	0.361	14360	10500	Class A	1.19/5% Excess
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

WW-6B  
(10/14)

API NO. 47- 051 - 02390  
OPERATOR WELL NO. OE Burge MSH 401H  
Well Pad Name: OE Burge MS pad

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

Drill and stimulate any potential zones between and including the Benson to Marcellus. \*\*If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface 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): 13.5

22) Area to be disturbed for well pad only, less access road (acres): 7.6

23) Describe centralizer placement for each casing string:

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

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

See Attachment \*\*\*

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25) Proposed borehole conditioning procedures:

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

\*Note: Attach additional sheets as needed.

4705102390

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>                    </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>                    </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>                    </del>	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	<del>                    </del>	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	CemNet	<del>                    </del>	<del>                    </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>                    </del>	<del>                    </del>	CJ111	ACCELERATOR	SODIUM CHLORIDE	7440-23-5
	<del>                    </del>	SS-11W	CJ880	SURFACTANT	NONIONIC SURFACTANT	6540-99-4
	D047	FP 28L	<del>                    </del>	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	<del>                    </del>	<del>                    </del>	CJX157011	SOLID ANTIFOAM AGENT	FULLERS EARTH(ATTAPULGITE)	8031-18-3
	<del>                    </del>	<del>                    </del>	CJ540	HP FLUID LOSS ADDITIVE	ALIPHATIC AMIDE POLYMER	PROPRIETARY
	D255	<del>                    </del>	<del>                    </del>	MED TEMP FLUID LOSS ADDITIVE	POLYACRILIC POLYMER	PROPRIETARY
	<del>                    </del>	<del>                    </del>	CJ213	RETARDER	CHRYSTALLINE SILICA	14808-60-7
	<del>                    </del>	FL-66	CJ501	LOW TEMP FLUID LOSS ADD	POWDERED POLYSACCHARIDE	PROPRIETARY
	<del>                    </del>	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D208	ASA-301	<del>                    </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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**Southwestern Energy Company**

**Proposed Drilling Program**

Well: O E BURGE MSH 401  
 Field: VICTORY FIELD WET  
 County: MARSHALL  
 SHL: 39.7509 Latitude -80.6318 Longitude  
 BHL: 39.7744 Latitude -80.6737 Longitude  
 KB Elev: 1,368 ft MSL

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



KB: 26 ft AGL GL Elev: 1,342 ft MSL

No COAL VOID Anticipated

Gas Storage Interval : 1,966' - 2,483' (Maxton, Big Injun)

PROD TOC Lead @ 2,850' MD

PROD TOC Tail @ 6,653' MD

**TUBULAR DETAIL**

Casing String	Casing Size (in)	Weight (Min)	Grade (Min)	Planned Interval	
				From	To
Conductor	20	94.0 #	J-55	0'	126'
Surface	13.375	48.0 #	H-40	0'	328'
Intm/Coal	9.625	36.0 #	J-55	0'	2,650'
Production	5.5	20.0 #	P-110 HP	0'	23,845'

126' to 348'  
Air/Mist

348' to 2,670'  
Air/Mist

10.5# Brine Mud

2,670' to 6,753'  
Air/Mist

**CEMENT DETAIL**

	Sacks	Class	Density
Conductor:	151	A	19.3
Surface:	335	A	15.6
Intermediate:	1056	A	15.6
Production:	4347	A	15

Air  
TD at 6,753'

KOP at 6,753' MD

Freshwater Depth - 228' TVD

Coal Depth - 1,091' TVD

Saltwater Depth - 1,188' TVD

TVD - 7,129'

TMD - 23,845'

6,753' to 8,430'  
12.0-12.2 ppg

*B.S. 8-3-21*

TD at 23,845' MD

6,972' TVD

7,129' Target Center

8,430' to 23,845'  
12.2-12.8 ppg

EOB at 8,430' MD

Onondaga 6,987' TVD

SHL Onondaga 7,144' TVD

WW-9  
(4/16)

API Number 47 - 051 - 02396

Operator's Well No. O E Burge MSH 401H

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) Laurel Run of Fish Creek Quadrangle Glen Easton

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 EGBM from KOP to TD

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

Additives to be used in drilling medium? Attachment 3B

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

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-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, Wezel County 1021

Apex Sanitary Landfill U6-U8438, Brooke Co SWF-1013,  
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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

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

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

Subscribed and sworn before me this 4th day of January, 2021

*Neil Craft*

Notary Public  
REID CROFT  
Notary Public Official Seal  
State of West Virginia  
My Comm. Expires Aug 21, 2024  
47 Sparrow Lane, Martinsburg, WV 26158  
08/21/2021

My commission expires August 21, 2024

4705102390

Form WW-9

Operator's Well No. O E Burge MSH 401H

SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 13.5 Prevegetation pH \_\_\_\_\_

Lime as determined by pH test min. 2 Tons/acre or to correct to pH 7.6

Fertilizer type 10-20-20

Fertilizer amount 600/500 lbs/acre

Mulch Hay/Straw Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Attachment 3C

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Barry Stiles

Comments: \_\_\_\_\_

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Title: Oil & Gas Inspector

Date: 1-26-21

Field Reviewed?  Yes  No

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## Attachment 3A

### CLOSED LOOP SYSTEM

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

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

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

### AIR DRILLING INTERVALS

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

### LIQUIDS DRILLING (FRESHWATER, BRINE, SOB M)

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

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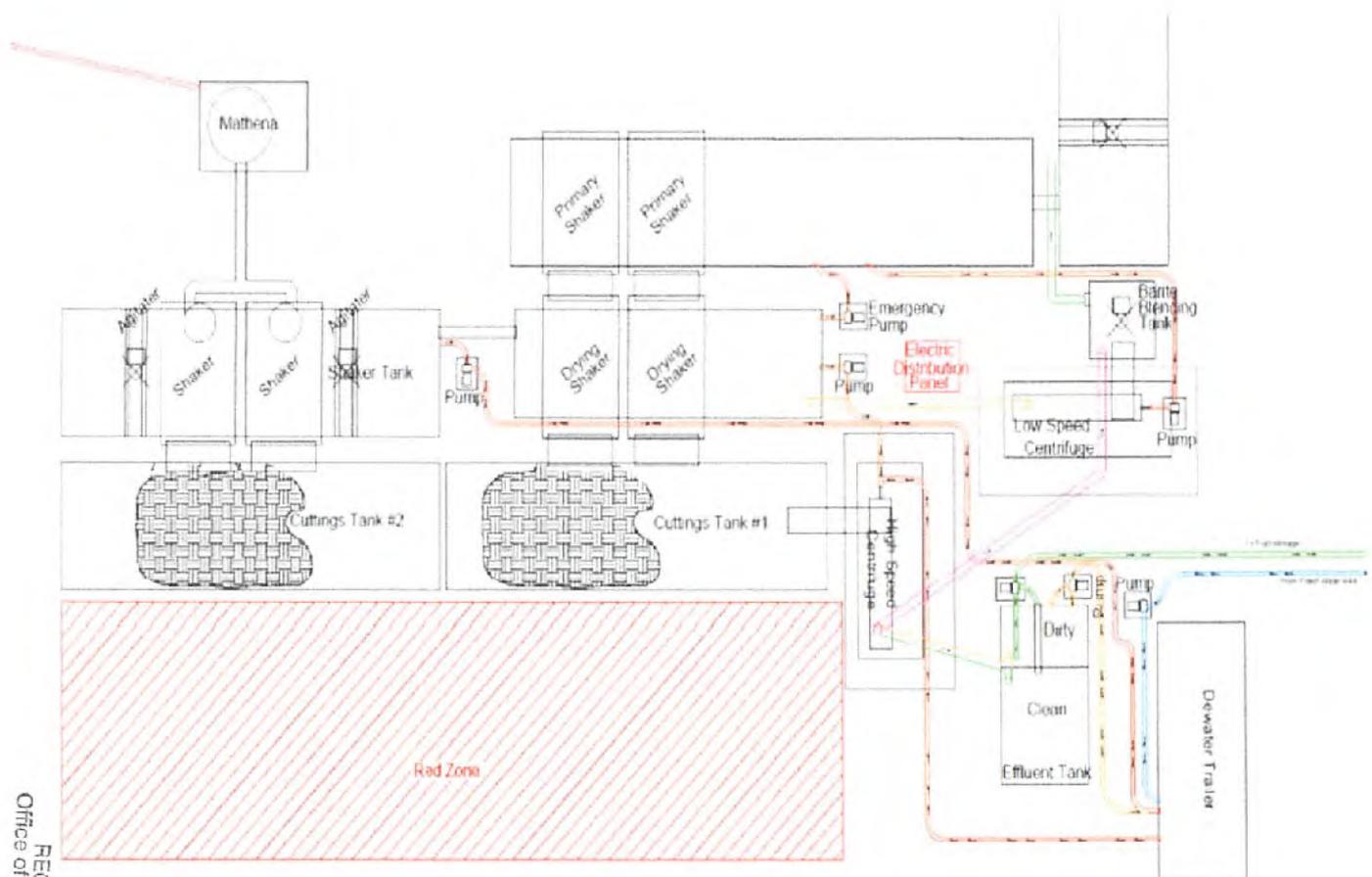
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# Solids Control Layout



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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

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# WVD Seeding Specification

R<sup>2</sup>  
A → V<sup>+</sup>

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

NON-ORGANIC PROPERTIES	
Seed Mixture: ROW Mix	SWN Supplied
Orchardgrass	40%
Timothy	15%
Annual Ryegrass	15%
Brown Top Millet	5%
Red Top	5%
Medium Red Clover	5%
White Clover	5%
Birdsfoot Trefoil	5%
Rough Bluegrass	5%
All legumes are innoculated at 5x normal rate	
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	
Organic Fertilizer @ 200lbs per Acre	
Apply @ 200lbs per acre Oct. 15th- April 15th	
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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O E Burge MSH 401H AOR

API	Operator	Status	Latitude	Longitude	Vertical TD	Producing Formation	Producing Zones Not Perforated	People on the ground
051-00565	Dominion Energy Transmission, Inc.	Plugged			4,812'	Riley	Gordon, Berea	
051-01198	CNX Gas Company LLC	Plugged			1,324'	Pittsburgh		
051-01199	CNX Gas Company LLC	Plugged			1,324'	Pittsburgh		
051-01962	Tug Hill Operating LLC	Active			6,876'	Marcellus	Big Injun, Big Lime	
051-30715	Unknown	Unknown			Unknown	Unknown		No well found
051-70568	Unknown	Unknown			Unknown	Unknown		No well found
051-70569	Unknown	Unknown			Unknown	Unknown		No well found
051-70685	Unknown	Unknown			Unknown	Unknown		No well found
051-70701	Unknown	Unknown			Unknown	Unknown		No well found
051-70709	Unknown	Unknown			Unknown	Unknown		No well found
051-70710	Unknown	Unknown			Unknown	Unknown		No well found
051-70711	Unknown	Unknown			Unknown	Unknown		No well found
051-70712+A1	Unknown	Unknown			Unknown	Unknown		No well found

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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-<sup>051 02390</sup>XXX-XXXXX  
WELL NAME: O E Burge MSH 401H  
Glen Easton QUAD  
Liberty DISTRICT  
MARSHALL COUNTY, WEST VIRGINIA

Submitted by:

Name: Brittany Woody

Date: 12/11/2019

*Brittany Woody*

*B.S. 1-26-21*

Title: Senior Regulatory Analyst

SWN Production Co., LLC

Approved by:

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

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

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

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Approved by:

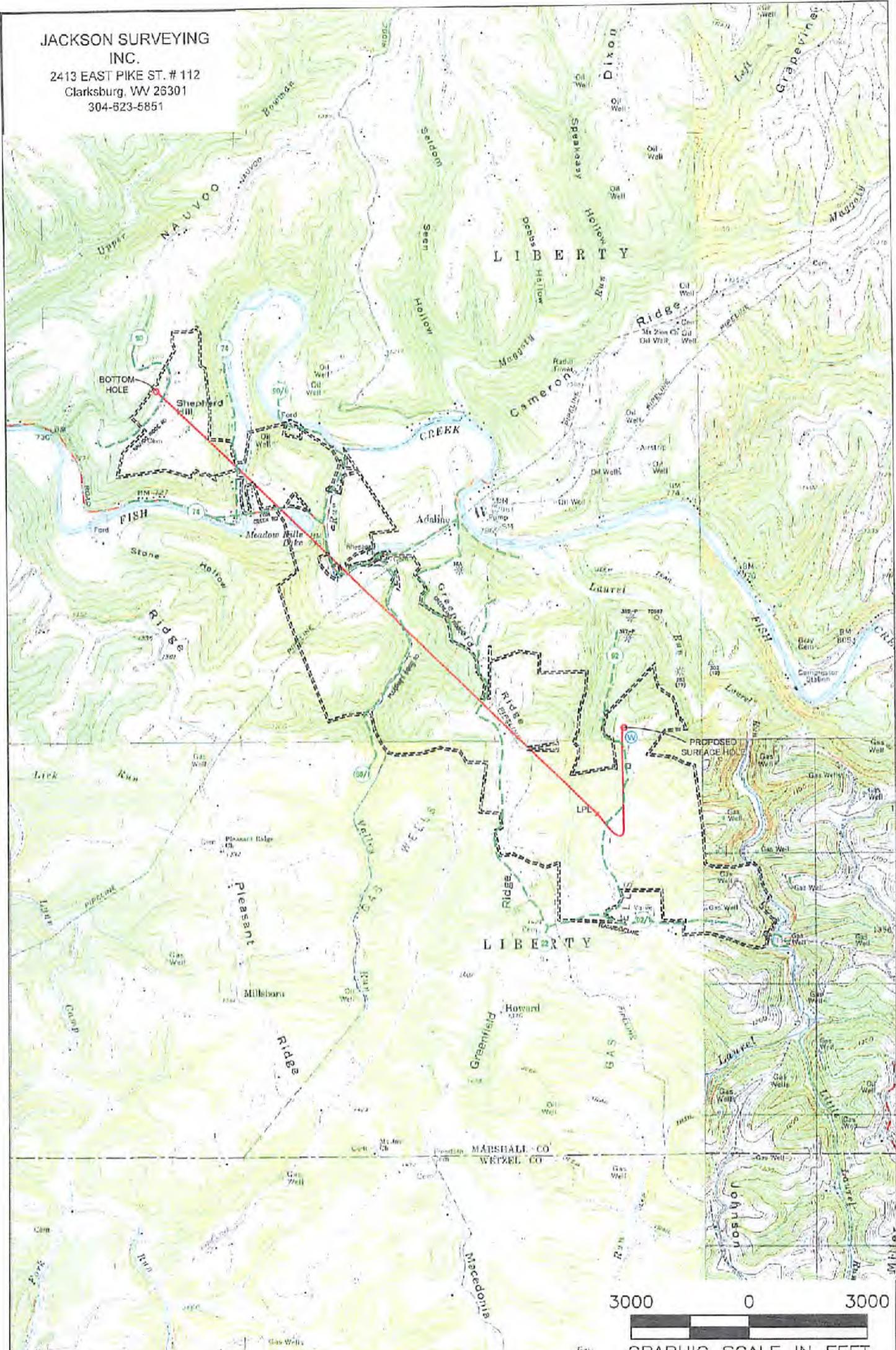
Name: \_\_\_\_\_

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

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

**JACKSON SURVEYING  
INC.**

2413 EAST PIKE ST. # 112  
Clarksburg, WV 26301  
304-823-6851



**NOTES ON SURVEY**

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

**LEGEND:**

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

08/27/2021

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: OE BURGE MSH	WELL # 401H	SERIAL #
ADDRESS: 1300 FORT PIERPONT RD., SUITE 200 MORGANTOWN, WV 26508	COUNTY - CODE MARSHALL - 051	DISTRICT; LIBERTY	
SURFACE OWNER: MASON DIXON FARMS, LLC	USGS 7 1/2 QUADRANGLE MAP NAME GLEN EASTON, WV		

Latitude: 39°47'30" SURFACE HOLE 1919'

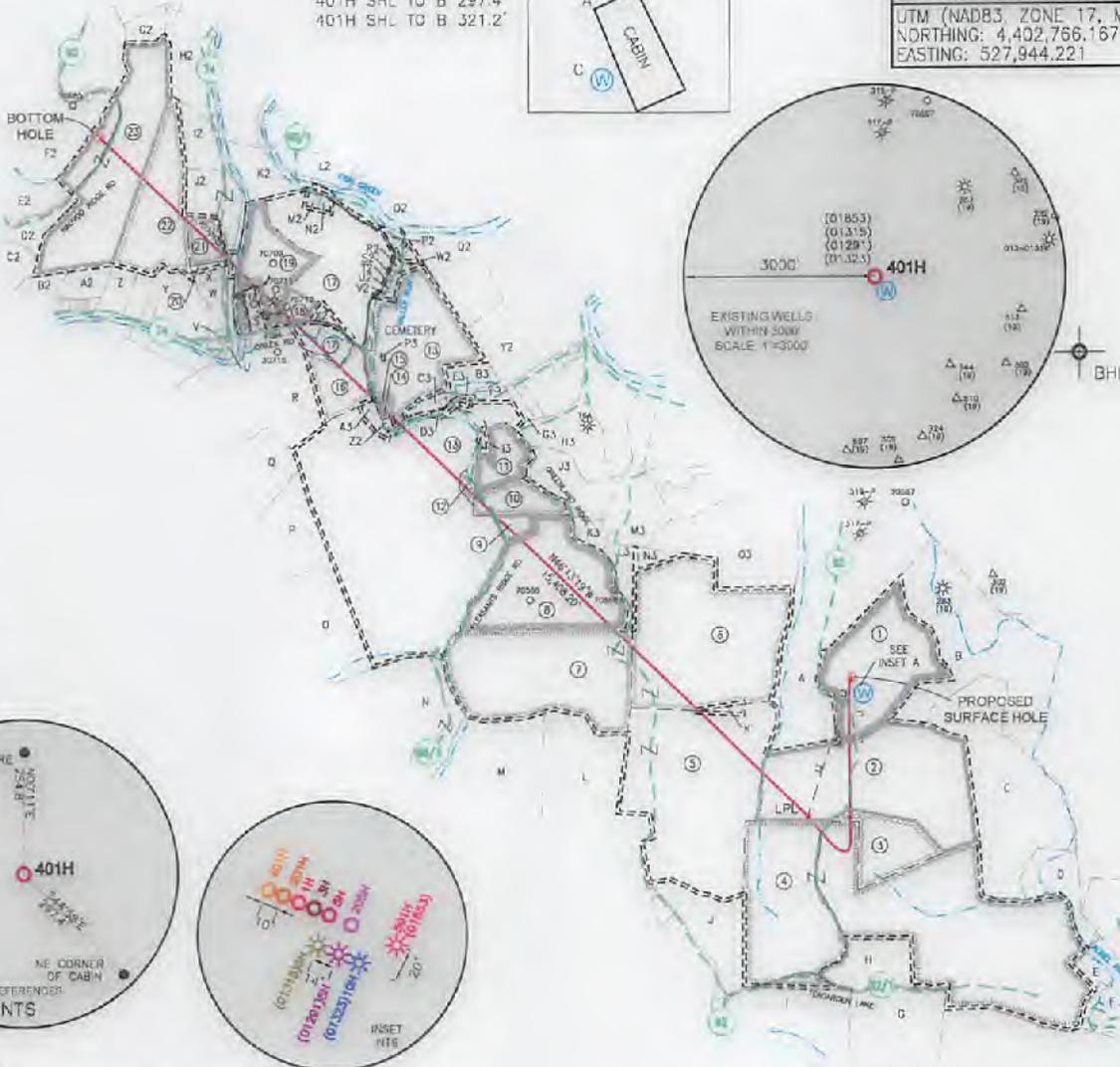
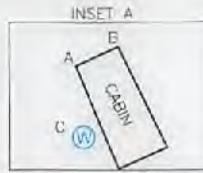
Latitude: 39°47'30" BOTTOM HOLE 1977'

**JACKSON SURVEYING  
INC.**  
2413 EAST PIKE ST. # 112  
Clarksburg, WV 26301  
304-623-5851

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	S 06°23'32" E	976.53'	SHL TO LANDMARK	30" BLACK OAK FD
L2	S 12°45'45" W	1023.46'	SHL TO LANDMARK	3/4" REBAR FOUND
LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L3	S 17°15'59" W	2274.59'	3589.54'	SHL TO LP

SURFACE HOLE LOCATION (SHL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING:	4,400,178.922
EASTING:	531,540.945
LANDING POINT (LPL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING:	4,399,516.868
EASTING:	531,335.165
BOTTOM HOLE LOCATION (BHL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING:	4,402,766.167
EASTING:	527,944.221

401H SHL TO A 289.8'  
401H SHL TO B 297.4'  
401H SHL TO B 321.2'



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



**WELL RESTRICTIONS**

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

**NOTES ON SURVEY**

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

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

P.S. 708

*David L. Jackson*



COMPANY: **SWN** Production Company, LLC

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

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

OE BURGE MSH  
OPERATOR'S WELL #: 401H  
API WELL #: 47 051 02390  
STATE COUNTY PERMIT

WELL TYPE: OIL  WASTE DISPOSAL  PRODUCTION  DEEP  GAS  LIQUID INJECTION  STORAGE  SHALLOW   
WATERSHED: LAUREL RUN OF FISH CREEK (HUC-10) ELEVATION: 1342.1'  
DISTRICT: LIBERTY COUNTY: MARSHALL QUADRANGLE: GLEN EASTON, WV  
SURFACE OWNER: MASON DIXON FARMS, LLC ACREAGE: ±66.03  
OIL & GAS ROYALTY OWNER: O. E. BURGE ET AL ACREAGE: ±66.03  
DRILL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION   
CONVERT  PLUG & ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE (SPECIFY) **08/27/2021**  
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,129 TVD 23,845 TMD

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

LEGEND:	REVISIONS:	DATE:
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	△ FIXED TICK MARKS 08-17-2021	07-01-2021
⊙ EXISTING / PRODUCING WELLHEAD		
LPLX LANDING POINT LOCATION		
⊕ EXISTING WATER WELL		
⊙ EXISTING SPRING		
— SURVEYED BOUNDARY		
— DRILLING UNIT		
— LEASE BOUNDARY		
— PROPOSED PATH		

JACKSON SURVEYING  
 INC.  
 2413 EAST PIKE ST. # 112  
 Clarksburg, WV 26301  
 304-623-5851

WELL BORE TRACTS

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	MASON DIXON FARMS LLC (S/R)	07-0018-5
TRACT	SURFACE OWNER (S)	TAX PARCEL
2	MASON DIXON FARMS LLC (S)	07-0018-8.1
3	TWIGG BERNARD P (S)	07-0018-8
4	BLAIR C MICHAEL & LINDA L (S)	07-0018-9
5	CROW HOY GLENN ET UX (S)	07-0018-11
6	BAKER DONALD RAY (S)	07-0018-3
7	BAKER DONALD RAY (S)	07-0018-1
8	BAKER DONALD RAY (S)	07-0017-43
9	SWN PRODUCTION COMPANY LLC (S)	07-0017-1.3
10	RUTAN DARRELL R & ASHLEY (S)	07-0017-39.5
11	RUTAN DARRELL R & ASHLEY (S)	07-0017-39.1
12	BENLINE RUSSELL J & KELLI (S)	07-0017-1.1
13	STERN FAMILY FARM LLC (S)	07-0017-1
14	OTTO KRISTOPHER C & HOLLY J (S)	07-0017-1.6
15	OTTO KRISTOPHER C & HOLLY J (S)	07-0017-1.8
16	MASON J MONT EST (S)	09-0017-29.1
17	MASON J MONT EST (S)	09-0017-17
18	MASON J MONT EST (S)	09-0017-17.1
19	PETTIT JAMES WILLIAM (S)	09-0017-14
20	YEATER KATHLEEN LYNN (S)	09-0015-26.1
21	HILL LAURA LEE (S)	09-0015-26
22	MCCOY CHARLES RICHARD ET UX (S)	09-0015-29
23	MCCOY CHARLES RICHARD ET UX (S)	09-0015-18

TRACT	SURFACE OWNER	TAX PARCEL
A	MASON DIXON FARMS LLC	07-0017-36
B	MASON DIXON FARMS LLC	07-0018-6
C	MASON DIXON FARMS LLC	07-0018-7
D	HORNER JOHN M & TERESA L	07-0019-33
E	BLAIR M ZACHARY	07-0019-35
F	MASON DIXON FARMS LLC	07-0028-2
G	HARLAN SCOTT L & SHAWN D	07-0028-1
H	BLAIR C MICHAEL & LINDA L	07-0018-9.1
I	EVICK G DAVID	07-0029-4
J	NEELY RONALD K	07-0018-10
K	CROW HOY GLENN ET UX	07-0018-12
L	MASON DIXON FARMS LLC	07-0018-13
M	MC MILLEN MARY ET AL	07-0018-14
N	YOHO SAMUEL & CRAIG A YOHO	09-0019-9
O	STERN GARY ET UX	09-0017-31
P	STERN GARY ET UX	09-0017-32
Q	BAKER ROBERT F ET UX	09-0017-33
R	MASON J MONT EST	09-0017-29
S	PETTIT JAMES WILLIAM	09-0017-13
T	MASON J MONT EST	09-0017-28
U	MASON J MONT EST	09-0017-29
V	YOUNG BONNIE M ET AL	09-0017-12
W	MERCER KAREN	09-0015-28
X	YEATER KATHLEEN LYNN	09-0015-27
Y	MERCER RALPH DEAN ET UX	09-0017-9
Z	JANISZEWSKI KATHLEEN ELLEN	09-0015-30

TRACT	SURFACE OWNER	TAX PARCEL
A2	BERSFORD ROBERT WILLIAM	09-0015-40
B2	ALLENDER MORGAN JOSEPH	09-0015-40.1
C2	MCCOY CHARLES RICHARD ET UX	09-0015-41
D2	MASON ROBERT MATHEW	09-0015-17
E2	MASON ROBERT MATHEW	09-0015-17.1
F2	DAVIS LEONARD F SR & LINDA K	09-0015-15
G2	VAN DYNE SUSAN	09-0015-14
H2	MILLER MARK RICHARD	09-0015-13
I2	VAN DYNE LOGAN R & AMANDA	09-0015-24
J2	HARTLEY PEGGY SUE, PATRICIA P BARNHART & RALPH E CHURCH II	09-0015-25
K2	BYERS RICHARD W	09-0015-23
L2	MASON J MONT EST	09-0017-17
M2	VICKERS MARY E EST	09-0017-15
N2	TYLER WILLIAMA II	09-0017-16
O2	WILLIAMS ROBERT W & DEBRA JEAN	07-0009-5
P2	MARTIN CARLY D & MICHAEL M	09-0017-24
Q2	STERN FAMILY FARM LLC	07-0017-2
R2	MASON J MONT EST	09-0017-23
S2	MASON J MONT EST	09-0017-22
T2	KORTEPETER FELICIA JEAN	09-0017-21
U2	BOSO HERBERT CARL JR	09-0017-20
V2	BOSO HERBERT CARL JR	09-0017-19
W2	STERN FAMILY FARM LLC	09-0017-26
X2	SCOTT GABRIELO	09-0017-17.2
Y2	BUZZARD JOANN	07-0017-3
Z2	BAKER CHRISTY	07-0017-1.5
A3	KIRBY DONNA KAY	07-0017-1.4
B3	STERN JERRY GLENN - LIFE	07-0017-1.7
C3	FOX AMANDA & CASEY	07-0017-1.9
D3	CRONE JERRY J ET UX	07-0017-39.3
E3	SIMMONS ROX W II & BETH A	07-0017-39.8
F3	STERN JERRY G ET UX - LIFE	07-0017-1.2
G3	STERN JERRY GLENN ET UX - LIFE	07-0017-38.5
H3	STERN FAMILY FARM LLC	07-0017-39
I3	SIMMONS ROX W & BETH ANN	07-0017-39.9
J3	MASON DIXON FARMS LLC	07-0017-40
K3	PARKER PETER	07-0017-43.1
L3	SCOTT AARON COLE & SAMANTHA	07-0017-41
M3	MASON DIXON FARMS LLC	07-0017-37.5
N3	MASON DIXON FARMS LLC	07-0018-2
O3	MASON DIXON FARMS LLC	07-0017-37
P3	CEMETERY	LIES WITHIN 07-0017-1

08/27/2021

REVISIONS: <input checked="" type="checkbox"/> FIXED TICK MARKS 08-17-2021	COMPANY:  		
OPERATOR'S WELL #:	OE BURGE MSH 401H	API #: 47-051-02390	DATE: 07-01-2021
DISTRICT: LIBERTY	COUNTY: MARSHALL	STATE: WV	DRAWN BY: N. MANO SCALE: N/A DRAWING NO: WELL LOCATION PLAT 2

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Exhibit "A"				

\* At least 7 minerals owners in tract and at least 75% of the royalty owners have consented to the lawful use or development of the oil or natural gas mineral property on the tract. The interests of the remaining co-tenants will be secured pursuant to the Co-tenancy Modernization and Majority Protection Act.

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

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





	J. S. Rogers	South Penn Oil Company	60/162		
	South Penn Oil Company	South Penn Natural Gas Company	202/552		
	South Penn Natural Gas Company	South Penn Oil Company	640/535		
	Pennzoil Company	Pennzoil Products Company	530/328		
	Pennzoil Products Company	Pennzoil Exploration and Production Company	604/48		
	Devon Energy Production Company, L.P.	East Resources, Inc.	618/71		
	East Resources, Inc.	McElroy Coal Company	15/34		
	McElroy Coal Company, etc	CHK Gas Company LLC	642/293		
	CHK Gas Company LLC	SWN Production Company, LLC	46/120		
20	9-15-20-1	Jon L. Dakan, married dealing in her sole and separate property	n/a	n/a	13.89%
		Jon L. Dakan, married dealing in her sole and separate property	17.00%	1100/592	
		William H. Shepherd, married man dealing in his sole and separate property	16.00%	1099/486	
		Lori Kay Pettit and Harry J. Pettit, her husband	17.00%	1112/345	
		Claude Shepherd and Agnes Shepherd Trust, Agnes A. Shepherd, Trustee	16.00%	1112/112	
		Daniel Wayne Chapman, married dealing in his sole and separate property	16.00%	1104/40	
		David Malloy, married dealing in his sole and separate property	16.00%	1104/59	
		David William Chapman, married dealing in his sole and separate property	16.00%	1104/59	
		Donald Lee Shepherd and Mary T. Shepherd, his wife	16.00%	1107/276	
		Eleanor R. Malloy, widow	16.00%	1105/193	
		Georgia Coffield, divorced	16.00%	1104/100	
		Gregory Lynn Chapman, married dealing in his sole and separate property	16.00%	1104/500	
		Jan G. Von Stein, single	16.00%	1105/172	
		Kelly Malloy, widow	16.00%	1106/41	
		Richard Duford, married dealing in his sole and separate property	16.00%	1104/118	
		Sean Alan Duford, single	16.00%	1111/78	
21	9-15-26	Royalty Owner	n/a	n/a	13.89%
		Jon L. Dakan, married dealing in her sole and separate property	17.00%	1100/592	
		William H. Shepherd, married man dealing in his sole and separate property	16.00%	1099/486	
		Lori Kay Pettit and Harry J. Pettit, her husband	17.00%	1102/46	
		Claude Shepherd and Agnes Shepherd Trust, Agnes A. Shepherd, Trustee	16.00%	1112/112	
		Daniel Wayne Chapman, married dealing in his sole and separate property	16.00%	1104/40	
		David Malloy, married dealing in his sole and separate property	16.00%	1104/59	
		David William Chapman, married dealing in his sole and separate property	16.00%	1104/59	
		Donald Lee Shepherd and Mary T. Shepherd, his wife	16.00%	1107/276	
		Eleanor R. Malloy, widow	16.00%	1105/193	
		Georgia Coffield, divorced	16.00%	1104/100	
		Gregory Lynn Chapman, married dealing in his sole and separate property	16.00%	1104/500	
		Jan G. Von Stein, single	16.00%	1105/172	
		Kelly Malloy, widow	16.00%	1106/41	
		Richard Duford, married dealing in his sole and separate property	16.00%	1104/118	
22	9-15-29	NO, LLC, a West Virginia Limited Liability Company	16.00%	1112/110	0.00%
		Noble Royalty Access Fund VI LP	16.00%	1114/220	
		Noble Royalty Access Fund VIII LP	16.00%	1114/215	
23	9-15-18	Bounty Minerals, LLC	20.00%	922/416	0.00%
		TH Exploration, LLC		1114/273	
		Money for Minerals, LLC	16.00%	817/424	
		Chesapeake U.S.A. Inc.		36/151	
		TH Exploration, LLC		1114/273	
<p>* At least 7 minerals owners in tract and at least 75% of the royalty owners have consented to the lawful use or development of the oil or natural gas mineral property on the tract. The interests of the remaining co-tenants will be secured pursuant to the Co-tenancy Modernization and Majority Protection Act.</p>					



4705102390

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

July 8, 2021

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

RE: SWN's proposed New Well: O E Burge MSH 401H in Marshall County, West Virginia, Drilling under Nauvoo Ridge Road, Co. Hwy 74, Pleasants Ridge Road, Greenland Ridge Road, and Bowers Hill Road.

Dear Ms. Adkins:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under Nauvoo Ridge Road, Co. Hwy 74, Pleasants Ridge Road, Greenland Ridge Road, and Bowers Hill Road. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Sincerely,

Brandi Williams, CPL  
Staff Landman  
SWN Production Company, LLC

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Environmental Protection

The Right People doing the Right Things,  
wisely investing the cash flow from our  
underlying assets. **08/27/2021**

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

Date of Notice Certification: 7/19

API No. 47- 051 - 02390  
Operator's Well No. OE Burge MSH 401H  
Well Pad Name: OE Burge MS 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>531,540.945</u>
County:	<u>051-Marshall</u>		Northing:	<u>4,400,178.922</u>
District:	<u>Liberty</u>	Public Road Access:		<u>CR 92/1</u>
Quadrangle:	<u>Glen Easton</u>	Generally used farm name:		<u>OE Burge</u>
Watershed:	<u>Laurel Run of Fish Creek</u>			

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL. or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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**Required Attachments:**

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

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4705102390

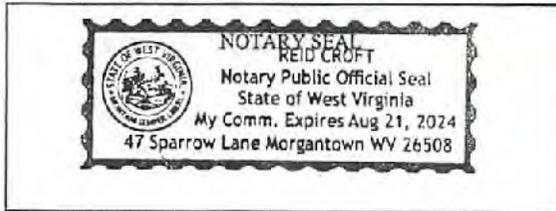
WW-6AC  
(1/12)

**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 4<sup>th</sup> day of January, 2021.

*Reid Croft*

Notary Public

My Commission Expires August 21, 2024

**Oil and Gas Privacy Notice:**

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

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WV Department of  
Environmental Protection

08/27/2021

WW-6A  
(9-13)

4705102390  
API NO. 47-051  
OPERATOR WELL NO. OE Burge MSH 401H  
Well Pad Name: OE Burge MS pad

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

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

Date of Notice: 7/19 Date Permit Application Filed: 7/19  
Notice of:

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

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

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

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

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

- SURFACE OWNER(s)  
Name: Mason Dixon Farms LLC  
Address: PO Box 360911  
Melbourne, FL 32936  
Name: Zachary Blair  
Address: 3 Arcadian AC  
Glen Dale, WV 26038  
 SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
 SURFACE OWNER(s) (Impoundments or Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

- COAL OWNER OR LESSEE  
Name: Consolidation Coal Company  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317  
 COAL OPERATOR  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
 SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: See Attachment 13A  
Address: \_\_\_\_\_  
 OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

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JUL 20 2021  
WV Department of Environmental Protection

\*Please attach additional forms if necessary

08/27/2021

WW-6A  
(8-13)

API NO. \_\_\_\_\_  
OPERATOR WELL NO. OE Burge MS# 401H  
Well Pad Name: OE Burge MS pad

**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

**Well Location Restrictions**

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

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(8-13)

API NO. 47- 051  
OPERATOR WELL NO. OE Burge MSH 401H  
Well Pad Name: OE Burge MS pad

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

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

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(8-13)

API NO. 47-051 -  
OPERATOR WELL NO. OE Burge MSH 401H  
Well Pad Name: OE Burge MS pad

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

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

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

**Comment Requirements**

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

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

**Permit Denial or Condition**

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

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

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

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

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(8-13)

API NO. 47-051 - 02390  
OPERATOR WELL NO. OE Burge MSH 401H  
Well Pad Name: OE Burge MS pad

**Notice is hereby given by:**

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

*Brittany Woody*

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

**Oil and Gas Privacy Notice:**

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



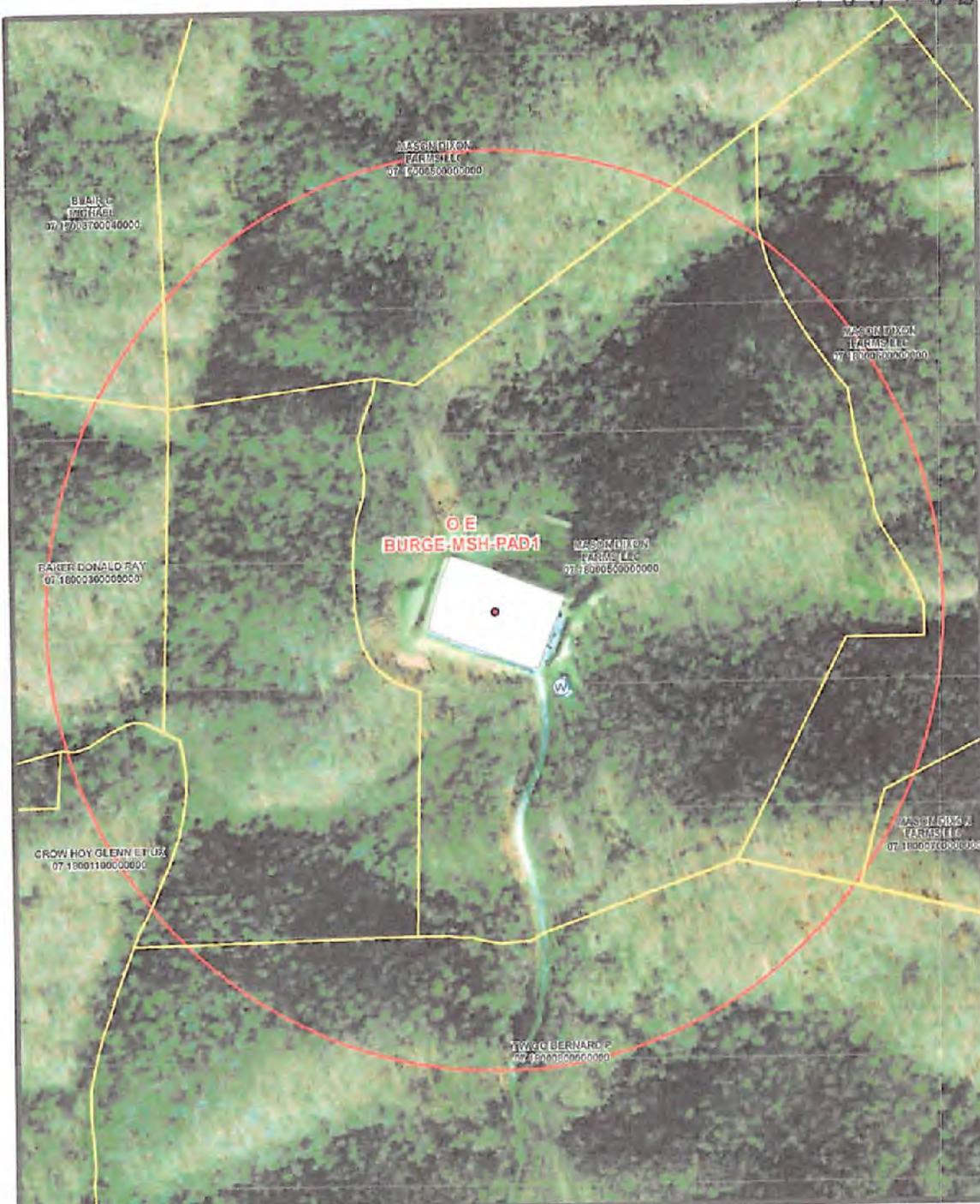
Subscribed and sworn before me this 4<sup>th</sup> day of Jun, 2021.

Reid Croft Notary Public

My Commission Expires August 21, 2024

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Environmental Protection

08/27/2021



 1 in = 417 ft  
  
 Coordinate System: NAD 1983 UTM Zone 17N  
 Units: Meter

-  Spring
-  Water Well
-  Pond
-  Parcel
-  1500' Buffer

Coordinates: 39.750913, -80.631905

Water Purveyor Map  
 Well Pad: DE Burge  
 County: MSH



Date: 11/10/2020 | Author: willisb

07 18000500000000	MASON DIXON FARMS LLC	PO BOX 360911	MELBOURNE, FL 32936	1
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**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF ENTRY FOR PLAT SURVEY**

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

**Date of Notice:** 11/2/2020      **Date of Planned Entry:** 11/9/2020

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

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

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

**Notice is hereby provided to:**

SURFACE OWNER(S)

Name: Mason Dixon Farms, LLC  
Address: PO Box 360911  
Malbourne, FL 32936  
Name: Zachary Blair  
Address: 3 Arcadian AC  
Glen Dale, WV 26038  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: Consolidated Coal Company  
Address: 1000 Consol Energy Drive  
Cancsburg, PA 15317

MINERAL OWNER(S)

Name: Greenfield Resources, LLC  
Address: 7828 Silver Lake Court  
Westerville, OH 43082  
\*please attach additional forms if necessary

**Notice is hereby given:**

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.750780, -80.631910</u>
County: <u>Marshall</u>	Public Road Access: <u>92/1</u>
District: <u>Liberty</u>	Watershed: <u>Laurel Run</u>
Quadrangle: <u>Glen Easton</u>	Generally used farm name: <u>Mason Dixon Farms, LLC</u>

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

**Notice is hereby given by:**

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

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

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Environmental Protection

**Oil and Gas Privacy Notice:**

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

08/27/2021

WW-6A3  
(1/12)Operator Well No. OE Burge MSH

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

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

**Date of Notice:** 11/2/2020      **Date of Planned Entry:** 11/9/2020

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)

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

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

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

COAL OWNER OR LESSEE

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

MINERAL OWNER(s)

Name: Brenda Sue Gittings  
Address: 489 Rock Lick Road  
Cameron, WV 26033

\*please attach additional forms if necessary

**Notice is hereby given:**

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.750760, -80.631910</u>
County: <u>Marshall</u>	Public Road Access: <u>92/1</u>
District: <u>Liberty</u>	Watershed: <u>Laurel Run</u>
Quadrangle: <u>Glen Easton</u>	Generally used farm name: <u>Mason Dixon Farms, LLC</u>

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

**Notice is hereby given by:**

Well Operator: SWN PRODUCTION COMPANY, LLC  
Telephone: 304-884-1510  
Email: Brillany\_Woody@swn.com

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

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WV Department of  
Environmental Protection

**Oil and Gas Privacy Notice:**

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

08/27/2021

WW-6A3  
(1/12)Operator Well No. O E Burge MSH

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

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

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

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

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

**Notice is hereby provided to:**

SURFACE OWNER(s)

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

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

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

COAL OWNER OR LESSEE

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

MINERAL OWNER(s)

Name: The William H. Deal Revocable Living Trust/William H. Deal, Trustee  
Address: 1033 Owensboro Road  
Bloomville, IN 47601

\*please attach additional forms if necessary

**Notice is hereby given:**

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

State:	<u>West Virginia</u>	Approx. Latitude & Longitude:	<u>39.750760, -80.631910</u>
County:	<u>Marshall</u>	Public Road Access:	<u>92/1</u>
District:	<u>Liberty</u>	Watershed:	<u>Laurel Run</u>
Quadrangle:	<u>Glen Easton</u>	Generally used farm name:	<u>Mason Dixon Farms, LLC</u>

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

**Notice is hereby given by:**

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

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

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Office of Oil and Gas

JUL 20 2021

WV Department of  
Environmental Protection

**Oil and Gas Privacy Notice:**

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

08/27/2021

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

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

Date of Notice: 11/2/2020 Date of Planned Entry: 11/9/2020

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)

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

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

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

COAL OWNER OR LESSEE

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

MINERAL OWNER(s)

Name: Marc Richmond Gittings  
Address: 90 Leatherwood Lane  
Wheeling, WV 26003

\*please attach additional forms if necessary

Notice is hereby given:

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.750760, -80.631910</u>
County: <u>Marshall</u>	Public Road Access: <u>92/1</u>
District: <u>Liberty</u>	Watershed: <u>Laurel Run</u>
Quadrangle: <u>Glen Easton</u>	Generally used farm name: <u>Mason Dixon Farms, LLC</u>

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

Notice is hereby given by:

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

Address: 1300 Fort Pierpont Dr., Suite 201  
Morgantown, WV 26508  
Facsimile: 304-894-1690

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Environmental Protection

Oil and Gas Privacy Notice:

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

08/27/2021

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: 07/07/2021 Date Permit Application Filed: 7/7/21

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: Mason Dixon Farms LLC Name: \_\_\_\_\_  
Address: PO Box 360911 Address: \_\_\_\_\_  
Melbourne, FL 32936

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: 531,540.945  
County: Marshall Northing: 4,400,178.922  
District: Liberty Public Road Access: CR 92/1  
Quadrangle: Glen Easton Generally used farm name: O E Burge MSH  
Watershed: Laurel Run of Fish Creek

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 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 Co, LLC Authorized Representative: Justin Booth  
Address: 1300 Fort Pierpont Dr., Suite 201 Address: 1300 Fort Pierpont Dr., Suite 201  
Morgantown, WV 26508 Morgantown, WV 26508  
Telephone: 304-884-1675 Telephone: 304-884-1675  
Email: Justin\_Booth@swn.com Email: Justin\_Booth@swn.com  
Facsimile: \_\_\_\_\_ Facsimile: \_\_\_\_\_

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JUL 20 2021  
WV Department of Environmental Protection

Oil and Gas Privacy Notice:

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

**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:** 07/07/2021      **Date Permit Application Filed:** 7/19

**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: Zachary M. Blair      Name: \_\_\_\_\_  
Address: 3 Arcadian AC      Address: \_\_\_\_\_  
Glen Dale, WV 26038      \_\_\_\_\_

**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: 531,540.945  
County: Marshall      Northing: 4,400,178.922  
District: Liberty      Public Road Access: CR 92/1  
Quadrangle: Glen Easton      Generally used farm name: \_\_\_\_\_  
Watershed: Laurel Run

**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      Authorized Representative: Justin Booth  
Address: 1300 Fort Pierpont Dr., Suite 201      Address: 1300 Fort Pierpont Dr., Suite 201  
Morgantown, WV 26508      Morgantown, WV 26508  
Telephone: 304-884-1675      Telephone: 304-884-1675  
Email: Justin\_Booth@swn.com      Email: Justin\_Booth@swn.com  
Facsimile: \_\_\_\_\_      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).

08/27/2021

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JUL 20 2021  
WV Department of  
Environmental Protection

WW-6A5  
(1/12)

4705103390 2390  
Operator Well No. D.E. Burge MSH 401H

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: 07/07/2021 Date Permit Application Filed: 7/7/21

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: Mason Dixon Farms LLC Name: \_\_\_\_\_  
Address: PO Box 360911 Address: \_\_\_\_\_  
Melbourne, FL 32936

Notice is hereby given:

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

State: West Virginia UTM NAD 83 Easting: 531,540.945  
County: Marshall Northing: 4,400,178.922  
District: Liberty Public Road Access: CR 92/1  
Quadrangle: Glen Easton Generally used farm name: \_\_\_\_\_  
Watershed: Laurel Run

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: SWN Production Company, LLC  
Telephone: 304-884-1675  
Email: Justin\_Booth@swn.com

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

Facsimile: \_\_\_\_\_

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08/27/2021

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: 07/07/2021 Date Permit Application Filed: 7/1/21

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

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

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

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

Name: <u>Zachary M. Blair</u>	Name: _____
Address: <u>3 Arcadian AC</u>	Address: _____
<u>Glen Dale, WV 26038</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>531,540.945</u>
County: <u>Marshall</u>		Northing: <u>4,400,178.922</u>
District: <u>Liberty</u>	Public Road Access: <u>CR 92/1</u>	
Quadrangle: <u>Glen Easton</u>	Generally used farm name: _____	
Watershed: <u>Laurel Run</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: SWN Production Company, LLC  
 Telephone: 304-634-1675  
 Email: Justin.Booth@swn.com

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

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JUL 20 2021

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
**Division of Highways**

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

Byrd E. White, III  
 Secretary of Transportation

November 12, 2020

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

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 O.E. Burge Pad, Marshall County  
 OE Burge MSH 401H Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2015-0114 issued to Southwestern Energy for access to the State Road for a well site located off Marshall County Route 92/1 SLS MP 0.10.

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

Very Truly Yours,

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

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JUL 20 2021

WV Department of  
 Environmental Protection

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

Attachment VI Frac Additives

Product Name	Product Use	Chemical Name	EAS Number
AK-303 (U.S. Well Services)	Mixture	Ethylene glycol	107-21-1
		Cinnamaldehyde	104-55-2
		Butyl cellosolve	111-75-2
		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-C1200 (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-FCAC (SWN Well Services)	Iron Control	Acetic Acid	64-19-7
		Citric Acid	77-92-9
		Water	7732-18-5
FDP-S1176-15 (Halliburton)	Friction Reducer	Polyacrylate	Proprietary
		Hydrotreated light petroleum distillate	64742-47-8
FLOJET DR900 LPP (SWN Well Services)	Friction Reducer	Distillates (petroleum) hydrotreated light	64742-47-8
		Ethylene Glycol	107-21-1
		Alcohols, C12-16, Exoalkylated 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-propenamide	Proprietary
		Hydrotreated Distillate	64742-47-8
		Sodium Chloride	7647-14-5
		Alcohols, C12-16, Exoalkylated	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, Exoalkylated	68551-12-2
		Water	7732-18-5
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Hydrotreated light distillate (petroleum)	64742-47-8
		Propenoic acid, polymer with propenamide	9003-05-9
Plexaid 655 NM	Scale Inhibitor	Diethylenetriamine penta (methylene phosphonic acid)	15827-30-8
Plexslick 922	no data available	Copolymer of 2-propenamide	69418-26-4
		Distillates (petroleum), hydrotreated light	64742-47-8
		Ammonium chloride ((NH4)Cl)	12125-02-9
		Oleic Acid Diethanolamide	93-83-4
Tolcide P550A	Bicidal product	Tetrakis (hydroxymethyl) phosphonium sulphate	55566-30-8
		Acrylic acid terpolymer containing carboxylate phosphonate and sulfonate groups	397256-50-7
LD-2950	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
		Ethoxylated alcohol	Proprietary
Legend LD-7750W	Scale Control	Poly (oxy-1,2-ethanediy) alpha,-tridecyl,-omega,-hydroxy-, branched	69011-36-5
		Methanol	67-56-1
MC MX 8-4743	Specialty Product	Phosphonic Acid Salt	Proprietary
		Sodium Nitrate	7632-48-0

As of 1/16/2020

08/27/2021

RECEIVED  
Office of Oil and Gas  
JUL 20 2021  
New York State Department of Environmental Protection



# O E BURGE MSH PAD CONSTRUCTION AND RECLAMATION PLAN AS-BUILT LIBERTY DISTRICT, MARSHALL COUNTY, WV AUGUST 2020

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- EP2.2 EVACUATION ROUTE/ PREVALING WIND
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**MODIFIED LOD #1**

TOTAL DISTURBED AREA: 13.5 ACRES  
ROAD DISTURBED AREA: 5.9 ACRES  
PAD DISTURBED AREA: 7.6 ACRES

**MODIFIED LOD #2**

TOTAL DISTURBED AREA: 13.6 ACRES  
ROAD DISTURBED AREA: 5.9 ACRES  
PAD DISTURBED AREA: 7.7 ACRES

**EXISTING WELLS:**  
O E BURGE MSH GH  
API:47-051-01315H  
(NAD83)  
LAT: 39.750842  
LONG: 80.631722

**COORDINATES:**  
**SITE ENTRANCE**  
(NAD83)  
LAT: 39.738103  
LONG: 80.633717

O E BURGE MSH RH  
API:47-051-01291H  
(NAD83)  
LAT: 39.750828  
LONG: 80.631677

**AT PAD**  
(NAD83)  
LAT: 39.750399  
LONG: 80.631441

O E BURGE MSH 10H  
API:47-051-01323H  
(NAD83)  
LAT: 39.750813  
LONG: 80.631633

**CENTER OF PAD**  
(NAD83)  
LAT: 39.750908  
LONG: 80.631886

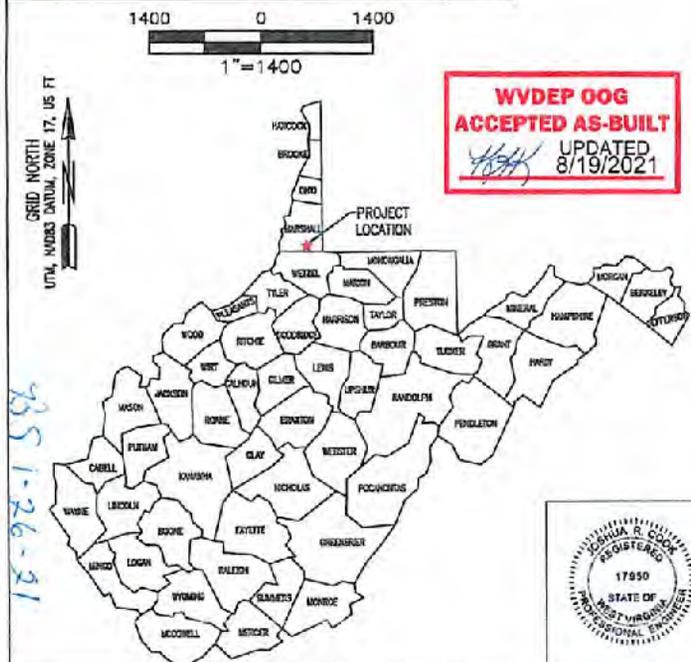
O E BURGE MSH 501H  
API:47-051-01653H  
(NAD83)  
LAT: 39.750843  
LONG: 80.631552

**GATHERING AREA**  
(NAD83)  
LAT: 39.738160  
LONG: 80.633406

**ENGINEERING ESTIMATE OF QUANTITIES**

WELL SITE PAD DATA (DRILLING)		
RAMP ROAD OVER BERM	22	CY
ACCESS ROAD DATA (DRILLING)		
CRUSHER RUN	100	TDN
GRADING DITCHES AND ROAD	1	EA
CLEAN CULVERTS	7	EA
INSTALL CULVERTS @ ST. 30450	1	EA
WELL SITE PAD DATA (RECLAMATION)		
REMOVE SLUMP	1	EA
BREACH BERM	2	EA
DISCHARGE CHANNEL(S)		
MRAP	60	TDN
CR		
EROSION CONTROL FABRIC	30	SY
SPREAD TOPS SPREAD TOPSOIL	2280	CY
REINFORCED SILT FENCE	1560	FT
SEEDS & MULCH	0.5	AC

**WVDEP OOG  
ACCEPTED AS-BUILT**  
UPDATED  
8/19/2021



**NOTE: ONE DWELLING WAS FOUND WITHIN 625' FROM THE CENTER OF THE PAD;**  
(1) BEARS 544E A DISTANCE OF 293'.  
  
(2) ONE WATER WELL WAS FOUND BEARING S27E A DISTANCE OF 251'.

**North Central Engineering Inc., LLC**  
Joshua Cook, RPE  
P.O. Box 628  
Bridgeport, WV 26330  
Cell: 504-299-1583  
E-Mail: jcook@NorthCentralEngineering.com

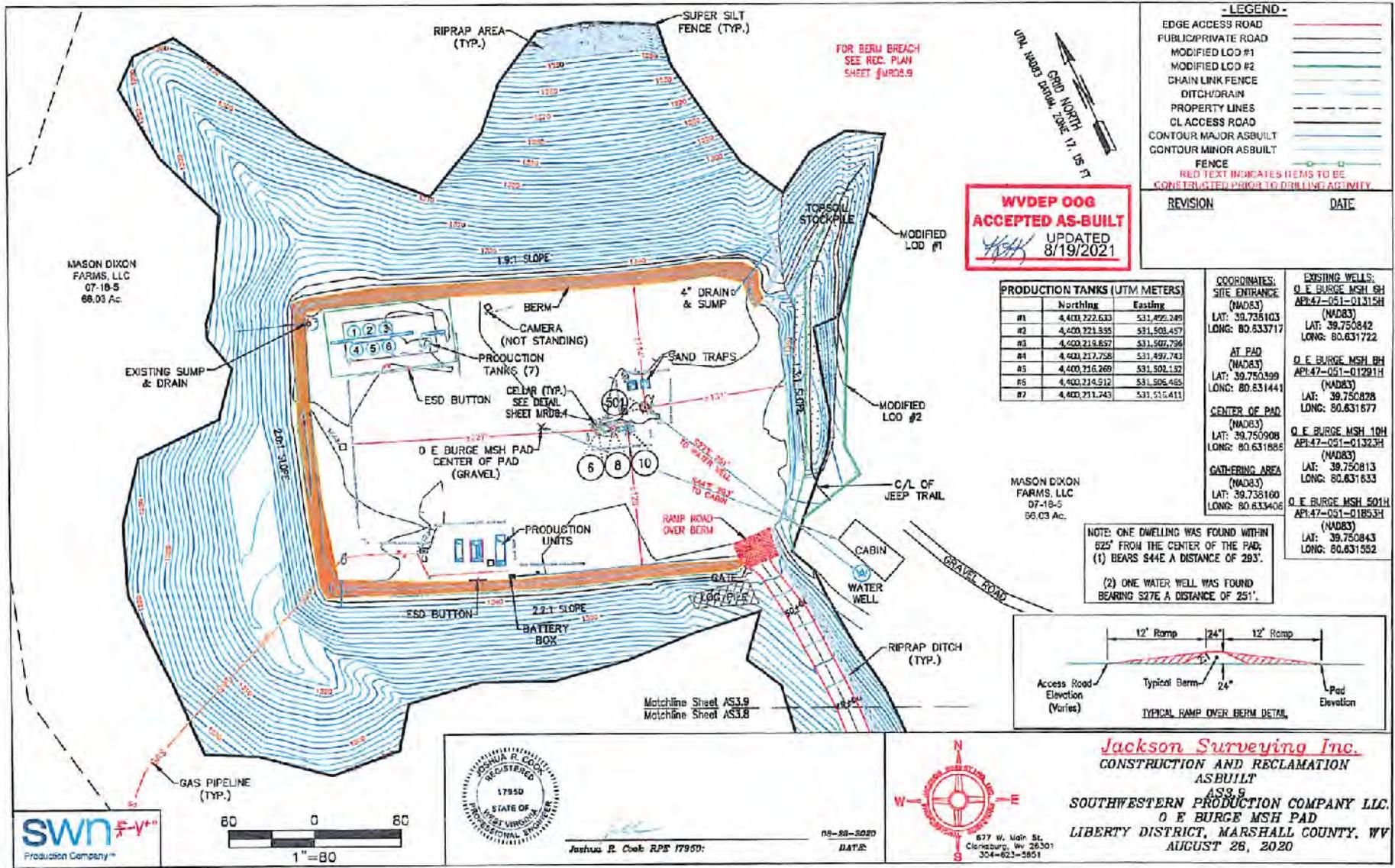


Joshua R. Cook RPE 17950:



*Jackson Surveying Inc.*  
**TITLE SHEET  
TS.1  
SOUTHWESTERN PRODUCTION COMPANY LLC.  
O E BURGE MSH PAD  
LIBERTY DISTRICT, MARSHALL COUNTY, WV  
AUGUST 26, 2020**

00-26-2020  
DATE:



**- LEGEND -**

- EDGE ACCESS ROAD
- PUBLIC/PRIVATE ROAD
- MODIFIED LOD #1
- MODIFIED LOD #2
- CHAIN LINK FENCE
- DITCH/DRAIN
- PROPERTY LINES
- CL ACCESS ROAD
- CONTOUR MAJOR ASBUILT
- CONTOUR MINOR ASBUILT
- FENCE

RED TEXT INDICATES ITEMS TO BE CONSTRUCTION PRIOR TO DOUBLING ACTIVITY.

REVISION	DATE

**WVDEP OOG  
ACCEPTED AS-BUILT**  
UPDATED  
8/19/2021

**PRODUCTION TANKS (UTM METERS)**

	Northing	Easting
#1	4,400,222.633	531,492,249
#2	4,400,221.535	531,503,457
#3	4,400,219.857	531,507,794
#4	4,400,217.758	531,497,743
#5	4,400,216.269	531,502,132
#6	4,400,214.512	531,506,465
#7	4,400,211.743	531,515,411

**COORDINATES:**

**SITE ENTRANCE (NAD83)**  
LAT: 39.735103  
LONG: 80.633717

**AT PAD (NAD83)**  
LAT: 39.750399  
LONG: 80.631441

**CENTER OF PAD (NAD83)**  
LAT: 39.750908  
LONG: 80.631886

**GATHERING AREA (NAD83)**  
LAT: 39.738160  
LONG: 80.633406

**EXISTING WELLS:**

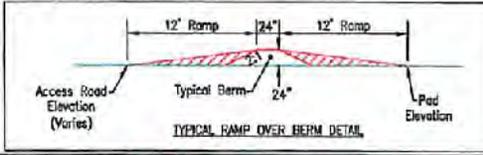
O E BURGE MSH 5H  
AP#47-051-01315H  
(NAD83)  
LAT: 39.750842  
LONG: 80.631722

O E BURGE MSH 8H  
AP#47-051-01291H  
(NAD83)  
LAT: 39.750828  
LONG: 80.631677

O E BURGE MSH 10H  
AP#47-051-01323H  
(NAD83)  
LAT: 39.750813  
LONG: 80.631633

O E BURGE MSH 501H  
AP#47-051-01853H  
(NAD83)  
LAT: 39.750843  
LONG: 80.631552

NOTE: ONE DWELLING WAS FOUND WITHIN 625' FROM THE CENTER OF THE PAD:  
(1) BEARS S44E A DISTANCE OF 283'.  
(2) ONE WATER WELL WAS FOUND BEARING S27E A DISTANCE OF 251'.



Joshua R. Cook RPE 1795D:

08-88-5020  
DATE:



677 W. Main St.  
Clarksburg, Wv 26301  
304-623-5851

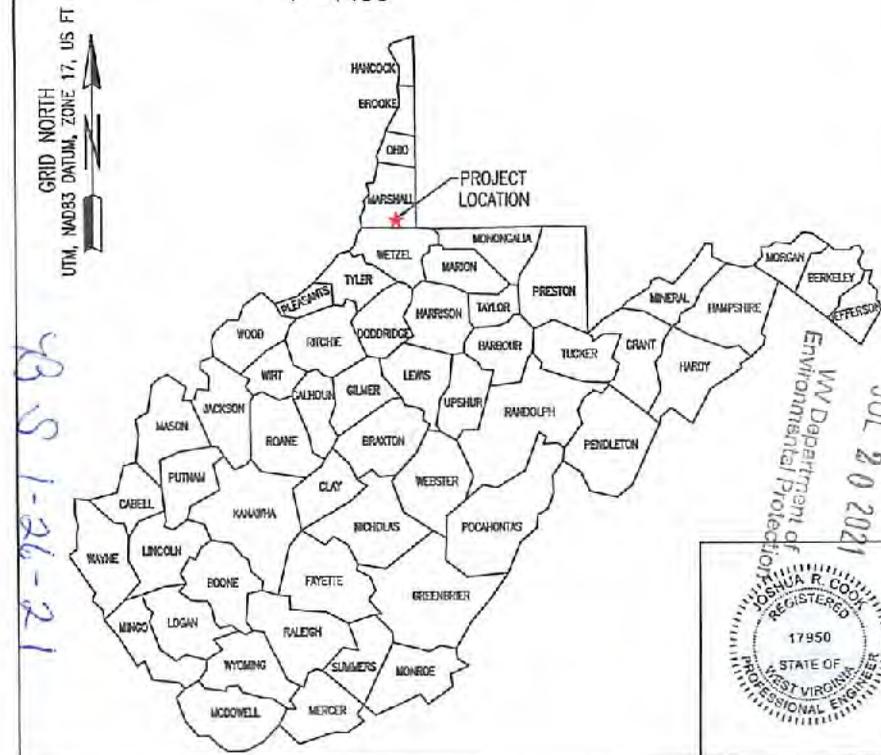
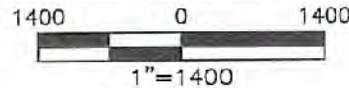
**Jackson Surveying Inc.**  
CONSTRUCTION AND RECLAMATION  
ASBUILT  
ASS 9  
SOUTHWESTERN PRODUCTION COMPANY LLC.  
O E BURGE MSH PAD  
LIBERTY DISTRICT, MARSHALL COUNTY, WV  
AUGUST 26, 2020

MASON DIXON  
FARMS, LLC  
07-18-5  
66.03 Ac.

MASON DIXON  
FARMS, LLC  
07-18-5  
66.03 Ac.

Matchline Sheet AS3.9  
Matchline Sheet AS3.8

FOR BERM BREACH  
SEE REC. PLAN  
SHEET #MRO.9



# O E BURGE MSH PAD CONSTRUCTION AND RECLAMATION PLAN AS-BUILT LIBERTY DISTRICT, MARSHALL COUNTY, WV AUGUST 2020

**MODIFIED LOD #1**

TOTAL DISTURBED AREA: 13.5 ACRES  
ROAD DISTURBED AREA: 5.9 ACRES  
PAD DISTURBED AREA: 7.6 ACRES

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TOTAL DISTURBED AREA: 13.6 ACRES  
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PAD DISTURBED AREA: 7.7 ACRES

**EXISTING WELLS:**  
O E BURGE MSH 6H  
API:47-051-01315H  
(NAD83)  
LAT: 39.750842  
LONG: 80.631722  
  
O E BURGE MSH 8H  
API:47-051-01291H  
(NAD83)  
LAT: 39.750828  
LONG: 80.631677  
  
O E BURGE MSH 10H  
API:47-051-01323H  
(NAD83)  
LAT: 39.750813  
LONG: 80.631633  
  
O E BURGE MSH 501H  
API:47-051-01853H  
(NAD83)  
LAT: 39.750843  
LONG: 80.631552

**COORDINATES:**  
**SITE ENTRANCE**  
(NAD83)  
LAT: 39.738103  
LONG: 80.633717  
  
**AT PAD**  
(NAD83)  
LAT: 39.750399  
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**CENTER OF PAD**  
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LAT: 39.750908  
LONG: 80.631886  
  
**GATHERING AREA**  
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LAT: 39.738160  
LONG: 80.633406

ENGINEERING ESTIMATE OF QUANTITIES		
WELL SITE PAD DATA (DRILLING)		
RAMP ROAD OVER BERM	22	CY
ACCESS ROAD DATA (DRILLING)		
CRUSHER RUN	100	TON
GRADING DITCHES AND ROAD	1	EA
CLEAN CULVERTS	7	EA
INSTALL CULVERTS @ ST. 30-50	1	EA
WELL SITE PAD DATA (RECLAMATION)		
REMOVE SUMP	2	EA
BREACH BERM	2	EA
DISCHARGE CHANNEL(S)		
RIFRAP	60	TON
OR		
EROSION CONTROL FABRIC	90	SY
SPREAD TOPS SPREAD TOPSOIL	2280	CY
REINFORCED SILT FENCE	1500	FT
SEED & MULCH	0.5	AC

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- MRD5.9 RECLAMATION PLAN
- MRD6.3 DETAILS
- MRD6.4 DETAILS

REVISION	DATE

**WEST VIRGINIA 811**  
CALL BEFORE YOU DIG!  
Dial 811 or 800.245.4848  
www.WV811.com

NOTE: ONE DWELLING WAS FOUND WITHIN 825' FROM THE CENTER OF THE PAD;  
(1) BEARS S44E A DISTANCE OF 293'.  
  
(2) ONE WATER WELL WAS FOUND BEARING S27E A DISTANCE OF 251'.

**North Central Engineering, LLC**  
Joshua Cook, RPE  
P.O. Box 628  
Bridgeport, WV 26330  
Cell: 504-299-1585  
E-Mail: jcook@NorthCentralEngineering.com

**SWN** <sup>R<sup>2</sup></sup>/<sub>A</sub> <sup>V</sup>/<sub>+</sub> <sup>+</sup>/<sub>0</sub>  
Production Company™



Joshua R. Cook RPE 17950: \_\_\_\_\_ DATE: 08-26-2020



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TITLE SHEET  
TS.1  
SOUTHWESTERN PRODUCTION COMPANY LLC.  
O E BURGE MSH PAD  
LIBERTY DISTRICT, MARSHALL COUNTY, WV  
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